RECAPP Facility Evaluation Report

Aspen Regional Health Authority

Hinton General Hospital

B1098A
Hinton

Report run on: March 29, 2010 9:54 AM

Facility Details

Building Name: Hinton General Hospital
Address: 1280 Switzer Drive
Location: Hinton

Building Id: B1098A
Gross Area (sq. m): 9,360.00
Replacement Cost: $65,435,787
Construction Year: 1979

Evaluation Details

Evaluation Company: KOLIGER SCHMIDT architect-engineer
Evaluation Date: November 27 2008
Evaluator Name: Steve Horvath

Total Maintenance Events Next 5 years: **$10,130,468**
5 year Facility Condition Index (FCI): **15.48%**

General Summary:

The hospital is a two storey building constructed in 1979. The building has a central area with two wings. The central area consisting of main reception and elevators; waiting area; dining room, commercial kitchen and administrative offices on the main floor. The second floor has the waiting area; information and reception area. The wings are comprised of wards and diagnostic and examination areas. A glass enclosed atrium is provided above the main entry.

Structural Summary:

The building structure consists of deep concrete foundations consisting of pile and grade beams (assumed as no foundation details available), the superstructure consists of concrete wall exterior and interior support walls. Intermediate beams are steel. The floors are cast in place reinforced concrete. The non load bearing walls at offices are of steel stud with gypsum board cladding. The structural elements are in fair condition.

Envelope Summary:

The exterior façade consist of brick for all sides. The windows are commercial grade sealed window units in anodized prefinished aluminum frames. The roof is built-up roofing consisting of tar and gravel. The atrium glazed area has several sealed glazing units that have the seal broken, also the seals to the aluminum frame of the skylight glazing is broken for several areas. In general the building envelope is in fair condition.

Interior Summary:

The interior finishes for the flooring area a combination of quarry tile and linoleum in the reception and dining areas. The main corridors and ward rooms have epoxy concrete floor finishes. Diagnostic rooms have linoleum or epoxy concrete flooring. The office spaces are generally carpet. The main stairs to the second floor have quarry tile, the fire escape stairs have vinyl treads and risers on concrete stairs. The basement areas have vinyl tiles in general areas and painted concrete in mechanical rooms. The non load bearing partitions have painted gypsum board finish for the walls. The concrete block support walls are painted.
Some of the vinyl base and epoxy concrete base is damaged also some poor joints in the vinyl flooring is evident, mostly from poor original installation. The epoxy concrete flooring has hairline cracks in several areas.
The building interior in general is in good condition.

Mechanical Summary:

The Hinton Hospital is heated with steam boilers that provide steam to a series of heat exchangers that heat glycol. The heated glycol is pumped to a series of pre-heat and heating coils in the air handling units. Cooling is provided by a cooling tower and chiller feeding refrigerant to cooling coils in the air handing units. Some areas have added smaller wall mounted air conditioning units with roof mounted condensing units. The air handling units supply air to a dual duct VAV system. The air handling units have a humidification section that is supplied steam from a separate steam boiler. There are two smaller boilers for sterilization. There are medical compressed gas, nitrous oxide gas, vacuum , oxygen, and medical air systems. There is a diesel storage tank for the emergency generator. The domestic hot water is provided by heat exchangers and instantaneous water heaters. The mechanical systems are in fair condition but are nearing the end of their life expectancy.

Electrical Summary:

The hospital is fed via 1600A 347/600V 3ph 4w power from a pad-mount transformer located at the east side of the property. Power is distributed via a main electrical room, a sub-electrical room, three main MCC locations, and branch circuit panelboards located throughout the hospital. The main breaker needs to be replaced with new. Lighting in the upper floor has been retrofitted with T8 Lamps and the lower floor remains with the original T12 lamps. Switching is via line voltage switches or dimmers. There is a limited number of emergency battery packs as the emergency lighting is covered by the diesel emergency generator. Minor repairs are required for incandescent lighting and the few emergency battery packs. Exterior lighting is adequate as incandescent fixtures have been supplemented by H.P.S. Fixtures. The existing fire alarm system is obsolete and requires replacement in the coming years as parts are no

longer available. Telephone, P.A, Security, and Nurse Call systems are in good condition as systems have been upgraded within the last 15years. Overall the hospital is in acceptable condition, however the fire alarm system and main electrical breaker needs replaced and various minor repairs are required.

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*

Exterior concrete stairs at delivery/loading dock area has flaking concrete on the stair treads and risers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-09

A1030 Slab on Grade*

Basement concrete floor, concrete ramp and driveway for delivery and concrete walks. The concrete ramp has flaked concrete in several areas, the walks are sunken and uneven at the front of the building.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	100	MAR-10

Event: Repair Concrete ramp and Walk surfaces

Concern:
Basement concrete floor, concrete ramp and driveway for delivery and concrete walks. The ramp has flaked concrete in several areas, the walks are sunken and uneven at the front of the building.

Recommendation:
Replace effected areas

Type	Year	Cost	Priority
Failure Replacement	2010	$30,600	High

Updated: MAR-10

A2020 Basement Walls (& Crawl Space)*

Concrete walls for basement area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-09

B1010.01 Floor Structural Frame (Building Frame)*

Concrete block walls, reinforced concrete basement walls and steel beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-10

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

Concrete block walls, reinforced concrete basement walls and steel beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-10

B1010.03 Floor Decks, Slabs, and Toppings*

Concrete floors above grade.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-10

B1010.07 Exterior Stairs*

Exterior concrete stairs at delivery/loading dock area has flaked concrete stair treads and risers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Repair Failed stair surfaces

Concern:
Concrete on treads and risers flaked and stairs require replacing

Recommendation:
Repair Failed stair surfaces

Type	Year	Cost	Priority
Repair	2012	$14,500	Low

Updated: MAR-10

B1010.09 Floor Construction Fireproofing*

The sprayed on fire proofing is not integral for steel beams, a lot of exposed areas.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	50	MAR-10

Event: Asbestos Study

Concern:
The sprayed on fire proofing appears to be cellulose, further investigation will be required to ensure no asbestos fibers are included.
Recommendation:
Provide a study.

Type	Year	Cost	Priority
Study	2010	$9,000	High

Updated: MAR-10

Event: Repair Spray-on fireproofing

Concern:
The sprayed on fireproofing is not integral for steel beams, a lot of exposed areas.
Recommendation:
Install sprayed on fireproofing in effected areas
Consequences of Deferral:
May have premature structural failure in event of fire.

Type	Year	Cost	Priority
Code Repair	2010	$16,200	High

Updated: MAR-10

B1010.10 Floor Construction Firestopping*

Pipes not firestopped where they pierce fire rated assemblies in basement area.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	50	MAR-10

Event: Repair firestopping

Concern:
Pipes not firestopped where they pierce fire rated assemblies in basement area.

Recommendation:
Repair firestopping

Consequences of Deferral:
Fire and smoke may spread between fire compartments

Type	Year	Cost	Priority
Code Repair	2010	$2,700	High

Updated: MAR-10

B1020.01 Roof Structural Frame*

Concrete roof deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-10

B1020.02 Structural Interior Walls Supporting Roofs*

Concrete block interior walls and beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

B1020.03 Roof Decks, Slabs, and Sheathing*

Concrete roof slab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

B1020.04 Canopies*

Glazed skylight canopy over emergency entrance.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	50	MAR-10

Event: Caulk and sealing Skylight Canopy (~60m²)

Concern:
Caulk and sealing deteriorated at junction of glazing and frames.

Recommendation:
Repair or replace failed elements

Type	Year	Cost	Priority
Repair	2010	$8,600	Low

Updated: MAR-10

B1020.06 Roof Construction Fireproofing*

Roof slab and penetrations acceptable.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-09

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Brick cladding for most of exterior facade.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	75	MAR-10

Event: Repair Mortar Joints

Concern:
Brick cladding has mortar joints deteriorated in several areas.
Also some efflorescence evident on bricks by chalky residue.
Recommendation:
Repair effected areas
Consequences of Deferral:
Damage may result to exterior wall components.

Type	Year	Cost	Priority
Repair	2010	$7,000	Medium

Updated: MAR-10

B2010.01.09 Expansion Control: Exterior Wall Skin*

Brick panel expansion joints consist of architectural caulk.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	75	MAR-10

Event: Replace Exapnsion Joints ~150m

Concern:
Brick panel expansion joints cracked and failing.
Recommendation:
Replace deteriorated elements

Type	Year	Cost	Priority
Failure Replacement	2010	$4,700	High

Updated: MAR-10

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

Caulk between windows and brick.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

Event: Replace joint sealers

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$67,000	Unassigned

Updated: MAR-10

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

Concrete block exterior support wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-10

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

Air barriers are most likely 6 mil polyethylene.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-10

B2010.05 Parapets*

Roof parapet walls require cap flashing to install, membrane exposed at present.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	50	MAR-10

Event: Repair Flashing on PArapets

Concern:
Cap flashing not installed for parapet walls.
Recommendation:
Reinstall all parapet cap flashings

Type	Year	Cost	Priority
Repair	2010	$25,800	High

Updated: MAR-10

No capping on parapet walls

B2010.06 Exterior Louvers, Grilles, and Screens*

Metal exhaust and intake louvers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

B2010.09 Exterior Soffits*

Under side of atrium metal has refinished soffit at main entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

B2010.10 Other Exterior Walls*

Concrete retaining wall attached to the building foundation at back of building.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	0	MAR-10

Event: Replace Retaining wall

Concern:
The concrete retaining wall is pulling away from the building
Recommendation:
Replace or stabilize retaining wall. Further investigation is recommended.

Type	Year	Cost	Priority
Failure Replacement	2010	$37,700	High

Updated: MAR-10

Retaining wall pulling away from building

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

Aluminum windows are at the second floor stairway above the main entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace Aluminum Windows (Glass & Frame)

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$959,800	Unassigned

Updated: MAR-10

B2020.02 Storefronts: Windows**

Aluminum storefront windows at main entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace Main Entrance Storefront

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$51,700	Unassigned

Updated: MAR-10

B2030.01.06 Automatic Entrance Doors**

Automatic entrance doors are located at the main and emergency entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace Automated entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$105,700	Unassigned

Updated: MAR-10

B2030.02 Exterior Utility Doors**

Exterior utility doors located at fire exits.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace Utility Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$10,200	Unassigned

Updated: MAR-10

B2030.03 Large Exterior Special Doors (Overhead)*

Large overhead wood doors at shop / maintenance area.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	30	MAR-10

Event: Replace 2 Overhead Doors

Concern:
Overhead wood doors are deteriorated, electric operators do not work.

Recommendation:
Replace Overhead Doors and controllers

Type	Year	Cost	Priority
Failure Replacement	2010	$17,300	Medium

Updated: MAR-10

B3010.01 Deck Vapor Retarder and Insulation*

No evidence of excessive moisture on interior ceiling areas below roof deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

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

No evidence of excessive moisture on interior ceiling areas below roof deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

Event: Replace ~9820m² Built-up Bituminous Roofing (Asphalt & Gravel)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$2,843,868	Unassigned

Updated: MAR-09

B3020.01 Skylights**

Skylight panels over atrium at second floor above main entry.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	20	MAR-10

Event: Lifecycle Replacement ~36m² insulated glass panels with aluminum frames

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$69,900	Unassigned

Updated: MAR-10

Event: Repair Glass panels in Skylights

Concern:
Three insulated glass panels have seals broken and are to be replaced, also flashing missing.
Recommendation:
Replace glazing panels and install proper flashings
Consequences of Deferral:
Leaking may occur and also loss of energy. Plus poor aesthetics for fogged glass panels.

Type	Year	Cost	Priority
Repair	2010	$23,000	High

Updated: MAR-10

Caulk and sealing strips pulling away from glass panes

B3020.02 Other Roofing Openings (Hatch,Vent, etc)*

Roof plumbing stacks, vents.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Walls composed of steel studs clad with gypsum board or concrete black.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

C1010.03 Interior Operable Folding Panel Partitions**

Folding partition at day beds.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace Folding Partitions (~27m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,500	Unassigned

Updated: MAR-10

C1010.04 Interior Balustrades and Screens, Interior Railings*

Metal stair railings and guards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

C1010.05 Interior Win.dows*

Interior wired glass in steel frames at offices.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	80	MAR-09

C1010.07 Interior Partition Firestopping*

Gypsum board fire stopping above walls in suspended ceilings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

C1020.01 Interior Swinging Doors (& Hardware)*

Ward entry doors are solid core wood.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	40	MAR-10

Event: Replace Door Hardware for ward doors

Concern:
Ward doors closer prop open function does not function
Recommendation:
Replace hardware as required
Consequences of Deferral:
Inefficient circulation

Type	Year	Cost	Priority
Failure Replacement	2010	$3,500	Medium

Updated: MAR-10

C1020.03 Interior Fire Doors*

Hollow steel fire doors separating wings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

Event: Install locks on interior fire doors

Concern:
Require meg locks so that hospital staff are the ones that can use the fire doors separating seniors complex walkway.
Recommendation:
Install locks

Type	Year	Cost	Priority
Program Functional Upgrade	2010	$13,500	High

Updated: MAR-10

C1020.04 Interior Sliding and Folding Doors*

Vinyl folding doors at various closets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

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

Metal toilet area stalls in change rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace 12 Fabricated Compartments(Toilets/Showers)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$13,500	Unassigned

Updated: MAR-10

C1030.05 Wall and Corner Guards*

Metal and vinyl wall corner guards incorridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	15	MAR-10

C1030.06 Handrails*

Wall wood rails in wards,steel pipe rails at stairs.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	40	MAR-10

Event: Replace ~75 m of handrail

Concern:
Slivers coming off of wood hand rails
Recommendation:
Replace wood railings with plastic coated metal
Consequences of Deferral:
Injury may be caused for occupants

Type	Year	Cost	Priority
Failure Replacement	2010	$31,000	High

Updated: MAR-10

C1030.08 Interior Identifying Devices*

Vinyl wall mounted directional signs mounted on walls or ceilings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

C1030.10 Lockers**

Steel lockers for staff

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace 100 Lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$146,400	Unassigned

Updated: MAR-10

C1030.12 Storage Shelving*

Storage shelving in wards, laboratories, pharmacy, x-ray area and general office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-09

C1030.14 Toilet, Bath, and Laundry Accessories*

Public washrooms and in ward bathrooms, paper dispensers, towel bars and grab bars.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

C1030.17 Other Fittings*

Rubber control joints in concrete floor

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-10

Event: Failure Replacement of Control Joints

Concern:
The control joint in the floor has failed.
Recommendation:
Replace control joint

Type	Year	Cost	Priority
Failure Replacement	2010	$3,800	Medium

Updated: MAR-10

Failed control joint in floor

C2010 Stair Construction*

Exit stairs constructed of concrete

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-09

C2020.01 Tile Stair Finishes*

Quarry tile finish for stairs at main entry

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	60	MAR-10

Event: Replacement ~ 30m² of quarry tile

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$10,800	Unassigned

Updated: MAR-10

C2020.05 Resilient Stair Finishes**

Vinyl treads and risers for exit stairs

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

Event: Replace 64m² Resilient Stair Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$8,000	Unassigned

Updated: MAR-10

C2020.08 Stair Railings and Balustrades*

Metal stair railings and guards

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-09

C3010.01 Concrete Wall Finishes (Unpainted)*

Mechanical room walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-10

C3010.06 Tile Wall Finishes**

Tile wall finishes in hydro therapy room

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace~34m² Tile Wall Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$9,500	Unassigned

Updated: MAR-10

C3010.11 Interior Wall Painting*

Painted surfaces in most areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	10	MAR-10

C3020.01.01 Epoxy Concrete Floor Finishes*

Epoxy floor finishes in corridors, several wards, OR theaters.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	0	MAR-10

Event: Lifecycle Replacement of Epoxy Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$348,900	Unassigned

Updated: MAR-10

Event: Repair Epoxy Flooring

Concern:
Corridor epoxy concrete bases are damaged in a lot of areas.
Recommendation:
Repair damaged base

Type	Year	Cost	Priority
Failure Replacement	2010	$2,300	High

Updated: MAR-10

C3020.01.02 Paint Concrete Floor Finishes*

Mechanical room concrete floor is paint.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	10	MAR-10

C3020.02 Tile Floor Finishes**

Quarry tile floor for entries and waiting lounges as well as for several treatment rooms

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

Event: Replace ~840m² Tile Floor Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$315,600	Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring**

Resilient flooring for corridors, and most rooms in building

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

Event: Replace ~3476m² Resilient Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$442,200	Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring**

Carpet flooring in office and conference rooms

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	15	MAR-10

Event: Replace 68m² Carpet Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,800	Unassigned

Updated: MAR-10

C3030.01 Concrete Ceiling Finishes (Unpainted)*

Concrete ceiling finish in storage areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	100	MAR-09

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

Ceiling through out building accept for service areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-10

Event: Repair Ceiling tiles

Concern:
Repair acoustic ceiling tiles at main entry by elevators where water damaged.
Recommendation:
Replace effected ceiling tiles

Type	Year	Cost	Priority
Repair	2010	$1,300	Medium

Updated: MAR-10

Event: Replace ~6700m² (Susp.T-Bar)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$406,400	Unassigned

Updated: MAR-10

D1010.01.02 Hydraulic Passenger Elevators**

Three passenger elevators in building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace Three Hydraulic Passenger Elevators

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$311,200	Unassigned

Updated: MAR-10

D1010.01.04 Hydraulic Freight Elevators**

One freight elevator.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace one Hydraulic Freight Elevators

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$115,500	Unassigned

Updated: MAR-10

S4 MECHANICAL

D2010.04 Sinks**

There are stainless steel sinks through out the hospital, including lab sinks, double compartment and single compartment sinks, and sinks in the commercial kitchen.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace 38 sinks.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$69,400	Unassigned

Updated: MAR-10

D2010.05 Showers**

The showers in the hospital have a variety of shower heads, some are fixed and some have a flexible hose that can be hand held. They all have a thermostatic single handle control.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace 37 showers.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,500	Unassigned

Updated: MAR-10

D2010.09 Other Plumbing Fixtures Bedpan Washers*

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09

D2010.09 Other Plumbing Fixtures Service Sinks*

Service sinks are floor mounted with wall mounted trim.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09

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

There are flush valve water closets, stall flush valve urinals, counter mounted lavatories and wall hung lavatories.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	35	MAR-10

Event: Replace 65 water closets, 3 urinals, 57 countermounted lavatories and 20 wall hung lavatories.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$200,000	Unassigned

Updated: MAR-10

D2020.01.01 Pipes and Tubes: Domestic Water*

The domestic water systems have copper piping.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

D2020.01.02 Valves: Domestic Water**

Shut off valves at the water meter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace domestic water valves at the water meter.

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$9,000	Unassigned

Updated: MAR-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Back flow preventor on the supply to the sprinkler system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

Event: Replace backflow preventor.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,000	Unassigned

Updated: MAR-10

D2020.02.02 Plumbing Pumps: Domestic Water**

The domestic hot water is re-circulated with inline pumps. There are two domestic hot water systems one for 82.2°C water and one for 60°C. Each has an inline pump.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

Event: Replace two in-line re-circulation pumps.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$2,300	Unassigned

Updated: MAR-10

D2020.02.04 Domestic Water Conditioning Equipment**

The water is treated with a Culligan water softening system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-10

Event: Replace water conditioning equipment.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$14,000	Unassigned

Updated: MAR-10

D2020.02.06 Domestic Water Heaters**

There are four instantaneous water heaters (Turbomax T2 Thermo 2000) and some of the domestic water is heated with heat exchangers. The water heaters look newer than 1979.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	20	MAR-10

Event: Replace four domestic water heaters.

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$57,000	Unassigned

Updated: MAR-10

D2020.03 Water Supply Insulation: Domestic*

The domestic hot, cold and recirculation lines are insulated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

D2030.01 Waste and Vent Piping*

The waste and vent piping is a combination of PVC and cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

D2030.02.04 Floor Drains*

The mechanical room has funnel floor drains and trench drains. There are various other floor drains through out the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

D2030.03.01 Interceptors: Waste*

There is a grease interceptor and and a clay trap.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D2030.03.03 Pumps: Waste*

There are two sump pumps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D2040.02.04 Roof Drains*

Zurn dome type roof drains.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-09

D2090.01 Compressed Air Systems (Non Controls)**

There is a medical compressed air system with a compressor in the mechanical room

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace medical compressed air system(50 outlets and 275m of piping).

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$75,000	Unassigned

Updated: MAR-10

D2090.10 Nitrous Oxide Gas Systems**

There is a nitrous oxide system and the canisters are located in the Medical gas Storage room and piped to the hospital. The nitrous oxide is used in the operating theatre which we did not have access to so assumed there are two outlets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace the nitrous oxide gas system.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$7,500	Unassigned

Updated: MAR-10

D2090.11 Oxygen Gas Systems**

There is an oxygen system in the hospital.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace oxygen gas system(50 outlets and 275m of piping).

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$55,000	Unassigned

Updated: MAR-10

D2090.13 Vacuum Systems (Medical)**

The hospital has a medical vacuum system with a compressor in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace the medical gas system(50 outlets and 275m of piping).

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$75,000	Unassigned

Updated: MAR-10

D2090.16 Medical Air System*

There is a medical air system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

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

There is a diesel supply tank for the emergency generator.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	60	MAR-10

D3010.02.01.01 Metering & Regulating Equip:Nat.Gas*

The hospital has a natural gas meter and regulator

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D3010.02.01.04 Distribution Piping: Natural Gas*

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D3010.04 Steam, Hot & Chilled Water Supply System*

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D3020.01.01 Heating Boilers & Accessories: Steam**

The building is heated with 4 Cleaver Brooks model M4W 8000 steam boilers(located in the mechanical room). The steam is piped to 4 steam to glycol heat exchangers. There is a separate steam boiler(mechanical room) for humdification and two boilers for sterilization(in room next to the change room).

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	35	MAR-10

Capacity Size	Capacity Unit
167	kW

Event: Replace four steam boilers and four heat exchangers.

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$350,000	Unassigned

Updated: MAR-10

D3020.01.02 Feedwater Equipment*

Condensate tanks and condensate pumps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D3020.01.03 Chimneys (&Comb. Air) : Steam Boilers**

The flues from the boilers are connected to one chimney. Combustion air is provided to the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	35	MAR-10

Event: Replace the chimney and combustion air for the steam bolers.

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$11,500	Unassigned

Updated: MAR-10

D3020.01.04 Water Treatment: Steam Boilers*

There are chemical pot feeders to add chemicals to the water for the boilers. The water is also softened.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	35	MAR-10

D3030.02 Centrifugal Water Chillers**

The chiller is a Carrier model DH617566.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-10

Event: Replace chiller.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$570,000	Unassigned

Updated: MAR-10

D3030.05 Cooling Towers**

The hospital has a 160 ton Baltimore Aircoil Company FXT-160 Forced draft crossflow cooling tower.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	25	MAR-10

Event: Replace cooling tower.

Concern:
The cooling tower has surpassed its life expectancy. There is a substantial amount of rust on it and there appeared to be a leak.

Recommendation:
Replace the cooling tower.

Consequences of Deferral:
Loss of cooling to the hospital.

Type	Year	Cost	Priority
Failure Replacement	2010	$450,000	Medium

Updated: MAR-10

Corner that appeared to be leaking.

D3040.01.01 Air Handling Units: Air Distribution** East Wing

The unit is made up of a supply air fan(F-9), return fan(F-11), a cooling coil(CC-5), a pre-heat coil(HC-9), a heating coil(HC-10), steam humidification(HU-4), two roll type filters and a final filter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace air handling unit.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution** Kitchen Makeup Air

The unit is made up of a supply air fan(F-10), a cooling coil(CC-4), a pre-heat coil(HC-7), a heating coil(HC-8), steam humidification(HU-5), two roll type filters and a final filter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace kitchen makeup air handling unit.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution** Obstetrics Unit

The unit is a multi-zone unit made up of a supply air fan(F-5), a return air fan(F-8), a cooling coil(CC-2), a pre-heat coil(HC-3), a heating coil(HC-4), steam humidification(HU-2), two roll type filters and final filters for each zone.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace obstetrics air handling unit.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution** West Wing

The unit is made up of a supply air fan(F-1), a return air fan(F-2), a cooling coil(CC-6), a pre-heat coil(HC-11), a heating coil(HC-12), steam humidification(HU-6), two roll type filters and a final filter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace air handling unit for the west wing.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution**Laundry Makeup Air

The unit is made up of a supply air fan(F-6), a return air fan(F-8), a cooling coil(CC-3), a pre-heat coil(HC-5), a heating coil(HC-6), steam humidification(HU-3), two roll type filters and a final filter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace laundry makeup air unit.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution**Mechanical Room

The unit is made up of a supply air fan(F-3), a cooling coil(CC-7), a pre-heat coil(HC-13), a heating coil(HC-14) and two roll type filter sections.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace mechanical room air handling unit.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution**Surgical Suite

This unit is a multi-zone unit made up of a supply air fan(F-4), a return air fan(F-7), a cooling coil(CC-1), a pre-heat coil(HC-1), a heating coil(HC-2), steam humidification(HU-1), two roll type filters and final filters for each zone.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace surgical suite air handling unit.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

D3040.01.03 Air Cleaning Devices:Air Distribution*

All the air handling have integral filter sections.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

D3040.01.04 Ducts: Air Distribution*

The distribution ductwork is galvanized sheet metal.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

D3040.01.06 Air Terminal Units: Air Distribution (VAV Box)**

The building has E.H.Price dual duct VAV boxes.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace 107 VAV boxes.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$170,000	Unassigned

Updated: MAR-10

D3040.01.07 Air Outlets & Inlets:Air Distribution*

The air is supplied to the rooms with square diffusers, double deflection louvred grilles and linear grilles. Return air grilles are eggcrate type and louvred grilles

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Maintain air flow.

Concern:
Grilles located in the sills of patient rooms and offices are completely blocked.
Recommendation:
Clear the grilles off and provide adequate shelving for books, etc. Monitor the problem on an on going basis.
Consequences of Deferral:
Poor air quality and air handling systems not working as designed. Having blocked grilles affects the air balancing in the rest of the zone. Temperature is hard to maintain.

Type	Year	Cost	Priority
Preventative Maintenance	2010	$1,000	Medium

Updated: MAR-10

Grille is located under the books and files.

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

Condensate pumps are P-14, P-15, P-24, P-25, P-34, and P-35.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace 6 pumps and associated piping.

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$60,000	Unassigned

Updated: MAR-10

D3040.03.01 Hot Water Distribution Systems**

Glycol is pumped from the heat exchangers to the heating coils in the units, VAV boxes, baseboard radiation, force flows and unit heaters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace the glycol piping(9360 m²).

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$870,000	Unassigned

Updated: MAR-10

D3040.03.02 Chilled Water Distribution Systems**

Chilled water is piped to the cooling coils in the air handling units and to the coils in the dual duct VAV boxes.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace chilled water piping and coils(9,360m²).

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$477,000	Unassigned

Updated: MAR-10

D3040.03.03 Condenser Water Distribution Systems Pumps*

There are two condenser water distribution system pumps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

D3040.04.01 Fans: Exhaust**

The washrooms are exhausted to roof mounted exhaust fans. The kitchen has two roof mounted fans. All look to be original to the building. There are a few smaller in-line fans.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	30	MAR-10

Event: Provide fume hood for the lab.

Concern:
The lab does not have a fume hood.
Recommendation:
Add an adequate fume hood. Install appropriate base cabinets and ductwork. Make architectural and electrical modifications as required.
Consequences of Deferral:
Fumes from tests migrate into the rest of the lab and possibly the rest of the building.

Type	Year	Cost	Priority
Program Functional Upgrade	2010	$12,000	Medium

Updated: MAR-10

Event: Replace the exhaust fans (13 unconfirmed).

Concern:
Exhaust fans have reached the end of their life expectancy and are rusted and worn out.
Recommendation:
Replace the exhaust fans.
Consequences of Deferral:
Areas will be without exhaust as the fans fail.

Type	Year	Cost	Priority
Failure Replacement	2010	$30,000	High

Updated: MAR-10


Roof mounted exhaust fan.

D3040.04.03 Ducts: Exhaust*

Galvanized sheet metal.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

D3040.04.04 Ducts Accessories: Exhaust*

There is a kitchen range hood and a hood with HEPA filters for the chemo mixing room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Eggcrate type grilles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

D3040.05 Heat Exchangers**

There are eight heat exchangers for the building. HE-1, HE-6, HE-7 and HE-8 are steam to glycol heat exchangers. HE-2 and HE-3 are steam to 140°F domestic water heat exchangers. HE-4 and HE-5 are steam to 180°F domestic water heat exchangers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace eight heat exchangers.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$150,000	Unassigned

Updated: MAR-10

D3050.01.04 Unit Air Conditioners**

There have been rooftop condensing units with wall mounted air conditioners added to the Hospital. They are all Mr Slim units manufacturer by Mitsibushi charged with R-22. The CT Control Room has a model PU12EK1, the CT Room has a model PU30EK2, the Lab has a PU24EK2 and the Server Room has a PU36EK2. There is also a Lennox model HS29-036-2P Condensing unit on the roof. Do not have confirmed date of installation.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	MAR-10

Event: Replace unit air conditioners.

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$209,000	Unassigned

Updated: MAR-10

D3050.03 Humidifiers**

The air handling units have humidification sections that are supplied by a separate steam boiler.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-10

Event: Replace humidification.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$100,000	Unassigned

Updated: MAR-10

D3050.05.02 Fan Coil Units**

There are fan coil units at the entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace 14 fan coil units.

Concern:
It appeared the existing fan coil units are undersized as electric heaters have been added to the entrances.
Recommendation:
Replace the fan coil units with larger ones.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$91,800	Unassigned

Updated: MAR-10


Fan coil unit and electric heater.

D3050.05.03 Finned Tube Radiation**

There is a minimal amount of perimeter radiation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace finned tube radiation(25m).

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$13,700	Unassigned

Updated: MAR-10

D3050.05.06 Unit Heaters**

There are unit heaters in the mechanical room, garage and service areas of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace 9 unit heaters.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$37,000	Unassigned

Updated: MAR-10

D3060.02.01 Electric and Electronic Controls**

The controls are at present pneumatic with some electronic components. They are nearing the end of their life expectancy and should be replaced with a BMCS.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace with a BMCS (~ 9300m² costing in the pneumatic system).

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$190,000	Unassigned

Updated: MAR-10

D3060.02.02 Pneumatic Controls**

The controls are at present pneumatic with some electronic components. They are nearing the end of their life expectancy and should be replaced with a BMCS.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Provide a BMCS.

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$250,000	Unassigned

Updated: MAR-10

D3090 Other Special HVAC Systems and Equipment*

The loading ramp has underslab heating.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

D4010 Sprinklers: Fire Protection*

The building is sprinklered.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	60	MAR-10

D4020 Standpipes*

The hospital is protected with fire hoses and standpipes.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	60	MAR-10

Event: Move the fire hose cabinet.

Concern:
Fire hose cabinet is located at a low level where a door can block access to it.
Recommendation:
Move the fire hose cabinet.
Consequences of Deferral:
Difficult to access in an emergency.

Type	Year	Cost	Priority
Repair	2010	$5,000	High

Updated: MAR-10

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Dry chemical fire extinguishers are in cabinets and on wall brackets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

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

The cafeteria kitchen range hood is protected with a chemical fire extinguishing hood which is cleaned annually.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	40	MAR-10

Event: Replace dry chemical fire extinguishing system.

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$16,200	Unassigned

Updated: MAR-10

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior)**

There are six (6) secondary transformers. Four (4) Federal Pioneer transformers are for distribution panels and two (2) Rex Manufacturing transformers are for feeding x-ray equipment. Details of transformers as follows;

112.5KVA (F.P.) 600V-120/208V 3ph 4w - Floor mtd.
300KVA (F.P.) 600V-120/208V 3ph 4w - Floor mtd.
150KVA (F.P.) 600V-120/208V 3ph 4w - Floor mtd.
225KVA (F.P.) 600V-120/208V 3ph 4w - Floor mtd.

150KVA (R.M.) 600V-230/400V 3ph 4w - Suspended
100KVA (R.M.) 600v-220/380V 3ph 4w - Floor mtd.

Rating	Installed	Design Life	Updated
5 - Good	1979	40	MAR-09

Federal Pioneer Transformer

Event: Replace Secondary Electrical Transformers (Interior)

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$134,500	Unassigned

Updated: MAR-09

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

The main distribution is 1600A 347/600V 3ph 4w. The distribution panel is manufactured by Federal Pioneer and is located in the main electrical room on the lower floor, north corner. The main cell consists of a 1600A-3P main breaker and c/t p/t compartment. The c/t p/t compartment is no longer used as the utility meter has been removed and is now located directly on the Utility Padmount transformer. Users report that the Main Breaker is easily tripped by slight vibrations, and disconnects frequently. There are two (2) distribution cells on the MDP, both are rated for 1600A. There are five (5) spaces for future.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	40	MAR-10

Main distribution panel

Event: Replace Main Distribution Breaker

Concern:

Users report that the main distribution breaker easily shuts of by vibrations. A large motor starting in the adjacent mechanical room can trip the main breaker disconnecting power to the hospital. Tripping of the main breaker is frequent.

Recommendation:

Replace the main 1600A-3P breaker with new electronic breaker.

Consequences of Deferral:

Unnecessary tripping of the main breaker is a serious safety hazard in a hospital enviroment. Also frequent tripping of the breaker is very hard on electrical equipment and shortens the life-cycle of attached components.

Type	Year	Cost	Priority
Failure Replacement	2010	$38,000	High

Updated: MAR-10

Event: Replace Main Electrical Switchboards (Main Distribution)

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$86,000	Unassigned

Updated: MAR-10

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

The majority of branch circuit panels are manufactured by Federal Pioneer. 120/208V panels are painted 'gray' and 347/600V panels are painted 'sand'. There are Four (4) secondary distribution panels, one (1) is 600A 347/600V 3ph 4w (6 spaces for future) and three (3) are 120/208V 3ph 4w (various amperages) There is approx 15% spare capacity. There are a total of eight (8) 225A 347/600V 3ph 4w branch circuit panels with approx 60% spare capacity. There is a total of eighteen (18) 225A 120/208V 3ph 4w pranch circuit panels with approx 10% spare capacity (About 8 panels are full). There one (1) 600A 120/208V 84cct panel in the kitchen (16 spaces for future). There is a total of eight (8) 120V 1ph 2w panels (various amperages), and two (2) 208V 1ph 2w panels. There is one (1) 120/240V 1ph 3w G.F.C.I. panel (12 spaces for future).

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-09

Typical CDP panel

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

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$295,900	Unassigned

Updated: MAR-09

D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers**

There are three (3) Motor control centers. All MCC's are manufactured by Square 'D'. MCC's consist of a Regular 600V section and an Emergency 600V section in each. MCC #1 and MCC #EM1 is 600A 600V 3ph 3w and consists of three (3) mag starter sections and one (1) control section w/ 12 circuit panel (1 space and 4 breaker spaces) for MCC #1 and two (2) mag starter sections and one (1) control sections w/ 12cct panel (1 spare and 8 breaker spaces) for MCC #EM1. MCC #2 and MCC #EM2 is 600A 600V 3ph 3w and consists of two (2) mag starter sections and one (1) control section w/ 30cct panel (12 breaker spaces) for MCC #2 and one (1) mag starter section (3 spaces) for MCC #EM2. MCC #3 and MCC #EM3 is 600A 600V 3ph 3w and consists of two (2) mag starter sections and one (1) control section w/ 12cct panel (2 breaker spaces) for MCC #3 and one (1) mag starter section (3 spaces) for MCC #EM3. There is one (1) 50A 600V Sylvania fire pump booster panel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Motor Control Centre #MCC2

Event: **Replace Switchboards, Panelboards, and (Motor) Control Centers**

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$110,000	Unassigned

Updated: MAR-10

D5010.07.02 Motor Starters and Accessories**

The majority of Motor Starters are located in the MCC units. There are some Fractional H.P. motor starters located throughout the building to control local motor loads (such as small exhaust fans and force flow heaters) The motor starters are manufactured by Square 'D'.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Manual motor starter c/w pilot light

Event: Replace Motor Starters and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$12,900	Unassigned

Updated: MAR-10

D5020.01 Electrical Branch Wiring*

The majority of the building wiring is conductors in conduit. Armored BX cable is used for lighting drops in t-bar ceilings. In some of the recent electrical renovations/additions Teck cable has been utilized for the feeders the newer equipment such as the car plug panel, sterilizer, and autoclave unit. Some of the junction box coverplates containing 347V circuits are painted gold. Receptacles on normal power are standard ivory w/ stainless steel coverplates. Receptacles on emergency power are red with stainless steel coverplates. Patient rooms consist of two (2) normal power receptacles and one (1) emergency receptacle opposite from the bed. Building users report that there are not enough receptacles/circuits for some areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-10

Typical Patient Room emergency receptacle

Event: Install 6 receptacles

Concern:

Building users report that there is not enough receptacles/circuits in the endoscopy area and the IV room for charging IV's

Recommendation:

Provide two (2) additional receptacles in the Endoscopy Area where needed, and four (4) receptacles and circuits in the IV storage area.

Type	Year	Cost	Priority
Program Functional Upgrade	2010	$3,750	High

Updated: MAR-10

Power cords stretched across room - Endoscopy wash area

D5020.02.01 Lighting Accessories (Lighting Controls)*

Line voltage toggle switches are used for lighting control throughout the hospital. Switches are Ivory toggle c/w stainless steel coverplates. Switches are rated for 120V in some areas and 347V in other areas. Switches controlling the Waiting areas and Corridors are located at the Nursing Stations. All rooms have local line voltage toggle switches. Patient rooms have 'Slide-To-Off' dimmer switches to control the main room lighting. 'Slide-to-Off' Dimmer switches are utilized in others areas for dimmable lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-09

Typical patient room switches.

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent lighting is used in various locations in the hospital and some of the incandescent fixtures are retro-fitted with fluorescent bulbs. Downlights are used in the lower floor doctors lounge and upper floor main waiting area. Keyless incandescent lamps holders are used in some utility areas on the lower floor. Incandescent dome lights are used in various utility rooms throughout the hospital but some are missing the glass lenses. Repairs are required. Incandescent dome lights are used throughout the Dining Area and the lower floor rotunda bulkheads. There is approximately 15 fixtures in Dining and 6 in the rotunda. Lighting levels in the Dining Area is poor 7-10FC. Incandescent wall sconces are used in the main stairwell. Building users comment the lighting levels in the main stairwell at night are very poor. Lighting needs to be upgraded. Patient rooms have incandescent vanity lights in bathrooms and Incandescent downlights above the beds.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	30	MAR-10

Incandescent dome lights in the Dining Area

Event: Replace Interior Incandescent Fixtures

Concern:

Some of the incandescent dome lights located throughout the building (approximatly 10) are missing glass lenses.

Recommendation:

New glass lenses should be installed, or fixtures should be replaced with new.

Consequences of Deferral:

Fixtures with missing glass lenses present a safety hazard. Exposed bulbs can be easily damaged hurt building users.

Type	Year	Cost	Priority
Failure Replacement	2010	$2,200	Low

Updated: MAR-10

Incandescent dome light w/ missing lens

Event: **Replace existing wall sconce fixtures with new fixtures**

Concern:

The existing wall sconce fixtures in the main stairwell do not provide enough light. Building users report that light levels are very poor.

Recommendation:

Replace existing wall sconce fixtures with new fixtures to provide greater light levels in the stairwell.

Consequences of Deferral:

Minimal light levels in the stairwell is a safety hazard as users are not able to see the stairs. Chances of incidents are greatly increased in the current condition.

Existing main stairwell lighting

Type	Year	Cost	Priority
Program Functional Upgrade	2010	$3,300	High

Updated: MAR-10

D5020.02.02.02 Interior Fluorescent Fixtures**

Fluorescent fixtures throughout the hospital are of mixed type, different areas have 1x4, 2x4, 2x2, of 4' strips in various configurations. The main corridor lighting is 2x4 3-lamp fluorescent t-bar fixtures with acrylic bubble lenses. The Delivery room has been upgraded to 2x4 3-lamp fixtures with parabolic lenses. The patient rooms have fluorescent wall mounted bed lights c/w pull chain. The majority of the upper floor lighting has been retrofitted with T8 lamps and ballasts, however the majority of the lower floor is T12 lamps and ballasts. Lighting levels throughout the hospital are acceptable with the exception of the Heath Records area. Lighting levels are as follows;

Main Corridors - 5 to 46FC
Laundry and Sterilization Area - 60FC
Stores Area - 35FC
Cancer Clinic Office - 45FC
Laboratory - 40FC
Health Records - 4FC (Between Files)

T12 lamps and ballasts will not longer be available for purchase after 2010. Fixtures will need to be retro-fitted or replaced with T8 lamps and ballasts after 2010. Maintenance personnel can retrofit fixtures as T12 lamps or ballasts burn out.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Typical corridor fluorescent light

Event: Install additional Interior Fluorescent Fixtures

Concern:
The lighting levels in the Health Records area is poor. Lighting is 2x4 fluorescent mounted 8' x 8' on centre. The health records has mobile shelving and in certain areas, lighting levels between the file cabinets is 4fc. Lighting levels need to be increased.

Recommendation:
Additional fluorescent fixtures need to be installed in the health records room.

Consequences of Deferral:
Poor lighting levels in critical task areas can cause eye strain. Lighting levels increase user comfort and efficiency.

Type	Year	Cost	Priority
Program Functional Upgrade	2010	$5,500	Medium

Updated: MAR-10

Event: Replace Interior Florescent Fixtures (~9300m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$1,080,000	Unassigned

Updated: MAR-10

D5020.02.03.02 Emergency Lighting Battery Packs**

The majority of emergency lighting throughout the building is via emergency generator power to various lights. The lower floor main corridor has approximately three combination exit signs with emergency heads/battery packs. The installation dates within the last ten (10) years. One (1) emergency battery pack is located in the generator room. The unit dates from the original 1979 construction and has surpassed the rated life cycle.

Rating	Installed	Design Life	Updated
3 - Marginal	1998	20	MAR-10

Emergency lighting battery pack in the generator room.

Event: Replace 3 Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$4,000	Unassigned

Updated: MAR-10

Event: Replace Emergency Lighting Battery Packs

Concern:

The emergency battery pack located in the generator room has surpassed the rated life cycle.

Recommendation:

Replace the existing battery pack with new.

Consequences of Deferral:

The emergency battery pack offers lighting for the backup generator during power outages (if the generator is not running). The pack is critical for providing light during generator failure.

Type	Year	Cost	Priority
Failure Replacement	2010	$1,000	Medium

Updated: MAR-10

D5020.02.03.03 Exit Signs*

The majority of the exit signs in the building are from the 1979 construction and are in good working order. The exit signs are black incandescent style and have been retro-fitted with LED lamps. Some exit signs (w/ emergency heads) have been added in the lower floor corridor within the last 10 years. Some of the bulbs in the exit signs are burnt out and need to be replaced. General maintenance is required. The exit sign located at the mechanical room exit is concealed and needs to be relocated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Typical incandescent exit sign.

Event: Relocate Exit Sign

Concern:
The exit sign located at the S.W. Exit of the main mechanical room is concealed by mechanical piping. The current condition does not meet code requirements.

Recommendation:
Relocate the exit sign clear of mechanical piping.

Consequences of Deferral:
Currently the exit sign is not visible. During emergency situations, the pathway of egress is not visible.

Type	Year	Cost	Priority
Code Upgrade	2010	$1,000	High

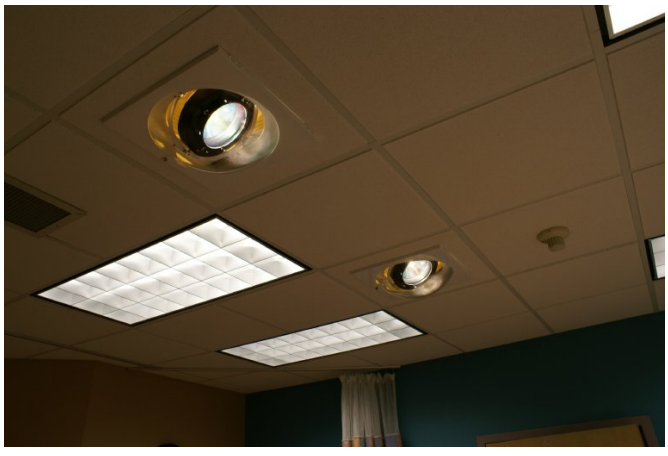
Updated: MAR-10


Exit sign blocked by mechanical piping.

D5020.02.05 Special Purpose Lighting*

The delivery room has two (2) semi-recessed incandescent examination lighting mounted in the ceiling. The lighting is controlled via wall mounted control station. The installation dates within the last 10 years.

Rating	Installed	Design Life	Updated
5 - Good	1998	30	MAR-09


Examination lighting in the delivery room

D5020.02.11 Operating Room Lighting*

The operating rooms consist of flush mounted 2x4 fluorescent 4-lamp fixtures with glass lenses. The centre of each operating room has an adjustable incandescent operating light on an arm mounted on the ceiling. Lighting levels are adequate and as follows;

Operating Room (at Bed) - 82FC
Emergency Operating Room (at Bed) - 54FC

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09

Endoscopy Operating Room

D5020.03.01.01 Exterior Incandescent Fixtures*

There are approximately nine (9) incandescent downlights mounted in the soffits, four (4) incandescent wall mounted fixtures, and one (1) incandescent PAR lamp holder mounted at exterior exits. The fixtures date from the original 1979 construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-09

Incandescent wall mounted fixture.

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

There are nine (9) flush wall mounted HPS fixtures located at the emergency entrance. There are two (2) HPS wall pack fixtures at the south stairwell exit and at shipping & receiving. HPS flood lights (installed within the last 15 years) are located on the top of the parapet. Fixtures were removed at time of inspection to accommodate installation of new flashing, damaging the conduit installation. Repairs are required for the conduit feeding roof mounted flood lights.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

HPS wall pack fixture at Shipping & Receiving

Event: Repair Exterior H.P. Sodium Fixtures

Concern:

The conduits feeding roof mounted HPS flood lights are damaged from the installation of the parapet flashing.

Recommendation:

Repair and/or replaced damaged conduits feeding fixtures.

Consequences of Deferral:

Water can penetrate conduit and corrode copper conductors feeding fixtures resulting in costly repairs.

Type	Year	Cost	Priority
Repair	2010	$3,700	Medium

Updated: MAR-10

Exterior HPS flood light and damaged conduit

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

The exterior lighting original to the 1979 construction is controlled via photocell mounted on the roof and a timeclock override. HPS flood lights located on the roof are controlled via wall mounted photocell at the east side of the building. Conduits from photocells are damaged and require repair.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	30	MAR-10

Photocell controlling roof mounted flood lights.

Event: Repair/Replace damaged conduits.

Concern:
The conduits feeding both the roof mounted photocell and the wall mounted photocell are damaged and need repair.

Recommendation:
Repair/Replace damaged conduits.

Consequences of Deferral:
Water can penetrate conduit and corrode copper conductors feeding fixtures resulting in costly repairs.

Type	Year	Cost	Priority
Repair	2010	$1,600	Medium

Updated: MAR-10

D5030.01 Detection and Fire Alarm**

The fire alarm system is an Edwards ESA2000 control panel. The panel is located in the main electrical room and a remote annunciator is located at the main lower floor entry, and the main upper floor entry. There are two (2) bell circuits and two (2) strobe circuits, and 31 fire alarm zones. There are 12 spare zones for future. Corridors and rooms are covered by smoke and heat detectors throughout the building with the exception of the west wing lover level which is covered by a sprinkler system. Audio/Visual devices are combination gongs and strobes. The Edwards ESA2000 fire alarm control system is obsolete, and parts are no longer available. The fire alarm system needs to be replaced within the next couple of years. Fire rated doors such as the patient rooms doors have automatic door holders that close doors upon alarm condition. Some of the holders are not operational and need to be replaced.

Rating	Installed	Design Life	Updated
2 - Poor	1979	25	MAR-10

Edwards ESA2000 fire alarm control panel

Event: Repair Door Holders

Concern:
A total of (8) door holders are not operating correctly. The door holders are to disengage upon alarm condition.

Recommendation:
Replace the eight (8) door holders with new and re-test to ensure alarm condition operates door holders.

Consequences of Deferral:
Door holders must operate correctly to ensure the integrity of the buildings fire rating

Type	Year	Cost	Priority
Repair	2010	$9,000	High

Updated: MAR-10

Event: **Replace Detection and Fire Alarm (~9300m²)**

Concern:
The existing Edwards ESA2000 fire alarm control panel is obsolete and parts are no longer available.

Recommendation:
Replace the fire alarm control panel and annunciator panel with new.

Consequences of Deferral:
Life safety systems like the fire alarm panel needs to be in good working order and have parts readily available. Failure of parts that are not able to be replaced causes serious concern for the fire alarm system as it is not able to provide the protection it is designed for.

Type	Year	Cost	Priority
Failure Replacement	2010	$800,000	High

Updated: MAR-10

D5030.02.02 Intrusion Detection**

There is a DSC Maxsys PC4000 security control panel and keypad located in the main data room located on the lower floor. The lower floor corridor is monitored by motion sensors however maintenance personnel report that the motion sensors are not operational, they indicate the recent installation of security cameras cover the sensitive areas and are preferred over the motion sensors. The installation appears within the last 10 years.

A second security alarm panel is located in the south lower floor electrical room (adjacent the main telephone room). The system is a Napco Gemini. The system connects to the panic buttons located at the main nursing desk and is tied into the RCMP. Keypads are located in the electrical room and the nursing station.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-10

Typical security motion sensors

Event: **Replace Intrusion Detection System**

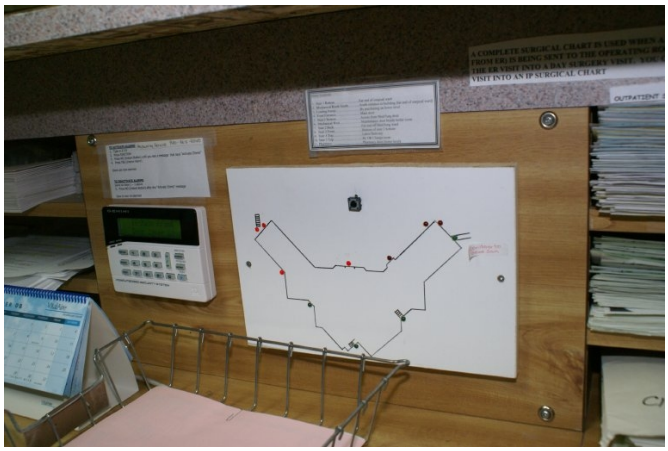
Type	Year	Cost	Priority
Lifecycle Replacement	2013	$21,500	Unassigned

Updated: MAR-10

D5030.02.03 Security Access**

There is no security access system in the hospital, however all exterior exit doors are monitored and alarmed. The main monitoring station is located at the main admitting desk. The system appears to be from the original 1978 construction and is operational

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-10



Exit door security and alarm system

Event: Replace Security Access System

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$16,500	Unassigned

Updated: MAR-10

D5030.02.04 Video Surveillance**

The video surveillance system has been recently installed (within the last couple of years). Security cameras are from different manufactures (Ascendent, Samsung, etc...) Cameras monitor the lower floor corridors and other sensitive areas. Coax cables for camera's are run free-air through the ceiling space. The head end of the video surveillance equipment is located in the secure data room located on the lower floor.

Rating	Installed	Design Life	Updated
5 - Good	2007	25	MAR-10

Samsung CCTV security camera

Event: Replace Video Surveillance System (~9300m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$54,000	Unassigned

Updated: MAR-10

D5030.03 Clock and Program Systems*

The clock system in the hospital is a Simplex 120V analog clock system with no central control. The clocks are operational, however building maintenance reports that setting the built-in clocks is very time consuming and since they are manually set individually they all display different times.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

Simplex wall mounted clock

D5030.04.01 Telephone Systems*

The telephone system and handsets are a Nortel Meridian system . The main telephone demarcation is located in the telephone room on the south east side of the lower floor. The service entrance conduit shows signs of water ingress and repairs are needed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	25	MAR-10

Main telephone demarcation and the Nortel Meridian PBX system

Event: Repair Telephone Systems

Concern:

The main telephone entry conduit shows signs that water frequently penetrates the conduit and leaks into the telephone room.

Recommendation:

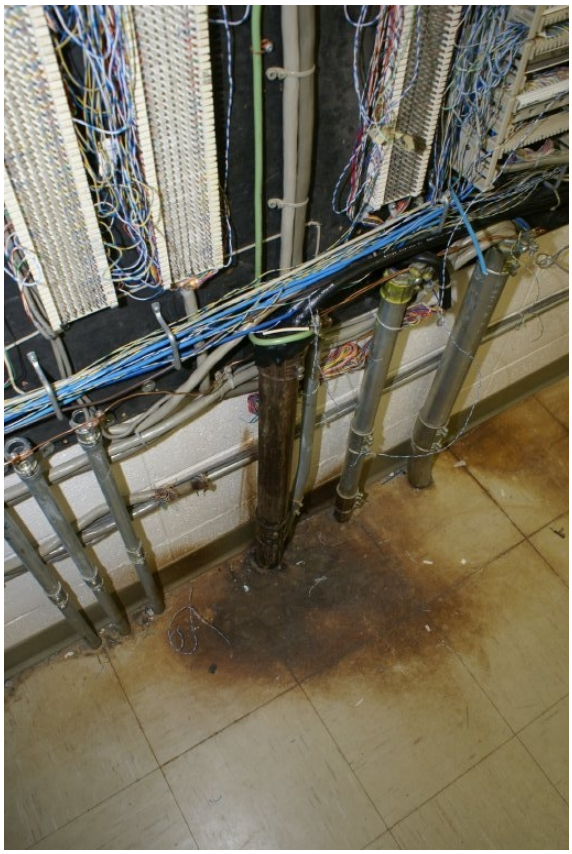
Repair the main telephone service conduit where water is penetrating the conduit.

Consequences of Deferral:

The extended condition of water ingress into the conduit can cause damage and corrode the main telephone conductors.

Type	Year	Cost	Priority
Repair	2010	$8,000	Medium

Updated: MAR-10



Telephone service entry w/ water damage

D5030.04.03 Call Systems** 1979

There are two (2) nurse call systems in the hospital. The hardwired system is a Rauland Responder 3000 system. Each patient room has a bed station that plugs into wall, and a pull cord station in the bathroom. The nurse call handset station is located an the main admitting desk. Activation of the nurse call system illuminates the corridor dome lamp and alerts the nurse station. The Rauland system is original equipment. The second nurse call system is a Lifeline pendant system. The main receiving unit (lifeline RC500 and computer screen) is located at the main admitting desk (refer to D5030.04.03 Call Systems** 2003)

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-10

Lifeline PC500 system

Event: Replace Call Systems (~9300m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$225,000	Unassigned

Updated: MAR-10

Event: Replace Wall Bed station

Concern:
The wall bed station for the Rauland nurse call sytem is damaged and needs to be replaced with new.

Recommendation:
Replace the damaged wall station with new

Consequences of Deferral:
The nurse call system is part of the life safety system and must be kept in operable condition in case of emergency.

Type	Year	Cost	Priority
Repair	2010	$1,000	Medium

Updated: MAR-10

D5030.04.03 Call Systems** 2003

The second nurse call system is a Lifeline pendant system. The main receiving unit (lifeline RC500 and computer screen) is located at the main admitting desk.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-10

Event: Replace Lifeline Pendant System

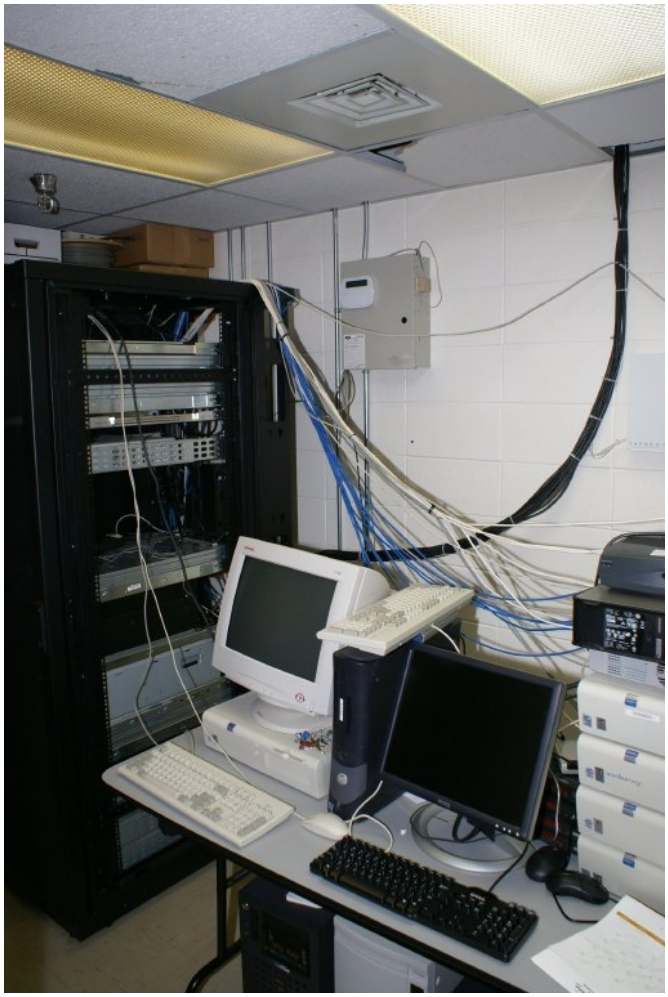
Type	Year	Cost	Priority
Lifecycle Replacement	2028	$25,000	Unassigned

Updated: MAR-10

D5030.04.05 Local Area Network Systems*

The local area network consists of cat 5e cabling run free air in the ceiling space from various wall outlets located throughout the hospital to the main data room located on the lower floor. The laboratory has a local area network of data outlets connected to a local hub. The local hub is connected to the main data room. Laboratory users note that there are not enough data outlets for the functionality of the laboratory.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	15	MAR-10



Main data rack and server room.

Event: Provide additional data outlets (~400m²)

Concern:

Laboratory users report that there are not enough data outlets for the function of the Lab

Recommendation:

Provide additional data outlets in the laboratory and terminate to the local data hub located in the storage closet.

Consequences of Deferral:

With a lack of data outlets, users must stretch data cables across work stations. This condition can cause serious issues (including safety hazards) by cords draped across work areas and pathways.

Type	Year	Cost	Priority
Program Functional Upgrade	2010	$28,000	High

Updated: MAR-10

D5030.05 Public Address and Music Systems**

The intercom system from the original construction still exists (no longer operational) however the system has been replaced by paging functions through the telephone handsets. A Bogen TPU-250 amplifier is located in the main telephone room and tied into the Nortel Meridian system. The installation dates from approximately the same time the telephone system was upgraded. Speakers are located throughout the hospital and P.A. Horns are located in service areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	25	MAR-10

Bogen TPU-250 P.A. amplifier

Event: **ReplacePublic Address and Music Systems**

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$226,000	Unassigned

Updated: MAR-10

D5030.06 Television Systems*

Coax outlets for cable TV are located in each patient room, and the lower floor staff room and doctors lounge. Coax cables from patient rooms terminate at one of two (2) local sub-catv cabinets located on the upper floor. The sub-catv cabinets homerun back to the main telephone backboard in the lower floor telephone room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-09

Sub-catv cabinet located on the upper floor.

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

The emergency generator is a 350KW 347/600V 3ph 4w Cummins Diesel Generator. The generator is located in the generator room on the west side of the lower floor. The transfer switch is located adjacent to the generator and is manufactured by ASCO Power Technologies. Building maintenance reports that the transfer from regular power to generator power takes 3 seconds. Cummins Canada services the generator at least twice a month.

Rating	Installed	Design Life	Updated
5 - Good	1979	35	MAR-10

The diesel emergency generator

Event: Replace Packaged Engine Generator Systems (Emergency Power System)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$300,000	Unassigned

Updated: MAR-10

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.06 Commercial Laundry and Dry Cleaning Equipment*

Institutional laundry equipment and sterilization equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

Event: Replace two commercial dryers.

Concern:
Dryers worn parts hard to source.
Recommendation:
Replace dryers

Type	Year	Cost	Priority
Failure Replacement	2010	$46,500	High

Updated: MAR-10

E1020.07 Laboratory Equipment*

A complete hospital laboratory.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

E1020.08 Medical Equipment*

A complete range of medical examination and diagnostic equipment

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

E1030.03 Loading Dock Equipment*

Large weigh scale at loading area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

E1090.02 Solid Waste Handling Equipment

Large garbage bins and garbage chute.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-09

E1090.03 Food Service Equipment*

Complete commercial kitchen with all the appliances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	25	MAR-10

Event: Failure Replacement for one toaster and oven

Concern:
The commercial oven and toaster do not function properly.
Recommendation:
Replace non functioning equipment
Consequences of Deferral:
Impedes food preparation

Type	Year	Cost	Priority
Failure Replacement	2010	$24,800	High

Updated: MAR-10

E1090.04 Residential Equipment*

Fridge and microwave oven for staff use.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	10	MAR-09

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Therapeutic equipment for physical rehabilitation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	15	MAR-09

E2010.02 Fixed Casework**

Cabinets at work stations, laboratories and in treatment rooms.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	35	MAR-10

Event: Failure Replacement ~20m of counter tops

Concern:
Approximately 10% of counter tops have damaged laminate at edges.

Recommendation:
Replace damaged plastic laminate counter tops

Type	Year	Cost	Priority
Failure Replacement	2010	$5,500	Medium

Updated: MAR-10

Laminate missing for counter top

Event: Replace ~170m Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$320,000	Unassigned

Updated: MAR-10

E2010.03.01 Blinds**

Curtains and blinds used for exterior windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	30	MAR-10

Event: Replace~294m² Blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$48,000	Unassigned

Updated: MAR-10

E2010.06 Fixed Interior Landscaping*

Planters at emergency reception.

Rating	Installed	Design Life	Updated
3 - Marginal	1979	10	MAR-10

Event: Repair Planters

Concern:
Planters at emergency reception have loose bricks and missing wood capping.
Recommendation:
Repair all damaged and missing items
Consequences of Deferral:
Poor curb appeal

Type	Year	Cost	Priority
Repair	2010	$9,200	Medium

Updated: MAR-10

F1040.05 Liquid and Gas*: Storage Tanks*

Liquid storage tank located at back exterior, also gas pressurized containers located in special storage room

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	20	MAR-09

F2020.01 Asbestos*

Sprayed on material to ceilings and walls in boiler rooms - Refer to B1010.09 Floor Construction Fireproofing*

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

IMG_2593.JPG

F2020.02 PCBs*

None observed

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

F2020.04 Mould*

None observed, no evidence of excessive moisture on interior of exterior walls or other areas which would cause mold was observed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

F2020.06 Radioactive Compounds*

Some diagnostic equipment may contain these. These areas were well secured.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09

F2020.07 Chloroflorocarbons (CFC Refrigerants)*

None observed

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

F2020.08 Biohazardous Materials*

None observed, sterilization equipment appears to be well maintained and properly secured.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-10

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Handicapped parking is provided adjacent to building, also drop off area provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09

K4010.02 Barrier Free Entrances*

Automatic doors and ground level entries are provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09

K4010.03 Barrier Free Interior Circulation*

Wide corridors and room entries provided

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09

K4010.04 Barrier Free Washrooms*

Proper barrier free circulation provided for public washrooms, along with proper grab bars

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	0	MAR-09