RECAPP Facility Evaluation Report

Medicine Hat S Dist #76

Connaught School

B3761A

Medicine Hat

Report run on: March 31, 2010 10:27 AM

Facility Details

Building Name: Connaught School
Address: 101 - 8 Street S. W.
Location: Medicine Hat

Building Id: B3761A
Gross Area (sq. m): 3,816.51
Replacement Cost: $11,694,554
Construction Year: 1912

Evaluation Details

Evaluation Company: Stantec Consulting Ltd.
Evaluation Date: July 23 2009
Evaluator Name: Kyle Lamport

Total Maintenance Events Next 5 years: **$3,017,300**
5 year Facility Condition Index (FCI): **25.80%**

General Summary:

Connaught is an ECS to Grade 6 school. The original, historically significant, 2,531.7 sq.m. building was constructed in 1912, and the 1912 section is two stories plus a full basement. A 1,284.8 sq.m., one story addition, with a partial basement, was built in 1952. The 1912 building has a concrete and brick foundation, uninsulated brick and stone exterior walls, with wood floor joists and sloped, wood roof trusses. The addition, has concrete foundation walls, uninsulated exterior brick walls and interior brick walls. The floor is wood joists over a dirt crawlspace and the flat roof is also wood joists. Minimal washroom upgrading and some flooring replacement and repairs have been done.

The school is in overall acceptable condition.

Structural Summary:

The 1912 building has a concrete and brick foundation, uninsulated, brick and stone exterior walls, with wood floor joists and sloped, wood roof trusses. The addition, has concrete foundation walls, uninsulated exterior brick walls and interior brick walls. The floor is wood joists over a dirt surfaced crawlspace and the flat roof also wood joists. The wood floor joists in the 1952 addition are supported by interior wood stud walls on concrete strip footings in the crawl space. There is a suspended structural concrete slab over the partial basement in 1952. Floor and roof decking consists of wood planks.

Recommended work includes the following:

- Seal mechanical penetrations through floors

Structural components were observed to be in acceptable condition, overall.

Envelope Summary:

The school has un-insulated, solid brick and stone masonry walls, without vapor barriers. In 1981 the windows were replaced in the 1952 addition by fiberglass batt insulated, wood stud, infill walls, with metal siding. were installed. The attic of the 1912 building has cellulose insulation over a vapor barrier. The exterior walls of the building include a clay brick veneer with sand stone accents on the 1912 section and pre-finished metal siding accents on the 1952 addition. The sloped roof of the 1912 section is finished with cedar shingles which were replaced in 2008 and the 1952 section has the original Built-up Bituminous Roofing assembly. Painted wood soffit is provided on both sections of the building. The exterior windows mainly consist of dual pane sliders set in aluminum framing. The entry doors are painted wood with single glazed vision panels and transoms, in wood frames.

Recommended work includes the following:

- Replace sealant on the building perimeter
- Conduct a study to determine the cause of the step cracking in the exterior brick on the 1912 building
- Repaint exterior painted surfaces
- Replace the exterior doors
- Replace the built-up roofing (BUR) assembly on the 1952 addition
- Replace upper windows in the 1912 section
- Install push button automatic door openers

Building envelope components were observed to be in acceptable condition, overall.

Interior Summary:

The building includes classrooms, connecting corridors, supporting educational rooms, a staff room and office/administrative area, a gymnasium, washrooms and janitorial rooms. Interior finishes are a combination of resilient sheet and tile flooring, ceramic floor tile and carpeting. Walls generally finished with lath and plaster or clay brick masonry with painted finishes, while painted lath and plaster or suspended T-bar grid with inlaid acoustic panel

ceilings are provided throughout the building. Hardwood flooring is provided in the gymnasium and on the stage. Interior swinging doors are a combination of varnished solid core wood or painted hollow metal pivot units set in painted metal or wood frames.

Recommended work includes the following:

- Replace interior doors and hardware in the 1952 section
- Replace vinyl asbestos floor tiles
- Replace painted concrete floor finishes in the basement mechanical room
- Replace carpet flooring in the office/administrative area
- Repair damaged plaster ceilings
- Replace stained ceiling panels throughout the building
- Install an elevator and wheelchair lift
- Renovate washrooms to be barrier-free
- Replace fixed casework

Interior finishes were observed to be in acceptable condition, overall.

Mechanical Summary:

Ventilation for the school is provided by a natural gas fired unit serving the 1912 wing and a separate unit serving the gymnasium. Heating is provided by the ventilation units along with four natural gas fired hot water boilers and pumps that serves perimeter radiation and fan coil units. Mechanical systems are controlled by a combination of electric and pneumatic systems.

There are two natural gas fired water heaters with pumps, one in each wing of the school, providing domestic hot water. There are backflow prevention devices (BFD) on the main service and irrigation connections.

There are no fire sprinklers serving the building. There is a fire standpipe system with fire hose racks and fire extinguishers located throughout the school.

The recommended actions for the mechanical systems in the next five years are:
- The exposed fire hoses are currently subject to damage and should be installed in the correct housing.

Overall the building systems are in acceptable condition.

Electrical Summary:

There is a utility owned 75 KVA, 3 phase dry-type transformer located outside, at the front of the school. The main distribution panel is rated at 120/208V, 400A and feeds a main switchboard and individual starters in the mechanical room and the secondary branch circuit panelboards throughout the school.

Interior lighting is a primarily fluorescent with mostly T12 lamps. Control is by local toggle switches. Emergency lighting is provided by battery pack units located throughout the school. Exterior lighting is a combination of incandescent and HPS with photocell control.

The telephone and data systems have Category 5 cabling from the main data panel to voice and data outlets located throughout the school.

The fire alarm system is an Edwards 2280 panel with manual pull stations, heat detectors and bells located throughout the school. A DSC system provides intrusion detection with motion sensors located throughout the school. A Galaxy system provides security access control to the school.

The recommended actions for the electrical systems in the next five years include:
- Replace the main distribution switchboard,
- Replace switchboard panel and starters in the 1952 mechanical room,
- Upgrade the school's branch wiring system and devices,
- Upgrade the exit lighting to more efficient LED units, and
- Upgrade the fire alarm system.

Overall, the electrical system is in marginal to acceptable 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*

Construction drawings were not available for review during the assessment however, standard foundations for the building are understood to be mainly comprised of cast-in-place concrete strip footings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

A1030 Slab on Grade* - 1912 Section

The 1912 section has a concrete slab-on-grade floor witch was reportedly replaced in 1981 due to an underground water problem.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	100	MAR-10

A1030 Slab on Grade* - 1952 Section

The 1952 section has a concrete slab-on-grade floor in the partial basement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	100	MAR-10

A2020 Basement Walls (& Crawl Space)* - 1912 section

The 1912 section has cast-in-place concrete walls approximately 1500mm -1800mm high with solid brick masonry above.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

A2020 Basement Walls (& Crawl Space)* - 1952 section

The 1952 section includes a partial basement and a crawl space with cast-in-place concrete walls. The crawl space has dirt floor surface.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	100	MAR-10

B1010.01 Floor Structural Frame (Building Frame)* - 1912 section

The floor structural frame of the 1912 section is comprised of wood joists and beams supporting the suspended upper floor levels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

B1010.01 Floor Structural Frame (Building Frame)* - 1952 Section

The floor structural frame of the 1952 section is comprised of wood joists and beams supporting the suspended floor above the crawl space. A structural concrete slab is located over the partial basement and is supported by the cast-in-place concrete basement walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	100	MAR-10

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

Structural interior walls supporting floors or roofs within the facility are comprised of a combination of load-bearing concrete masonry and wood stud framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

B1010.03 Floor Decks, Slabs, and Toppings*

The suspended floor deck of the building's upper floors is understood to be comprised of plywood or wood planks. The suspended floor above the basement level mechanical room is comprised of a suspended cast-in-place concrete slab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

B1010.06 Ramps: Exterior*

A ramp consisting of painted, pressure treated wood framing with pressure treated plywood, is installed at the northwest entry door of 1952 addition. Wood framing sits on painted, pressure treated wood plates resting on asphalt pavement and part of a concrete sidewalk (no foundation).

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	MAR-10

B1010.07 Exterior Stairs*

Cast-in-place concrete steps are located at all entry doors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	40	MAR-10

B1010.09 Floor Construction Fireproofing*

The underside of the wood floor joists in the 1912 section are finished with lath and plaster.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

B1010.10 Floor Construction Firestopping*

Mechanical piping and duct penetrations through floors are generally sealed with firestopping material

Rating	Installed	Design Life	Updated
2 - Poor	1912	50	MAR-10

Event: Seal penetrations through floor separations.

Concern:
Some of the mechanical piping and duct penetrations through the plaster and concrete floor fire separations are not sealed.
Recommendation:
Seal penetrations through floor separations.
Consequences of Deferral:
Fire separations are not continuous.

Type	Year	Cost	Priority
Code Repair	2010	$3,000	High

Updated: MAR-10

B1020.01 Roof Structural Frame* - 1912 section

The structural frame of the sloped roof on the 1912 section is comprised of wood roof trusses.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

B1020.01 Roof Structural Frame* - 1952 section

The structural frame of the low slope roof on the 1952 section is comprised of wood joists and beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	100	MAR-10

B1020.03 Roof Decks, Slabs, and Sheathing*

The building's roof decks are understood to be comprised of wood planks.

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

B1020.04 Canopies*

Canopy structures are situated above exterior entrances along the building's north elevation. The canopies are understood to include wood-frame construction, and are supported by painted metal or wood posts. The canopies are finished in a consistent manner to match existing finishes on the building perimeter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

B1020.06 Roof Construction Fireproofing*

The underside of wood trusses and roof joists in the 1912 section are finished with lath and plaster.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1912 section

Sections of clay brick veneer are provided on all elevations of the 1912 section of the building.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	75	MAR-10

Event: Conduct Repairs Based on Findings from the Recommended Study

Concern:

Step cracking of the brick masonry was observed above and below several windows on the north elevation of the 1912 building.

Recommendation:

Conduct Repairs Based on Findings from the Recommended Study.

Consequences of Deferral:

The problem requires repair before accelerated deterioration occurs or loose bricks become a safety hazard. The cracks also allow moisture to enter the building envelope.

Type	Year	Cost	Priority
Repair	2011	$100,000	Medium

Updated: MAR-10

Event: Conduct a study to determine the cause of step cracking

Concern:

Step cracking of the brick masonry was observed above and below several windows on the north elevation of the 1912 building. White staining on the exterior of the brick which may be efflorescence was also observed in several areas.

Recommendation:

A study is recommended to determine the cause of the step cracking of the brick masonry. It is also recommended that in conjunction with this study that it be determined whether the white staining is efflorescence or exterior water staining.

Consequences of Deferral:

The cause of the cracking may be due to settlement or possibly deterioration of the brick anchorage. The problem should be determined before accelerated deterioration occurs or loose bricks become a safety hazard. The cracks also allow moisture to enter the building envelope. The white staining may be caused by moisture migrating through the walls from the interior indicating a building envelope concern.

Type	Year	Cost	Priority
Study	2010	$10,000	High

Updated: MAR-10

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1952

Sections of clay brick veneer are provided on all elevations of the 1952 section of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	75	MAR-10

B2010.01.03 Stone Assemblies: Exterior Wall Skin*

Large format, sandstone is installed around the base of the building, around entrances, at the building corners and for decorative purposes on the towers located on the corners of the 1912 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	75	MAR-10

B2010.01.06.03 Metal Siding**

Several windows in the 1912 building were removed and replaced with wood stud framing and prefinished metal siding.

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

Event: Replace Metal Siding (approx. 40m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$10,000	Unassigned

Updated: MAR-10

B2010.01.06.03 Metal Siding** - 1952 Section

Portions of the exterior of the 1952 section are clad with prefinished metal siding.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	40	MAR-10

Event: Replace metal siding (approx. 400 m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$65,000	Unassigned

Updated: MAR-10

B2010.01.09 Expansion Control: Exterior Wall Skin*

Expansion joints are provided at periodic intervals in the clay brick veneer for thermal expansion and contraction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	75	MAR-10

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

Sealant is provided in construction joints and around exterior windows/doors on the building's perimeter. Sealant is also provided in the joints between the glass block on the north side of the gymnasium.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	20	MAR-10

Event: Replace Joint Sealers (caulking) (approx. 2400m)

Concern:

Joint sealant in construction joints and around exterior windows/doors as well as the glass block was observed to have failed adhesively, and exhibited a generally worn and brittle appearance.

Recommendation:

Replace the sealant in construction joints around the building perimeter.

Consequences of Deferral:

The unprotected construction joints may allow the passage of air and/or moisture into the building envelope.

Type	Year	Cost	Priority
Failure Replacement	2011	$90,000	Medium

Updated: MAR-10

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

The exterior has several painted surfaces which include the wood soffit, wood cupola, wood wheelchair ramp, as well as various railings and trim.

Rating	Installed	Design Life	Updated
3 - Marginal	1990	15	MAR-10

Event: Repaint exterior surfaces (approx. 1000m²)

Concern:

Painted exterior surfaces were observed to be peeling, flaking and generally deteriorated.

Recommendation:

Repaint exterior surfaces including the wood soffit, wood cupola, wood wheelchair ramp, as well as various railings and trim.

Consequences of Deferral:

Failure to repaint the exterior surfaces may cause accelerated deterioration of the underlying materials and the peeling paint detracts from the overall aesthetic appeal of the building.

Type	Year	Cost	Priority
Failure Replacement	2010	$25,000	Low

Updated: MAR-10

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

Painted, decorative, cast-in-place concrete with interior brick backup wall, is located above and below the glass block on the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

B2010.02.03.04 Glass Masonry Units (Glass Block)*

Glass block panels are provided in the gymnasium exterior wall on the north elevation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-10

B2010.02.05 Wood Framing : Ext. Wall Const.*

The areas of the 1952 building with metal siding have wood stud walls with plywood sheathing that were installed in 1981 when the windows were replaced.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	100	MAR-10

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

The following is from a previous 2004 report by Baird & Bergum Architects.

1912: Solid masonry with wood furring and plaster interior finish, no insulation or vapor barrier. Foundation and basement walls have exposed and/or painted concret/brick interiors and are not insulated, except a couple basement classrooms were furred out with batt insulated 89mm wood studs , poly vapor barrier and painted gypsum board finish. 1952: Solid brick masonry walls with exposed brick on interior, no insulation or vapor barrier, except where windows were infilled in 1981 with batt insulated wood studs, poly vapor barrier and painted gypsum board finish. Foundation and crawlspace walls are not insulated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

B2010.06 Exterior Louvers, Grilles, and Screens*

Painted, metal crawlspace vents are provided in the exterior walls of the 1952 addition. A galvanized metal mechanical hood is located in a plywood infill panel in the basement window adjacent to mechanical room in the 1912 building. Painted, steel mesh screens are provided over the basement windows on the playground side (south side) of the 1912 building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

B2010.09 Exterior Soffits* - 1952 Section

The 1952 section includes painted wood soffits along the perimeter. Soffits of the entrance canopies consist of unpainted, cement plaster. Costs to cover the repainting of the wood soffits is included under the exterior painting section (B2010.01.13).

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1912 Building, Upper Floors

The main and second floor windows of the 1912 section consist of double glazed, fixed units over screened, horizontal sliding units in aluminum frames, installed into existing painted wood frames.

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

Event: Replace windows (approx. 75 windows)

Concern:

The operable portions of the windows in the upper floors of the 1912 section reportedly fit loosely in their frames, are drafty and are difficult to operate.

Recommendation:

Replace the deficient windows.

Consequences of Deferral:

The widows are inefficient and a source of discomfort for building occupants.

Type	Year	Cost	Priority
Failure Replacement	2011	$140,000	Low

Updated: MAR-10

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1912 Building, Basement

The basement windows of the 1912 section consist of double glazed, fixed units over screened, horizontal sliding units in aluminum frames, installed into existing painted wood frames in 1991.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	35	MAR-10

Event: Replace windows (approx.30 windows)

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$45,000	Unassigned

Updated: MAR-10

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1952 Section

The majority of exterior windows on the 1952 section consist of double glazed, fixed units in aluminum frames, over screened, venting hopper units, with horizontal blinds between the glass.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	40	MAR-10

Event: Replace Windows with integrated blinds (approx. 15 windows)

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$28,000	Unassigned

Updated: MAR-10

B2030.01.10 Wood Entrance Door** - 1912 Section

The exterior entrance doors in the 1912 section are comprised of painted wood doors set in the original 1912 painted wood frames with single glazed transoms and side lights.

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

Event: Replace entry doors and frames incuding hardware (three sets of double doors)

Concern:

Painted wood entry doors, frames, transoms (and side lights to 1912 entries) are worn, deteriorating and reported to be high maintenance.

Recommendation:

Replace entry doors including hardware, frames, transoms and side lights.

Consequences of Deferral:

Loss of functionality of the doors and increased maintenance costs.

Type	Year	Cost	Priority
Failure Replacement	2010	$40,000	Low

Updated: MAR-10

B2030.01.10 Wood Entrance Door** - 1952 Section

The exterior doors of the 1952 section consist of the original painted wood doors set in painted wood frames with single inset glazing in doors and transoms above.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	30	MAR-10

Event: Replace entry doors and frames (five sets of double doors)

Concern:

Painted wood entry doors, frames, transoms are worn, deteriorating and reported to be high maintenance.

Recommendation:

Replace entry doors, frames, transoms and sidelights.

Consequences of Deferral:

Reduced functionality of the doors and increased maintenance costs.

Type	Year	Cost	Priority
Failure Replacement	2010	$65,000	Low

Updated: MAR-10

B3010.01 Deck Vapor Retarder and Insulation*

Insulation and a vapor barrier were reportedly added to the attic of the 1912 building in the 1980's. The BUR roofing on the 1952 section reportedly includes 25-50mm fiberboard insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	25	MAR-10

B3010.02.01.07 Wood Shingles**

The sloped roof of the 1912 section is finished with cedar shingles.

Rating	Installed	Design Life	Updated
5 - Good	2008	30	MAR-10

Event: Replace cedar shingles (approx.1,500 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$200,000	Unassigned

Updated: MAR-10

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

The low-slope roof sections on the 1952 section are covered with a bituminous built-up roof membrane assembly with gravel cover.

Rating	Installed	Design Life	Updated
2 - Poor	1952	25	MAR-10

Event: Replace roofing (approx. 1285 m²)

Concern:
The built-up roof membrane assembly on the 1952 section is reported to be original. Wind scouring, exposed roofing membrane, blistering as well as several patches were observed during the site visit. The roofing is reported to be in poor condition and leaking continually.

Recommendation:
Replace existing BUR roofing.

Consequences of Deferral:
Continued leaking, and damage to insulation and interior finishes.

Type	Year	Cost	Priority
Failure Replacement	2010	$302,000	High

Updated: MAR-10

B3010.08.02 Metal Gutters and Downspouts**

The 1912 building is equipped with large, heavy gauge, prefinshed steel gutters and downspouts. Downspouts are tied into underground stormwater sewer system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	MAR-10

Event: Replace downspouts

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$3,500	Unassigned

Updated: MAR-10

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

Multiple vents supporting air flow and ventilation within the building are present on the roof level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	25	MAR-10

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior fixed partitions throughout the building interior are generally comprised of concrete/brick masonry or metal/wood stud framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	0	MAR-10

C1010.07 Interior Partition Firestopping*

Ductwork or conduit penetrations through fire separations are sealed where voids are present.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

C1020.01 Interior Swinging Doors (& Hardware)* - 1952 Section

The interior doors of the 1952 section consist of varnished wood doors, set in varnished wood frames and are equipped with standard commercial grade hardware.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	40	MAR-10

Event: Replace doors, frames and hardware (approx. 25 doors)

Concern:

Most wood doors are in marginal condition and hardware is worn.

Recommendation:

Replace doors, frames and hardware, (approx. 25 doors).

Consequences of Deferral:

Failure to replace the doors may result in a loss of functionality of the doors and a loss of aesthetic appeal.

Type	Year	Cost	Priority
Failure Replacement	2010	$65,000	Low

Updated: MAR-10

C1020.02 Interior Entrance Doors*

Interior entrance doors at the main entrance to the 1952 section are comprised of varnished wood units with tempered glass inserts, set in varnished wood frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-10

C1020.03 Interior Fire Doors*

The interior classroom doors in the 1912 Section consist of varnished, 20 min. rated, birch doors which were installed in existing painted wood frames in 1981. Glass in the transoms was replaced with painted gypsum board. Painted, fire rated wood doors, in painted metal frames, are located in stairwell separations. Painted metal doors in painted metal frames are located in janitor and mechanical rooms. Stairwell doors are equipped with closers and panic hardware.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	50	MAR-10

C1030.01 Visual Display Boards** - 1995

Tackboards and chalkboards, in aluminum frames were replaced in the 1952 addition in 1995.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	20	MAR-10

Event: Replace Visual Display Boards (approx. 30 chalkboards & tackboards)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$26,000	Unassigned

Updated: MAR-10

C1030.01 Visual Display Boards** - 2000

Tackboards, white and chalkboards, in aluminum frames were replaced in the 1912 building in 2000.

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

Event: Replace Visual Display Boards (approx. 40 chalkboards & tackboards)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$35,000	Unassigned

Updated: MAR-10

C1030.01 Visual Display Boards** - 2005

Wall-mounted smart boards and ceiling-mounted projector units are provided in each classroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	20	MAR-10

Event: Replace Smart Boards (approx. 14 smart boards)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$35,000	Unassigned

Updated: MAR-10

C1030.02 Fabricated Compartments(Toilets/Showers)** - 1912 Section

Floor-mounted, pre-finished metal partitions are provided in multi-user washrooms throughout the building.

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

Event: Replace Washroom Partitions (approx. 20 partitions)

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$35,000	Unassigned

Updated: MAR-10

C1030.02 Fabricated Compartments(Toilets/Showers)** - 1952 Section

The washrooms in the 1952 section were under going renovations at the time of the site visit and it was reported that the toilet stalls were to be replaced.

Rating	Installed	Design Life	Updated
5 - Good	2009	30	MAR-10

Event: Replace Washroom Partitions (approx. 7 partitions)

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$12,000	Unassigned

Updated: MAR-10

C1030.08 Interior Identifying Devices*

Interior identification in the building is generally provided by door and wall-mounted metal or lamicoid signage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	20	MAR-10

C1030.12 Storage Shelving*

Wall-mounted, painted wood and metal storage shelving is typically provided in janitorial closets and office/administrative areas throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-10

C1030.14 Toilet, Bath, and Laundry Accessories*

Washrooms are typically equipped with mirrors, and toilet paper/soap/paper towel dispensers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	20	MAR-10

C2010 Stair Construction*

The stairs in the 1912 section are comprised of painted, ornate, cast iron stringers as well as steel stairs with concrete fill in treads. Painted steel stairs with concrete fill in treads are provided in the corridor at the transition from the 1912 building to the 1952 addition. Cast-in-place concrete stairs provide access to the basement mechanical room in the 1952 building. Wood framed stairs provide access to the stage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	100	MAR-10

C2020.05 Resilient Stair Finishes**

The stairs throughout the building, with the exception of the basement mechanical room, have treads finished with resilient rubber.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	MAR-10

Event: Replace Resilient Stair Finishes (approx. 12 flights of stairs)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$45,000	Unassigned

Updated: MAR-10

C2020.08 Stair Railings and Balustrades*

The stair railings in the 1912 section consist of painted, cast iron posts and spindles with varnished wood caps and varnished, wall mounted wood handrails. The stair railings in the 1952 section consist of painted steel pipe railings.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-10

C2020.10 Stair Painting*

The concrete stairs leading to the basement mechanical room and the wood stair to the stage have a painted finish.

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

C3010.02 Wall Paneling**

Varnished, fir plywood wainscoting with varnished fir cap is provided in the corridors of the 1952 wing and panel board wainscoting is provided in the coat rooms of the 1912 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	MAR-10

Event: Replace Wall Paneling (approx. 100m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$15,000	Unassigned

Updated: MAR-10

C3010.03 Plaster Wall Finishes*

Lath and plaster walls have a painted finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-10

C3010.06 Tile Wall Finishes**

The washrooms in the 1912 building are finished with ceramic, mosaic wall tile. Glazed wall tile is installed on wall around urinals in the 1952 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	40	MAR-10

Event: Replace Tile Wall Finishes (approx. 100 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$35,000	Unassigned

Updated: MAR-10

C3010.11 Interior Wall Painting*

The majority of interior walls include a painted finish. Painted surfaces include plaster, brick, concrete, gypsum board and wood wall trim.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	10	MAR-10

C3010.12 Wall Coverings*

Vinyl wall coverings are provided in several classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	MAR-10

C3010.13 Wall Trim and Decoration*

The 1912 section includes painted,wood trim along corridor and stairwell walls as well as large, decorative, painted wood base boards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	10	MAR-10

C3020.01.02 Paint Concrete Floor Finishes*

Painted concrete floors are provided in the basement level mechanical room of the 1952 section.

Rating	Installed	Design Life	Updated
3 - Marginal	2000	10	MAR-10

Event: Repaint Concrete Floors (approx. 100m²)

Concern:
Peeling and flaking of painted/sealed concrete floor surfaces was observed in the basement level mechanical room.

Recommendation:
Based on the observed condition of the concrete floor finishes, replacement is recommended.

Consequences of Deferral:
Deferral of replacement will result in a loss of aesthetic appeal and exposure of concrete surfaces to potentially harmful chemicals and other forms of abuse.

Type	Year	Cost	Priority
Failure Replacement	2012	$2,000	Low

Updated: MAR-10

C3020.02 Tile Floor Finishes**

Ceramic tile floor finishes are provided in multi-user washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	50	MAR-10

Event: Replace Tile Floor Finishes (approx. 135 sq. m.)

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

Updated: MAR-10

C3020.04 Wood Flooring**

Original hardwood flooring is provided in the gymnasium and raised stage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	MAR-10

Event: Replace Wood Flooring (approx. 400m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$130,000	Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring** - 1981

Vinyl asbestos tile flooring is located in the basement of the 1912 building.

Rating	Installed	Design Life	Updated
3 - Marginal	1981	20	MAR-10

Event: Replace Resilient Flooring (Approx.250m²)

Concern:
The vinyl tile in the basement of the 1912 building is cracked, has corners missing and edges curled.

Recommendation:
Replace vinyl asbestos tile and rubber base. A cost for asbestos abatement is included.

Consequences of Deferral:
Loose tiles may cause a tripping hazard, a loss of aesthetic appeal and a loss of ease of cleaning.

Type	Year	Cost	Priority
Failure Replacement	2011	$25,000	Low

Updated: MAR-10

C3020.07 Resilient Flooring** - 1993

Linoleum flooring is provided in classrooms and corridors of the 1952 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	20	MAR-10

Event: Replace Resilient Flooring (Approx. 710m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$80,000	Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring** - 2001

Linoleum flooring is installed in main and second floor corridors of 1912 building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	20	MAR-10

Event: Replace Resilient Flooring (Approx. 350m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$40,000	Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring** - 2009

At the time of the assessment new sheet vinyl flooring was being installed in several classrooms in the 1912 building.

Rating	Installed	Design Life	Updated
5 - Good	2009	20	MAR-10

Event: Replace Resilient Flooring (Approx. 700m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$80,000	Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring**

The floors of the library, music room and staff room are finished with carpet.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	15	MAR-10

Event: Replace Carpet Flooring (approx. 300m²)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$25,000	Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring**

The floors of the administrative areas are finished with carpet.

Rating	Installed	Design Life	Updated
3 - Marginal	1912	15	MAR-10

Event: Replace carpet (approx. 40m²)

Concern:
Carpet is worn and stained and wrinkled.
Recommendation:
Replace damaged carpet.
Consequences of Deferral:
Failure to replace the carpet may cause a tripping hazard, a loss of aesthetic appeal and a loss of ease of cleaning.

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

Updated: MAR-10

C3030.01 Concrete Ceiling Finishes (Unpainted)*

The ceiling of the basement mechanical room in the 1952 section is comprised of unpainted concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	100	MAR-10

C3030.03 Plaster Ceiling Finishes*

Lath and plaster ceilings are located in several areas throughout the school. Isolated damage and cracks were observed in several locations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

Event: Repair damaged lath and plaster Ceilings

Concern:
Minor, cracking and isolated damage to plaster ceilings was observed in several locations throughout the school.

Recommendation:
Repair damaged and cracked plaster ceilings.

Consequences of Deferral:
Deferral of the plaster ceiling repairs may result in accelerated deterioration and a loss of aesthetic appeal.

Type	Year	Cost	Priority
Repair	2011	$2,000	Low

Updated: MAR-10

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

The ceilings in the basement of the 1912 building are finished with a suspended T-bar grid assembly with in-laid acoustic panels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	25	MAR-10

Event: Replace Acoustic Panel Ceilings including Grid (approx. 400 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$47,000	Unassigned

Updated: MAR-10

Event: Replace stained ceiling panels

Concern:

Several stained ceiling panels were observed in classrooms in the building, typically due to previous roof or plumbing leaks which have since been repaired.

Recommendation:

Replace the stained ceiling panels where present throughout the facility.

Consequences of Deferral:

The stained ceiling panels provide a suitable environment for microbial growth, which may lead to potential health implications for students and staff members.

Type	Year	Cost	Priority
Repair	2010	$1,000	High

Updated: MAR-10

C3030.07 Interior Ceiling Painting*

Plaster ceilings throughout the school have a painted finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	20	MAR-10

S4 MECHANICAL

D2010.04 Sinks** - 1952 Addition

Enamelled steel, double basin, service sink and fibreglass floor mounted service sink in mechanical and janitors rooms. Stainless steel sinks in classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	30	MAR-10

Event: Replace 7 sinks.

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$11,800	Unassigned

Updated: MAR-10

D2010.04 Sinks** -1912 Original Bld

Enamelled steel, double basin, service sink and fibreglass floor mounted service sink in mechanical and janitors rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

Event: Replace 2 Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$2,500	Unassigned

Updated: MAR-10

D2010.08 Drinking Fountains / Coolers**

Approximately 3 wall hung, electric cooled, drinking fountains.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	MAR-10

Event: Replace 3 Drinking Fountains / Coolers

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$13,300	Unassigned

Updated: MAR-10

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1912 Original Bld

Approximately 17 vitreous china WC's that are floor mounted, with manual flush valves in the student washrooms and 2 vitreous china WC's that are floor mounted tank type in staff washrooms.
Approximately 5 vitreous china urinals, wall mounted, with manual flush valves.
Approximately 7 vitreous china lavatories, high rimmed, vanity mounted with knob faucets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	35	MAR-10

Event: Replace 19 WC's, 7 Lavatories and 5 Urinals

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$68,900	Unassigned

Updated: MAR-10

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1952 Addition

Approximately 5 vitreous china WC's that are floor mounted, with manual flush valves in the student washrooms and 1 vitreous china WC that is floor mounted tank type in staff washrooms. Approximately 4 vitreous china, recessed floor mounted, with flush tank urinals. Approximately 5 vitreous china, high, vanity mounted lavatories with manual faucets.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	35	MAR-10

Event: Replace 6 WC's, 5 Lavitories and 4 Urinals

Type	Year	Cost	Priority
Lifecycle Replacement	2044	$32,800	Unassigned

Updated: MAR-10

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic water distribution was observed to be copper tubing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	40	MAR-10

Event: Upgrade Domestic Water Pipes and Tubes

Concern:
There is no insulation on the domestic hot water piping. Heat energy will be lost through uninsulated piping.
Recommendation:
Insulate domestic hot water piping.
Consequences of Deferral:
Utility bills will be higher as heat will be loss through the piping.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2010	$1,000	Low

Updated: MAR-10

D2020.01.02 Valves: Domestic Water**

Brass valves on domestic supply.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	40	MAR-10

Event: Replace 25 Domestic Water Valves

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$36,100	Unassigned

Updated: MAR-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Backflow preventor installed on the main service and irrigation connections.

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

Event: Replace 2 Backflow Preventors

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$10,700	Unassigned

Updated: MAR-10

D2020.02.02 Plumbing Pumps: Domestic Water ** - 1912 Original Bld

Recirculation pump on domestic hot water in the 1912 portion of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	20	MAR-10

Event: Replace 1 Domestic Water Pump

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$6,300	Unassigned

Updated: MAR-10

D2020.02.02 Plumbing Pumps: Domestic Water** - 1952 Addition

Recirculation pump on domestic hot water in the 1952 portion of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	MAR-10

Event: Replace 1 Domestic Water Pump

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$6,300	Unassigned

Updated: MAR-10

D2020.02.06 Domestic Water Heaters** - 1912 Original Bld

John Wood model JW402NA with 151 litre tank, 122 l/hr capacity, and 11.1kW input located in 1912 mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	20	MAR-10

Event: Replace 1 domestic water heater.

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$2,300	Unassigned

Updated: MAR-10

D2020.02.06 Domestic Water Heaters** - 1952 Addition

Rheem model R050-50N with 50 US gallon tank, 159 l/hr recovery, and 50,000 BTU/hr natural gas input located in 1952 mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	MAR-10

Event: Replace 1 domestic water heater.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$4,000	Unassigned

Updated: MAR-10

D2030.01 Waste and Vent Piping*

Iron pipe vents through roof. Systems drains to municipal system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

D2040.01 Rain Water Drainage Piping Systems*

Roof drainage accomplished through rain water leaders, scuppers and downspouts. A mixture of PVC and cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

D2040.02.04 Roof Drains*

Roof drains equipped with basket type strainers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	40	MAR-10

D3010.02 Gas Supply Systems*

Natural gas supplied by the City of Medicine Hat.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	60	MAR-10

D3020.02.01 Heating Boilers and Accessories: H.W.** - 1952 Addition

Three Allied Engineering, Super Hot boilers provide hot water for the building perimeter heating and one Allied Engineering, Super Hot boiler provides glycol for for the air handler coil. All are located in the 1952 mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	35	MAR-10

Event: Replace 4 Heating Boilers and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$126,500	Unassigned

Updated: MAR-10

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

One galvanized sheet metal B-vent chimney located in the 1953 mechanical room. The masonary chimney is no longer used.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	MAR-10

Event: Replace 1Chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$12,100	Unassigned

Updated: MAR-10

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

Chemical potfeeder, micron bypass filter, and flow restrictor / indicator.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	MAR-10

D3020.03.01 Furnaces**

Four furnaces preheat the air for the AHU in the 1912 mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	25	MAR-10

Event: Replace 4 Furnaces

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$16,200	Unassigned

Updated: MAR-10

D3020.04.03 Fuel-Fired Unit Heaters**

One natural gas fired, 123,300 BTU/hr input, Lennox unit heater located in the 1912 mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

Event: Replace 1 Unit Heater

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$4,200	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution** - 1912 Original Bld

Engineered Air model TD-350-ODI indirect fired air tempering unit provides ventilation to the 1912 building. The 100% O/A unit is located in the 1912 mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

Event: Replace 1 Air Handling Unit

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

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution** - 1952 Addition

Large Sirocco supply and return centrifugal fans for the gymnasium ventilation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	MAR-10

Event: Replace 1 Air Handling Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$111,400	Unassigned

Updated: MAR-10

D3040.01.04 Ducts: Air Distribution*

Uninsulated, galvanized sheet metal throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	50	MAR-10

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Various louvres and grilles throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	MAR-10

D3040.03.01 Hot Water Distribution Systems**

Threaded and welded steel. Pipes are insulated with fibreglass wrap and canvas covered in the mechanical rooms. Six inline centrifugal pumps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	MAR-10

Event: Replace Hot Water Distribution System

Concern:
Replacement cost based on the size of the building.

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$190,000	Unassigned

Updated: MAR-10

D3040.04.01 Fans: Exhaust** - 1952 Addition

Large SISW centrifugal fan exhausts air from classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	MAR-10

Event: Replace 1 Exhaust Fan

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$18,000	Unassigned

Updated: MAR-10

D3040.04.03 Ducts: Exhaust* - 1912 Original Bld

Air is exhausted via a gravity pulled system and vents through an opening on the school roof in the 1912 portion of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	50	MAR-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Various louvres and grilles are located throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	30	MAR-10

D3050.05.02 Fan Coil Units**

Cabinet heaters in stairwell and entrance vestibule.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

Event: Replace 5 Fan Coil Units

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$33,000	Unassigned

Updated: MAR-10

D3050.05.03 Finned Tube Radiation**

Recessed in classroom millwork, exposed slope top radiation in staff room and gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	40	MAR-10

Event: Replace Finned Tube Radiation

Concern:
Replacement cost based on the size of the building.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$50,000	Unassigned

Updated: MAR-10

D3060.02.01 Electric and Electronic Controls**

Johnson 350 series control the gas fired air tempering unit in the 1912 mechanical room. Interlocked with a timeclock (circa 1970) for occupancy control.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

Event: Replace Electric and Electronic Controls

Concern:
Replacement cost based on the size of the building.

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

Updated: MAR-10

D3060.02.02 Pneumatic Controls**

Honeywell pneumatic room thermostats in each classroom. Pnuematic control Brunner air compressor station and air dryer are located in both mechanical rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	40	MAR-10

Event: Replace Pneumatic Controls

Concern:
Replacement cost based on the size of the building.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$22,000	Unassigned

Updated: MAR-10

D4020 Standpipes*

Exposed fire hose racks and valves in corridors

Rating	Installed	Design Life	Updated
3 - Marginal	1952	60	MAR-10

Event: Repair 3 Standpipes

Concern:
Exposed fire hoses are subject to damage.
Recommendation:
Install fire hose cabinets for proper housing of equipment.
Consequences of Deferral:
Hoses subject to damage may not work if required.

Type	Year	Cost	Priority
Repair	2010	$10,000	Low

Updated: MAR-10

D4030.01 Fire Extinguisher, Cabinets and Accessories*

2.3kg dry type fire extinguishers throughout corridors

Rating	Installed	Design Life	Updated
5 - Good	2000	30	MAR-10

S5 ELECTRICAL

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

120/208V, 400A, three phase, four wire Northern Electric main distribution with main breaker, meter section with meters externally mounted on the casing, and branch breaker distribution section.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	40	MAR-10

Event: Replace Main Electrical Switchboards

Concern:
Equipment is 57 years old, replacement parts are no longer available, reliable feeder protection can no longer be assured.

Recommendation:
Replace main distribution panel.

Consequences of Deferral:
Loss of power, chance of fire.

Type	Year	Cost	Priority
Failure Replacement	2010	$90,000	High

Updated: MAR-10

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

120/208V electrical sub panels are located throughout the building. Original fused panels were upgraded in 2000. The majority of the sub panels are manufactured by FPE.

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

Event: Replace Electrical Branch Circuit Panelboards

Concern:
Replacement cost based on the size of the building.

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$45,000	Unassigned

Updated: MAR-10

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

One switchboard panel located in 1952 mechanical room. The equipment that it serves includes the gym supply and exhaust fans, the make up air unit and panels D & F. There is no central motor control center although local motor control was found on some equipment.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	30	MAR-10

Event: Replace Switchboards

Concern:
The switchboard panel is beyond the end of its lifecycle and should be replaced.
Recommendation:
Replace switchboard panel
Consequences of Deferral:
Loss of power, chance of fire.

Type	Year	Cost	Priority
Failure Replacement	2010	$65,300	High

Updated: MAR-10

D5020.01 Electrical Branch Wiring*

Wiring in conduit and flexible metal, old receptacles, and light switches.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	50	MAR-10

Event: Replace Electrical Branch Wiring

Concern:
Based on information in a previous report, some electrical branch wiring is 57 years old. As no obvious upgrading has taken place, the insulation will be degraded in places and shorts could become a problem.
Recommendation:
Replace wiring and wiring devices.
Consequences of Deferral:
Poor power quality, potentially unsafe condition.

Type	Year	Cost	Priority
Failure Replacement	2010	$280,000	Medium

Updated: MAR-10

D5020.02.01 Lighting Accessories (Lighting Controls)*

Toggle type light switches . No motion sensors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	MAR-10

D5020.02.02.01 Interior Incandescent Fixtures*

There are two incandescent lamps located in the entrance hall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

D5020.02.02.02 Interior Florescent Fixtures**

Mostly T12 with magnetic ballasts throughout building. Combinations of lensed surface mounted and eggcrate type suspended. T12's are replaced with T8's when they fail. Retrofits on about 10% of fixtures to T8 fluorescent with electronic ballasts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

Event: Replace Interior Florescent Fixtures

Concern:
Replacement cost based on the size of the building.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$332,800	Unassigned

Updated: MAR-10

D5020.02.03.02 Emergency Lighting Battery Packs**

Distributed battery packs and incandescent heads for emergency lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	20	MAR-10

Event: Replace 20 Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$24,000	Unassigned

Updated: MAR-10

D5020.02.03.03 Exit Signs*

Incandescent exit signs are provided throughout the building.

Rating	Installed	Design Life	Updated
3 - Marginal	1970	30	MAR-10

Event: Upgrade Exit Signs

Concern:
Incandescent exit lights consume excessive power and require continual lamp replacement.

Recommendation:
Replace exit lights with LED.

Consequences of Deferral:
High energy and maintenance costs.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2010	$13,800	Low

Updated: MAR-10

D5020.03.01.01 Exterior Incandescent Fixtures*

Surface mounted, glass globe style over entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Some exterior lighting is provided by pole mounted H.P. sodium fixtures at the front of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

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

Photocell in each exterior light.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	MAR-10

D5030.01 Detection and Fire Alarm**

Edwards 2280 conventional fire alarm panel monitors pull stations and heat detectors. Bells are used as annuciation devices.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	MAR-10

Event: Replace Detection and Fire Alarm

Concern:
The Edwards fire panel has reached the end of its lifecycle and needs replacing as many Edward panel parts are now obsolete. Replacement cost based on the size of the building.

Recommendation:
Replace the Edwards fire panel

Consequences of Deferral:
The fire panel parts will become obsolete and in the event of a panel failure the school will be put at risk.

Type	Year	Cost	Priority
Failure Replacement	2010	$127,600	Medium

Updated: MAR-10

D5030.02.02 Intrusion Detection**

DSC power832 security control panel located in the 1912 mechanical room. Motion sensors throughout school.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	25	MAR-10

Event: Replace Intrusion Detection

Concern:
Replacement cost based on the size of the building.

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$127,600	Unassigned

Updated: MAR-10

D5030.02.03 Security Access**

A Galaxy Access Control system has been installed in the building to control the entrances. This system uses proximity cards.

Rating	Installed	Design Life	Updated
5 - Good	2009	25	MAR-10

Event: Replace Security Access

Concern:
Replacement cost based on the size of the building.

Type	Year	Cost	Priority
Lifecycle Replacement	2034	$7,700	Unassigned

Updated: MAR-10

D5030.04.01 Telephone Systems*

The building is served by a Mitel VOIP phone system.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	25	MAR-10

D5030.04.05 Local Area Network Systems*

Catagory 5 cable installed in computer room, administration and classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	15	MAR-10

D5030.05 Public Address and Music Systems**

Rauland public address and intercom system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	MAR-10

Event: Replace Public Address and Music System

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$6,500	Unassigned

Updated: MAR-10

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.03 Theater and Stage Equipment*

Manually operated, track mounted curtains and an audio system are provided in the stage area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	25	MAR-10

E1090.04 Residential Equipment*

Residential-grade appliances, including a refrigerator, stove and two microwave ovens, are provided in the lunch room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2006	10	MAR-10

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Fan shaped, painted plywood basketball backboards are provided in the gymnasium. Main court backboards are ceiling mounted on electrically operated steel frames. Sidewall backboards are mounted on fixed steel supports.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	15	MAR-10

E2010.02 Fixed Casework** - 1912 Section

Varnished and painted wood cabinets with plastic laminate countertops are provided in the office and some class rooms in the 1912 section.

Rating	Installed	Design Life	Updated
3 - Marginal	1950	35	MAR-10

Event: Replace casework (approx. 90m)

Concern:

The casework in the 1912 building is worn, chipped, splintered, damaged and displaying an overall aged appearance.

Recommendation:

Replace fixed casework.

Consequences of Deferral:

Deferral of the replacement may result in the loss of functionality of the cabinets, increased maintenance costs and a loss of aesthetic appeal.

Type	Year	Cost	Priority
Failure Replacement	2011	$90,000	Low

Updated: MAR-10

E2010.02 Fixed Casework** - 1952 Section

Fixed wooden casework and vanities with plastic laminate counter tops are provided in most classrooms, multi-user washrooms, staff room, library and office/administrative area.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	35	MAR-10

Event: Replace casework (approx. 120m)

Concern:
The original casework in the 1952 addition is worn, chipped, splintered and damaged.
Recommendation:
Replace original casework in the 1952 addition.
Consequences of Deferral:
Deferral of the replacement may result in the loss of functionality of the cabinets, increased maintenance costs and a loss of aesthetic appeal.

Type	Year	Cost	Priority
Failure Replacement	2011	$120,000	Low

Updated: MAR-10

E2010.03.01 Blinds** - 1912 Section

Most exterior windows in the 1912 section include vertical polyvinyl chloride window coverings.

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

Event: Replace Window Coverings (approx.75 blinds)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$25,000	Unassigned

Updated: MAR-10

E2010.03.01 Blinds** - 1952 Section

Most exterior windows in the 1952 section include horizontal slat blinds between the panes of glass.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	30	MAR-10

Event: Replace Window Coverings (approx.15 blinds)

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

Updated: MAR-10

E2020 Moveable Furnishings*

Classrooms and office/administrative areas are typically equipped with moveable wood and metal desks, chairs and tables.

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

F2020.01 Asbestos*

Materials suspected to contain asbestos include the vinyl asbestos floor tiles in basement of 1912 building as well as mechanical equipment and piping elbows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1912	0	MAR-10

F2020.04 Mould*

Apart from water-stained ceiling panels observed in several classrooms, no other reported or observed moisture ingress was observed. No mould was observed or reported.

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

F2020.09 Other Hazardous Materials*

Chemical storage practices observed during the assessment appeared to be acceptable.

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

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

There are steps up to all entries, however, there is a wood ramp, (built in1990) that provides access to the N.W. entry doors of the 1952 addition. Designated barrier free parking is not provided.

Rating	Installed	Design Life	Updated
2 - Poor	1952	0	MAR-10

Event: Provide barrier free access.

Concern:
Designated barrier free paring is not provided and a barrier free route to the wheel chair ramp is not provided.

Recommendation:
Provide a handicap drop off zone on the street complete with curb cuts and signage.

Consequences of Deferral:
Non-compliance with current barrier-free standards and poor accessibility for handicapped personnel.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$20,000	Low

Updated: MAR-10

K4010.02 Barrier Free Entrances*

There are no automatic entrance doors provided in the building.

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

Event: Install power assisted operators (2 door openers)

Concern:
No power assited operators on entry doors.

Recommendation:
Install power assisted operators to one set of exterior and vestibule doors at the main entrance to the 1952 addition.

Consequences of Deferral:
Non-compliance with current barrier-free standards and poor accessibility for handicapped personnel.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$12,000	Low

Updated: MAR-10

K4010.03 Barrier Free Interior Circulation*

The 1912 section of the building is three stories and the 1952 addition is only accessible via stairs from the 1912 building. No elevators or wheelchair lifts are provided in the school.

Rating	Installed	Design Life	Updated
2 - Poor	1912	0	MAR-10

Event: Install an elevator and wheelchair lift.

Concern:
The 1912 section of the building is three stories and the 1952 addition is only accessible via stairs from the 1912 building. No elevators or wheelchair lifts are provided in the school.

Recommendation:
Install an elevator in the 1912 building and install a wheelchair lift on the stairs to 1952 addition.

Consequences of Deferral:
Non-compliance with current barrier-free standards and poor accessibility for handicapped personnel.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$215,000	Low

Updated: MAR-10

K4010.04 Barrier Free Washrooms*

No barrier free washrooms are provided in the school.

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

Event: Renovate washrooms for barrier free access.

Concern:
No barrier free washrooms are provided in the school.

Recommendation:
Renovate the washrooms in 1952 addition for barrier free access.

Consequences of Deferral:
Non-compliance with current barrier-free standards and poor accessibility for handicapped personnel.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$40,000	Low

Updated: MAR-10