

RECAPP Facility Evaluation Report

Edmonton RCSSD #7



St. Monica Catholic Elementary School

B3320A
Edmonton

Facility Details

Building Name: St. Monica Catholic Element
Address: 14710 - 53 Avenue
Location: Edmonton

Building Id: B3320A
Gross Area (sq. m): 1,904.98
Replacement Cost: \$5,108,013
Construction Year: 1973

Evaluation Details

Evaluation Company: Asset Evolution Inc.
Evaluation Date: October 18 2010
Evaluator Name: Mario Plastina

Total Maintenance Events Next 5 years: **\$2,679,000**
5 year Facility Condition Index (FCI): **52.45%**

General Summary:

St. Monica Catholic Elementary School, originally built in 1973 is a 1-storey structure with no basement. The school has a total building area of 1904 m2. St. Monica school, originally an open concept school has 8 classrooms, a central open library, a computer area, a gymnasium and administration area. The site is approximately 2.83 hectares in area. The school includes 4 portable, located at the north end of the school.

The 2010 student enrollment - 270 children.

Structural Summary:

The foundations consist of a reinforced cast-in-place grade beam supported with a concrete pile assembly. The building has a cast-in-place concrete slabs-on-grade with conventional steel reinforcement. Structural exterior reinforced concrete load bearing masonry walls & non-load bearing interior block walls. The roof has a metal roof deck on OWSJ, supported by load-bearing concrete block and steel columns and beams. A structural study was conducted by READ JONES CHRISTOFFERSEN LTD. in 1993 with several follow-up visits to monitor the structural movement until 1995. The study outlined that significant movement has occurred, specifically along the south elevation, however the study also indicated that the school is safe to occupy. For details of the RJC study, contact the Edmonton Catholic Separate School Board.

The structure is generally in marginal condition.

Recommendations:

- Conduct an intrusive soil & structural study of the foundation assembly
- Repair as outlined in the soil & structural investigation

Envelope Summary:

The exterior walls have a single wythe smooth faced concrete block in combination with a ribbed concrete block assembly. The south west corner of the school and gymnasium have an exterior insulation and finish system (EIFS) over the original concrete block exterior wall. Expansion/control joints are located throughout the exterior masonry wall assembly. Sealant is located around all window, door and exterior cladding assemblies. The exterior concrete block walls and stucco have a paint finish. The interior portion of the exterior walls comprises primarily of the concrete block wall assembly. Exterior metal louvers are located on the exterior walls opposite the mechanical room. The exterior main entrance soffit has a prefinished metal panel assembly. The windows are bronze anodized aluminum framed double glazed units with fixed & operable awning type units. The main entrance doors are painted steel doors with wire glass panels in painted steel frames. The utility doors are painted steel doors in a painted steel frame assembly. The roof has a conventional 4ply-built-up bituminous roof assembly. Metal gutters and down-spouts are located on the upper roof section and discharge on the lower roofs and at grade. No roof access other than ladder.

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

Recommendations:

- Repair exterior masonry walls and mortar joints as required.
- Repair EIFS assembly once the structural review is complete.
- Repaint exterior concrete masonry and stucco walls (1000m2 of surface area)
- Replace Built-up Bituminous Roofing - Area - 1620m2
- Provide roof access hatch and internal ship's ladder.

Interior Summary:

Concrete block walls are located throughout the school. Isolated cracks on the interior concrete block walls was observed along the south section of the building, specifically in the staff room and general offices. Several de-mountable gypsum board with metal framing partitions have been installed in the original open concept school. Fixed interior glazed windows with GWG are located in the general office area and classroom. The interior swing doors generally consist of painted solid core wood doors in painted wood and/or metal frames. The majority of the interior doors in the utility rooms and corridors are painted hollow metal doors in a painted steel frame and GWG panel inserts. Tackboards and whiteboards are located in each teaching area. Painted metal washroom stall partitions are located in each boy's & girl's washroom. The room number or room name is mounted on or above the interior doors. Metal storage shelving throughout the vestibules, custodial utility rooms and staff supply rooms. The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors.

The two stairs to the gym floor have a poured in place concrete assembly. The stairs to the gym area have a rubber floor finish. The handrails are constructed of steel with a paint finish.

Ceramic tile wall finish is located in the behind the urinals in the boy's washrooms. Acoustical wall panels are located in the upper walls of the gymnasium. All interior gypsum board and concrete block walls are painted. The de-mountable walls a vinyl wall finish. The washrooms, janitor closet, vestibules and south-east corridors have an epoxy floor finish. Minor hairline cracks from the concrete slab below the epoxy floor was evident. Painted/sealed concrete floors are located in the utility rooms. The majority of the classrooms, offices, staff room and gymnasium have the original VAT flooring. Refer to K4030.01 Asbestos* for details. VCT flooring is located throughout the main entrance vestibule, staff washrooms and in one classroom. The majority of the ceilings have a 610mm x 1220mm suspended acoustical tile assembly. The exposed steel structure in the gymnasium has a paint finish.

Overall, the interior finishes are in acceptable condition.

Recommendations:

- Provide fire rated doors and frames to storage rooms and janitor rooms - (6 doors)
- Provide power assist operator at the main south & south-west entrance
- Provide a unisex barrier free washroom.
- Repair exterior stucco on portable 319 - South Elevation
- Replace exterior stair handrails - Portable 238
- Hazardous Materials Abatement - Based on study

Mechanical Summary:

MECHAICAL SUMMARY (October 2010)

The building is heated by ten natural gas fired furnaces in the Mechanical Room. Heated forced air from the furnaces is delivered with different overhead supply air distribution duct systems. The furnace systems are mixed air system with a common return air fan. There is no air conditioning in the building.

Ventilation for the building is also provided by the ten furnaces. Fresh air is introduced through the fresh air duct and mixed with the return air in the building. The fresh air supplied to the building is balanced by the exhaust fans. Building HVAC controls are electronic. There is a Building Management and Control System (BMCS) providing HVAC system control and monitoring functions (Andover).

There are two sets of boy's and girl's washrooms and two unisex washrooms beside Staff Room in the building. Plumbing fixtures include floor mounted vitreous china tank type toilets (12), wall mounted vitreous china flush valve urinals (6), counter mounted vitreous china lavatories (7) and wall mounted vitreous china lavatories (4).

Fire protection for the building includes a standpipe system feeding standard fire hose cabinets, as well as wall mounted fire extinguishers located throughout the building.

Recommendation:

- Replace 2 non-refrigerated drinking fountains with stainless steel type driking fountains
- Replace 10 furances with new air handling untis (based on 1640 sq-m GFA)
- Install a backflow prevention device for the building domestic water supply (50 mm diameter)
- Install new steam type humidifier and water softener
- Replace the Building Management and Control System (BMCS)(based on 1640 sq-m GFA)

Overall, the building mechanical equipment and systems are in acceptable condition.

Electrical Summary:

St. Monica School is fed from a utility owned padmount transformer. The main switchboard is rated at 600A, 120/208V (electrical room). The mechanical loads within the building are typically fed from individual starters or manual starter switches.

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

The interior fluorescent lighting fixtures typically have T12 lamps and 120V magnetic ballasts. The majority of exit signs have been retrofitted with LED lamps. The emergency lighting is fed from emergency lighting battery units. The exterior lighting consists primarily of wall mounted H.P.S. wallpack fixtures or incandescent fixtures.

The fire alarm system is a conventional zoned system equipped with a Simplex 4002 fire alarm control panel. 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 and data systems. There is an intrusion detection system in the building. Clocks are typically battery or plug-in type.

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. Monica School are:

- The original branch circuit panels are aged and at capacity - replacement parts are not available.
- The original motor starter switches are aged - contacts will wear out.
- Exterior incandescent lighting is not energy efficient. Fixtures are in poor condition.
- Additional emergency lighting is required to meet code requirements.
- Exit signs are not connected to battery backup - some exit signs are in poor condition.
- Clocks are not synchronized - mix of plug-in and battery operated clocks.
- P.A. system is obsolete.

The following are recommendations for the electrical systems:

- Provide TVSS for main switchboard.
- Energy efficiency lighting upgrade for fluorescent and incandescent lighting fixtures.

Overall the electrical systems for St. Monica 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 a reinforced cast-in-place grade beam supported with a concrete pile assembly. A structural study was conducted by READ JONES CHRISTOFFERSEN LTD. in 1993 with several follow-up visits to monitor the structural movement until 1995. The study outlined that significant movement has occurred, specifically along the south elevation, however the study also indicated that the school is safe to occupy. For details of the RJC study, contact the Edmonton Catholic Separate School Board.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1973	0	APR-11

Event: **Conduct a intrusive soil & structural study of the foundation assembly**

Concern:

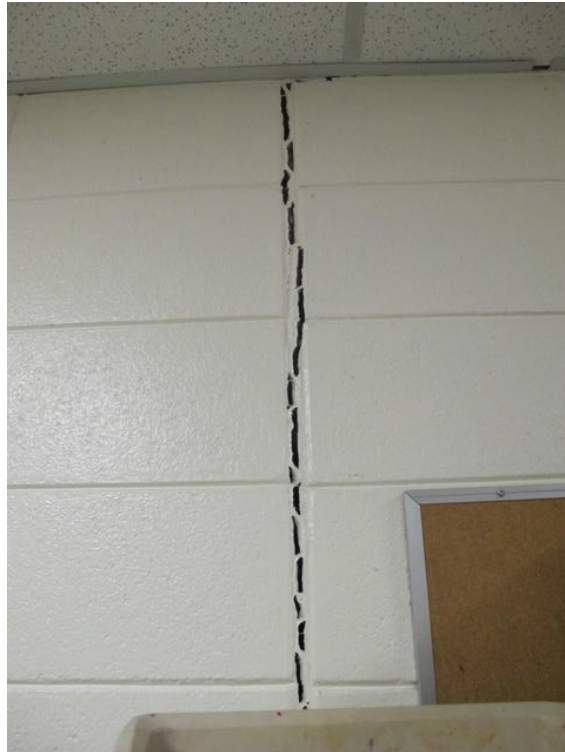
Excessive cracks were observed, primarily along the exterior south and west walls. The load-bearing concrete block walls are showing significant cracking, possible movement of the grade beams and concrete piles.

Recommendation:

Conduct an intrusive soil & structural investigation of the foundation assembly.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2011	\$20,000	High

Updated: APR-11



Excessive cracks along the inside face of the exterior south wall.

Event: **Repair as outlined in the soil & structural investigation**

Concern:

Identify all structural repairs and/or replacements required from the intrusive soil and structural investigation. Several components may be affected from the intrusive study.

Recommendation:

Repair as outlined in the intrusive soil & structural investigation of the foundation assembly. (The cost provided is an estimate to repair and/or replace significant components of the foundation assembly.)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$750,000	High

Updated: APR-11

A1030 Slab on Grade*

The building has a cast-in-place concrete slabs-on-grade with conventional steel reinforcement. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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

Structural exterior reinforced concrete load bearing masonry walls & non-load bearing interior block walls. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

B1010.09 Floor Construction Fireproofing*

Floor Construction Fire-proofing - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

B1010.10 Floor Construction Firestopping*

Floor Construction Fire-stopping - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

B1020.01 Roof Structural Frame*

The roof has a metal roof deck on OWSJ supported by load-bearing concrete block and steel columns and beams. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

B1020.06 Roof Construction Fireproofing*

Roof Construction Fire-proofing - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

S2 ENVELOPE

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

The exterior walls has a single wythe smooth faced concrete block in combination with a ribbed concrete block assembly. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Repair exterior masonry walls and mortar joints as required.

Concern:

Several cracked between the mortar joints was observed on the exterior south, west and east walls. See A1010 Standard Foundations for details.

Recommendation:

Repair exterior masonry walls and mortar joints as required.



Structural movement between mortar joints on exterior east wall

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$50,000	Medium

Updated: APR-11

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

The south west corner of the school and gymnasium have a exterior insulation and finish system (EIFS) over the original concrete block exterior wall. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Repair EIFS assembly once the structural review is complete (based on 1904sq-m gfa).

Concern:

Several cracks were observed on the exterior gymnasium walls. The movement of the foundation assembly may be the main contributor of the cracks on the exterior stucco.

Recommendation:

Repair EIFS assembly once the structural review is complete.



Cracks observed on the south elevation of the gymnasium wall.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$150,000	Medium

Updated: APR-11

B2010.01.09 Expansion Control: Exterior Wall Skin*

Expansion/control joints are located throughout the exterior masonry wall assembly. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	20	APR-11

Event: Sealant is located around all window, door and exterior cladding assemblies. (800LM)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$25,000	Unassigned

Updated: APR-11

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

The exterior concrete block walls and stucco have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	15	APR-11

Event: Repaint exterior concrete masonry and stucco walls (1000m2 of surface area)

Concern:

The moisture infiltration on the masonry wall is causing the paint finish to peel and deteriorate.

Recommendation:

Repaint exterior concrete masonry and stucco walls (1000m2 of surface area)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$40,000	Low

Updated: APR-11

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

The interior portion of the exterior walls comprises primarily of the concrete block wall assembly. See A1010 Standard Foundations for details. The interior face of the exterior walls has a concrete block wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

B2010.06 Exterior Louvers, Grilles, and Screens*

Exterior metal louvres are located on the exterior walls opposite the mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

B2010.09 Exterior Soffits*

The exterior main entrance soffit has a prefinished metal panel assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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

The windows are bronze anodized aluminum framed double glazed units with fixed & operable awning type units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	40	APR-11

Event: Replace aluminum windows (20 Window units)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$40,000	Unassigned

Updated: APR-11

B2030.01.02 Steel-Framed Storefronts: Doors**

The main entrance doors are painted steel doors with wire glass panels in painted steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: Replace main entrance door, frames, window & hardware (2 doors)

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

Updated: APR-11

B2030.02 Exterior Utility Doors - 1973 Section**

The utility doors are painted steel doors in a painted steel frame assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	40	APR-11

Event: Replace exterior doors, frame & hardware - 6 doors

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

Updated: APR-11

B3010.01 Deck Vapor Retarder and Insulation*

Deck Vapor Retarder and Insulation - Not Visible

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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

The roof has a conventional 4ply-built-up bituminous roof assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	25	APR-11

Event: Replace Built-up Bituminous Roofing - Area - 1620m2

Concern:

The roof has several blisters and evidence of excessive ponding.

Recommendation:

Replace Built-up Bituminous Roofing - Area - 1620m2

Consequences of Deferral:

Major water leakage is imminent.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$265,000	Medium

Updated: APR-11



Several blisters and evidence of ponding throughout.

B3010.08.02 Metal Gutters and Downspouts**

Metal gutters and down-spouts are located on the upper roof section and discharge on the lower roofs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: Replace Metal Gutters and Downspouts (200LM)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$7,500	Unassigned

Updated: APR-11

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

No roof access other than ladder.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Provide roof access hatch and internal ship's ladder.

Concern:

No roof access is provided.

Recommendation:

Provide roof access hatch and internal ship's ladder.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2011	\$5,000	Low

Updated: APR-11

S3 INTERIOR**C1010.01 Interior Fixed Partitions***

Concrete block walls are located throughout the school. Isolated cracks on the interior concrete block walls was observed along the south section of the building, specifically in the staff room and general offices. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C1010.02 Interior Demountable Partitions*

Several de-mountable gypsum board with metal framing partitions have been installed in the original open concept school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C1010.05 Interior Windows*

Fixed interior glazed windows with GWG are located in the general office area and classroom.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C1010.07 Interior Partition Firestopping*

Where visible, it appears that piping and conduit penetrations of fire separations have been sealed with fire rated materials.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C1020.01 Interior Swinging Doors (& Hardware)*

The interior swing doors generally consist of painted solid core wood doors in painted wood and/or metal frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C1020.03 Interior Fire Doors*

The majority of the interior doors in the utility rooms and corridors are painted hollow metal doors in a painted steel frame and GWG panel inserts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

Event: Provide fire rated doors and frames to storage rooms and janitor rooms - (6 doors)

Concern:

The storage rooms and janitor rooms doors are not identify as a fire rated door and frame assembly.

Recommendation:

Provide fire rated doors and frames to storage rooms and janitor rooms - (6 doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2011	\$18,000	Low

Updated: APR-11

C1030.01 Visual Display Boards**

Tackboards and whiteboards are located in each teaching area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	20	APR-11

Event: Replace Visual Display Boards - (Based on the 12 teaching areas)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$12,000	Unassigned

Updated: APR-11

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

Painted metal washroom stall partitions are located in each boy's & girl's washroom.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: Replace all washroom toilet partitions (12 stalls)

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

Updated: APR-11

C1030.08 Interior Identifying Devices*

The room number or room name is mounted on or above the interior doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C1030.12 Storage Shelving*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C2010 Stair Construction*

The two stairs to the gym floor have a poured in place concrete assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C2020.05 Resilient Stair Finishes**

The stairs to the gym area have a rubber floor finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	20	APR-11

Event: Replace rubber finish on the two stairwells

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

Updated: APR-11

C2020.08 Stair Railings and Balustrades*

The handrails are constructed of steel with a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C3010.06 Tile Wall Finishes**

Ceramic tile wall finish is located in the behind the urinals in the boy's washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	40	APR-11

Event: Replace ceramic tile in boy's washrooms (Area -25 m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$2,500	Unassigned

Updated: APR-11

C3010.09 Acoustical Wall Treatment**

Acoustical wall panels are located in the upper walls of the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	20	APR-11

Event: Replace acoustic panels in gymnasium -24 panels

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$24,000	Unassigned

Updated: APR-11

C3010.11 Interior Wall Painting*

All interior gypsum board and concrete block walls are painted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2008	0	APR-11

C3010.12 Wall Coverings*

The de-mountable walls a vinyl wall finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C3020.01.01 Epoxy Concrete Floor Finishes*

The washrooms, janitor closet, vestibules and south-east corridors have an epoxy floor finish. Minor hairline cracks from the concrete slab below the epoxy floor was evident. See A1010 Standard Foundations for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C3020.01.02 Paint Concrete Floor Finishes*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

C3020.07 Resilient Flooring - VAT**

The majority of the classrooms, offices, staff room and gymnasium have the original VAT flooring. Refer to K4030.01 Asbestos* for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	20	APR-11

Event: Replace original VAT flooring (Area - 1300m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$130,000	Unassigned

Updated: APR-11

C3020.07 Resilient Flooring - VCT**

VCT flooring is located throughout the main entrance vestibule, staff washrooms and in one classroom.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	20	APR-11

Event: Replace VCT flooring - (Area - 500m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2028	\$30,000	Unassigned

Updated: APR-11

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

The majority of the ceilings have a 610mm x 1220mm suspended acoustical tile assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	25	APR-11

Event: Replace acoustical tile ceiling - (Area - 1500m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$130,000	Unassigned

Updated: APR-11

C3030.07 Interior Ceiling Painting*

The exposed steel structure in the gymnasium has a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

S4 MECHANICAL**D2010.04 Sinks****

There are 5 sinks in the building including one general purpose fiberglass type sink located in Classroom 105 and four general purpose stainless steel single bowl sinks in Classroom 101, Work Storage, AV Storage and Staff Room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: Replace 4 single bowl stainless steel sinks

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$6,000	Unassigned

Updated: APR-11

D2010.08 Drinking Fountains/Coolers**

There are two non-refrigerated fiberglass type drinking fountains in the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	35	APR-11

Event: Replace 2 non-refrigerated drinking fountains with stainless steel type drinking fountains**Concern:**

One of the fiberglass cover of the drinking fountain is cracked. Although the crack has been patched, further damage may occur. The durability of the unit is not suitable for this application.

Recommendation:

Replace the existing drinking fountains with stainless steel type drinking fountains.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$7,000	Low

Updated: APR-11



Drinking fountain with crack

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

There are two sets of boy's and girl's washrooms and two unisex washrooms beside Staff Room in the building. Plumbing fixtures include floor mounted vitreous china tank type toilets (12), wall mounted vitreous china flush valve urinals (6), counter mounted vitreous china lavatories (2) with hand operated faucets, counter mounted vitreous china lavatories (5) with automatic faucets and wall mounted vitreous china lavatories (4).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	35	APR-11

Event: Replace the washroom plumbing fixtures including 12 toilets, 6 urinals and 11 lavatories

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$50,000	Unassigned

Updated: APR-11

D2020.01.01 Pipes and Tubes: Domestic Water*

The domestic water supply to the building enters the Water Meter Room at the southeast corner of the building (50 mm diameter supply line). The water supply is metered (32mm diameter water meter). Domestic water piping is generally copper with brass valves, and fiberglass insulation is used to prevent heat loss and condensation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D2020.01.02 Valves: Domestic Water**

Domestic water system valves include system isolation valves and fixture isolation valves. The domestic water system valves are generally brass.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	40	APR-11

Event: Replace the domestic water distribution system isolation valves (based on floor area of 1640 square meter)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$22,000	Unassigned

Updated: APR-11

D2020.01.03 Piping Specialties (Backflow Preventors)**

There is no backflow prevention device on the domestic water supply to the building. There is a backflow prevention device for the standpipe system water supply (50 mm diameter).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	2000	20	APR-11

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

Concern:

Potential contamination of the municipal water supply caused by backflow from the building.

Recommendation:

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



Domestic water main without backflow preventor

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2012	\$7,500	Low

Updated: APR-11

Event: Replace the backflow prevention device for the standpipe system (50 mm diameter)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$7,500	Unassigned

Updated: APR-11

D2020.02.02 Plumbing Pumps: Domestic Water**

There is a domestic hot water system circulation pump which maintains the domestic hot water loop at temperature. This pump is located in the Mechanical room adjacent to the domestic hot water heater.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	20	APR-11

Event: Replace 1 domestic hot water circulation pump

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$3,000	Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters**

One natural gas fired domestic hot water heater located in the mechanical room provide domestic hot water for the building sinks and lavatories. The domestic hot water heater is manufactured by Johnwood (2004) and have an input heating capacity of 40,000 Btu/h (11.7 kW) and a volume of 50 US gallons (189 L).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	20	APR-11

Event: Replace 1 domestic hot water heater

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$7,000	Unassigned

Updated: APR-11

D2020.03 Water Supply Insulation: Domestic*

Part of the domestic cold and hot water pipes in Boiler Room are not insulated. In general, where visible, most of the domestic water piping is insulated with fiberglass insulation to prevent heat loss and condensation. The insulation is protected with a painted canvas outer cover.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D2030.01 Waste and Vent Piping*

Visible waste and vent piping is generally copper in smaller diameters and cast iron in larger diameters. The below grade sanitary sewer piping is probably cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D2030.02.04 Floor Drains*

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

D2040.01 Rain Water Drainage Piping Systems*

Standard roof drains are used to provide storm water drainage of the flat roof areas. The storm water drainage piping is generally cast iron.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D2040.02.04 Roof Drains*

Standard roof drains are used to provide storm water drainage of the flat roof areas (5 total). The roof drains are 150 mm diameter and are equipped with metal strainers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D3010.02 Gas Supply Systems*

The natural gas supply is underground to the building and the gas meter and pressure reducing station are located in the water meter room at the southeast corner of the building. Natural gas is used for the furnaces and domestic hot water heaters. The natural gas piping is steel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D3020.03.01 Furnaces**

There are ten natural gas fired furnaces which are located in Mechanical Room to provide space heating and ventilation in the building. They are all mixed air system and manufactured by Flame-master. The heated forced air from the furnaces is delivered with different overhead supply air distribution systems to the building. A single common return air fan (F-4) which mixes the fresh air with the return air from the building and delivers to the furnaces.

- Furnace #1: Model EM-170-HB with an input capacity of 153,000 Btu/h (44.8 kW)
- Furnace #2: Model EM-110-HB with an input capacity of 99,000 Btu/h (29.0 kW)
- Furnace #3: Model EM-90-HB with an input capacity of 81,000 Btu/h (23.7 kW)
- Furnace #4: Model EM-80-HB with an input capacity of 72,000 Btu/h (21.1 kW)
- Furnace #5: Model EM-80-HB with an input capacity of 72,000 Btu/h (21.1 kW)
- Furnace #6: Model EM-110-HB with an input capacity of 99,000 Btu/h (29.0 kW)
- Furnace #7: Model EM-80-HB with an input capacity of 72,000 Btu/h (21.1 kW)
- Furnace #8: Model EM-170-HB with an input capacity of 153,000 Btu/h (44.8 kW)
- Furnace #9: Model EM-170-HB with an input capacity of 153,000 Btu/h (44.8 kW)
- Furnace #10: Model EM-125-HB with an input capacity of 112,500 Btu/h (32.9 kW)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	25	APR-11

Event: Replace 10 furnaces with new air handling units (based on 1640 sq-m GFA)

Concern:

Furnaces are aged. Back draft of flue gases occurs. Furnace is not suitable for school applications because of the high usage, durability, high fresh air ratio, comfort level and control.

Recommendation:

Replace ten natural gas furnaces with new air handling units.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$300,000	Medium

Updated: APR-11



Typical Flame-Master furnaces in Mechanical Room

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

The combustion gases from the ten gas fired furnaces discharge through the roof of the building in a common stack. The combustion gases from the domestic hot water heater discharge through the same stack.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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

A single common return air fan (F-4) which mixes the fresh air with the return air from the building and delivers to the furnaces. The return air fan is manufactured by Aladdin Heating Corporation (Type E, Size 1-18) with air quantity of 9870 CFM at 0.20 inch water gauge static pressure.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

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 ten furnace systems. The duct systems include associated components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc. The air distribution systems are constant volume type systems.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Air outlets and inlets include supply air diffusers and return air grilles. Supply air diffusers include rectangular ceiling, linear floor grilles and wall mounted 2-way diffusers. Return air grilles are wall mounted fixed blade type and eggcrate.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D3040.04.01 Fans: Exhaust**

There are 2 roof top sanitary exhaust fans for the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: Replace 2 roof mounted exhaust fans

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$12,000	Unassigned

Updated: APR-11

D3040.04.03 Ducts: Exhaust*

Exhaust duct systems include the collection ducts associated with the building exhaust fans (the two rooftop exhaust fans). Most of the exhaust ducts are constructed of zinc coated steel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust air inlets include the inlet grilles associated with the exhaust system collection ducts. Most of the exhaust air inlets are framed wall mounted grilles. Exhaust air outlets include the exhaust fan discharge vents, louvres and goosenecks, where applicable (does not apply to the roof mounted exhaust fans).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D3050.03 Humidifiers**

There is one spray type humidifier installed at main return air duct in Mechanical Room to provide humidification to the building. The humidifier is manufactured by Lennox Industries, Humidispray series, model WF3-15T.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1973	25	APR-11

Event: Install new steam type humidifier and water softener

Concern:

The humidifier is out of order and has been decommissioned. The capacity of the humidifier is not adequate to provide humidity in this building.

Recommendation:

Replace existing humidifier with steam type humidifier of adequate size. Water softener shall be installed to prolong useful life of the humidifier.



Lennox humidifier

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$65,000	Low

Updated: APR-11

D3060.02.01 Electric and Electronic Controls**

The building HVAC system controls and actuators are electric and electronic type. Andover AC256M and AC256S Plus Building Management and Control System (BMCW) which provides some control and monitoring functions. The electric and electronic controls include thermostats, in-duct and room temperature sensors, actuators and contactors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: **Replace the HVAC system Electric & Electronic controls (based on floor area of 1640 sq-m GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$60,000	Unassigned

Updated: APR-11

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

The building is equipped with a central Building Management and Control System (Andover Controls model AC256M and AC256S Plus), which provides control and monitoring functions for the main HVAC equipment, as well as for the building space temperatures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	20	APR-11

Event: **Replace the Building Management and Control System (BMCS)(based on 1640 sq-m GFA)**

Concern:

The Building Management and Control System (BMCS) is obsolete and replacement parts for the Andover system are becoming difficult to obtain.

Recommendation:

Replace the Building Management and Control System (BMCS).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2010	\$50,000	High

Updated: APR-11



Andover main control panel in Mechanical Room

D4020 Standpipes*

The building is equipped with a standpipe system feeding standard fire hose cabinets located on both floors of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers are located throughout the building in the fire hose cabinets and on wall mount brackets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

S5 ELECTRICAL

D5010.01 Main Electrical Transformers**

Pad mounted utility-owned transformer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	40	APR-11

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

The incoming hydro service to St. Monica School is a 120/208V, 3-phase, 4-wire service from an Epcor padmounted transformer, located west of the school. The Epcor meter is located in the main electrical room. The main electrical switchboard is a Westinghouse, 2-section switchboard rated at 600A, 120/208V, 3-phase, 4-wire. The switchboard has a 600A main breaker and a distribution section with moulded case breakers feeding 5 panels and the kiln.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	40	APR-11

Event: Provide TVSS for Main Switchboard

Concern:

No surge protection.

Recommendation:

Provide a TVSS unit.

Consequences of Deferral:

No protection from power surges.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2011	\$5,000	Low

Updated: APR-11

Event: Replace 600A, 120/208V Main Switchboard

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$20,000	Unassigned

Updated: APR-11

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

There are four original Westinghouse branch circuit panels located in the main school. The panels are 120/208V, 3 phase, 4 wire panels with copper bussing and bolt-on breakers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	30	APR-11

Event: Replace 120/208V Branch Circuit Panels (Total of 4 panels)

Concern:

The 120/208V Westinghouse panels are well past their life expectancy and are at capacity. Over the life of the panel, breaker contacts become worn and the breakers will no longer operate correctly and may trip unnecessarily. Older panels do not readily accept newer style breakers.

Recommendation:

Replace existing panels with new branch circuit panels c/w sufficient circuits to accommodate all building loads.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$20,000	Medium

Updated: APR-11



Westinghouse 120/208V branch circuit panel (1973).

D5010.07.02 Motor Starters and Accessories**

There are Westinghouse wall mounted magnetic motor starters within the mechanical room. Manual, motor rated starter switches have been provided for fractional horsepower motor loads. Starters are located adjacent to or in the vicinity of the equipment being controlled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	30	APR-11

Event: Replace Motor Starters (Based on 7 starters and 3 manual starter switches)

Concern:

The original motor starters in the building are aged. Replacement parts are no longer readily available.

Recommendation:

Replace motor starters and manual motor starter switches.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$17,000	Medium

Updated: APR-11



Westinghouse motor starters in mechanical room.

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 connections to mechanical and miscellaneous equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

Event: Provide Additional Receptacles (Based on 60 receptacles)

Concern:

Insufficient number of circuits and receptacles in classrooms.

Recommendation:

Add circuits and receptacles in classrooms.

Consequences of Deferral:

Extension cords will continue to be used - tripping hazard.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Program Functional Upgrade	2011	\$15,000	Low

Updated: APR-11

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

The lighting within the school is typically controlled by 120V line voltage switches or low voltage switches. Low voltage relay panels are located adjacent to the branch circuit panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent fixtures have been installed in some janitor rooms and in single washrooms and the staff room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

Event: Upgrade Interior Incandescent Lighting (Based on 10 fixtures)

Concern:

Incandescent lighting fixtures are not energy efficient.

Recommendation:

Replace incandescent light fixtures with new energy efficient lighting fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2012	\$3,000	Low

Updated: APR-11

D5020.02.02.02 Interior Fluorescent Fixtures**

Surface mounted wrap-around fluorescent fixtures with T12 lamps and magnetic ballasts have been provided in classroom 108 and selected auxiliary rooms. T12 fluorescent fixtures with wire guards have been provided in the gymnasium. Four lamp fixtures have been provided in some areas. The typical classroom lighting fixture is a recessed 2 ft. x 4 ft. fluorescent fixture with 4-T12 lamps. Recessed 2 ft. x 2 ft. T12 fluorescent fixtures have been provided in corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: Energy Efficiency Upgrade for T12 Fluorescent Lighting (1649 sq. m. gfa)

Concern:

The T12 fluorescent lighting fixtures are not energy efficient. T12 lamps may be phased out by the manufacturers.

Recommendation:

Retrofit T12 fluorescent lighting fixtures. Provide new T8 lamps and electronic ballasts. Incorporate lamp reduction where possible.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$83,000	Medium

Updated: APR-11

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting is provided from emergency lighting battery packs and remote emergency lighting heads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	20	APR-11

Event: Replace Emergency Lighting Units (Based on 10 units)

Concern:

The emergency lighting battery units are aged. Units may not be able to provide emergency lighting for duration required by code.

Recommendation:

Replace ceiling mounted emergency lighting units with wall mounted emergency lighting battery packs.



Ceiling mounted emergency lighting unit.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$11,000	High

Updated: APR-11

Event: Upgrade Emergency Lighting (Based on 5 units)

Concern:

Additional emergency lighting battery packs are required to meet code requirements.

Recommendation:

Provide new emergency lighting battery units to meet current code requirements.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2011	\$5,500	High

Updated: APR-11

D5020.02.03.03 Exit Signs*

The exit signs are typically installed at building exits and along egress routes. The exit signs typically have been retrofitted with LED lamps. Exit signs were not connected to battery units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Replace Exit Signs (Based on 14 exit signs)

Concern:

Existing exit signs are in poor condition. Exit signs are not connected to battery backup units.

Recommendation:

Replace existing exit signs with new LED exit signs (to current code requirements) complete with battery backup.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2011	\$7,000	High

Updated: APR-11



Exit sign in corridor.

D5020.03.01.01 Exterior Incandescent Fixtures*

Surface mounted incandescent exterior lighting fixtures with acrylic lenses have been provided at the main entrance and the S.W. entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Replace Exterior Incandescent Lighting (3 new fixtures)

Concern:

Incandescent light fixtures at main and S.W. entrances are in poor shape. Incandescent lighting fixtures are not energy efficient.

Recommendation:

Replace exterior incandescent lighting fixtures with new HPS light fixtures. Repair soffit.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$3,000	Low

Updated: APR-11



Incandescent lighting fixtures in soffit.

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

High Pressure Sodium surface mounted fixtures have been provided on the building exterior.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	0	APR-11

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

The exterior lighting is photocell controlled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	0	APR-11

D5030.01 Detection and Fire Alarm**

The fire alarm system is a single stage, conventional, zoned system with a Simplex 4002, 12-zone panel (4 spare zones). The fire alarm control panel is located at the main entrance. The audible devices within the school are bells. The system is monitored by an external monitoring agency and is tested on an annual basis.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	25	APR-11

Event: Replace Fire Alarm System (1904 sq. m. gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$50,000	Unassigned

Updated: APR-11

D5030.02.02 Intrusion Detection**

The security system is a DSC Maxsys system that is externally monitored. The security system panel is located in the janitors office. A security system keypad has been installed at the main entrance. PIR motion detectors have been provided throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	25	APR-11

Event: Replace Intrusion Detection System (Panel, 22 motion detectors, keypad)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$18,000	Unassigned

Updated: APR-11

D5030.03 Clock and Program Systems*

Battery and 120V plug-in clocks have been installed in the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Replace Clock System (Receiver and 20 clocks)

Concern:

Clocks within the school are not synchronized. Inconsistent clock types.

Recommendation:

Provide new GPS receiver/transmitter and wireless clocks throughout.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$13,000	Low

Updated: APR-11



Classroom clock.

D5030.04.01 Telephone Systems*

The telephone system is a Nitsuko DX2NA-32 system. Telephone handsets are located in the general office and selected rooms. The main telephone equipment is located in the storage room across from the general office. A telephone backboard and BIX block have been provided for termination of telephone cabling.

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

D5030.04.05 Local Area Network Systems*

A hardwired network system has been provided throughout the school. Rack mounted server equipment is located in the A.V. storage room. Data cabling is typically Cat. 5E or better.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	APR-11

D5030.05 Public Address and Music Systems**

P.A. system is a Bogen MCP-35A system with 25 zone selector switches. The main console is located in the main office. A hand held microphone has been provided for paging purposes. The main console has an integral AM/FM radio and cassette deck. Speakers are typically surface mounted units or recessed round speakers. Call switches have been provided in the classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	20	APR-11

Event: Replace P.A. System (Based on head-end equipment and 13 classrooms)

Concern:

The Bogen MCP-35A P.A. System is obsolete. Replacement parts are not readily available.

Recommendation:

Replace P.A. system with new system to school board standards.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$24,000	Medium

Updated: APR-11



Bogen MCP-35A P.A. System in general office.

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**E1090.04 Residential Equipment***

The staff room is equipped with a refrigerators, stove, dishwasher, small appliances and microwaves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Fixed basketball hoops are located in the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

E2010.02 Fixed Casework**

Most classrooms are equipped with custom wood open faced and/or painted cabinet units. Glass display cabinets are located in the corridors & entrance area. The staff room has an upper and lower cabinet wood units with a paint finish. The majority of the washrooms have plastic laminate counter-tops on the vanities. Painted wood cubbies are located in the corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	35	APR-11

**Event: Replace all original millwork throughout the school
(Based on 1904 SM of school area)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$100,000	Unassigned

Updated: APR-11

E2010.03.01 Blinds**

The windows have integral blinds within the assembly. (Replace window blinds during the window replacement.)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	30	APR-11

Event: Replace window blinds (20 windows)

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

Updated: APR-11

E2020.02.03 Furniture*

All classroom and offices areas are equipped with movable desks and chairs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

F1010.02.04 Portable and Mobile Buildings - Portable 097**

Portable 097- Age 1977- Area 96.4 m2 (portable 097 shares an enclosed common corridor & link with portable 238).

Structure:

- Wood frame construction with concrete 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 finish with wood framing construction.
- Windows - The exterior windows (2) are aluminum frame fixed and operable awning type windows.
- Roof Covering - The roof has an BUR roof assembly with scuppers & downspouts
- Exterior Door - Fire-rated painted wood door & frame assembly
- Exterior Stairs - Pressure treated wood stairs & landing with wood handrails

Interior:

- Flooring - VCT (includes coat room & corridor)
- Ceiling - 2'x4' Suspended Acoustical tile ceiling
- Walls - Vinyl covering and painted gypsum board walls with wood wall construction.
- Interior Doors - Painted wood door & frame assembly
- Equipment - Whiteboards, tackboards, open wood shelving, wall mounted coat hooks & storage shelves.

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

Mechanical Summary

The portable is heated by a natural gas fired furnace manufactured by Keeprite. Heated forced air from the furnace is delivered with an overhead supply air distribution duct system. The furnace is controlled by a digital thermostat and is located in a furnace room at northwest corner of the portable. The furnace has an exterior combustion air supply, a flue exhaust pipe, a fresh air supply and exhaust air for the portable.

The common corridor for portables 097 and 238 is heated by a natural gas unit heater manufactured by Reznor.

Storm drainage from the portable roof is collected by a roof drain and rain water leader and discharged on grade. There are two roof drains in the common corridor for portables 097 and 238 collect storm water and discharge the storm water on grade.

Fire protection is provided by a fire extinguisher in the common corridor which is accessible to both portables 097 and 238.

Mechanical elements within the portable were found to be in acceptable condition.

Electrical Summary

Portable #097 has been provided with a Stablok 120/240V panel (connected to the school electrical distribution system). The lighting fixture used in the portable classroom is a surface mounted T12 wrap around fluorescent fixture. A P.A. speaker, a PIR motion detector, telephone and clock have been provided in the portable classroom. The portable classroom is connected to the school fire alarm system.

The electrical elements within portable classroom 097 were found to be in acceptable condition.

A Square D 120/240V panel (connected to the school electrical distribution system) has been provided in the link to feed the panels in each of the portables. The lighting fixture used in the link and corridor is a recessed 1 ft. x 4 ft. T8 fluorescent fixture. A P.A. speaker and PIR motion detector have been provided in the link and corridor. The link and corridor are connected to the school fire alarm system. Emergency and exit lighting has been provided.

The electrical elements within link and corridor were found to be in good condition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	30	APR-11

Event: Replace - Building Envelope

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$35,000	Unassigned

Updated: APR-11

Event: Replace - Electrical

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

Updated: APR-11

Event: Replace - Interior

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$15,000	Unassigned

Updated: APR-11

Event: Replace - Mechanical

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$15,000	Unassigned

Updated: APR-11

F1010.02.04 Portable and Mobile Buildings - Portable 238**

Portable 238- Age 1990- Area 86m2 (portable 238 shares an enclosed common corridor & link with portable 097).

Structure:

- Wood frame construction with concrete 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 finish with wood framing construction.
- Windows - The exterior windows (2) are aluminum frame fixed and operable awning type windows. The windows have protective metal screens.
- Roof Covering - The roof has an SBS roof assembly with scuppers & downspouts
- Exterior Door - Fire-rated painted steel door & frame assembly
- Exterior Stairs - Painted wood stairs & landing with wood handrails

Interior:

- Flooring - VCT (includes coat room & corridor)
- Ceiling - 2'x4' Suspended Acoustical tile ceiling
- Walls - Vinyl covering and painted gypsum board walls with wood wall construction.
- Interior Doors - Painted wood door & frame assembly
- Equipment - Whiteboards, tackboards, open wood shelving, wall mounted coat hooks & storage shelves.

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

Mechanical Summary

The portable is heated by a natural gas fired air handling unit manufactured by Palm Aire located at the southeast corner of the portable. The air handler supplies heated forced air with a supply air distribution duct system runs along south wall of portable and is controlled by a digital thermostat. The air handler has an exterior combustion air supply, a fresh air supply and exhaust air for the portable.

Storm drainage from the portable roof is collected by a scupper drain and down spout and discharged on grade.

Fire protection is provided by a fire extinguisher in the common corridor which is accessible to both portables 097 and 238.

Mechanical elements within the portable were found to be in acceptable condition.

Electrical Summary

Portable #238 has been provided with a Nova 120/240V panel (connected to the school electrical distribution system). The lighting fixture used in the portable classroom is a surface mounted T12 wrap around fluorescent fixture. A P.A. speaker, a PIR motion detector, telephone and clock have been provided in the portable classroom. The portable classroom is connected to the school fire alarm system.

The electrical elements within portable classroom 298 were found to be in acceptable condition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	30	APR-11

Event: Replace - Building Envelope

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$35,000	Unassigned

Updated: APR-11

Event: Replace - Electrical

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

Updated: APR-11

Event: Replace - Interior

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$15,000	Unassigned

Updated: APR-11

Event: Replace - Mechanical

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$15,000	Unassigned

Updated: APR-11

Event: Replace exterior stair handrails - Portable 238

Concern:

The exterior wood handrails are rotted and deteriorated.

Recommendation:

Replace exterior stair handrails - Portable 238

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Preventative Maintenance	2011	\$1,500	Low

Updated: APR-11



Exterior stair handrails - Portable 238

F1010.02.04 Portable and Mobile Buildings - Portable 319**

Portable Unit 319 - Built in 2009 - (includes a common kitchen, exterior stair and exterior ramp with Portable #320) The unit includes 1 kitchen & 2 washrooms including one barrier free. The portable is used as a daycare facility.

Structure:

- Wood frame construction with concrete 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 stucco panel finish with wood/metal framing construction.
- Windows - The exterior windows (5 units) are aluminum frame fixed and operable awning type windows. The windows have security screens.
- Roof Covering - The roof has a single-ply EPDM roof assembly. Roof downspouts drain to grade.
- Exterior Stairs - Stained wood framed stairs are located at the link entrance.
- Exterior Ramp - Stained wood framed ramp with handrails are located at the link entrance.
- Exterior Doors - The link has 2 painted steel doors. The classroom has 1 exterior exit door.

Interior:

- Flooring - Sheet Vinyl flooring in classroom & corridor & washroom.
- 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.
- Common Kitchen - Refrigerator, stove, dishwasher & microware.

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

Mechanical Summary

The portable is heated by a natural gas fired variable speed furnace manufactured by Payne. Heated forced air from the furnace is delivered with an overhead supply air distribution duct system. The furnace is controlled by a digital thermostat and is located in a furnace room at southeast corner of the portable. The furnace has combustion air intake pipe, flue exhaust pipe, a heat recovery ventilator, a fresh air supply and exhaust air for the portable. A humidifier manufactured by Herrmidifier maintains humidity level within the portable. A ceiling mounted exhaust fan in washroom discharge sanitary air through gooseneck on roof.

There is one unisex washroom which includes three counter mounted vitreous china lavatories and two floor mounted flush valve water closets. A kitchen which is shared with portable 320 includes one stainless steel double bowl kitchen sink and one stainless steel single bowl kitchen sink. Sanitary drainage is collected into a sanitary pump pit located in the common corridor of portables 097 and 238. The sanitary sewage is pumped to the sanitary main in the building.

Domestic cold water is fed from the school building main. One 108 Litre electric domestic hot water heater manufactured by GSW with 1.5kW heating capacity provides domestic hot water to the sinks and lavatories.

Storm drainage from the portable roof is collected by two scupper drains and down spouts and discharged on grade.

Fire protection is provided by a fire extinguisher in the portable which is shared with portable 320.

Mechanical elements within the portable were found to be in good condition.

Electrical Summary

Portable #319 has been provided with a Cutler Hammer, 125A, 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 recessed round P.A. speaker, a PIR motion detector, telephone and clock have been provided in the portable classroom. The portable classroom is connected to the school fire alarm system. Emergency and exit lighting has been provided. The electrical elements within portable classroom 319 were found to be in good condition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	30	APR-11

Event: Repair exterior stucco on portable 319 - South Elevation

Concern:

The exterior panel is damaged along the base of the south elevation.

Recommendation:

Repair exterior stucco - South Elevation



Damaged exterior stucco panel - South Elevation

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$2,500	Low

Updated: APR-11

Event: Replace - Building Envelope

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$40,000	Unassigned

Updated: APR-11

Event: Replace - Electrical

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$15,000	Unassigned

Updated: APR-11

Event: Replace - Interior

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$20,000	Unassigned

Updated: APR-11

Event: Replace - Mechanical

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$20,000	Unassigned

Updated: APR-11

F1010.02.04 Portable and Mobile Buildings - Portable 320**

Portable Unit 320 - Built in 2009 - (includes a common kitchen, exterior stair and exterior ramp with Portable #319) The unit includes 2 washrooms including one barrier free. The portable is used as a daycare facility.

Structure:

- Wood frame construction with concrete 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 stucco panel finish with wood/metal framing construction.
- Windows - The exterior windows (3 units) are aluminum frame fixed and operable awning type windows. The windows have security screens.
- Roof Covering - The roof has a single-ply EPDM roof assembly. Roof downspouts drain to grade.
- Exterior Stairs - Stained wood framed stairs are located at the link entrance.
- Exterior Ramp - Stained wood framed ramp with handrails are located at the link entrance.
- Exterior Doors - The link has 2 painted steel doors. The classroom has 1 exterior exit door.

Interior:

- Flooring - Sheet Vinyl flooring in classroom & corridor & washroom.
- 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.
- Common Kitchen - Refrigerator, stove, dishwasher & microware.

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

Mechanical Summary

The portable is heated by a natural gas fired variable speed furnace manufactured by Payne. Heated forced air from the furnace is delivered with an overhead supply air distribution duct system. The furnace is controlled by a digital thermostat and is located in a furnace room at northeast corner of the portable. The furnace has combustion air intake pipe, flue exhaust pipe, a heat recovery ventilator, a fresh air supply and exhaust air for the portable. A humidifier manufactured by Herrmidifier maintains humidity level within the portable. A ceiling mounted exhaust fan in washroom discharges sanitary air through goose-neck on roof.

There is one unisex washroom which includes three counter mounted vitreous china lavatories and two floor mounted flush valve water closets. Sanitary drainage is collected into a sanitary pump pit located in the common corridor of portables 097 and 238. The sanitary sewage is pumped to the sanitary main in the building.

Domestic cold water is fed from the same water main of main building. One 23 Litre electric domestic hot water heater manufactured by GSW with 1.5kW heating capacity provides domestic hot water to the sinks and lavatories.

Storm drainage from the portable roof is collected by two scupper drains. One scupper drain connects to a down spout and storm drainage is discharged on grade. Storm water from another scupper drain is drained to the flat roof of common corridor for portables 097 and 238.

Fire protection is provided by a fire extinguisher in the portable which is shared with portable 319.

The mechanical elements within portable classroom 320 were found to be in good condition.

Electrical Summary

Portable #320 has been provided with a Cutler Hammer, 125A, 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 recessed round P.A. speaker, a PIR motion detector, telephone and clock have been provided in the portable classroom. The portable classroom is connected to the school fire alarm system. Emergency and exit lighting has been provided. The electrical elements within portable classroom 320 were found to be in good condition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	30	APR-11

Event: Replace - Building Envelope

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$40,000	Unassigned

Updated: APR-11

Event: Replace - Electrical

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$15,000	Unassigned

Updated: APR-11

Event: Replace - Interior

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$20,000	Unassigned

Updated: APR-11

Event: Replace - Mechanical

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$20,000	Unassigned

Updated: APR-11

S8 FUNCTIONAL ASSESSMENT**K4010.01 Barrier Free Route: Parking to Entrance***

A designated barrier free parking space with signage is provided in the main parking lot.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

K4010.02 Barrier Free Entrances*

Power assist doors are not provided throughout the entire school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Provide power assist operator at the main south & south-west entrance**Concern:**

The exterior doors are currently not power assisted. Internal access to the gym is not provided.

Recommendation:

Provide power assist operator at the main south & south-west entrance

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2011	\$10,000	Medium

Updated: APR-11

K4010.03 Barrier Free Interior Circulation*

The majority of school is accessible, except to the gymnasium. There is no clearance to provide an internal ramp of stair lift, therefore direct access should be provide directly from the exterior door at the south-west entrance for the gym. See K4010.02 Barrier Free Entrances for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

K4010.04 Barrier Free Washrooms*

The existing girls & boys washrooms are not barrier free. The washrooms cannot be modified accommodate a barrier free layout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Provide a unisex barrier free washroom.**Concern:**

Existing washrooms will not accommodate barrier-free user requirements.

Recommendation:

Provide a unisex barrier-free washroom

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2011	\$30,000	Medium

Updated: APR-11

K4030.01 Asbestos*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated March,2008 for details. Report indicates asbestos presence in ceiling tiles, pipe fitting insulation, drywall joint compound, floor tiles, and pipe-run insulation.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1973	0	APR-11

Event: Hazardous Materials Abatement - Based on study**Concern:**

For details refer to HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated March, 2008.

Recommendation:

Removal of Hazardous Materials Abatement - Based on study

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Hazardous Materials Abatement	2011	\$28,000	Medium

Updated: APR-11

K4030.04 Mould*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated March 2008. No mould issues know or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

K4030.09 Other Hazardous Materials*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated March,2008 for details.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1973	0	APR-11

K5010 Reports and Studies*

The evaluation was conducted on Oct 18, 2010, by Asset Evolution Inc.

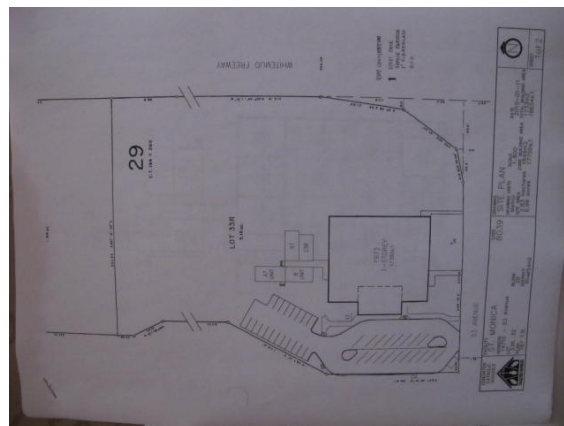
St. Monica Catholic Elementary School, originally built in 1973 is a 1-storey structure with no basement. The school has a total building area of 1904 m2. St. Monica school, originally an open concept school has 8 classrooms, a central open library, a computer area, a gymnasium and administration area. The site is approximately 2.83 hectares in area. The school includes 4 portable, located at the north end of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2010	0	APR-11

Event: Plans and drawings

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2010	\$0	Unassigned

Updated: APR-11



Site Plan - St. Monica Catholic Elementary School