RECAPP Facility Evaluation Report

Holy Spirit RCS Reg Div #4

Father Leonard Van Tighem School B3673A Lethbridge

Report run on: April 12, 2011 9:39 AM

ility Details	Evaluation Details		
Father Leonard Van Tighem	Evaluation Company:	Stantec Consulting Ltd.	
25 Stoney Crescent W.	Evaluation Date:	November 30 2010	
Lethbridge			
B3673A			
4,808.31			
\$13,941,214			
1991		•	\$799,500 5.73%
	ility Details Father Leonard Van Tighem 25 Stoney Crescent W. Lethbridge B3673A 4,808.31 \$13,941,214 1991	Father Leonard Van Tighem 25 Stoney Crescent W. LethbridgeEvaluation Company: Evaluation Date: Evaluator Name:B3673A 4,808.31 \$13,941,214 1991Total Maintenand	Father Leonard Van Tighem 25 Stoney Crescent W. LethbridgeEvaluation Company:Stantec Consulting Ltd.B3673A 4,808.31

General Summary:

The Father Leonard Van Tighem elementary / junior high school is a single-storey concrete, concrete masonry unit and steel-framed structure that is built over a crawl space, and includes a mezzanine level that houses a mechanical room and spectator viewing area that overlooks the gymnasium. The building was constructed circa 1991 and is approximately 4,310 m² in area. A 200 m² portable addition was constructed on the building's east end in 1997, while three "modus" portable classrooms were installed in 2007 and 2009 at the building's west end. The school has a student capacity of 500.

Structural Summary:

The original 1991 school is built on a concrete grade beam and pile foundation set within a crawl space area, and includes concrete masonry unit walls on its exterior. The building's roof structure is complete with steel beams, open web steel joists and metal decking. The 1997 portable addition is understood to be built over a crawl space area, although the type of foundation present is unknown. The structure is of wood frame construction with brick and block veneer on its exterior. The roof of this structure is wood framed. The three portables installed between 2007 and 2009, manufactured by "modus", are modular buildings on steel screw jack supports.

Recommended work includes the following:

- Investigate and modify drainage measures in place around the facility and within the crawl space area
- Repair interior concrete masonry unit block walls where cracks have occurred

The structural components of the facility are in acceptable condition, overall.

Envelope Summary:

The original 1991 school exterior walls are clad with brick veneer or concrete masonry units and has a metal-clad soffit with a bent steel plate fascia. Windows and main entrance doors are aluminum-framed. The sloped school roof system is covered with clay tile. The 1997 portables are clad with brick veneer and concrete masonry units, and has a metal screen soffit with a stucco fascia. Windows and entrance doors are aluminum. The sloped roof of the addition is covered with metal. The 2007-2009 portables are constructed with exterior Structural Insulated Panels (SIPs) and clad with a stucco finish. The roof system is constructed with SIPs and a Sarnafil roofing membrane.

Recommended work includes the following:

- Repair damaged parging on exposed foundation elements above-grade
- Replace deficient sealant on the building perimeter

The building envelope components are in acceptable condition, overall.

Interior Summary:

The common areas of the original 1991 school have sheet vinyl flooring. The Administration area is carpeted. Washroom floors have vinyl composite tile. The classrooms in both the 1991 school and 1997 addition are primarily provided with carpet, except for a section adjacent to millwork where there is vinyl composite tile. Walls are painted concrete block and drywall. Ceilings are acoustic tile and drywall except for the gymnasium, main gathering area, and CTS classroom and storage room, which have exposed steel roof structures.

A flooring upgrade was completed in the last 4-5 years that accounted for approximately 75% of the school.

Recommended work includes the following:

- Repair worn sections of the gymnasium partition divider

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- Replace damaged lockers in the boys change room
- Re-grout ceramic tile flooring throughout the building
- Repair of Exterior Insulating and Finish System on the 1997 portable cluster
- Provide signage where portable fire extinguishers are stored in corridor lockers
- Install acoustical wall treatment within the music room
- Install a fume hood within the CTS paint storage area
- Construct a storage/maintenance structure on-site for storage of equipment and CTS supplies
- Install signage to identify barrier-free accessible parking stalls
- Install an automated door opener at the main north entrance
- Install a wheelchair lift to provide barrier-free access to the mezzanine viewing area
- Install roof tie-back anchors over the facility

The interior finishes are in acceptable condition, overall.

Mechanical Summary:

Domestic water is supplied by the municipality. Hot water is provided by two natural gas fired domestic water heaters in the mechanical room.

Heating is provided by a hot water heating system with a series of two natural gas fired boilers that supply the air handling unit heating coils, perimeter finned tube radiation terminals, fan coil units, and unit heaters throughout the building. Fresh air is supplied by three air handling units equipped with hot water coils and connected to a steam humidification system. General exhaust is provided by exhaust fans in the washrooms. The pneumatic HVAC devices are controlled by a central BMS.

The building is equipped with a wet pipe sprinkler system. Fire extinguishers are provided in wall mounted brackets in hallways.

Recommended work within the next five years includes:

- Replace hose bibbs.
- Repair boiler feed lines and humidification nozzles.
- Provide heating for the storage room / painting area.
- Investigate and improve ventilation for the shops area.
- Provide an external dust collection system for the shops.
- Provide exhaust for the storage room / painting area.
- Provide exhaust for the gymnasium shower rooms.
- Provide additional cooling capacity for the computer room.
- Investigate fire sprinkler system pressurization issues.

Overall, the mechanical components are in acceptable condition.

Electrical Summary:

Electricity for the building is supplied via underground service from a utility owned pad mounted transformer on the site. It enters the building through the primary switch rated for 1600A and 240V and feeds the central distribution panelboard and secondary panels.

Interior lighting is primarily provided by fluorescent tube fixtures with T8 bulbs and electronic ballasts. Interior lighting is controlled by line voltage switches, keyed switches, and motion sensors. Exterior lighting is provided by high pressure sodium wall packs. Exterior lighting is controlled by a photocell. Emergency lighting is provided by wall mounted battery packs with remote heads. Illuminated exit signs with LED bulbs indicate the paths of egress throughout the building.

The building is monitored by a fire detection and alarm system with smoke and heat detectors, manual pull stations, fire bells and strobes. The building is equipped with intrusion detection and security access.

Recommended work within the next five years includes:

- Upgrade lighting control in the gymnasium change rooms to motion sensors.
- Investigate and implement exterior lighting improvements to reduce vandalism.
- Replace failed clocks.
- Replace failed speakers in the paging system.
- Upgrade the television system to restore functionality.

Overall, the electrical systems appear to be in 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 cast-in-place perimeter and intermediate grade beams on piles with pile cap support system comprised of pre-cast concrete slab floor panels. It is understood that the perimeter of the building has rigid Insulation and vapor retarder applied to the exterior of the grade beams.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

A2020 Basement Walls (& Crawl Space)*

The building is constructed with a crawl space under the entire structure. A sump and drainage pit are located in the crawl space below the corridor adjacent to the gymnasium. A sump is also present below the floor in the CTS classroom corridor.

Rating	Installed	Design Life	<u>Updated</u>
3 - Marginal	1991	0	APR-11

Event: Conduct Drainage Modifications (approx. 4,310 m²)

Concern:

It is understood that a continuous flow of water seepage is present in the crawl space below the structure.

Recommendation:

Conduct drainage modifications, based on the results of the preliminary study. This may include re-grading of exterior landscaping or internal soils within the crawl space area, along with the installation of additional sump pits. An allowance for repairs is provided; however, actual repair costs are subject to the results of the initial investigation.

Туре	<u>Year</u>	Cost	Priority
Repair	2012	\$200,000	Medium

Updated: APR-11

Event: Investigate Seepage into Crawl Space

Concern:

It is understood that a continuous flow of water seepage is present in the crawl space below the structure.

Recommendation:

A study is recommended to determine the source of ground water seepage, and present options for remedial actions required.

Туре	Year	Cost	Priority
Study	2011	\$15,000	Medium

B1010.01 Floor Structural Frame (Building Frame)*

The building floor is constructed with pre-cast concrete hollow core slabs that are suspended above the crawl space. The roof structure for the facility is understood to be supported by a combination of hollow structural steel columns and concrete masonry unit walls.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

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

The building interior corridor walls, constructed with concrete masonry blocks, provide support for the mechanical room floor on the mezzanine level, and the roof structural frame.

Rating	Installed	Design Life	<u>Updated</u>
3 - Marginal	1991	0	APR-11

Event: Repair Interior Block Walls (approx. 100 m²)

Concern:

Minor cracking of concrete masonry units was observed in the Gymnasium, Boys change room and corridors, possibly due to slight building movement as a result of the presence of water below the structure.

Recommendation:

Re-point and re-paint interior block walls where cracks have occurred concurrent with remedial repairs to the crawl space area and surrounding drainage.

Туре	Year	Cost	Priority
Repair	2012	\$7,500	Low

Updated: APR-11

B1010.03 Floor Decks, Slabs, and Toppings*

The building's suspended floor structure over the crawl space is constructed with a concrete topping over the pre-cast concrete slab floor structure.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

B1010.05 Mezzanine Construction*

The mezzanine level adjacent to the gymnasium is constructed with cast-in-place concrete supported by concrete masonry units, and incorporates tiered seating levels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

B1020.01 Roof Structural Frame*

The roof structural frame consists of open-web-steel-joists and metal roof decking, supported by hollow structural steel columns and concrete masonry unit walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

B1020.04 Canopies*

The north main entrance canopy is constructed with open-web-steel-joists, metal roof decking, clay tiles, and translucent panels.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

The building's exterior walls are constructed with a brick veneer on the upper half of all elevations.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

The building's exterior walls are constructed with split-faced architectural concrete masonry on the lower half of all elevations.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

B2010.01.08 Cement Plaster (Stucco): Ext. Wall*

Cement parging is provided over rigid insulation on the perimeter of the facility where exposed slab edges and foundation walls are visible above-grade.

<u>Rating</u>	Installed	Design Life	Updated
3 - Marginal	1991	0	APR-11

Event: Repair Cement Parging (approx. 40 m²)

Concern:

There are numerous areas on the building perimeter where the cement parging has cracked and spalled off foundation elements and external rigid insulation.

Recommendation:

Repair damaged sections of parging at foundations.

Consequences of Deferral:

The damaged parging reduces the aesthetic appeal of the facility and opens the underlying rigid insulation to potential damage.

Туре	Year	<u>Cost</u>	Priority
Repair	2011	\$5,000	Low

Updated: APR-11

B2010.01.09 Expansion Control: Exterior Wall Skin*

Expansion joints are installed at periodic intervals within the exterior brick veneer and split faced block masonry to accommodate thermal expansion.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

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

Sealant is provided in construction joints and around exterior windows/doors on the buildings perimeter.

Rating	Installed	Design Life	Updated
3 - Marginal	1991	20	APR-11

Event: Replace Joint Sealers (approx. 1,000 m)

Concern:

Joint sealant in construction joints is showing signs of preliminary separation and cracking. **Recommendation:**

Replace joint sealant in construction joints and around exterior window/door openings on the building perimeter.

Туре	<u>Year</u>	<u>Cost</u>	Priority
Failure Replacement	2012	\$32,000	Medium

Updated: APR-11

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

The building's exterior walls are constructed with concrete masonry units.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

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

Construction drawings were not available for review as part of the assessment, however it is understood that exterior walls incorporate insulation and a vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

B2010.06 Exterior Louvers, Grilles, and Screens*

Air in-take louvers consisting of pre-formed steel are installed on the south upper exterior elevation at the mezzanine level to support air-flow and ventilation within the facility.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

B2010.09 Exterior Soffits*

The building soffits are comprised of steel-framed metal cladding with bent steel plate fascia.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

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

Vaulted ceilings over the main gathering area, west corridor, and south corridor are provided with clerestory exterior windows comprised of sealed glass units set in fixed aluminum frames.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	40	APR-11

Event: Replace Clerestory glazing (approx. 85 sq m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2031	\$103,000	Unassigned

Updated: APR-11

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

Exterior windows installed on the building perimeter are comprised of sealed glass units set in fixed aluminum frames.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	40	APR-11

Event: Replace exterior windows (approx. 80 sq m)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2031	\$88,000	Unassigned

Updated: APR-11

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Exterior entry doors are comprised of single-leaf, fully-glazed, hinge-mounted units with insulating glass set in steel frames with matching sidelights.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	30	APR-11

Event: Replace Storefront Doors (approx. 8 door leafs)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2021	\$39,000	Unassigned

B2030.02 Exterior Utility Doors**

The building's exterior utility doors are hollow metal units with pressed steel frames located at the west gymnasium entrance, northwest meter room and west exterior storage area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	40	APR-11

Event: Replace Exterior Utility Doors (approx. 6 units)

Туре	Year	Cost	Priority
Lifecycle Replacement	2031	\$11,000	Unassigned

Updated: APR-11

B3010.02.02 Roofing Tiles**

The pitched roof surfaces over the facility are covered with clay roofing tiles.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

Event: Replace roofing tiles (approx 5,000 sq m)

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2021	\$961,000	Unassigned

B3010.08.02 Metal Gutters and Downspouts**

Metal rain leaders and downspouts are directed to an underground perimeter weeping tile system.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	30	APR-11

Event: Completed - Redirect downspout drainage to below asphalt at the northeast entrance. Provide additional rainwater leaders on portables.

Concern:

Downspout drainage directly onto asphalt at the northeast entrance and water run-off from portables roof resulting in ponding and icing in winter.

Recommendation:

Trench and redirect downspout drainage to below asphalt and reroute water out to landscaped area where grade elevation is lower, eliminating ponding and freezing on asphalt.

Install additional rainwater leaders and provide similar resolution as above.

Consequences of Deferral:

Potential for physical injury.

Туре	Year	Cost	Priority
Preventative Maintenance	2009	\$22,500	Medium

Updated: APR-11

Event: Replace gutters and downspouts (approx. 1,000 m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2021	\$21,000	Unassigned

S3 INTERIOR

C1010.01 Interior Fixed Partitions* - Unit Masonry

Interior partitions bordering corridors and classrooms are comprised of painted concrete masonry units.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	100	APR-11

C1010.01.07 Framed Partitions (Stud)* - Stud Walls

Steel stud partitions sheathed with gypsum board are provided in office areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	100	APR-11

C1010.03 Interior Operable Folding Panel Partitions** - Corridor Partition

A folding partition is provided in the corridor adjacent to the gymnasium, between the corridor and main gathering space.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	30	APR-11

Event: Replace Corridor Partition (approx. 9 sq m)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2021	\$13,000	Unassigned

C1010.03 Interior Operable Folding Panel Partitions** - Gymnasium Divider

The gymnasium is provided with a motorized roll-up fabric panel partition.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1991	30	APR-11

Event: Repair fabric curtain divider (approx. 25 sq m)

Concern:

The hoisting cables for the curtain divider are wearing through the fabric and grommets. **Recommendation:**

Repair curtain fabric and grommets.

Туре	Year	Cost	Priority
Repair	2011	\$5,000	Low

Updated: APR-11

Event: Replace Gymnasium Partition (approx. 80 sq m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2021	\$25,000	Unassigned

Updated: APR-11

C1010.04 Interior Balustrades and Screens, Interior Railings*

The gymnasium mezzanine balcony is provided with welded and painted steel balustrades and handrails.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

C1010.05 Interior Windows*

Interior windows installed in random locations are tempered glass set in pressed steel frames.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C1010.06 Interior Glazed Partitions and Storefronts*

Interior glazed partitions and storefronts comprised of tempered glass set in aluminum framing are provided along the corridor adjacent to the administration office and lunchroom.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C1010.07 Interior Partition Firestopping*

Penetrations through interior partitions are generally sealed where voids are present.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C1020.01 Interior Swinging Doors (& Hardware)*

Interior swinging doors are typically solid core wood or painted hollow metal, set in painted, pressed steel frames and typically include kick-plates and small vision panels.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

C1020.03 Interior Fire Doors*

Interior doors at fire separations, such as stairwells, mechanical and storage rooms, typically consist of painted hollow core steel set in painted, pressed steel frames. Fire labels are provided on doors and frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

C1020.04 Interior Sliding and Folding Doors*

A sliding aluminum storefront is provided at the library and Reception area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

C1030.01 Visual Display Boards**

Classrooms are equipped with a combination of wall-mounted chalk boards and white boards. Wall-mounted cork or fabric-covered boards are installed in random locations throughout the building for posting of information.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	20	APR-11

Event: Replace Visual Display Boards (approx. 52 display boards)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$42,000	Unassigned

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

Floor and wall-mounted, painted metal stall partitions are installed in multi-user washrooms and change rooms.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	30	APR-11

Event: Replace Fabricated Compartments (approx. 30

sta	IIS

TypeYearCostPriorityLifecycle Replacement2021\$54,000Unassigned

Updated: APR-11

C1030.08 Interior Identifying Devices*

Each room in the facility is labeled with wall-mounted, laminated plastic signage.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C1030.10 Lockers**

Double height, painted steel locker units are provided in corridors and change rooms within the facility.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1991	30	APR-11

Event: Replace Lockers (approx. 250 lockers)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2021	\$320,000	Unassigned

Updated: APR-11

Event:	Replace boys change room lockers (approx. 12 double units)				
	Concern: The boys change room lockers are damaged and not functioning as intended. Recommendation:				

Replace change room lockers.

I	ype	
R	epair	

<u>Year</u> <u>Cost</u> 2011 \$8,000 Priority Low

C1030.12 Storage Shelving*

Metal and wood-framed storage shelving is present in most classrooms, custodial areas and storage rooms.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C1030.14 Toilet, Bath, and Laundry Accessories*

Accessories in washrooms throughout the facility typically include wall-mounted mirrors, metal grab bars and soap/paper towel/toilet paper dispensers.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C2010 Stair Construction*

Cast in place concrete stairs are provided from main level to the gymnasium mezzanine level.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C2020.08 Stair Railings and Balustrades*

Painted wall-mounted steel hand rails are provided at concrete stairs that lead from the main level to the gymnasium mezzanine level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

C3010.06 Tile Wall Finishes**

Ceramic tile wall finishes are installed in multi-user washrooms, change rooms, and in the gymnasium office shower.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	40	APR-11

Event: Replace Tile Wall Finishes (approx. 200 sq m)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2031	\$56,000	Unassigned

C3010.09 Acoustical Wall Treatment**

Acoustic wall panels are provided on the upper perimeter of the gymnasium walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	20	APR-11

Event:	Replace Acoustical Wall Treatment in Gymnasium (approx. 320 sq m)					
	<u>Type</u>	<u>Year</u>	<u>Cost</u>	Priority		
	Lifecycle Replacement	2014	\$74,000	Unassigned		

Updated: APR-11

C3010.11 Interior Wall Painting*

Gypsum board and concrete masonry unit walls constructed throughout the facility typically include a paint finish.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C3020.01.02 Paint Concrete Floor Finishes*

The CTS shop and adjacent storage room floors are painted.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

C3020.02 Tile Floor Finishes**

	n adjacent to the urinals and on the shower room floors.

Ceramic	c floor tiles are provid	ed in the boy	s washroom	n adjacen	t to the urinals and on the shower room floors
<u>Rating</u> 3 - Margi	inal	Installed D	esign Life 50	Update APR-2	
5					
Event:	Repair floor tile gr	out (approx.	75 sq m)		
	Concern: Floor tile grout is room areas. Recommendation: Re-grout existing flo	-			-
	Туре	Year	Cost		Priority
	Repair	2011	\$8,000		Low
	Updated: APR-11				
Event:	Replace Tile Floor	Finishes (ap	prox. 75 se	<u>q m)</u>	
	Type Lifecycle Replacemen	t <u>Year</u> 2041	<u>Cost</u> \$14,000		Priority Unassigned
	Updated: APR-11				
<u>C3020.0</u>	04 Wood Flooring**				
The gyn	nnasium is provided v	with wood stri	p flooring.		
<u>Rating</u> 4 - Acce	otable	Installed D 1991	esign Life 30	Update APR-2	
Event:	Replace Wood Flo	ooring (appro	orox. 700 s	<u>q m)</u>	
	Type Lifecycle Replacemen	t <u>Year</u> 2021	<u>Cost</u> \$190,000		Priority Unassigned
	Updated: APR-11				
<u>C3020.0</u>	07 Resilient Flooring	g** - 1991			
Resilien	t floor tile is provided	in the multi-u	iser washro	oms, cha	ange rooms and a portion of the classrooms.
<u>Rating</u> 4 - Acce	otable	Installed D 1991	esign Life 20	Update APR-	

Event: Replace VCT flooring (approx. 200 sq m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$12,000	Unassigned

C3020.07 Resilient Flooring** - 2007

It was reported that approximately 75 % of resilient floor tile was replaced with sheet resilient flooring in 2007. The main replacement areas were corridors and circulation areas.

Rating	Installed	Design Life	Updated
5 - Good	2007	20	APR-11

Event: Replace Resilient Flooring (approx. 2500 sq m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2027	\$221,000	Unassigned

Updated: APR-11

C3020.08 Carpet Flooring** - 1991

Low pile carpeting is provided in approximately 30 % of the facility, including administration offices, library and classrooms. Carpeting in the library and classrooms is understood to be original to the facility's construction.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	15	APR-11

Event: Replace carpet flooring (approx. 775 sq m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$56,000	Unassigned

C3020.08 Carpet Flooring** - 2010

Low pile carpet is provided in approximately 30 % of the facility, including administration offices, library and classrooms. Carpeting in five offices and at the mezzanine spectator viewing area is understood to have been replaced circa 2010.

Rating	Installed	Design Life	Updated
5 - Good	1991	15	APR-11

Event: Completed - Carpet replacement

Concern: Carpet rolling - in five offices and mezzanine Recommendation: Carpet replacement Consequences of Deferral: Potential trip hazzard.

Туре	<u>Year</u>	Cost	Priority
Failure Replacement	2010	\$13,000	Low

Updated: APR-11

Event: Replace Carpet Flooring (approx. 225 sq m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2025	\$16,000	Unassigned

Updated: APR-11

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Washrooms and bulkheads in the facility include painted gypsum board ceilings.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

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

Offices, classrooms and corridors are equipped with suspended metal T-bar grid ceilings that include drop-in acoustical ceiling tiles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	25	APR-11

Event: Replace Acoustic Ceiling Treatment (appro	ox 2,000
--------------------------------------------------	----------

sq	<u>m)</u>

Туре	Year	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$192,000	Unassigned

C3030.07 Interior Ceiling Painting*

The exposed structural steel and roof deck in the gymnasium, CTS classroom, Meter room, storage room and main gathering space are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

S4 MECHANICAL

D2010.04 Sinks**

Stainless steel sinks with manual valve sets are installed in classrooms, shops, staff room, and kitchen.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	30	APR-11

Event: Replace 20 Sinks

<u>Type</u>	Year	Cost	Priority
Lifecycle Replacement	2021	\$33,000	Unassigned

Updated: APR-11

D2010.05 Showers**

Showers with manual valve sets are provided in the Men's and Women's change rooms and the gymnasium office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	30	APR-11

Event: Replace 4 Showers & Valve Sets

Туре	Year	Cost	Priority
Lifecycle Replacement	2021	\$8,800	Unassigned

Updated: APR-11

D2010.08 Drinking Fountains/Coolers**

Wall mounted vitreous china drinking fountains are installed in corridors throughout the building.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1991	35	APR-11

Event: Replace 8 Drinking Fountains

Туре	Year	Cost	Priority
Lifecycle Replacement	2026	\$15,000	Unassigned

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

Washrooms are equipped with vitreous china flush valve water closets and enameled steel lavatories with manual valve sets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	35	APR-11

Event: Replace 20 Lavatories and 20 Water Closets

Туре	Year	Cost	Priority
Lifecycle Replacement	2026	\$73,000	Unassigned

Updated: APR-11

D2020.01.01 Pipes and Tubes: Domestic Water*

The domestic water supply piping appeared to be copper throughout.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

D2020.01.02 Valves: Domestic Water**

Isolation valves are installed on the domestic hot and cold water systems.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	40	APR-11

Event: Replace 40 Isolation Valves

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2031	\$40,000	Unassigned

Updated: APR-11

D2020.01.03 Piping Specialties (Backflow Preventors)**

Backflow prevention devices are installed on the fire sprinkler and irrigation lines.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	20	APR-11

Event: Replace 3 Backflow Prevention Devices

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$12,000	Unassigned

D2020.01.08 Hose Bibbs*

Hose bibbs are installed at intervals around the building exterior.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1991	0	APR-11

Event: Replace 12 Hose Bibbs

Concern:

Staining of the exterior wall below the hose bibbs was observed and leaking was reported by site representatives. **Recommendation:** Replace hose bibbs.

Туре	<u>Year</u>	Cost	Priority
Failure Replacement	2011	\$6,000	Low

Updated: APR-11

D2020.02.02 Plumbing Pumps: Domestic Water**

Recirculation pumps are provided for the domestic hot water system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	20	APR-11

Event: Replace 2 Pumps

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$4,000	Unassigned

Updated: APR-11

D2020.02.04 Domestic Water Conditioning Equipment**

A water softening system is installed on the feedwater for the steam humidification boiler.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	20	APR-11

Event: Replace Water Softening System

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$2,000	Unassigned

D2020.02.06 Domestic Water Heaters** - 1991

Hot water is provided by two natural gas fired domestic water heaters. The water heater installed in 1991 is manufactured by Rheem and has an input of 95kW, volume of 284L, and recovery capacity of approximately 1,000L/h.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	20	APR-11

Event: Replace 1 Domestic Water Heater

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$5,000	Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters** - 2007

Hot water is provided by two natural gas fired domestic water heaters. The water heater installed in 2007 is manufactured by A.O.Smith and has an input of 95kW, volume of 246L, and recovery capacity of approximately 1,000L/h.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	20	APR-11

Event: Replace 1 Domestic Water Heater

Туре	Year	Cost	Priority
Lifecycle Replacement	2027	\$5,000	Unassigned

Updated: APR-11

D2020.03 Water Supply Insulation: Domestic*

The majority of the domestic water supply piping appeared to be insulated.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

D2030.01 Waste and Vent Piping*

Waste and vent piping appeared to be a combination of cast iron and PVC.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

D2030.02.04 Floor Drains*

Floor drains are installed in the shower facilities and in the various mechanical and service rooms.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

D2040.02 Rain Water Drainage Specialties

Two sump pumps are installed for the building to discharge groundwater to the municipal storm sewer system.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

D3010.02 Gas Supply Systems*

Natural gas is supplied to the heating boiler, steam boiler, and domestic water heaters. A natural gas connection is also provided to the science room laboratory benches.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

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

Heating water is provided by two natural gas fired boilers manufactured by Weil McLain (LGB-19W), each with approximate input capacity of 469kW.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1991	35	APR-11

Event: Replace 2 Heating Boilers

Туре	Year	Cost	Priority
Lifecycle Replacement	2026	\$80,000	Unassigned

Updated: APR-11

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

Galvanized flues and chimneys, shared by the adjacent domestic water heaters, exhaust combustion gases through the roof of the mechanical room.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	35	APR-11

Event: Replace 20m Flues and Chimeys

Туре	Year	Cost	Priority
Lifecycle Replacement	2026	\$12,000	Unassigned

Updated: APR-11

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

The heating water boilers are served by a chemical treatment program with a pot feeder.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

D3020.06 Other Heat Generation Systems*

Heat tape was observed on fire sprinkler line in storage room.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1999	0	APR-11

Event: Install Heating for Storage/Paint Room

Concern:

The storage room in the shop area is not heated. Heat trace has been placed on the fire sprinkler line to prevent it from freezing. This is not very efficient and there is a relatively high chance that the heat trace will fail. The storage room is also used by the students for spray painting and therefore should be entirely heated.

Recommendation:

Install a means of heating the storage/paint room based on the recommendations of the study.

Туре	Year	Cost	Priority
Repair	2011	\$2,000	High

Updated: APR-11

Event: Investigate Heating Requirements for Storage/Paint Room

Concern:

The storage room in the shop area is not heated. Heat trace has been placed on the fire sprinkler line to prevent it from freezing. This is not very efficient and there is a relatively high chance that the heat trace will fail. The storage room is also used by the students for spray painting and therefore should be entirely heated.

Recommendation:

Investigate the heating requirements for the space and determine an appropriate heating system.

Consequences of Deferral:

The heat trace uses electrical energy which is relatively expensive when compared to the gas required to heat the hot water in a unit heater. Also, if the heat trace fails, the sprinkler pipe may freeze.

Туре	Year	Cost	Priority
Study	2011	\$2,000	High

D3040.01.01 Air Handling Units: Air Distribution**

Three air handling units with hot water coils ventilate the building. AHU-1: Engineered-Air, LM-15-C, 7780 L/s, 10 kW motor. AHU-2: Engineered-Air, LM-18-C, 9200 L/s, 10 kW motor. AHU-3: Engineered-Air, LM-25-C, 12260 L/s, 19 kW motor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	30	APR-11

Event: Replace 3 Air Handling Units

Туре	Year	Cost	Priority
Lifecycle Replacement	2021	\$125,000	Unassigned

Updated: APR-11

D3040.01.02 Fans: Air Distribution (Remote from AHU)*

All air-handling units have separate axial return fans.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	FEB-06

D3040.01.04 Ducts: Air Distribution* - Ceiling

Galvanized steel supply and return ductwork is installed in the ceiling space.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

D3040.01.04 Ducts: Air Distribution* - Floor Slab

Below slab ductwork is installed in the entrance foyer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

D3040.01.04 Ducts: Air Distribution* - Shops

The industrial arts shop is ventilated by the general building system.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1991	30	APR-11

Investigate shop ventilation needs and isolation Event: requirements for ductwork

Concern:

The industrial arts shop shares a common ventilation system with some of the classrooms. This creates the potential for shop dust and fumes to be circulated in the ventilation system. **Recommendation:**

Investigate the ventilation requirements of the shops, including the isolation of the shop ductwork system from the rest of the building.

Consequences of Deferral:

Indoor air quality problems may arise due to interconnection of duct systems.

Туре	<u>Year</u>	<u>Cost</u>	Priority
Study	2011	\$2,000	Medium

Updated: APR-11

Revise ventilation and ductwork to prevent Event: circulation of shop dust

Concern:

The industrial arts shop shares a common ventilation system with some of the classrooms. This creates the potential for shop dust and fumes to be circulated in the ventilation system. **Recommendation:**

Revise ventilation system as per recommendations of the study. The budgetary cost allowance provides for a make-up air unit to accommodate a dust collection unit.

Туре	Year	Cost	Priority
Repair	2011	\$20,000	Medium

Updated: APR-11

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Air inlets and outlets throughout the building are square and linear grilles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

D3040.03.01 Hot Water Distribution Systems**

Heating water is produced by the natural gas fired boilers and distributed to the air handling unit coils, perimeter finned tube radiation terminals, and unit heater coils throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	40	APR-11

Event: Replace Hot Water Distribution System (based on

<u>GFA)</u>

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2031	\$492,000	Unassigned

Updated: APR-11

D3040.04 Special Exhaust Systems - Dust Collection

An internal dust collection system serves the industrial art shops.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	0	0	APR-11

Event: Install Exterior Dust Collection Unit

Concern:

The dust collection system collects dust internally in the shop. This does not ensure proper elimination of dust in the air.

Recommendation:

Provide exterior dust collection unit for the shop. Installation of a make-up air unit to offset the negative pressure caused by this system, is included under D3040.01.04 - Shops.

Туре	Year	Cost	Priority
Repair	2012	\$115,000	Medium

D3040.04.01 Fans: Exhaust**

Air is exhausted from the building by exhaust fans located in the washrooms.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	30	APR-11

Event: Install 2 Exhaust Fans for Showers

Concern:

The gymnasium does not have an exhaust fan. Elevated moisture levels can damage architectural finishes. **Recommendation:** Provide an exhaust fan for the gymnasium shower room.

Туре	Year	Cost	<u>Priority</u>
Program Functional Upgrade	2011	\$4,000	Low

Updated: APR-11

Event: Replace 4 Exhaust Fans

Туре	Year	Cost	Priority
Lifecycle Replacement	2021	\$8,000	Unassigned

Updated: APR-11

D3040.04.03 Ducts: Exhaust*

Galvanized steel and flexible ductwork connects exhaust grilles and exhaust fans.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust inlets are typically ceiling level square grilles.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

D3050.01.01 Computer Room Air Conditioning Units**

Cooling for the computer room is provided by a through-the-wall style air conditioning unit.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	30	APR-11

 Event:
 Replace Air Conditioning Unit for Computer Room (17.6kW)

 Concern:
 The computer room air conditioning unit does not provide sufficient cooling.

 Recommendation:
 Recommendation:

Replace the cooling unit with a split system cooling unit of larger capacity.

Consequences of Deferral:

The computer room will continue to be uncomfortably warm.

Туре	Year	Cost	Priority
Failure Replacement	2011	\$19,000	Low

Updated: APR-11

D3050.03 Humidifiers**

A steam injection system provides humidification for the supply air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	25	APR-11

Event: Repair Steam Boiler Feed Lines and Nozzles

Concern:

The water feed lines for the steam boiler appeared to be leaking. It was reported that deposits in feed lines and nozzles impede the function of the humidification system.

Recommendation:

Repair steam boiler feed lines and spray nozzles in air handling units.

Туре	<u>Year</u>	Cost	Priority
Repair	2011	\$4,000	Medium

Updated: APR-11

Event: Replace Steam Humidification System

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$12,000	Unassigned

D3050.05.02 Fan Coil Units**

Cabinet heaters are installed in entrances and corridors between the main building and portables.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	30	APR-11

Event:	Replace 6 Fan Coil Uni	<u>ts</u>			
	<u>Type</u> Lifecycle Replacement	Year Cost 2021 \$31,0		Priority Unassigned	
	Updated: APR-11				
D3050.0	5.03 Finned Tube Radia	tion**			
The hot v	water heating systems fe	ed perimeter fin	ned tube rac	diation terminals throughout the building.	
<u>Rating</u> 4 - Accep		alled <u>Design</u> 991 40	Life <u>Updat</u> APR		
Event:	Repalce Finned Tube F	adiation (4,80	8m² GFA)		
	<u>Type</u> Lifecycle Replacement	<u>Year</u> 2031 <u>Cost</u> \$250		Priority Unassigned	
	Updated: APR-11				
D3050.0	5.06 Unit Heaters**				
Unit heat	ters with hot water heatin	g coils provide	heating in m	echanical and service rooms.	
<u>Rating</u> 4 - Accep		alled Design 991 30	Life Updat APR		
Event:	Replace 2 Unit Heaters				
	<u>Type</u> Lifecycle Replacement	<u>Year</u> <u>Cost</u> 2021 \$7,00		<u>Priority</u> Unassigned	
	Updated: APR-11				
D3060.02	2.02 Pneumatic Control	<u>S**</u>			
Pneumat	tic controls by Johnson C	ontrols are insta	alled on heat	ting and ventilation equipment.	
<u>Rating</u> 4 - Accep		alled Design 991 40	Life Updat APR		
Event:	Replace Pneumatic Co	ntrols (4,808m [:]	² GFA)		

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2031	\$31,000	Unassigned

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

The building is connected to a central Johnson Controls DDC system which provides minimal control of heating and ventilation equipment.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1999	20	APR-11

Event: Replace BMS (4,808m² GFA)

Concern: Inadequate control of heating systems. **Recommendation:** Complete the conversion of the building controls to BMS.

Туре	Year	Cost	Priority
Failure Replacement	2013	\$105,000	Low

D4010 Sprinklers: Fire Protection*

The building is equipped with a wet pipe fire sprinkler system.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1991	0	APR-11

Event: Investigate Sprinkler Pressurization Issues

Concern:

It was reported that the fire sprinkler system frequently loses pressurization and that a manual jockey pump is used on a weekly basis to maintain pressure in the system. Part of the fire sprinkler systems drains to the building exterior and has reported issues with freezing in the winter.

Recommendation:

Investigate the cause of pressure loss in the sprinkler system and recommend repairs.

Туре	Year	Cost	Priority
Study	2011	\$2,000	Medium

Updated: APR-11

Event: Repair Sprinkler System

Concern:

It was reported that the fire sprinkler system frequently loses pressurization and that a manual jockey pump is used on a weekly basis to maintain pressure in the system. Part of the fire sprinkler systems drains to the building exterior and has reported issues with freezing in the winter.

Recommendation:

Repair pressurization issues in the fire sprinkler system based on study recommendations.

Туре	<u>Year</u>	<u>Cost</u>	Priority
Repair	2011	\$10,000	Medium

Updated: APR-11

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Hand held fire extinguishers are installed in wall mounted brackets throughout the building.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

S5 ELECTRICAL

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

The main switch, manufactured by Square D, has a 240 V, 1200 A main GFI breaker and 1600 A bussing for main and CDP. The CDP is 50% full. Digital meter located on CDP, running load between 375A and 400A.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	40	APR-11

Event: Replace the main electrical switch

Туре	Year	Cost	Priority
Lifecycle Replacement	2031	\$30,000	Unassigned

Updated: APR-11

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

Electrical panelboards, the majority of which appeared to be manufactured by SquareD, are rated for 120/208V electrical supply. Panels are generally between 75 and 100% full; the shop panel is 10% full.

It was reported in the 2005 assessment that feeder conduits to the shop panels were severely corroded. It could not be confirmed that this repair had been completed, however no evidence of the need for repair (i.e. corrosion) was observed.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	30	APR-11

Event: Replace 10 Electrical Panleboards

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2021	\$50,000	Unassigned

Updated: APR-11

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

A motor control centre in the mechanical room serves the HVAC equipment. It includes motor starters and capacitor banks on larger motors. A motor control centre in the shop area serves the shop equipment.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1991	30	APR-11

Event: Replace 2 Motor Control Centres

Туре	Year	Cost	Priority
Lifecycle Replacement	2021	\$56,000	Unassigned

D5020.01 Electrical Branch Wiring*

Electrical branch wiring is understood to be copper throughout. Wiring devices and branch circuit wiring are reportedly adequate for the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

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

Classrooms typically have line voltage switching. Low voltage switches are used for local lighting controls in gymnasium. Hallways have local switches as well as a master control contactor, which can be controlled automatically by the BMS, or by a keyed switch on the contactor panel. Motion sensing switches are installed for lighting in the washrooms.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1991	0	APR-11

Event: Install motion sensor lighting control in change rooms

Concern:

Lights in the change rooms are controlled by keyed switches that are on all day, which is very inefficient. **Recommendation:**

Add motion sensor with wire guard in gym change rooms.

Туре	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2011	\$2,000	Medium

Updated: APR-11

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent fixtures are installed in custodial and storage rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

D5020.02.02.02 Interior Fluorescent Fixtures**

The majority of the interior lighting throughout the building is provided by fluorescent tube fixtures with T8 bulbs and electronic ballasts.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	30	APR-11

Event: Replace 400 fluorescent light fixtures

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2021	\$154,000	Unassigned

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting is provided by centralized battery packs with remote DC heads. The system is reportedly tested regularly and repaired as required.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	20	APR-11

Event: Replace 5 Emergency Lighting Battery Packs

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$10,000	Unassigned

Updated: APR-11

D5020.02.03.03 Exit Signs*

Illuminated exit lighting with LED bulbs indicate the paths of egress throughout the building.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

D5020.02.10 Theatrical Lighting*

The drama room has an open stage light grid and several stage lights.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Lighting on the building exterior consists of high pressure sodium wall packs.

<u>Rating</u>	Installed	Design Life	Updated
3 - Marginal	1991	0	APR-11

Event: Improve Exterior Lighting for Safety

Concern:

Repeated vandalism was reported in poorly lit areas around the building exterior.

Recommendation:

Investigate and implement, in cooperation with neighbouring sites, options for increasing the lighting levels in the vandalism-prone areas.

Туре	Year	Cost	Priority
Program Functional Upgrade	2011	\$5,000	High

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

Exterior lighting is controlled by a photocell.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

D5030.01 Detection and Fire Alarm**

The building is monitored by an Edwards ESA 2000 fire alarm system. Detection devices include heat and smoke detectors and manual pull stations. Annunciation devices include fire bells and strobes in high dB areas like the music room.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	25	APR-11

Event:	Replace Fire Detection and Alarm System (based on GFA)					
	Туре	Year	Cost	Priority		
	Lifecycle Replacement	2016	\$138,000	Unassigned		

Updated: APR-11

D5030.02.02 Intrusion Detection**

The building is monitored by a Magnum Alert 1000 security system and is equipped with motion detectors and door/window contacts. A Johnson Controls card reader system is provided for access.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	25	APR-11

Event: Replace Intrusion Detection System (based on GFA)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$138,000	Unassigned

D5030.03 Clock and Program Systems*

Wall mounted clocks are provided in classrooms and corridors throughout the building.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	0	0	APR-11

Event: Replace 10 Failing Clocks

Concern: It was reported that individual clocks are failing. **Recommendation:** Replace failing clocks.

Туре	Year	Cost	Priority
Failure Replacement	2011	\$2,000	Low

Updated: APR-11

D5030.04.01 Telephone Systems*

Telephone system is a Rauland Borg Telecenter V with paging and public address functionality. Wall mounted handsets are installed in each classroom.

Rating	Installed	Design Life	Updated
3 - Marginal	1991	0	APR-11

Event: Repair Paging System Speakers

Concern:

It was reported that several rooms have intermittent speaker malfunctions and the room display in the main office has malfunctioned.

Recommendation:

Repair the paging system speakers and room display.

Туре	Year	<u>Cost</u>	Priority
Repair	2011	\$8,000	Medium

Updated: APR-11

D5030.04.04 Data Systems*

Data lines installed to all classrooms and computer room connected to main server in library media room via Cat 5 cabling. The system connected to school board WAN.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

D5030.05 Public Address and Music Systems**

The public address system is integrated into the telephone system. The gymnasium is equipped with a sound system and wall mounted Rauland amp.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	20	APR-11

Event: Replace Gymnasium Sound System

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$5,000	Unassigned

Updated: APR-11

D5030.06 Television Systems*

Classrooms are equipped with wall mounted televisions connected to a centralized video system.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1991	0	APR-11

Event: Upgrade Centralized Video System

Concern:

The existing system is not used because it lacks functionality such as DVD. **Recommendation:** Upgrade system to computerized, DVD compatible system.

Туре	Year	Cost	Priority
Program Functional Upgrade	2012	\$20,000	Low

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.04 Residential Equipment*

Residential appliance are provided in the Home Ec. and staff lunch room.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	0	APR-11

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Retractable and adjustable basketball nets are provided in the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

E2010.02 Fixed Casework**

Wall and floor-mounted wood cabinetry is provided in office areas, classrooms, kitchen, change rooms and washrooms throughout the building. Counter top surfaces are typically plastic laminate.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1991	35	APR-11

Event: Replace Fixed Casework (4,310 sq m / g.f.a.)

Туре	Year	Cost	Priority
Lifecycle Replacement	2026	\$414,000	Unassigned

Updated: APR-11

E2010.03.01 Blinds**

Vertical blinds are provided on all exterior windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	30	APR-11

Event: Replace Blinds (approx. 50 sq m)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2021	\$6,000	Unassigned

Updated: APR-11

E2020.02.03 Furniture*

Wood and metal-framed desks, chairs and office equipment are provided for students and faculty staff.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

F1010.02.04 Portable and Mobile Buildings** - 1997 Portables

The school is provided with two 1997 portable classrooms and connecting access corridor, which are situated on the east side of the school. The portables are believed to be wood-framed structures constructed over a crawl space area; however, this portion of the facility was concealed during our review and therefore the types of foundation elements inplace are unknown. A sloped roof structure is constructed over both classrooms and is believed to be sheathed with plywood and supported by pre-engineered wood trusses, and wood stud framing on the perimeter.

The north and south elevations of the portables are clad with clay brick veneer and split faced masonry block, consistent with the main building. The east and west elevations are clad with an external insulating and finishing system (EIFS). The fascia cladding and perimeter skirting around the foundation is painted wood. The roof structure is clad with a metal roof panels, and is drained by eavestroughs and rain leaders that drain to the buildings below-ground rain collection system. The portables include sealed glass window units set in pre-finished aluminum frames. The common corridor includes a painted steel exterior double leaf door unit set in a painted steel frame.

The portable interiors include sheet vinyl flooring, painted gypsum board walls and suspended T-bar ceilings with inlaid acoustic panels. Accessories include white boards, chalkboards, and tack boards. Roof fire proofing consists of a type X gypsum board applied to underside of structural wood framing.

Heating for the portable structure is provided by radiant units fed from the main facility. Electricity is provided from the main building and feeds sub-distribution panels. Interior lighting is provided by fluorescent fixtures. The portable building is equipped with a heat/smoke detector, emergency lighting, a portable fire extinguisher, and an emergency exit light fixture.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1997	30	APR-11

Event: Repair EIFS Cladding (approx. 100 sq m)

Concern:

The external insulation and finish system (EIFS) on the portable buildings is deteriorating and the stucco finish is becoming loose.

Recommendation:

Repair damaged portions of the exterior cladding as required. **Consequences of Deferral:**

Continuous progressive damage to the EIFS and potential for moisture to migrate into the building envelope.

Туре	<u>Year</u>	Cost	Priority
Repair	2011	\$5,000	Medium

Updated: APR-11

Event: Replace electrical components

Туре	Year	Cost	Priority
Lifecycle Replacement	2027	\$14,000	Unassigned

Updated: APR-11

Event: Replace exterior components

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2027	\$49,000	Unassigned

Updated: APR-11

Event: Replace interior components

Report run on: April 12, 2011 9:39 AM

<u>Type</u> Lifecycle Replacement <u>Year</u> <u>Cost</u> 2017 \$40,000 Priority Unassigned

Updated: APR-11

Event: Replace mechanical components

<u>**Type**</u> Lifecycle Replacement

 Year
 Cost

 2022
 \$8,000

Priority Unassigned

F1010.02.04 Portable and Mobile Buildings** - 2007 Portables

The school is provided with three portable classrooms, understood to have been installed between 2007 and 2009, and manufactured by "modus". The classrooms are situated on the west end of the school and are connected by a corridor vestibule, which also separates the classroom units.

The portable classrooms are understood to be constructed with Structural Insulated Panels for walls, floors, and ceiling panels. The three units have individual steel frames and are supported by screw jack foundation piers. The walls and skirting are clad with a painted stucco finish. The low slope roof sections are protected with a Sarnafil roofing membrane. The roofs are drained with roof scuppers on the west and south sides. Exterior windows are comprised of sealed glass units set in fixed aluminum frames. An exterior steel framed exit door leading to an exterior steel-framed staircase with wooden treads is installed at the portable cluster's south end.

The portable interiors include sheet vinyl flooring, painted gypsum walls and suspended T-bar grid ceilings with inlaid acoustic panels. The entrances consist of painted steel doors and frames. Accessories include white boards, chalkboards, tack boards. Vertical blinds are provided for the exterior windows.

The portable cluster is equipped with natural gas and electrical feeds. Heating is provided by a natural gas-fired furnace with an unknown heating capacity, in each of three separate mechanical rooms. Electrical sub-distribution panels serving the portable cluster are provided in the mechanical/utility rooms, along with conventional telephone equipment. The intercom system and the telephone system for the school is also extended to the portable classrooms. Interior lighting is provided by fluorescent fixtures. The portable cluster is equipped with heat/smoke detectors, emergency lighting, a portable fire extinguisher and an emergency Exit light.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	30	APR-11

Event: Replace electrical components

	Type Lifecycle Replacement	<u>Year</u> 2037	<u>Cost</u> \$40,000	<u>Priority</u> Unassigned
	Updated: APR-11			
Event:	Replace exterior compor	<u>nents</u>		
	<u>Type</u> Lifecycle Replacement	<u>Year</u> 2037	<u>Cost</u> \$85,000	<u>Priority</u> Unassigned
	Updated: APR-11			
Event:	Replace interior compon	<u>ents</u>		
	<u>Type</u> Lifecycle Replacement	<u>Year</u> 2027	<u>Cost</u> \$75,000	<u>Priority</u> Unassigned
	Updated: APR-11			
Event:	Replace mechanical com	ponen	<u>ts</u>	
	<u>Type</u> Lifecycle Replacement	<u>Year</u> 2032	<u>Cost</u> \$15,000	<u>Priority</u> Unassigned
	Updated: APR-11			

S8 FUNCTIONAL ASSESSMENT

There is currently no existing storage shelter provided at the site.

Rating	Installed	<u>Design Life</u>	Updated
2 - Poor	0	0	APR-11

Event: Install Storage/Maintenance Structure

Concern:

There is Inadequate room for storage of existing site maintenance equipment and CTS construction supplies at the site.

Recommendation:

A storage / maintenance structure is required on the northwest side of school adjacent to the parking lot.

TypeYearCostPriorityProgram Functional Upgrade2011\$20,000Medium

Updated: APR-11

K2010.03 Building Signage & Directory (Clear, Current)*

Portable fire extinguishers are installed within student lockers in corridors, and do not include signage to identify their location.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
2 - Poor	0	0	APR-11

Event: Install Signage at Fire Extinguisher Lockers (approx. 10 locations)

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Concern:

Portable fire extinguishers are installed within student lockers and are without appropriate signage.

Recommendation:

Install appropriate fire extinguisher signage to increase visibility of location.

Туре	Year	<u>Cost</u>	<u>Priority</u>
Program Functional Upgrade	2011	\$1,000	High

K2030.06 Acoustical Privacy*

The music room does not appear to be equipped with a means of sound absorption.

Rating	Installed	Design Life	<u>Updated</u>
2 - Poor	0	0	APR-11

Event: Provide acoustic wall panels in Music Room

<u>(approx. 60 sq m)</u>

Concern:

Excessive sound transfer was noted through the walls of the music room due to the lack of acoustical wall treatment. **Recommendation:**

Provide acoustic wall panels to three interior walls in the music room.

Туре	Year	Cost	Priority
Program Functional Upgrade	2011	\$56,000	Medium

Updated: APR-11

K3020.04 Air Quality (Exhaust, Ventilation & Humidity)*

The building is provided with a CTS wood shop storage room.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	APR-11

Event: Provide a paint booth in CTS wood shop storage room

Concern:

Currently, the CTS room does not provide a paint booth or any form of adequate ventilation for paint fumes.

Recommendation:

Provide a paint booth, complete with all required mechanical systems (excluding specialized CTS painting equipment) in the CTS wood shop storage room.

Consequences of Deferral:

Prolonged exposure to paint fumes by students.

Туре	<u>Year</u>	Cost	<u>Priority</u>
Program Functional Upgrade	2011	\$22,000	Medium

K4010.01 Barrier Free Route: Parking to Entrance*

The parking lot and bus loop are provided with ramp access to the adjacent main entrance sidewalk and level entry.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

Event: Install Pole-Mounted Signage (3 signs)

Concern:

Three parking stalls are designated as handi-cap accessible, even though there is no visible signage identifying them, apart from snow-covered pavement markings. **Recommendation:**

Provide additional pole-mounted signage to designate barrier free parking.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2011	\$2,000	Medium

Updated: APR-11

K4010.02 Barrier Free Entrances*

All exterior entrance doors are manually operated. The north main entrance is designated as a handicap entrance, but no power assist door operator is provided.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1991	0	APR-11

Event: Provide automated door operator (approx. 1

operator)

Concern:

The north main entrance door is not equipped with an automated door operator to provide barrier-free access to the facility.

Recommendation:

Provide a power assist door operator to the north main entrance.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2011	\$4,000	Medium

K4010.03 Barrier Free Interior Circulation*

All portions of the main floor are at a level plane, excluding the mezzanine spectator viewing area overlooking the gymnasium.

Rating	Installed	Design Life	Updated
3 - Marginal	1991	0	APR-11

Event: Install Wheelchair Lift (1 lift)

Concern:

Access to the mezzanine spectator viewing area is by means of staircase only. **Recommendation:**

Install a wheelchair lift on one of the staircases that leads to the mezzanine viewing area.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2011	\$28,000	Medium

Updated: APR-11

K4010.04 Barrier Free Washrooms*

All multi-user washrooms are provided with barrier-free access stalls and accessories.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

K4020.01 Safety Code (Fall Prevention)*

Low-slope roof levels are not equipped with tie-back anchors to attach a safety harness, or other means of fall protection.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	APR-11

Event: Install Tie-Back Anchors (approx. 14 anchors)

Concern:

Roof peaks over the facility are above three metres in height and are not equipped with a means of fall protection for those working on sloped roof surfaces.

Recommendation:

Install tie-back anchors to the roof structure such that personnel accessing the roof level may secure safety harnesses and complete work on pitched surfaces that may otherwise constitute a safety hazard.

Consequences of Deferral:

The absence of tie-back anchors increases the risk of a falling hazard when performing maintenance or repair on pitched roof surfaces.

Туре	Year	Cost	Priority
Code Repair	2011	\$16,000	Medium

Updated: APR-11

K4030.01 Asbestos*

Based on the age of the facility, the presence of asbestos is considered unlikely.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	0	APR-11

K4030.04 Mould*

No evidence of actual or suspect microbial growth was observed in the facility.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	0	0	APR-11

K4030.09 Other Hazardous Materials*

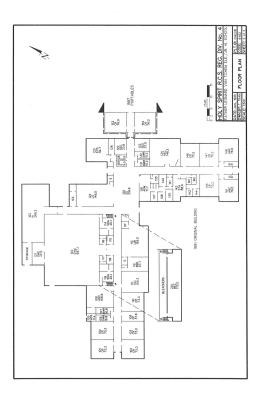
Chemical product storage practices used within the building appeared to be adequate.

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11

K5010 Reports and Studies*

Stantec Consulting Ltd. Evaluation Date: November 30/2010

Rating	Installed	Design Life	Updated
4 - Acceptable	1991	0	APR-11



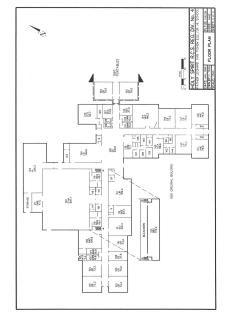
0731_002.jpg

Event: Site & Floor Plans, Data Sheet

Туре	Year	<u>Cost</u>
Study	2010	\$0

Updated: APR-11





0731_002.jpg