RECAPP Facility Evaluation Report

Palliser Regional Division #26

Champion School B2934A Champion

Report run on: April 11, 2011 11:13 AM

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Evaluation Details

Evaluation Company: Stantec Consulting Ltd.

Evaluation Date: October 27 2010

Evaluator Name: Michael Connolly

Total Maintenance Events Next 5 years: \$1,145,800 5 year Facility Condition Index (FCI): 18.18%

General Summary:

Construction Year: 1952

The Champion School is a two-storey structure of concrete and concrete masonry unit construction, built partially over a crawl space and partially over a concrete slab-on-grade. The original portion of the building was constructed in 1952 and is comprised of a two-storey structure that includes classrooms, entrance vestibule, storage rooms, administrative office area, gymnasium with stage, washrooms, and stairwells and corridors connecting the spaces. The original portion of the building includes a basement level mechanical room located beneath the gymnasium stage at the western portion of the building.

In 1959, a two-storey addition comprised of additional classrooms, a science classroom, library, mud room and stairwell, was added to the south of the original building. A renovation including the upper floor staff room was completed in 2000, and an interior administrative office area renovation was completed in 2010. Current usage is elementary through grade 9. It is understood the school has a total floor area of approximately 2,094.5 square metres.

Structural Summary:

Standard foundations for the Champion School are understood to be comprised of cast-in-place concrete perimeter spread footings and concrete slab-on-grade floors for the southern portion of the school, while the northern portion of the school is constructed above a crawl space. The basement mechanical room includes a combination of cast-in-place and concrete masonry unit basement walls. The second floor structural framework for the building is understood to be comprised of concrete columns and load-bearing concrete masonry units, with wood beams and joists supporting plywood decking. The roof structural framework is comprised of concrete columns and load-bearing concrete masonry units, with wood beams and joists supporting wood roof decking.

No recommended structural repair work was identified.

Facility Details

Address: 310 Main Street P. O. Box 34

Building Name: Champion School

Location: Champion

Building Id: B2934A Gross Area (sq. m): 2,094.50 Replacement Cost: \$6,301,094

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

Envelope Summary:

The exterior walls of the Champion School include a combination of concrete masonry units and clay brick veneer installed over concrete masonry unit back-up walls, along with insulated metal wall panels installed over wood stud framing. Exterior glazing is comprised of insulating glass set in operable aluminum frames. Exterior entry and utility doors consist of single and double leaf, glazed units with upper glass inserts and lower infill panels set in aluminum frames. The low-slope roofs are covered with a standing seam metal roof assembly.

Recommended work includes the following:

- Repair damaged brick veneer and replace mortar where deteriorated from a column at the east side of the building - Repair/replace metal gutters and downspouts and/or add leaders and splash blocks at downspout discharge locations

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

Interior Summary:

The Champion School includes classrooms, library, multiple entrance vestibules, storage rooms, staff lunchroom, administrative office area, gymnasium with a stage and storage room, mechanical room, washrooms, infirmary, and stairwells and corridors connecting the spaces. The main mechanical room occupies the basement beneath the stage. Interior finishes are a combination of vinyl tile and resilient sheet flooring, carpeting and ceramic tile flooring. Walls generally include gypsum board and concrete masonry units and brick with painted finishes, and ceramic tile, while painted gypsum board, glue-on ceiling tiles or suspended T-bar grids with inlaid acoustic panel ceilings are provided throughout the building. The gymnasium ceiling includes linear metal ceiling. Interior swinging doors are a combination of varnished or painted solid core wood, some with inset glazing, or painted hollow metal pivot units set in painted metal or wood frames.

Recommended work includes the following:

- Investigate and repair stepped cracking in concrete masonry unit stairwell walls
- Repair or replace aged and damaged interior doors and hardware
- Ensure fire doors are adequate and provided where required at the boiler room and where absent throughout the school
- Repaint concrete floor finishes in the boiler room and mud room
- Provide a barrier-free parking stall near the main entrance
- Install automated openers on the exterior door at the main entrance and near the parking area
- Install lever-type handles on all interior doors
- Install wheelchair lifts in the main corridor and stage, and an elevator to access the building's second floor
- Refurbish multi-user washrooms to accommodate handicapped users
- Refinish wood stage flooring
- Install tie-back anchors on the roof to facilitate repair and maintenance work in close proximity to roof edges
- Install railings at interior stairwells where absent
- Install ventilation system with air handler to improve indoor air quality

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

Mechanical Summary:

Domestic water is supplied by the municipality via 50mm service. Hot water is provided by an electric tank heater. The domestic hot water system is equipped with a recirculation pump. Plumbing fixtures include floor mounted vitreous china tank flush water closets, floor mounted urinal stalls, and a combination of enameled steel and vitreous china lavatories. All plumbing fixtures are manually operated. Sanitary drainage is provided by a 100mm connection to the gravity drained municipal sewer main. A natural gas service is provided to a gas meter and regulator located inside the building.

Heating is provided by a hot water distribution system fed by a natural gas fired boiler and circulated via two parallel pumps to perimeter finned tube radiation, convectors, fan coil units, and unit heater. Passive gravity relief shafts are provided in classrooms for air circulation. Ventilation and exhaust systems do not appear to be provided for the building.

The building is not sprinklered. Handheld fire extinguishers are installed in various locations throughout the building.

Recommended work within the next five years includes:

- Insulate domestic hot water piping.
- Insulate hot water distribution piping.
- Install exhaust fans for washrooms.

Overall, the mechanical systems appear to be in marginal to acceptable condition.

Electrical Summary:

The electrical service is fed to the building from a pole mounted transformer. It enters through the main switch which is rated for a 200A 120/240V electrical supply. Secondary distribution panels serve lighting, plug loads, and equipment throughout the building. Remote motor starters are provided for circulation pumps. Branch wiring is understood to be copper throughout.

Interior lighting is provided by fluorescent tube fixtures. Fixtures in classrooms, offices, and corridors incorporate T8 bulbs and electronic ballasts. Fixtures in the gymnasium incorporate T12 bulbs and magnetic ballasts. Interior lighting is controlled by line voltage switches. Exterior lighting is provided by high pressure sodium wall packs controlled by a photocell. Emergency lighting is provided by wall mounted battery packs. Illuminated LED exit signs indicate the paths of egress throughout the building.

The building is monitored by an Edwards 6616 fire alarm system with heat and smoke detectors, manual pull stations, and fire bells. Intrusion detection is provided by a DSC security panel with AAA pad.

Communications systems within the building are controlled through a Rauland Telecenter that provides telephone

(interlocked with ONYX-VS2), paging, and change bells. The building is connected to the school district network and has a network tower.

Recommended work within the next five years includes:

- Investigate grounding continuity of original branch wiring and conduct repairs as required.
- Investigate code requirements for upgrades to the fire detection and alarm system.

The majority of the electrical components were reportedly upgraded in 1990. Overall, the electrical components 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 Champion School are understood to be comprised of reinforced concrete perimeter spread footings and foundation walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

A1030 Slab on Grade*

The southern part of the main floor of the original (1952) portion of the building, including the partial basement level boiler and storage rooms and the 1959 portion of the building, are constructed above reinforced concrete slab-on-grade floors.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

A2020 Basement Walls (& Crawl Space)*

A basement level boiler room and storage room are provided beneath the gymnasium stage in the original portion of the building, which includes cast-in-place concrete and concrete masonry unit foundation walls. The northern part of the original portion of the building, including the gymnasium, is constructed above a crawl space.

Efflorescence and peeling paint are evident at the base of the boiler room walls, indicating prior moisture infiltration within the basement. No evidence of current moisture intrusion was observed. It is understood that water enters the basement after periods of precipitation due to an inoperable or inadequate sump pump in this room. Repairing or replacing the sump pump and subsequently cleaning and repainting the basement walls at this location is recommended as part of routine maintenance. Furthermore, this location should be monitored for future signs of moisture intrusion.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

B1010.01 Floor Structural Frame (Building Frame)*

The building is constructed with concrete columns and spandrel beams and load-bearing concrete masonry unit walls with wood joists supporting the upper floor and roof decks.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

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

Structural interior walls supporting the upper floor and roof are comprised of load-bearing concrete masonry units.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

B1010.03 Floor Decks, Slabs, and Toppings*

The main floor of the original building's north end, including the gymnasium and stage floor, are understood to consist of wood decking, along with the suspended second floor level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

B1010.07 Exterior Stairs*

A concrete landing, which presumably incorporated a former concrete step, is provided at the auxiliary exit from the library at the southeast corner of the school.

A concrete stair system comprised of four steps and landing is provided within a covered entryway on the west side of the building. One edge of the bottom step is damaged and should be repaired. Costs for this work are expected to be minimal, and can be handled as routine maintenance.

Approximately five concrete steps are installed in the grassy area northeast of the school, between the school and the running track.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

B1010.09 Floor Construction Fireproofing*

The existence of floor construction fireproofing was not observed or reported during the assessment. However, it is possible that the gypsum board boiler room and storage room ceiling is fire rated.

The previous 2005 facility assessment report noted the following: "1952, 1959 gypsum board fire proofing to under side second floor joists; 1952 basement gypsum board fire proofing to ceiling (stage over)".

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

B1010.10 Floor Construction Firestopping*

Penetrations through floor decks are generally expected to be sealed with a firestopping material where voids or separations exist.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

B1020.01 Roof Structural Frame*

The majority of the buildings roof structural framework includes wood beams and joists or wood trusses supporting wood decking. Additional light gauge metal framing is installed above the original roof, supporting the standing seam metal roof assembly.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

B1020.03 Roof Decks, Slabs, and Sheathing*

The majority of the building's roof structure includes plywood or wood slat decking. A standing seam metal roof with light-gauge metal framing is installed above the original wood roof deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

B1020.04 Canopies*

A canopy projects over the main entrance of the school and is supported by the concrete spandrel frame. A wood-framed canopy is cantilevered over the auxiliary exit from the library. A wood-framed canopy at the covered entrance at the west side of the school is supported by the brick walls.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

The exterior walls of the school are clad in part with brick veneer.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	0	APR-11

Event: Repair Exterior Brick At East Elevation (approx. 70 sq m)

Concern:

Mortar within the brick veneer at a column location on the east elevation is deteriorated to the point where it appears to be non-existent, likely from a damaged or defective gutter/downspout assembly at this location.

Recommendation:

Determine source of mortar deterioration and remedy the deficiency, and subsequently repair or replace damaged/missing mortar at this location.

Consequences of Deferral:

Potential for further deterioration of the mortar, potential moisture intrusion into the school, and loss of aesthetics.

Туре	Year	Cost	Priority
Repair	2011	\$8,000	Medium

Updated: APR-11

B2010.01.06.03 Metal Siding**

The exterior walls of the school are clad in part with insulated metal wall panels. It is presumed the metal wall panels were installed in conjunction with the window infill/replacement activities in approximately 1985.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	40	APR-11

Event: Replace Metal Wall Panels (approx. 440 sq. m.)

Туре	Year	Cost	Priority
Lifecycle Replacement	2025	\$63,000	Unassigned

Updated: APR-11

B2010.01.09 Expansion Control: Exterior Wall Skin*

An expansion joint is provided in the exterior masonry wall at the southern end of the building. The remaining exterior brick wall sections are separated into panels between brick column features to accommodate expansion.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

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

Sealant is provided at construction joints, intersections of dissimilar materials and around exterior windows and doors on the perimeter of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	20	APR-11

Event: Replace Exterior Joint Sealers (approx. 865 m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$28,000	Unassigned

Updated: APR-11

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

The concrete portions of the exposed foundations and exterior wall surfaces, and the face of the wall above the main entrance (believed to be metal) at the northeast corner of the building, includes a paint finish. The fascia along the front of the canopy roof above the west exterior door also includes a paint finish.

The canopy fascia requires re-painting as part of routine maintenance.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	15	APR-11

Event: Repaint Exterior Paintable Surfaces (approx. 880

<u>sq. m.)</u>	
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Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$19,000	Unassigned

Updated: APR-11

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

The east exterior wall at the northeast corner of the building is comprised of cast-in-place concrete. A band which extends along the southern parts of the east and west building perimeters may be constructed with concrete.

The previous 2005 facility assessment report noted the following: "Concrete band at second floor level on east and west sides south portion of building."

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

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

Exterior walls include load-bearing concrete masonry unit construction.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

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

It is understood the original window openings along the east and west elevations have been reduced (i.e., the existing windows have been installed within the original massive window openings along these elevations) and the openings include a wood frame substrate.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

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

Construction drawings were not available for review as part of this assessment; it is presumed the metal wall panel assemblies include vapor retarders and insulation.

<u>Rating</u>	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1985	0	APR-11

B2010.06 Exterior Louvers, Grilles, and Screens*

One small metal louver is installed above the first floor in the east side of the building. Small metal screens are provided at grade level along the west wall beneath the gymnasium.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

B2010.09 Exterior Soffits*

Soffits around the perimeter of the building are comprised of standing seam metal. The soffit at the underside of the west entrance appears to be comprised of painted wood.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

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

Windows throughout the school include fixed and operable insulating glazing units in anodized aluminum frames. These windows were reportedly installed building-wide in 1985.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1985	40	APR-11

Event: Replace Exterior Windows (approx. 71 sq. m.)

TypeYearCostPriorityLifecycle Replacement2025\$86,000Unassigned

B2030.01.01 Aluminum-Framed Storefronts: Doors**

The main entrance door at the north elevation, as well as two auxiliary doors along the west elevation, are comprised of dual-leaf, glazed units with upper glass inserts and lower infill panels set in aluminum frames. The auxiliary exit door from the library at the southeast corner of the building is a single-leaf, glazed unit set in an aluminum frame.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	30	APR-11

Event:	Replace Exterior Doors (3 double doors, 1 single	
	door)	

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$22,000	Unassigned

Updated: APR-11

B2030.02 Exterior Utility Doors**

The utility door on the west elevation is a single-leaf unit set in an aluminum frame.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	40	APR-11

Event: Replace Exterior Utility Door (1 unit)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2014	\$1,000	Unassigned

Updated: APR-11

B3010.01 Deck Vapor Retarder and Insulation*

Blown insulation is present within the attic space between the upper floor ceiling and the original roof deck. Note that the existing roof is a standing seam metal roof system which was installed above the original roof in approximately 1994.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

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

The original roof includes a built-up bituminous (asphalt and gravel) roof covering.

The original roof is presently covered with a standing seam metal roof system, installed in approximately 1994. Despite having realized its theoretical design life, removal of this assembly could only realistically be considered concurrent with replacement of the overhead standing seam assembly. Lifecycle replacement costs have therefore been excluded.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	25	APR-11

B3010.07 Sheet Metal Roofing**

The building's roof covering is comprised of a standing seam metal roof assembly which has been constructed above the original built-up roofing system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	40	APR-11

Event: Replace Standing Seam Metal Roof (approx. 1,544

<u>sq. m.)</u>

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2034	\$371,000	Unassigned

Updated: APR-11

B3010.08.02 Metal Gutters and Downspouts**

Metal gutter and downspout assemblies are provided at the east elevation, and along the west elevation at the southern classroom portion of the school. A portion of the downspouts include leaders which convey the water below grade away from the foundation. The majority of downspouts discharge to areas of landscaping around the building.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1994	30	APR-11

Event: Provide Extensions to Downspouts (approx. 12 m)

Concern:

Several downspouts do not have extensions/leaders or splash blocks. Storm water from the roof is generally discharged adjacent to the exterior walls.

Recommendation:

Provide extensions/leaders and/or splash blocks at downspout discharge locations to convey storm water away from the foundations.

Consequences of Deferral:

Continued discharge above grade with potential continued water damage to the building.

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

Updated: APR-11

Event: Replace Metal Gutter/Downspout Systems (approx. 170 m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2024	\$4,000	Unassigned

Updated: APR-11



Damaged building finish due to lack of drainage

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

An access hatch in the janitorial closet on the second floor provides access to the roof. A temporary ladder must be used to access the ceiling opening.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior fixed partitions throughout the school are a combination of painted concrete masonry units, painted brick and painted gypsum board over wood or metal stud framing.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1952	0	APR-11

Event: Investigate Cracking of Masonry Block Walls in Stairwell

Concern:

Stepped or pyramidal cracking was observed within the concrete masonry unit walls above door penetrations and near ceilings in the stairwells. It was not confirmed if these walls are load-bearing concrete walls, or if the cracking is the result of building settlement.

Recommendation:

Conduct an investigation to determine the root cause of the cracking and potential movement, and provide options for remedial action, if deemed necessary.

Consequences of Deferral:

Potential for further settlement resulting in additional cracking, and loss of aesthetics.

Туре	Year	Cost	Priority
Study	2011	\$8,000	Medium

Updated: APR-11

Event: Repair Concrete Masonry Unit Wall in Stairwell (approx. 130 sq m)

Concern:

Stepped or pyramidal cracking was observed within the concrete masonry unit walls above door penetrations and near ceilings in the stairwells. It was not confirmed if these walls are load-bearing concrete walls, or if the cracking is the result of building settlement.

Recommendation:

Conduct repairs based on recommendations made from the initial study, and repair or replace interior finishes that may have been affected. An allowance for this work is provided; however, actual repair costs will depend on the outcome of the preliminary study.

Consequences of Deferral:

Potential for further settlement resulting in additional cracking, and loss of aesthetics.

Туре	Year	Cost	Priority
Repair	2012	\$50,000	Medium

C1010.02 Interior Demountable Partitions*

An interior demountable partition is installed on the upper floor at the entrance to the staff room at the northern portion of the building.

APR-11

Rating Design Life Updated Installed 4 - Acceptable 2000

C1010.05 Interior Windows*

A fixed window with one operable sash in an aluminum frame is installed between the main interior corridor and the office at the northern portion of the building. Another fixed window in an aluminum frame is installed within the office area.

A pass window with a metal coiling shutter is installed between the gymnasium and the kitchen/concession area.

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<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
5 - Good	2010	0	APR-11

C1010.07 Interior Partition Firestopping*

Penetrations through fire separations are generally sealed with a firestopping material where voids or separations exist.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

C1020.01 Interior Swinging Doors (& Hardware)*

Interior swinging doors are a combination of varnished or painted solid core wood or painted hollow metal pivot units set in painted metal frames. Standard door hardware includes lever or knob-type door handles, door closers, kick plates and lock sets where required.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1952	0	APR-11

Event: **Refinish Damaged Interior Doors (approx. 25** doors)

Concern:

Several interior doors and frames include multiple scratches and exhibit chipped or peeling paint. **Recommendation:** Refinish interior doors and frames exhibiting scratches and

chipped or peeling paint.

Consequences of Deferral:

Loss of functionality and loss of aesthetics.

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

C1020.03 Interior Fire Doors* - Building Interior

Interior fire doors at fire separations consist of wood and painted metal pivot units set in painted metal frames. Some include safety glass inserts and stainless steel kick plates. The door to the basement boiler room appears to be a metal-plated unit or has a sheet metal covering manufactured by Stelcoat.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1952	0	APR-11

Event: Replace or Re-Instate Fire Doors (approx. 7 doors)

Concern:

No doors are provided within the door frames at the interior vestibules at the main north entrance and the west auxiliary entrance, or within the door frame near the stairs in the main corridor. Furthermore, the previous 2005 facility assessment report noted that the existing boiler room door is not fire-rated with proper hardware.

Recommendation:

It should be determined if the doorways where doors have been removed are fire separations and if so, fire doors should be re-instated. Furthermore, the boiler room door, frame and hardware requires replacement if this deficiency remains active.

Consequences of Deferral:

Continued non compliance with code and lack of adequate fire rated protection throughout the school.

Туре	Year	Cost	Priority
Code Repair	2011	\$25,000	Medium

Updated: APR-11

C1020.03 Interior Fire Doors* - Office Entrance

One interior fire door at the entrance to the office is a painted metal pivot unit set in a painted metal frame with safety glass inserts.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
5 - Good	2010	0	APR-11

C1030.01 Visual Display Boards** - Chalk & Tack Boards

Several classrooms are equipped with wall-mounted chalk boards and tack boards. Wall-mounted tack boards are also provided throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	20	APR-11

Event: Replace Visual Display Boards (approx. 10 chalk boards & 30 tack boards)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2014	\$18,000	Unassigned

C1030.01 Visual Display Boards** - White & Smart Boards

Several classrooms are equipped with wall-mounted white boards and Smart boards.

Rating	Installed	<u>Design Life</u>	Updated
5 - Good	2006	20	APR-11

Event: Replace Visual Display Boards (approx. 12 white boards & 5 Smart boards)

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2026	\$32,000	Unassigned

Updated: APR-11

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

Stall partitions in the boys and girls washrooms are floor- and wall-mounted pre-finished metal units.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	30	APR-11

Event: Replace Toilet Stall Partitions (approx. 6 stalls)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$9,000	Unassigned

Updated: APR-11

C1030.08 Interior Identifying Devices*

Interior wall and door-mounted signage throughout the building is typically plastic, with metal ceiling-mounted exit lighting. Painted signage is also provided on interior walls.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

C1030.10 Lockers** - 1952

Student lockers in corridors are generally pre-finished metal units.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	30	APR-11

Event: Replace Lockers (approx. 66 lockers)

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2014	\$43,000	Unassigned

C1030.10 Lockers** - 2005

Pre-finished metal student lockers are provided at the northern end of the upper floor corridor.

While no concerns were noted with respect to the condition of the lockers, it should be noted that a portion of the lockers are situated atop the radiators in the corridor and require confirmation that lockers constructed in this fashion are acceptable.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	30	APR-11

Event: Replace Student Lockers (approx. 16 lockers)

Туре	Year	Cost	<u>Priority</u>
Lifecycle Replacement	2035	\$11,000	Unassigned

Updated: APR-11

C1030.12 Storage Shelving*

Storage shelving provided in custodial closets and storage rooms are a combination of wall and floor-mounted wood and metal units.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

C1030.14 Toilet, Bath, and Laundry Accessories*

Washroom accessories generally include wall-mounted mirrors, hand soap, paper towel and tissue dispensers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

C2010 Stair Construction*

Steel or concrete staircases with steel or concrete landings and base-mounted metal railings / wall-mounted wood handrails provide access between the main and upper floors in the north and south stairwells, and to the lower level mud room in the south stairwell. A wood or concrete stair system comprised of three steps is provided in the main corridor on the first floor to account for the change in elevation on the first floor. Wood staircases, including approximately six steps, are provided on either side and at the rear of the stage. A concrete stairway provides access to the basement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

C2020.05 Resilient Stair Finishes**

Rubber stair treads are installed on the concrete stairs in the stairways and on the steps within the main corridor which account for the change of elevation on the main floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	20	APR-11

Event: Replace Resilient Stair Treads (approx. 76 sq. m.)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$7,000	Unassigned

Updated: APR-11

C2020.08 Stair Railings and Balustrades*

Railings at staircases in stairwells are base-mounted metal with metal balusters and wood handrails or include wire mesh infill. Wall-mounted metal handrails are also provided.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

C3010.01 Concrete Wall Finishes (Unpainted)*

Cast-in-place concrete, concrete masonry unit, and brick walls in the basement are finished with paint.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

Wood and steel stud framing used throughout the building is sheathed with gypsum board.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

C3010.06 Tile Wall Finishes**

Ceramic tile wall finishes are installed along the lower portions of the walls in the boys and girls washrooms.

Approximately six tiles are missing in the girls washroom. Replacing the missing tiles is considered routine maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	40	APR-11

Event:	<u>Replace Ceramic Wall Tiles in Washrooms (approx. 48 sq. m.)</u>					
	Type	<u>Year</u>	<u>Cost</u>	Priority		
	Lifecycle Replacement	2014	\$14,000	Unassigned		

C3010.11 Interior Wall Painting*

A paint finish is generally applied to most gypsum board and concrete masonry unit surfaces throughout the building.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

C3020.01.02 Paint Concrete Floor Finishes*

Concrete flooring in the basement boiler room and in the mud room includes a paint finish.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	0	APR-11

Event: Repaint Concrete Floors (approx. 80 sq. m.)

Concern:

Paint floor finishes are worn and flaking where applied within the facility.

Recommendation:

Repaint concrete floors in the basement boiler room and main floor mud room.

Consequences of Deferral:

Loss of interior aesthetics and exposure of concrete surfaces to potential damage.

Туре	Year	Cost	Priority
Failure Replacement	2012	\$3,000	Low

Updated: APR-11

C3020.02 Tile Floor Finishes**

Ceramic floor tile is provided in the boys and girls washrooms in the school.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	50	APR-11

Event: Replace Tile Washroom Floors (approx. 25 sq. m.)

Туре	Year	Cost	<u>Priority</u>
Lifecycle Replacement	2014	\$8,000	Unassigned

<u>C3020.</u>	04 Wood Flooring** - Gym	nasiun	<u>n</u>				
Tongue	Tongue and groove wood strip flooring is installed in the gymnasium.						
Rating	Insta	lled D	esign Life Updat	ed			
4 - Acce			30 APR				
Event:		um Flo	oring (approx. 244	ŀ			
	<u>sq. m.)</u>						
	Туре		Cost	Priority			
	Lifecycle Replacement	2014	\$67,000	Unassigned			
	Updated: APR-11						
C3020.	04 Wood Flooring** - Stag	e/Entry	/				
The sta	ge floor and exit stairwell a	re comp	prised of tongue and	d groove wood slat flooring.			
Rating			esign Life Updat				
3 - Marg	jinai 195	3 - Marginal 1952 30 APR-11					
Event:	Refinish Wood Stage/Er	trv Flo	or (approx, 72 sq.				
Event:	<u>Refinish Wood Stage/Er</u> <u>m.)</u>	try Flo	or (approx. 72 sq.				
Event:		<u>itry Flo</u>	or (approx. 72 sq.				
<u>Event:</u>	<u>m.)</u> Concern: The wood stage and the	auxilia	ry building entrywa				
<u>Event:</u>	<u>m.)</u> Concern:	auxilia	ry building entrywa				
<u>Event:</u>	<u>m.)</u> Concern: The wood stage and the to the stage floors are so surfaces. Recommendation:	auxilia ratched	ry building entrywa and scuffed throug				
<u>Event:</u>	 m.) Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage and stag	auxiliar ratched	ry building entrywa and scuffed throug				
<u>Event:</u>	<u>m.)</u> Concern: The wood stage and the to the stage floors are so surfaces. Recommendation:	auxiliar ratched and entr r al:	ry building entrywa and scuffed throug yway floors.	ghout their			
<u>Event:</u>	<u>m.)</u> Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage a Consequences of Defer	auxiliar ratched and entr r al:	ry building entrywa and scuffed throug yway floors.	ghout their			
<u>Event:</u>	<u>m.)</u> Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage a Consequences of Defer	auxiliar ratched and entr r al:	ry building entrywa and scuffed throug yway floors.	ghout their			
<u>Event:</u>	m.) Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage a Consequences of Defen Loss of aesthetics and sh	auxilian ratched and entr r al: orter th	ry building entrywa and scuffed throug yway floors. eoretical useful life.	ghout their			
<u>Event:</u>	 m.) Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage a Consequences of Deferment Loss of aesthetics and short stage. 	auxilian ratched and entr al: orter the <u>Year</u>	ry building entrywa and scuffed throug ryway floors. eoretical useful life. <u>Cost</u>	phout their <u>Priority</u>			
<u>Event:</u>	m.) Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage a Consequences of Defer Loss of aesthetics and sh Type Repair Updated: APR-11	auxilian ratched and entr ral: orter the <u>Year</u> 2011	ry building entrywa and scuffed throug ryway floors. eoretical useful life. <u>Cost</u> \$5,000	phout their Priority Low			
Event:	m.) Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage a Consequences of Defern Loss of aesthetics and sh Type Repair	auxilian ratched and entr ral: orter the <u>Year</u> 2011	ry building entrywa and scuffed throug ryway floors. eoretical useful life. <u>Cost</u> \$5,000	phout their Priority Low			
	m.) Concern: The wood stage and the to the stage floors are so surfaces. Recommendation: Refinish the wood stage a Consequences of Defer Loss of aesthetics and sh Type Repair Updated: APR-11	auxilian ratched and entr ral: orter the <u>Year</u> 2011	ry building entrywa and scuffed throug ryway floors. eoretical useful life. <u>Cost</u> \$5,000	phout their Priority Low			

C3020.07 Resilient Flooring** - 1952 Vinyl Tile

Vinyl tile original to the building construction was observed in one classroom and two storage rooms in the facility. The tile is of a vintage that likely contains asbestos (i.e., vinyl asbestos tile). A premium is included for replacement under hazardous material requirements.

The previous 2005 facility assessment report noted that the vinyl asbestos tile (VAT) appeared worn and damaged. However, observations made during the current 2010 assessment revealed that tile to be in serviceable condition, and exhibited no major damage or loose sections.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	20	APR-11

Event: Replace Original Vinyl Tile (approx. 230 sq m)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$25,000	Unassigned

Updated: APR-11

C3020.07 Resilient Flooring** - 1980 Sheet Flooring

Resilient sheet flooring presumed to be installed in approximately 1980 is provided in the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	APR-11

Event: Replace 1980s Vintage Sheet Flooring (approx. 330

sq. .m.)Type
Lifecycle ReplacementYear
2014Cost
\$30,000Priority
Unassigned

Updated: APR-11

C3020.07 Resilient Flooring** - 1980 Vinyl Tile

Vinyl tile flooring presumed to be installed in approximately 1980 is provided in the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	APR-11

Event: Replace 1980s Vintage Vinyl Tile (approx. 330 sq.

<u>m)</u>

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$19,000	Unassigned

				•	
<u>C3020.(</u>)7 Resilient Flooring*	* - 2000 She	et Flooring	9	
Resilien	t sheet flooring presun	ned to be ins	stalled in ap	proximately 2000 is provided in	the building.
<u>Rating</u> 4 - Accep		nstalled D 2000	esign Life 20	<u>Updated</u> APR-11	
Event:	<u>Replace 2000 Vintag</u> sq. m.)	ge Sheet Flo	ooring (app	orox. 330	
	<u>Type</u> Lifecycle Replacement	<u>Year</u> 2020	<u>Cost</u> \$30,000	<u>Priority</u> Unassigned	
	Updated: APR-11				
<u>C3020.(</u>	07 Resilient Flooring*	* - 2000 Vin	<u>yl Tile</u>		
Vinyl tile	e flooring presumed to	be installed	in approxim	nately 2000 is provided in the bu	ilding.
<u>Rating</u> 4 - Accep	-	nstalled D 2000	esign Life 20	Updated APR-11	
<u>Event:</u>	<u>Replace 2000s Vinta sqm.)</u>	age Vinyl Ti	le (approx.	330	
	<u>Type</u> Lifecycle Replacement	<u>Year</u> 2020	<u>Cost</u> \$19,000	Priority Unassigned	
	Updated: APR-11				
C3020.0	8 Carpet Flooring** -	1995 Carpe	<u>et</u>		
Carpet f	looring is installed in th	ne library, or	ne classroor	m and the staff room.	
Rating 4 - Accer		nstalled D 1995	esign Life 15	Updated APR-11	
•					
<u>Event:</u>	<u>Replace Library, Sta</u> (approx. 280 sqm)		sroom Car	pet	
	Type Lifecycle Replacement	<u>Year</u> 2014	<u>Cost</u> \$15,000	Priority Unassigned	

C3020.08 Carpet Flooring** - 2010 Carpet

Carpet flooring installed in 2010 is provided in the office.

Rating	Installed	<u>Design Life</u>	Updated
5 - Good	2010	15	APR-11

Event: Replace Office Area Carpet (approx. 80 sq. m.)

TypeYearCostPriorityLifecycle Replacement2025\$4,000Unassigned

Updated: APR-11

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Gypsum board ceilings in the facility are generally finished with paint.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

C3030.05 Veneer Plaster Finishes (Stipple)*

Ceilings in the original corridor in the school include painted gypsum board with a spray-on textured (stipple) finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)** - 1980

Classrooms, corridors and miscellaneous supporting rooms are equipped with suspended metal T-bar grid ceilings, that include drop-in acoustical ceiling tiles, a portion of which is understood to have been installed in 1980.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1980	25	APR-11

Event: Replace Susp.T-Bar (approx. 300 sq. m.)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$15,000	Unassigned

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)** - 2000

Classrooms, corridors and miscellaneous supporting rooms are equipped with suspended metal T-bar grid ceilings, that include drop-in acoustical ceiling tiles, a portion of which is understood to have been installed in 2000.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	25	APR-11

Event: Replace Susp.T-Bar (approx. 300 sq. m.)

Туре	Year	Cost	Priority
Lifecycle Replacement	2025	\$15,000	Unassigned

Updated: APR-11

C3030.07 Interior Ceiling Painting*

Ceilings in stairwells, storage rooms, and kitchen consist of painted gypsum board.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

C3030.09 Other Ceiling Finishes* - Glue-on Tile

Glue-on acoustical ceiling tiles are installed in the corridors and classrooms throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

C3030.09 Other Ceiling Finishes* - Linear Metal Ceilings

A linear metal ceiling is provided above the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	0	APR-11

S4 MECHANICAL

D2010.04 Sinks**

Stainless steel sinks with manual valve sets are installed in the staff room kitchen, science laboratory, and handwash station.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	APR-11

Event: Replace 10 Sinks

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$18,000	Unassigned

Updated: APR-11

D2010.08 Drinking Fountains/Coolers**

Drinking fountains in corridors throughout the school are typically wall mounted vitreous china. One refrigerated stainless steel drinking fountain (Sunroc Model SW4) is installed on the second floor.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1980	35	APR-11

Event: Replace 4 Vitreous China Drinking Fountains and 1 Refrigerated Drinking Fountain

Туре	Year	Cost	Priority
Lifecycle Replacement	2015	\$12,000	Unassigned

Updated: APR-11

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

Public washrooms are equipped with enameled steel lavatories with manual valve sets in wall mounted vanities. Single occupant washrooms are equipped with wall mounted vitreous china lavatories with manual valve sets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	APR-11

Event: Replace 8 Lavatories

Туре	Year	Cost	Priority
Lifecycle Replacement	2015	\$12,000	Unassigned

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

The men's washroom is equipped with floor mounted vitreous china urinals with manual flush valves.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	35	APR-11

Event: Replace 4 Urinals

TypeYearCostPriorityLifecycle Replacement2014\$8,000Unassigned

Updated: APR-11

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

Washrooms are equipped with vitreous china flush tank water closets with manual flush valves.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	APR-11

Event: Replace 9 Water Closets

Туре	Year	Cost	Priority
Lifecycle Replacement	2015	\$20,000	Unassigned

Updated: APR-11

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic water supply piping is understood to be copper throughout.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

D2020.01.02 Valves: Domestic Water**

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

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	40	APR-11

Event: Replace 12 Domestic Water Valves

<u>Type</u>	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2020	\$10,000	Unassigned

D2020.01.03 Piping Specialties (Backflow Preventors)**

Cross connection control is provided by a backflow prevention device installed for the hot water distribution system connection.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	APR-11

Event: Replace 1 Backflow Prevention Device

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$4,600	Unassigned

Updated: APR-11

D2020.02.02 Plumbing Pumps: Domestic Water**

A recirculation pump is installed for the domestic hot water system.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1980	20	APR-11

Event: Replace 1 Recirculation Pump

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2014	\$1,200	Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters**

Hot water is provided by an electric tank heater manufactured by Jetglass with 150L storage and 4,000 watt heating capacity.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	20	APR-11

Event: Replace 1 Domestic Water Heater

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2014	\$2,400	Unassigned

D2020.03 Water Supply Insulation: Domestic*

The domestic water supply piping does not appear to be insulated throughout.

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

Event:	Insulate Domestic Hot Water & Recirculation Piping Concern: Un-insulated domestic water and recirculation piping is reportedly the cause of over-heating and energy wastage. Recommendation: Insulate all domestic hot water lines.
	Type Energy Efficiency UpgradeYear 2011Cost \$10,000Priority LowUpdated: APR-11Year 2011Year \$10,000Year \$10,000Year Year Year Year Year Year Year Year Year Year Year Year
D2030.0	01 Waste and Vent Piping*
Waste a	and vent piping is understood to be cast iron throughout.
<u>Rating</u> 4 - Accep	ptable <u>Installed</u> <u>Design Life</u> <u>Updated</u> 1952 0 APR-11
D2030.0	02.04 Floor Drains*

Floor drains are provided in washrooms and boiler room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

D2030.03 Waste Piping Equipment*

A pump is installed in the furnace room sump to convey waste water from floor drain to the sanitary sewer main.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

D3010.02 Gas Supply Systems*

The building is equipped with a natural gas service with meter and regulator located inside building. The natural gas service feeds the hot water boilers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

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

Heating water is provided by six natural gas fired modular boilers, manufactured by Hydrotherm, model CHP - 1016. The estimated capacity of the boiler is approximately 293kW (1000MBH).

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	APR-11

Event: Replace 6 Stage Hot Water Boiler

Туре	Year	Cost	Priority
Lifecycle Replacement	2015	\$35,000	Unassigned

Updated: APR-11

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

Combustion gases are exhausted from the hot water boiler through galvanized metal chimneys. Combustion air supply duct and relief air are provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	APR-11

Event: Replace 10m Chimneys

Туре	Year	Cost	Priority
Lifecycle Replacement	2015	\$8,000	Unassigned

Updated: APR-11

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

The hot water distribution system follows a chemical treatment program. A chemical pot feeder, filter, and site glass are provided.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1985	0	APR-11

D3040.01.04 Ducts: Air Distribution*

Passive gravity relief shafts are provided in classrooms.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Grilles connected to gravity relief shafts are provided in classrooms.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

D3040.03.01 Hot Water Distribution Systems**

The hot water distribution system is equipped with an expansion tank, Expanflex 610mm diameter and 1117mm high. Two primary pumps in parallel circulate the heating water to the hot water coils in the convectors, fan coil units, unit heaters, and perimeter finned tube radiation.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	40	APR-11

Event: Insulate Hot Water Distribution Piping

Concern:

Un-insulated hot water distribution piping is reportedly causing over-heating and energy wastage. **Recommendation:** Insulate hot water distribution piping.

Type
Energy Efficiency UpgradeYear
2011Cost
\$10,000Priority
Low

Updated: APR-11

Event: Replace Hot Water Distribution System (2,095m² GFA)

Туре	Year	Cost	Priority
Lifecycle Replacement	2014	\$225,000	Unassigned

Updated: APR-11

D3040.04.01 Fans: Exhaust**

Exhaust fans appear to have been removed from the washrooms.

Rating	Installed	<u>Design Life</u>	Updated
2 - Poor	0	30	APR-11

Event: Install 2 Exhaust Fans

Concern: Exhaust does not appear to be provided for the washrooms. **Recommendation:** Install new exhaust system for washrooms.

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

D3040.04.03 Ducts: Exhaust*

Galvanized metal ductwork is p	provided for exhaust.
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<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust inlets are typically ceiling level grilles.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

D3050.05.03 Finned Tube Radiation**

Heating for the building is primarily provided by perimeter finned tube radiation terminals. Finned tube radiation in classrooms is typically installed behind shelving units.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1952	40	APR-11

Event: Replace Finned Tube Radiation (2,095m² GFA)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2014	\$98,000	Unassigned

Updated: APR-11

D3050.05.06 Unit Heaters**

A projection unit heater with a hot water coil is installed in the boiler room. Unit heaters with hot water coils are installed in corridors and stairwells throughout the building. The unit heaters are controlled locally by electric thermostats.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	30	APR-11

Event: Replace 12 Unit Heaters

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2014	\$56,000	Unassigned

D3060.02.01 Electric and Electronic Controls**

The HVAC system is equipped with electric and electronic controls including indoor-outdoor controls and mixing control valves in the hot water distribution system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	APR-11

Event: Replace Electric and Electronic Controls (2,095m² GFA)

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2014	\$4,600	Unassigned

Updated: APR-11

D4030.01 Fire Extinguisher, Cabinets and Accessories*

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

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

S5 ELECTRICAL

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

The electrical service enters the building through a Federal Pioneer main switch rated for a 200A, 120/240V supply. The power peak is 100A.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	APR-11

Event: Replace 200 A Main Switch

Туре	Year	Cost	Priority
Lifecycle Replacement	2030	\$16,000	Unassigned

Updated: APR-11

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

Electrical branch circuit panelboards serve the lighting, plug loads, and equipment throughout the building. Panelboards were upgraded in approximately 1990 and are typically manufactured by Federal Pioneer and Cutler Hammer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	APR-11

Event: Replace 6 Electrical Panelboards

<u>Type</u>	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2020	\$33,000	Unassigned

Updated: APR-11

D5010.07.02 Motor Starters and Accessories**

Remote motor starters, manufactured by Allen Bradley, are provided for the circulation pumps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	APR-11

Event: Replace 2 Motor Starters

Туре	Year	Cost	Priority
Lifecycle Replacement	2020	\$2,000	Unassigned

D5020.01 Electrical Branch Wiring*

Electrical branch wiring is understood to be copper throughout. The wiring is reportedly original to the building construction in 1952 and 1958.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	0	APR-11

Event: Check Grounding Continuity and Recommend Repairs

Concern:

Electrical wiring issues were reported. Original wiring may be susceptible to ground faults due to age.

Recommendation:

Check grounding continuity of electrical wiring throughout the building and identify needed repairs or replacements.

Туре	Year	Cost	Priority
Study	2011	\$5,000	Medium

Updated: APR-11

Repair wiring as per study recommendations Event:

Concern:

Electrical wiring issues were reported. Original wiring may be susceptible to ground faults due to age.

Recommendation:

Conduct repairs as recommended by grounding continuity study.

Туре	Year	Cost	Priority
Repair	2011	\$50,000	Medium

Updated: APR-11

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

Interior lighting is controlled by line voltage switches.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent fixtures are installed in service and storage rooms.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

D5020.02.02.02 Interior Fluorescent Fixtures** - T12

Interior lighting in the gymnasium is provided by fluorescent tube fixtures with T12 bulbs and magnetic ballasts.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	30	APR-11

Event: Replace 20 Fixtures

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2014	\$10,000	Unassigned

Updated: APR-11

D5020.02.02.02 Interior Fluorescent Fixtures** - T8

Interior lighting in classrooms, offices, and corridors is provided by fluorescent tube fixtures with T8 bulbs and electronic ballasts.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1990	0	APR-11

Event: Replace 160 Fixtures

<u>Type</u>	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2020	\$74,000	Unassigned

Updated: APR-11

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting is provided by wall mounted Lumacell battery packs with dual and single heads.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1990	20	APR-11

Event: Replace 4 Emergency Lighting Battery Packs

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2010	\$6,000	Unassigned

Updated: APR-11

D5020.02.03.03 Exit Signs*

Illuminated exit signs incorporating LED technology indicate the paths of egress.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1990	0	APR-11

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Exterior lighting is provided by high pressure sodium wall packs.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1990	0	APR-11

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

Exterior lighting is controlled by a photocell.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	APR-11

D5030.01 Detection and Fire Alarm**

The building is monitored by an Edwards 6616 fire alarm panel with smoke and heat detectors, manual pull stations, and fire bells. The fire alarm system covers six zones.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	25	APR-11

Event: Investigate Code Requirements

Concern:

The office area storage room, library, and computer server room do not include fire detection devices. The current fire detection and alarm system does not incorporate visual annunciation (strobes).

Recommendation:

Investigate code requirements and recommend remedial actions to be undertaken.

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

Updated: APR-11

Event: Replace Fire Detection and Alarm System (2,095m²) GFA)

Туре	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$65,000	Unassigned

Updated: APR-11

Event: Upgrade Fire Detection and Alarm System (~400m² Floor Area)

Concern:

The office area storage room, library, and computer server room require detection devices. The current fire detection and alarm system does not incorporate visual annunciation (strobes).

Recommendation:

Conduct upgrades according to recommendations of the study. Budgetary costing is provided; actual costs will depend on the findings of the study.

Туре	Year	Cost	Priority
Code Upgrade	2011	\$12,000	Medium

D5030.02.02 Intrusion Detection**

The building is monitored by a DSC Security panel complete with an AAA pad. Motion sensors are located in hallways and in office areas. The security system is monitored by a private company.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	25	APR-11

Event: Replace Security System (2,095m² GFA)

Туре	Year	Cost	Priority
Lifecycle Replacement	2015	\$65,000	Unassigned

Updated: APR-11

D5030.03 Clock and Program Systems*

The building is equipped with wall mounted battery operated clocks.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	0	APR-11

D5030.04.01 Telephone Systems*

The building is equipped with an ONYX VS telephone system interlocked with a Rauland Telecenter console. Handsets are located in classrooms. The school has two telephone lines and one fax line.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	0	APR-11

D5030.04.04 Data Systems*

The building is connected to the school district wide area network. The building has a network tower.

There are five AT&T patch panels, one Cisco Catalyst 3550 switch, two OmniSwitch 6648, and one OmniPS5-250 switch.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2002	0	APR-11

D5030.04.05 Local Area Network Systems*

Cat 5 cables are run from the server room in ceiling spaces and dropped down to classrooms using conduits in cable raceways.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2002	0	APR-11

D5030.05 Public Address and Music Systems**

The building is equipped with a Rauland Telecenter which controls paging, telephone, and change bells.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	2002	20	APR-11

Event: Replace 1 Public Address System

TypeYearCostPriorityLifecycle Replacement2022\$7,000Unassigned

Updated: APR-11

D5090.01 Uninterruptible Power Supply Systems**

An APC 1400 UPS unit is installed for equipment in the computer server room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	APR-11

Event: Replace 1 UPS Battery Pack

Туре	Year	Cost	Priority
Lifecycle Replacement	2032	\$46,000	Unassigned

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

The Library is provided with free standing wooden box shelving and portable reception desks.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	0	APR-11

E1020.03 Theater and Stage Equipment*

The gymnasium stage includes full length fabric curtains.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

E1020.05 Audiovisual Equipment*

Ceiling-mounted projectors and projection screens are provided in some classrooms.

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

E1090.04 Residential Equipment*

The kitchen/concession room off the gymnasium includes a range, refrigerator, and wood cabinets with vinyl-surfaced counter tops. The staff room on the upper floor is equipped with two refrigerators, microwave, and coffee maker.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Athletic equipment provided in the gymnasium includes one climbing rope, five fixed wall-mounted basketball backstops, one retractable ceiling-mounted basketball backstop and a removable volleyball net.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

E2010.02 Fixed Casework** - 1952

Lavatories in the multi-user washrooms are mounted within wall-hung vanities of wood construction that are surfaced with plastic laminate. Fixed casework in the classrooms, kitchen/concession room, staff room and science classrooms is generally comprised of floor-mounted wood cabinets with laminate counter tops. Fixed casework in the kitchen/concession room, staff room, science classroom and in the upper floor corridor include sinks and accessories. Display cabinets are installed in the corridors. Boot racks are installed within the mudroom and in entrance vestibules, and clothing hooks are installed within corridors, in the washrooms and in classrooms.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1952	35	APR-11

Event:	<u>Replace Fixed Casework (approx. 2,000 sq m / g.f.a.)</u>				
	Туре	Year	<u>Cost</u>	Priority	
	Lifecycle Replacement	2014	\$200,000	Unassigned	

Updated: APR-11

E2010.02 Fixed Casework** - 2010

Fixed casework in the administrative office area is comprised of wood, floor-mounted wood cabinets with laminate surface counter tops.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
5 - Good	2010	35	APR-11

Event: Replace Office Area Casework (approx. 12 m)

Туре	<u>Year</u>	Cost	<u>Priority</u>
Lifecycle Replacement	2045	\$17,000	Unassigned

Updated: APR-11

E2010.03.01 Blinds**

Windows in classrooms throughout the school generally include shades. Horizontal mini-blinds are provided in some administrative areas.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1952	30	APR-11

Event: Replace Window Coverings (approx. 40 sq. m.)

Туре	<u>Year</u> <u>Cost</u>	Priority
Lifecycle Replacement	2014 \$5,000	Unassigned

E2020.02.03 Furniture*

Moveable desks, chairs and tables are provided in most classrooms. Moveable desks, chairs and tables are provided in the administrative areas and staff room. Love seats are provided in the administrative areas, staff room and at the south end of the upper corridor.

<u>Rating</u>	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1952	0	APR-11

S8 FUNCTIONAL ASSESSMENT

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

No ventilation system is provided for the building.

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

Event: Install Ventilation System

Concern:

No ventilation system is provided and there does not appear to be adequate fresh air supply for the building.

Recommendation:

Install a ventilation system for the building to ensure adequate supply of fresh air.

Cost allowance based on air handling unit with 20,000L/s capacity and associated ducting.

Туре	Year	Cost	Priority
Indoor Air Quality Upgrade	2011	\$100,000	High

Updated: APR-11

K4010.01 Barrier Free Route: Parking to Entrance*

No designated Barrier Free parking stalls are provided at the school.

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

Event: Install Barrier Free Parking Stall (1 stall)

Concern:

A barrier free parking stall is not provided at the facility. Furthermore, no asphalt-surfaced parking areas are provided at the facility.

Recommendation:

Provide an asphalt-surfaced parking area with an enlarged barrier-free parking stall in an appropriate location near the main entrance, complete with access aisle, pavement markings and signage for stall identification. Also provide appropriate walkway if warranted, based on location.

Consequences of Deferral:

Non-compliance with current barrier-free standards and poor accessibility for handicapped users.

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

K4010.02 Barrier Free Entrances*

The building entrance doors are manually-operated.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
2 - Poor	1952	0	APR-11

Event: Install door opener at main entrance doors (two openers)

Concern:

The main entrance at the north side of the school is equipped with manually-operated entrances that are not intended for barrier free use.

Recommendation:

Install an automated door opener on the main entrance door on the north side of the school.

Consequences of Deferral:

Non-compliance with current barrier-free standards and poor accessibility for handicapped users.

Туре	<u>Year</u>	Cost	Priority
Barrier Free Access Upgrade	2011	\$8,000	Medium

Updated: APR-11

K4010.03 Barrier Free Interior Circulation* - Door Handles

Doors to classrooms and other rooms are equipped with knob-type door handles.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1952	0	APR-11

Event: Install lever style hardware (approx. 42 doors)

Concern:

Doors do not have lever style hardware per barrier free standards **Recommendation:** Replace door hardware with lever style door handles

Consequences of Deferral:

Non compliance with government barrier free criteria and standards

Туре	<u>Year</u>	Cost	Priority
Barrier Free Access Upgrade	2011	\$17,000	Medium

K4010.03 Barrier Free Interior Circulation* - Vertical Transportation

The main floor of the school is constructed on two levels, with a set of interior stairs in the main corridor provided to account for the change in elevation between the two main floor levels. There is no access to the second floor without the use of stairs.

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

Event: Install Lifts and Elevator (2 lifts and 1 elevator)

Concern:

Access between the first and second floors, the stage, and the two levels of the ground floor that are constructed at different elevations, is via staircase only.

Recommendation:

Install two wheelchair lifts; one for the main corridor staircase and one providing access to the stage, such that barrier-free access is granted to these areas. The installation of an internal elevator is also recommended to provide barrier-free access to the second floor level.

Consequences of Deferral:

Non-compliance with barrier-free standards and poor accessibility for handicapped users.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2011	\$250,000	Medium

Updated: APR-11

K4010.04 Barrier Free Washrooms*

No barrier free washrooms are provided at the facility.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	APR-11

Event: Refurbish Multi-user Washrooms (2 washrooms)

Concern:

Multi-user washrooms on the main level do not include enlarged stalls or grab bars, and no vanities, sink faucet controls or wall-mounted accessories are barrier free.

Recommendation:

Refurbish existing multi-user washrooms to incorporate an oversized stall with grab bars, vanities which allow wheelchair access, levered faucet controls and appropriately positioned accessories.

Consequences of Deferral:

Non-compliance with current barrier-free standards and poor accessibility for handicapped users.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2011	\$40,000	Medium

K4020.01 Safety Code (Fall Prevention)* - Roof

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>	Updated
2 - Poor	0	0	APR-11

Event: Install Roof Anchors (approx. 8 anchors)

Concern:

Low-slope roof surfaces over the facility are above three metres in height and are not equipped with a means of fall protection for those working in close proximity to roof edges. **Recommendation:**

Install tip-back anchor

Install tie-back anchors to the roof structure such that personnel accessing the roof level may secure safety harnesses and complete work in close proximity to the roof edge 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 in close proximity to a roof edge.

Туре	Year	Cost	Priority
Code Upgrade	2011	\$9,000	High

Updated: APR-11

K4020.01 Safety Code (Fall Prevention)* - Stairway Railings

Railings are absent on several interior staircases.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	APR-11

Event: Install Railings at Interior Staircases (approx. 8 m)

Concern:

The south interior stairwell at the west side of the building does not include railings with mesh infill. The basement stairs do not include a handrail.

Recommendation:

Provide appropriate railings at all interior stairways, where absent.

Consequences of Deferral:

Potential injury to students and faculty staff.

Туре	Year	Cost	Priority
Code Upgrade	2011	\$2,000	Medium

K4030.01 Asbestos*

No asbestos issues known or reported; however, it is presumed original vinyl floor tile and gypsum board joint compound contains asbestos. Discussions on the condition of vinyl asbestos floor tile is provided under component C3020.07 Resilient Flooring** - 1952 Vinyl Tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

K4030.04 Mould*

No mould was observed or reported.

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

K4030.09 Other Hazardous Materials*

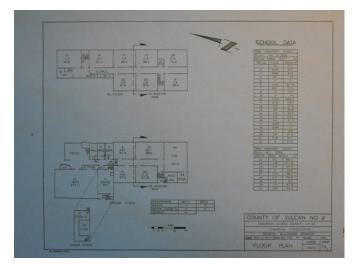
No other hazardous materials were observed during the site visit. Chemical storage practices appeared to be adequate.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1952	0	APR-11

K5010 Reports and Studies*

Evaluation Date: October 27, 2010 Stantec Consulting Ltd.

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



Floor plan of Champion School