

RECAPP Facility Evaluation Report

Edmonton RCSSD #7



Annunciation Catholic Elementary School

B3039A
Edmonton

Facility Details	
Building Name:	Annunciation Catholic Eleme
Address:	9325 - 165 Street
Location:	Edmonton
Building Id:	B3039A
Gross Area (sq. m):	2,810.80
Replacement Cost:	\$7,655,000
Construction Year:	1966

Evaluation Details	
Evaluation Company:	Asset Evolution Incorporated (AEI)
Evaluation Date:	October 26 2011
Evaluator Name:	Mario Plastina

Total Maintenance Events Next 5 years: \$1,506,600
5 year Facility Condition Index (FCI): 19.68%

General Summary:

Annunciation Catholic Elementary School, originally built in 1966 is a one-storey school with a building area of 1840m². In 1969, a one-storey addition was added to the east elevation of the original school. The addition has an area of 887m². A free-standing portable is located at the north-end of the site. The school, including the portable, has a total area of 2810m². The one storey school comprised of several classrooms, a gymnasium, a library, a computer room, music room, staff room and offices. Meadowlark Park Daycare leases two classrooms at the south-west corner of the school.

The 2011 student enrollment is 274 children.

Structural Summary:

The foundations consists of a reinforced cast-in-place grade beam supported with a concrete pile assembly. The building has a cast-in-place concrete slab-on-grade assembly. The elevated music room, originally the stage area in the gym has a wood frame floor assembly. Concrete load bearing block partitions are located throughout the building. The mezzanine above the gym storage room is wood deck on wood joists. The roofs have a wood roof deck on OWSJ and/or gluelam beams supported by steel beams & masonry block walls. The entrance canopies have a wood deck supported by steel posts.

Overall the structural elements are in acceptable condition

Envelope Summary:

The majority of the 1966 and 1969 Sections have a stucco finish on metal lath assembly. Sections of the exterior walls have a brick wall assembly. Some portions of the brick walls have been painted. Painted masonry block walls are located at the two main entrances of the 1969 Addition. Pre-finished corrugated vertical metal siding is located above and below all windows and at the link to the gym. Expansion/control joints are located on the exterior masonry wall assembly. Sealant is located around all window, door and exterior cladding assemblies. The cement plaster walls on have a paint finish. Concrete block walls at the 1969 addition entrances have paint finish. Portions of the exterior brick walls have a paint finish. The interior portion of the exterior walls comprise primarily of the a concrete block wall assembly. Exterior metal louvres are located on the exterior walls opposite the mechanical units. The exterior soffit at the main entrances have a painted wood finish. The windows are a combination of fixed aluminum frame double glazed units with operable slider units. The windows openings were modified and replaced in 1999. The main entrances throughout the school have wood doors with sidelites and transom panels in a metal frame assembly. The majority of the utility doors have a steel and/or wood door with glass panel and metal frames assembly. The roof above the original 1966 Sections have a 2-ply modified bitumen roof membrane assembly. The roofs were replaced in 2007. The 1969 Addition has the original built-up roof assembly. A roof inspection by Acron was conducted in June, 2010 for the school.

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

Recommendations:

- Repair cement plaster finish on exterior south-east corner and gymnasium walls.
- Replace all exterior wood doors c/w hardware (12 doors)
- Replace entire roof assembly of the 1969 Addition - Area - 887m²

Interior Summary:

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

mezzanine above the gym.storage room has metal balustrades and railings. Fixed interior glazed windows with GWG are located in the library and general office area. The interior swing doors generally consist of solid core wood doors in painted metal frames. The majority of the interior doors in the corridors and utility rooms are painted steel and/or solid wood doors in a painted steel frame and GWG panel inserts. The vestibule doors have GWG transom and sidelight panels. The utility rooms & corridors do not have labels indicating fire rated doors. Roll-up shutter door is located in the main office entrance area. A folding panel door is located between classrooms 9 and 10. Tackboards, chalkboards and whiteboards are located in each classroom area. The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors. The mechanical room has open grate steel frame stairs. The stairs to the mezzanine storage area are framed in wood construction. The stair to the mezzanine have a rubber finish. The stairs to the storage mezzanine has painted metal balustrades and stair railings. The stairs in the mechanical room have steel handrails.

Painted gypsum board on wood frame partitions throughout the renovated areas. Ceramic wall tiles are located in the boy's washrooms and girl's washrooms. Wall-mounted acoustic panels are located in the music room. The interior concrete block and gypsum board wall partitions throughout the school have a paint finish. An epoxy floor finish is located in the entrance vestibules of the 1969 Addition. Minor cracks were observed in the north entrance. Painted/sealed concrete floors are located in the mechanical room and custodial rooms. Ceramic floor tiles are located in the washrooms, janitor room and main entrance vestibule. Maple strip wood flooring is located throughout the Gymnasium. Original vinyl floor tiles are located throughout the main corridors, staff room, storage rooms, library and classrooms 9 and 10. VCT flooring is located throughout most of the 1969 Addition and Daycare. Carpet is located on the office area, staff room and music room. Plaster ceilings are located in the storage areas & mechanical room. Gypsum board ceilings in storage rooms, gym, storage room, furnace room, boy's washrooms, girl's washrooms, work rooms and janitor room. The majority of the ceilings throughout the corridors, offices and classrooms have a 610mm x 1220mm suspended acoustical tile assembly. The ceiling the gymnasium has a 300mm x 300mm acoustical tile glued to the ceiling assembly. All gypsum board ceilings & exposed structures have a paint finish.

Overall, the interior finishes are in acceptable condition.

Recommendations:

-Code Repair - Seal the openings in the fire separation with a listed fire stop material.

-Provided a power operators for barrier free access at the north-west entrance

-Replace roof assembly on Portable 106 - Area - 83m²

Mechanical Summary:

MECHANICAL SUMMARY (October 2011)

The building is heated by hot water which is supplied from one natural gas fired hot water boiler to the building heating terminal units (finned tube radiation cabinets, a unit heater, force flow convection heaters, and terminal reheat coils), and to the air handling unit heating coil (for air handling unit AHU1).

Ventilation for the building is provided by two air handling units (the main air handling unit AHU1 which serves the original c.1966 school including the gymnasium, and air handling unit AHU2 which serves the c.1969 building addition). Fresh air supplied to the building by the air handling units is balanced by the exhaust flow from 11 exhaust fans.

Building HVAC equipment actuators and thermostats are generally pneumatic (electric controls are used for the force flow heaters and the unit heater), and the control air supply system for the building consists of one air compressor 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 floor mounted flush valve type toilets (9), floor mounted tank type toilets (7), counter mounted stainless steel lavatories (8), wall mounted vitreous china lavatories (8), and floor mounted flush valve type urinals (4). Other plumbing fixtures in the building include drinking fountains in the corridors (5), custodian's sinks (3), and general purpose stainless steel sinks (7). Domestic hot water is provided by one natural gas fired storage type domestic hot water heater.

Fire protection for the building includes a standpipe system feeding standard fire hose cabinets, and dry chemical type fire extinguishers located in the fire hose cabinets, on wall mounted brackets and in wall mounted security cabinets.

Current mechanical system requirements include replacement of the original sinks, replacement of the original

washroom plumbing fixtures, the need for a backflow prevention device for the domestic water supply to the building, replacement of two missing roof drain strainers, replacement of the hot water heating boiler, replacement of the hot water heating boiler combustion gas discharge stack and combustion air supply duct, replacement of the air handling units (AHU1 and AHU2), replacement of the heating system hot water pumps (P1, P2 and P3), replacement of the roof mounted exhaust fans, replacement of the boiler room unit heater, replacement of the control air compressor and receiver tank, and replacement of the building management and control system. Overall, the building mechanical equipment and systems are in acceptable condition.

Electrical Summary:

Annunciation School is fed from a padmounted transformer west of the school. The main switchboard is rated at 400A, 120/208V. Westinghouse and Cutler Hammer branch circuit panels are located throughout the school. The mechanical loads within the building are fed from individual starters and manual starter switches.

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

The interior fluorescent lighting fixtures were retrofitted in 2005 with T8 lamps and 120V electronic ballasts. The exit signs are LED type. The emergency lighting is fed from emergency lighting battery packs. The exterior lighting consists primarily of surface mounted HPS fixtures and recessed or surface mounted incandescent fixtures in the entrance canopies.

The fire alarm system is a conventional, zoned system equipped with a Simplex 4002 fire alarm control panel at the main building entrance. 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 a DSC intrusion detection system in the building. The P.A. system is a Dukane Compact 3200 system.

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 Annunciation School are:

- The main switchboard is aged. Breakers may not be reliable.
- Branch circuit panels are aged. Breakers deteriorate with age.
- Replacement parts are not available for the motor starters.
- Incandescent exterior lighting fixtures are not energy efficient. Fixture grille affects light output.
- The fire alarm system is no longer manufactured. Replacement parts are not readily available. Strobes have only been provided in the music room.
- The original Edwards clock system is obsolete.

Overall the electrical systems for Annunciation 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* - All Sections**

The foundations consists of a reinforced cast-in-place grade beam supported with a concrete pile assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

A1030 Slab on Grade* - All Sections

The building has a cast-in-place concrete slab-on-grade assembly. Minor cracks were observed in the entrance vestibules.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B1010.01 Floor Structural Frame (Building Frame)* - 1966 Section

The elevated music room, originally the stage area in the gym has a wood frame floor assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

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

Concrete load bearing block partitions are located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B1010.05 Mezzanine Construction* - 1966 Section

The mezzanine above the gym storage room is wood deck on wood joists.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B1010.09 Floor Construction Fireproofing* - All Sections

Floor Construction Fireproofing - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B1010.10 Floor Construction Firestopping* - All Sections

Floor Construction Fire-stopping - Observed only in the mechanical and electrical utility areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B1020.01 Roof Structural Frame* - All Sections

The roofs have a wood roof deck on OWSJ and/or gluelam beams supported by steel beams & masonry block walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B1020.04 Canopies* -1966 Section

The entrance canopies have a wood deck supported by steel posts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B1020.06 Roof Construction Fireproofing*

Roof Construction Fireproofing - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - All Sections

Sections of the exterior walls have a brick wall assembly. Some portions of the brick walls have been painted.

The majority of the 1966 and 1969 Sections have a stucco finish on metal lath assembly. Sections of the exterior walls have a brick wall assembly. Some portions of the brick walls have been painted. Painted masonry block walls are located at the two main entrances of the 1969 Addition. Pre-finished corrugated vertical metal siding is located above and below all windows and at the link to the gym. Expansion/control joints are located on the exterior masonry wall assembly. Sealant is located around all window, door and exterior cladding assemblies. The cement plaster walls on have a paint finish. Concrete block walls at the 1969 addition entrances have paint finish. Portions of the exterior brick walls have a paint finish. The interior portion of the exterior walls comprise primarily of the a concrete block wall assembly. Exterior metal louvres are located on the exterior walls opposite the mechanical units. The exterior soffit at the main entrances have a painted wood finish. The windows are a combination of fixed aluminum frame double glazed units with operable slider units. The windows openings were modified and replaced in 1999. The main entrances throughout the school have wood doors with sidelites and transom panels in a metal frame assembly. The majority of the utility doors have a steel and/or wood door with glass panel and metal frames assembly. The roof above the original 1966 Sections have a 2-ply modified bitumen roof membrane assembly. The roofs were replaced in 2007. The 1969 Addition has the original built-up roof assembly. A roof inspection by Acron was conducted in June, 2010 for the school.

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

Recommendations:

- Repair cement plaster finish on exterior south-east corner and gymnasium walls.
- Replace all exterior wood doors c/w hardware (12 doors)
- Replace entire roof assembly of the 1969 Addition - Area - 887m2

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B2010.01.02.02 Concrete Block: Ext. Wall Skin* - All Sections

Painted masonry block walls are located at the two main entrances of the 1969 Addition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B2010.01.06.03 Metal Siding - All Sections**

Pre-finished corrugated vertical metal siding is located above and below all windows and at the link to the gym.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	40	MAR-12

Event: Replace metal siding (Based per 1000m2 - wall surface)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$125,000	Unassigned

Updated: MAR-12

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

The majority of the 1966 and 1969 Sections have a stucco finish on metal lath assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	0	MAR-12

Event: **Repair cement plaster finish on exterior south-east corner and gymnasium walls.**

Concern:

The cement plaster finish is damaged at isolated corners of the school.

Recommendation:

Repair cement plaster finish on exterior south-east corner and gymnasium walls.



Damaged cement plaster finish at south-east corner of the 1969 Addition.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$10,000	Low

Updated: MAR-12

B2010.01.09 Expansion Control: Ext. Wall* - All Sections

Expansion/control joints are located on the exterior masonry wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

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

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	1999	20	MAR-12

Event: **Replace sealant located around all window & exterior doors - 1500LM**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$45,000	Unassigned

Updated: MAR-12

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

The cement plaster walls on have a paint finish. Concrete block walls at the 1969 addition entrances have paint finish. Portions of the exterior brick walls have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	15	MAR-12

Event: Repaint exterior stucco, brick, concrete block walls & fascia - (Area - 1800m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$100,000	Unassigned

Updated: MAR-12

B2010.02.03 Masonry Units: Ext. Wall Const.* - All Sections

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

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

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	1966	0	MAR-12

B2010.06 Exterior Louvers, Grilles, and Screens* - All Sections

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B2010.09 Exterior Soffits* - All Sections

The exterior soffit at the main entrances have a painted wood finish

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

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

The windows are a combination of fixed aluminum frame double glazed units with operable slider units. The windows openings were modified and replaced in 1999.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	40	MAR-12

Event: Replace all exterior windows - 39 Window Units

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$150,000	Unassigned

Updated: MAR-12

B2030.01.10 Wood Entrance Door - All Sections**

The main entrances throughout the school have wood doors with sidelites and transom panels in a metal frame assembly. Mostly original hardware, with some replacement locksets, closers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	30	MAR-12

Event: Replace all exterior wood doors c/w hardware (12 doors)

Concern:

The doors are worn, deteriorated and no longer close properly. The hardware is original at most entrances.

Recommendation:

Replace all exterior wood doors c/w hardware (12 doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$72,000	Medium

Updated: MAR-12



Main entrance wood doors - West Elevation

B2030.02 Exterior Utility Doors - All Sections**

The majority of the utility doors have a steel and/or wood door with glass panel and metal frames assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	40	MAR-12

Event: Replace steel framed doors & hardware assembly (3 doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$9,000	Unassigned

Updated: MAR-12

B3010.01 Deck Vapour Retarder and Insulation*

Deck Vapor Retarder and Insulation - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1969 Section**

The 1969 Addition has the original built-up roof assembly. A roof inspection by Acron was conducted in June, 2010 for the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1969	25	MAR-12

Event: Replace entire roof assembly of the 1969 Addition - Area - 887m2

Concern:

Several repairs have been conducted over recent years and the roof has surpassed its life expectancy.

Recommendation:

Replace entire roof assembly of the 1969 Addition - Area - 887m2



Original roof above the 1969 Addition

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

Updated: MAR-12

B3010.04.04 Modified Bituminous Membrane Roofing (SBS) - 1966 Section**

The roof above the original 1966 Sections have a 2-ply modified bitumen roof membrane assembly. The roofs were replaced in 2007.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2007	25	MAR-12

Event: Replace SBS Roof above the 1966 Sections - (Area - 1840 m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$310,000	Unassigned

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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C1010.04 Interior Balustrades and Screens, Interior Railings*

The mezzanine above the gym.storage room has metal balustrades and railings

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C1010.05 Interior Windows*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C1010.07 Interior Partition Firestopping*

Firestopping was observed in several utility areas, electrical and mechanical rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1969	0	MAR-12

Event: **Code Repair - Seal the openings in the fire separation with a listed fire stop material.**

Concern:

Large opening were observed in the entrances to classrooms 11 and 15 in the 1969 Addition. The fire separation between the corridor and classrooms is compromised.

Recommendation:

Seal the openings in the fire separation with a listed fire stop material.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2012	\$15,000	Medium

Updated: MAR-12



Openings between the corridor and classrooms 11 and 15.

C1020.01 Interior Swinging Doors (& Hardware)*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1986	0	MAR-12

C1020.03 Interior Fire Doors*

The majority of the interior doors in the corridors and utility rooms are painted steel and/or solid wood doors in a painted steel frame and GWG panel inserts. The vestibule doors have GWG transom and sidelight panels. The utility rooms & corridors do not have labels indicating fire rated doors. Roll-up shutter door is located in the main office entrance area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C1020.04 Interior Sliding and Folding Doors*

A folding panel door is located between classrooms 9 and 10.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C1030.01 Visual Display Boards**

Tackboards, chalkboards and whiteboards are located in each classroom area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	20	MAR-12

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

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	30	MAR-12

Event: Replacement Toilet Partitions - 8 Stalls

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$12,000	Unassigned

Updated: MAR-12

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	1996	0	MAR-12

C1030.12 Storage Shelving*

Metal and wood 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	1966	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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C2010 Stair Construction*

The mechanical room has open grate steel frame stairs. The stairs to the mezzanine storage area are framed in wood construction. The stair to the mezzanine have a rubber finish. The stairs to the storage mezzanine has painted metal balustrades and stair railings. The stairs in the mechanical room have steel handrails.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C2020.05 Resilient Stair Finishes**

The stair to the mezzanine have a rubber finish

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1996	20	MAR-12

Event: Replace rubber finish on stair to mezzanine area

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$2,500	Unassigned

Updated: MAR-12

C2020.08 Stair Railings and Balustrades*

The stairs to the storage mezzanine has painted metal balustrades and stair railings. The stairs in the mechanical room have steel handrails.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C2020.11 Other Stair Finishes*

The metal stairs in the mechanical room have painted finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	0	MAR-12

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

Painted gypsum board on wood frame partitions throughout the renovated areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	0	MAR-12

C3010.06 Tile Wall Finishes**

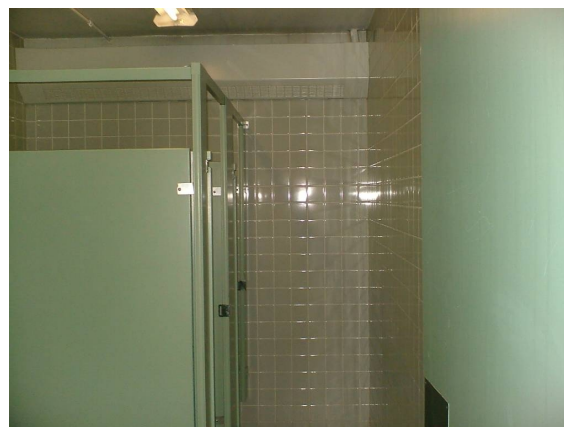
Ceramic wall tiles are located in the boy's washrooms and girl's washrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	40	MAR-12

Event: Replace ceramic wall tiles (Area - 120m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$30,000	Unassigned

Updated: MAR-12



Ceramic wall tiles in washroom.

C3010.09 Acoustical Wall Treatment**

Wall-mounted acoustic panels are located in the music room

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	20	MAR-12

Event: Replace acoustical wall panels in the music room - 200m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$40,000	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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2010	0	MAR-12

C3020.01.01 Epoxy Concrete Floor Finishes*

An epoxy floor finish is located in the entrance vestibules of the 1969 Addition. Minor cracks were observed in the north entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C3020.01.02 Painted Concrete Floor Finishes*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	0	MAR-12

C3020.02 Tile Floor Finishes**

Ceramic floor tiles are located in the washrooms, janitor room and main entrance vestibule.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	50	MAR-12

Event: Replace ceramic floor tile in washrooms (Area - 100m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$15,000	Unassigned

Updated: MAR-12

C3020.04 Wood Flooring**

Maple strip wood flooring is located throughout the Gymnasium

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	30	MAR-12

Event: Replace maple wood flooring (Area - 200m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$50,000	Unassigned

Updated: MAR-12

C3020.07 Resilient Flooring - Original**

Original vinyl floor tiles are located throughout the main corridors, staff room, storage rooms, library and classrooms 9 and 10.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	20	MAR-12

Event: Replace original VAT flooring (Area - 800m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$80,000	Unassigned

Updated: MAR-12

C3020.07 Resilient Flooring VCT 2010**

VCT flooring is located throughout most of the 1969 Addition and Daycare.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2010	20	MAR-12

Event: Replace VCT flooring - Area - 900m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$45,000	Unassigned

Updated: MAR-12

C3020.08 Carpet Flooring**

Carpet is located on the office area, staff room and music room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1994	15	MAR-12

Event: Replace carpet flooring (Area - 110m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$11,000	Unassigned

Updated: MAR-12

C3030.03 Plaster Ceiling Finishes (Unpainted)*

Plaster ceilings are located in the storage areas & mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Gypsum board ceilings in storage rooms, gym. storage room, furnace room, boy's washrooms, girl's washrooms, work rooms and janitor room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1996	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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	25	MAR-12

Event: Replace suspended acoustic tile ceilings. (Area - 2400m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$180,000	Unassigned

Updated: MAR-12

C3030.07 Interior Ceiling Painting*

All gypsum board ceilings & exposed structures have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1996	0	MAR-12

C3030.09 Other Ceiling Finishes* - 300mm x 300mm tiles

The ceiling the gymnasium has a 300mm x 300mm acoustical tile glued to the ceiling assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	0	MAR-12

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

Original c.1966 and c.1969 sinks in the building include one enameled cast iron custodian sink and two galvanized sheet metal sinks in the custodian's closets, and seven general purpose stainless steel sinks in the staff room and some classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	30	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	10	number	

Event: Replace the building sinks (10)**Concern:**

The building sinks are in marginal condition due to age, corrosion and surface finish deterioration.

Recommendation:

Replace the building sinks.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$15,500	Low

Updated: MAR-12

D2010.08 Drinking Fountains/Coolers**

Drinking fountains in the building include one wall mounted vitreous china drinking fountain and four wall mounted fiberglass drinking fountains.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1994	35	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	2	N/A	

Event: Replace the drinking fountains (5)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$7,500	Unassigned

Updated: MAR-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - c.1966**

Original c.1966 washroom plumbing fixtures in the building include floor mounted vitreous china flush valve type toilets (8), floor mounted vitreous china tank type toilets (3), floor mounted vitreous china flush valve type urinals (4), and wall mounted vitreous china lavatories (7).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	35	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	22	N/A	

Event: **Replace the original c.1966 washroom plumbing fixtures (11 toilets, four urinals and seven lavatories)**

Concern:

The original washroom plumbing fixtures are in marginal condition due to age, obsolescence and surface finish deterioration.

Recommendation:

Replace the original c.1966 washroom plumbing fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2014	\$40,500	Low

Updated: MAR-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - c.1992**

Washroom plumbing fixtures installed in c.1992 include four floor mounted vitreous china tank type toilets and eight counter mounted stainless steel lavatories.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1992	35	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	12	number	

Event: **Replace the c.1992 washroom plumbing fixtures (four toilets and eight lavatories)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$20,000	Unassigned

Updated: MAR-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl) - c.1998**

Washroom plumbing fixtures installed in c.1998 include one floor mounted vitreous china tank type toilet and one lavatory in the barrier free washroom.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1998	35	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	2	number	

Event: Replace the c.1998 plumbing fixtures in the barrier free washroom (one toilet and one lavatory)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$3,500	Unassigned

Updated: MAR-12

D2020.01.01 Pipes and Tubes: Domestic Water*

There is one municipal water supply to the building which feeds the building domestic water distribution system and the building standpipe system (100 mm diameter). There is a water meter for the building domestic water distribution system (38 mm diameter). The municipal water supply enters the building in the boiler room. The domestic water distribution system piping in the buildings is copper.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	2727	m2	

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 and zone isolation valves are bronze gate type valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	40	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	22	number	

Event: Replace the domestic water distribution system valves (2,810 SM GFA)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$16,000	Unassigned

Updated: MAR-12

D2020.01.03 Piping Specialties (Backflow Preventers) - c.1994**

There is one 63 mm diameter backflow prevention device located in the boiler room for the standpipe system (c.1994). There is no backflow prevention device for the domestic water supply to the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1994	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).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2012	\$5,000	Low

Updated: MAR-12

Event: **Replace the c.1994 backflow prevention device for the standpipe system (63 mm diameter)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$4,500	Unassigned

Updated: MAR-12

D2020.01.03 Piping Specialties (Backflow Preventers) - c.2004**

There is one 19 mm diameter backflow prevention device located in the boiler room for the make-up water supply to the building hot water heating system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	20	MAR-12

Event: **Replace the c.2004 backflow prevention device for the hot water heating system make-up water supply (19 mm diameter)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$1,000	Unassigned

Updated: MAR-12

D2020.02.02 Plumbing Pumps: Domestic Water**

Domestic water plumbing pumps include the two domestic hot water circulation pump P4 located in the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	20	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	9	L/s	

Event: **Replace the domestic hot water circulation pump P4**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$1,800	Unassigned

Updated: MAR-12

D2020.02.06 Domestic Water Heaters**

One storage tank type natural gas fired domestic hot water heater is located in the boiler room. The domestic hot water heater is an Rheem Canada Ruud model PRO50-45M with an input heating capacity of 45,000 Btu/h (13.19 kW), a volume capacity of 50 US gallons (189 L), and a recovery rate of 37.8 US gallons per hour (143.1 L/h).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1996	20	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	170	litre	

Event: **Replace the domestic hot water heater (13.19 kW)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$3,000	Unassigned

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. Where exposed, the piping insulation is covered with a painted fabric (canvas) cover.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	2727	m2	

D2030.01 Waste and Vent Piping*

Visible waste and vent piping is generally copper in smaller diameters and cast iron in larger diameters (some ABS plastic piping has been used for repairs and modifications). The building sanitary drainage system discharges on the west side of the building to the municipal sanitary sewer system (150 mm diameter discharge line).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	2727	m2	

D2030.02.04 Floor Drains*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

D2040.01 Rain Water Drainage Piping Systems*

The flat roof areas of the building drain via roof drains and internal storm drainage piping. The storm water drainage piping in the building is generally cast iron with bell and spigot type joints. The building storm water drainage system discharges on the west side of the building to the municipal storm sewer system (200 mm diameter discharge line).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

<u>Capacity Size</u>	<u>Capacity Unit</u>
2727	m2

D2040.02.04 Roof Drains* - c.1966 Original Building

Storm water drainage for the building flat roof areas is via roof drains with internal drainage piping. For the original c.1966 building, the building roof drains are equipped with metal strainers and are not equipped with flow control weirs (these roof drains appear to have been replaced in c.2007 when the roof was replaced).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2007	0	MAR-12

D2040.02.04 Roof Drains* - c.1969 Building Addition

Storm water drainage for the building flat roof areas is via roof drains with internal drainage piping. For the c.1969 building addition, the building roof drains are equipped with metal strainers and flow control weirs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1969	0	MAR-12

<u>Capacity Size</u>	<u>Capacity Unit</u>
12	number

Event: **Replace the missing strainers for two of the building addition roof drains**

Concern:

Two of the roof drains for the c.1969 building addition are missing strainers.

Recommendation:

Replace the missing strainers for two of the building addition roof drains.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$400	Medium

Updated: MAR-12



P5170065.JPG

D3010.02 Gas Supply Systems*

The natural gas supply to the building is underground from the west side of the property to the boiler room where the pressure reducing station and meter are located. Natural gas in the building is supplied to the hot water heating boiler, the domestic hot water heater, and the portable furnace.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

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

One natural gas fired hot water boiler provides hot water for building heating. The boiler is Peerless model 210-17-W with an input heating capacity of 3,360,000 Btu/h (984.82 kW).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	35	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	985	kW	

Event: Replace the hot water boiler (984.82 kW)

Concern:

The hot water heating boiler is in marginal condition due to age, wear, corrosion and obsolescence. The boiler is showing signs of insulation and refractory deterioration and the efficiency of the boiler is low.

Recommendation:

Replace the hot water heating boiler two smaller capacity boilers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$90,000	High

Updated: MAR-12



Heating Boiler

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

The combustion gases from the hot water boiler discharge through a stack which penetrates the roof above the boiler room. There is a combustion air supply duct to the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	35	MAR-12

Event: **Replace the boiler combustion gas discharge stack (10 m) and combustion air supply duct (3 m)**

Concern:

The boiler discharge stack and combustion air supply duct are original and should be replaced when the heating boiler is replaced.

Recommendation:

Replace the boiler combustion gas discharge stack and combustion air supply duct.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$9,000	Low

Updated: MAR-12

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

Water treatment for the closed loop hot water heating system consists of manual chemical addition via a pot feeder and sidestream filtration in parallel with the hot water circulation pumps (pumps P1 and P2).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

D3040.01.01 Air Handling Units: Air Distribution - c.1966 - AHU1**

Air handling unit AHU1 for the original c.1966 building (including the gymnasium) is a Dunham-Bush model HHU-222 with a constant volume flow capacity of 17,300 CFM (8,166 L/s). The air handling unit is a mixed air unit (mixed fresh air and return air) and includes dampers, filters, a hot water heating coil, and a supply air fan.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1966	30	MAR-12

<u>Capacity Size</u>	<u>Capacity Unit</u>
8166	L/s

Event: **Replace c.1966 air handling unit AHU1 (8,166 L/s)**

Concern:

Air handling unit AHU1 is in poor condition due to age, wear and corrosion.

Recommendation:

Replace air handling unit AHU1.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$80,000	Medium

Updated: MAR-12

D3040.01.01 Air Handling Units: Air Distribution - c.1969 - AHU2**

Air handling unit AHU2 for the c.1969 building addition is a constant volume unit with a flow capacity of 7,094 CFM (3,348 L/s). The air handling unit is a mixed air unit (mixed fresh air and return air) and includes dampers, filters, a supply air fan, and an associated return air fan (covered under a separate element). The air handling unit was manufactured by Mark Hot Inc.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1969	30	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	3348	L/s	

Event: Replace c.1969 air handling unit AHU2 (3,348 L/s)

Concern:

Air handling unit AHU2 is in marginal condition due to age, wear and corrosion.

Recommendation:

Replace air handling unit AHU2.

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

Updated: MAR-12

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

Air distribution fans remote from the air handling units include the return air fan for air handling unit AHU2. The return air fan is an axial flow type fan.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1969	0	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	3200	L/s	

D3040.01.03 Air Cleaning Devices: Air Distribution*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	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, as applicable, for the two air handling units serving the building (air handling units AHU1 and AHU2). The duct systems are original (c.1966 and c.1969). The duct systems include associated components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc. In the original building, the low pressure distribution ducts from AHU-1 are run below the floor slab to serve ventilation cabinets and outlets throughout the facility. For the gymnasium, low pressure spiral ductwork runs below the perimeter floor to supply air at the gymnasium perimeter.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	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 (AHU1 and AHU2). Typical supply air diffusers include rectangular wall mounted diffusers in the gymnasium, floor mounted linear supply air grilles, square cone type supply air diffusers mounted in the T-bar ceiling grid, and linear supply air grilles in the ventilation cabinets in the classrooms. Typical return air inlets include rectangular wall mounted grilles in the gymnasium, return air grilles (transfer grilles) over the classroom doors, and eggcrate type return air grilles in the T-bar ceiling grid.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	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, a unit heater, force flow convection heaters, and reheat coils), and to the air handling unit heating coils (for air handling units AHU1 and AHU2). The hot water distribution system includes all components of the closed loop hot water heating system including piping, valves, piping specialties, piping specialties, circulation pumps, and the expansion tank. There are three hot water circulation pumps including two main circulation pumps P1 and P2 in the boiler room, and one coil circulation pump P3 (also located in the boiler room) for air handling unit AHU1. The hot water loop expansion tank is an atmospheric type tank which is located in the boiler room. The hot water distribution system utilizes a reverse return type piping configuration.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	40	MAR-12

Event: Replace the hot water distribution system (2,810 SM GFA)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$255,000	Unassigned

Updated: MAR-12

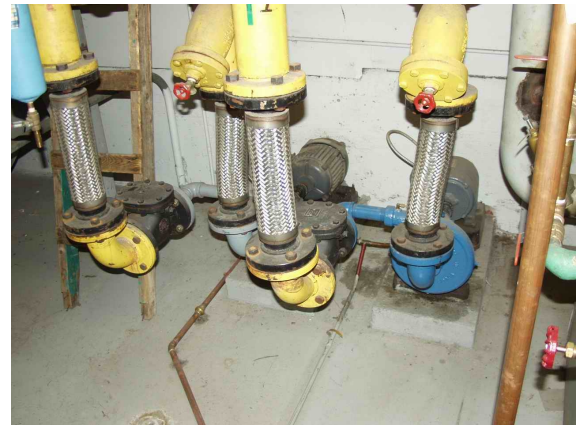
Event: Replace the hot water heating pumps (3)

Concern:
The hot water heating pumps P1, P2 and P3 are in marginal condition due to age and wear. Replacement parts are not readily available.

Recommendation:
Replace the hot water heating pumps P1, P2 and P3 when the boiler is replaced.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2013	\$12,000	Medium

Updated: MAR-12



Heating Pumps

D3040.04.01 Fans: Exhaust**

There are seven original c.1966 roof mounted exhaust fans providing sanitary and general ventilation for the original c.1966 building (including the gymnasium). There are four original c.1969 roof mounted exhaust fans providing sanitary and general ventilation for the c.1969 building addition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	30	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	13	number	

Event: Replace the roof mounted exhaust fans (11)

Concern:

The roof mounted exhaust fans are in marginal condition due to age, wear and weathering.

Recommendation:

Replace the roof mounted exhaust fans (11).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$27,500	Low

Updated: MAR-12

D3040.04.03 Ducts: Exhaust*

Exhaust duct systems include the collection ducts associated with the 11 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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

D3050.02 Air Coils - Reheat Coils**

Hot water terminal reheat coils with three-way control valves provide temperature control for most building rooms. There are 24 reheat coils in the c.1966 original building (C2 through C25) and 13 reheat coils in the c.1969 building addition (C1 through C13).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	30	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	2	number	

Event: Replace the hot water terminal reheat coils (37)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$39,000	Unassigned

Updated: MAR-12

D3050.05.01 Convectors - Force Flow Heaters**

Hot water force flow convection heaters are used in high heat load areas such as entrance vestibules. There are six force flow heaters in the c.1966 original building (FF1 through FF6) and two force flow heaters in the c.1969 building addition (FF1 and FF2).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	40	MAR-12

Event: Replace the force flow convection heaters (8)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$24,000	Unassigned

Updated: MAR-12

D3050.05.03 Finned Tube Radiation**

The hot water heating system provides perimeter heating in some areas of the building using finned tube radiation cabinets. There is an estimated length of 50 metres of finned tube radiation cabinets in the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	40	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	30	meters	

Event: Replace the c.1966 and c.1969 finned tube radiation cabinets (50 m)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$22,500	Unassigned

Updated: MAR-12

D3050.05.06 Unit Heaters**

One hot water unit heater is used in the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	30	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	6	number	

Event: Replace the unit heater in the boiler room (1)

Concern:

The unit heater in the boiler room is in marginal condition due to wear and corrosion.

Recommendation:

Replace the unit heater in the boiler room.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$4,000	Low

Updated: MAR-12

D3060.02.01 Electric and Electronic Controls**

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	30	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	6	number	

Event: Replace the electric controls for the force flow convection heaters and the unit heater (9)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$2,700	Unassigned

Updated: MAR-12

D3060.02.02 Pneumatic Controls**

Most of the building HVAC controls are pneumatic (the force flow heater and unit heater controls are electric - see D3060.02.01 Electric and Electronic Controls**). The control air supply system is located in the boiler room and consists of one air compressor mounted on an air receiver tank with a refrigerated air dryer. Pneumatic controls include pneumatic thermostats, control valves for the heating terminal units, control valves for the air handling unit hot water heating coil (AHU1), and damper actuators for the air handling unit dampers (AHU1 and AHU2). This element includes the control air distribution system and components including the refrigerated air dryer and excluding the control air compressor (covered under a separate element).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	40	MAR-12

Event: Replace the pneumatic controls (2,810 SM GFA)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$14,000	Unassigned

Updated: MAR-12

D3060.02.02 Pneumatic Controls - Control Air Compressors**

This element covers the original c.1966 control air compressor and receiver tank located in the boiler room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	40	MAR-12

Event: Replace the control air supply system (air compressor and receiver tank)

Concern:

The control air supply system (air compressor and receiver tank) are in marginal condition due to age and wear.

Recommendation:

Replace the control air supply system (air compressor and receiver tank).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$3,000	Medium

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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1991	20	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	90	points	

Event: **Replace the building management and control system (2,810 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.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$62,000	Medium

Updated: MAR-12

D4020 Standpipes*

The building is equipped with a standpipe system feeding standard fire hose cabinets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Dry chemical type fire extinguishers are located throughout the building in the fire hose cabinets, on wall mounted brackets and in wall mounted security boxes.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	0	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	18	number	

S5 ELECTRICAL

D5010.01.02 Main Electrical Transformers (Utility Owned)*

The incoming hydro service to Annunciation School is a 120/08V, 3-phase, 4-wire service from an EPCOR pad mounted transformer located west of the school. The EPCOR meter is located in the main mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2005	40	MAR-12

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

The main electrical switchboard is a Westinghouse switchboard rated at 400A, 120/208V, 3-phase, 4-wire. The switchboard has a 400A main breaker and a distribution section with moulded case breakers feeding seven branch circuit panels within the school. The main electrical switchboard is original equipment that was installed when the school was constructed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	40	MAR-12

Event: Replace Main Switchboard (400A, 120/208V)

Concern:

Due to the age of the molded case circuit breakers, they may not function properly in the event of a fault condition.

Recommendation:

Replace the main switchboard and the breakers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$25,000	High

Updated: MAR-12



Main Westinghouse switchboard, 400A, 120/208V.

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1966 to 1969**

Westinghouse panels were installed in the original 1966 building and in the 1969 addition. The panels have copper bussing and bolt-on breakers. Several of the Westinghouse panels are full and have no spaces to accommodate additional loads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	30	MAR-12

Event: Replace Branch Circuit Panels (5 panels)

Concern:

The branch circuit panels installed between 1966 and 1969 are well past their life expectancy. 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 panels with new 120/208V branch circuit panels c/w sufficient circuits to accommodate building loads and provide capacity for additional loads in the future.



Aged Westinghouse branch circuit panels.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$25,000	Medium

Updated: MAR-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 2005**

Panels AA and BB are 18-circuit Cutler Hammer panels that are located in the main mechanical room. The car plug-in panel is a Federal Pioneer Stablok panel (1999).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2005	30	MAR-12

Event: Replace Branch Circuit Panels (3 panels)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2035	\$10,000	Unassigned

Updated: MAR-12

D5010.07.02 Motor Starters and Accessories - 1966 to 1969**

The motor starters within the school are individual motor starters (CCL, GE and Furnas) and motor rated starter switches.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1966	30	MAR-12

Event: Replace Motor Starters (9 starters and 10 manual starter switches)

Concern:

The motor starters installed between 1966 and 1969 are aged. Replacement parts are no longer readily available.

Recommendation:

Replace individual motor starters and manual motor starter switches.



Aged CCL motor starters.

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

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.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

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

1966 section of the school has 120 volt line voltage switching in classrooms and offices with keyed switching in hallways. 1969 section of the school has General Electric relays and low voltage switching in classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

D5020.02.02.02 Interior Fluorescent Fixtures**

The fluorescent lighting fixtures within the school were upgraded in 2005. T8 lamps and electronic ballasts have been installed in the fluorescent lighting fixtures. The typical lighting within the school consists of recessed 2 ft. x 4 ft. T8 fluorescent fixtures. Surface mounted wrap around fixtures have been provided in washrooms and some service rooms. Four lamp fluorescent fixtures with wire guards have been provided in the gymnasium. Strip fluorescent fixtures have been provided in the mechanical room and storage rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	30	MAR-12

Event: Replace Interior T8 Fluorescent Lighting (2727 m2 gfa)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2035	\$169,000	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. Some units are combination exit/emergency lighting fixtures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	20	MAR-12

Event: Replace Emergency Lighting Battery Units (12 units)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$13,200	Unassigned

Updated: MAR-12

D5020.02.03.03 Exit Signs*

Exit signs are generally located to indicate building exits and egress routes to exits. Exit signs are connected to emergency lighting battery units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2009	0	MAR-12

D5020.03.01.01 Exterior Incandescent Fixtures*

Incandescent fixtures are mounted in the building entrance canopies. Some of the incandescent lamps have been replaced with compact fluorescent lamps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	0	MAR-12

Event: Replace Exterior Incandescent Lighting (12 fixtures)

Concern:

The exterior incandescent lighting is not energy efficient. Some fixtures have deteriorated.

Recommendation:

Replace incandescent exterior lighting with new energy efficient exterior lighting fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$6,000	Low

Updated: MAR-12



Incandescent lighting fixtures in entrance canopy.

D5020.03.01.03 Exterior Metal Halide Fixtures*

Metal Halide wallpack fixtures have been provided on the exterior walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2005	0	MAR-12

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

The exterior light fixtures are controlled by Photo-cell and the energy management system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	0	MAR-12

D5030.01 Detection and Fire Alarm**

A single stage, conventional, supervised, non-coded fire detection and alarm system has been provided within the school. The system consists of pull stations, smoke detectors, heat detectors, audible (bells) signal devices. A visual signal (strobe) has been provided for the music room only. The main control panel is a Simplex 4002 panel, located in the main entrance vestibule. The fire alarm control panel has 12 zones (6 active). The July 2010 inspection report indicated that there were no deficiencies for the system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1988	25	MAR-12

Event: Replace Fire Alarm System (2727 sq. m. gfa)

Concern:

Existing Simplex 4002 fire alarm panel is no longer manufactured and repair parts are no longer readily available. Fire devices are aged and may no longer be reliable. Strobe coverage has only been provided in the music room.

Recommendation:

Provide new addressable fire alarm system to current code requirements. Provide strobe coverage throughout.



Simplex 4002 fire alarm control panel at main entrance.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$71,000	High

Updated: MAR-12

D5030.02.02 Intrusion Detection**

The security system is a DSC system with the main panel located in the storage room across from the general office. Security system keypads have been installed. PIR motion detectors have been provided throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2005	25	MAR-12

Event: Replace Intrusion Detection System (1 panel, 3 keypads, 20 motion detectors & 1 door contact)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$21,000	Unassigned

Updated: MAR-12

D5030.03 Clock and Program Systems*

Edwards master clock standby regulator with clocks located in hallways and classrooms. There is a mixture of plug-in and battery operated clocks in the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1966	0	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	1	number	

Event: Replace Clock System (Controller and 30 clocks)

Concern:

The original Edwards clock system is obsolete. Several different types of plug in and battery operated clocks have been installed in the school.

Recommendation:

Replace existing clocks with new wireless GPS synchronized clock system. Remove old Edwards clock system.



Obsolete Edwards clock system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$13,000	Low

Updated: MAR-12

D5030.04.01 Telephone Systems*

The telephone system is a Nitsuko system with two DX2NA-32M panels located in the main mechanical room. NEC handsets are located in classrooms and selected areas such as the general office.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1999	0	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	1	number	

D5030.04.04 Data Systems*

The data system server is located in the storage room across from the general office. Cat. 5 cables are used for the network wiring within the school. Supernet has been installed in the school. Network switches have been upgraded.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2008	0	MAR-12

D5030.05 Public Address and Music Systems**

The public address system is a Dukane Compact 3200 system. Return call switches have been provided in the classrooms. Speakers are typically round, recessed ceiling mounted units or surface mounted units. The console unit is located in the General Office area. A separate, portable sound system has been provided for the gymnasium with wall mounted speakers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2005	20	MAR-12
	<u>Capacity Size</u>	<u>Capacity Unit</u>	
	1	number	

Event: Replace P.A. System (Head-end equipment and 22 classrooms)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2025	\$38,000	Unassigned

Updated: MAR-12

D5030.06 Television Systems*

Coaxial cable for television systems has been brought into the main electrical room. Cable TV outlets have been provided in selected rooms. Announcements are videotaped in-house and distributed to the classroom smartboards.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	MAR-12

D5090.01 Uninterruptible Power Supply Systems**

APC 1000 UPS used for servers. Telephone equipment do not have UPS.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	30	MAR-12

Event: Install UPS for Telephone Equipment (1 x 1500VA)

Concern:

Telephone communications may be lost in case of main power loss.

Recommendation:

Install new UPS for telephone equipment.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2012	\$1,500	Low

Updated: MAR-12

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	1996	0	MAR-12

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Fixed basketball hoops are located in the gymnasium. A climbing apparatus is located on the east wall of the gym.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1996	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. Painted wood storage units for the students are located throughout the corridors and entry vestibules.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1986	35	MAR-12

Event: Replace all original millwork (Based on 2223m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$250,000	Unassigned

Updated: MAR-12

E2010.03.01 Blinds**

The windows in the offices and classrooms have either a vertical or roll-up blind.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	30	MAR-12

Event: Replace window blinds - 26 Windows

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$26,000	Unassigned

Updated: MAR-12

F1010.02.04 Portable and Mobile Buildings 1978 Portable - Unit 106**

1978 Re-locatable Portable - Unit 106 - Area 83 m2 (Includes 1 classrooms unit). The Portable is not linked to the school.

Structure:

- Wood frame construction with concrete pad and 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 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 BUR roof assembly
- Doors - Two Fire-rated steel door & frame assembly
- Exterior Stairs - Pressure-treated wood stairs at the classroom exits. Most stairs have pressure treated guard-rails & handrails.

Interior:

- Flooring - Vinyl tile flooring
- Ceiling - 2'x4' Suspended Acoustical tile ceiling
- Walls - Vinyl covered gypsum board walls with either metal or wood frame construction.
- Doors - Furnace room has a steel door & frame assembly
- Equipment - Whiteboards, tackboards, open wood shelving, wall mounted coat hooks & horizontal blinds.

The architectural elements are in marginal condition

Mechanical Summary

This portable group consists of one freestanding classroom portable and includes the entrance vestibule attached to the portable. The portable is heated by a natural gas fired forced air furnace (Flamemaster) with an air distribution duct system which is located in the ceiling space. The furnace is controlled by a digital thermostat. 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 are two roof mounted passive ventilators for the portable.

Storm drainage from the flat roof area is drained via one roof drain and internal drainage piping to grade.

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

Condition: Marginal

Electrical Summary

Portable #106 has been provided with a FPE 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, 120V lighting switch, telephone, motion detector and battery operated 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 #106 were found to be in acceptable condition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1978	30	MAR-12

Event: Replace Electrical system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$8,000	Unassigned

Updated: MAR-12

Event: Replace Envelope

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$50,000	Unassigned

Updated: MAR-12

Event: Replace Interior

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$12,000	Unassigned

Updated: MAR-12

Event: Replace Mechanical system

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$8,000	Unassigned

Updated: MAR-12

Event: Replace roof assembly on Portable 106 - Area - 83m2

Concern:

Several repairs have been conducted on the original roof over the last few years.

Recommendation:

Replace roof assembly on Portable 106 - Area - 83m2

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$14,000	Medium

Updated: MAR-12



BUR assembly on portable 106.

Event: Replace the original c.1978 furnace in portable 106

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.1978 furnace in portable 106

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2013	\$4,000	High

Updated: MAR-12

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

Designated handicap parking spaces area provided in the main west and north parking area. Signage for the designated handicap parking space is provided.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	0	MAR-12

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	1966	0	MAR-12

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

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
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, excluding the mezzanine storage area and mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

K4010.04 Barrier Free Washrooms*

A designated barrier free washroom is located in the 1969 Addition, however currently used as a storage room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	0	MAR-12

K4030.01 Asbestos*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated June, 2007 for details. Report indicates asbestos presence in pipe-fitting insulation, boiler header insulation, floor tiles, parging cement and crawl space. No costs were provided by ECDSB.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

K4030.04 Mould*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated June, 2007. No mould issues know or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

K4030.09 Other Hazardous Materials*

Please see HAZARDOUS BUILDING MATERIALS SURVEY conducted by Golder Associates Ltd. Dated June, 2007 for details. No hazardous issues know or reported.

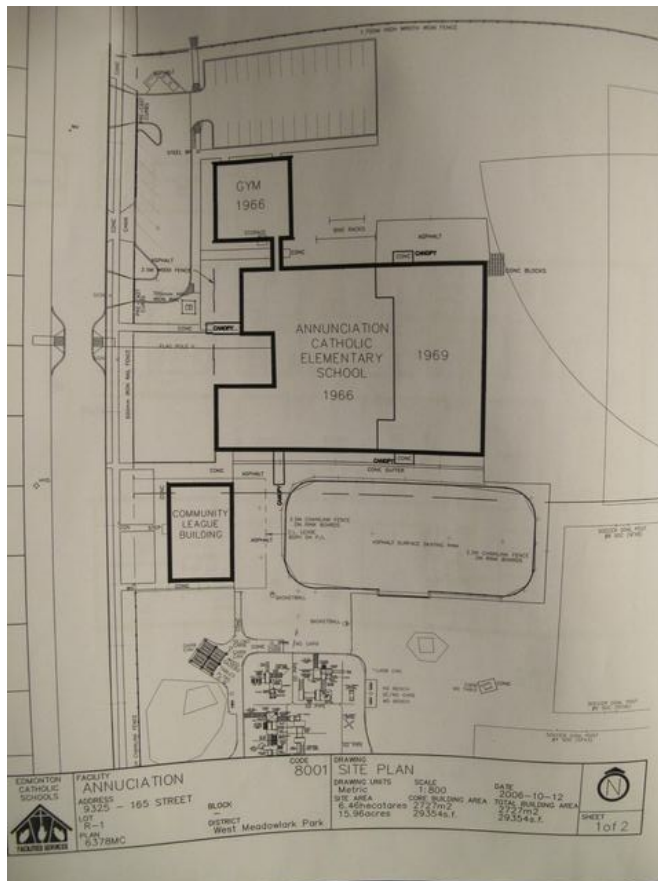
<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1966	0	MAR-12

K5010.02 Building Documentation*

The evaluation was conducted on October 26, 2011, by Asset Evolution Inc.

Annunciation Catholic Elementary School, originally built in 1966 is a one-storey school with a building area of 1840m². In 1969, a one-storey addition was added to the east elevation of the original school. The addition has an area of 887m². A free-standing portable is located at the north-end of the site. The school, including the portable, has a total area of 2810m². The one storey school comprised of several classrooms, a gymnasium, a library, a computer room, music room, staff room and offices. Meadowlark Park Daycare leases two classrooms at the south-west corner of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2011	0	MAR-12



Annunciation Catholic Elementary School - Site and Roof Plan