RECAPP Facility Evaluation Report

Golden Hills School Division N0. 75

Hussar School

B3583A
Hussar

Report run on: July 24, 2008 8:54 AM

Facility Details

Building Name: Hussar School
Address: P. O. Box 250
Location: Hussar

Building Id: B3583A
Gross Area (sq. m): 2,044.76
Replacement Cost: $5,370,187
Construction Year: 1949

Evaluation Details

Evaluation Company: Golder Associates Ltd.
Evaluation Date: November 1 2007
Evaluator Name: Peter Tattersall

Total Maintenance Events Next 5 years: **$1,157,785**
5 year Facility Condition Index (FCI): **21.56%**

General Summary:

Hussar is a K to 12 school with 126 students enrolled for the 2007-2008 school year.
The original 855 m2 1-1/2 storey building was constructed in 1949 and contains the primary school classes (K-6).
A 975 m2 1-storey addition was constructed in 1957.
A 37 m2 1-storey addition was constructed in 1966.
Three 1-storey additions totaling 301 m2 were constructed in 1988.
The original 1949 building and the 1957 and 1966 additions were extensively renovated and modernized during the 1988 construction.
The gross area of the building is reported to be approximately 2168 m2.
The school capacity is reported to be 250 students.

Structural Summary:

All sections of the building have conventional cast in place concrete strip footings and pad foundations.

The basement foundations of the 1949 section are cast in place concrete.
The superstructure of the 1949 section consists of wood stud frame construction supporting wood floor and roof structures.
The second floor and roof have wood sub-flooring or tongue and groove (T&G) wood roof deck on wood joists bearing on load-bearing wood stud interior and perimeter walls.

The crawlspace foundations of the 1957, 1966 and 1988 additions are a combination of wood stud frame and cement block bearing on strip / pad footings.
The superstructures of the 1957 (excluding the gymnasium) and 1966 sections are load-bearing wood stud frame.
The 1957 gymnasium and the 1988 additions have load-bearing concrete masonry block walls.
The roofs of the 1957, 1966 and 1988 additions are standard wood frame construction with wood joists supporting T&G wood roof decks.

The building structure is generally in acceptable overall condition.

Envelope Summary:

Building envelope rehabilitation for the 1949, 1957 and 1966 sections was performed during modernization and construction of the 1988 additions.
The wall cladding varies depending on the section:
- the original 1949 building and the 1988 additions have painted cement plaster (stucco) on metal lathe;
- the 1957 section has painted cement block below window bands with painted asbestos board (transite) above window bands.
- the 1966 section and west side entrance to the 1957 section are clad with brick masonry.

Exterior windows vary depending on the section:
- the lower floor / basement windows in the 1949 section and metal and glass horizontally sliding windows with single-pane glass with aluminum sashes and wood frames. The upper windows were replaced during the 1988 modernization are consist of horizontally sliding wood-frame windows with vinyl sashes and single-pane glass.
- Glass block masonry sidelights border the upper floor windows at the former original entrance on the east side of the 1949 building.
- windows in the 1957 section are aluminum and glass horizontally sliding single pane windows in wood frames topped with glass block masonry and have concrete sills.
- the 1966 and 1988 section windows are metal and glass with insulated glazing units in anodized aluminum frames.

Exterior doors are primarily painted hollow and solid core wood in steel frames and are equipped with interior panic

hardware and automatic door closers with exterior toggle-button handsets.

Failure replacement of the lower floor windows on the 1949 building is required.
Failure replacement of the 1955 section windows, glass block masonry and concrete sills is required.
Failure replacement of the exterior utility door from the lower floor / basement on the west side of the 1949 building is required.
Repairs to cement plaster finishes on the 1949 and 1988 sections is anticipated over the 5-year term of this report.

Roofing on the 1949 section consists of a 2-ply modified bituminous membrane (SBS) with granular surfaced capsheet and flashing installed in 2007.
The roofs on the remaining sections have conventional built-up bituminous roofing (BUR) systems with asphalt and gravel cover.
Replacement of the BUR roof assemblies will be required over the term of this report. The skylight on the 1949 section was damaged during roofing replacement in 2007 and was awaiting delivery of a replacement skylight while on site for this survey.

The building envelope is generally in marginal to poor overall condition.

Interior Summary:
The building interiors were mostly updated during the 1988 modernization.

The flooring in the hallways, second floor classrooms in the 1949 section and science classrooms in the 1957 section are primarily resilient sheet flooring.
The gymnasium and stage floors are wood.
The student change room and washroom floors are glazed ceramic tile.
The mechanical room floor is painted slab in grade concrete.
All other floors have resilient sheet or vinyl composite tile flooring.

Interior walls are painted concrete masonry unit (CMU), painted gypsum or plaster with glazed ceramic tile in the student changerooms. The gymnasium interior walls are painted CMU and glazed brick masonry.

Ceilings in the washrooms, change rooms and boiler room are painted gypsum. All other ceilings throughout the school are a combination of concealed grid acoustic tile and suspended T-bar acoustic tile.

There are barrier free accessible toilet stalls and lavatories in the changerooms.
There is a wheelchair ramp in the hallway to the upper level of the 1949 section but the ramp is too narrow to be considered barrier free accessible.

Full-height lockers are provided in the hallways of the 1957 section for upper grade students (grades 7 to 12) and in the PE Office. Half-lockers and smaller are provided in the student change rooms.
Replacement of lockers in the boys change room is required due to physical damage.

The interior finishes are generally in acceptable overall condition.

Mechanical Summary:
The heating in the 1949, 1966 and 1988 sections is provided by two Allied Energy Company - Super Hot hot water boilers and perimeter radiation and duct heating. Heating to the 1957 section is provided by individual classroom gas-fired furnaces. Installation dates of the furnaces is unknown, but it is suspected they are nearing or have surpassed their life cycle and will require replacement.

Domestic hot water is heated by A.O. Smith hot water heaters in the meter room and in the boiler room, installed in 2001 and 2002, respectively.

Gas service consists of a 2" service to the main mechanical room and 1" gas service to individual furnaces.

One Engineered Air air handling unit on a glycol system provides the ventilation to the 1949 and 1988 sections of the school. Rooftop mechanical fans provide corridor and gymnasium ventilation in the 1957 section.

The school is equipped with ABC-type dry chemical fire extinguishers. They were serviced by Simplex Grinnell in

September, 2007.

The rooftop exhaust fans are past their theoretical life cycle and should be replaced. Rooftop waste vents are damaged or missing and should also be repaired/replaced.

Maintenance personnel report issues regarding hard water at the site resulting in higher than normal maintenance costs for domestic water distribution systems and the practice of replacing the faucet cartridges annually, tap sets every 2 to 3 years and hot water tanks every 3 to 5 years. The boiler water treatment appears to be adequate and the boiler doe not appear to be adversely impacted. Replacement of the existing water softener system with a more efficient deionized water system is recommended.

The mechanical system is in generally in marginal to acceptable overall condition.

Electrical Summary:

Main electrical switchboard is Federal Pioneer, 400 Amp, 120/208 Volt, single phase / 3 wire.
The school is equipped with four branch circuit panel boards.
The interior fluorescent lighting is T-8 and was upgraded in 2003.
Emergency lighting is provided by a mixture Emergi-Lite and Lumacell remote and integral 12 VDC battery packs. Exit signage is provided by a mixture of original incandescent and newer LED style units throughout.
Fire security is provided by an Alarm and Access panel with an Edwards E2280 annunciator panel. Intrusion detection is provided by an Ademco security panel with motion detectors throughout.

Additional exterior lighting for security and personal safety and additional car plugs are recommended.
The electrical distribution is obsolete and outdated. Upgrade to a 3-phase 4-wire system is recommended at the next lifecycle replacement.

The electrical system is generally in acceptable overall.

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*

Conventional cast in place concrete spread footings and pad foundations.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

A1030 Slab on Grade - 1949 Section*

The lower floor of the 1949 section is concrete slab in grade.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

A1030 Slab on Grade - 1957 & 1966 Sections*

The 1957 and 1966 sections have slab in grade concrete floors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

A1030 Slab on Grade - 1988 Section*

The gymnasium storage and boiler room of the 1988 section are of slab in grade concrete construction.
The staff work room (SWR on floor plans) portion of the 1988 section has an excavated crawlspace and wood frame floor structure (see B1010.01).

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

A2020 Basement Walls (& Crawl Space) - 1949 Section*

Basement walls of the 1949 section are cast in place concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

A2020 Basement Walls (& Crawl Space) - 1988 Section*

Crawl space walls in the SWR portion of the 1988 section are a combination of concrete masonry block and wood stud frame walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

B1010.01 Floor Structural Frame (Building Frame) - 1949 Section*

Floor structural framing in the 1949 section consists of wood stud frame interior and perimeter walls on cast in place concrete foundation walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

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

Combination wood stud framing and load-bearing concrete masonry unit (CMU).

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

B1010.03 Floor Decks, Slabs, and Toppings - 1949 Section*

Wood sub-flooring and tongue & groove (T&G) roof deck supported on wood joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

B1010.03 Floor Decks, Slabs, and Toppings - 1957 Section*

The floor at the north end connection to the 1949 section and the gymnasium stage have wood sub-flooring on wood joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

B1010.03 Floor Decks, Slabs, and Toppings - 1988 Section*

The floor of the SWR section of the 1988 addition has wood sub-flooring on wood joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

B1010.07 Exterior Stairs - 1949 Section*

Cast in place concrete stairs lead from the lower floor of the 1949 section to the exterior on the west side.
Although enclosed and covered, the stairs are outside the building and therefore considered to be exterior stairs.

For comments on the exterior steps to the east side entrance to the 1949 section see G2030.06 Exterior Steps and Ramps in Section S7 Site.

Rating	Installed	Design Life	Updated
3 - Marginal	1949	40	FEB-08

Event: Repair Exterior Stairs

Concern:
Groundwater seepage through the stairs at the interfaces between vertical and horizontal surfaces has resulted in calcification build-up and spalling concrete.
For further comment on groundwater drainage issues refer to G3030.01 Storm water Collection in Section S7 Site.

Recommendation:
Patch and repair spalling concrete stairs.
Recommendations for management of groundwater issues are provided in G3030.01.

Type	Year	Cost	Priority
Repair	2008	$2,288	Low

Updated: FEB-08

B1010.09 Floor Construction Fireproofing - 1949 Section*

Taped and sealed gypsum above finished acoustic tile ceilings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

B1010.10 Floor Construction Firestopping - 1949 Section*

None identified.

Rating	Installed	Design Life	Updated
2 - Poor	1949	0	FEB-08

Event: Repair Floor Construction Firestopping

Concern:
Utility and mechanical penetrations and conduits through floor assemblies are unsealed.

Recommendation:
Provide appropriate ULC approved firestops.

Type	Year	Cost	Priority
Repair	2008	$1,716	Medium

Updated: APR-08

B1010.10 Floor Construction Firestopping - 1988 Section*

None observed in the SWR portion of the 1988 section. Repair costs for this section of the building are under $1,000 and have been included with that for the 1949 section.

Rating	Installed	Design Life	Updated
2 - Poor	1988	0	FEB-08

B1020.01 Roof Structural Frame*

All roof structural framing consists of tongue and groove (T&G) wood decks on wood joists bearing on wood stud frame or concrete masonry block walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

B1020.04 Canopies - 1949 Section*

Wood frame canopy projects over the east side entrance to the 1949 section.
A wood frame enclosure provides pedestrian protection at the exterior stairs on the west side of the 1949 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

B1020.04 Canopies - 1957 Section*

The entrances to the 1957 section are recessed such that the roofline forms a cover over the entrance doors. See B1020.01 Roof Structural Frame.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

B1020.06 Roof Construction Fireproofing*

Taped and sealed gypsum above finished ceilings in all sections.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1957, 1966 and 1988 Sections*

Brick masonry exterior wall cladding is present at the west entrance doorway of the 1957 section; the east elevation of the 1966 section; and, the east elevation of the SWR portion of the 1988 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	FEB-08

B2010.01.06.02 Composite Panels - 1957 Section*

Painted asbestos cement (transite) panels above window bands on the 1957 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

B2010.01.08 Cement Plaster (Stucco): Ext. Wall - 1949, 1957 and 1988 Sections*

Cement plaster (stucco) exterior wall cladding is present on all elevations of the 1949 section; only the gymnasium exterior walls of the 1957 section; the gymnasium storage room and boiler room additions (1988) on the west side of the school and the 1988 library extension on the east side of the school.

Exterior stucco finishes were applied new during the 1988 modernization.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	75	FEB-08

Event: Repair stucco and apply a weatherproof coating

Concern:
Repairs to exterior stucco finishes on the west side of the 1949 and 1988 sections were performed in Summer 2007. A network of fissures and hairline cracking was observed within repaired areas and typically within all stucco surfaces.

Recommendation:
Repair stucco and apply a weatherproof coating to prevent moisture ingress.

Type	Year	Cost	Priority
Repair	2010	$19,448	Medium

Updated: APR-08

B2010.01.09 Expansion Control: Exterior Wall Skin*

Expansion joint control typically consists of joint sealers (caulking) at wall transitions and interfaces between building sections.
Expansion control at the roof consists of covered expansion joint curbs / roof divider curbs with metal coping / counter flashing.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	FEB-08

Event: Replace Expansion Joint Caulking

Concern:
Caulking in expansion joints are hardened, have debonded and separated.
Recommendation:
Replace expansion joint caulking.

Type	Year	Cost	Priority
Failure Replacement	2008	$2,860	Medium

Updated: FEB-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1949 Section**

Present around window / door frames. Replaced during 1988 modernization.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	20	FEB-08

Event: Replace Joint Sealers

Concern:
Caulking around windows has deteriorated and separated. Teachers and maintenance personnel report moisture ingress from around lower floor windows.
Recommendation:
Replace exterior joint sealers.

Type	Year	Cost	Priority
Failure Replacement	2008	$9,724	Medium

Updated: APR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1957 Section**

Present around window / door frames. Replaced during 1988 modernization.

Rating	Installed	Design Life	Updated
2 - Poor	1988	20	FEB-08

Event: Replace Joint Sealers

Concern:
Caulking around windows has deteriorated and separated. Caulking is absent in isolated random locations.
Recommendation:
Replace exterior joint sealers.

Type	Year	Cost	Priority
Failure Replacement	2008	$17,732	High

Updated: APR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1966 Section**

Present around window frames. Replaced during 1988 modernization.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	20	FEB-08

Event: Replace Joint Sealers

Concern:
Caulking around windows has deteriorated and separated.
Recommendation:
Replace exterior joint sealers.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,716	Medium

Updated: FEB-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1988 Section**

Present around window frames and through-wall service penetrations.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	20	FEB-08

Event: Replace Joint Sealers

Type	Year	Cost	Priority
Failure Replacement	2008	$2,860	Medium

Updated: APR-08

B2010.01.13 Paints (& Stains): Exterior Wall - 1949 Section**

The exterior stucco finishes, wood window trim and canopy fascia and soffit on the 1949 section are painted surfaces,

Rating	Installed	Design Life	Updated
3 - Marginal	1988	15	FEB-08

Event: Replace Paints (& Stains): Exterior Wall**

Concern:
Stucco surfaces are faded and dull.
Wood trim, fascia and soffit are peeling.
Recommendation:
Replace exterior paints.

Type	Year	Cost	Priority
Failure Replacement	2009	$9,152	Low

Updated: APR-08

B2010.01.13 Paints (& Stains): Exterior Wall - 1957 Section**

Rating	Installed	Design Life	Updated
3 - Marginal	1988	15	FEB-08

Event: Replace Paints (& Stains): Exterior Wall**

Concern:
Painted surfaces are faded and dull.
Recommendation:
Replace exterior paints.

Type	Year	Cost	Priority
Failure Replacement	2009	$10,868	Low

Updated: APR-08

B2010.01.13 Paints (& Stains): Exterior Wall - 1988 Section**

Repairs and repainting of the 1988 additions was reportedly completed in Summer 2007.

Rating	Installed	Design Life	Updated
5 - Good	2007	15	FEB-08

Event: Replace Paints (& Stains): Exterior Wall

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$4,004	Unassigned

Updated: APR-08

B2010.01.99 Other Exterior Wall Skin*

Masonry glass block above window bands on the 1957 and 1966 sections.

Rating	Installed	Design Life	Updated
2 - Poor	1957	0	FEB-08

Event: Replace Masonry Glass Block

Concern:
Mortar joints in masonry glass block sections are deteriorated and have failed allowing moisture and air migration to the interior.

Recommendation:
Replace masonry glass block above window bands.

Type	Year	Cost	Priority
Failure Replacement	2008	$143,000	Medium

Updated: FEB-08

B2010.02.01 Cast-in-place Concrete:Ext.Wall Const - 1949 Section*

The exposed foundation walls on the north and east sides of the 1949 section are cast in place concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

B2010.02.02 Precast Concrete: Ext. Wall Const. - 1957 Section*

Sill plates at windows in the 1957 section are precast concrete.

Rating	Installed	Design Life	Updated
2 - Poor	1957	0	FEB-08

Event: Replace Precast Concrete Window Sills

Concern:
Concrete sills are deteriorated and unsound with spalling concrete and random voids.

Recommendation:
Replace concrete sills (cost indicated does not include window removal or replacement - refer to B2020.01.01.02).

Type	Year	Cost	Priority
Failure Replacement	2008	$27,456	High

Updated: APR-08

B2010.02.03 Masonry Units: Ext. Wall Const. - 1957 Section*

Painted concrete masonry unit (CMU) walls below window bands on the 1957 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

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

Except for the gymnasium walls and masonry unit walls below the windows in the 1957 section, the exterior walls throughout the school are wood framed walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

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

Concealed

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

B2010.06 Exterior Louvers, Grilles, and Screens*

Louvers, grills and screens are limited to prefinished aluminum grills for the boiler room in the 1988 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

B2010.09 Exterior Soffits*

The roof overhang and canopy soffits are painted wood (refer above to B2010.01.13).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1949 Section Lower Floor**

Lower floor (basement) windows on the north and west sides of the 1949 section are metal and glass with double horizontally sliding single-pane glass in aluminum sashes and wood frames. Based on observation these windows are not likely to be original (1949). Installation year is unknown and likely predates 1988 modernization. Assumed to have been installed during the 1966 construction.

Rating	Installed	Design Life	Updated
2 - Poor	1966	40	FEB-08

Event: Replace Aluminum Windows - 1949 Lower Floor

Concern:
Exposed wood frames are rotted. Teachers and maintenance staff reported occasional moisture ingress from around basement windows.

Recommendation:
Replace basement aluminum windows.

Type	Year	Cost	Priority
Failure Replacement	2008	$8,580	High

Updated: FEB-08

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1949 Section Upper Floor**

Non-operable metal and glass window with IGU glass in anodized aluminum framing is present on the north elevation and above the east elevation entrance of the 1949 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Replace Aluminum Windows

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$8,580	Unassigned

Updated: APR-08

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1957 Section**

Window bands between CMU exterior walls and masonry glass block wall skin are original metal and glass fixed and horizontally sliding windows in aluminum frames.

Rating	Installed	Design Life	Updated
2 - Poor	1957	40	FEB-08

Event: Replace Aluminum Windows

Concern:
Teachers and maintenance personnel report occasional moisture ingress and persistent airflow issues from around windows and frames.

Recommendation:
Replace aluminum windows (cost indicated does not include cost to replace concrete sills - refer above to B2010.02.02).

Type	Year	Cost	Priority
Failure Replacement	2008	$82,940	High

Updated: APR-08

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1966 Section**

Office windows in the 1966 section are similar to those in the 1957 section and consist of original metal and glass fixed and horizontally sliding windows in aluminum frames topped by masonry glass block. Lifecycle replacement costing is included herein (cost forecast excludes costs to remove and replace masonry glass block above the windows - see B2010.01.99 above).

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	40	FEB-08

Event: Replace Aluminum Windows

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$4,347	Unassigned

Updated: APR-08

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1988 Section**

Non-operable metal and glass windows with insulated glazing units (IGUs) in anodized aluminum frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Replace Aluminum Windows

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$7,436	Unassigned

Updated: APR-08

B2020.01.01.05 Wood Windows (Glass & Frame) - 1966 Section**

Non-operable single-pane Georgina wire security glass in wood frames above the main entrance doors and brick masonry cladding on the 1966 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	35	FEB-08

Event: Replace Wood Windows - 1966 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,148	Unassigned

Updated: APR-08

B2020.01.01.06 Vinyl, Fibreglass &Plastic Windows - 1949 Section **

Second floor windows in the 1949 section were replaced during the 1988 modernization and consist of operable vinyl windows with double horizontally-sliding single-pane windows in vinyl sashes and wood trim.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Replace Vinyl Windows.

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$44,616	Unassigned

Updated: APR-08

B2030.01.02 Steel-Framed Storefronts: Doors - 1957 Section**

Painted insulated hollow metal double doors with Georgian wire vision glass inserts in aluminum frames with center post. Doors are equipped with exterior toggle-button handsets and interior panic bars and automatic door closers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	30	FEB-08

Event: Replace Steel-Framed Entrance Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$8,580	Unassigned

Updated: APR-08

B2030.01.10 Wood Entrance Door - 1949 Section**

Painted solid core wood double doors with Georgian wire vision glass inserts in wood frames. Doors are equipped with exterior toggle-button handsets and interior panic bars and automatic door closers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	30	FEB-08

Event: Replace Wood Entrance Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$4,233	Unassigned

Updated: APR-08

B2030.01.10 Wood Entrance Door - 1966 Section**

Painted solid core wood double doors with Georgian wire vision glass inserts in wood frames. Doors are equipped with exterior toggle-button handsets and interior panic bars and automatic door closers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	FEB-08

Event: Replace Wood Entrance Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$4,233	Unassigned

Updated: APR-08

B2030.02 Exterior Utility Doors - 1949 Section**

Single painted wood door in painted wood frame at exit enclosure from the basement on the west side of the 1949 section. The door is equipped with Georgina wire security vision glass, interior panic hardware and automatic door closer.

Rating	Installed	Design Life	Updated
2 - Poor	1949	40	FEB-08

Event: Replace Exterior Utility Doors**

Concern:
Moisture damage and delamination of the outside plies of the wood door were observed.
Recommendation:
Replace wood utility door.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,716	Low

Updated: APR-08

B2030.02 Exterior Utility Doors - 1957 Section**

Double painted wood doors in wood frames. Equipped with interior panic hardware and automatic closers.

Rating	Installed	Design Life	Updated
3 - Marginal	1957	40	FEB-08

Event: Replace Exterior Utility Doors**

Concern:
Utility doors from the gymnasium are weathered and aged with delaminatiing exterior surfaces. One of two door closers is damaged and requires replacement.

Recommendation:
Replace utility doors and hardware.

Type	Year	Cost	Priority
Lifecycle Replacement	2009	$4,004	Low

Updated: APR-08

B2030.02 Exterior Utility Doors - 1988 Section**

Painted wood utility door with integral ventilation grills from the boiler room on the west side of the 1988 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Replace Exterior Utility Doors**

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$2,002	Unassigned

Updated: APR-08

B3010.01 Deck Vapor Retarder and Insulation*

Concealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1957 Section - Classrooms**

Conventional asphalt and gravel built-up bituminous roofing (BUR) installed as part of the 1988 modernization and addition construction.

Rating	Installed	Design Life	Updated
2 - Poor	1988	25	FEB-08

Event: Replace Built-up Bituminous Roofing

Concern:

Numerous areas show signs of asphalt degradation and exposed unprotected roofing felts with numerous blisters and membrane ridging throughout the roof area. Membrane flashing at parapets and roof penetrations / transitions are brittle and have cracked with open voids. This roof is considered to have surpassed its useful life and requires replacement.

Recommendation:

Replace the lower roof above the 1957 classrooms and hallways.

Type	Year	Cost	Priority
Failure Replacement	2008	$154,440	Medium

Updated: APR-08

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1957 Section - Gymnasium**

Conventional asphalt and gravel built-up bituminous roofing (BUR) installed as part of the 1988 modernization and addition construction.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	25	FEB-08

Event: Replace Built-up Bituminous Roofing

Concern:

Random localized areas with exposed roofing felts, brittle membrane flashing and evidence of past repairs. Early stage blistering was observed in some areas. This roof is maintainable but will require replacement over the term of this report.

Recommendation:

Replace the upper roof above the 1957 gymnasium.

Type	Year	Cost	Priority
Failure Replacement	2010	$87,516	Low

Updated: APR-08

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1966 Section**

Conventional asphalt and gravel built-up bituminous roofing (BUR) installed as part of the 1988 modernization and addition construction.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	25	FEB-08

Event: Replace Built-up Bituminous Roofing

Concern:
Random localized areas with exposed roofing felts, brittle membrane flashing and random blistering was observed. This roof is maintainable but will require replacement over the term of this report.

Type	Year	Cost	Priority
Failure Replacement	2010	$19,219	Low

Updated: FEB-08

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1988 Section**

Conventional asphalt and gravel built-up bituminous roofing (BUR) installed as part of the 1988 modernization and addition construction.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	25	FEB-08

Event: Replace Built-up Bituminous Roofing

Concern:
Random localized areas with exposed roofing felts, brittle membrane flashing and random blistering was observed. These roofs are maintainable but will require replacement over the term of this report.

Type	Year	Cost	Priority
Failure Replacement	2010	$46,790	Low

Updated: APR-08

B3010.04.04 Modified Bituminous Membrane Roofing (SBS) - 1949 Section**

2-ply modified bitumen membrane roofing with granular surfaced capsheet and flashing (SBS) replaced in 2007.

Rating	Installed	Design Life	Updated
6 - Excellent	2007	25	FEB-08

Event: Replace Modified Bituminous Membrane Roofing

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$58,687	Unassigned

Updated: APR-08

B3010.08.02 Metal Gutters and Downspouts - 1949 Section**

Roof overflow scuppers are drained via painted metal downspouts and discharge at grade near the building footprint.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Metal Gutters and Downspouts**

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$1,144	Unassigned

Updated: APR-08

B3010.08.02 Metal Gutters and Downspouts - 1957 Section**

Gymnasium scuppers drain via metal downspouts to precast concrete splash pads at grade. The estimated cost to replace is under $1,000 and is included in the roofing replacement costs outlined above.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	30	FEB-08

B3010.08.02 Metal Gutters and Downspouts - 1966 Section**

Scupper drain via metal downspouts to ground near the building footprint. The estimated cost to replace is under $1,000 and is included in the roofing replacement costs outlined above.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

B3010.08.02 Metal Gutters and Downspouts - 1988 Section**

Scupper drain via metal downspouts to ground near the building footprint. The estimated cost to replace is under $1,000 and is included in the roofing replacement costs outlined above.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

B3020.01 Skylights - 1949 Section**

A temporarily covered curb for an octagonal skylight was identified on the roof of the 1949 section.

Rating	Installed	Design Life	Updated
3 - Marginal	2007	25	FEB-08

Event: Replace Skylights

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$15,444	Unassigned

Updated: APR-08

Event: Replacement of the damaged skylight

Concern:
It was reported that the skylight was damaged and removed during the roofing replacement in 2007 and awaiting delivery of a replacement.

Recommendation:
Replacement of the damaged skylight is at the roofer's insurance cost therefore no cost has been allocated for this item.

Type	Year	Cost	Priority
Failure Replacement	2008	$0	High

Updated: APR-08

B3020.01 Skylights - 1957 Section**

Domed skylights were identified on the gymnasium roof of the 1957 section but have been declared obsolete and concealed by interior ceilings. The maintenance supervisor indicated these skylights are to be removed during the pending roofing replacement.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	25	FEB-08

Event: Replace Domed Skylights**

Concern:
The skylights have been declared obsolete and concealed by interior ceilings. The maintenance supervisor indicated these skylights are to be removed during the pending roofing replacement. Costs for replacement 'in-kind' is provided as a precautionary measure.

Recommendation:
Precautionary allowance for replacement of skylights.

Type	Year	Cost	Priority
Failure Replacement	2010	$18,647	Low

Updated: APR-08

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

Roof vents, soil vents, chimneys and exhaust stacks, service / utility penetrations (gum boxes), etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies: Partitions

Partitions between hallways and classrooms / offices / change rooms etc. Are painted concrete masonry unit (CMU) walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

C1010.01.07 Framed Partitions (Stud)

Stud frame partitions with gypsum finishes are between adjacent classrooms, offices, etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

C1010.03 Interior Operable Folding Panel Partitions**

An accordion-style folding partition is present in the passage between the science lab and adjacent classroom in the 1957 Section. It was installed during the 1988 modernization.
The stage area is divided from the gymnasium by a second accordion-style partition.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	30	FEB-08

Event: Replace Gymnasium/Stage Partition

Concern:
The accordion-style partition at the stage is physically damaged and difficult to operate.
Recommendation:
Replace stage / gymnasium partition.

Type	Year	Cost	Priority
Failure Replacement	2009	$20,592	Low

Updated: FEB-08

Event: Replace Interior Operable Folding Panel Partitions: Science Room

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$11,211	Unassigned

Updated: APR-08

C1010.05 Interior Windows*

Interior metal and glass windows are located at the main entrance/office area and in the stud frame partition between the science room and adjacent classroom. All interior windows were installed as part of the 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

C1020.01 Interior Swinging Doors (& Hardware)*

Interior doors are a combination of clear finish wood with integral vision glass and hollow core metal with and without vision glazing. Handsets on interior doors are knob-type. Metal kick plates have been added near the base of some doors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Repair Interior Doors

Concern:
Vision glass in some interior doors in the 1957 section is loose and could readily sustain damage or breakage

Recommendation:
Re-set vision glass sections.

Type	Year	Cost	Priority
Repair	2008	$1,144	Medium

Updated: APR-08

C1020.03 Interior Fire Doors*

Fire doors in the 1949 section were installed in 1988 and are metal doors in steel frames with panic hardware and automatic door closers. These doors are maintained closed and do not have or require door hold open devices.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

C1030.01 Visual Display Boards**

Dry-erase whiteboards, chalk boards, tack boards and digital Smartboards in classrooms; tack boards and wood display cases in hallways.
Smartboards are recent additions (since 2003) but all other display boards are reported to date to the 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	FEB-08

Event: Replace Visual Display Boards**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$45,188	Unassigned

Updated: APR-08

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

Enamel-paneled partitions for toilet stalls and showers in the student washrooms and change rooms.
Self-contained shower stall in the PE Office.

Rating	Installed	Design Life	Updated
2 - Poor	1988	30	FEB-08

Event: Replace Fabricated Compartments(Toilets/Showers)**

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$7,207	Unassigned

Updated: APR-08

Event: Replace Fabricated Compartments(Toilets/Showers)**

Concern:
Shower stalls and toilet cubicles in the 1957 section have been abused and are damaged.
Recommendation:
Replace

Type	Year	Cost	Priority
Failure Replacement	2008	$16,016	Low

Updated: MAR-08

C1030.06 Handrails*

Painted steel handrails are located in the stairways of the 1949 section and the stage stairs in the 1957 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

C1030.08 Interior Identifying Devices*

Wall-mounted plastic door numbers and name plates are provided throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

C1030.10 Lockers**

Full-height metal lockers in corridors of the 1957 section for upper grades (7 to 12) and PE Offices; metal half lockers in student change rooms.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	30	FEB-08

Event: Replace Half Lockers In Change Rooms

Concern:
Half lockers in student change rooms have been vandalized and doors / lock mechanisms damaged beyond repair.
Recommendation:
Replace lockers in change rooms.

Type	Year	Cost	Priority
Failure Replacement	2008	$24,024	Unassigned

Updated: FEB-08

Event: Replace Lockers - Full Lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$99,871	Unassigned

Updated: APR-08

C1030.12 Storage Shelving*

Combination of industrial grey metal shelving and painted or unfinished wood shelving in custodian and storage rooms, boiler room, etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

C1030.14 Toilet, Bath, and Laundry Accessories*

Tilted and fixed wall mirrors, liquid soap dispensers, paper towel and toilet paper holders, feminine hygiene products dispensers and disposal, shower rods and curtains.
Clothes washer and dryer in boiler room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

C2010 Stair Construction*

Interior stairs between levels in the 1949 section and at the stage in the 1957 section are of standard wood frame construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

C2020.05 Resilient Stair Finishes - 1949 Section Front (East) Stairs**

Stairs in the 1949 section have resilient sheet flooring installed in 1988 and have non-slip vinyl nosing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	FEB-08

Event: Replace Resilient Stair Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$3,718	Unassigned

Updated: APR-08

C2020.05 Resilient Stair Finishes - 1957 to 1949 Section**

Stairs from the 1957 Section to the upper and lower floors of the 1949 Section have new (2003) resilient sheet flooring.

Rating	Installed	Design Life	Updated
5 - Good	2003	20	FEB-08

Event: Replace Resilient Stair Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$1,144	Unassigned

Updated: APR-08

C2030 Interior Ramps

There is a wood frame interior ramp from the 1957 corridor to the upper level of the 1949 section. The ramp is provide steel handrails and slip-resistant floor treatment.
(refer to K4010.03 for further comment).

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

C3010.06 Tile Wall Finishes**

Ceramic wall tile is limited to shower stalls in the student change rooms and urinal surrounds in student washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	40	FEB-08

Event: Replace Tile Wall Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,148	Unassigned

Updated: APR-08

C3010.11 Interior Wall Painting*

Interior wall surfaces were reported last painted in 1988 throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	10	FEB-08

C3020.01.02 Paint Concrete Floor Finishes*

Slab on grade concrete floors in the boiler room, photography / meter room and exterior stairs from the 1949 section are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	10	FEB-08

C3020.02 Tile Floor Finishes**

Ceramic floor tiles in the student washrooms in the 1949 and 1957 section were replaced in 1988.
Ceramic floor tiles in the student change rooms in the 1957 section were also replaced in 1988.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	50	FEB-08

Event: Replace Tile Floor Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$15,444	Unassigned

Updated: APR-08

C3020.04 Wood Flooring**

The gymnasium and stage in the 1957 section have hardwood flooring throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	30	FEB-08

Event: Replace Wood Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$119,891	Unassigned

Updated: APR-08

C3020.07 Resilient Flooring - 1949 Section**

Resilient flooring in the 1947 section was reportedly replaced in 2003.
Corridor flooring at the base of the stairs from the 1957 section has sustained water damage (refer to G3030.01 for further comments). Cost to replace damaged flooring is less than $1,000.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	20	FEB-08

Event: Replace Resilient Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$17,160	Unassigned

Updated: APR-08

C3020.07 Resilient Flooring - 1957 Section**

Resilient flooring in the hallways and classrooms of the 1957 section were replaced during the 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	FEB-08

Event: Replace Resilient Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$29,172	Unassigned

Updated: FEB-08

C3020.08 Carpet Flooring - 1949 Section**

Carpets in the 1949 section classrooms, library and computer room were reportedly replaced in 2003.

Rating	Installed	Design Life	Updated
5 - Good	2003	15	FEB-08

Event: Replace Carpet Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$5,148	Unassigned

Updated: APR-08

C3020.08 Carpet Flooring - 1957, 1966 and 1988 Sections**

Carpets in the 1957 classrooms, 1966 offices and 1988 staff work room were replaced during the 1988 modernization.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	15	FEB-08

Event: Repair Seam Failure

Concern:
Random seam failure posing potential trip hazards if not repair were observed in the 1957 classrooms.

Recommendation:
Repair separating carpet seams.

Type	Year	Cost	Priority
Repair	2008	$1,144	Low

Updated: FEB-08

Event: Replace Carpet Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,148	Unassigned

Updated: FEB-08

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

Acoustic tile ceilings throughout the school were replaced during the 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	FEB-08

Event: Replace Acoustic Ceiling Treatment

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$40,040	Unassigned

Updated: APR-08

C3030.07 Interior Ceiling Painting*

Drywall ceilings in washrooms, change rooms and the boiler room were reported last painted in 1988.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	FEB-08

S4 MECHANICAL

D2010.04 Sinks - Classrooms**

Stainless steel sinks located in classrooms throughout the school, installed during 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Stainless Steel Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$9,724	Unassigned

Updated: FEB-08

D2010.04 Sinks - Science Lab.**

Stainless steel sinks located in the science room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	30	FEB-08

Event: Replace Stainless Steel Sinks in Science Lab

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$13,728	Unassigned

Updated: APR-08

D2010.05 Showers**

Showers are ceramic tile with heads and taps protruding from wall installed in 1988. They are divided by traditional washroom stall partitions.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Showers

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$8,237	Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers**

Wall hung, refrigerated stainless steel drinking fountains throughout school were installed during the 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	35	FEB-08

Event: Replace Drinking Fountains

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$14,414	Unassigned

Updated: APR-08

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

The toilets, urinals and lavatories are vitreous china. The toilets and urinals have manual flush devices.

Refer to D2090.02 for further comments related to hard water issues.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace - Washroom Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$45,760	Unassigned

Updated: APR-08

D2020.01.01 Pipes and Tubes: Domestic Water*

Piping is copper and steel. Additional piping was added with the various construction and renovation phases with a major overhaul in the 1988 renovation.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D2020.01.02 Valves: Domestic Water**

Ball and gate valves on all types of water lines as well as on the glycol piping system Installed during the 1988 construction/renovation phase.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Replace Domestic Water Valves

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$14,414	Unassigned

Updated: APR-08

D2020.02.02 Plumbing Pumps: Domestic Water**

4 Grundfos recirculation pumps. 2 pumps on a glycol loop for the 2 air handling unit and 2 pumps on the domestic water system supplying the hot water boilers. All pumps were installed in 1988 and have reportedly since been rebuilt several times since.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	FEB-08

Event: Replace Plumbing Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$7,207	Unassigned

Updated: APR-08

D2020.02.06 Domestic Water Heaters - Boiler Room**

There are two domestic hot water heaters in the main mechanical room:

A.O. Smith, installed in 2001
Model #: BTRC305 110
Serial #: H04M014033
Input: 274,500 BTU/hr
Type: Natural Gas
Capacity: 65 gallons

There is a Rheem hot water heater that is no longer in use and should be removed.

Refer to D2090.02 for further comments related to hard water issues.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	20	FEB-08

Capacity Size	Capacity Unit
245	litre

Event: Replace - Domestic Hot Water Heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$3,661	Unassigned

Updated: APR-08

D2020.02.06 Domestic Water Heaters - Meter Room**

One domestic hot water heater located in the water meter room:

GSW Inc, installed in November 2002
Model #: 6G40ENA-04
Serial #: S0211 187521
Input: 36,000 BTU/hr
Type: Natural Gas
Capacity: 150 litres

Refer to D2090.02 for further comments related to hard water issues.

Rating	Installed	Design Life	Updated
5 - Good	2002	20	FEB-08

Capacity Size	Capacity Unit
150	litre

Event: Replace - Domestic Hot Water Heater

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$3,661	Unassigned

Updated: FEB-08

D2020.03 Water Supply Insulation: Domestic*

The majority of domestic hot, cold and recirculation piping is insulated with rigid fiberglass insulation. Many of the pipe elbows and joints have been abated and replaced in the mechanical room, however, possible asbestos-containing insulation remains on pipe elbows and joints throughout the school (refer to F2020.01 Asbestos in section S8 Functional Assessment)

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D2030.01 Waste and Vent Piping*

Sanitary waste piping is cast iron. Soil vents are ABS plastic with aluminum flashing at the roof.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	FEB-08

Event: Repair - Soil Vents

Concern:
ABS plastic and aluminum flashing on roof soil vents are damaged or missing.

Recommendation:
Repair or replace damaged/missing soil vents

Consequences of Deferral:
Potential water ingress into the school at the soil vent location causing water damage.

Type	Year	Cost	Priority
Repair	2008	$1,144	Low

Updated: FEB-08

D2040.01 Rain Water Drainage Piping Systems*

Piping system is cast iron. A sump pump is located at the base of the stairwell adjacent to the main mechanical room to relieve a groundwater issue (refer to G3030.01 Storm Water Collection in section S7 Site for further comments and recommendations).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D2040.02.04 Roof Drains*

Roof drainage is accommodated via slopes toward scuppers and downspouts distributed along the perimeter of the roof areas.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	FEB-08

D2090.02 Deionized Water Systems**

Due to hard water issues, a salt-based water softening system has been added for the domestic water systems.

Rating	Installed	Design Life	Updated
2 - Poor	2003	30	FEB-08

Event: Replacement Water Softener System

Concern:
Maintenance personnel report that the current salt-based water softener system is ineffective, resulting in replacement of faucet cartridges annually, tap sets every 2 to 3 years and domestic water heaters every 3 to 5 years. The current water softener was reportedly installed in 2003.

Recommendation:
Replace the existing water softening system with a more efficient deionized water treatment system.

Type	Year	Cost	Priority
Failure Replacement	2008	$21,736	Medium

Updated: APR-08

D3010.02 Gas Supply Systems*

Galvanic Applied Sciences Inc. gas meter located in meter room. It has been upgraded to digital service in recent past. 2" incoming main gas line. Gas distribution piping to heating boilers, domestic hot water heaters and to gas furnaces. 1" individual gas line to furnaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	60	FEB-08

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

Two Allied Engineering Company - Super Hot heating hot water boilers installed in 1988, each rated for 1,080,000 BTU/hr input.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	35	FEB-08

Capacity Size	Capacity Unit
317	kW

Event: Replace Heating Boilers

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$110,282	Unassigned

Updated: APR-08

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

The two boilers in the main mechanical room share a common insulated and metal clad chimney that exits through the roof. Size unknown due to concealment from insulation and metal cladding.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Heating Boiler Chinmeys

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$7,207	Unassigned

Updated: APR-08

D3020.02.02 Chimneys: H.W. Heater - Boiler Room**

Domestic hot water heater located in the main mechanical room shares an insulated and metal clad chimney with the two heating boilers. Type and size unknown due to insulation and metal cladding.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	35	FEB-08

Event: Replace Domestic Hot Water Heater Chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2036	$3,661	Unassigned

Updated: FEB-08

D3020.02.02 Chimneys: H.W. Heater - Meter Room**

The chimney for the domestic hot water heater located in the water meter room is fed through a former concrete block chimney that exits to the roof. It was installed in 2002, type and size unknown due to insulation and cladding.

Rating	Installed	Design Life	Updated
5 - Good	2002	35	FEB-08

Event: Replace Domestic Hot Water Heater Chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$3,661	Unassigned

Updated: FEB-08

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

Manual closed loop descaling chemical pot feeder. Maintenance staff explained that there is a hard water issue at the school. Refer to D2090.02 for further comments.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

D3020.03.01 Furnaces - 1957 Section**

1957 section contains individual through-wall unit ventilators (furnaces) in the classrooms. Specific information pertaining to the furnaces is unknown due to concealment. Date of installation is unknown but is suspected to have been during the 1988 modernization.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	25	FEB-08

Event: Replace 1957 Section Furnaces

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,316	Unassigned

Updated: APR-08

D3020.03.01 Furnaces - Meter Room**

The water meter room contains a HEIL Heating & Cooling Products - Quiet Comfort furnace. Reportedly the furnace was installed within the past 2 to 3 years; however, this information was not confirmed and the information data plate was inaccessible during the survey.

Rating	Installed	Design Life	Updated
5 - Good	2005	25	FEB-08

Event: Replace Furnace

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$6,864	Unassigned

Updated: FEB-08

D3020.03.02 Chimneys (&Comb. Air): Furnace - 1957 Section*

Each furnace in 1957 addition has its own separate chimney exiting through the roof.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	0	FEB-08

Event: Replace 1957 Phase Furnace Chimneys

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$10,296	Unassigned

Updated: FEB-08

D3020.03.02 Chimneys (&Comb. Air): Furnace - Meter Room*

HEIL furnace chimney in the water meter room ties into the domestic hot water heater chimney located there.

Rating	Installed	Design Life	Updated
5 - Good	2005	25	FEB-08

Event: Replace Furnace Chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$1,716	Unassigned

Updated: FEB-08

D3040.01.01 Air Handling Units: Air Distribution**

Engineered Air (Eng A) air handling unit, installed in 1988.
Model #: LM-8W
Serial #: 14138
Capacity: 9100 CFM

Air handling unit is on a glycol heating loop. This unit provides ventilation to the 1949 and 1988 sections.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	30	FEB-08

Event: Replace Air Handling Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$30,316	Unassigned

Updated: APR-08

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

Ventilation of the 1957 corridors and gymnasium is by rooftop mechanical fans. Operational data unavailable at the time of the survey.
Ceiling fan located in main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D3040.01.03 Air Cleaning Devices:Air Distribution*

Filter packs on intake side of AHU. Cellulose filters on all furnaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D3040.01.04 Ducts: Air Distribution*

Sheet metal ducting throughout school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D3040.01.07 Air Outlets & Inlets:Air Distribution*

1949 and 1957 sections have rectangular air outlet grilles located on the wall at the floor. 1988 modernization section has square ceiling air diffusers.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D3040.03.01 Hot Water Distribution Systems**

Insulated supply and return heating hot water distribution to perimeter finned tube radiators in 1949, 1966 and 1988 sections of the school and to one fan coil unit in the mechanical room. Type and size unconfirmed due to concealment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Replace Hot Water Distribution System

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$144,144	Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust**

Combination of centrifugal and axial rooftop exhaust fans. Science lab is equipped with a fume hood which is exhausted to the roof and is still operational.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	30	FEB-08

Event: Replace Exhaust Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$9,152	Unassigned

Updated: FEB-08

D3040.04.03 Ducts: Exhaust*

Low velocity exhaust air ductwork to vent air outlets in mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate exhaust air grilles on ceiling and walls in classrooms and corridors of 1949 and 1988 sections. No exhaust air outlets were identified or reported in the 1957 section.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	0	FEB-08

Event: Upgrade 1957 Exhaust Air Outlets / Inlets

Concern:
No exhaust air outlets and inlets in gymnasium and 1957 section.

Recommendation:
Provide adequate exhaust outlets and inlets as well as ducting to the gymnasium and 1957 section.

Consequences of Deferral:
Poor indoor air quality.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2008	$30,316	Medium

Updated: FEB-08

D3050.02 Air Coils**

Duct mounted glycol heating coils installed on Engineered Air AHU to temper the supply air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Air Coils

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$7,207	Unassigned

Updated: APR-08

D3050.05.02 Fan Coil Units**

One fan coil unit located in main mechanical room, installed in 1988.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Fan Coil Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$4,805	Unassigned

Updated: APR-08

D3050.05.03 Finned Tube Radiation**

Finned tube radiation along periphery of classrooms and offices of 1949, 1966 and 1988 section were reportedly replaced during the 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Event: Replace Finned Tube Radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$125,840	Unassigned

Updated: APR-08

D3060.02.01 Electric and Electronic Controls**

CSI control panel in main mechanical room for control of heating system, reportedly updated in 2007.

Rating	Installed	Design Life	Updated
5 - Good	2007	30	FEB-08

Event: Replace Electronic Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$14,300	Unassigned

Updated: APR-08

D3060.02.02 Pneumatic Controls**

Ventilation distribution systems controlled by pneumatics with a Johnson Controls air compressor. Pneumatic control in 1949 and 1988 sections. Mercury thermostats in 1957 section.

Rating	Installed	Design Life	Updated
5 - Good	2007	40	FEB-08

Event: Replace Pneumatic Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2047	$28,600	Unassigned

Updated: APR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Wall mounted ABC-type dry chemical fire extinguishers throughout school. Serviced by Simplex Grinnell in September, 2007.
Non-asbestos fire blanket is available in the science room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	FEB-08

S5 ELECTRICAL

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

Federal Pioneer, 400 Amp, 120/208 Volt, 1 phase, 3 wire. An upgrade to 3-phase 4-wire service during the expected lifecycle replacement is recommended.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	40	FEB-08

Capacity Size	Capacity Unit
400	amps

Event: Replace Main Distribution Switchboards

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$34,320	Unassigned

Updated: APR-08

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

Four Federal Pioneer secondary 225 Amp, 1 phase/3 wire 42 circuit panelboards, installed in 1988. An upgrade to 3-phase 4-wire service during the expected lifecycle replacement is recommended.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Capacity Size	Capacity Unit
225	amps

Event: Replace Secondary Distribution Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$22,880	Unassigned

Updated: APR-08

D5010.07.02 Motor Starters and Accessories**

Motor control centre containing motor starters and operational devices located in mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Motor Starters and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$34,320	Unassigned

Updated: APR-08

D5020.01 Electrical Branch Wiring*

Original copper 3-wire distribution throughout the school. Adequate wall mounted duplex receptacles throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

Event: Replace Electrical Branch Wiring

Concern:
Existing wiring is single-phase 3-wire.
Recommendation:
Replace with 3-phase 4-wire distribution during lifecycle replacement of panelboards and switchboards (see D5010.03 and D5010.05 above).

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$74,360	Low

Updated: FEB-08

D5020.02.01 Lighting Accessories (Lighting Controls)*

Lighting controls are toggle switches throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

Event: Upgrade Lighting Controls

Concern:
Existing lighting controls are reliant of caretakers to turn off at end of day.
Recommendation:
Replace lighting controls in the gymnasium, washrooms and change rooms with timer controllers and/or motion sensor operators.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2008	$2,860	Low

Updated: APR-08

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent light fixture in meter room and stage area.
Meter room light was not working at time of the survey and needs replacement (under $1,000).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	FEB-08

D5020.02.02.02 Interior Florescent Fixtures**

Upgraded to T-8 lighting in 2003. School also has various types of fluorescent pot lights and wall hung fixtures, installed in recent past.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	FEB-08

Event: Replace Interior Florescent Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$143,000	Unassigned

Updated: APR-08

D5020.02.03.02 Emergency Lighting Battery Packs**

A mixture of Emergi-Lite and Lumacell integral and remote battery pack emergency lighting located throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	FEB-08

Event: Replace Emergency Lighting Battery Packs

Concern:
A mixture of Emergi-Lite and Lumacell integral and remote battery pack emergency lighting located throughout the school.
No known or reported problems.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$13,728	Unassigned

Updated: APR-08

D5020.02.03.03 Exit Signs*

Exit signage is a mixture of original incandescent and newer light emitting diode (LED) units. They are located at all exits and egress corridors. The original units should be replaced with more energy efficient LED units.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

Event: Upgrade - Original Exit Signs

Concern:
Original exit lights have incandescent lamps and are nearing the end of their theoretical lifecycle. No known or reported problems.

Recommendation:
Upgrade with more efficient LED-model during lifecycle replacement.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2009	$4,576	Low

Updated: FEB-08

D5020.02.05 Special Purpose Lighting*

Dark room has special purpose lighting fixtures for photo development, but the dark room is no longer in use.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

D5020.03.01.05 Other Exterior Fixtures*

Wall mounted high intensity discharge (HID) lamps located on periphery of school.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	0	FEB-08

Event: Operating Efficiency Upgrade - Exterior Lighting

Concern:
Insufficient exterior lighting.

Recommendation:
Provide additional exterior lighting along periphery of school as well as the parking lot.

Consequences of Deferral:
Potential safety hazard due to improper lighting.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2008	$14,300	Low

Updated: FEB-08

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

Exterior lighting is controlled via photocell.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

D5030.01 Detection and Fire Alarm**

Detection and fire alarm system provided by an Alarm and Access control panel and Edwards E2280 annunciation panel located in corridor adjacent to the main entrance, serviced by PyroTec Alarms in August 2007. Manual pull fire alarm stations with bells and horn alarms located throughout the school. The school is equipped with both heat and smoke detectors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	FEB-08

Event: Replace Detection and Fire Alarm System

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$43,014	Unassigned

Updated: APR-08

D5030.02.02 Intrusion Detection**

Motion sensors are located in corridors and offices to provide intrusion detection and are linked to an Ademco security system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	FEB-08

Event: Replace Intrusion Detection

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$13,728	Unassigned

Updated: APR-08

D5030.03 Clock and Program Systems*

Individual wall-mounted clocks throughout school. School bells are associated with the public address system (refer to D5030.05)

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	FEB-08

D5030.04.01 Telephone Systems*

Central telephony located in caretaker's room was installed during the 1988 modernization.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	FEB-08

Event: Replace Central Telephony

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$9,152	Unassigned

Updated: FEB-08

D5030.04.05 Local Area Network Systems*

CAT 5 central Local Area Network (LAN) system located in classroom 34. It includes network data cabling throughout. Installed within the past 3 to 5 years (exact year unconfirmed).

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	0	FEB-08

Event: Repair Server Ventilation

Concern:
Main server in elementary computer room is located in a cabinet and is insufficiently ventilated and excessively warm at the time of the survey. Prolonged exposure to excessive heat can result in premature failure of the computer systems.

Recommendation:
Remove from cabinet or provide proper ventilation to prevent overheating of the server.

Consequences of Deferral:
Server could overheat resulting in a loss of data and down time until repaired.

Type	Year	Cost	Priority
Repair	2008	$1,144	Low

Updated: MAR-08

D5030.05 Public Address and Music Systems**

Dukane MACS (Modular Administrative Communications System) public address system located in caretaker's room and has terminal devices in classrooms with speakers in corridors, gymnasium and exterior, installed during 1988 modernization Gymnasium equipped with Electro-Voice (EV) speaker system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	FEB-08

Event: Replace Public Address and Music Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$14,300	Unassigned

Updated: APR-08

D5030.06 Television*

25 inch CRT televisions equipped with DVD playback on portable stands as well as overhead projectors and screens located in various classrooms. SMART boards are located in most classrooms and were added within the past 3 years.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

D5030.06.02 Video Telecommunication Systems

One classroom is equipped with Polycom speaker/camera system with an EIKI projector for video conferencing with Drumheller School.

Rating	Installed	Design Life	Updated
5 - Good	2006	0	FEB-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

Wooden fixed and movable shelving, desks, chairs, TVs,VHS players, computers, Smart Boards, digital video projectors, etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

E1020.03 Theater and Stage Equipment*

Audio system and stage lighting system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

E1020.07 Laboratory Equipment - *

Microscopes, Bunsen burners, scales, glass beakers, etc. Flammable materials storage locker with self-contained exhaust ventilation is located in the laboratory preparation room. Fume hood with dedicated exhaust in the Science classroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Electronic score clock, fixed and moveable basketball backboards, wall-mounted climbing apparatus, badminton/volleyball nets and stands, mattresses and miscellaneous sports gear.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

E2010.02 Fixed Casework**

Painted and clear finish wood coat racks, book shelves, Science lab desks /counters and cabinets, etc. Stained wood bench seating on steel frames are provided in the open common area on the lower floor of the 1949 section. All reportedly date to the 1988 modernization project.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	35	FEB-08

Event: Replace Fixed Casework**

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$155,012	Unassigned

Updated: APR-08

E2010.03.01 Blinds**

Vertical PVC blinds in the office area and 1949 section classrooms. Pull-down vinyl blinds in the 1957 section classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	FEB-08

Event: Replace Blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$27,456	Unassigned

Updated: APR-08

F1020.02 Special Purpose Rooms

There is an unused photography laboratory on the lower floor of the 1949 section used for miscellaneous storage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

F2020.01 Asbestos*

The school board maintenance representative was unaware of any prior asbestos survey reports for this facility.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	FEB-08

Event: Provisional Allowance For Hazardous Materials Abatement

Concern:

Based on observations made and on the age of the building it is possible that friable (easily pulverized or crumpled by hand) asbestos-containing materials are present in piping insulations and boiler exhaust breeching. Suspect materials were observed to be in acceptable condition.

Recommendation:

Subsequent to a study for asbestos containing materials, provisional allowance for removal, repair or encapsulation of identified materials is provided herein.

Completion of the asbestos survey and bulk sample analysis is required to more accurately forecast appropriate abatement costs.

Type	Year	Cost	Priority
Hazardous Materials Abatement	2009	$74,360	Low

Updated: APR-08

Event: Study Asbestos

Concern:

Based on observations made and on the age of the building it is possible that friable (easily pulverized or crumpled by hand) asbestos-containing materials are present in piping insulations and boiler exhaust breeching. Suspect materials were observed to be in acceptable condition.

Recommendation:

Complete an asbestos sampling survey throughout the school. If proven to be present, implement an asbestos management program to prevent worker and occupant exposure to friable materials.

Type	Year	Cost	Priority
Study	2008	$5,148	Medium

Updated: APR-08

F2020.04 Mould*

None observed or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

F2020.09 Other Hazardous Materials*

Scientific chemicals are stored in appropriate cabinets with appropriate dedicated exhaust systems.
Based on the age of the building PCBs maybe present in lamp ballasts and capacitors.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Travel pathways to the main entrance are at grade and level.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	0	FEB-08

Event: Upgrade BFA Parking Stall Markings & Signs

Concern:
There are no designated handicap parking stalls at this facility.
Recommendation:
Provide parking stall markings with international handicap symbols and appropriate signs for at least one handicap parking stall near the main entrance.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$1,716	Low

Updated: APR-08

K4010.02 Barrier Free Entrances*

The main entrance is at grade and flush with the pathway from the parking lot.

Rating	Installed	Design Life	Updated
3 - Marginal	1966	0	FEB-08

Event: Upgrade Main Entrance

Concern:
The main entrance doors have manual pull/push operators only.
Recommendation:
Upgrade the main entrance door with power assisted door openers.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$4,004	Low

Updated: APR-08

K4010.03 Barrier Free Interior Circulation*

There is an interior ramp between the 1957 section corridor and upper level of the 1949 section.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	FEB-08

Event: Upgrade Interior Door Hardware

Concern:
Interior doors have knob-type handsets and washrooms have push/pull operators only.

Recommendation:
Replace handsets with lever-type mechanisms and installed powered door openers to the student changerooms.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$8,580	Low

Updated: MAR-08

Event: Upgrade Interior Ramp

Concern:
The unobstructed path of travel of the interior ramp was measured at 810 mm and does not meet barrier free access requirements.

Recommendation:
Replace the existing interior ramp with a ramp meeting BFA design requirements.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$2,860	Low

Updated: MAR-08

Event: Upgrade Student Showers

Concern:
Entrance doors to the student change rooms have international BFA signage but showers are not handicap friendly - stall width is insufficient; there are no built-in shower seats or grab bars and there is a containment curb.

Recommendation:
Replace student stalls with at least one BFA-compliant shower stall in each of the boys and girls change rooms.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$11,440	Low

Updated: MAR-08

K4010.04 Barrier Free Washrooms*

Barrier free washrooms with appropriate accessories are provided in the student washrooms in the 1957 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

RECAPP Facility Evaluation Report

Hussar School

S3583

Hussar

Report run on: July 24, 2008 9:41 AM

Facility Details

Building Name: Hussar School
Address:
Location: Hussar

Building Id: S3583
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Golder Associates ltd.
Evaluation Date: January 11 2007
Evaluator Name: Peter Tattersall

Total Maintenance Events Next 5 years: **$101,588**
5 year Facility Condition Index (FCI): **0%**

General Summary:

Site size is good with open fields to the grassed sports / play fields to the north and west and open fields beyond.
An asphalt-paved parking lot and pedestrian paving is located to the east of the school building with a cast in place concrete pedestrian walkway leading from the street curbside to the main entrance.
Playground equipment in the grassed area to the north of the school is community-owned and beyond the scope of this survey.

Persistent ground water migration into the building at the lower level of the 1949 section has damaged new (2003) resilient flooring in the corridor at the base of the stairs from the 1957 hallway despite installation of a floor drain, lifting sump and modifications to ground slope along the building footprint. An allowance for installation or replacement of weeping tile around the building footings are presented herein.

The asphalt parking pavement will require replacement over the term of this report.
Not all parking stalls have car plug-ins and those that are provided pose trip hazards to children and pedestrians.

The site features are generally in a acceptable overall condition.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

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.

S7 SITE

G2020.02.02 Flexible Paving Parking Lots(Asphalt)**

Asphalt parking lots for staff, senior students and visitors is provide east and north of the 1949 section of the school.

Rating	Installed	Design Life	Updated
2 - Poor	1988	25	FEB-08

Event: Replace Asphalt Pavement

Concern:
Asphalt pavement along the north side of the school in the vicinity of storage sheds and waste bins has been damaged beyond repairs from heavy trucks during hauling of waste from the school property. Depressions and potholes pose a trip hazard and safety concern for students.

Recommendation:
Replace asphalt paving. New paving should be engineered to account for heavy loads from waste disposal trucks.

Type	Year	Cost	Priority
Failure Replacement	2008	$11,440	High

Updated: FEB-08

Event: Replace Flexible Paving Parking Lots

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$22,194	Unassigned

Updated: APR-08

G2020.05 Parking Lot Curbs and Gutters*

Pinned precast concrete curbs are provided along the parking lot perimeter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G2020.06.01 Traffic Barriers*

Painted steel posts with wire rope provided along the perimeters of the parking areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G2020.06.03 Parking Lot Signs*

Signs on metal posts provided.
See K4010.01 for comments on barrier free parking stalls and signage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G2020.06.04 Pavement Markings*

Pavement markings not observed for parking stalls or games area markings at the basketball court in front of the 1988 and 1966 sections.

Rating	Installed	Design Life	Updated
2 - Poor	1988	0	FEB-08

Event: Repair Pavement Markings

Concern:
Pavement markings for parking stalls, if present, are faded beyond usefulness and require replacement.

Recommendation:
Repair paint markings for parking stalls and recreational game areas.

Type	Year	Cost	Priority
Repair	2008	$2,860	Low

Updated: APR-08

G2030.02 Flexible Pedestrian Pavement

Asphalt recreational / games area with basketball backboards are present to the east of the 1966 and 1988 sections.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	0	FEB-08

Event: Repair Asphalt Pedestrian Pavement

Concern:
Longitudinal cracking with vegetation grow-through was observed.

Recommendation:
Rout cracks and seal with flexible crack sealer.

Type	Year	Cost	Priority
Repair	2009	$2,860	Low

Updated: APR-08

G2030.04 Rigid Pedestrian Pavement (Concrete)**

Cast in place concrete walkway extends from curbside to the main school entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	25	FEB-08

Event: Replace Rigid Pedestrian Pavement

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$12,470	Low

Updated: APR-08

G2030.06 Exterior Steps and Ramps*

Exterior cast in place concrete steps are present at the entrance to the 1949 section on the east side of the building.
For comments regarding the exterior concrete stairs on the west side of the 1949 section see B1010.07 in Section S1 Structural.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

G2040.02.04 Wire Fences and Gates*

The property boundary along the north, south and west sides is marked with wood post and wire fencing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	30	FEB-08

G2040.03 Athletic and Recreational Surfaces**

Athletic and recreational surfaces include asphalt (see G2030.02), a crushed red cinderblock running track and grassed sport fields.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	25	FEB-08

Event: Replace Athletic and Recreational Surfaces**

Concern:
The crushed cinderblock running track is overgrown with weeds and too small for typical use (i.e., less than 400 m).
Recommendation:
Replace running track.

Type	Year	Cost	Priority
Failure Replacement	2010	$9,724	Low

Updated: FEB-08

G2040.05 Site and Street Furnishings*

Wood and steel bench seating, a wooden picnic table, steel bicycle racks, etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G2040.06 Exterior Signs*

A school name monument of concrete and masonry construction is located in the asphalt pedestrian paving near the main school entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G2040.08 Flagpoles*

Brushed aluminum flagpole with internal lanyard is provided in the asphalt pedestrian pavement near the main school entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G2040.09 Covers and Shelters*

Three wood frame storage sheds are on the asphalt parking lot pavement along the north end of the 1949 section.
A concrete block incinerator, no longer in use, was observed in the grassed area west of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

G2050.04 Lawns and Grasses*

Grassed lawns are present to the south and east of the 1957 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

G2050.05 Trees, Plants and Ground Covers*

Shrubs and hedges border the grassed play area in the northern areas of the Site.

Rating	Installed	Design Life	Updated
4 - Acceptable	1949	0	FEB-08

G2050.07 Planting Accessories*

Hoses and portable sprinklers, lawn mowers, rakes etc. are stored in the maintenance sheds at the north end of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	FEB-08

G3010.02 Site Domestic Water Distribution*

Municipally supplied domestic water is provided to the site. Size of service is unknown but no issues regarding water supply were reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

G3020.01 Sanitary Sewage Collection*

The school property is connected to the municipal sanitary sewers in the neighbouring street allowances. Size and type of sewers is unknown but no issues were reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	0	FEB-08

G3030.01 Storm Water Collection*

Site storm water drainage is via surface runoff to an off-site storm water retention pond located approximately 250 m north of the school property.

Rating	Installed	Design Life	Updated
2 - Poor	1949	0	FEB-08

Event: Repair Storm Water Collection

Concern:

Persistent issues regarding ground water issues at the site were reported. Ground water in the vicinity of the site is reportedly close to surface and seepage into the lower level of the 1949 section occurs during periods of heavy rain and spring thaw. Water damage to new (2003) resilient flooring in the corridor at the base of the stairs from the 1957 section was observed.

It was reported that surface slopes around the school footprint were modified to direct surface moisture away from the building but leakage into the lower level and the exit stairs from the lower level persist.

A floor drain and sump pit were installed to manage moisture ingress but incoming water continues to by-pass the floor drain.

Recommendation:

Excavate around the building to the level of the footings and install weeping tile to collect groundwater moisture. Either direct the weeping tile to the sump pit or direct it to open fields away from the school.

Type	Year	Cost	Priority
Repair	2008	$28,600	High

Updated: APR-08

G3030.02 Storm Water Equipment*

A sump pit and pump were added near the base of the stairs from the 1957 section to the lower level of the 1949 section in approximately 2005. Refer above to G3030.01 for further comment.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	0	FEB-08

G3060.01 Gas Distribution*

A 2 in. dia gas supply line enters the 1988 boiler via buried gas line from the neighbouring streets east of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G4010.01 Electrical Substations*

Buried electrical fed from pole-mounted transformers east of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G4010.02 Electrical Power Distribution Lines*

Buried copper conductors from the pole mounted transformers to the main electrical swithgear.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G4010.03 Electrical Power Distribution Equipment*

Site-owned distribution switchgear and panelboards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08

G4010.04 Car Plugs-ins*

Car plugs on steel posts are provided along the perimeter of the parking lot area.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	0	FEB-08

Event: Repair Car Plug-ins

Concern:
Not all parking stalls have car plug-ins and those that are provided are approximately 200 mm in height and pose trip hazards, especially during periods of snow accumulation.

Recommendation:
Provide additional car plug-in and increase heights on those that presently exist.

Type	Year	Cost	Priority
Repair	2008	$11,440	Medium

Updated: FEB-08

G4020.01 Area Lighting*

Exterior wall and soffit-mounted incandescent and high intensity discharge (HID) fixtures along the front (east) and west elevations (refer to D5020.03.01.05).

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	0	FEB-08