RECAPP Facility Evaluation Report

Alberta Health Services-Central



Lloydminster General Hospital

B1119A Lloydminster (AB)

Lloydminster (AB) - Lloydminster General Hospital (B1119A

Facility Details

Building Name: Lloydminster General Hospi

Address: 3820 - 43 Avenue **Location:** Lloydminster (AB)

Building Id: B1119A
Gross Area (sq. m): 10,241.00
Replacement Cost: \$61,323,108

Construction Year: 0

Evaluation Details

Evaluation Company: A&E Architectural & Engineering Group

Inc.

Evaluation Date: October 10 2013

Evaluator Name: Vic Maybroda

Total Maintenance Events Next 5 years: \$7,253,250 5 year Facility Condition Index (FCI): 11.83%

General Summary:

The facility is a 3 story building originally constructed in 1987 with renovations to emergency, admitting and provision of mammography suite completed in 2012 with an area of 10241 sq. M.

The hospital contains 58 acute care beds composed of 30 medical, 19 maternity/surgery, 6 transition and 3 special care units.

Structural Summary:

Roof consists of metal deck on OWSJ on steel beams and columns.

Floors and structural concrete slab supported by concrete structural elements with slab on grade.

Foundations are concrete foundation walls on spread footings and internal concrete columns on concrete pads.

Elements appear to be in good condition.

Envelope Summary:

SBS membrane and sheet metal roofing.

Walls of face brick and sheet metal housing aluminum framed storefronts and windows, metal utility and overhead doors. Elements appear to be in acceptable condition.

Interior Summary:

Floors of sealed and painted concrete, porcelain, brick paver and ceramic tile, epoxy, sheet vinyl and carpeting.

Walls of painted concrete block and gypsum wallboard and ceramic tile.

Plastic laminated and wood faced casework with plastic laminated counter tops and vanities.

Prefinished metal lockers and toilet partitions.

Ceilings of suspended acoustical tile and painted gypsum wallboard.

Wood and metal doors in metal frames and louvred window blind window coverings.

Elements appear to be in acceptable condition.

Mechanical Summary:

Three story building with air handling units in a mechanical floor supplying air to VAV boxes on each floor and each with a reheat coil. Heat is supplied by boilers with hot water to the preimeter and heated glycol to the air handling units. Standard water closets, Lav and sinks through out the building. There is a liebert and in rack fan units for the server room.

Elements appear to be in acceptable condition.

Electrical Summary:

The main service to the building is 347/600V, 3 phase, 4 wire and rate 1600A fed from site pad mounted transformer.. The 347/600V systems are used mainly for lighting and 600V mechanical loads; three are three distribution center in the building and they are used to transfer the power from 600V to 120/208V system. The 400KV generator is installed for emergency backup power system.

T-8 lamp fluorescent lights are used for most interior lighting and only few metal halide pot lights are used in the hallways. The metal halide pole mounted lights are used in the parking lot and wall packs are installed around building perimeter.

Report run on: March 27, 2014 1:54 PM Page 2 of 42

The fire alarm, nurse call, telephone and data systems meets current facility operation requirements.

Overall rating for electrical systems are "Good"

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

S1 STRUCTURAL

A1010 Standard Foundations*

Concrete foundation walls on strip footings and concrete piers with concrete footings.

Rating Installed Design Life Updated
5 - Good 1987 0 MAR-14

A1030 Slab on Grade*

Located in basement mechanical room and adjacent circulation areas.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

A2020 Basement Walls (& Crawl Space)*

Concrete foundation walls.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

B1010.01 Floor Structural Frame (Building Frame)*

Structural concrete floors supported by concrete beams and columns.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

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

Concrete walls around elevators and stairwells.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

B1010.03 Floor Decks, Slabs, and Toppings*

Concrete toppings to concrete floor slabs.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

B1010.07 Exterior Stairs*

Concrete stairs from staff parking area and to loading dock area.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

Lloydminster (AB) - Lloydminster General Hospital (B1119A

B1020.01 Roof Structural Frame*

OWSJ supported by steel beams and columns.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

B1020.03 Roof Decks, Slabs, and Sheathing*

Metal deck.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Face brick to all elevations.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

B2010.01.06.03 Metal Siding**

Prefinished metal fascia cladding around all elevations as part of sloped metal roofing.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace 1750 sq. M Metal Cladding

TypeYearCostPriorityLifecycle Replacement2027\$534,000Unassigned

Updated: MAR-14

B2010.01.09 Expansion Control: Ext. Wall*

Caulked joint strategically located in face brick walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

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

Caulking around wall openings.

RatingInstalledDesign LifeUpdated4 - Acceptable198720MAR-14

Event: Replace 1800 Lin M Caulking

TypeYearCostPriorityLifecycle Replacement2017\$54,000Unassigned

Updated: MAR-14

B2010.02.01 Cast-in-place Concrete: Ext. Wall Const*

Stairwells

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

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

Concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

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

Not viewable. No concerns observed or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

Event: Thermographic Wall Envelope Study

Concern:

Determine air leakage to wall assemblies.

Recommendation:

Prepare report on findings with estimated repair costs.

TypeYearCostPriorityStudy2014\$5,000Low

Updated: MAR-14

Event: Undertake Repairs to Wall Assemblies (200 sq. M)

Concern:

Study to determine wall assembly air leakage.

Recommendation:

Undertake repairs to wall assemblies as identified in study for estimated 200 sq. M.

TypeYearCostPriorityEnergy Efficiency Upgrade2014\$100,000Low

Updated: MAR-14

B2010.06 Exterior Louvers, Grilles, and Screens*

Prefinished metal louvres and grilles.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

B2010.09 Exterior Soffits*

Prefinished metal.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1987

Sealed fixed units in aluminum frames.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace 1200 sq. M Aluminum Windows

TypeYearCostPriorityLifecycle Replacement2027\$1,000,000Unassigned

Updated: MAR-14

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 2012

Sealed fixed clerestorey units over lobby area.

RatingInstalledDesign LifeUpdated5 - Good201240MAR-14

Event: Replace 8 sq. M Aluminum Windows

TypeYearCostPriorityLifecycle Replacement2052\$8,000Unassigned

Updated: MAR-14

B2020.02 Storefronts: Windows**

Sealed units in aluminum frames on main floor level adjacent storefront entries and cafeteria area.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace 56 sq. M Storefront Windows

TypeYearCostPriorityLifecycle Replacement2027\$84,000Unassigned

Updated: MAR-14

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Fully sealed glazed storefront doors located at various entries.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 10 Storefront Doors

TypeYearCostPriorityLifecycle Replacement2017\$32,500Unassigned

Updated: MAR-14

B2030.01.06 Automatic Entrance Doors** - 1987

Single sliding door with sensors located in Ambulance Bay.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 1 Atuo Entry Door

TypeYearCostPriorityLifecycle Replacement2017\$13,500Unassigned

Updated: MAR-14

B2030.01.06 Automatic Entrance Doors** - 2012

Double fully glazed sliding main entry doors with sensors.

RatingInstalledDesign LifeUpdated5 - Good201230MAR-14

Event: Replace 2 Sliding Entry Doors

TypeYearCostPriorityLifecycle Replacement2042\$27,000Unassigned

Updated: MAR-14

B2030.02 Exterior Utility Doors**

Painted metal clad insulated doors and frames.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace

TypeYearCostPriorityLifecycle Replacement2027\$2Unassigned

Updated: MAR-14

B2030.03 Large Exterior Special Doors (Overhead)*

Ambulance and loading dock metal overhead doors.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

B3010.01 Deck Vapour Retarder and Insulation*

Not viewable no concerns observed or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 2008

SBS membrane roofing over flat areas.

RatingInstalledDesign LifeUpdated4 - Acceptable200825MAR-14

Event: Replace 3140 sq. M

TypeYearCostPriorityLifecycle Replacement2033\$533,800Unassigned

Updated: MAR-14

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 2012

SBS clerestorey roofing.

RatingInstalledDesign LifeUpdated5 - Good201225MAR-14

Event: Replace 80 sq. M SBS Roofing

TypeYearCostPriorityLifecycle Replacement2037\$13,600Unassigned

Updated: MAR-14

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

Inverted roof located over 2nd floor courtyard.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 106 sq. M Inverted Roof

TypeYearCostPriorityLifecycle Replacement2017\$20,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 10 of 42

B3010.07 Sheet Metal Roofing**

Prefinished metal sloped perimeter roofing and sloped penthouse roof.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace 1680 sq. M Metal Roofing

TypeYearCostPriorityLifecycle Replacement2027\$404,000Unassigned

Updated: MAR-14

B3010.08.02 Metal Gutters and Downspouts**

Prefinished metal gutters from metal siding over loading dock area.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 22 Lin M Gutters and Downsouts

TypeYearCostPriorityLifecycle Replacement2017\$700Unassigned

Updated: MAR-14

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

Plumbing and exhaust vents and roof drains.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Concrete block and metal stud.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1010.03 Interior Operable Folding Panel Partitions**

Folding partition sub-dividing conference room.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 32 sq. M Foling Partition

TypeYearCostPriorityLifecycle Replacement2017\$36,000Unassigned

Updated: MAR-14

C1010.05 Interior Windows*

Glazed units in metal frames to offices and related facilities.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1010.06 Interior Glazed Partitions and Storefronts*

Glazed sidelights and screens adjacent office doors

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1010.07 Interior Partition Firestopping*

Acceptable where viewable.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1020.01 Interior Swinging Doors (& Hardware)*

Solid core wood and metal doors in metal frames majority equipped with lever handled hardware.

RatingInstalledDesign LifeUpdated3 - Marginal19870MAR-14

Event: Refinish 84 Wood Doors

Concern:

Painted doors scarred and chipped paint finish.

Recommendation:

Refinish interior wood faced doors.

TypeYearCostPriorityPreventative Maintenance2014\$10,500Low

Updated: MAR-14

C1020.03 Interior Fire Doors*

Fire rated doors located in corridors, stairways and to service rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1030.01 Visual Display Boards**

White and tack boards located in isolated areas.

RatingInstalledDesign LifeUpdated4 - Acceptable198720MAR-14

Event: Replace 12 Visual Dispaly Boards

TypeYearCostPriorityLifecycle Replacement2017\$7,800Unassigned

Updated: MAR-14

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

Prefinished metal toilet partitions located in staff change rooms and adjacent public waiting area.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 9 Fabricated Toilet Partitions

TypeYearCostPriorityLifecycle Replacement2017\$10,800Unassigned

Updated: MAR-14

C1030.05 Wall and Corner Guards*

1.2M high stainless steel corner guards to exterior corners of elevators and adjacent corner wall surfaces.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1030.06 Handrails*

Wall mounted PVC finished handrails located in corridors.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1030.08 Interior Identifying Devices*

Room names and numbers applied to doors.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1030.10 Lockers**

Prefinished lockers located in change rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 244 Metal Lockers

TypeYearCostPriorityLifecycle Replacement2017\$116,000Unassigned

Updated: MAR-14

C1030.12 Storage Shelving*

Painted wood, prefinished metal and plastic laminate finished shelving units in store rooms, work rooms and patient rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C1030.14 Toilet, Bath, and Laundry Accessories*

Toilet paper, soap and towel dispensers, waste containers, wall mounted grab bars and mirrors.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C2010 Stair Construction*

Metal stairs to mechanical room and concrete between floor level staircases.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C2020.01 Tile Stair Finishes*

Paver tile to inter floor stairs.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C2020.08 Stair Railings and Balustrades*

Metal railings and balustrades to metal stairs.

Wood railings and metal balustrades to inter floor stairways.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C3010.06 Tile Wall Finishes**

Ceramic tile to Food Preparation area, Cart Wash area, Change and Shower areas, Staff and Public Wash Rooms, Assisted Bath Rooms, and Patient Wash Rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace 1560 sq. M Ceramic Wall Tile

TypeYearCostPriorityLifecycle Replacement2027\$390,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 15 of 42

C3010.11 Interior Wall Painting*

Painted concrete block and gypsum wallboard.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C3020.01.01 Epoxy Concrete Floor Finishes*

Epoxy floors located in patient wash rooms, assisted bath rooms and staff shower rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

C3020.01.02 Painted Concrete Floor Finishes*

Located in mechanical, maintenance equipment, shipping receiving, cart wash, laundry and various service rooms.

RatingInstalledDesign LifeUpdated3 - Marginal19870MAR-14

Event: Refinish 700 sq. M Concrete Floors

Concern:

Paint is worn and deteriorated in majority of areas.

Recommendation:Repaint concrete floors.

TypeYearCostPriorityRepair2014\$21,000Low

Updated: MAR-14

C3020.02 Tile Floor Finishes** - 1987

Paver tile installed in food preparation and cafeteria.

RatingInstalledDesign LifeUpdated4 - Acceptable198750MAR-14

Event: Replace 380 sq, M. Tile Floor Finishes

TypeYearCostPriorityLifecycle Replacement2037\$95,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 16 of 42

C3020.02 Tile Floor Finishes** - 2012

320 sq. M Ceramic tile installed in public wash rooms and entry areas.

RatingInstalledDesign LifeUpdated5 - Good201250MAR-14

Event: Replace 320 sq. M Ceramic Floor Tile

TypeYearCostPriorityLifecycle Replacement2062\$54,400Unassigned

Updated: MAR-14

C3020.07 Resilient Flooring** - 1987

Sheet vinyl installed in corridors, office areas, staff and patient rooms and public areas.

RatingInstalledDesign LifeUpdated4 - Acceptable198720MAR-14

Event: Replace 4200 sq. M

TypeYearCostPriorityLifecycle Replacement2017\$400,000Unassigned

Updated: MAR-14

C3020.07 Resilient Flooring** - 2012

Sheet vinyl located in staff, public and treatment rooms.

RatingInstalledDesign LifeUpdated5 - Good201220MAR-14

Event: Replace 640 sq. M Resilient Flooring

TypeYearCostPriorityLifecycle Replacement2032\$6,000Unassigned

Updated: MAR-14

C3020.08 Carpet Flooring**

Installed in conference rooms and chapel.

RatingInstalledDesign LifeUpdated4 - Acceptable198715MAR-14

Event: Replace 100 sq. M Carpeting

TypeYearCostPriorityLifecycle Replacement2017\$6,500Unassigned

Updated: MAR-14

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)** - 1987

Suspended acoustical tile located in corridors, offices, work and meeting rooms and shipping/receiving area.

RatingInstalledDesign LifeUpdated4 - Acceptable198725MAR-14

Event: Replace 2850 sq. M Acoustical Tile

TypeYearCostPriorityLifecycle Replacement2017\$156,750Unassigned

Updated: MAR-14

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)** - 2012

Suspended acoustical tile ceilings located in corridors, offices, meeting rooms and service rooms.

RatingInstalledDesign LifeUpdated5 - Good201225MAR-14

Event: Replace 800 sq. M Acoustical Tile

TypeYearCostPriorityLifecycle Replacement2037\$44,000Unassigned

Updated: MAR-14

C3030.07 Interior Ceiling Painting*

Located in patient rooms, change and washrooms, food preparation work and service rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D1010.01.02 Hydraulic Passenger Elevators**

The facility contains 3 passenger elevators serving 3 floor levels,

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 3 Elevators

TypeYearCostPriorityLifecycle Replacement2017\$225,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 18 of 42

D1010.01.04 Hydraulic Freight Elevators**

Freight elevator between main and basement floor levels.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 1 Freight Elevator

TypeYearCostPriorityLifecycle Replacement2017\$75,000Unassigned

Updated: MAR-14

S4 MECHANICAL

D2010.04 Sinks**

99 - Single and double SS sinks with a two handle tap set, 10 - 900x900 mop sink with a wall mount tap set,

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 89 ss sinks and tap sets, 9 mop sinks

TypeYearCostPriorityLifecycle Replacement2017\$190,000Unassigned

Updated: MAR-14

D2010.05 Showers**

4 - 900x900 single metal and fiberglass shower with a single handle tap set

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 4 showers

TypeYearCostPriorityLifecycle Replacement2017\$16,000Unassigned

Updated: MAR-14

D2010.06 Bathtubs**

12 - standard tubs with a single handle tap set and a shower, 4 handycap bathtubs with motorized lifts.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 12 tubs and tap sets, 4 handicap tubs

TypeYearCostPriorityLifecycle Replacement2017\$170,000Unassigned

Updated: MAR-14

D2010.09 Other Plumbing Fixtures*

40 lb grease interceptor in the kitchen connected to the pot sinks and dishwasher.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

Report run on: March 27, 2014 1:54 PM Page 20 of 42

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

111 - Wall and floor mounted flush valve WC, 111 - drop in and wall mounted lavatory's, 3 - wall mount flush valve, 1 prison style SS combination WC and Sink.

RatingInstalledDesign LifeUpdated4 - Acceptable198735MAR-14

Event: Replace 111 wc, 111, lav, 3 urinal, 1 prison combo

<u>unit</u>

TypeYearCostPriorityLifecycle Replacement2022\$455,000Unassigned

Updated: MAR-14

D2020.01.01 Pipes and Tubes: Domestic Water*

Copper pipe through out the building

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D2020.01.02 Valves: Domestic Water**

Isolation valves at each fixture and isolation valves at each area.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace 500 valves

TypeYearCostPriorityLifecycle Replacement2027\$25,000Unassigned

Updated: MAR-14

D2020.02.02 Plumbing Pumps: Domestic Water**

6 - 1/2 HP domestic hot water recirculation pumps

RatingInstalledDesign LifeUpdated4 - Acceptable198720MAR-14

Event: Replace 6 hot water pumps

TypeYearCostPriorityLifecycle Replacement2017\$12,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 21 of 42

D2020.02.04 Domestic Water Conditioning Equipment**

3 - 200 gal water softners with a salt tank for each unit supply water to the boiler makeup.

RatingInstalledDesign LifeUpdated4 - Acceptable198720MAR-14

Event: Replace 3 water softners

TypeYearCostPriorityLifecycle Replacement2017\$15,000Unassigned

Updated: MAR-14

D2020.02.06 Domestic Water Heaters**

3 - 2500 L hot water storage tanks with heating coils from the boilers

RatingInstalledDesign LifeUpdated4 - Acceptable198720MAR-14

Event: replace 3 hot water tanks

TypeYearCostPriorityLifecycle Replacement2017\$60,000Unassigned

Updated: MAR-14

D2020.03 Water Supply Insulation: Domestic*

Canvus cover fiberglass insulation on all piping

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D2030.01 Waste and Vent Piping*

PVC and cast iron waste and vent piping through out the bulding

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D2030.02.04 Floor Drains*

Floor drains in the mechanical spaces, the kitchen area, the laundry area, janitor rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

Report run on: March 27, 2014 1:54 PM Page 22 of 42

D2030.03 Waste Piping Equipment*

Two weeping tiles sump pumps in the mechanical space.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D2040.01 Rain Water Drainage Piping Systems*

Cast iron RWL from the roof drains to the storm line.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D2040.02.04 Roof Drains*

Standard roof drains with a metal dome on the flat sections of the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D2040.02.06 Area Drains*

Area drains in the cart washing area

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

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

1 compressor, with two compressors on one 60 gal tank, with a compressed air dryer.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 1 compressors and accessories

TypeYearCostPriorityLifecycle Replacement2017\$30,000Unassigned

Updated: MAR-14

D2090.03 Distilled Water Systems**

Reverse osmosis water purifier supplying the dialysis machines only

RatingInstalledDesign LifeUpdated4 - Acceptable201030MAR-14

Event: Replace the reverse osmosos machine

TypeYearCostPriorityLifecycle Replacement2040\$50,000Unassigned

Updated: MAR-14

D2090.11 Oxygen Gas Systems**

5000 liter oxygen tank in a fenced in compound with valves and piping with a radiator, that run into the building

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace oxygen tank and piping, BOE 10241 SM

TypeYearCostPriorityLifecycle Replacement2017\$1,000,000Unassigned

Updated: MAR-14

D2090.13 Vacuum Systems (Medical and Lab)**

3 seperate SIHI vacuum pumps with 60 gal vacuum tanks on each,

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 3 Vacuum Pumps & Accessories

TypeYearCostPriorityLifecycle Replacement2017\$90,000Unassigned

Updated: MAR-14

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

250 Gal oval steel fuel tank for the strand by engine, with 2 fuel transfer pumps. To the standby engines day tank.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

Report run on: March 27, 2014 1:54 PM Page 24 of 42

D3020.01.01 Heating Boilers & Accessories: Steam**

3 - Saskatoon Boiler Mfg. low pressure steam boilers rated at 2092 MBH each input, c/w high and low level controls, condensate return tank with two condensate supply pumps to the boilers,

RatingInstalledDesign LifeUpdated4 - Acceptable198735MAR-14

Event: Replace 3 Steam boilers and accessories

TypeYearCostPriorityLifecycle Replacement2022\$2,500,000Unassigned

Updated: MAR-14

D3020.01.02 Feedwater Equipment*

Three feed water pumps, 6 GPM capacity each connected to a single condensate tank

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

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

Insulated stainless steel breaching for each boiler, combining together to a 18" dia flue, running up to the roof of the building

RatingInstalledDesign LifeUpdated4 - Acceptable198735MAR-14

Event: Replace three flues for the steam boilers

TypeYearCostPriorityLifecycle Replacement2022\$60,000Unassigned

Updated: MAR-14

D3020.01.04 Water Treatment: Steam Boilers*

Chemical treatment tank with chemical pumps running into the condensate tank.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D3030.02 Centrifugal Water Chillers**

Trane Centravac unit CVH-020H-AH with 200 T capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable198725MAR-14

Event: Replace Centrifical Chiller

TypeYearCostPriorityLifecycle Replacement2017\$750,000Unassigned

Updated: MAR-14

D3030.06.02 Refrigerant Condensing Units**

4 - 4 ton DX condensing units on the roof for the computer room rack blower coils.

RatingInstalledDesign LifeUpdated5 - Good201325MAR-14

Event: Replace the 4 condensing units

TypeYearCostPriorityLifecycle Replacement2038\$40,000Unassigned

Updated: MAR-14

D3040.01.01 Air Handling Units: Air Distribution**

9 air handling units in various locations and sizes in the building, each with glycol heat recovery coils on the exhaust air, glycol preheat coils, heating coils, and chilled water cooling coils. Each air handling unit has a centrifugal return fans and two have axial return fans and centrifugal supply fan

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 9 Air Handling Units

TypeYearCostPriorityLifecycle Replacement2017\$1,200,000Unassigned

Updated: MAR-14

D3040.01.04 Ducts: Air Distribution*

Galvinized steel ducts through out the building

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

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

Terminal VAV box to each patient room and offices, each with a hot water reheat coil.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 250 VAV control boxes

TypeYearCostPriorityLifecycle Replacement2017\$1,000,000Unassigned

Updated: MAR-14

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Square 600x600mm SCD supply grilles in the offices, patient rooms and hallways, round RCD diffusers in the kitchen area.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D3040.03.01 Hot Water Distribution Systems**

Sch 40 black steel piping distributing hot water to the reheat VAV boxes and the perimeter heating fins.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace hot water piping. BOE 10241 SM

TypeYearCostPriorityLifecycle Replacement2027\$1,100,000Unassigned

Updated: MAR-14

D3040.03.02 Chilled Water Distribution Systems**

Schedule 40 black steel chilled water lines to the air handling units.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace the chilled water lines, BOE 4200SM

TypeYearCostPriorityLifecycle Replacement2027\$400,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 27 of 42

D3040.04.01 Fans: Exhaust**

10 Various exhaust fans with a hood or the fan on the roof

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 10 exhaust fans

TypeYearCostPriorityLifecycle Replacement2017\$75,000Unassigned

Updated: MAR-14

D3040.04.03 Ducts: Exhaust*

Insulated galvinized steel exhaust ducts up to the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate style exhaust grilles in the rooms requiring exhaust

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D3040.05 Heat Exchangers**

2 tube shell hot water to glycol for the pre heat on the air handling units.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 2 Heat Excangers

TypeYearCostPriorityLifecycle Replacement2017\$300,000Unassigned

Updated: MAR-14

D3050.01.01 Computer Room Air Conditioning Units**

4 - DX fan coil racks in the computer framework, with 4 4 ton condensing units on the roof

RatingInstalledDesign LifeUpdated5 - Good201030MAR-14

Event: Replace 4 computor rack blower coils

TypeYearCostPriorityLifecycle Replacement2040\$160,000Unassigned

Updated: MAR-14

D3050.01.03 Packaged Terminal Air Conditioning Units*

2 wall mounted Blower coil units in the Lab area with the condensing units in the mechanical space

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D3050.05.02 Fan Coil Units**

14 force flow heaters at each entrance

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 14 Force flow units

TypeYearCostPriorityLifecycle Replacement2017\$85,000Unassigned

Updated: MAR-14

D3050.05.03 Finned Tube Radiation**

Finned tube radiation around the perimeter of the building with various styles of cabinet.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace the finned tube radiation, BOE 10241 SM

TypeYearCostPriorityLifecycle Replacement2027\$525,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 29 of 42

D3050.05.06 Unit Heaters**

7 Unit heaters in the Ambulance garage, mechanical floor and mechanical shop,

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 7 hot water unit heaters

TypeYearCostPriorityLifecycle Replacement2017\$35,000Unassigned

Updated: MAR-14

D3060.02.02 Pneumatic Controls**

Pneumatic thermostats controlling the VAV boxes.

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace Pneumatic controls, BOE 10241 SM

TypeYearCostPriorityLifecycle Replacement2027\$430,000Unassigned

Updated: MAR-14

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

DDC control system for the major mechanical equipment, controlled on and off site.

RatingInstalledDesign LifeUpdated4 - Acceptable198720MAR-14

Event: Replace DDC system, BOE 10241 SM

TypeYearCostPriorityLifecycle Replacement2017\$600,000Unassigned

Updated: MAR-14

D4010 Sprinklers: Fire Protection*

6" sprinkle tree with a 30 Hp supply pump and a 1/2 HP jokey pump

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

Report run on: March 27, 2014 1:54 PM Page 30 of 42

D4020 Standpipes*

Stand pipe to the Siamese connection, and to the fire hose cabinets.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D4030.01 Fire Extinguisher, Cabinets and Accessories*

5 lb dry chemical fire extinquisher at the entrances in a fire hose cabinet and the mechanical rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

D4090.02 Carbon Dioxide Fire Extinguishing Systems**

Carbon dioxide fire system in the kitchen hood

RatingInstalledDesign LifeUpdated4 - Acceptable198740MAR-14

Event: Replace CO2 fire extinguishing sysem

TypeYearCostPriorityLifecycle Replacement2027\$6,000Unassigned

Updated: MAR-14

S5 ELECTRICAL

D5010.01.02 Main Electrical Transformers (Utility Owned)*

The 25KV-347/600V pad mounted transformer is used to provide power to the building.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

D5010.02 Secondary Electrical Transformers (Interior)**1987

There are three normal power stations and each of them have dry type transformer for transferring power from 600V to 120/208V power system; they are two 225KVA and one 300KVA. Three are two transformers installed for emergency power system and both of them are 300KVA.

RatingInstalledDesign LifeUpdated5 - Good198740MAR-14

Event: Replace 5 Transfomers

TypeYearCostPriorityLifecycle Replacement2027\$50,000Unassigned

Updated: MAR-14

D5010.02 Secondary Electrical Transformers (Interior)**2010

The 150KVA 600V to 480V transformer is used for MRI Machine.

RatingInstalledDesign LifeUpdated5 - Good201040MAR-14

Event: Replace One Transformer

TypeYearCostPriorityLifecycle Replacement2050\$10,000Unassigned

Updated: MAR-14

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

The main switchboard is 347/600V, 3 phase, 4 wire and rated 1600A. The switchboard consists main 1600A incoming circuit breaker, normal power 600V distribution section; and through 1000A bus tied with emergency power distribution system which consists transfer switch and 600V distribution system.

RatingInstalledDesign LifeUpdated5 - Good198740MAR-14

Event: Replace Main Electrical Switchboards

TypeYearCostPriorityLifecycle Replacement2027\$160,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 32 of 42

Lloydminster (AB) - Lloydminster General Hospital (B1119A

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

The 347/600V and 120/208V panels are installed through entire facility for both normal and emergency power branch distribution

RatingInstalledDesign LifeUpdated5 - Good198730MAR-14

Event: Replace 40 Branch Circuit Panels

TypeYearCostPriorityLifecycle Replacement2017\$200,000Unassigned

Updated: MAR-14

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

Three are three MCC's installed in the main electrical room. Two are 600V MCC, one for normal power and the other is for emergency power. One MCC is 208V and used for emergency power only.

RatingInstalledDesign LifeUpdated5 - Good198730MAR-14

Event: Replace 16 Sections of MCC's

TypeYearCostPriorityLifecycle Replacement2017\$112,000Unassigned

Updated: MAR-14

D5020.01 Electrical Branch Wiring*

All the wires are copper and installed in the conduits

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

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

The hallway lights are controlled by low voltage switching and the line voltage switching is used for rest of building

Rating Installed Design Life Updated
5 - Good 1987 0 MAR-14

Report run on: March 27, 2014 1:54 PM Page 33 of 42

D5020.02.02.02 Interior Fluorescent Fixtures**

All the fixtures are retrofit or replace with T-8 lamp fluorescent and electronic ballasts

RatingInstalledDesign LifeUpdated5 - Good201230MAR-14

Event: Replace 1500 Fluorescent fixtures

TypeYearCostPriorityLifecycle Replacement2042\$600,000Unassigned

Updated: MAR-14

D5020.02.02.03 Interior Metal Halide Fixtures*

The pot lights are installed in the hallways and common open areas.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

D5020.02.03.01 Emergency Lighting Built-in*

The fluorescent fixtures with battery backup are used in the OR rooms

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

D5020.02.03.02 Emergency Lighting Battery Packs**

The emergency battery packs are installed in the stairwells.

RatingInstalledDesign LifeUpdated5 - Good198720MAR-14

Event: Replace 6 emergency Battery Packs

TypeYearCostPriorityLifecycle Replacement2017\$7,200Unassigned

Updated: MAR-14

D5020.02.03.03 Exit Signs*

All the Exit Signs were retrofit with LED lamps

RatingInstalledDesign LifeUpdated5 - Good20120MAR-14

D5020.03.01.03 Exterior Metal Halide Fixtures*

The pole mounted lights are used in the parking lot and wall packs are installed around building perimeter.

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

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

The exterior lighting is controlled by photo cell

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

D5030.01 Detection and Fire Alarm**

The fully addressable Notifier control panel is used for entire facility fire alarm system. The system is tied to building paging system for public announcement and fire alarm evacuation.

Rating Installed Design Life Updated
5 - Good 2011 25 MAR-14

Event: Replace Fire Alarm System

TypeYearCostPriorityLifecycle Replacement2036\$200,000Unassigned

Updated: MAR-14

D5030.02.03 Security Access**

The S2 Net control system is used for door access system and have Fob installed for the security area and few building back doors.

RatingInstalledDesign LifeUpdated5 - Good201025MAR-14

Event: Replace Security Access System

TypeYearCostPriorityLifecycle Replacement2035\$18,000Unassigned

Updated: MAR-14

Report run on: March 27, 2014 1:54 PM Page 35 of 42

D5030.02.04 Video Surveillance**

One camera is installed in the observation room and tied to computer.

RatingInstalledDesign LifeUpdated5 - Good201025MAR-14

Event: Replace One Camara

TypeYearCostPriorityLifecycle Replacement2036\$3,000Unassigned

Updated: MAR-14

D5030.03 Clock and Program Systems*

Rauland Clock system is installed for synchronizing all the clocks throughout the facility

RatingInstalledDesign LifeUpdated5 - Good19870MAR-14

D5030.04.01 Telephone Systems*

the Mitel ICP 3200 VOIP phone system is installed for entire building telephone system.

RatingInstalledDesign LifeUpdated5 - Good20100MAR-14

D5030.04.03 Call Systems**

GE intergense IP brand system is used for facility nurse call system. Each nurse call device has its own IP address and tied back to control panel with Cat 6 cables.

RatingInstalledDesign LifeUpdated5 - Good201125MAR-14

Event: Replace Nurse Call System

TypeYearCostPriorityLifecycle Replacement2036\$100,000Unassigned

Updated: MAR-14

D5030.04.04 Data Systems*

One patch and hub is installed for the facility and tied to region health center through fiber cabling system.

RatingInstalledDesign LifeUpdated5 - Good20110MAR-14

D5030.06 Television Systems*

Sterivisionn low voltage TV system is used and has TV outlet in each patient room

RatingInstalledDesign LifeUpdated5 - Good20100MAR-14

D5090.01 Uninterruptible Power Supply Systems**

Standalone UPS units are used for data, telephone and nurse call systems

RatingInstalledDesign LifeUpdated5 - Good201030MAR-14

Event: Replace 6 UPS Units

TypeYearCostPriorityLifecycle Replacement2040\$7,200Unassigned

Updated: MAR-14

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

The Simpower 400KW generator is used for emergency backup system.

RatingInstalledDesign LifeUpdated5 - Good198735MAR-14

Event: Replace Packaged Engine Generator Systems

TypeYearCostPriorityLifecycle Replacement2022\$150,000Unassigned

Updated: MAR-14

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.07 Laboratory Equipment*

Equipment includes 4 fume hoods, 4 centrifuges, coolers and refrigerators.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

E1020.08 Medical Equipment*

2 operating theatres, emergency treatment, radiology and pediatric areas.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

E1030.03 Loading Dock Equipment*

Hydraulic dock leveler in shipping/receiving area.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

E1090.03 Food Service Equipment*

Commercial kitchen preparing food for staff and patients.

Kitchen equipment includes

- Dish washing machine
- Pot washing station with stainless steel sink and counter
- Stripping line with stainless steel conveyor
- Convection ovens
- Deep Fryers
- Gas ranges with exhaust hoods
- Walk-in cooler and freezer

and other food dispensing cafeteria equipment

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Therapeutic equipment includes

- tread mills
- wood framed steps
- walkers
- weighted pulleys

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1987	0	MAR-14

E2010.02 Fixed Casework**

Fixed casework throughout the facility is constructed of wood or plastic laminated material in patient rooms, work rooms, nursing stations, laboratories, vanities, engineering shops and other areas.

RatingInstalledDesign LifeUpdated4 - Acceptable198735MAR-14

Event: Replace Casework (GFA estimate)

TypeYearCostPriorityLifecycle Replacement2022\$1,025,000Unassigned

Updated: MAR-14

E2010.03.01 Blinds**

Mixture of fabric louvred and venetian blinds over exterior windows.

RatingInstalledDesign LifeUpdated4 - Acceptable198730MAR-14

Event: Replace 1200 sq. M Blinds

TypeYearCostPriorityLifecycle Replacement2017\$120,000Unassigned

Updated: MAR-14

F1040.05 Liquid and Gas Storage Tanks*

Oxygen storage tanks enclosed by chain link fencing exterior of loading dock area.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

F1040.06 Other Special Facilities* - Roof Garden

Outdoor roof garden located on 2nd floor with concrete pavers, concrete planters, benches and patio furniture.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

S8 SPECIAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Hard level surface

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

K4010.02 Barrier Free Entrances*

Power operated sliding doors.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

K4010.03 Barrier Free Interior Circulation*

Hard level surfaces with elevators between floor levels.

Lever handled door hardware.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

K4010.04 Barrier Free Washrooms*

Public, staff and patient wash rooms BFA compliant.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

K4030.01 Asbestos*

No asbestos observed or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

K4030.04 Mould*

No mould observed or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

K4030.08 Biohazardous Materials*

Materials stored in marked lockable cabinets.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

K4030.09 Other Hazardous Materials*

A Hazardous Materials Management Investigation should be undertaken to determine extent of lead, X-Ray contamination and radioactive elements within the facility.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-14

Event: Hazardous Materials Study

Concern:

Extent of lead, X-Ray contamination and radioactive elements within the facility.

Recommendation:

A Hazardous Materials Management Investigation should be undertaken to determine extent of lead, X-Ray contamination and radioactive elements within the facility

 Type
 Year
 Cost
 Priority

 Study
 2014
 \$7,500
 Medium

Updated: MAR-14

K5010.01 Site Documentation*

Site Plan

RatingInstalledDesign LifeUpdated4 - Acceptable20130MAR-14



Hillview 003.jpg

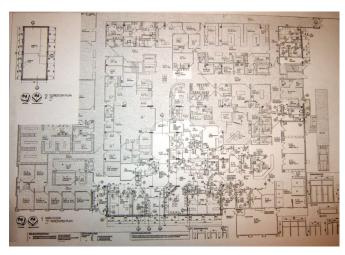
K5010.02 Building Documentation*

On 10 October 2013, Vic Maybroda of A&E Architectural & Engineering Group Inc supported by Kevin Smith of Bacz Engineering and Yi Yang of Acuity Engineering accompanied by Bob Brow, Maintenance Manager Lloydminster General Hospital, undertook an onsite review of existing building conditions of the Lloydminster General Hospital.

The facility is a 3 story building originally constructed in 1987 with renovations to emergency, admitting and provision of mammography suite completed in 2012 with an area of 10241 sq. M.

The hospital contains 58 acute care beds composed of 30 medical, 19 maternity/surgery, 6 transition and 3 special care units.

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



2012 Main Floor Renovations