

# **RECAPP Facility Evaluation Report**

**Edmonton School District No. 7**



**Crawford Plains School**

B3082A  
Edmonton

**Facility Details**

**Building Name:** Crawford Plains School  
**Address:** 4210 - 12 Avenue  
**Location:** Edmonton

**Building Id:** B3082A  
**Gross Area (sq. m):** 3,716.00  
**Replacement Cost:** \$9,096,000  
**Construction Year:** 1982

**Evaluation Details**

**Evaluation Company:** Asset Evolution Incorporated (AEI)  
**Evaluation Date:** October 17 2011  
**Evaluator Name:** Mario Plastina

**Total Maintenance Events Next 5 years:** **\$1,568,200**  
**5 year Facility Condition Index (FCI):** **17.24%**

**General Summary:**

Crawford Plains School Elementary School, originally built in 1982 is a one-storey school with mezzanines above most of the classroom areas library and two mechanical penthouses. The original school has an area of 3241 m2. In 1985, a 4-classroom addition (Pod) was added at the north-west end of the school with a total building area of 475 m2. The school has a total building area of 3716 m2. The school is comprised of 17 classrooms (8 classrooms with mezzanine areas), a gymnasium, a library with a computer lab above on the mezzanine level, science rooms and two ancillary rooms.

The 2011 student enrollment is 305 children.

**Structural Summary:**

The foundations consist of cast-in-place concrete grade beams and spread footings. The original building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement. The mezzanine has a metal roof deck with a steel structure supported by exterior & interior concrete walls. The roof comprises of a metal roof deck with steel structure supported by exterior & interior concrete walls. The structural walls and columns are poured in place concrete.

Overall the structural components are in acceptable condition.

**Envelope Summary:**

The lower portion of the exterior cladding consists primarily of brick. The upper portion of the exterior walls have a EFIS (stucco) assembly. Sealant is located around all window, door and exterior cladding assemblies. The EFIS (Stucco) assembly has a paint finish. The windows frames have also been repainted. The interior face of the exterior walls have a concrete block wall assembly. Exterior metal louvres are located on the exterior walls opposite the mechanical units. Exterior soffits consist of a prefinished stucco finish. The exterior window units are double glazed aluminum frame with single hung units combined with fixed glazed panels. The main entrances (E1 -E3) have painted steel doors with painted steel frames and GWG inserts. Metal screens have been fastened to several of the doors for safety concerns. The majority of the original secondary entrances have a wood door with a metal frame assembly. Secondary entrance/exit doors have been replaced with insulated hollow metal exterior doors, single leaf, complete with closures, panics, thresholds, push plates pull handles, locksets and weatherstripping. All the sloped & flat roof sections have an SBS assembly. Metal gutters and downspouts are located around the perimeter of the sloped roof. The downspouts discharge to the lower flat roof levels, which are equipped with roof drains and internal rainwater leaders.

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

**Recommendations:**

- Replace building sealant on doors & windows - 1800 LM
- Repair & repaint exterior stucco walls & windows (Based on GFA -3241m2 & 90 windows)
- Replace all exterior wood doors c/w hardware (15 doors)
- Replace exterior metal & wood siding on Pod Addition (Area - 400m2) + 2 doors

**Interior Summary:**

Interior partitions typically consist of painted masonry block walls and painted gypsum board walls. Interior glazed windows are located in the main office area and vestibule areas. Wood framed plex-glass panels have been installed in one mezzanine area. The interior swing doors generally consist of solid core painted and/or clear finished wood

doors in painted steel frames and tempered glass panes. Fire doors are located in the common area corridors between the original building and each addition. The doors are rated and labeled. Accordion folding doors are located in two classroom pods and in the staff kitchen area. Pocket solid wood doors are located in two of the mezzanine areas. Tackboards, chalkboards and whiteboards are located in each classroom area. Painted metal washroom stall partitions are located in each boy's & girls change rooms. Rubber corner guards are located in the main corridor. Painted steel handrails and pickets are located at the top of the stair and mezzanine area and library. The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors.

The stairs to the upper mechanical penthouse are steel stairs with concrete filled pans. The stairs to the mezzanine levels are painted steel stairs with concrete filled pans and a carpet finish. Carpet floor finish on the stairs to the mezzanine levels. Painted steel handrails on the stairwell stairs to the mechanical penthouse, library and mezzanine levels.

Several of the demising walls in the building consist of painted gypsum walls. The interior walls in the change rooms have a 4"x4" ceramic tile wall finish. Acoustical wall panels are located on the mezzanine partition walls. The interior partitions throughout the school have a paint finish. Several of the interior demising walls in the building consist of gypsum walls with a vinyl wall covering. Painted/sealed concrete floors are located in the gym storage room, mechanical room and custodial rooms. Ceramic tile flooring is located in the washrooms and change rooms. Hardwood flooring is located in the gymnasium. VCT is located throughout the portions of the classrooms and corridors. Carpeting is located in most of the classroom area, mezzanine, office area, music room and library. Gypsum board ceilings are located in the washrooms & change rooms. The majority of the ceilings throughout the corridors, offices and parts of the classrooms have a 2'x4' and/or 2'x2' suspended acoustical tile assembly. All gypsum board ceilings & exposed steel structures in the classrooms, library, gym and utility rooms have a paint finish.

Overall, the interior finishes are in acceptable condition.

Recommendations:

- Code Repair - Increase railing height to conform to building code
- Replace all damaged, missing and stained tiles ceiling tiles
- Repair & repaint damaged in girl's change room

### **Mechanical Summary:**

MECHANICAL SUMMARY (October 2011)

The building is heated by hot water which is supplied from two natural gas fired hot water boilers to the building heating terminal units (force flow convection cabinets, finned tube radiation cabinets, unit heaters, and terminal reheat coils), and to the air handling unit heating coils (for air handling units AHU1, AHU2 and AHU3). Two natural gas fired steam boilers provide steam for the humidification systems for the three air handling units (AHU1, AHU2 and AHU3).

Ventilation for the building is provided by three air handling units (the south classroom air handling unit AHU1, the gymnasium air handling unit AHU2, and the north classroom handling unit AHU3). Fresh air supplied to the building by the air handling units is balanced by the exhaust flow from approximately 13 exhaust fans.

Building HVAC equipment actuators and thermostats are generally pneumatic (electric controls are used for the force flow convection heaters and the unit heaters), and the control air supply system for the building consists of two air compressors mounted on an air receiver tank, and includes a refrigerated air dryer. A Reliable Controls building management and control system provides monitoring and control for the main HVAC equipment including the hot water heating system and the air handling units.

Washroom plumbing fixtures include toilets, lavatories and urinals. There are 26 toilets, two urinals, and 21 lavatories in the building. Other plumbing fixtures in the building include drinking fountains (two wall mounted units and 15 sink mounted units), various sinks (23), and change room showers (12 stalls). Two natural gas fired domestic hot water heaters provide domestic hot water for the building lavatories, sinks, and showers.

Fire protection for the building consists of an automatic sprinkler system and fire extinguishers located on wall mount brackets and in recessed wall mounted cabinets.

Current mechanical system requirements include the need for a backflow prevention device for the domestic water supply system. Overall, the building mechanical equipment and systems are in acceptable condition.

**Electrical Summary:**

Crawford Plains School is fed from an EPCOR padmounted transformer located on the school grounds. The main switchboard is rated at 1200A, 120/208V. There are individual motor starters for the major mechanical equipment. A 21.5kW emergency generator is located in the main electrical room.

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

The interior fluorescent lighting fixtures have T-8 lamps and electronic ballasts. The exit lighting in the building consists of units that have been retrofitted with LED lamps. The emergency lighting is fed from standard fluorescent fixtures fed from an emergency panel. The exterior lighting consists of wall mounted H.I.D fixtures and incandescent fixtures.

The building is equipped with a Simplex 2002 system. Detection and end devices include, smoke and heat detectors, bells and pull stations.

The various communications and security systems within the school include; a DSC Maxsys PC4020 security system that monitors motion detectors, a Bogen P.A. system and a Nortel BCM-50 telephone 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 Crawford Plains School are:

- The fire alarm system is aged - replacement parts are not available.

Overall the electrical components for Crawford Plains School were observed to be in acceptable condition.

<b>Rating Guide</b>	
<b>Condition Rating</b>	<b>Performance</b>
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 consists of cast-in-place concrete grade beams and spread footings.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

### A1030 Slab on Grade\*

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

### B1010.01 Floor Structural Frame (Building Frame)\*

Concrete structural flat slab supported by steel joists spanning between steel beams & column and foundation walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

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

Structural reinforced concrete block partitions and beams are located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

### B1010.05 Mezzanine Construction\*

The mezzanine has a metal roof deck with a steel structure supported by exterior & interior concrete walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

### B1010.09 Floor Construction Fireproofing\*

Floor Construction Fireproofing - Not visible during site visit

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

### B1010.10 Floor Construction Firestopping\*

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	1982	0	MAR-12

**B1020.01 Roof Structural Frame\***

Metal roof deck with steel structure supported by exterior & interior concrete walls.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**B1020.06 Roof Construction Fireproofing\***

Roof Construction Fire-proofing - Not visible during site visit

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**S2 ENVELOPE****B2010.01.02.01 Brick Masonry: Ext. Wall Skin\***

The lower portion of the exterior cladding consists primarily of brick.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

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

The upper portion of the exterior walls have a EFIS (stucco) assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**B2010.01.09 Expansion Control: Ext. Wall\***

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**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>
3 - Marginal	1983	20	MAR-12

**Event: Replace building sealant on doors & windows - 1800 LM****Concern:**

The sealant around the windows and doors has deteriorated and is brittle.

**Recommendation:**

Replace sealant around windows and doors.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$60,000	Low

**Updated:** MAR-12



Deteriorated sealant along window assembly.

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

The EFIS(Stucco) assembly has a paint finish. The windows frames have also been repainted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1982	15	MAR-12

**Event: Repair & repaint exterior stucco walls & windows (Based on GFA -3241m2 & 90 windows)**

**Concern:**

Several cracks were observed on the exterior wall assembly. The paint finish is aged and worn on the stucco and window frames

**Recommendation:**

Repair & repaint exterior stucco walls & windows (Based on GFA -3241m2 & 90 windows)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$120,000	Medium

**Updated:** MAR-12



Cracks on stucc wall assembly.

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

The interior face of the exterior walls have a concrete block wall assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**B2010.03 Exterior Wall Vapour 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	1982	0	MAR-12

**B2010.06 Exterior Louvers, Grilles, and Screens\***

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	1982	0	MAR-12



**B2010.09 Exterior Soffits\***

Exterior soffits consist of a prefinished stucco finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

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

The exterior window units are double glazed aluminum frame with single hung units combined with fixed glazed panels. Metal screens have been fastened to several of the windows for safety concerns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace Aluminum Windows (Glass & Frame) - 104 Window Sections**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$300,000	Unassigned

**Updated:** MAR-12

**B2030.01.02 Steel-Framed Storefronts: Doors\*\***

The main entrances (F1 -F3) have painted steel doors with painted steel frames and GWG inserts. Metal screens have been fastened to several of the doors for safety concerns.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace main entrance assembly F1 - F3 - Replace main entrance assembly F1 - F3 - (6 doors, sidelights c/w hardware)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$36,000	Unassigned

**Updated:** MAR-12

**B2030.01.10 Wood Entrance Door\*\***

The majority of the original secondary entrances have a wood door with a metal frame assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1982	30	MAR-12

**Event:** Replace all exterior wood doors c/w hardware (15 doors)

**Concern:**

Several of the original wood doors are worn, rotted and deteriorated.

**Recommendation:**

Replace all exterior wood doors c/w hardware (14 doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$42,000	Medium

**Updated:** MAR-12



Deteriorated wood door assembly.

**B2030.02 Exterior Utility Doors\*\***

Secondary entrance/exit doors have been replaced with insulated hollow metal exterior doors, single leaf, complete with closures, panics, thresholds, push plates pull handles, locksets and weatherstripping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event:** Replace steel framed doors & hardware assembly (15 doors)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$45,000	Unassigned

**Updated:** MAR-12

**B3010.01 Deck Vapour 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	1982	0	MAR-12

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - Flat Sections**

The roof covering on the flat roof surfaces has an SBS roof assembly.

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

**Event:** Replace SBS roof on Flat Sections - Area 1 (2100m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$350,000	Unassigned

**Updated:** MAR-12



Typical condition of Built-up roof assembly.

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - Sloped Sections**

All the sloped roof sections have been replaced with a SBS assembly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	25	MAR-12

**Event:** Replace SBS roof on Sloped Sections - Area 2 (1300m2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2026	\$220,000	Unassigned

**Updated:** MAR-12

**B3010.08.02 Metal Gutters and Downspouts\*\***

Metal gutters and downspouts are located around the perimeter of the sloped roof. The downspouts discharge to the lower flat roof levels, which are equipped with roof drains and internal rainwater leaders.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event:** Replace gutters and downspouts at sloped sections - (500LM)

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

**Updated:** MAR-12

### S3 INTERIOR

#### C1010.01 Interior Fixed Partitions\*

Interior partitions typically consist of painted masonry block walls, brick and painted gypsum board walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

#### C1010.05 Interior Windows\*

Interior glazed windows are located in the main office area and vestibule areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

#### C1010.06 Interior Glazed Partitions and Storefronts\*

Wood framed plex-glass panels have been installed in one mezzanine area.

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

#### C1010.07 Interior Partition Firestopping\*

Where visible, it appears that piping and conduit have been 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	1982	0	MAR-12

#### C1020.01 Interior Swinging Doors (& Hardware)\*

The interior swing doors generally consist of solid core painted and/or clear finished wood doors in painted steel frames and tempered glass panes.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

#### C1020.03 Interior Fire Doors\*

Fire doors are located in the common area corridors between the original building and each addition. The doors are rated and labeled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

**C1020.04 Interior Sliding and Folding Doors\***

Accordion folding doors are located in two classroom pods and in the staff kitchen area. Pocket solid wood doors are located in two of the mezzanine areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	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	1982	20	MAR-12

**Event: Replace Visual Display Boards - (Based on the 20 teaching rooms)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$20,000	Unassigned

**Updated:** MAR-12

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

Painted metal washroom stall partitions are located in each boy's & girls change rooms

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace original toilet compartments (8 Stalls)**

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

**Updated:** MAR-12

**C1030.05 Wall and Corner Guards\***

Rubber corner guards are located in the main corridor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**C1030.06 Handrails\***

Painted steel handrails and pickets are located at the top of the stair and mezzanine area and library.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	2006	0	MAR-12

**Event: Code Repair - Increase railing height to conform to building code**

**Concern:**

The height of the handrail on the mezzanine level does not conform to the building code. An existing 41cm step from the floor does not allow the proper height to conform to the code.

**Recommendation:**

The railing height must be increase to conform to the code height. Modify the railings on 8 mezzanine levels

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2012	\$25,000	High

**Updated:** MAR-12



Railing height on mezzanine does not meet building code.

**C1030.08 Interior Identifying Devices\***

The room number or room name is painted on the interior doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

**C1030.12 Storage Shelving\***

Clear finish plywood storage shelving throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

**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	1982	0	AUG-06

**C2010 Stair Construction\***

The stairs to the upper mechanical penthouse are steel stairs with concrete filled pans. The stairs to the mezzanine levels are painted steel stairs with concrete filled pans and a carpet finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

**C2020.06 Carpet Stair Finishes\*\***

Carpet floor finish on the stairs to the mezzanine levels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	10	MAR-12

**Event: Replace carpet on stair treads and landing to mezzanine areas ( 7 stairs)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$35,000	Unassigned

**Updated:** MAR-12

**C2020.08 Stair Railings and Balustrades\***

Painted steel handrails on the stairwell stairs to the mechanical penthouse, library and mezzanine levels

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**C3010.04 Gypsum Board Wall Finishes (Unpainted)\***

Several of the demising walls in the building consist of painted gypsum walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

**C3010.06 Tile Wall Finishes\*\***

The interior walls in the change rooms have a 4"x4" ceramic tile wall finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace ceramic wall tile in change rooms(Based per 300 SM of wall tile surface)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$30,000	Unassigned

**Updated:** MAR-12

**C3010.09 Acoustical Wall Treatment\*\***

Acoustical wall panels are located on the mezzanine partition walls

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	20	MAR-12

**Event: Replace acoustical wall panels - 250m2**

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

**Updated:** MAR-12

**C3010.11 Interior Wall Painting\***

The interior partitions throughout the school have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	0	AUG-06

**C3010.12 Wall Coverings\***

Several of the interior demising walls in the building consist of gypsum walls with a vinyl wall covering.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	0	MAR-12

**C3020.01.02 Painted Concrete Floor Finishes\***

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	0	AUG-06

**C3020.02 Tile Floor Finishes\*\***

Ceramic tile flooring is located in the washrooms and change rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	50	MAR-12

**Event: Replace ceramic floor tile (Area - 300m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$30,000	Unassigned

**Updated:** MAR-12



**C3020.04 Wood Flooring\*\***

Hardwood flooring is located in the gymnasium

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1982	30	MAR-12

**Event: Replace Hardwood floor in gymnasium - 500m2**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$125,000	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\***

VCT is located throughout the portions of the classrooms and corridors

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	20	MAR-12

**Event: Replace VCT flooring (Area - 1600m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$80,000	Unassigned

**Updated:** MAR-12

**C3020.08 Carpet Flooring\*\***

Carpeting is located in most of the classroom area, mezzanine, office area, music room and library.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	15	MAR-12

**Event: Replace carpeting (Area - 1600m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2019	\$160,000	Unassigned

**Updated:** MAR-12

**C3030.04 Gypsum Board Ceiling Finishes (Unpainted)\***

Gypsum board ceilings are located in the washrooms & change rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	AUG-06

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

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1982	25	MAR-12

**Event: Replace acoustical tile ceiling - (Approx Area - 1000m2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$75,000	Unassigned

**Updated:** MAR-12

**Event: Replace all damaged, missing and stained tiles ceiling tiles**

**Concern:**

Several stained and damaged tiles were observed in the main corridor due to earlier roof leaks.

**Recommendation:**

Replace all damaged, missing and stained tiles.

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

**Updated:** MAR-12



Missing and stained ceiling tiles in the main corridor.

**C3030.07 Interior Ceiling Painting\***

All gypsum board ceilings & exposed steel structures in the classrooms, library, gym and utility rooms have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1982	0	MAR-12

**Event: Repair & repaint damaged in girl's change room**

**Concern:**

Water damaged to the ceiling was observed in the girl's change.

**Recommendation:**

Repair and repaint ceiling.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$2,500	Low

**Updated:** MAR-12



Damaged ceiling in girl's change room.

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

Sinks in the building include one plastic mop sink (room 135 - custodian's storage room), and 22 general purpose single and double bowl stainless steel sinks located in the staff room, the custodian's office, the kitchen, the infirmary, and the classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event:** **Replace the building sinks (one mop sink and 22 general purpose stainless steel sinks)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$34,500	Unassigned

**Updated:** MAR-12

**D2010.05 Showers\*\***

Shower stalls are located in the boy's and girl's change rooms (six shower stalls in each change room). The showers have ceramic tile finishes on the walls and floors. The water supply temperature for the showers is controlled by a tempering valve. This element covers the shower trim including the shower heads and shower control valves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event:** **Replace the shower trim including the shower heads and shower control valves (12 shower stalls)**

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

**Updated:** MAR-12

**D2010.08 Drinking Fountains/Coolers\*\***

There are two drinking fountains located in the building corridors including one wall mounted vitreous china drinking fountain and one wall mounted stainless steel drinking fountain. In addition, the general purpose stainless steel sinks located in the classrooms are equipped with drinking fountain attachments (15 total).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	35	MAR-12

**Event:** **Replace the drinking fountains (two wall mounted units and 15 sink mounted units)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$10,500	Unassigned

**Updated:** MAR-12

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

Washroom plumbing fixtures include floor mounted vitreous china flush valve type toilets (19), floor mounted vitreous china tank type toilets (7), floor mounted vitreous china flush valve type urinals (2), counter mounted enameled steel lavatories (20), and one counter mounted stainless steel lavatory.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	35	MAR-12

**Event: Replace the washroom plumbing fixtures (26 toilets, 2 urinals, and 21 lavatories)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$87,200	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 (100 mm diameter). A second municipal water supply to the building feeds the building fire protection system (200 mm diameter). The municipal water supply line to the building for the domestic water distribution system was replaced in c.2005. There is a water meter for the building domestic water distribution system (38 mm diameter). The municipal water supplies enter the building in mechanical room 128. 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	1982	0	MAR-12

**D2020.01.02 Valves: Domestic Water\*\***

Domestic water distribution system valves include the domestic water supply main isolation valves, the domestic water distribution system zone isolating valves, and plumbing fixture isolating valves. The main isolation valves are ball type valves. This element also includes the tempering valve for the change room shower water supply.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace the domestic water distribution system valves (3,716 SM GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$21,000	Unassigned

**Updated:** MAR-12

**D2020.01.03 Piping Specialties (Backflow Preventers)\*\* - c.1993**

There is one 150 mm diameter backflow prevention device (located in mechanical room 128) for the water supply to the building fire protection system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1993	20	MAR-12

**Event: Replace the backflow prevention device for the fire protection system (150 mm diameter)**

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

**Updated:** MAR-12

**D2020.01.03 Piping Specialties (Backflow Preventers)\*\* - c.1997**

There is one 19 mm diameter backflow prevention device (located in mechanical room 128) for the make-up water supply to the hot water heating system and the steam boilers. 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	1997	20	MAR-12

**Event: Install a backflow prevention device on the domestic water supply to the building (75 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 (75 mm diameter).

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2012	\$7,000	Medium

**Updated:** MAR-12

**Event: Replace the backflow prevention device for the HVAC systems (19 mm diameter)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$1,000	Unassigned

**Updated:** MAR-12

**D2020.02.02 Plumbing Pumps: Domestic Water\*\***

There are two domestic hot water circulation pumps in the building (one associated with each domestic hot water heater). The domestic hot water circulation pumps are located in mechanical room 128 (pump P5) and mechanical room 201 (pump P6).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	20	MAR-12

**Event:** Replace the domestic hot water circulation pumps (2)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$4,000	Unassigned

**Updated:** MAR-12

**D2020.02.06 Domestic Water Heaters\*\* - c.2001**

One storage tank type natural gas fired domestic hot water heater is located in mechanical room 128. The domestic hot water heater is an A.O. Smith model BTRC120-110 with an input heating capacity of 120,000 Btu/h (35.17 kW) and a volume capacity of 71 US gallons (269 L).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2001	20	MAR-12

**Event:** Replace the domestic hot water heater in mechanical room 128

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2021	\$4,500	Unassigned

**Updated:** MAR-12

**D2020.02.06 Domestic Water Heaters\*\* - c.2004**

One storage tank type natural gas fired domestic hot water heater is located in mechanical room 201. The domestic hot water heater is an A.O. Smith model BTRC120-110 with an input heating capacity of 120,000 Btu/h (35.17 kW) and a volume capacity of 71 US gallons (269 L).

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

**Event:** Replace the domestic hot water heater in mechanical room 201

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2024	\$4,500	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.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**D2030.01 Waste and Vent Piping\***

Visible waste and vent piping is generally copper in smaller diameters and cast iron in larger diameters. The building sanitary drainage system discharges at the south end of the building (150 mm diameter discharge line) to the municipal sanitary sewer system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**D2030.02.04 Floor Drains\***

Floor drains are used in the building in various areas including the mechanical rooms and change rooms. The floor drains discharge to the building sanitary drainage system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**D2040.01 Rain Water Drainage Piping Systems\***

The sloped roof areas of the building drain to gutters and downspouts which discharge to the flat roof areas or to the below grade storm drainage piping (weeping tile system). The building flat roof areas drain via roof drains and internal storm drainage piping. The storm water drainage piping in the building is generally cast iron. The building storm water drainage system discharges at the south end of the building to the municipal storm sewer system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**D2040.02.04 Roof Drains\***

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

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**D3010.01 Oil Supply Systems (Fuel, Diesel)\***

There is a diesel fuel supply system for the standby generator located in room 129. The diesel fuel supply system consists of a storage tank with exterior fill and vent pipes.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**D3010.02 Gas Supply Systems\***

The natural gas supply to the building is underground to mechanical room 128 where the pressure reducing station and meter are located. The natural gas supply line is a 89 mm diameter line (medium pressure gas). Low pressure (7" water column) natural gas in the building is supplied to the two hot water boilers, the two steam boilers, the two domestic hot water heaters, and the four furnaces for the c.1985 pod addition (classrooms 171, 172, 173 and 174).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D3020.01.01 Heating Boilers & Accessories: Steam\*\***

There are two natural gas fired steam boilers located in mechanical room 128 which provide steam for humidification for the three air handling units. Each of the steam boilers is a Hydrotherm model VGAM500S with an input heating capacity of 500,000 Btu/h (146.55 kW).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	35	MAR-12

**Event: Replace the two steam boilers (146.55 kW each)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$44,000	Unassigned

**Updated:** MAR-12

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

The combustion gases from the two steam boilers discharge through a common B-vent stack which penetrates the roof above the mechanical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	35	MAR-12

**Event: Replace the combustion gas discharge stack for the steam boilers (9 m)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$6,000	Unassigned

**Updated:** MAR-12

**D3020.01.04 Water Treatment: Steam Boilers\***

Treatment for the steam boiler feedwater consists of chemical addition using a chemical barrel and and a chemical feed pump.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12



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

There are two natural gas fired hot water boilers located in mechanical room 128 which provide hot water for building heating. Each boiler is a Lochinvar model CHN1261 with an input heating capacity of 1,260,000 Btu/h (369.31 kW).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2004	35	MAR-12

**Event: Replace the two hot water heating boilers (369.31 kW each)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2039	\$72,000	Unassigned

**Updated:** MAR-12

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

The combustion gases from the two hot water boilers discharge through independent stacks which penetrate the roof above the boiler room. There is a combustion air supply ducted to the boiler room (mechanical room 128).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	35	MAR-12

**Event: Replace the combustion gas discharge stacks for the hot water boilers (16 m) and the combustion air supply duct (8 m)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$15,000	Unassigned

**Updated:** MAR-12

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

Water treatment for the hot water boilers consists of manual chemical addition via a pot feeder and sidestream filtration in parallel with the hot water circulation pumps P1 and P2.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D3040.01.01 Air Handling Units: Air Distribution\*\* - AHU1 - Classrooms South**

There is one packaged air handling unit located in mechanical room 202 which serves the south classroom areas (air handling unit AHU1). This air handling unit is a mixed air unit (mixed fresh air and return air) and includes a hot water heating coil, a steam humidification system, a supply air fan, and an associated return air fan (covered under a separate element). The packaged air handling unit was manufactured by Gulf and Western Manufacturing Company Bohn AC & R Division (model HD221MF). The air handling unit capacity is 7,080 L/s at 0.803 kPa.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace air handling unit AHU1 (7,080 L/s)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$60,000	Unassigned

**Updated:** MAR-12**D3040.01.01 Air Handling Units: Air Distribution\*\* - AHU2 - Gymnasium**

There is one packaged air handling unit located in mechanical room 201 which serves the gymnasium (air handling unit AHU2). This air handling unit is a mixed air unit (mixed fresh air and return air) and includes a hot water heating coil, a steam humidification system, a supply air fan, and an associated return air fan (covered under a separate element). The packaged air handling unit was manufactured by Gulf and Western Manufacturing Company Bohn AC & R Division (model HD12ALF). The air handling unit capacity is 3,398 L/s at 0.57 kPa.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace air handling unit AHU2 (3,398 L/s)**

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

**Updated:** MAR-12**D3040.01.01 Air Handling Units: Air Distribution\*\* - AHU3 - Classrooms North**

There is one packaged air handling unit located in mechanical room 201 which serves the north classroom areas (air handling unit AHU3). This air handling unit is a mixed air unit (mixed fresh air and return air) and includes a hot water heating coil, a steam humidification system, a supply air fan, and an associated return air fan (covered under a separate element). The packaged air handling unit was manufactured by Gulf and Western Manufacturing Company Bohn AC & R Division (model HD06ALF). The air handling unit capacity is 2,360 L/s at 0.55 kPa.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace air handling unit AHU3 (2,360 L/s)**

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

**Updated:** MAR-12

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

Return air fan RF1 for AHU1 is located in mechanical room 128 and return air fans RF2 and RF3 (for AHU2 and AHU3 respectively) are located in mechanical room 201. The return air fans are belt driven axial flow type fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**Event: Repair****Concern:**

Replace the fan on the air handling unit on the rooftop

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2011	\$4,537	Unassigned

**Updated:** JUN-11

**D3040.01.03 Air Cleaning Devices: Air Distribution\***

The three air handling units (AHU1, AHU2, and AHU3) are equipped with filters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	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 three air handling units serving the building (AHU1, AHU2, and AHU3). The duct systems include associated components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, mixing boxes, etc. The duct systems are original (c.1982).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	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. Typical supply air diffusers include rectangular duct mounted diffusers in the gymnasium, round cone type duct mounted diffusers in the classrooms, and square cone type supply air diffusers mounted in the ceiling grid in the office areas. Typical return air grilles include wall mounted rectangular grilles and eggcrate type return air grilles in the ceiling grid.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

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

This element includes the steam distribution piping from the steam boilers to the air handling unit humidification systems and the condensate return piping from the steam traps to the condensate return tank. The condensate return tank is located in mechanical room 128 and is also the steam boiler feedwater tank. The condensate return tank/boiler feedwater tank is equipped with two condensate return/boiler feedwater pumps. The steam distribution and condensate collection systems include the steam distribution piping, the condensate collection piping, piping fittings, piping insulation, valves, piping specialties, steam traps, and the condensate return/boiler feedwater system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace the steam and condensate distribution systems (3,716 SM GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$14,000	Unassigned

**Updated:** MAR-12**D3040.03.01 Hot Water Distribution Systems\*\***

The building is heated with a hot water heating system. The hot water heating system provides hot water to the hydronic terminal units (including finned tube radiation cabinets, force flow convectors, unit heaters, and terminal reheat coils), and to the air handling unit heating coils (for air handling units AHU1, AHU2 and AHU3). There are two boiler hot water circulation pumps (P5 and P6), two radiation heating loop circulation pumps (P1 and P2), and two coil heating loop circulation pumps (P3 and P4). The hot water distribution system includes all components of the closed loop hot water heating system including piping, valves, piping insulation, piping specialties, circulation pumps, and the expansion tank. The circulation pumps and the expansion tank are located in mechanical room 202.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace the hot water distribution system (3,716 SM GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$300,000	Unassigned

**Updated:** MAR-12**D3040.04.01 Fans: Exhaust\*\***

There are approximately 13 exhaust fans for the building including 11 roof mounted exhaust fans and two interior exhaust fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace the building exhaust fans (13)**

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

**Updated:** MAR-12

**D3040.04.03 Ducts: Exhaust\***

Exhaust duct systems include the collection and discharge ducts (as applicable) associated with the 13 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	1982	0	MAR-12

**D3040.04.05 Air Outlets and Inlets: Exhaust\***

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D3050.02 Air Coils\*\* - Reheat Coils**

Hot water terminal reheat coils are located in the air distribution ducts to provide temperature control in the classrooms and offices (there are an estimated 22 reheat coils).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace the hot water reheat coils (22)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$38,500	Unassigned

**Updated:** MAR-12

**D3050.03 Humidifiers\*\***

There are three steam humidification systems for air handling units AHU1, AHU2, and AHU3.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	25	MAR-12

**Event: Replace the air handling unit steam humidification systems (3)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$9,000	Unassigned

**Updated:** MAR-12

**D3050.05.01 Convectors\*\* - Force Flow Heaters**

Hot water force flow convectors are used in high heating load areas including the building entrance vestibules (7).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace the force flow convection heaters (7)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$28,000	Unassigned

**Updated:** MAR-12

**D3050.05.03 Finned Tube Radiation\*\***

Hot water finned tube radiation cabinets provide perimeter heating for most areas of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace the finned tube radiation cabinets (170 m)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$85,000	Unassigned

**Updated:** MAR-12

**D3050.05.06 Unit Heaters\*\***

Hot water unit heaters are used in the gymnasium, in the mechanical rooms, in the generator room (room 129) and in storage room 131 (ten unit heaters total).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace the hot water unit heaters (10)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$39,500	Unassigned

**Updated:** MAR-12

**D3060.02.01 Electric and Electronic Controls\*\***

The force flow convection heaters and the unit heaters are controlled by electric thermostats.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace the electric controls for the unit heaters and the force flow heaters (17)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$5,100	Unassigned

**Updated:** MAR-12

**D3060.02.02 Pneumatic Controls\*\***

The building HVAC system controls and actuators are generally pneumatic (electric controls are used for the force flow convection heaters and the unit heaters). The control air supply system is located in mechanical room 202 and consists of two air compressors mounted on an air receiver tank, as well as a refrigerated air dryer. Pneumatic controls include pneumatic thermostats, control valves for the heating terminal units, control valves for the air handling unit hot water heating coils, and damper actuators for the air handling unit dampers. This element includes the control air distribution system and components, as well as the control air supply system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

**Event: Replace the pneumatic controls including the control air supply system (3,716 SM GFA)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$19,000	Unassigned

**Updated:** MAR-12

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

A Reliable Controls building management and control system provides monitoring and control for the main HVAC equipment including the hot water heating system and the air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	20	MAR-12

**Event: Replace the Reliable Controls building management and control system (3,716 SM GFA)**

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

**Updated:** MAR-12

**D4010 Sprinklers: Fire Protection\***

This building is equipped with an automatic sprinkler system for fire protection. The sprinkler system is fed from a 200 mm diameter fire main complete with a main check valve (150 mm diameter) and a jockey pump located in mechanical room 128. The fire department connection to the sprinkler system is located on the east side of building near the main entrance.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**D4030.01 Fire Extinguisher, Cabinets and Accessories\***

Wall mounted and cabinet mounted ABC type fire extinguishers are located throughout the building.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12



**S5 ELECTRICAL****D5010.01.02 Main Electrical Transformers (Utility Owned)\***

The incoming hydro service to Crawford Plains School is a 120/208V, 3-phase, 4-wire service from an exterior padmounted transformer located on the East side of the school property. The padmounted transformer is owned and maintained by EPCOR. The EPCOR meter is located in the main electrical room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	40	MAR-12

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

The main electrical switchboard is a Square D switchboard rated at 1200A, 120/208V, 3-phase, 4-wire. The switchboard has a 1200A main breaker and a distribution section with moulded case breakers feeding the transfer switch, mechanical equipment and branch circuit panels (11) 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>
4 - Acceptable	1982	40	MAR-12

**Event: Replace Main Switchboard (1200A, 120/208V - 14 branch breakers)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2022	\$28,000	Unassigned

**Updated:** MAR-12

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

The majority of the electrical branch circuit panelboards are Square D panels that were installed when the building was originally constructed. The panels for car plug-ins are equipped with contactors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace Branch Circuit Panels (11 panels)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$56,000	Unassigned

**Updated:** MAR-12

**D5010.07.02 Motor Starters and Accessories\*\***

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace Motor Starters (12 motor starters, 10 motor rated switches)**

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

**Updated:** MAR-12

**D5010.07.03 Variable Frequency Drives\*\***

A Leeson Speedmaster variable speed drive (11kW, 15HP) has been provided for supply fan FC-1. The VSD is located in mechanical room 128.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	30	MAR-12

**Event: Replace Variable Speed Drive (1 x 15HP)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$7,000	Unassigned

**Updated:** MAR-12

**D5020.01 Electrical Branch Wiring\***

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

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

Lighting is typically controlled by individual 120V switches within the individual rooms. Central control switches for lighting are located in the Caretaker's room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D5020.02.02.01 Interior Incandescent Fixtures\***

There are incandescent downlights in the main entrance lobby.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D5020.02.02.02 Interior Fluorescent Fixtures\*\***

The fluorescent lighting fixtures within the building have been upgraded. T8 lamps and electronic ballasts have been installed in the existing fluorescent lighting fixtures. The typical classroom lighting consists of suspended two lamp fluorescent wrap-around fixtures. Two lamp fluorescent fixtures with wire guards have been provided in the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	30	MAR-12

**Event: Replace Interior Fluorescent Fixtures (3241 m2 gfa)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2038	\$201,000	Unassigned

**Updated:** MAR-12

**D5020.02.02.05 Other Interior Fixtures\***

Theatrical spots and floodlighting fixtures have been provided for stage lighting in the gymnasium. The fixtures are controlled by dimmer switches.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D5020.02.03.01 Emergency Lighting Built-in\***

Existing building fluorescent lighting fixtures, fed from emergency panels, are utilized for emergency lighting.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	0	MAR-12

**D5020.02.03.02 Emergency Lighting Battery Packs\*\***

An emergency lighting battery unit has been installed in the vicinity of the emergency generator.

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

**Event: Replace Emergency Lighting Battery Pack (1 unit)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$1,100	Unassigned

**Updated:** MAR-12

**D5020.02.03.03 Exit Signs\***

The exit signs are typically installed at building exits and along egress routes. The majority of the exit signs are stencil faced exit signs that have been retrofitted with LED lamps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D5020.03.01.04 Exterior H.P. Sodium Fixtures\***

The exterior lighting for the school consists of H.P.S surface mounted fixtures on the exterior walls and canopies as well as some floodlighting fixtures. HPS wallpack fixtures (2008) have been provided on the gymnasium exterior walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

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

Timers have been provided for exterior lighting control.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D5030.01 Detection and Fire Alarm\*\***

The fire alarm system control panel is a Simplex 2002 panel with 14 active zones and 6 spare zones. The control panel is located in the general office and there is a remote annunciator at the main entrance. The audible devices within the school are 10" dia. Bells. Strobes have not been installed. Duct mounted smoke detection has been provided for the gymnasium air handling unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1982	25	MAR-12

**Event: Replace Fire Alarm System (3716 sq. m. gfa)**

**Concern:**

Existing Simplex 2002 fire alarm panel is no longer manufactured and repair parts no longer available. Fire devices are aged and may no longer be reliable. There are no strobes in the school.

**Recommendation:**

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

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$97,000	High

**Updated:** MAR-12



Remote fire alarm annunciator at main entrance.

**D5030.02.02 Intrusion Detection\*\***

The security system is a DSC Maxsys PC 4020 system with the main panel located in the storage room by the Custodial office. A security system keypad has been provided. PIR motion detectors have been provided throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2002	25	MAR-12

**Event:** **Replace Intrusion Detection System (Panel, 20 motion detectors)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$17,000	Unassigned

**Updated:** MAR-12

**D5030.03 Clock and Program Systems\***

The clocks within the school are battery powered clocks. The Simplex 2350 Master Time System located in the general office is utilized for class change bells only.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**D5030.04.01 Telephone Systems\***

The telephone system is a Nortel BCM 50 system. Telephone handsets are located in the classrooms and selected areas such as the general office. The main telephone equipment is located in the main electrical room. The telephone system is interconnected with the Bogen P.A. system.

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

**D5030.04.04 Data Systems\***

Data system servers are located in room 170, room 173 (Pod area) and outside classroom 154. The network wiring within the school is typically Cat. 5 or better. Supernet has been installed in the school. Wireless networking was provided within the school in 2010. Fiber has been provided to the school for high speed data transmission.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	2008	0	MAR-12

**D5030.05 Public Address and Music Systems\*\***

The public address system utilizes a Bogen amplifier system with paging over the telephone system. Speakers are typically round, recessed ceiling mounted units. The Bogen Multicom 2000 unit is located in the in the storage room by the Custodial office. A separate 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>
5 - Good	2009	20	MAR-12

**Event: Replace P.A. System (Head-end equipment and 25 classrooms)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2029	\$33,000	Unassigned

**Updated:** MAR-12

**D5030.06 Television Systems\***

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

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1997	0	AUG-06

**D5090.02 Packaged Engine Generator Systems (Emergency Power System)\*\***

An emergency generator is located in the main electrical room. The generator is rated 21.5kW, 26.5kVA at 120/208V. A Schmidtec transfer switch has been installed for the emergency power distribution system. Generator is tested weekly.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	35	MAR-12

**Event: Replace 21.5kW, 120/208V Generator and 100A Transfer Switch**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$22,000	Unassigned

**Updated:** MAR-12

**S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION****E1090.01.01 Vacuum Cleaning Systems\***

A central vacuum system is located in the classroom storage area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**E1090.04 Residential Equipment\***

The staff kitchen area is equipped with a refrigerator, dishwasher and microwaves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**E1090.07 Athletic, Recreational, and Therapeutic Equipment\***

Gym equipment, curtain divider, climbing apparatus, basketball hoops & backstops are located in the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	0	MAR-12

**E2010.02 Fixed Casework\*\***

Each classroom is equipped with custom wood open faced and/or painted cabinet units. The science laboratory is equipped with upper wood cabinets, lower cupboards c/w counter-top, open fixed shelving. The staff and cafeteria kitchens are equipped with upper and lower custom plastic laminate cabinet. The library has fixed and moveable wood shelving casework. Fixed stained wood benches are located in the change room areas. The washrooms have plastic laminate counter-tops. Glass display cabinets are located in the main entrance area and in the corridors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	35	MAR-12

**Event: Replace all millwork (Based per 3241 m2 of building area)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2017	\$300,000	Unassigned

**Updated:** MAR-12

**E2010.03.01 Blinds\*\***

Horizontal blinds are located in the library, staff room and most of the classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1982	30	MAR-12

**Event: Replace blinds (90 windows)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$45,000	Unassigned

**Updated:** MAR-12

**E2020.02.03 Furniture\***

Chairs, desks and tables are located in all the classrooms, library and administration areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12



**F1010.02.04 Portable and Mobile Buildings\*\* - 1985 Portables**

1985 Re-locatable Pod - Area 475m2 (Includes 4 classrooms, common corridor and entrance vestibule)

Structure:

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

Envelope:

- Cladding - The exterior skin has a pre-finished vertical & horizontal metal and siding finish with wood frame construction. A painted plywood siding skirt with vents is located at the base of the elevation.
- Windows - The exterior windows are vinyl frame operable slider type windows with security metal screens (8 total windows)
- Roof Covering - The roof covering has a SBS roof assembly (replaced in 2009).
- Roof Access - N/A
- Exterior Doors - Fire-rated painted steel and/or wood door & frame assembly (8 doors total).
- Exterior Stairs - Painted wood framed stairs with painted steel handrails. Concrete pad landing at grade.

Interior:

- Flooring - VCT & carpet flooring in classrooms
- Flooring - VCT flooring in corridor
- Ceiling - 2'x4' Suspended Acoustical tile ceiling with gypsum board accents.
- Walls - De-mountable vinyl walls with wood frame construction in classrooms & corridors
- Interior Doors - Classrooms - wood door & painted steel frame assembly.
- Interior Doors - Corridors - Fire-rated painted steel door & frame assembly
- Millwork - Each classroom is equipped with custom wood open faced and/or painted cabinet units.
- Equipment - Whiteboards, tackboards, cupboards & open wood shelving, wall mounted coat hooks.
- Window Coverings - Curtains.

Architectural elements within the portables are in acceptable condition.

Mechanical Summary

The c.1985 portable pod consists of four classroom portables (rooms 171, 172, 174 and 175) and a connecting link which includes a storage room (room 173). Each portable is heated by a natural gas fired forced air furnace (Carrier) with an above floor air distribution duct system which runs down one side of the classroom. Each furnace is controlled by a digital thermostat. Each furnace is located in a small mechanical room which has a combustion air supply duct to allow outside air into the mechanical room for combustion, and each furnace also has a fresh air supply to provide ventilation for the conditioned spaces.

The furnaces in rooms 174 and 175 were manufactured in c.2003 and installed in c.2005. The furnaces in rooms 171 and 172 were installed in c.2006.

Storm drainage from the flat roof areas is drained via standard roof drains and internal drainage piping. The storm drainage from the portable pod appears to discharge to the building storm drainage system.

Fire protection in the portables is provided by fire extinguishers.

Condition: Acceptable

Electrical Summary

Each of the classrooms, within the 4 classroom pod, has been provided with a Nova NL-16, 120/240V, single phase panel (connected to the school electrical distribution system). The typical lighting fixture used in the portable classrooms is a surface mounted T8 wrap around fluorescent fixture. A P.A. speaker, 120V lighting switch, motion detector, telephone and clock have been provided in each of the four classrooms. The 4 classroom pod is connected to the school fire alarm system. There are pullstations at the emergency exits and bell coverage within the pod area. LED exit signs have been installed in the pod. Network server equipment is located in the pod storage room. The exterior incandescent lighting fixtures for the pod have discoloured lenses.

The electrical elements within the 1985 - 4 classroom pod were found to be in acceptable condition.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1985	30	MAR-12

**Event: Lifecycle Replacement - Electrical**

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

**Updated:** MAR-12

**Event: Lifecycle Replacement - Exterior**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$200,000	Unassigned

**Updated:** MAR-12

**Event: Lifecycle Replacement - Interior**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$45,000	Unassigned

**Updated:** MAR-12

**Event: Lifecycle Replacement - Mechanical**

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

**Updated:** MAR-12

**Event: Replace Exterior Incandescent Lighting (4 fixtures)****Concern:**

Exterior incandescent lighting fixtures have deteriorated. Incandescent lighting fixtures are not energy efficient and require additional maintenance due to short lamp life.

**Recommendation:**

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

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Preventative Maintenance	2012	\$2,000	Low

**Updated:** MAR-12

**Event: Replace exterior metal & wood siding (Area - 400m2) + 2 doors****Concern:**

The wood panels are rotted and water has penetrated the exterior wall assembly. Potential mould problem.

**Recommendation:**

Replace exterior metal & wood siding (Area - 400m2) + 2 doors. The cost includes a mould investigation if required.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$56,000	Medium

**Updated:** MAR-12



Deteriorated skirt and wood panels.

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

A barrier free parking spaces is identified opposite the main east entrance. Signage for a designated handicap parking space is provided in the asphalt paved parking area.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**K4010.02 Barrier Free Entrances\***

Power assist doors are provided at 3 entrances along the east and south elevations.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**K4010.03 Barrier Free Interior Circulation\***

Barrier free access is provided to most areas of the school. No access is provided to the computer area & mezzanine levels.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	AUG-06

**K4010.04 Barrier Free Washrooms\***

Barrier free washrooms are provided on the main floor level only.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**K4030.01 Asbestos\***

No asbestos known or reported

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	AUG-06

**K4030.04 Mould\***

No mould is known or reported in the original school.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	MAR-12

**K4030.09 Other Hazardous Materials\***

No other hazardous material known or reported

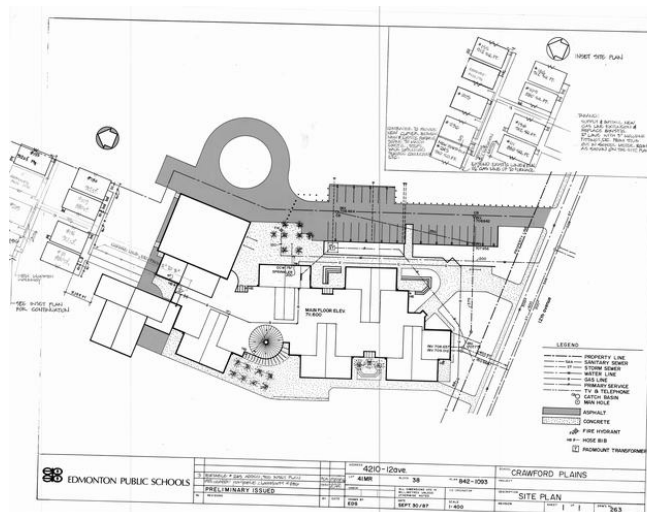
<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1982	0	AUG-06

**K5010.01 Site Documentation\***

The evaluation was conducted on October 17, 2011, by Asset Evolution Inc.

Crawford Plains School Elementary School, originally built in 1982 is a one-storey school with mezzanines above most of the classroom areas, library and two mechanical penthouses. The original school has an area of 3241 m<sup>2</sup>. In 1985, a 4-classroom addition (Pod) was added at the north -west end of the school with a total building area of 475 m<sup>2</sup>. The school has a total building area of 3716 m<sup>2</sup>. The school is comprised of 17 classrooms (8 classrooms with mezzanine areas), a gymnasium, a library with a computer lab above on the mezzanine level, science rooms and two ancillary rooms.

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



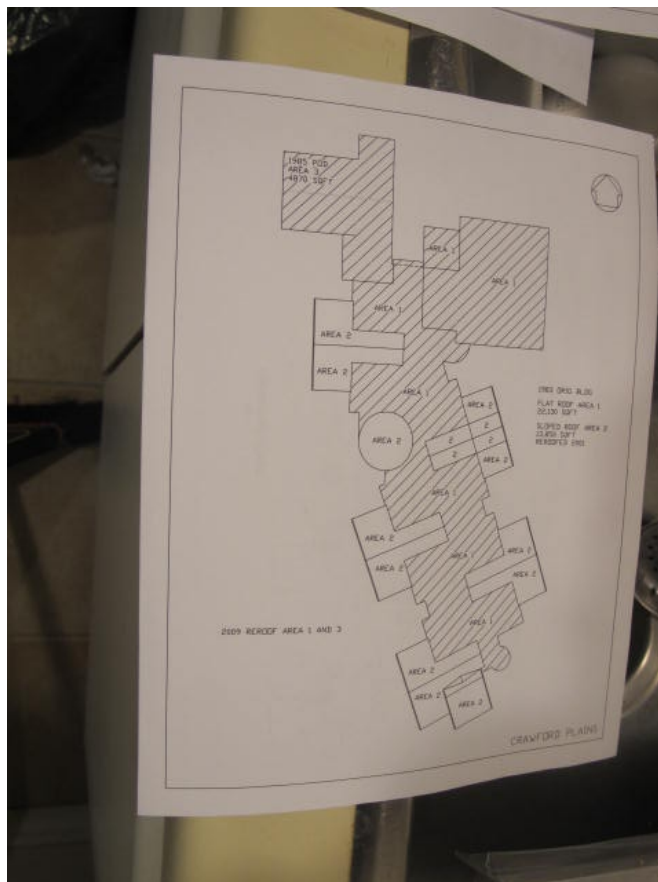
Site Plan - Crawford Plains School

**K5010.02 Building Documentation\***

The evaluation was conducted on October 17, 2011, by Asset Evolution Inc.

Crawford Plains School Elementary School, originally built in 1982 is a one-storey school with mezzanines above most of the classroom areas, library and two mechanical penthouses. The original school has an area of 3241 m<sup>2</sup>. In 1985, a 4-classroom addition (Pod) was added at the north -west end of the school with a total building area of 475 m<sup>2</sup>. The school has a total building area of 3716 m<sup>2</sup>. The school is comprised of 17 classrooms (8 classrooms with mezzanine areas), a gymnasium, a library with a computer lab above on the mezzanine level, science rooms and two ancillary rooms.

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



Floor Plan