RECAPP Facility Evaluation Report

David Thompson Regional Health Authority



Consort Hospital and Care Centre
B1013A
Consort

Consort - Consort Hospital and Care Centre (B1013A)

Facility Details

Building Name: Consort Hospital and Care C

Address: 5402 - 52 Avenue

Location: Consort

Building Id: B1013A

Gross Area (sq. m): 4,509.00

Replacement Cost: \$26,323,379

Construction Year: 1983

Evaluation Details

Evaluation Company: Sherri Turpin - Architect

Evaluation Date: June 16 2009 **Evaluator Name:** Len O'Connor

Total Maintenance Events Next 5 years: \$6,585,250 5 year Facility Condition Index (FCI): 25.02%

General Summary:

The Consort Hospital and Care Centre was constructed in 1983. The floor area of the facility is 4509 m2. The facility has 5 acute bed capacity with 15 capacity for continuing care. The core facility has a main and lower floors with a mechanical mezzanine at the roof level. An attached module housing continuing care is attached to the north side of the facility. Numerous renovations and upgrades have been completed since the original construction. The condition of this facility is good.

MAILING ADDRESS: P.O. BOX 310, CONSORT, ALBERTA TOC 1B0 MR. STEVE VERT - BOARD CHAIRMAN MR. KIM SWANSON - ADMINISTRATOR MS. JANE BARBERREE - DIRECTOR OF NURSING 577-3555 577-3950 - FAX

Structural Summary:

Structural Summary: Foundation include concrete piles, foundation walls, concrete columns, and grade beams. Structural floors include slab on grade, structural slabs, and topping on metal decks. Structural roof elements include steel columns, beams, open web steel joist, and metal decking.

Overall Rating: 4 Acceptable.

Repairs: Provide repairs to concrete floor in ambulance bay.

Study: Provide study for floor firestopping.

Code Repair: Complete repairs recommended in firestopping study.

Envelope Summary:

Envelope Summary: The roof envelope is composed of vapour membrane, rigid insulation, and either SBS or built-up rooming membranes. The main wall envelope is made up of brick veneer, rigid insulation, vapour membrane and a load-bearing masonry wall. The mechanical mezzanine walls are composed of horizontal metal siding, batt insulation, and a metal liner panel. Other wall envelope elements include joint sealant, paint, grilles, protection board, and metal soffits. Openings consist of aluminum windows, storefronts, automatic doors, insulated metal overhead doors, and insulated metal doors.

Overall Rating: Overall rating is 4 Acceptable.

Hazardous Materials: Remove asbestos protection board at grade, Replace with cement board.

Repair: Provide repairs for double exterior doors to lower mechanical room.

Interior Summary:

Interior Summary: interior partitions are masonry, and metal with steel studs. Openings are completed with glazed metal storefronts, swing metal and wood doors, and fire doors. Other interior components are visual display boards, corner guards, hand and wall railings, lockers, storage shelving, and washroom accessories. Stairs are steel with concrete fill and finished with either resilient flooring or painted finishes. The floors are finished with ceramic tile, carpet, resilient tile or sheet flooring, and epoxy. The interior walls are painted. Ceilings are finished with acoustic tiles in T-bar, painted gypsum board, linear metal or unpainted concrete.

Equipment, Furnishings and Special Construction: Other building components include a passenger elevator, a dumbwaiter, beauty equipment, commercial laundry equipment, loading dock equipment, food services equipment, fixed casework, and blinds.

Overall Rating: 4 Acceptable

Repairs: Repair floor finish in ambulance bay.

Study: Conduct study for partition firestopping.

Repair: Provide repairs of firestopping recommended in study.

Mechanical Summary:

Ventilation is provided by variety of air handling units located in Mechanical Rooms and on the roof. Total of 4 air handling units.

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

Air conditioning is provided by indoor water chiller chiller and condensers.

Heating system includes two natural gas fired boilers and one steam boiler.

Two natural gas fired boilers provide hot water for perimeter radiation, radiant panels, unit heaters and heat exchangers. Hot water is circulated via base mounted pumps.

One low pressure steam boilers serve humidification system.

Domestic hot water is generated by two hot water tanks fed from the main boilers, which provide 45, 60 and 80 deg.C water to Laundry, Kitchen and washrooms. Copper piping distribution to plumbing fixtures complete with domestic hot water recirculation systems.

Pneumatic controls.

Medical gas systems include the piping, fittings, valves, air compressor and vacuum pumps. Medical oxygen, medical air and vacuum system. Medical gas consoles are located in Patient Rooms, plug ins for oxygen, medical air and vacuum.

Fire protection system for the facility consists of sprinkler system, hand held fire extinguishers and chemical suppression system for kitchen exhaust canopy.

Sanitary service to Town's mains.

Storm service to surface run off.

Domestic water supplied from the municipal systems.

Overall mechanical system is in good condition.

Electrical Summary:

This facility was built in 1983 with some upgrades initiated in 2003 to 2008. These upgrades included the Fire Alarm System, Nurse Call System and the Security Door Panel.

The lighting in this facility is still of the energy inefficient T-12 lamps and Magnetic ballasts, this makes the lighting part of the facility a marginal condition.

The rest of the facility is in fair condition.

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*

Concrete piles, with pile caps and bell bottoms, and reinforcing. Grade beams, 250 x 900-1200 mm, with reinforcing.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

A1030 Slab on Grade*

Basement and Wings 2A & 6A Main Floors: 125 mm reinforced concrete with welded wire mesh reinforcement. Main Core Floor: 225 mm structural concrete slab, reinforced, on concrete columns with thickened tops.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

A2020 Basement Walls (& Crawl Space)*

Concrete basement walls, 200 mm, with reinforcement.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

B1010.01 Floor Structural Frame (Building Frame)*

Supporting Main Core Floor: Reinforced concrete columns with thickened caps. Concrete walls with reinforcement.

Supporting Mezzanine Floor: Steel HSS columns, W-beams, and OWSJ

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

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

Cast-In-Place-Concrete 200 - 240 mm, reinforced.

Load-bearing masonry 190 and 240 mm, with reinforcement and core fills.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

B1010.03 Floor Decks, Slabs, and Toppings*

Main Core: 225 mm concrete slab with reinforcement

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

B1010.05 Mezzanine Construction*

Mechanical Mezzanine: 140 mm concrete topping on 38 mm high bond metal decking.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

B1010.09 Floor Construction Fireproofing*

Spray applied fireproofing to underside of metal decking.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

B1010.10 Floor Construction Firestopping* 1983

Original firestopping systems viewed at floor penetrations.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1983	50	MAR-10

B1010.10 Floor Construction Firestopping* Upgrades

Systems not viewed for upgrade work at floor penetrations.

Renovation and upgrade work requires firestopping to be installed.

RatingInstalledDesign LifeUpdated3 - Marginal198350MAR-10

Event: Repair Floor Firestopping

Concern:

Firestopping not observed at renovation or upgrade work.

Recommendation:

Install firestopping to study recommendations.

Consequences of Deferral: Exposure to unsafe conditions.

TypeYearCostPriorityCode Repair2012\$5,000Medium

Updated: MAR-10

Event: Study Firestopping Requirements

Concern:

Firestopping not viewed for upgrade work at floor

penetrations.

Recommendation:

Conduct study to determine extent and recommend systems

to be installed.

Consequences of Deferral:

Continued exposure to unsafe conditions.

 Type
 Year
 Cost
 Priority

 Study
 2010
 \$3,000
 Medium

Updated: MAR-10

B1020.01 Roof Structural Frame*

Elements include load bearing masonry, HSS columns, steel W-breams, and OWSJ.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

B1020.02 Structural Interior Walls Supporting Roofs*

Cast-in-place concrete and load bearing masonry.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

B1020.03 Roof Decks, Slabs, and Sheathing*

Flutted metal decking on structural frame.

B1020.04 Canopies*

Structural Steel, W-beams, HSS joists, and metal decking.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1983	50	MAR-10

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Brick: 92 mm face brick on metal angle, with running and soldier courses.

RatingInstalledDesign LifeUpdated4 - Acceptable198375MAR-10

B2010.01.06.03 Metal Siding**

Preformed prefinished horizontal metal siding, 100 mm thick, with flashings.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replaceb 375 Metal Siding

TypeYearCostPriorityLifecycle Replacement2023\$20,000Unassigned

Updated: MAR-10

B2010.01.09 Expansion Control: Exterior Wall Skin*

Backing rod with sealant fill, continuous.

RatingInstalledDesign LifeUpdated4 - Acceptable198375MAR-10

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

Sealant at perimeter of openings, transitions and control joints. Sealant is weathered, cracking and separated from substrates in many locations.

RatingInstalledDesign LifeUpdated3 - Marginal198320MAR-10

Event: Replace 400 m Joint Sealant

Concern:

Sealant is hard, cracked or missing.

Recommendation: Replace sealant.

Consequences of Deferral:

Infiltration of moisture.

TypeYearCostPriorityFailure Replacement2011\$16,800Medium

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

Painted steel components, lintels, bollards, other.

RatingInstalledDesign LifeUpdated4 - Acceptable198315MAR-10

Event: Repaint metal components

TypeYearCostPriorityLifecycle Replacement2013\$3,500Unassigned

Updated: MAR-10

B2010.01.99 Other Exterior Wall Skin*

Asbestos protection board over rigid insulation.

RatingInstalledDesign LifeUpdated3 - Marginal198350MAR-10

Event: Replace 285 m Asbestos Protection Board

Concern:

Protection board at grade, 6 mm asbestos board, requires repairs to various locations at building perimeter. Rigid insulation is exposed.

Recommendation:

Excavate to expose panel, remove all asbestos board under abatement and replace with cement board panels, replace earth, compact, and repair landscape areas.

Consequences of Deferral:

Deterioration of rigid insulation.

TypeYearCostPriorityHazardous Materials2013\$82,000Low

Abatement

Updated: MAR-10



Damaged asbestos board

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

Load bearing 240 mm masonry wall construction with reinforcement.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

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

Vapour barrier on backup wall. Rigid insulation 50 mm.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

B2010.05 Parapets*

Type 1: 90 face brick, 50 mm cavity, 50 rigid insulation, vapour membrane, 240 core filled masonry units, 38 mm strapping filled with 38 mm rigid insulation, 19 mm plywood, roof membrane, prefinished metal flashing.

Type-2: 90 face brick, 50 mm cavity, 50 mm rigid insulation, vapour membrane, 12.7 exterior gypsum sheathing, 152 metal studs, batt insulation fill, 12.7 exterior gypsum sheathing, vapour membrane, 38 mm wood furring, roof membrane, prefinished metal flashing.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

B2010.06 Exterior Louvers, Grilles, and Screens*

Prefinished metal loovers and grilles.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

B2010.09 Exterior Soffits*

Prefinished metal linear soffit system.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

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

Aluminum frame with dark anodized brown finish, single and ganged units, vertical and sloped, double glazed fixed sealed units.

Sealed Unit Glazing is scheduled for 2009 replacement.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace 119 m2 Glass & Frame

TypeYearCostPriorityLifecycle Replacement2023\$175,600Unassigned

Updated: MAR-10

B2020.02 Storefronts: Windows**

Aluminum frame, dark anodized, insulated panels, fixed double glazed sealed units.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace 72 m2 storefronts

TypeYearCostPriorityLifecycle Replacement2023\$106,300Unassigned

Updated: MAR-10

B2020.03 Glazed Curtain Wall**

Aluminum framed dark anodized units, sloped, double glazed sealed units, locate above main entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace 22 m2 sloped curtain wall

TypeYearCostPriorityLifecycle Replacement2023\$42,200Unassigned

Updated: MAR-10

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Aluminum frame, dark anodized, single swing style, tempered glass full lite, and hardware (panic hardware, closure, lock, hinges, weatherstripping, and auto openers on selected doors)

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 8 door assemblies

TypeYearCostPriorityLifecycle Replacement2013\$35,200Unassigned

Updated: MAR-10

B2030.01.06 Automatic Entrance Doors**

Aluminum frame, dark anodized, single tempered glass full lite, auto opener hardware system, and standard hardware (hinges, push-pulls, weatherstripping, locks).

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 4 units

TypeYearCostPriorityLifecycle Replacement2013\$70,000Unassigned

B2030.02 Exterior Utility Doors**

Galvanized metal doors, reinforced, insulated, hardware (hinges, closure, exit hardware, threshold, weatherstripping)

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Repair 1 pair exterior utility doors

Concern:

Door frame has come loose from masonry wall surrounding the frame. Owner has install angle iron to temporarily hold the door frame in place. Masonry wall has minor cracking.

Recommendation:

Remove doors and frame. Repair wall. Provide interior steel reinforcing frame if required. Re-install door frame and doors and repaint doors.

 Type
 Year
 Cost
 Priority

 Repair
 2013
 \$5,000
 Low

Updated: MAR-10

Event: Replace 4 units

TypeYearCostPriorityLifecycle Replacement2023\$7,060Unassigned

Updated: MAR-10

B2030.03 Large Exterior Special Doors (Overhead)*

Type-1: Ambulance overhead panel doors (2), painted steel finish, glazed panels, motorized, radio and manual controllers.

Type-2: Receiving overhead panel door (1), painted, glass panels, motorized, with manual controller. 2003/2004 auto operators were replaced.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replacement 3 units

TypeYearCostPriorityLifecycle Replacement2013\$26,200Unassigned

Updated: MAR-10

B3010.01 Deck Vapor Retarder and Insulation*

Vapour retarder with rigid insulation.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

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

Built-up roofing assembly with pea gravel ballast. Roof is scheduled to be replaced in 2009.

RatingInstalledDesign LifeUpdated3 - Marginal198325MAR-10

Event: Replace 1300 m2

Concern:

The roof is at the end of its lifecycle and has already required patching and repair work for leaks.

Recommendation:

Replace roof membrane and verify condition of vapour membrane and insulation. Replace membrane and insulation if required.

Consequences of Deferral:

Continued roof leaks and high maintenance costs.

TypeYearCostPriorityFailure Replacement2009\$236,600Medium

Updated: MAR-10

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

SBS Roofing, 2 ply, light grey colour, with flashings.

Roof replaced for main core and mechanical mezzanine roof areas.

RatingInstalledDesign LifeUpdated5 - Good200725MAR-10

Event: Replace 1542 m2

TypeYearCostPriorityLifecycle Replacement2032\$363,900Unassigned

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Gypsum Board Assemblies: gypsum board, metal studs, batt insulation, rated and non-rated, painted. Masonry Assemblies: 140 and 190 mm, smooth face, painted.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

C1010.05 Interior Windows*

Metal frame, single pane glass, clear and wire glass, rated and non-rated.

RatingInstalledDesign LifeUpdated4 - Acceptable198380MAR-10

C1010.06 Interior Glazed Partitions and Storefronts*

Welded steel frames, rated and non-rated, tempered glass to wire glass, painted.

RatingInstalledDesign LifeUpdated4 - Acceptable198380MAR-10

C1010.07 Interior Partition Firestopping* 1983

Various firestopping systems to suit application at rated wall penetration.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

C1010.07 Interior Partition Firestopping* Upgrades

Firestopping systems not observed at upgrade work penetrating rated partitions.

RatingInstalledDesign LifeUpdated3 - Marginal199550MAR-10

Event: Repair Partition Firestopping

Concern:

No firestropping at partition penetrations.

Recommendation:

Provide firestopping systems to locations recommended in

study.

Consequences of Deferral:

Continued exposure to safety risk.

TypeYearCostPriorityCode Repair2012\$10,000Medium

Updated: MAR-10

Event: Study Partition Firestopping*

Concern:

No firestopping observes at upgrade work penetration rated

partitions.

Recommendation:

Conduct study to determine extent of missing firestopping.

Consequences of Deferral:

Exposure to unnecessary safety risk.

TypeYearCostPriorityStudy2010\$5,000Medium

Updated: MAR-10

C1020.01 Interior Swinging Doors (& Hardware)*

Welded metal doors with metal or wood doors, rated and non-rated, paiinted and clear finished, with tempered or wire glass, and hardware suitable for assembly and condition.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

C1020.03 Interior Fire Doors*

Metal fire doors in rated frame, painted or clear finish, glazed or non-glazed, wire glass, rating varies, rated hardware to suit condition.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

C1030.01 Visual Display Boards**

Tackboards, talk/chalk baords and chalk boards, various locations and sizes.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

Event: Replace 40 Visual Display Boards

TypeYearCostPriorityLifecycle Replacement2013\$8,000Unassigned

Updated: MAR-10

C1030.05 Wall and Corner Guards*

Stainless steel, 50x50 mm, yo 850 mm above finished floor.

RatingInstalledDesign LifeUpdated4 - Acceptable198315MAR-10

C1030.06 Handrails*

Wood guard rails, bumper rails, handrails and wall rails, plywood with hardwood edging or solid wood, clear finish.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

C1030.08 Interior Identifying Devices*

Style: Laminated plastic, slide-in slots, blue back ground with black lettering. Types: room signs with numbers, exit signs, nursing desk signs, and wing signs

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

C1030.10 Lockers**

Single tier lockers, prefinished metal, slope top, single colour doors, single colour frame.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 67 Lockers**

TypeYearCostPriorityLifecycle Replacement2013\$52,600Unassigned

Updated: MAR-10

C1030.12 Storage Shelving*

Stainless steel wire shelving, wood shelves, plastic laminate shelves, metal shelving.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

C1030.14 Toilet, Bath, and Laundry Accessories*

Dispensers for hand sanitation, soap, toilet tissue, and paper towels. Coat hooks.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

C2010 Stair Construction*

Steel stair construction, metal pans with concrete fill, painted exposed surfaces.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

C2020.05 Resilient Stair Finishes**

Resilient (rubber) treads and risers and landings with raised round bubble pattern.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

Event: Replace 20 m2 Resilient Stair Finishes

TypeYearCostPriorityLifecycle Replacement2013\$2,100Unassigned

Updated: MAR-10

C2020.08 Stair Railings and Balustrades*

Metal pipe railing and support brackets, painted.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

C2020.10 Stair Painting*

Painted steel stair with concrete fill for treads, risers and stringers.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

C3010.01 Concrete Wall Finishes (Unpainted)*

Concrete walls and columns on lower level in storage areas are unfinished.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

Gypsum board with metal stud wall assemblies are unfinished in lower level storage area.

RatingInstalledDesign LifeUpdated4 - Acceptable198360MAR-10

C3010.06 Tile Wall Finishes**

Ceramic tile finish, 50x50 mm.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace 160 m2 Tile Wall Finishes

TypeYearCostPriorityLifecycle Replacement2023\$14,600Unassigned

Updated: MAR-10

C3010.11 Interior Wall Painting*

Wall painting, high to low gloss, colours varies. Repainting program is on a 5-year cycle.

RatingInstalledDesign LifeUpdated4 - Acceptable200410MAR-10

C3020.01.01 Epoxy Concrete Floor Finishes* 1984

Epoxy floor system with cove at wall and 150 mm base. Colour brownish. Versa system.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

C3020.01.01 Epoxy Concrete Floor Finishes* Kitchen

Floor finish coat is patchy in kitchen, hall and wash areas.

RatingInstalledDesign LifeUpdated3 - Marginal19830MAR-10

Event: Finish coat 110 m2 floor

Concern:

Surface protection layer has worn off in many locations, exposing the base epoxy layer.

Recommendation:

Provide new protective wear layer with non-slip aggregate.

Consequences of Deferral:

Total wear-through of base layer, then requiring replacement of system of large areas.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Preventative Maintenance	2010	\$15,000	High

C3020.01.02 Paint Concrete Floor Finishes*

Painted concrete floors aged with exposed concrete in many areas. Locations include general storage with ancillary areas and mechanical room with ancillary rooms all located on lower level. Mechanical mezzanine floor is also painted; condition 4 acceptable.

RatingInstalledDesign LifeUpdated3 - Marginal198310MAR-10

Event: Repaint 570 m2 concrete floors

Concern:

Protective finish worn from concrete floors.

Recommendation: Repaint floors.

Consequences of Deferral:

Exposed concrete subjected to surface degradation

TypeYearCostPriorityPreventative Maintenance2013\$8,850Low

Updated: MAR-10

Event: Repair 77 m2 floor

Concern:

Ambulance Bay: Surface coating is worn off. The concrete surface is pitted due to salt deposits. There is no floor drain nor trench drain.

Recommendation:

Sawcut floor and install trench with drain. Pour new concrete. Install slopped surface topping slopped to drain. Provide protection coating to floor.

TypeYearCostPriorityRepair2013\$30,000High

Updated: MAR-10



Ambulance bay floor.

C3020.02 Tile Floor Finishes**

Ceramic floor tile, 50x50 mm

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

Event: Replace 30 m2 Tile Floor

TypeYearCostPriorityLifecycle Replacement2033\$11,000Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring** 1983

Resilient sheet flooring with integral cove and base or rubber base.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

Event: Replace 2690 m2 Resilient Flooring

TypeYearCostPriorityLifecycle Replacement2013\$306,000Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring** 2006

Sheet resilient flooring with rubber base. Renovation in Clinic and cafeteria.

RatingInstalledDesign LifeUpdated5 - Good200620MAR-10

Event: Replacement 200 m2 Resilient Flooring

TypeYearCostPriorityLifecycle Replacement2026\$22,700Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring** 1983

Carpet flooring with rubber base, low cut pile, direct glue down.

RatingInstalledDesign LifeUpdated3 - Marginal198315MAR-10

Event: Replace 210 m2 Carpet Flooring

Concern:

Carpet is past it's expected life. The surface is worn and seams have some frayed edges.

Recommendation: Replace carpet.

Consequences of Deferral:

Continued carpet deterioration and high maintenance costs.

TypeYearCostPriorityFailure Replacement2013\$18,300Low

C3020.08 Carpet Flooring** 2003

Carpet Flooring with rubber base, lower floor training room.

RatingInstalledDesign LifeUpdated5 - Good200515MAR-10

Event: Replace 70 m2 Carpet Flooring

TypeYearCostPriorityLifecycle Replacement2020\$83,253Unassigned

Updated: MAR-10

C3030.01 Concrete Ceiling Finishes (Unpainted)*

Concrete ceiling in general storage area, mechanical room and ancillary areas, are unpainted.

RatingInstalledDesign LifeUpdated4 - Acceptable1983100MAR-10

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Gypsum board ceilings for storage rooms within general storage area are unpainted

RatingInstalledDesign LifeUpdated4 - Acceptable199660MAR-10

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

Suspended T-bar ceiling with acoustic drop-in tiles, flat profile, fissured pattern, washable tiles in kitchen area, white colour.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

Event: Replace 2360 m2 Acoustic Ceiling Treatment

TypeYearCostPriorityLifecycle Replacement2013\$143,000Unassigned

Updated: MAR-10

C3030.07 Interior Ceiling Painting*

Painted gypsum board ceilings with bulkheads and concrete ceilings.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

C3030.09 Other Ceiling Finishes*

Linear metal ceiling system, prefinished, with supporting system.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

D1010.01.02 Hydraulic Passenger Elevators**

Hydraulic passenger elevator(1) serving 2 floors, side opening painted doors to 2 ends. Stainless steel entrance jamb, panel and trim components, plastic laminate interior wall panels, resilient flooring, by Montgomery Elevator Co., and adjacent machine room.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Refurbish 1 Hydraulic Passenger Elevator

TypeYearCostPriorityLifecycle Replacement2013\$108,200Unassigned

Updated: MAR-10

D1090 Other Conveying Systems*

Dumbwaiter, serving two floors, stainless steel enclosure and cab, vertical bi-parting doors. Energy dumbwaiter from Philadelphia, model 12, capacity 227 kg.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

S4 MECHANICAL

D2010.04 Sinks**

600X600 mop sinks, molded stone, floor mounted, SS strainer.

Single and double compartment stainless steel sinks complete with chrome plated swing spout, aerator, indexed lever handles.

Stainless steel commercial sinks serving Kitchen.

Wall hung vitreous china sinks with wall mounted faucet.

Single and double compartment scrub station with knee controls.

Stainless steel countertop sinks with marine ledge.

Shampoo sink - terrazo complete with hanger and hose holder.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 40 Sinks

TypeYearCostPriorityLifecycle Replacement2013\$100,000Unassigned

Updated: MAR-10

D2010.05 Showers**

Pressure balanced mixing valve with integral thermometer, hand spray with flex hose and in-line vacuum breaker. Drench shower - stainless steel, single head, horizontal.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 18 Showers

TypeYearCostPriorityLifecycle Replacement2013\$70,000Unassigned

Updated: MAR-10

D2010.06 Bathtubs**

Porcelain enameled steel, slip resistant with overflow and waste fitting. Pressure balanced valve complete with thermometer, hand spray and hose.

Assisted bath tub Bowl complete with automatic disinfections system, locking door, thermoscopic mixing valve.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 10 Bathtubs

TypeYearCostPriorityLifecycle Replacement2013\$78,000Unassigned

Updated: MAR-10

D2010.08 Drinking Fountains / Coolers**

Stainless steel refrigerated wall hung drinking fountains with removable louvered front panel and automatic stream regulator.

RatingInstalledDesign LifeUpdated4 - Acceptable198335MAR-10

Event: Replace 4 Drinking Fountains / Coolers

TypeYearCostPriorityLifecycle Replacement2018\$20,000Unassigned

Updated: MAR-10

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

WC - Wall hung, vitreous china, open front seat, flush valve.

LV - Stainless steel, countertop c/w two handle faucets. Vitreous china, wall hung c/w single lever mixing faucets.

UR - Vitreous china, washout, wall hung urinal with flushing rim and flush valve.

RatingInstalledDesign LifeUpdated4 - Acceptable198335MAR-10

Event: Replace 48 Washroom Fixtures

TypeYearCostPriorityLifecycle Replacement2018\$185,000Unassigned

Updated: MAR-10

D2020.01.01 Pipes and Tubes: Domestic Water*

Copper piping distribution throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

D2020.01.02 Valves: Domestic Water**

All plumbing fixtures isolated.

Domestic water distributed to commercial flush valve fixtures installed throughout the building.

RatingInstalledDesign LifeUpdated3 - Marginal198340MAR-10

Event: Boiler Room Mechanical Upgrade

Concern:

The six and eight inch valves in the boiler room require replacement with two, three and four inch valves on the main water and heating lines. The large valves are aged gate valves that are worn and do not hold when closed.

Recommendation:

Replace existing valves in Mechanical Room with new.

TypeYearCostPriorityFailure Replacement2011\$75,000Medium

Updated: MAR-10

Event: Replace Approx. 150 Domestic Water Valves

TypeYearCostPriorityLifecycle Replacement2023\$120,000Unassigned

Updated: MAR-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Reduced pressure backflow preventers serving incoming 100mm diameter domestic water line and 150mm diameter fire

Double check valve assembly on 150mm diameter fire line from siamese connection.

Backflow prevention installed on boiler make-up water.

Double check valve arrangement serving chilled water system.

Vacuum breakers serving NFHB.

RatingInstalledDesign LifeUpdated4 - Acceptable200320MAR-10

Event: Replace Backflow Preventors

TypeYearCostPriorityLifecycle Replacement2023\$125,000Unassigned

D2020.02.02 Plumbing Pumps: Domestic Water**

Three in-line domestic hot water recirculation pumps serving domestic hot water systems.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

Event: Replace 3 Plumbing Pumps

TypeYearCostPriorityLifecycle Replacement2013\$10,000Unassigned

Updated: MAR-10

D2020.02.04 Domestic Water Conditioning Equipment**

Duplex water softener package complete with brine tank.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

Event: Replace Domestic Water Conditioning Equipment

TypeYearCostPriorityLifecycle Replacement2013\$14,000Unassigned

Updated: MAR-10

D2020.02.06 Domestic Water Heaters**

Domestic hot water heating system consist of two (2) hot water tanks complete with heating coils and 3-way mixing valves. Tanks serve 80 and 60deg.C domestic water systems (Kitchen and Laundry) as well as 40deg.C system (plumbing fixtures). Both tanks have capacity of 1,600l. Tanks are manufactured by Westeel, 86kPa.

RatingInstalledDesign LifeUpdated5 - Good199920MAR-10

Event: Replace Domestic Water Heaters and accessories.

TypeYearCostPriorityLifecycle Replacement2019\$125,000Unassigned

Updated: MAR-10

D2020.03 Water Supply Insulation: Domestic*

Water piping insulated with fiberglass insulation.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

D2030.01 Waste and Vent Piping*

Cast iron and PVC sewer lines.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

D2030.03 Waste Piping Equipment*

Grease trap serving Kitchen sinks.

Double compartment mud interceptor.

Oil interceptor.

Sump pit complete with duplex pump.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

D2040.01 Rain Water Drainage Piping Systems*

Cast iron and PVC.

Rain water collection via roof drains and storm water piping to storm mains.

Three storm catch basins (dry well) located on parking lot.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

D2090.11 Oxygen Gas Systems**

The medical supply manifold and tanks are located in Mechanical Room. Manifold consists of header connections and pigtails for oxygen cylinders.

RatingInstalledDesign LifeUpdated5 - Good200730MAR-10

Event: Replace Oxygen Gas System

TypeYearCostPriorityLifecycle Replacement2037\$105,000Unassigned

Updated: MAR-10

D2090.13 Vacuum Systems (Medical)**

Vacuum drawn by duplex vacuum pump complete with piping and exhaust mufflers, located in Mechanical Room.

RatingInstalledDesign LifeUpdated5 - Good200730MAR-10

Event: Replace Vacuum Systems (Medical)

TypeYearCostPriorityLifecycle Replacement2037\$105,000Unassigned

Updated: MAR-10

D2090.16 Medical Air System*

Medical air provided from duplex compressor located in mechanical room. System consists of packaged compressor with low water pressure alarm sensor, fresh air intake filters, aftercooler, refrigerated air dryers, line pressure regulator and main shut-off valve.

RatingInstalledDesign LifeUpdated5 - Good20070MAR-10

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

225 I capacity day tank located in Emergency Generator Room complete with low level alarm, supply and return oil lines to pump, pressure controlled valves, 20mm diameter oil supply and return lines to each boiler, pump located in concrete well controlled by gas pressure interlock to generator day tank fill switch.

RatingInstalledDesign LifeUpdated4 - Acceptable198360MAR-10

D3010.02 Gas Supply Systems*

150mm diameter gas line enters the building in Mechanical Room. Pressure gas service for all gas fired appliances. Regulator at each fixture. Steel schedule 40 piping.

RatingInstalledDesign LifeUpdated4 - Acceptable198360MAR-10

D3020.01.01 Heating Boilers & Accessories: Steam**

One Cleaver Brooks MAS-200 boiler (147 kW heating output) serving humidification. System complete with blow down tank, soft water connection and pump.

RatingInstalledDesign LifeUpdated4 - Acceptable198335MAR-10

Event: Replace Steam Boiler

TypeYearCostPriorityLifecycle Replacement2018\$175,000Unassigned

Updated: MAR-10

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

Individual breechings to common vent up through the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable198335MAR-10

Event: Replace Chimney

TypeYearCostPriorityLifecycle Replacement2018\$10,000Unassigned

Updated: MAR-10

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D3020.02.01 Heating Boilers and Accessories: H.W.**

Two Cleaver Brooks M5W-6000 Water Tube Boilers, Natural gas, 140 psi, 1290kW heating output each.

Two base mounted primary heating pumps circulate water via closed loop to heat exchanger and perimeter heating units. Radiation heating, ceiling radiant panels and glycol heat exchanger secondary loops are complete with individual bass mounted circulation pumps. Each pump is sized for 60% of demand load.

RatingInstalledDesign LifeUpdated4 - Acceptable198335MAR-10

Event: Replace heating boilers and accessories (2)

TypeYearCostPriorityLifecycle Replacement2018\$528,744Unassigned

Updated: MAR-10

D3020.02.02 Chimneys (&Comb. Air): H.W. Boiler**

Each boiler connected to common 700mm vent up through the roof. Combustion air provided by Trane air handling unit

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace Chimneys & Comb. Air

TypeYearCostPriorityLifecycle Replacement2013\$40,000Unassigned

Updated: MAR-10

D3020.02.03 Water Treatment: H. W. Boiler*

Chemical pot feeder, by-pass filter, by-pass filter cartridge, in-line flow restrictor device.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

D3030.02 Centrifugal Water Chillers**

One Trane CCACD10 centrifugal liquid chiller complete with three stage compressor. 200 tons cooling capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

Event: Chiller Conversion

Concern:

The current chiller uses R-11 refrigerant which needs to be converted to R123 refrigerant in order to comply with Alberta Regulation 181/200, of the Environmental Protection and Enhancement Act.

Recommendation:

Upgrade existing chiller to new environmental friendly refrigerant.

TypeYearCostPriorityRepair2010\$130,000Medium

Updated: MAR-10

Event: Replace 1 Chiller

TypeYearCostPriorityLifecycle Replacement2013\$900,000Unassigned

Updated: MAR-10

D3030.05 Cooling Towers**

One Baltimore cooling tower, 38.8l/s water flow at 2.6psi spray pressure.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

Event: Replace Cooling Tower

TypeYearCostPriorityLifecycle Replacement2013\$385,000Unassigned

D3030.06.02 Refrigerant Condensing Units**

Remote condensing units serving Mitsubishi AC split system serving Radiology. Mitsubishi PCA-A-GA, 36 kW cooling capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable200625MAR-10

Event: Replace 3 Split AC Units

TypeYearCostPriorityLifecycle Replacement2031\$60,000Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution**

Ventilation system consist of three indoor air handling units located in Penthouses.

All units are manufactured by Trane, complete with supply and return air fans, re-heat coils, summer and winter filters, steam grid humidifier and cooling coils. Airflow capacities vary from 3,000l/s to 14,000l/s.

AS-1: Variable air volume unit serving nursing station and administration area - multi zone.

AS-2: Variable air volume unit serving operating suites - clinic area - 24 hrs operation.

AS-3: Constant volume air handling unit serving combustion air to mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 3 Air Handling Units

TypeYearCostPriorityLifecycle Replacement2013\$1,800,000Unassigned

Updated: MAR-10

D3040.01.03 Air Cleaning Devices: Air Distribution*

Replaceable media filters serving air handling units.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

D3040.01.04 Ducts: Air Distribution*

Overhead ductwork distribution in ceiling space up to SMACNA standards. Constant and variable volume air distribution to terminal units.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

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

Constant and variable volume, single duct boxes, fan powered terminal boxes provide cooling and ventilation with 100% primary air shut-off. Airflow varies from 45 to 500 l/s.

Total of 70 variable air volume units serving Chassis A and Module 1.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 38 Air Terminal Units

TypeYearCostPriorityLifecycle Replacement2013\$320,000Unassigned

Updated: MAR-10

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Combination of wall mounted grilles, troughers and ceiling square diffusers for supply air application. Egg crate type grilles for return, transfer and exhaust air.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

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

Steam generator complete with feed lines, receiver tank with pumps, blow down tank, high pressure steam lines distribution, storage tank, still, cold water supply etc.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Steam Distribution Systems:

Piping/Pumps** -]

TypeYearCostPriorityLifecycle Replacement2023\$180,000Unassigned

D3040.03.01 Hot Water Distribution Systems**

Steel and copper piping distribution from boilers 250mm diameter primary heating loop to secondary loops.

100mm diameter HWS and HWR loop to perimeter radiation and unit heaters.

50mm diameter HWS and HWR loop to ceiling radiant panels.

150mm diameter HWS and HWR loop to hot water/ glycol heat exchanger.

Each loop complete with two base mounted Bell and Gossett circulation pumps each. Glycol heat exchanger is fed of the two (2) primary heating pumps.

In-line circulation pump designated for each boiler.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Hot Water Distribution System

TypeYearCostPriorityLifecycle Replacement2023\$700,000Unassigned

Updated: MAR-10

D3040.03.02 Chilled Water Distribution Systems**

150mm diameter CWS and CWR lines serving chiller and condenser. 150mm diameter chilled water loop to cooling coils serving air handling units.

Three base mounted circulation pumps, one condenser pump, one chilled water pump and one stand-by pump. Copper and steel pipes.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Chilled Water Distribution System

TypeYearCostPriorityLifecycle Replacement2023\$200,000Unassigned

Updated: MAR-10

D3040.04.01 Fans: Exhaust**

Hospital is complete with 18 central exhaust fans located in Mechanical Rooms or roof mounted. Exhaust fans are upblast centrifugal, inline cabinet, centrifugal blowers with forward curved wheels etc.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 18 Exhaust Fans

TypeYearCostPriorityLifecycle Replacement2013\$95,000Unassigned

Updated: MAR-10

D3040.04.03 Ducts: Exhaust*

Medium velocity galvanized steel exhaust ducts up to SMACNA standards. Stainless steel exhaust air ducts serving special exhaust, fume hoods etc.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate and louver face return grilles are used for exhaust air application.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

D3040.05 Heat Exchangers**

Alfa Laval plate heat exchanger serving glycol system.

Event: Replace 1 Heat Exchanger

TypeYearCostPriorityLifecycle Replacement2039\$45,000Unassigned

Updated: MAR-10

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)**

One packaged Trane Airpak 100 rooftop unit complete with glycol heating coils serving Active Care, 2,000 l/s airflow.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

Event: Replace 1 Packaged Rooftop Air Conditioning

Units & Heating Unit

TypeYearCostPriorityLifecycle Replacement2013\$95,000Unassigned

Updated: MAR-10

D3050.03 Humidifiers**

Steam grid humidifiers serving Air Handling Units.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

Event: Replace 3 Humidifiers

TypeYearCostPriorityLifecycle Replacement2013\$105,000Unassigned

Updated: MAR-10

D3050.05.02 Fan Coil Units**

Ceiling mounted, recessed force flow heaters serving vestibules.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 5 Fan Coil Units

TypeYearCostPriorityLifecycle Replacement2013\$25,000Unassigned

Updated: MAR-10

D3050.05.03 Finned Tube Radiation**

Perimeter wall fin radiation complete with various type enclosure cabinets.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Finned Tube Radiation

TypeYearCostPriorityLifecycle Replacement2023\$175,000Unassigned

D3050.05.06 Unit Heaters**

Trane cabinet horizontal and vertical discharge hot water unit heaters serving Ambulance Bay and Mechanical Rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 4 Unit Heaters

TypeYearCostPriorityLifecycle Replacement2013\$25,000Unassigned

Updated: MAR-10

D3050.05.08 Radiant Heating (Ceiling & Floor)**

Radiant ceiling panels serving Patients Rooms, 610mm width aluminum linear type, mounted in the T-bar, or GWB ceiling along the perimeter wall.

RatingInstalledDesign LifeUpdated4 - Acceptable198335MAR-10

Event: Replace Radiant Ceiling Panels

TypeYearCostPriorityLifecycle Replacement2018\$125,000Unassigned

Updated: MAR-10

D3060.02.02 Pneumatic Controls**

Pneumatic Honeywell thermostats and control valves. Air compressor complete with refrigerated dryer.

RatingInstalledDesign LifeUpdated3 - Marginal198340MAR-10

Event: Replace Pneumatic Controls with New DDC

Concern:

The pneumatic controls require frequent maintenance. Wear of individual components would contribute to poor control of building environment.

Recommendation:

The original control system should be upgraded to DDC and BMCS installed.

TypeYearCostPriorityFailure Replacement2010\$365,000Medium

Updated: MAR-10

Report run on: March 22, 2010 9:56 AM

D4010 Sprinklers: Fire Protection*

The building is sprinklered as per NFPA13. Automatic sprinkler system consists of wet pipes. Automatic wet pipe sprinkler alarm valve.

Fire department connection at the front entrance. 150mm fire line to sprinkler tree in Mechanical Room.

RatingInstalledDesign LifeUpdated4 - Acceptable198360MAR-10

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.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

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

Range Guard kitchen fire suppression system.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Dry Chemical Fire Extinguishing System

TypeYearCostPriorityLifecycle Replacement2023\$40,000Unassigned

S5 ELECTRICAL

D5010.01 Main Electrical Transformers**

The Main transformer is a padmount transformer located on the west side of the facility.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Main Electrical Transformers

TypeYearCostPriorityLifecycle Replacement2023\$72,200Unassigned

Updated: MAR-10

D5010.02 Secondary Electrical Transformers (Interior)**

There are a number of Westinghouse stepdown transformers located in each electrical closet and the main electrical room in the facility.

These transformers range in size from 15 KVA to 225 KVA and stepdown voltages from 600 to 120/208 voltages.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Secondary Electrical Transformers

TypeYearCostPriorityLifecycle Replacement2023\$134,600Unassigned

Updated: MAR-10

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

The main Switchboard is a Westinghouse 1600 Amp 600/347 volt 3 phase 4 wire MDP located in the main electrical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198340MAR-10

Event: Replace Main Electrical Switchboards

TypeYearCostPriorityLifecycle Replacement2023\$33,200Unassigned

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

The secondary panel boards are made by Westinghouse and are located throughout the facility.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace Electrical Branch Circuit Panelboards

TypeYearCostPriorityLifecycle Replacement2013\$129,100Unassigned

Updated: MAR-10

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

The MCC,s are Westinghouse Five Star Motor Control Centers 600 Volts and are located in the main electrical room and the mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: ReplaceSwitchboards, Panelboards, and (Motor)

Control Centers

TypeYearCostPriorityLifecycle Replacement2013\$63,700Unassigned

Updated: MAR-10

D5010.07.02 Motor Starters and Accessories**

There are NOVA by Westinghouse Motor disconnects located in the main electrical room and the mechanical room, these are 600 volt 3phase disconnects.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace Motor Starters and Accessories

TypeYearCostPriorityLifecycle Replacement2013\$63,000Unassigned

Updated: MAR-10

D5020.01 Electrical Branch Wiring*

Wiring through out the facility consists of EMT conduit c/w with wire, armored cable and liquid tight conduit c/w wiring.

RatingInstalledDesign LifeUpdated4 - Acceptable198350MAR-10

D5020.02.01 Lighting Accessories (Lighting Controls)*

Lighting accessories consist of G.E.Low voltage switching and line voltage switching (120 volt).

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

D5020.02.02.01 Interior Incandescent Fixtures*

The incandescent fixture bulbs should be replaced with energy efficient cfl bulbs. There are approximately 60 Lighting fixtures that need replacing.

Rating Installed Design Life Updated 4 - Acceptable 1983 30 MAR-10

Event: Change 60 light fixtures

Concern:

The incandescent lighting is energy inefficient.

Recommendation:

Change light bulbs out to energy efficient cfl bulbs

Consequences of Deferral:

Waste of resources and higher energy costs.

TypeYearCostPriorityEnergy Efficiency Upgrade2013\$13,000Low

Updated: MAR-10

D5020.02.02.02 Interior Florescent Fixtures**

The fluorescent fixtures are of the energy inefficient T-12 lamps and Magnetic ballasts. These should be changed out to efficient T-8 lamps and electronic ballasts.

Estimate Quantity Based on Total Building Area.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace Florescent Fixtures (4,509 sm)

TypeYearCostPriorityLifecycle Replacement2013\$393,600Unassigned

Updated: MAR-10

D5020.02.03.03 Exit Signs*

The exit lighting emergency power is through the Emergency Generator. The lights are Electrolier with 2-25 watt T-6 bulbs at 120 volt.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The exterior lighting made by two suppliers, one is a Holophane 70 watt HPS pot light located in the exterior soffit, the other is a Revel 70 watt HPS wall pack located in the ramp walls.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

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

The exterior lighting controls are a electronic photo cell energizing the exterior lighting panel.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

D5030.01 Detection and Fire Alarm**

The fire alarm system is a Simplex 4100U located in the main electrical room c/w Simplex 4200 remote annunciators located at the nurses desk in the ER and the doctors office.

There is an active graphic map located at the front door. The initiating devices are pull stations, smoke detectors and tamper/flow valves on the sprinkler system.

The emergency power for the fire alarm system is through the emergency generator.the fire alarm system was upgraded between 2004 and 2006.

RatingInstalledDesign LifeUpdated5 - Good200625MAR-10

Event: Replace Detection and Fire Alarm

TypeYearCostPriorityLifecycle Replacement2031\$131,200Unassigned

Updated: MAR-10

D5030.02.02 Intrusion Detection**

The intrusion detection system is four American Dynamics Cameras AD1404A located at the exits to the facility. The cameras are monitored at the main nurses station.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

Event: Replace Intrusion Detection

TypeYearCostPriorityLifecycle Replacement2013\$33,500Unassigned

D5030.02.03 Security Access**

The security access is through a Simplex Panel c/w number pads and card swipes at each entrance to the facility. The security panel was upgraded in 2008

RatingInstalledDesign LifeUpdated5 - Good200825MAR-10

Event: Replace Security Access

TypeYearCostPriorityLifecycle Replacement2033\$15,000Unassigned

Updated: MAR-10

D5030.02.04 Video Surveillance**

The video surveillance uses the same equipment as the Intrusion detection. There are four cameras at the exits in the building. These are wired back to a monitoring computer at the nurses station.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

Event: Replace Video Surveillance

TypeYearCostPriorityLifecycle Replacement2013\$33,500Unassigned

Updated: MAR-10

D5030.03 Clock and Program Systems*

The clocks in the facility run through a Simplex 2350 Master Time Panel. There are 30 clocks in this facility plus the Master Clock Panel

RatingInstalledDesign LifeUpdated3 - Marginal198325MAR-10

Event: Replace the clock system

Concern:

The clocks in the facility are failing.

Recommendation:

Replace the clock system.

Consequences of Deferral:

The clock system will ultimately fail.

TypeYearCostPriorityFailure Replacement2011\$22,500High

D5030.04.01 Telephone Systems*

The telephone system is through the NEC ELECTRA ELITE PIK and the Telus Main Backboard.

RatingInstalledDesign LifeUpdated5 - Good198325MAR-10

D5030.04.03 Call Systems**

The nurse call system is through the Rauland NCBBK c/w battery backup.

Rating 5 - Good 2004 Design Life Updated MAR-10

Event: Replace Call Systems

TypeYearCostPriorityLifecycle Replacement2029\$85,000Unassigned

Updated: MAR-10

D5030.04.04 Data Systems*

The data system uses a Nortel Networks Contivity 1100 router.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

D5030.04.05 Local Area Network Systems*

The area network system is through Alberta Supernet

RatingInstalledDesign LifeUpdated4 - Acceptable198315MAR-10

D5030.05 Public Address and Music Systems**

The public address system is through the nurse call system.

RatingInstalledDesign LifeUpdated5 - Good200425MAR-10

Event: Replace Public Address and Music Systems

TypeYearCostPriorityLifecycle Replacement2029\$85,000Unassigned

Updated: MAR-10

Report run on: March 22, 2010 9:56 AM

D5030.06 Television Systems*

The television system is through Persona Cable Company

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

D5090.01 Uninterruptible Power Supply Systems**

The UPS Systems are APC 1200 and backup the Lab computer system, the telephone system and the main computer system.

Rating Installed Design Life Updated 5 - Good 2004 30 MAR-10

Event: Replace Uninterruptible Power Supply Systems

TypeYearCostPriorityLifecycle Replacement2034\$1,000Unassigned

Updated: MAR-10

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

The emergency generator is a 500 KW Brown Boveri driven by a V-12 Detroit Diesel.

This is located in its own room located in the basement of the facility.

The emergency transfer switch is a Automatic Switch Company ASCO 962 automatic and transfer switch rated at 347/600volts.

Rating Installed Design Life Updated 1983 35 MAR-10

Event: Replace Emergency Generator

TypeYearCostPriorityLifecycle Replacement2018\$320,000Unassigned

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.05.01 Barber and Beauty Shop Equipment*

Hair dryers, wash sink chairs, and work counters.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

E1010.06 Commercial Laundry and Dry Cleaning Equipment*

Commercial Washers: 1 Wascomat FI184 with unknown age, 1 Wascomat FLE 220, 25 years young.

Commerial Dryers: 2 Huebsch Originators model 65 CBI, are 25 years.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

E1030.03 Loading Dock Equipment*

Level loading lift, slab recessed, safety side rails, power operated, extension plate, and checker plate deck.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

E1090.03 Food Service Equipment*

Age of equipment varies.

Service Equipment: Stainless service line with tray, microwave, coffee dispenser, hot and cold food service, reach in cooler.

Cooking Equipment: Pots and pans storage rack, convection oven 2004, ovens with burners and grille 2004, range hood with suppression system 2004.

Prep Equipment: Stainless counters, trays, mobile carts, dispensing centre with mobile tray stacks.

Storage Equipment: stainless wire shelves, walk-in cooler, walk-in freezer, dry storage shelving.

Cleaning Equipment: Commercial washer 2004, stainless drainage trays, wash tables, compartment sinks.

RatingInstalledDesign LifeUpdated4 - Acceptable198325MAR-10

E1090.04 Residential Equipment*

Various stoves, fridges, and microwaves of various years.

RatingInstalledDesign LifeUpdated4 - Acceptable198310MAR-10

E2010.02 Fixed Casework**

Plastic laminate with melamine interiors.

Oak with oak interiors, clear finish.

Countertops are plastic laminate.

Nursing Stations in CC and AC to be renovated 2008/2009.

HIS Admitting/Reception Desk Renovated 2007/2008

RatingInstalledDesign LifeUpdated4 - Acceptable198335MAR-10

Event: Replace 310 m Fixed Casework

TypeYearCostPriorityLifecycle Replacement2018\$324,300Unassigned

Updated: MAR-10

E2010.03.01 Blinds**

Vertical vinyl blinds with and without valances, colour and textures vary. Horizontal blinds without valances.

RatingInstalledDesign LifeUpdated4 - Acceptable198330MAR-10

Event: Replace 225 m2 Blinds

TypeYearCostPriorityLifecycle Replacement2013\$32,000Unassigned

Updated: MAR-10

F1040.05 Liquid and Gas*: Storage Tanks*

Oxygen storage room, lower level.

Diesel stirage tank, double wall, exterior location.

RatingInstalledDesign LifeUpdated4 - Acceptable198320MAR-10

F2020.01 Asbestos*

No reports. There are damaged asbestos protection panels to building perimeter at grade. Refer to B2010.01.99 Other Exterior Wall Skin.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

F2020.02 PCBs*

No reports.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

F2020.04 Mould*

No reports.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

F2020.08 Biohazardous Materials*

Biohazard waste stored on site and disposed of off site.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Access is available.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

K4010.02 Barrier Free Entrances*

Barrier-free entrances at main entry.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

K4010.03 Barrier Free Interior Circulation*

Circulation within centre is acceptable.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10

K4010.04 Barrier Free Washrooms*

Barrier-free washrooms are available.

RatingInstalledDesign LifeUpdated4 - Acceptable19830MAR-10