RECAPP Facility Evaluation Report

Edmonton RCSSD #7

St. Benedict Catholic Elementary School

B3284A

Edmonton

Report run on: March 28, 2012 10:05 AM

Facility Details

Building Name: St. Benedict Catholic Elemer
Address: 18015 - 93 Avenue
Location: Edmonton

Building Id: B3284A
Gross Area (sq. m): 3,251.23
Replacement Cost: $7,551,000
Construction Year: 1977

Evaluation Details

Evaluation Company: Asset Evolution Incorporated (AEI)
Evaluation Date: October 25 2011
Evaluator Name: Mario Plastina

Total Maintenance Events Next 5 years: **$2,553,800**
5 year Facility Condition Index (FCI): **33.82%**

General Summary:

St. Benedict Catholic Elementary School, originally built in1978 is a one-storey school with a mechanical penthouse. The original building has an area of 2657 m2. An addition of a boy's and girls washroom was added in 1990 with an area of 33m2 at the south end of the school. A cluster of 5 portables (Units 111,112,113,114 and 307 including the link have a total area of 488.00 m2) are attached at the south-end of the school. A cluster of 3 portables (Units 38, 51 and C12 including the link have a total area of 147 m2) are attached at the east end of the original school. The school including the portables has a total area of 3325m2. The one storey school comprised of several classrooms, a gymnasium, a library, a computer room, a music room, staff room and offices.

The 2011 student enrollment is 318 children.

Structural Summary:

The foundations consist of cast-in-place concrete grade beams and spread footings. The building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement. The mezzanine floor has a reinforced concrete structural slab supported by reinforced concrete block masonry walls. The mezzanine and roof structure are supported by reinforced concrete block masonry units. The roofs have a metal roof deck on OWSJ supported on interior and exterior walls consisting of load bearing, reinforced concrete block masonry units.

Overall the structural elements appeared to be in acceptable condition.

Envelope Summary:

The majority of the exterior walls have an exterior brick wall assembly. Split face concrete block walls are located above and below the window assembly. The original exterior west wall of the gymnasium has been recladded with an exterior insulated & finish stucco (EIFS) assembly. Vertical, prefinished metal siding is located on vertical face of entrance canopies and on underside as soffits. Sealant is located around all window, door and exterior cladding assemblies. The exterior concrete block walls & the EFIS assembly has a paint finish. The interior portion of the exterior walls comprise primarily of a concrete block wall assembly. The windows are a combination of fixed anodized aluminum frame with operable awning units. The windows include integrated horizontal blinds. The main entrances have insulated steel doors with pressed steel frames. The hardware includes panic bar, self closing device, deadbolt lock and kick plate. The utility doors have insulated hollow metal exterior doors, single leaf, complete with closures, panics, thresholds, push plates pull handles, locksets and weatherstripping. The roof has a conventional built-up roof with a gravel ballast assembly.

Overall, the envelope of the building is in acceptable condition.

Recommendations:

-Replace entire roof assembly - Area - 2690m2
-Upgrade fixed roof ladder to upper roof

Interior Summary:

Interior partitions typically consist of painted and/or exposed masonry block walls and gypsum board partitions. Demountable wood partition installed on gymnasium stage to separate the space into a classroom. Fixed interior glazed windows with GWG are located in the some classrooms, staff room and general office area. The interior swing doors generally consist of solid core wood doors in painted metal frames, some with upper glazing (wired or tempered). Interior utility doors consist of rated steel door and frame. Hardware includes deadbolt locks, handsets and self closing devices. A roll-up shutter door is located in the ancillary kitchen area. Prefinished metal washroom stall partitions are located in each boy's & girls washroom. The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors.
Poured in place concrete stairs are provide to the mechanical mezzanine and to the music room (originally the stage).

Steel framed stairs provide access from mezzanine mechanical room to roof. The stairs in the music room have a carpet finish. The stairs to the mechanical room have a paint finish.The stairs have painted steel wall mounted handrails.
Stained wall paneling is located on the north and south walls of the library. The demising walls in the renovated areas consist of painted gypsum walls. Acoustical wall panels installed in music room. The interior concrete block and gypsum board wall partitions throughout the school have a paint finish. The girl's and boy's washrooms have an epoxy floor finish. Painted/sealed concrete floors are located in the mechanical room and utility rooms. Hardwood parquet flooring in located in the gymnasium. The majority of the main corridors, classrooms and office areas have the original vinyl floor tile. VCT flooring is located in the renovated classrooms, computer room, staff room, and kindergarten room. Carpeting is located in the library and resource area. The majority of the ceilings throughout the corridors, offices and classrooms have a 610mm x 1220mm suspended acoustical tile assembly. All the gypsum board & exposed steel structures have a paint finish.

Overall, the interior finishes are in acceptable condition.

Recommendations:

-Replace carpet on the two stairs to the music room
-Replace exterior exit doors c/w hardware in Portables 111 to 114
-Replace carpet in storage room - Portable C12 - Area - 15m2
-Replace exterior doors c/w hardware at East Link - 6 Doors -Link to Units C12, 38 & 51
-Replace exterior doors c/w hardware at East Link - 2 Doors - North end of Link
-Replace BUR assembly - South Link - Area - 90m2
-Provide a designated parking stall & curb cut at main entrance for handicap accessibility.
-Provided a power operators for barrier free access at the north entrance

Mechanical Summary:

MECHANICAL SUMMARY (October 2011)

The building is heated by hot water which is supplied from two natural gas fired hot water boilers to the building heating terminal units (force flow convection cabinets, finned tube radiation cabinets, unit heaters, and reheat coils). One natural gas fired steam boiler provides steam for the humidification systems for the two air handling units (AHU1 and AHU2).

Ventilation for the building is provided by two air handling units (the main air handling unit AHU1 which serves all of the school excluding the gymnasium and the gymnasium air handling unit AHU2). Fresh air supplied to the building by the air handling units is balanced by the exhaust flow from the air handling units and from 12 exhaust fans.

Building HVAC equipment actuators and thermostats are generally pneumatic (electric controls are used for the force flow convection heaters and the unit heaters), and the control air supply system for the building consists of two air compressors mounted on an air receiver tank, and includes a refrigerated air dryer. There is an Andover Controls building management and control system which provides monitoring and control functions for the main HVAC equipment.

Washroom plumbing fixtures include toilets, lavatories and urinals. There are 21 toilets, nine urinals, and 21 lavatories in the building. Other plumbing fixtures in the building include drinking fountains (six wall mounted units) and various sinks (8). Two natural gas fired domestic hot water heaters provide domestic hot water for the building lavatories and sinks.

Fire protection for the building consists of fire extinguishers located in recessed wall mounted cabinets and on wall mounted brackets.

Current mechanical system requirements include the need for a backflow prevention device for the domestic water supply system, replacement of the domestic hot water heaters, replacement of the steam boiler, replacement of the steam boiler feedwater treatment equipment, the installation of an Eskimo trap for the mezzanine mechanical room combustion air supply, cleaning of the building duct systems, replacement of exhaust fans EF7 and EF8, and replacement of the building management and control system. Overall, the building mechanical equipment and systems are in acceptable condition.

Electrical Summary:

St. Benedict School is fed with an incoming 120/208V 3 phase, 4 wire feed from an EPCOR padmount transformer. The main switchboard is rated at 800A, 120/208V. There are individual motor starters for the major mechanical equipment.

The wiring in the building is typically standard wiring in conduit.

The interior fluorescent lighting fixtures have T-12 lamps and magnetic ballasts. The exit lighting in the building consists of metal units with incandescent lamps. The emergency lighting is fed from emergency lighting battery units and remote emergency lighting heads. The exterior lighting consists of wall mounted H.I.D fixtures and recessed incandescent fixtures in the canopy.

The building is equipped with an Edwards 6500 fire alarm system. Detection and end devices include, smoke and heat detectors, bells and pull stations.

The various communications systems within the building include structured wiring systems for the telephone (Nitsuko) and data systems. There is a DSC Maxsys intrusion detection system in the building. The P.A. system is a Bogen MCP-35A system. Cable TV has been installed within the school.

It is recommended, as routine maintenance, that a program for annual examination of major electrical components be instituted. Maintenance should include thermographic scans for hot spots and power shut down to allow examination of interior components for accumulated debris and signs of corrosion.

The main concerns for St. Benedict School are:

- The emergency lighting battery units are aged. Reliability is a concern.
- The incandescent exit signs are not energy efficient. Some units were not operational.
- The fire alarm system is obsolete. Replacement parts are not available. There is no strobe coverage.
- The P.A. System is aged. Replacement parts are not readily available.

An energy efficiency upgrade to T5 or T8 fluorescent lighting is recommended.

Overall the electrical components for St. Benedict School are 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*

The foundations consist of cast-in-place concrete grade beams and spread footings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

A1030 Slab on Grade*

The building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

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

The mezzanine and roof structure are supported by reinforced concrete block masonry units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B1010.05 Mezzanine Construction*

The mezzanine floor has a reinforced concrete structural slab supported by reinforced concrete block masonry walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B1010.09 Floor Construction Fireproofing*

Floor Construction Fireproofing - Not visible during site visit

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B1010.10 Floor Construction Firestopping*

Floor Construction Fire-stopping - Not visible during site visit

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B1020.01 Roof Structural Frame*

The roofs have a metal roof deck on OWSJ supported on interior and exterior walls consisting of load bearing, reinforced concrete block masonry units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B1020.06 Roof Construction Fireproofing*

Roof Construction Fireproofing - Not visible during site visit

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

The majority of the exterior walls have an exterior brick wall assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

Split face concrete block walls are located above and below the window assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B2010.01.05 Exterior Insulation and Finish Systems (EIFS)*

The original exterior west wall of the gymnasium has been recladded with an exterior insulated & finish stucco (EIFS) assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	MAR-12

B2010.01.06.03 Metal Siding**

Vertical, prefinished metal siding is located on vertical face of entrance canopies and on underside as soffits.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace metal siding and soffit. (Area - 160m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$20,000	Unassigned

Updated: MAR-12

B2010.01.09 Expansion Control: Ext. Wall*

Expansion/control joints are located throughout the EFIS cladding assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

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

Sealant is located around all window, door and exterior cladding assemblies.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	20	MAR-12

Event: Replace sealant around all doors & windows - 300 LM

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: MAR-12

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

The exterior concrete block walls & the EFIS assembly has a paint finish.

Rating	Installed	Design Life	Updated
5 - Good	2011	15	MAR-12

Event: Repaint exterior concrete block and stucco walls (EIFS) - 300m2

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$12,000	Unassigned

Updated: MAR-12

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

The interior portion of the exterior walls comprise primarily of a concrete block wall assembly

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

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

Exterior Wall Vapor Retarders, Air Barriers, and Insulation - Not visible

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B2010.06 Exterior Louvers, Grilles, and Screens*

Prefinished metal louvers are located on the upper wall of mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

B2010.09 Exterior Soffits*

The exterior entrances have pre-finished aluminum soffits

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

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

The windows are a combination of fixed anodized aluminum frame with operable awning units. The windows include integrated horizontal blinds.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace aluminum windows - 24 Window Sections

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$60,000	Unassigned

Updated: MAR-12

B2030.01.02 Steel-Framed Storefronts: Doors**

The main entrances have insulated steel doors with pressed steel frames. The hardware includes panic bar, self closing device, deadbolt lock and kick plate.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace entrance doors - (8 doors, sidelights c/w hardware)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$48,000	Unassigned

Updated: MAR-12

B2030.02 Exterior Utility Doors**

The utility doors have insulated hollow metal exterior doors, single leaf, complete with closures, panics, thresholds, push plates pull handles, locksets and weatherstripping.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace steel framed doors & hardware assembly (7 doors)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$21,000	Unassigned

Updated: MAR-12

B3010.01 Deck Vapour Retarder and Insulation*

Deck Vapor Retarder and Insulation - Not visible during site visit

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

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

The roof has a conventional built-up roof with a gravel ballast assembly. A roof inspection by Acron was conducted in June, 2010 for the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	25	MAR-12

Event: Replace entire roof assembly - Area - 2690m2

Concern:
Several repairs have been conducted over recent years and the roof has surpassed its life expectancy. Roof blisters, wind scouring and evidence of ponding water was observed

Recommendation:
Replace entire roof assembly - Area - 2690m2

Type	Year	Cost	Priority
Failure Replacement	2012	$450,000	Medium

Updated: MAR-12

Typical condition of the original 1978 Roof

B3010.09 Roof Specialties and Accessories*

Fixed steel ladder provided to access gymnasium roof from lower roof level.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	0	MAR-12

Event: Upgrade fixed roof ladder to upper roof

Concern:
The ladder rung spacing exceeds 15 inches, some of the rung anchors are coming loose and there is no cage/hoop.

Recommendation:
Replace the roof ladder with a code compliant assembly.

Type	Year	Cost	Priority
Code Repair	2012	$2,500	Medium

Updated: MAR-12

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior partitions typically consist of painted and/or exposed masonry block walls and gypsum board partitions.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C1010.02 Interior Demountable Partitions*

Demountable wood partition installed on gymnasium stage to separate the space into a classroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	MAR-07

C1010.05 Interior Windows*

Fixed interior glazed windows with GWG are located in the some classrooms, staff room and general office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C1010.07 Interior Partition Firestopping*

Interior Partition Firestopping - Not visible during site visit

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C1020.01 Interior Swinging Doors (& Hardware)*

The interior swing doors generally consist of solid core wood doors in painted metal frames, some with upper glazing (wired or tempered). Hardware combinations include panic bars, handsets, latch locks, kickplates and self closing devices.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C1020.03 Interior Fire Doors*

Interior utility doors consist of rated steel door and frame. Hardware includes deadbolt locks, handsets and self closing devices. A roll-up shutter door is located in the ancillary kitchen area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C1030.01 Visual Display Boards**

Tackboards and whiteboards are located in each classroom area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	MAR-12

Event: Replace Visual Display Boards - (Based on the 15 teaching areas)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$15,000	Unassigned

Updated: MAR-12

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

Prefinished metal washroom stall partitions are located in each boy's & girls washroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace toilet compartments - 19 Stalls

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$28,000	Unassigned

Updated: MAR-12

C1030.08 Interior Identifying Devices*

Cast aluminum door identification plaques provided for each room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	0	MAR-07

C1030.12 Storage Shelving*

Metal and wood storage shelving throughout the vestibules, custodial utility rooms and staff supply rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C1030.14 Toilet, Bath, and Laundry Accessories*

The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C2010 Stair Construction*

Poured in place concrete stairs are provide to the mechanical mezzanine and to the music room (originally the stage). Steel framed stairs provide access from mezzanine mechanical room to roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C2020.06 Carpet Stair Finishes**

The stairs in the music room have a carpet finish.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	10	MAR-12

Event: Replace carpet on the two stairs to the music room

Concern:
The carpet on the stairs is aged, worn and torn.
Recommendation:
Replace carpet on the two stairs to the music room

Type	Year	Cost	Priority
Failure Replacement	2012	$5,000	Low

Updated: MAR-12

Aged and torn carpet at top of stair.

C2020.08 Stair Railings and Balustrades*

The stairs have painted steel wall mounted handrails.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C2020.10 Stair Painting*

The stairs to the mechanical room have a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	0	MAR-12

C3010.02 Wall Paneling**

Stained wall paneling is located on the north and south walls of the library.

Rating	Installed	Design Life	Updated
5 - Good	1990	30	MAR-12

Event: Replace wood panels in the library (Based on 150m2 of wall panels)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$30,000	Unassigned

Updated: MAR-12

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

The demising walls in the renovated areas consist of painted gypsum walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	MAR-12

C3010.09 Acoustical Wall Treatment**

Acoustical wall panels installed in music room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	MAR-12

Event: Replace acoustic wall panels. (Area - 150m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$32,000	Unassigned

Updated: MAR-12

C3010.11 Interior Wall Painting*

The interior concrete block and gypsum board wall partitions throughout the school have a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	0	MAR-12

C3020.01.01 Epoxy Concrete Floor Finishes*

The girl's and boy's washrooms have an epoxy floor finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

C3020.01.02 Painted Concrete Floor Finishes*

Painted/sealed concrete floors are located in the mechanical room and utility rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	MAR-12

C3020.04 Wood Flooring**

Hardwood parquet flooring in located in the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace wood parquet floor in gymnasium (Area - 410m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$85,000	Unassigned

Updated: MAR-12

C3020.07 Resilient Flooring** - 1978 Vinyl Tiles

The majority of the main corridors, classrooms and office areas have the original vinyl floor tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	20	MAR-12

Event: Replace vinyl floor tiles ((Area - 1400m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$140,000	Unassigned

Updated: MAR-12

C3020.07 Resilient Flooring** - VCT

VCT flooring is located in the renovated classrooms, computer room, staff room, and kindergarten room.

Rating	Installed	Design Life	Updated
5 - Good	2007	20	MAR-12

Event: Replace all VCT flooring (Area- 600m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$30,000	Unassigned

Updated: MAR-12

C3020.08 Carpet Flooring**

Carpeting is located in the library and resource area.

Rating	Installed	Design Life	Updated
5 - Good	2010	15	MAR-12

Event: Replace carpet in the staff room and library (220SM)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$16,000	Unassigned

Updated: MAR-12

C3030.02 Ceiling Paneling (Wood)*

Section of wood panel ceiling in computer room.

Rating	Installed	Design Life	Updated
5 - Good	1995	0	MAR-12

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Gypsum board ceilings are located in the renovated areas only.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

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

The majority of the ceilings throughout the corridors, offices and classrooms have a 610mm x 1220mm suspended acoustical tile assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	25	MAR-12

Event: Replace suspended acoustic tile ceilings. (Area - 2200m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$150,000	Unassigned

Updated: MAR-12

C3030.07 Interior Ceiling Painting*

All the gypsum board & exposed steel structures have a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	0	MAR-12

S4 MECHANICAL

D2010.04 Sinks** - c.1978

Original c.1978 sinks include two plastic mop sinks located in the custodian's closets and four general purpose stainless steel sinks (one in the kitchen, one in the staff room, one in classroom 100 and one in classroom 121).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace the c.1978 original sinks (6)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$9,000	Unassigned

Updated: MAR-12

D2010.04 Sinks** - c.2009

Two general purpose stainless steel sinks were installed in the kindergarten classroom (room 103) in c.2009.

Rating	Installed	Design Life	Updated
5 - Good	2009	30	MAR-12

Event: Replace the c.2009 sinks in kindergarten classroom 103 (2)

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$3,000	Unassigned

Updated: MAR-12

D2010.08 Drinking Fountains/Coolers** - c.1978

There are five original c.1978 drinking fountains located in the building corridors. The drinking fountains are wall mounted vitreous china fixtures with no refrigeration.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	35	MAR-12

Event: Replace the original c.1978 drinking fountains (5)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$7,500	Unassigned

Updated: MAR-12

D2010.08 Drinking Fountains/Coolers** - c.1990

There is one drinking fountain located in the c.1990 washroom addition on the south side of the building. The drinking fountain is a wall mounted fiberglass fixture with no refrigeration.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	35	MAR-12

Event: Replace the c.1990 drinking fountain (1)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$1,500	Unassigned

Updated: MAR-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - c.1978

Original c.1978 washroom plumbing fixtures include floor mounted vitreous china flush valve type toilets (14), floor mounted vitreous china tank type toilets (2), wall mounted vitreous china flush valve type urinals (1), wall mounted vitreous china tank type urinals (5), counter mounted enameled steel lavatories (15), and wall mounted vitreous china lavatories (2).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	35	MAR-12

Event: Replace the original c.1978 washroom plumbing fixtures (16 toilets, six urinals, and 17 lavatories)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$68,600	Unassigned

Updated: MAR-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - c.1990

Original c.1990 washroom plumbing fixtures in the c.1990 washroom addition on the south side of the building include floor mounted vitreous china tank type toilets (5), wall mounted vitreous china flush valve type urinals (3), and counter mounted stainless steel lavatories (4).

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	35	MAR-12

Event: Replace the original washroom plumbing fixtures in the c.1990 building addition (five toilets, three urinals, and four lavatories)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$21,600	Unassigned

Updated: MAR-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - c.2007

There is one c.2007 toilet located in the barrier free washroom adjacent to the infirmary. The toilet is a floor mounted vitreous china tank type toilet.

Rating	Installed	Design Life	Updated
5 - Good	2007	35	MAR-12

Event: Replace the c.2007 toilet in the barrier free washroom (1)

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$2,000	Unassigned

Updated: MAR-12

D2020.01.01 Pipes and Tubes: Domestic Water*

There is one municipal water supply to the building (100 mm diameter) which feeds the building domestic water distribution system. The water supply feeds the building domestic water distribution system through a water meter (38 mm diameter). The building domestic water pressure piping is generally copper, although there are some sections of galvanized steel piping at the water meter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D2020.01.02 Valves: Domestic Water**

Domestic water distribution system valves include the domestic water supply main isolation valves, the domestic water distribution system zone isolating valves, and plumbing fixture isolating valves. The main isolation valves are gate type valves.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace the domestic water distribution system valves (2,690 SM GFA)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$16,000	Unassigned

Updated: MAR-12

D2020.01.03 Piping Specialties (Backflow Preventers)**

There is one 19 mm diameter backflow prevention device (located in the mezzanine mechanical room) for the make-up water supply to the closed loop hot water heating system and to the steam humidification boiler. There is no backflow prevention device for the domestic water supply to the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	20	MAR-12

Event: Install a backflow prevention device on the domestic water supply to the building (50 mm diameter)

Concern:

The domestic water supply to the building is not protected from potential backflow from the building.

Recommendation:

Install a backflow prevention device on the domestic water supply to the building (50 mm diameter).

Type	Year	Cost	Priority
Code Upgrade	2012	$5,000	Medium

Updated: MAR-12

Event: Replace the c.2001 backflow prevention device (19 mm diameter)

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$1,000	Unassigned

Updated: MAR-12

D2020.02.02 Plumbing Pumps: Domestic Water**

There is a circulation pump (P5) for the domestic hot water system which maintains the domestic hot water loop at temperature. The domestic hot water circulation pump is located in the mezzanine mechanical room.

Rating	Installed	Design Life	Updated
5 - Good	2008	20	MAR-12

Event: Replace the c.2008 domestic hot water circulation pump P5

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$1,800	Unassigned

Updated: MAR-12

D2020.02.06 Domestic Water Heaters**

Two original c.1978 natural gas fired domestic hot water (DHW) heaters located in the mezzanine mechanical room supply hot water to the building sinks and lavatories. Each DHW heater is a Rheem Canada model GL75-360-4A-H/A with an input heating capacity of 324,000 Btu/h (94.96 kW), a volume capacity of 75 USG (284 L), and a recovery rate of 272.2 USG/h (1,030.3 L/h).

Rating	Installed	Design Life	Updated
3 - Marginal	1978	20	MAR-12

Event: Replace the c.1977 domestic hot water heaters (two at 94.96 kW each)

Concern:
The domestic hot water heaters are in marginal condition due to age and corrosion.

Recommendation:
Replace the two natural gas fired domestic hot water heaters.

Type	Year	Cost	Priority
Failure Replacement	2014	$10,000	Medium

Updated: MAR-12

D2020.03 Water Supply Insulation: Domestic*

Where visible, the domestic cold water piping is insulated to prevent condensation and the domestic hot water piping is insulated to reduce heat loss. The insulation assembly consists of fiberglass insulation protected with a painted fabric cover in exposed areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D2030.01 Waste and Vent Piping*

Visible waste and vent piping is generally copper. Since the building is primarily on one level, most of the waste piping is below grade and not visible. The building sanitary drainage system discharges on the west side of the building to the municipal sanitary sewer system (150 mm diameter discharge line).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D2030.02.04 Floor Drains*

Floor drains are used in the building in various areas including the washrooms, the meter room, and the mezzanine mechanical room. The floor drains discharge to the building sanitary drainage system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D2040.01 Rain Water Drainage Piping Systems*

The flat roof areas of the building drain via standard roof drains and internal storm water drainage piping. The storm water drainage piping in the building is generally cast iron and is insulated (where visible). The building storm water drainage system discharges on the west side of the building to the municipal storm sewer system (300 mm diameter discharge line).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D2040.02.04 Roof Drains*

Storm water drainage for the building flat roof areas is via roof drains with internal drainage piping. The roof drains are equipped with metal strainers and are not equipped with flow control weirs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3010.02 Gas Supply Systems*

The natural gas supply to the building is underground to the building and the gas meter and pressure reducing station are located in the meter room at the northwest corner of the building. The natural gas piping is steel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3020.01.01 Heating Boilers & Accessories: Steam**

There is one natural gas fired steam boiler located in the mezzanine mechanical room which provides steam for humidification for the two air handling units (AHU1 and AHU2). The steam boiler is a Weil-McLain model AEGU-95 with an input heating capacity of 360,000 Btu/h (105.52 kW). The steam boiler is not functional and is not currently being used.

Rating	Installed	Design Life	Updated
2 - Poor	1978	35	MAR-12

Event: Replace the steam boiler (105.52 kW)

Concern:
The steam boiler is not functional.
Recommendation:
Replace the steam boiler.

Type	Year	Cost	Priority
Failure Replacement	2012	$24,000	Medium

Updated: MAR-12

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

The combustion gases from the steam boiler discharge through an independent stack which penetrates the roof above the mezzanine mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	35	MAR-12

Event: Replace the combustion gas discharge stack for the steam boiler (8 m)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$5,500	Unassigned

Updated: MAR-12

D3020.01.04 Water Treatment: Steam Boilers*

Treatment equipment for the steam boiler feedwater consists of a mixing tank for chemical addition and a feed pump.

Rating	Installed	Design Life	Updated
2 - Poor	1978	0	MAR-12

Event: Replace the water treatment system for the steam boiler feedwater when the steam boiler is replaced

Concern:
The water treatment system for the steam boiler feedwater is not functional.

Recommendation:
Replace the water treatment system for the steam boiler feedwater when the steam boiler is replaced.

Type	Year	Cost	Priority
Failure Replacement	2012	$6,000	Medium

Updated: MAR-12

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

There are two natural gas fired hot water boilers located in the mezzanine mechanical room which provide hot water for building heating. Each boiler is a Teledyne Laars model HL-1266-CN-01 with an input heating capacity of 1,266,000 Btu/h (371.06 kW).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	35	MAR-12

Event: Replace the two hot water heating boilers (371.06 kW each)

Recommendation:
Replace 2 heating boilers at $40000 each

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$74,000	Unassigned

Updated: MAR-12

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

The combustion gases from the two hot water boilers discharge through a common stack which penetrates the roof above the mezzanine mechanical room. There is a combustion air supply duct to the mezzanine mechanical room.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	35	MAR-12

Event: Install an eskimo trap for the combustion air supply duct to the mezzanine mechanical room

Concern:
The combustion air supply duct to the mezzanine mechanical room is not equipped with an Eskimo trap.
Recommendation:
Install an Eskimo trap for the combustion air supply duct to the mezzanine mechanical room.

Type	Year	Cost	Priority
Repair	2012	$1,200	Medium

Updated: MAR-12

Event: Replace the combustion gas discharge stack for the hot water boilers (10 m) and the combustion air supply duct (8 m)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$15,000	Unassigned

Updated: MAR-12

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

Water treatment for the closed loop hot water system consists of manual chemical addition via a pot feeder and sidestream cartridge filtration in parallel with the hot water circulation pumps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3040.01.01 Air Handling Units: Air Distribution**

There are two air handling units located in the mezzanine mechanical room. Air handling unit AHU1 serves most of the school excluding the gymnasium and air handling unit AHU2 serves the gymnasium. Air handling unit AHU1 is a mixed air unit (mixed fresh air and return air) and includes dampers, filters, a steam humidification system (covered under a separate element), a supply air fan, and an associated return air fan (covered under a separate element). Air handling unit AHU2 is a mixed air unit (mixed fresh air and return air) and includes dampers, filters, a steam humidification system (covered under a separate element), a supply air fan, and an associated return air fan (covered under a separate element). The capacity of air handling unit AHU1 is 3,165 L/s and the capacity of air handling unit AHU2 is 5,157 L/s.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace air handling units AHU1 (3,165 L/s) and AHU2 (5,157 L/s)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$45,000	Unassigned

Updated: MAR-12

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

Return air fans for air handling units AHU1 and AHU2 are located in the mezzanine mechanical room. The return air fans are belt driven axial flow type fans.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3040.01.03 Air Cleaning Devices: Air Distribution*

The two air handling units (AHU1 and AHU2) are equipped with filters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3040.01.04 Ducts: Air Distribution*

The air distribution ducts include the supply air, return air, exhaust air, and fresh air duct systems for the two air handling units serving the building (AHU1 and AHU2). The duct systems include associated components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc. The duct systems are original (c.1978).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

Event: Clean the air distribution ducts (2,690 SM GFA)

Concern:
The air distribution ducts are dirty.
Recommendation:
Clean the air distribution ducts.

Type	Year	Cost	Priority
Preventative Maintenance	2012	$5,000	Low

Updated: MAR-12

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Air outlets and inlets include supply air diffusers and return air grilles for the air distribution systems associated with the building air handling units. Typical supply air diffusers include rectangular duct mounted diffusers (in the gymnasium) and square cone type supply air diffusers mounted in the T-bar ceiling grid. Typical return air grilles include wall mounted rectangular grilles (in the gymnasium) and eggcrate type return air grilles in the T-bar ceiling grid.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3040.02 Steam Distribution Systems: Piping/Pumps**

This element includes the steam distribution piping from the steam boiler to the air handling unit humidification systems and the condensate return piping from the humidifiers and steam traps to the condensate collection tank. The steam distribution system includes the steam and condensate distribution piping, piping fittings, piping insulation, valves, piping specialties, steam traps, the condensate collection tank, and the condensate pumps (P6 and P7). The condensate collection system is also the steam boiler feedwater system since the treated make-up water for the steam boiler is pumped into the condensate collection tank for supply to the steam boiler.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace the steam distribution system and the condensate collection system (2,690 SM GFA)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$6,000	Unassigned

Updated: MAR-12

D3040.03.01 Hot Water Distribution Systems**

The building is heated with a hot water heating system. The hot water heating system provides hot water to the hydronic terminal units (including finned tube radiation cabinets, force flow convectors, unit heaters, and terminal reheat coils). There are two main hot water circulation pumps (P1 and P2), and two boiler circulation pumps (P3 and P4). The hot water distribution system includes all components of the closed loop hot water heating system including piping, valves, piping insulation, piping specialties, circulation pumps, and the expansion tank. The circulation pumps and the expansion tank are located in the mezzanine mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace the hot water distribution system (2,690 SM GFA)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$250,000	Unassigned

Updated: MAR-12

D3040.04.01 Fans: Exhaust** - c.1978 (EF7 and EF8)

There are 11 original c.1978 exhaust fans for the building providing sanitary, local and general exhaust. There are two roof mounted cabinet exhaust fans (EF7 and EF8), two interior exhaust fans in the mezzanine mechanical room (EF5 and EF6), five local ceiling mounted exhaust fans (EF9 through EF13), and two range hood exhaust fans (EF14 and EF15). This element covers original c.1977 exhaust fans EF7 and EF8.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	30	MAR-12

Event: Replace c.1977 roof mounted exhaust fans EF7 and EF8

Concern:

Roof mounted exhaust fans EF7 and EF8 are in marginal condition due to age, wear and weathering.

Recommendation:

Replace roof mounted exhaust fans EF7 and EF8.

Type	Year	Cost	Priority
Failure Replacement	2013	$4,000	Low

Updated: MAR-12

D3040.04.01 Fans: Exhaust** - c.1978 (Excluding EF7 and EF8)

There are 11 original c.1978 exhaust fans for the building providing sanitary, local and general exhaust. There are two roof mounted cabinet exhaust fans (EF7 and EF8), two interior exhaust fans in the mezzanine mechanical room (EF5 and EF6), five local ceiling mounted exhaust fans (EF9 through EF13), and two range hood exhaust fans (EF14 and EF15). This element covers all of the original c.1977 exhaust fans excluding EF7 and EF8 (EF5, EF6, and EF9 through EF15).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace the original c.1977 exhaust fans excluding EF7 and EF8 (9 exhaust fans including EF5, EF6 and EF9 through EF15)

Concern:
Replace washrooms exhaust fans
Recommendation:
Install new exhaust fans
Consequences of Deferral:
No exhaust ventilation

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$8,200	Unassigned

Updated: MAR-12

D3040.04.01 Fans: Exhaust** - c.2000

There is one c.2000 roof mounted exhaust fan for the computer room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	MAR-12

Event: Replace the c.2000 roof mounted exhaust fan for the computer room

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$2,500	Unassigned

Updated: MAR-12

D3040.04.03 Ducts: Exhaust*

Exhaust duct systems include the collection and discharge ducts (as applicable) associated with the 12 building exhaust fans. This element includes all components of the exhaust duct systems not specifically covered under other elements, including ducts, duct supports, dampers, insulation, etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust air inlets include the inlet grilles associated with the exhaust system collection ducts. Exhaust air outlets include the discharge terminations for the interior exhaust fans.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D3050.02 Air Coils** - Reheat Coils

Hot water reheat coils are located in the air distribution ducts to provide air temperature control. There are five reheat coils (RHC1 through RHC5).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace the hot water reheat coils (RHC1 through RHC5)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$15,000	Unassigned

Updated: MAR-12

D3050.03 Humidifiers**

There are two steam humidification systems for the two air handling units (AHU1 and AHU2).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	25	MAR-12

Event: Replace the air handling unit steam humidification systems (2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$6,000	Unassigned

Updated: MAR-12

D3050.05.01 Convectors** - Force Flow Convection Heaters

Wall and ceiling mounted hot water force flow convection heaters are used in the computer room and at the entrance vestibules. There are six force flow convection heaters (FF1 through FF6).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace the force flow convection heaters (FF1 through FF6)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$24,000	Unassigned

Updated: MAR-12

D3050.05.03 Finned Tube Radiation**

Hot water finned tube radiation cabinets provide perimeter and interior heating for most areas of the building. The estimated length of finned tube radiation cabinets is 100 m.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace the finned tube radiation cabinets (estimated 100 m)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$45,000	Unassigned

Updated: MAR-12

D3050.05.06 Unit Heaters**

Ceiling mounted hot water unit heaters are used in the mezzanine mechanical room (UH1), in the storage room in classroom 103 (UH2), in the gymnasium (UH3 and UH4), and in the meter room (UH5).

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace the unit heaters (UH1 through UH5)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$19,000	Unassigned

Updated: MAR-12

D3060.02.01 Electric and Electronic Controls**

The force flow convection heaters and the unit heaters are operated by electric controls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace the electric controls for the force flow heaters and the unit heaters (11)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$3,300	Unassigned

Updated: MAR-12

D3060.02.02 Pneumatic Controls**

The building HVAC system controls and actuators are generally pneumatic (electric controls are used for the force flow convection heaters and the unit heaters - see D3060.02.01 Electric and Electronic Controls**). The control air supply system is located in the mezzanine mechanical room and consists of two air compressors mounted on an air receiver tank, as well as a refrigerated air dryer. Pneumatic controls include pneumatic thermostats, control valves for the heating terminal units (finned tube radiation cabinets and reheat coils), and damper actuators for the air handling unit dampers. This element includes the control air distribution system and components, and the control air supply system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Event: Replace the pneumatic controls (2,690 SM GFA)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$16,000	Unassigned

Updated: MAR-12

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

A building management and control system (BMCS) provides monitoring and control functions for the main HVAC equipment. The BMCS is an Andover Controls model AC256M.

Rating	Installed	Design Life	Updated
3 - Marginal	1991	20	MAR-12

Event: Replace the building management and control system (2,690 SM GFA)

Concern:

The building management and control system (BMCS) is obsolete and replacement parts for the Andover system are difficult to obtain.

Recommendation:

Replace the building management and control system.

Type	Year	Cost	Priority
Failure Replacement	2013	$59,000	Low

Updated: MAR-12

D4030.01 Fire Extinguisher, Cabinets and Accessories*

ABC type fire extinguishers are located throughout the building in recessed wall mounted cabinets and on wall mounted brackets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

S5 ELECTRICAL

D5010.01.02 Main Electrical Transformers (Utility Owned)*

The incoming hydro service to St. Benedict School is a 120/208V, 3-phase, 4-wire service from an EPCOR transformer located on the west side of the school. The EPCOR meter is located in the main electrical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Capacity Size	Capacity Unit
Unknown	kVA

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

The main electrical switchboard is an FPE switchboard rated at 800A, 120/208V, 3-phase, 4-wire. The switchboard has a 500A main breaker and a distribution section with moulded case breakers feeding sseven branch circuit panels within the school and two panels for portables. The main electrical switchboard is original equipment that was installed when the school was constructed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	40	MAR-12

Capacity Size	Capacity Unit
800	amps

Event: Replace Main Switchboard (800A, 120/208V)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$28,000	Unassigned

Updated: MAR-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1978

The majority of the electrical branch circuit panelboards are Federal Pioneer panels that appear to have been installed when the building was originally constructed. The panels have copper bussing and bolt-on circuits breakers. Spaces are available in most panels to accommodate additional loads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Capacity Size	Capacity Unit
225	amps

Event: Replace Branch Circuit Panels (7 panels)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$36,000	Unassigned

Updated: MAR-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 2006

Panel CR is a 120/208V Square D, 42 circuit, branch circuit panel added for computer loads. There is space in the panel for future loads.

Rating	Installed	Design Life	Updated
5 - Good	2006	30	MAR-12

Event: Replace Branch Circuit Panel (1 panel)

Type	Year	Cost	Priority
Lifecycle Replacement	2036	$5,000	Unassigned

Updated: MAR-12

D5010.07.02 Motor Starters and Accessories**

The motor starters within the school are individual motor starters (Westinghouse) and motor rated starter switches.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace Motor Starters (10 starters and 13 manual starter switches)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$27,000	Unassigned

Updated: MAR-12

D5020.01 Electrical Branch Wiring*

The majority of the cabling is standard building wire in EMT conduit. Armoured cable has been provided, in selected locations, for final connections to mechanical and miscellaneous equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

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

Lighting is typically controlled by 120V line voltage switches in classrooms and offices. Two low voltage relay panels are used to provide the low voltage switching for the gymnasium, stage, washrooms/locker rooms and the corridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D5020.02.02.02 Interior Fluorescent Fixtures** - T12

The typical lighting within the school consists of wrap-around, two lamp fluorescent fixtures, surface mounted on the ceiling. Two lamp fluorescent fixtures with wire guards have been provided in the gymnasium. Recessed 2 ft. x 4 ft. fluorescent fixtures have been provided in the library. The fluorescent lighting fixtures throughout most of the school have T12 lamps and magnetic ballasts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	30	MAR-12

Event: Replace T12 Fluorescent Lighting (2925 m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$181,000	Unassigned

Updated: MAR-12

Event: Upgrade T12 Fluorescent Lighting (2925 m2 gfa)

Concern:

The T12 lamps and ballasts are not energy efficient. T12 lamp production could be discontinued in the future.

Recommendation:

Relamp and reballast existing fluorescent fixtures with T8 lamps and electronic ballasts.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2012	$122,000	Medium

Updated: MAR-12

D5020.02.02.02 Interior Fluorescent Fixtures** - T8

Recessed 2 ft. x 4 ft. T8 fluorescent fixtures with electronic ballasts have been provided in two classrooms by the gymnasium and in the computer room (Rm. 107). The fixtures in the computer room have deep cell parabolic lenses.

Rating	Installed	Design Life	Updated
5 - Good	2000	30	MAR-12

Event: Replace T8 Fluorescent Lighting (325 m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$20,000	Unassigned

Updated: MAR-12

D5020.02.03.02 Emergency Lighting Battery Packs**

The emergency lighting in the building is provided by battery powered emergency lighting units and remote emergency lighting heads.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	20	MAR-12

Event: Replace Emergency Lighting Battery Packs (10 units)

Concern:
The existing emergency lighting battery units are aged. Units may not operate during a power outage.

Recommendation:
Replace emergency lighting battery units and remote heads.

Type	Year	Cost	Priority
Failure Replacement	2012	$11,000	High

Updated: MAR-12

Aged emergency battery unit.

D5020.02.03.03 Exit Signs*

Exit signs are generally located to indicate building exits and egress routes to exits. The majority of the exit signs have incandescent lamps.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	0	MAR-12

Event: Replace Exit Signs (14 exit signs)

Concern:
The exit signs within the school have incandescent lamps. Some units were not operational.

Recommendation:
Replace incandescent exit signs with energy efficient LED type exit signs.

Type	Year	Cost	Priority
Failure Replacement	2012	$7,000	High

Updated: MAR-12

Incandescent exit sign - burned out.

D5020.03.01.01 Exterior Incandescent Fixtures*

Recessed incandescent fixtures are mounted in the building canopy.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

70-150watt H.P.S. wallpack fixtures have been provided on the exterior walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1987	0	MAR-12

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

Time clock and photo cells controlling exterior lighting, overall controlled by BMS.

Rating	Installed	Design Life	Updated
4 - Acceptable	1987	0	MAR-12

D5030.01 Detection and Fire Alarm**

The fire alarm system control panel is an Edwards 6500 panel with 6 active zones and two spare zones. The control panel is located at the main entrance. The audible devices within the school are typically 10" dia. Bells. Strobes have not been installed. Duct mounted smoke detection has been provided for the gymnasium air handling equipment. The July 2010 fire alarm testing report indicated no problems with the fire alarm system.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	25	MAR-12

Event: Replace Fire Alarm System (3251 m2 gfa)

Concern:

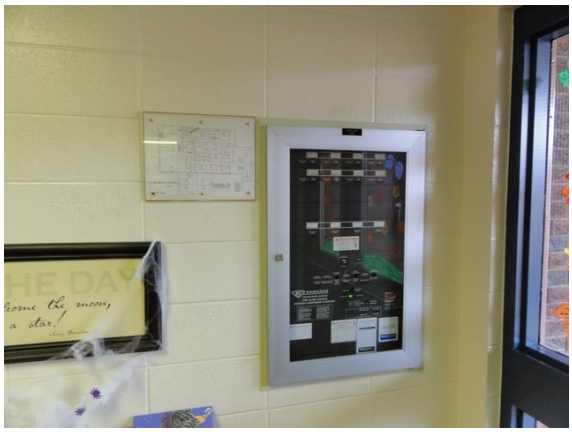
The Edwards 6500 fire alarm system is no longer manufactured. Replacement parts are not readily available and maintenance costs are high. There are no strobes in the school.

Recommendation:

Provide a new addressable fire alarm system. Provide strobe coverage throughout the school.

Type	Year	Cost	Priority
Failure Replacement	2012	$85,000	High

Updated: MAR-12



Edwards 6500 fire alarm control panel at main entrance.

D5030.02.02 Intrusion Detection**

The security system is a DSC Maxsys system. A security system keypad has been installed at the main entrance. PIR motion detectors have been provided throughout the school.

Rating	Installed	Design Life	Updated
5 - Good	2004	25	MAR-12

Event: Replace Intrusion Detection System (1 panel, 1 keypad, 22 motion detectors & 8 door contacts)

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$22,000	Unassigned

Updated: MAR-12

D5030.03 Clock and Program Systems*

The clocks within the school are Primex GPS synchronized clocks. The clock system transmitter is located in the storage room across from classroom 104.

Rating	Installed	Design Life	Updated
5 - Good	2009	0	MAR-12

D5030.04.01 Telephone Systems*

The telephone system is a Nitsuko DX2NA-32M system. Nitsuko handsets are located in the classrooms and selected areas such as the general office. The main telephone equipment is located in the custodian's room beside the reading recovery room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	MAR-12

D5030.04.04 Data Systems*

The data system servers are located in the storage room across from classroom 104 and in the storage room for Computer room 109A. Cat. 5 cables are used for the network wiring within the school. Supernet has been installed in the school. Wireless networking has been provided for the school. Network switches have been upgraded.

Rating	Installed	Design Life	Updated
5 - Good	2008	0	MAR-12

D5030.05 Public Address and Music Systems**

The public address system is a Bogen MCP 35 A system (50 zone capacity). Return call switches have been provided in the classrooms. Speakers are typically surface mounted units. The console unit is located in the General Office area.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	20	MAR-12

Event: Replace P.A. System (Head-end equipment and 28 rooms)

Concern:

Existing Bogen P.A. System is obsolete. Replacement parts are no longer available. Standard system for schools is a microprocessor based system.

Recommendation:

Replace existing P.A. System with new microprocessor based system.

Type	Year	Cost	Priority
Failure Replacement	2012	$42,000	Medium

Updated: MAR-12

Obsolete Bogen MCP-35A P.A. system.

D5030.06 Television Systems*

Coaxial cable for television systems has been brought into the custodian room. Cable TV outlets have been provided in selected rooms.

Rating	Installed	Design Life	Updated
5 - Good	2004	0	MAR-12

D5030.07 Other Communications and Security Systems*

FM transmitters and speakers have been provided in classrooms for voice enhancement.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	MAR-12

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.04 Residential Equipment*

The ancillary kitchen and staff room are equipped with a refrigerators, freezer, stove, dishwasher, small appliances and microwaves.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Fixed basketball hoops are located in the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

E2010.02 Fixed Casework**

Each classroom is equipped with custom wood open faced and/or painted cabinet units along the exterior wall. The staff room has painted wood upper and lower cabinet units. The library has fixed and moveable wood shelving casework. Glass display cabinets are located in the main entrance area and in the corridors. The washrooms have plastic laminate counter tops.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	35	MAR-12

Event: Replace all original millwork (Based on 2690m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$240,000	Unassigned

Updated: MAR-12

E2020.02.03 Furniture*

Chairs, desks and tables are located in all the classrooms, science rooms, library and administration areas. Chairs & tables are typically storage in the gym storage area if lunch rooms are not provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

F1010.02.04 Portable and Mobile Buildings** - 1961 Portables - Unit 51

1961 Re-locatable Portables - Unit 51 - Area 85.8m2 (Includes 1 classrooms unit). The Portables are linked to the east end of the school. The portable unit is to be disposed and no longer relocated.

Structure:
- Wood frame construction with 6"x6" wood piers bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior walls has a painted horizontal & vertical wood siding finish with wood framing construction.
- Windows - The exterior windows are aluminum frame fixed and operable awning type windows with exterior metal security screens.
- Roof Covering - The roof has a SBS roof assembly.
- Exterior Classroom Doors - Painted wood door & frame assembly
- Exterior Platform - Painted wood at the classroom exits.

Interior:
- Flooring - Vinyl Tile flooring
- Ceiling - 300mm x 300mm Acoustical ceiling tiles
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - Fire-rated wood and/or steel door & frame assembly
- Millwork - Each classroom is equipped with custom wood open faced and/or painted cabinet units.
- Equipment - Whiteboards, tackboards, open wood shelving, wall mounted coat hooks.
- Window Coverings - Roller and/or vertical window blinds

Architectural elements within the portables are in acceptable condition.

Mechanical Summary

This portable consists of one classroom portable. The portable is heated by a natural gas fired forced air furnace (Carrier Weathermaker) with an air distribution duct system which discharges through the wall into the classroom. The furnace is controlled by an anolog thermostat. The furnace is located in the portable entrance vestibule and there is a fresh air supply to the furnace to provide ventilation for the conditioned spaces.

The portable furnace is relatively new (estimated c.2008).

Storm drainage from the flat roof area is drained via one roof drain with a downspout which discharges to grade.

Condition: Acceptable

Electrical Summary

Portable #51 is fed from a FPE Stablok, 120/240V panel (located in the wet link). The lighting fixture used in the portable classroom is a surface mounted T12 wrap around fluorescent fixture. A P.A. speaker, 120V lighting switch, telephone, motion detector and radio controlled clock have been provided in the portable classroom. The portable classroom is connected to the school fire alarm system. Wireless networking is available in the classroom.

The electrical elements within portable classroom #51 were found to be in acceptable condition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1964	30	MAR-12

Event: Replace Building Envelope

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$40,000	Unassigned

Updated: MAR-12

Event: **Replace Electrical system**

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$8,000	Unassigned

Updated: MAR-12

Event: **Replace Interior**

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: MAR-12

Event: **Replace Mechanical system**

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$8,000	Unassigned

Updated: MAR-12

F1010.02.04 Portable and Mobile Buildings** - 1964 Portables - Unit 38

1964 Re-locatable Portables - Unit 38 - Area 85.8m2 (Includes 1 classrooms unit). The Portables are linked to the east end of the school. The portable unit is to be disposed and no longer relocated.

Structure:
- Wood frame construction with 6"x6" wood piers bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior walls has a painted horizontal & vertical wood siding finish with wood framing construction.
- Windows - The exterior windows are aluminum frame fixed and operable awning type windows with exterior metal security screens.
- Roof Covering - The roof has a 2-ply SBS roof assembly.
- Exterior Classroom Doors - Painted wood door & frame assembly
- Exterior Platform - Painted wood at the classroom exits. .

Interior:
- Flooring - Vinyl Tile flooring
- Ceiling - 300mm x 300mm Acoustical ceiling tiles
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - Fire-rated wood and/or steel door & frame assembly
- Millwork - Each classroom is equipped with custom wood open faced and/or painted cabinet units.
- Equipment - Whiteboards, tackboards, open wood shelving, wall mounted coat hooks.
- Window Coverings - Roller and/or vertical window blinds

Architectural elements within the portables are in acceptable condition.

Mechanical Summary

This portable consists of one classroom portable. The portable is heated by a natural gas fired forced air furnace (Carrier Weathermaker) with an air distribution duct system which discharges through the wall into the classroom. The furnace is controlled by an anolog thermostat. The furnace is located in the portable entrance vestibule and there is a fresh air supply to the furnace to provide ventilation for the conditioned spaces. The portable has one passive roof ventilator.

The portable furnace is relatively new (estimated c.2008).

Storm drainage from the flat roof area is drained via one roof drain with a downspout which discharges to grade and one scupper with a downspout which discharges to grade.

Condition: Acceptable

Electrical Summary

Portable #38 is fed from a FPE Stablok, 120/240V panel (located in the wet link). The lighting fixture used in the portable classroom is a surface mounted T12 wrap around fluorescent fixture. A P.A. speaker, 120V lighting switch, telephone, motion detector and radio controlled clock have been provided in the portable classroom. The portable classroom is connected to the school fire alarm system. Wireless networking is available in the classroom.

The electrical elements within portable classroom #51 were found to be in acceptable condition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1964	30	MAR-12

Event: Replace Building Envelope

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$40,000	Unassigned

Updated: MAR-12

Event: **Replace Electrical system**

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$8,000	Unassigned

Updated: MAR-12

Event: **Replace Interior**

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: MAR-12

Event: **Replace Mechanical system**

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$8,000	Unassigned

Updated: MAR-12

F1010.02.04 Portable and Mobile Buildings** - 1979 Portables - Units111,112,113 & 114

1979 Re-locatable Portables - Units111,112,113 & 114 - Area 376.4 m2 (Includes 4 classrooms units). The Portables are linked to the south end of the school.

Structure:
- Wood frame construction with 6"x6" wood piers bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior walls has a painted horizontal & vertical wood siding finish with wood framing construction.
- Windows - The exterior windows are aluminum frame fixed and operable awning type windows with exterior metal security screens.
- Roof Covering - The roof has a SBS roof assembly.
- Exterior Classroom Doors - Painted wood door & frame assembly
- Exterior Stairs - Painted wood stairs at the classroom exits. Most stairs have painted guard-rails & handrails.
- Exterior Deck - A wood deck is located at the east end of portables 112 and 114.

Interior:
- Flooring - Vinyl Tile flooring
- Ceiling - 2'x4' Suspended Acoustical tile ceiling
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - Fire-rated wood and/or steel door & frame assembly
- Millwork - Each classroom is equipped with custom wood open faced and/or painted cabinet units.
- Equipment - Whiteboards, tackboards, open wood shelving, wall mounted coat hooks.
- Window Coverings - Roller and/or vertical window blinds

Architectural elements within the portables are in acceptable condition.

Mechanical Summary

This portable group consists of four classroom portables (rooms 108, 109, 110 and 111). Each portable is heated by a natural gas fired forced air furnace (Flamemaster) with an above floor air distribution duct system which runs down one side of each classroom. Each furnace is controlled by an analog or digital thermostat. Each furnace is located in a small mechanical closet which has a combustion air supply duct to allow outside air into the closet for combustion, and each furnace also has a fresh air supply to provide ventilation for the conditioned spaces. Each portable has four passive roof ventilators.

Storm drainage from the flat roof areas is drained via gutters and downspouts to grade on the north and south sides.

Fire protection in the portables is provided by a fire extinguisher in the connecting link.

Condition: Marginal

Electrical Summary

Each of the classrooms, within the 4 classroom pod, has been provided with an FPE Stablok 120/240V panel (connected to the school electrical distribution system). The typical lighting fixture used in the portable classrooms is a surface mounted T12 wrap around fluorescent fixture. A P.A. speaker, 120V lighting switch, telephone, motion detector and radio controlled clock have been provided in the portable classrooms. The portable classrooms are connected to the school fire alarm system. Wireless networking is available in the classrooms.

The electrical elements within the 1979 - 4 classroom pod were found to be in acceptable condition

Rating	Installed	Design Life	Updated
3 - Marginal	1979	30	MAR-12

Event: Replace Building Envelope

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$200,000	Unassigned

Updated: MAR-12

Event: Replace Electrical system

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$32,000	Unassigned

Updated: MAR-12

Event: Replace Interior

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$40,000	Unassigned

Updated: MAR-12

Event: Replace Mechanical system

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$32,000	Unassigned

Updated: MAR-12

Event: Replace exterior exit doors c/w hardware in Portables 111 to 114 classrooms

Concern:
The exterior classroom doors are aged, worn and no longer secure.
Recommendation:
Replace exterior exit doors c/w hardware in 4 classrooms

Type	Year	Cost	Priority
Failure Replacement	2012	$12,000	Low

Updated: MAR-12


Painted wood exterior doors in classrooms

Event: Replace the original c.1979 furnaces in portables 111, 112, 113 and 114

Concern:
The condition of the original furnace heat exchangers is unknown and the heat exchangers have exceeded their expected life cycles. If the heat exchangers leak due to corrosion or cracking, carbon monoxide could enter the classrooms.
Recommendation:
Replace the original c.1979 furnaces in portables 111, 112, 113 and 114

Type	Year	Cost	Priority
Repair	2012	$16,000	High

Updated: MAR-12

F1010.02.04 Portable and Mobile Buildings** - 2007 Portables - Unit 307

2007 Re-locatable Portables - Unit 307 - Area 111.4 m2 (Includes 1 classrooms unit and exit corridor). The Portable is linked to the south end of original school.

Structure:
- Wood frame construction with concrete piles bearing on undisturbed soil.

Structure:
- Wood frame construction with piles bearing on undisturbed soil.

Envelope:
- Cladding - A plywood sheathing skirt with vents is located at the base of the elevation. The exterior skin has a prefinished metal siding finish with wood/metal framing construction.
- Windows - The exterior windows are aluminum frame fixed and operable awning type windows with exterior metal security screens.
- Roof Covering - The roof has a single-ply EPDM (no stone ballast) roof assembly.
- Pressure treated wood framed stairs are located at the exit. Most stairs have pressure treated guard-rails & handrails.
- Doors - 2 Fire-rated steel door & frame assembly. Screen on the exterior exits.

Interior:
- Flooring - Sheet Vinyl flooring
- Ceiling - 2'x4' Suspended Acoustical tile ceiling
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - Fire-rated steel door & frame assembly. Screen on the exterior exits
- Equipment - Whiteboards, tackboards, open wood shelving, wall mounted coat hooks & curtains.
- Blinds - Roller Type

Architectural elements within the portables were found to be in good condition.

Mechanical Summary

This portable group consists of one classroom portable and includes the corridor link attached to the portable. The portable is heated by a natural gas fired forced air furnace (Lennox) with an air distribution duct system which is located in the ceiling space. The furnace is controlled by a digital thermostat and the portable is also equipped with a BMCS or building management and control system (Reliable Controls). The furnace is located in a small mechanical closet which has a combustion air supply duct to allow outside air into the closet for combustion, and the furnace also has a fresh air supply to provide ventilation for the conditioned spaces. There is a roof mounted exhaust fan for the portable.

Storm drainage from the flat roof area is drained via two scuppers and downspouts to grade on the east side.

Fire protection in the portable is provided by a fire extinguisher in the connecting link.

Condition: Good

Electrical Summary

Portable #307 has been provided with a Cutler Hammer, 120/240V panel (connected to the school electrical distribution system). The lighting fixture used in the portable classroom is a recessed, 2 ft. X 4 ft., T8 fluorescent fixture. A P.A. speaker, 120V lighting switch, telephone, motion detector and radio controlled clock have been provided in the portable classroom. The portable classroom is connected to the school fire alarm system. Wireless networking is available in the classroom.
Link for Portable #307

Link
The lighting fixture used in the link is a recessed, 2 ft. X 4 ft., T8 fluorescent fixture. LED exit signs and emergency lighting have been provided within the link. A pullstation has been provided at the exit door.

The electrical elements within link & portable classroom #307 were found to be in good condition.

Rating	Installed	Design Life	Updated
5 - Good	2007	30	MAR-12

Event: **Replace Building Envelope**

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$50,000	Unassigned

Updated: MAR-12

Event: **Replace Electrical system**

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$10,000	Unassigned

Updated: MAR-12

Event: **Replace Interior**

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$10,000	Unassigned

Updated: MAR-12

Event: **Replace Mechanical system**

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$10,000	Unassigned

Updated: MAR-12

F1010.02.04 Portable and Mobile Buildings** - Unit C12

1974 Re-locatable Portables - Unit C12 - Area 66.9 m2 (Includes a boy's washroom, a girl's washroom, storage room and a custodial closet) The Portables is linked to Units 38 and 51. The Unit is to be disposed and no longer relocated.

Structure:
- Wood frame construction with piles bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior skin has a painted wood siding finish with wood/metal framing construction.
- Windows - The exterior windows are aluminum frame fixed with exterior metal security screens.
- Roof Covering - The roofs have a SBS roof assembly.

Interior:
- Flooring - VCT flooring in washrooms and storage room. Carpet in storage room. Ceramic floor tile at Boy's Urinal
- Ceiling - 2'x4' Suspended Acoustical tile ceiling
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - Fire-rated steel door & frame assembly.
- C12 Unit - washrooms - equipped with wood framed toilet partitions & typical washroom accessories

Architectural elements within the portables were found to be in acceptable condition.

Mechanical Summary

Heating in the C12 Wet Unit is provided by a gas fired forced air furnace (Flamemaster). Temperature control is independent and is provided by an analog electric thermostat. A c.2003 gas fired domestic hot water heater provides hot water for the washroom plumbing fixtures (lavatories and sinks). Ventilation is provided by ceiling mounted exhaust fans.

The boy's washroom contains two toilets, two lavatories and one urinal. The girl's washroom contains three toilets and two lavatories. Typical fixtures include tank type toilets, wall mounted lavatories, and a wall mounted flush valve type urinal. The janitor's closet contains a plastic mop sink and a wall mounted lavatory, and a drinking fountain is located in the corridor.

Storm drainage from the flat roof area of the portable is drained via one standard roof drain and internal drainage piping which discharges to grade.

Condition: Marginal

Electrical Summary

The lighting fixture used in the wet link washrooms is a surface mounted T12 wrap around fluorescent fixture. An FPE Stablok panel is located in the link storage room.

The electrical elements within the wet link were found to be in acceptable condition.

Rating	Installed	Design Life	Updated
3 - Marginal	1974	30	MAR-12

Event: Replace Building Envelope

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$40,000	Unassigned

Updated: MAR-12

Event: Replace Electrical system

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$8,000	Unassigned

Updated: MAR-12

Event: Replace Interior

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: MAR-12

Event: Replace Mechanical system

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$8,000	Unassigned

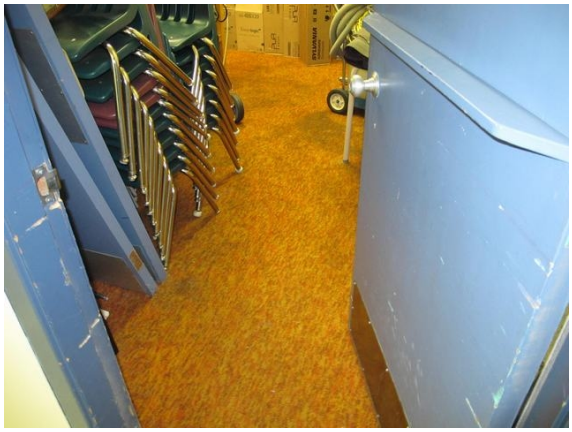
Updated: MAR-12

Event: Replace carpet in storage room - C12 - Area - 15m2

Concern:
The carpet is worn and aged.
Recommendation:
Replace carpet in storage room - 15m2

Type	Year	Cost	Priority
Failure Replacement	2012	$1,000	Low

Updated: MAR-12


Original carpet in storage room.

Event: Replace the original c.1974 furnace in portable C12

Concern:
The condition of the original furnace heat exchanger is unknown and the heat exchanger has exceeded its expected life cycle. If the heat exchanger leaks due to corrosion or cracking, carbon monoxide could enter the portable.
Recommendation:
Replace the original c.1974 furnace in portable C12

Type	Year	Cost	Priority
Repair	2012	$4,000	High

Updated: MAR-12

F1010.03 Other Special Structures* - East Link

Corridor link to Portables 38, 51 and C12 at the east end the main school. The washroom (Wet unit) and the two classrooms are connected to a common corridor. The Link is to be disposed and no longer relocated.

Structure:
- Wood frame construction with wood and/or concrete piers bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior skin has a painted wood siding finish with wood frame construction.
- Exterior doors - The 6 exterior doors are painted steel and/or wood doors in painted steel frames.
- Roof Covering - The roof has an SBS roof assembly.
- Pressure treated wood framed stairs are located at the exit. Most stairs have pressure treated guard-rails & handrails.

Interior:
- Flooring - VCT flooring. Carpet on the sloped area to the main school.
- Ceiling - 2'x4' Suspended Acoustical tile ceiling
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - 2 Fire-rated steel door & frame assembly
- Equipment - Tackboards, open wood shelving, steel lockers.

Architectural elements within the links are in acceptable condition.

Mechanical Summary

The east link includes the east-west access corridor for portables C12, 038 and 051. The east link is heated by the furnaces in the portables which have vents providing ventilation for the link.

Storm drainage from the flat roof area of the link is drained via one standard roof drain and internal drainage piping which discharges to grade.

Condition: Acceptable

Electrical Summary

The lighting fixture used in the link is a surface mounted T12 wrap around fluorescent fixture. An emergency lighting battery unit has been installed in the corridor. An exit sign and pullstation have been provided at the exit door.

The electrical elements within the link were found to be in acceptable condition.

Rating	Installed	Design Life	Updated
3 - Marginal	1993	0	MAR-12

Event: Replace exterior doors c/w hardware at East Link - 6 Doors -Link to Units C12, 38 & 51

Concern:
The exterior exit doors at the south entrance are damaged and deteriorated.

Recommendation:
Replace exterior doors c/w hardware at East Link - 6 Doors

Type	Year	Cost	Priority
Failure Replacement	2012	$18,000	Low

Updated: MAR-12

Exit doors at east link

F1010.03 Other Special Structures* - South Link

Corridor link to Portables 111,112,113,114 and 307 at the south end of the main school. The classrooms are connected to a common corridor. The Link is to be disposed and no longer relocated.

Structure:
- Wood frame construction with wood and/or concrete piers bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior skin has a painted wood siding finish with wood frame construction.
- Exterior doors - The 4 exterior doors are painted steel and/or wood doors in painted steel frames.
- Roof Covering - The roof has an BUR roof assembly.
- Pressure treated wood framed stairs are located at the exit. Most stairs have pressure treated guard-rails & handrails.

Interior:
- Flooring - VCT flooring. Carpet on the sloped area to the main school.
- Ceiling - 2'x4' Suspended acoustical tile ceiling
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - 2 Fire-rated steel door & frame assembly
- Equipment - Tackboards, open wood shelving, steel lockers.

Architectural elements within the links are in acceptable condition.

Mechanical Summary

The south link includes the north-south access corridor for portables 111, 112, 113 and 114 and leads to the link portion of portable 307. The south link is heated by the furnaces in the portables which have vents providing ventilation for the link.

Storm drainage from the flat roof area of the link is drained via one standard roof drain and internal drainage piping. The storm drainage from the link roof drains appears to discharge to the building storm drainage system.

Fire protection in the south link is provided by a wall mounted fire extinguisher.

Condition: Acceptable

Electrical Summary

The lighting fixture used in the link is a surface mounted T12 wrap around fluorescent fixture. Fire alarm and emergency and exit lighting systems as required have been installed in the link.

The electrical elements for the link were found to be in acceptable condition.

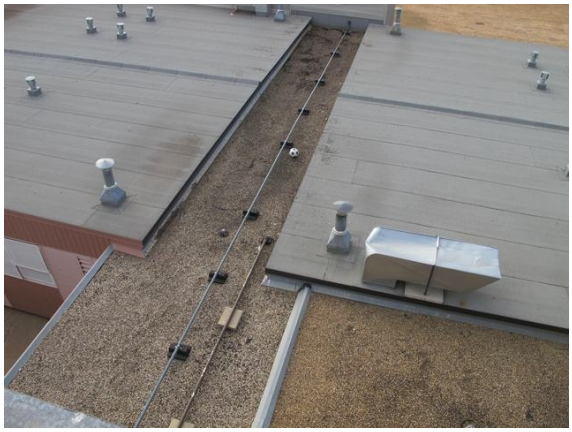
Rating	Installed	Design Life	Updated
3 - Marginal	1979	0	MAR-12

Event: Replace BUR assembly - South Link - Area - 90m2

Concern:
The roof has several blistered and patches.
Recommendation:
Replace original BUR membrane on south portable link

Type	Year	Cost	Priority
Failure Replacement	2012	$15,000	Low

Updated: MAR-12



Original BUR above South Link

Event: **Replace exterior doors c/w hardware at East Link - 2 Doors - North end of Link**

Concern:

The exterior exit doors at the south entrance are damaged and deteriorated.

Recommendation:

Replace exterior doors c/w hardware at East Link - 2 Doors - North end of Link

Type	Year	Cost	Priority
Failure Replacement	2012	$6,000	Low

Updated: MAR-12

Exterior exit doors - South Link - North entry

S8 SPECIAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

A barrier free parking stall is not identified in the parking area. A curb cut is required at the walkway entrance.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	0	MAR-12

Event: Provide a designated parking stall & curb cut at main entrance for handicap accessibility.

Concern:
A barrier free parking stall is not identified in the parking area.
Recommendation:
Provide a designated parking stall & curb cut at main entrance for handicap accessibility.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2012	$5,000	Low

Updated: MAR-12

K4010.02 Barrier Free Entrances*

Power assist doors are not provided throughout the entire school.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	0	MAR-12

Event: Provided a power operators for barrier free access at the north entrance

Concern:
No automatic access is currently provided from any exterior entrance doors.
Recommendation:
Provided a power operators for barrier free access at the north entrance

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2012	$5,000	Low

Updated: MAR-12

K4010.03 Barrier Free Interior Circulation*

The majority of the public spaces in the school are accessible, however the mechanical room and stage area (music room) in the gymnasium are not barrier free accessible.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

K4010.04 Barrier Free Washrooms*

The washrooms adjacent to the library have barrier free washroom stall, however the washrooms do not fully comply with the current barrier free standards.A designated barrier free washroom is provided opposite the general office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

K4030.01 Asbestos*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated Oct, 2006 for details. Report indicates asbestos presence in pipe fittings, floor tiles, ceiling tiles, mastic on mechanical ducts and incandescent light fixture paper backing exterior caulking. No costs were provided by ECDSB.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

K4030.04 Mould*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated Oct, 2006 for details. No mould was observed or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	1978	0	MAR-12

K4030.09 Other Hazardous Materials*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated Oct, 2006 for details. No hazardous issues know or reported.

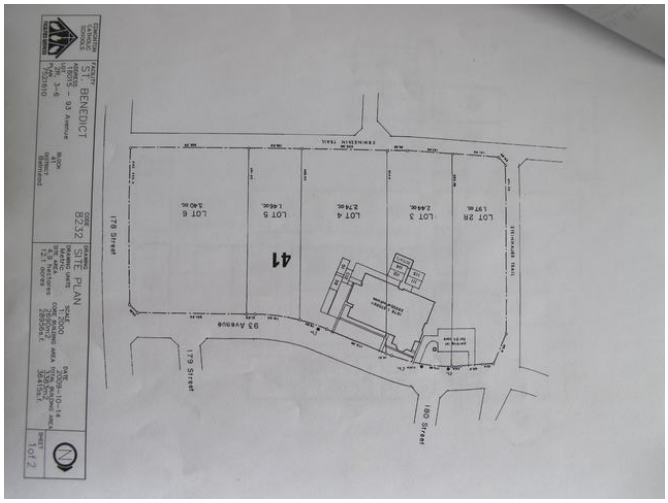
Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	MAR-12

K5010.02 Building Documentation*

The evaluation was conducted on October 25, 2011, by Asset Evolution Inc.

St. Benedict Catholic Elementary School, originally built in1978 is a one-storey school with a mechanical penthouse. The original building has an area of 2657 m2. An addition of a boy's and girls washroom was added in 1990 with an area of 33m2 at the south end of the school. A cluster of 5 portables (Units 111,112,113,114 and 307 including the link have a total area of 488.00 m2) are attached at the south-end of the school. A cluster of 3 portables (Units 38, 51 and C12 including the link have a total area of 147 m2) are attached at the east end of the original school. The school including the portables has a total area of 3325m2. The one storey school comprised of several classrooms, a gymnasium, a library, a computer room, a music room, staff room and offices.

Rating	Installed	Design Life	Updated
4 - Acceptable	2011	0	MAR-12



St. Benedict Catholic Elementary School - Site Plan and Roof Plan