RECAPP Facility Evaluation Report

Edmonton School District No. 7



Princeton Elementary SchoolB3252A

Edmonton

Edmonton - Princeton Elementary School (B3252A)

Facility Details

Building Name: Princeton Elementary School

Address: 7720 - 130 Avenue

Location: Edmonton

Building Id: B3252A

Gross Area (sq. m): 3,775.00

Replacement Cost: \$8,227,509

Construction Year: 1964

Evaluation Details

Evaluation Company: A&E Architectural & Engineering Group

Inc.

Evaluation Date: June 20 2008 **Evaluator Name:** Vic Maybroda

Total Maintenance Events Next 5 years: \$2,389,034 5 year Facility Condition Index (FCI): 29.04%

General Summary:

Princeton Elementary School is a one story facility containing an area of 3775.00 sq. M. The original 1964 school contains 2033.30 sq. M and the 1967 addition contains 1741.70 sq. M in area.

The school comprises of 13 classrooms, a gymnasium, a music room, an art/drama room, a library, a computer room, a student lunch room with adjacent food preparation area, administration and ancillary support spaces. At the time of site visit there were 230 enrolled students.

Structural Summary:

The roof of each section comprises of a wood deck on wood beams supported by load bearing concrete block walls with interior metal columns located in the 1967 section. Each section contains concrete slab on grade with concrete foundations. The original 1964 section contains a partial crawl space to accommodate perimeter mechanical service with concrete slab over.

Overall the structural elements appear to be in acceptable condition.

Envelope Summary:

Each section of the school comprises of modified bitumen roofing, prefinished metal fascias, painted plywood soffits, face brick, original sealed and opening window units with painted wood panels over and under the units, original painted wood entry doors in metal frames and painted metal wall grills located in the 1964 section providing ventilation to the perimeter crawl space. Window units exposed to play areas have received painted metal grills.

Overall the exterior elements appear to be in acceptable condition.

Interior Summary:

Flooring in the 1964 section comprises of sheet vinyl located in corridors and classrooms, carpeting in classrooms and administration spaces, wood strip flooring in the gymnasium and epoxy located in washrooms and food preparation area. Painted concrete floors are located in mechanical room spaces. Flooring in the 1967 section is carpet.

Walls in the 1964 section are painted concrete block and gypsum wallboard with stained wood strip panels located in the gymnasium. Walls in the 1967 section are vinyl covered.

Ceilings in the 1964 section consist of glue-on 12 x 12 acoustical tile, painted wood deck and wood beams in classrooms, corridors gymnasium and ancillary spaces. Acoustical tiles are located in washrooms, food preparation area and music room. Acoustical tiles ceilings are located in the 1967 section.

Painted wood doors in metal frames are located in each section with metal rolling shutter doors located at each end of the corridor separating the 1964 and 1967 sections.

Millwork consist of plastic laminated counter tops and painted and stained shelving and cupboard units.

Exterior window units are covered with venitian blinds.

Overall the interior elements appear to be in acceptable condition.

Mechanical Summary:

The school is heated by two (2) boilers providing heat to the unit ventilators, force flow heaters and perimeter radiation located throughout the school. Unit ventilators are used to ventilate and heat most of the original building. A roof top unit and perimeter heating is used to ventilate and heat the 1967 addition. The schools condition is generally in acceptable condition.

Electrical Summary:

The originally school facility was built in 1964 and added addition classroom in 1967. The electrical service to the school is underground with pad mounted transformer in the south east of the school. The main electrical distribution is 120/208V, 3 phase, 4 wire, 350A installed in 1964

Electrical Modifications:

- 1988 Fire code upgrade
- 1994 Network cabling installed
- 1997 Security system replaced
- 1998 Computer networks and Car heater outlet
- 2003 Lighting was upgraded, SEMP
- 2004 Relocation of data and power poles in computer lab

Overall rating of the facility is in "Good" 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 - Each Section*

Cast in place concrete with strip footings.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

A1030 Slab on Grade - Each Section*

Cast in place concrete.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

A2020 Basement Walls (& Crawl Space) - 1964 Section*

Cast in place foundation to crawl space located around perimeter to accommodate mechanical services and to mechanical room located 1/2 level below main floor.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

B1010.01 Floor Structural Frame (Building Frame) - 1964 Section*

Structural concrete floor over crawl space.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1964 Section*

Concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

B1010.06 Ramps: Exterior*

Cast in place concrete ramp installed in courtyard of 1964 section.

RatingInstalledDesign LifeUpdated4 - Acceptable199240MAR-09

B1010.07 Exterior Stairs*

Cast in place concrete stairs located in courtyard of 1964 section.

RatingInstalledDesign LifeUpdated4 - Acceptable196440MAR-09

B1020.01 Roof Structural Frame - 1964 Section*

Wood deck on glue laminated beams.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

B1020.01 Roof Structural Frame - 1967 Section*

Wood deck supported on glue laminated beams and metal columns.

RatingInstalledDesign LifeUpdated4 - Acceptable19670MAR-09

B1020.04 Canopies - 1964 Section*

Wood deck supported on concrete block walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

B1020.04 Canopies - 1967 Section*

Wood deck on wood framing.

RatingInstalledDesign LifeUpdated4 - Acceptable196750MAR-09

S2 ENVELOPE

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

Face brick employed on all facades.

RatingInstalledDesign LifeUpdated4 - Acceptable196475MAR-09

B2010.01.06.02 Composite Panels - Both Sections*

Fibreglass panels located under window units.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

B2010.01.06.04 Wood Siding - Both Sections**

Painted wood siding over window and door units.

RatingInstalledDesign LifeUpdated3 - Marginal040MAR-09

Event: Replace 72 sq. M Painted Wood Panels

Concern:

Deteriorated panels may lead to damaged substrate.

Recommendation:

Replace painted wood panels.

TypeYearCostPriorityFailure Replacement2009\$16,000High

Updated: MAR-09



Painted wood panels over exterior doors.

B2010.01.09 Expansion Control: Exterior Wall Skin - Both Sections*

Located adjacent door openings in exterior walls.

RatingInstalledDesign LifeUpdated4 - Acceptable075MAR-09

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1964 Section**

Employed around all exterior wall openings.

RatingInstalledDesign LifeUpdated4 - Acceptable196420MAR-09

Event: Repair Joint Sealers (caulking): Ext. Wall** - 1964

Section

TypeYearCostPriorityLifecycle Replacement2012\$14,999Unassigned

Updated: MAR-09

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1967 Section**

Employed around all exterior wall openings.

RatingInstalledDesign LifeUpdated4 - Acceptable196720MAR-09

Event: Repair Joint Sealers (caulking): Ext. Wall** - 1967

Section]

TypeYearCostPriorityLifecycle Replacement2012\$12,835Unassigned

Updated: MAR-09

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

Painted wood panels and plywood soffits.

RatingInstalledDesign LifeUpdated3 - Marginal015MAR-09

Event: Repair 72 sq. M Paints (& Stains): Exterior Wall -

1964 Section**

Concern:

Paint applied to deteriorated wood panels.

Recommendation:

Paint new wood panels as identified in B2010.01.04.

TypeYearCostPriorityRepair2009\$2,500High

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

Concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

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

Unviewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

B2010.06 Exterior Louvers, Grilles, and Screens - 1964 Section*

Painted metal screens over wall ventilation units and east side window units Prefinished metal grills to mechanical room spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

B2010.09 Exterior Soffits - Both Sections*

Painted plywood soffits.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1964 Section**

Sealed fixed and opening units.

RatingInstalledDesign LifeUpdated4 - Acceptable196440MAR-09

Event: Replace 90 Window Units - 1964 Section

TypeYearCostPriorityLifecycle Replacement2012\$116,100Unassigned

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1967 Section**

Sealed fixed and opening units.

RatingInstalledDesign LifeUpdated4 - Acceptable040MAR-09

Event: Replace 8 Window Units - 1967 Section

TypeYearCostPriorityLifecycle Replacement2012\$10,200Unassigned

Updated: MAR-09

B2030.01.02 Steel-Framed Storefronts: Doors - 1967 Section**

Painted metal doors containing upper 1/2 sealed glazing units with glazed transoms over.

RatingInstalledDesign LifeUpdated4 - Acceptable196730MAR-09

Event: Replace 8 Metal Entry Doors

TypeYearCostPriorityLifecycle Replacement2012\$20,800Unassigned

Updated: MAR-09

B2030.01.10 Wood Entrance Door 1964 Section **

Painted wood entry doors containing sealed glazing units in metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace 6 Wood Entry Doors

TypeYearCostPriorityLifecycle Replacement2012\$10,800Unassigned

Updated: MAR-09

B2030.02 Exterior Utility Doors - 1964 Section**

Painted metal in metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable196440MAR-09

Event: Replace 2 Exterior Utility Doors** - 1964 Section

TypeYearCostPriorityLifecycle Replacement2012\$2,000Unassigned

Updated: MAR-09

B2030.02 Exterior Utility Doors - 1967 Section**

Painted metal in metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable196740MAR-09

Event: Replace 6 Exterior Utility Doors - 1967 Section**

TypeYearCostPriorityLifecycle Replacement2012\$6,000Unassigned

Updated: MAR-09

B3010.01 Deck Vapor Retarder and Insulation - 1964 Section*

Unviewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19960MAR-09

B3010.01 Deck Vapor Retarder and Insulation - 1967 Section*

Unviewable. No concerns reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19870MAR-09

B3010.04.04 Modified Bituminous Membrane Roofing (SBS - 1964 section**

Modified (SBS) membrane roof.

RatingInstalledDesign LifeUpdated5 - Good199625MAR-09

Event: Replace 2030 sq M SBS Roofing

TypeYearCostPriorityLifecycle Replacement2021\$391,700Unassigned

B3010.04.04 Modified Bituminous Membrane Roofing (SBS) - 1967 Section**

Modified (SBS) roofing.

Maintenance required to remove debris around parapet.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-09

Event: Replace 1740 sq. M SBS Roofing

TypeYearCostPriorityLifecycle Replacement2022\$335,800Unassigned

Updated: MAR-09

B3020.02 Other Roofing Openings (Hatch, Vent, etc) - 1964 Section*

Roof drains, plumbing and exhaust vents.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

B3020.02 Other Roofing Openings (Hatch, Vent, etc) - 1967 Section*

Roof drains, plumbing and exhaust vents.

RatingInstalledDesign LifeUpdated4 - Acceptable19670MAR-09

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies: Partitions - Both Sections

Concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

C1010.02 Interior Demountable Partitions -1967 Section *

Demising walls between classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19670MAR-09

C1010.05 Interior Windows - 1967 Section *

Single glazed unit in metal frames located in demising walls between library and classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19670MAR-09

C1020.01 Interior Swinging Doors (& Hardware) - Both Sections*

Painted wood doors in metal frames.

RatingInstalledDesign LifeUpdated4 - Acceptable040MAR-09

C1020.03 Interior Fire Doors - *

8 - Painted non-rated wood doors in metal frames located in corridors of 1964 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

C1020.05.01 Coiling Doors and Grilles

2 - Ceiling recessed coiling metal slat doors located in corridors separating 1964 and 1987 sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

C1030.01 Visual Display Boards -1964/67 Sections**

White boards and tack boards located in teaching and administration spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable020MAR-09

Event: Replace 65 Visual Display Boards Each Section**

TypeYearCostPriorityLifecycle Replacement2012\$48,000Unassigned

Updated: MAR-09

C1030.02 Fabricated Compartments(Toilets/Showers) - 1964/67 Sections **

Prefinished metal toilet partitions located in staff and student washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable030MAR-09

Event: Replace 20 Fabricated

Compartments(Toilets/Showers)** -]

TypeYearCostPriorityLifecycle Replacement2012\$28,000Unassigned

Updated: MAR-09

C1030.06 Handrails - *

Painted metal handrails to courtyard stairs and ramp.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

C1030.08 Interior Identifying Devices - Both Sections *

Room names and accompanying numbers applied to doors.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

Event: Install Room Names and Door Numbers to 76

Doors

Concern:

Wayfinding and door maintenance compromised.

Recommendation:

Install room names and door numbers to dedicated doors.

<u>Type</u> <u>Year</u> <u>Cost</u> <u>Priority</u> Operating Efficiency Upgrade 2009 \$7,600 Medium

Updated: MAR-09

C1030.12 Storage Shelving -Both Sections *

Painted wood.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

C1030.14 Toilet, Bath, and Laundry Accessories - Both Sections*

Toilet and waste paper dispensers, mirrors and waste containers.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

C3010.02 Wall Paneling - **

Stained wood strip panels located in gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace 32 sq. M Wall Paneling** - 1964 Section

TypeYearCostPriorityLifecycle Replacement2012\$4,800Unassigned

Updated: MAR-09

C3010.11 Interior Wall Painting - Both Sections*

Painted concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable010MAR-09

C3010.12 Wall Coverings - 1967 Section*

Vinyl covering to demising walls.

RatingInstalledDesign LifeUpdated5 - Good196715MAR-09

C3020.01.01 Epoxy Concrete Floor Finishes - 1964 Section*

Located in food preparation area and 3 washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

C3020.01.02 Paint Concrete Floor Finishes - *

Located in mechanical room spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable196410MAR-09

C3020.02 Tile Floor Finishes - 1964/67 Sections**

Ceramic tile located in student washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-09

Event: Replace 60 sq. M Tile Floor Finishes**

TypeYearCostPriorityLifecycle Replacement2016\$10,000Unassigned

Updated: MAR-09

C3020.07 Resilient Flooring - 1964 Section**

VCT located in classrooms, corridors and ancillary spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable200320MAR-09

Event: Replace 1145 sq. M Resilient Flooring** - 1964

Section

TypeYearCostPriorityLifecycle Replacement2023\$69,800Unassigned

Updated: MAR-09

C3020.07 Resilient Flooring - 1967 Section**

VCT located in Classrooms, corridors, science rooms and ancillary spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable200420MAR-09

Event: Replace 471 sq. M Resilient Flooring - 1967 Section

TypeYearCostPriorityLifecycle Replacement2024\$28,700Unassigned

Updated: MAR-09

C3020.08 Carpet Flooring - 1964/67 Sections**

Located in classrooms, library, and administration spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable015MAR-09

Event: Replace 1158 sq. M Carpet Flooring**

TypeYearCostPriorityLifecycle Replacement2012\$71,700Unassigned

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

Located in corridors, library, classrooms and administration spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-09

Event: Replace 2210 sq. M Acoustic Ceiling Treatment

(Susp.T-Bar)**

TypeYearCostPriorityLifecycle Replacement2012\$99,300Unassigned

Updated: MAR-09

C3030.07 Interior Ceiling Painting - *

Painted gypsum wallboard and stain wood deck.

RatingInstalledDesign LifeUpdated4 - Acceptable196420MAR-09

S4 MECHANICAL

D2010.04 Sinks - **

The school is equipped with the following sinks:

Six (6) Steel Queen stainless steel, single compartment sinks complete with swing spout and metering faucet.

Twelve (12) stainless steel, single compartment sinks complete with metering faucet and bubbler.

One (1) Steel Queen stainless steel, double compartment sinks complete with swing spout and metering faucet.

One (1) Steel Queen stainless steel, single compartment sinks complete with goosneck spout and metering faucet.

One (1) science lab stainless steel, vanity top mounted sink complete with goosneck spout and metering faucet.

Three (3) forged iron wall mounted service sinks complete with a valve set.

One (1) Molded Stone 914mm x 610mm (36"x24") floor mounted utility sink complete with valve set.

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace Twenty-Five (25) Sinks

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$41,000Unassigned

Updated: MAR-09

D2010.08 Drinking Fountains / Coolers - **

The school is equipped with the following drinking fountains:

Two (2) vitreous china, wall mounted single bubbler water fountains.

Four (4) vitreous china, wall mounted double bubbler water fountains.

One (1) barrier free water chiller.

RatingInstalledDesign LifeUpdated4 - Acceptable196435MAR-09

Event: Replace Seven (7) Water Fountains

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$14,000Unassigned

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

The school is equipped with the following washroom fixtures:

Twenty (20) Aristaline oval, stainless steel, vanity top mounted lavatories complete with push valve faucets.

Two (2) Aristaline oval stainless steel, vanity top mounted lavatories complete with push valve faucets and barrier free access.

Ten (10) Crane stall type, vitreous china, floor mounted urinals complete with time activated flush valves.

One (1) Crane stall type, vitreous china, floor mounted urinal complete with time activated flush valves and grab bars for barrier free access.

Six (6) Crane floor mounted, vitreous china, elongated water closets complete with flush valves.

Two (2) Crane floor mounted, vitreous china, elongated water closets complete with flush valves and grab bars for barrier free access.

Ten (10) Toto floor mounted vitreous china, close coupled flush tank water closets.

Rating
4 - Acceptable

Installed
1964

Design Life
MAR-09

Event: Replace Fifty-One (51) Washroom Fixtures

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$83,000Unassigned

Updated: MAR-09

D2020.01.01 Pipes and Tubes: Domestic Water - *

Domestic hot and cold water lines are copper throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D2020.01.02 Valves: Domestic Water - **

All fixtures are complete with isolation valves.

RatingInstalledDesign LifeUpdated4 - Acceptable196440MAR-09

Event: Replace Valves: Domestic Water

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$27,000Unassigned

Updated: MAR-09

D2020.01.03 Piping Specialties (Backflow Preventors) - **

The school is complete with a Watts 3/4" (19mm) double check valve backflow preventor on the feed line to the boiler system.

RatingInstalledDesign LifeUpdated4 - Acceptable199320MAR-09

Event: Replace Backflow Preventors

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2013\$3,000Unassigned

Updated: MAR-09

D2020.02.02 Plumbing Pumps: Domestic Water - **

The domestic hot water is circulated in the school by a General Electric recirculation pump model 11F530Bx1 with a 1/10 hp (0.13 kW) motor.

RatingInstalledDesign LifeUpdated4 - Acceptable196420MAR-09

Event: Replace One (1) Domestic Water Pump

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$2,000Unassigned

D2020.02.06 Domestic Water Heaters - **

One (1) John Wood domestic water heater model JW602NA-04 with an input capacity of 52,200 BTUH (15.3 kW) a 180 liter storage capacity and a heat recovery of 131.4 liters per hour at 55 degrees Celcius. The school does not have back-up capability in case of domestic water heater failure.

RatingInstalledDesign LifeUpdated4 - Acceptable197520MAR-09

Event: Replace One (1) Domestic Water Heater

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$2,500Unassigned

Updated: MAR-09

D2020.03 Water Supply Insulation: Domestic - *

Domestic water lines are insulated with 25mm (1") fiberglass insulation throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D2030.01 Waste and Vent Piping - *

Cast iron sanitary piping throughout the school. All fixtures are vented through the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D2040.01 Rain Water Drainage Piping Systems - *

Roof drains are connected to storm line serving the school's storm drainage.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D2040.02.04 Roof Drains - *

4" (102mm) roof drains complete with scuppers.

RatingInstalledDesign LifeUpdated4 - Acceptable199740MAR-09

D3010.02 Gas Supply Systems - *

The school is serviced by a 76mm (3") gas line entering the school from the south side. Gas meter is located in the mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable196460MAR-09

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

The school has two (2) Bermer Boilers model BG 2500 with an input capacity of 2,500,000 BTUH (732.5 kW) and an output of 2,000,000 BTUH (586 kW). The boilers are complete with low water cut off, flow switch, hot water expansion tank and a chemical feeder. The heating water is circulated throughout the school to unit ventilators and perimeter heating by two (2) Leitch pumps whose nameplate was not accessible to find the model or specificaitons.

RatingInstalledDesign LifeUpdated4 - Acceptable196435MAR-09

Event: ReplaceHeating Boilers and Accessories

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$320,000Unassigned

Updated: MAR-09

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

The two (2) boilers and domestic water heater connect to a common vent. The mechanical room is also complete with an adequately sized combustion air that terminates at a spillbox. A relief air is also provided.

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace Chimneys, Combustion Air

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$25,000Unassigned

Updated: MAR-09

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

Heating water system is complete with a chemical feeder.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D3040.01.01 Air Handling Units: Air Distribution - **

The school is equipped with two (2) air handling units. An Trane Torrivent Aerofoil model 30JUF 24AL return air fan and a Robbins Myer supply air fan model T10VF is used to provide ventilation for the gymnasium. An Engineered Air model DJ-60-0 with a supply air fan with a 10,000 CFM capacity a 208V 3 phase, 7.5 hp (10 kW) motor and a heating input of 600,000 BTUH (176 kW) and an output of 474,000 BTUH (139 kW) is used to heat and provide the 1967 addition with heat and ventilation.

Rating Installed Design Life Updated 4 - Acceptable 1964 30 MAR-09

Event: Replace Air Handling Units: Air Distribution

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$300,000Unassigned

Updated: MAR-09

D3040.01.03 Air Cleaning Devices: Air Distribution - *

All air handling units are provided with 25mm disposable media filters.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D3040.01.04 Ducts: Air Distribution - *

Galvanized steel ducts are provided for air handling units.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D3040.01.07 Air Outlets & Inlets: Air Distribution - *

Diffusers and egg crate grilles are used for supply and return air.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D3040.03.01 Hot Water Distribution Systems - **

Insulated copper piping distribution to perimeter radiation in the classrooms, unit ventilators and air handling unit serving the gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable196440MAR-09

Event: ReplaceHot Water Distribution Systems

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$300,000Unassigned

Updated: MAR-09

D3040.04.01 Fans: Exhaust The school is equipped with the following exhaust fans:- **

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace Eleven (11) Exhaust Fans

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$18,000Unassigned

Updated: MAR-09

D3040.04.03 Ducts: Exhaust - *

Galvanized steel exhaust air ducts are complete with 1" thermal insulation.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D3040.04.05 Air Outlets and Inlets: Exhaust - *

Egg crate grilles are used for exhaust.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D3050.05.02 Fan Coil Units - **

The school is equipped with thirty (30) unit ventilators, and eight (8) force flow heaters providing heat and ventilation to classrooms and office space.

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace Thirty (30) Unit Ventilators

Recommendation:

Basis of estimate: number of technicals.

TypeYearCostPriorityLifecycle Replacement2012\$165,000Unassigned

Updated: MAR-09

D3050.05.03 Finned Tube Radiation - **

Finned tube radiation is provided in parts of the school.

RatingInstalledDesign LifeUpdated4 - Acceptable196440MAR-09

Event: Replace Finned Tube Radiation

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$150,000Unassigned

Updated: MAR-09

D3060.02 HVAC Instrumentation and Controls -

A pneumatic control system is used in the school. Compressed air is generated by a Quincy air compressor with a Johnson Air Dryer model A-421. The school is connected to a Multicomm 2000 DDC control system.

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace HVAC Instrumentation and Controls

Recommendation:

Basis of estimate: area of school.

TypeYearCostPriorityLifecycle Replacement2012\$150,000Unassigned

Updated: MAR-09

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D4030.01 Fire Extinguisher, Cabinets and Accessories - *

5 lbs ABC fire extinguishers are provided throughout. A 10 lbs ABC fire extinguisher is located inside the mechanical room.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1964	30	MAR-09

S5 ELECTRICAL

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

The main circuit breaker is 350A. The Main switch board is Square D.

RatingInstalledDesign LifeUpdated4 - Acceptable196440MAR-09

Capacity Size Capacity Unit amps

Event: Replace Main Distribution Board

Concern:

Recommendation:

Consequences of Deferral:

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TypeYearCostPriorityLifecycle Replacement2012\$5,000Medium

Updated: MAR-09

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

The Secondary Distribution Panelboards are Square D

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replacement of six (6) Panelboards

TypeYearCostPriorityLifecycle Replacement2012\$10,000Unassigned

Updated: MAR-09

D5010.07.02 Motor Starters and Accessories - **

Existing Starters control mechanical equipment and are Square D.

RatingInstalledDesign LifeUpdated4 - Acceptable196430MAR-09

Event: Replace Motor Starters and Accessories**

TypeYearCostPriorityLifecycle Replacement2012\$2,500Unassigned

D5020.01 Electrical Branch Wiring - *

Branch wiring consists of R90, xl cabling in conduit plus AC90 to Luminiares from junction boxes and to mechanical equipment.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D5020.02.01 Lighting Accessories (Lighting Controls) - *

Building lighting is served by toggle switching

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

D5020.02.02.02 Interior Florescent Fixtures - **

All florescent are T8 and all are new.

RatingInstalledDesign LifeUpdated6 - Excellent200330MAR-09

Event: Replace 825 Interior Florescent Fixtures**

TypeYearCostPriorityLifecycle Replacement2033\$125,000Unassigned

D5020.02.03.02 Emergency Lighting Battery Packs - **

Emergency Lighting consists of minimal battery padks

RatingInstalledDesign LifeUpdated2 - Poor196420MAR-09

Event: Install 7 battery packs, 15 remote heads and 10 exit

<u>signs</u>

Concern:

Due to the age of the system, system malfunction will occur.

Recommendation:

Single and Double Remote head system in all passageways fed from Central Area Battery Packs. Also exit signs at doorways and directionall ones leading people to exits are required

Consequences of Deferral:

Due to possible system malfunctions, staff and students will be left in the dark at a power outage and trip and fall trying to get outside and ultilmately be injured

TypeYearCostPriorityCode Upgrade2009\$7,500High

Updated: MAR-09

Event: Replace Emergency Lighting System.

TypeYearCostPriorityLifecycle Replacement2029\$7,500Low

Updated: MAR-09

D5020.02.03.03 Exit Signs - *

There is a total absence of Exit Lighting. See Emergency Lighting

<u>Rating</u>	Installed	Design Life	<u>Updated</u>
2 - Poor	1964	0	MAR-09

D5020.03.01.03 Exterior Metal Halide Fixtures - *

Exterior Lighting only exists over Front Entrance and Exits

RatingInstalledDesign LifeUpdated3 - Marginal19640MAR-09

Event: Install 18 Wall packs

Concern:

Crime can and will take place in the absence of proper

external lighting Recommendation:

Installation of 18 250 Metal Hlaide luminaires at 15'-0" abbove

grade every 60 feet

TypeYearCostPriorityProgram Functional Upgrade2009\$9,000Unassigned

Updated: MAR-09

Event: Reokace 18 Exterior Metal Halide Fixtures

TypeYearCostPriorityLifecycle Replacement2029\$10,000Unassigned

D5030.01 Detection and Fire Alarm - **

The fire alarm panel is EDWARDS 6616.

RatingInstalledDesign LifeUpdated5 - Good198825MAR-09

Event: Provision of 35 Heat Detectors

Concern:

In order to meet Code, Heat detectors are required in washrooms, storage rooms, staff room and Boiler Room

Recommendation:

35 Heat Detectors are required to be installed in washrooms, storage rooms, staff room Computer Room and Boiler Room and wired to existing fire alarm zones

Consequences of Deferral:

A fire situation couuld result in the rooms missing heat detectors and escalate into a major fire.

TypeYearCostPriorityCode Upgrade2009\$3,000High

Updated: MAR-09

Event: Replace Detection and Fire Alarm System

Concern:

Recommendation:

TypeYearCostPriorityLifecycle Replacement2034\$15,000Medium

Updated: MAR-09

D5030.02.02 Intrusion Detection - **

The security system is Magnum Alert 3000 series in Boiler room

RatingInstalledDesign LifeUpdated6 - Excellent199725MAR-09

Event: Replace Intrusion System

TypeYearCostPriorityLifecycle Replacement2022\$10,000Unassigned

D5030.03 Clock and Program Systems - *

Bogen Multicom 2000 system

RatingInstalledDesign LifeUpdated5 - Good200325MAR-09

D5030.04.01 Telephone Systems - *

There exists a Nortel Northstar System

RatingInstalledDesign LifeUpdated4 - Acceptable199425MAR-09

D5030.05 Public Address and Music Systems - **

PA system panel is Bogen. It was installed in 1990 in General office.

RatingInstalledDesign LifeUpdated5 - Good199020MAR-09

Event: Replace Public Address and Music System

Recommendation:

Consequences of Deferral:

TypeYearCostPriorityLifecycle Replacement2010\$15,000Unassigned

Updated: MAR-09

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

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

Wall mounted basketball hoops, badminton equipment, wall mounted climbing apparatus and floor mats.

RatingInstalledDesign LifeUpdated4 - Acceptable19640MAR-09

E2010.02 Fixed Casework - Each Section**

Plastic laminated counter tops and painted cabinetry located in teaching and administration spaces. Replacement cost in 2008 CDN\$ based upon \$15,000.00.00/classroom (\$195,00.00) and \$51,000.00 for related teaching and administration areas.

RatingInstalledDesign LifeUpdated4 - Acceptable035MAR-09

Event: Replace Fixed Casework**

TypeYearCostPriorityLifecycle Replacement2012\$246,000Unassigned

Updated: MAR-09

E2010.03.01 Blinds - Eash Section**

Vertical louvred blinds over exterior windows.

RatingInstalledDesign LifeUpdated4 - Acceptable030MAR-09

Event: Replac 98 Louvred Blinds**

TypeYearCostPriorityLifecycle Replacement2012\$49,000Unassigned

Updated: MAR-09

F2020.01 Asbestos - Each Section*

No material viewed or reported. Abatement undertaken in 1997.

Refer to Asbestos Building Material Survey Report of 26 October 2001.

RatingInstalledDesign LifeUpdated5 - Good00MAR-09

F2020.04 Mould - Each Section*

No mould viewed or reported.

Rating Installed Design Life Updated 5 - Good 0 0 MAR-09

F2020.09 Other Hazardous Materials - Each Section*

No hazardous material reported.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	0	0	MAR-09

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance - *

Exterior ramp (200mm rise) to west entry corridor.

RatingInstalledDesign LifeUpdated5 - Good19640MAR-09

K4010.02 Barrier Free Entrances - *

Power actuated door hardware to BFA requirements.

RatingInstalledDesign LifeUpdated2 - Poor19640MAR-09

Event: Install Power Actuated Door Hardware

Concern:

Limited handicapped access to main entry and to entry from parking area.

Recommendation:

Install power actuated door hardware in two locations to meet BFA requirements.

TypeYearCostPriorityBarrier Free Access Upgrade2009\$7,200Medium

Updated: MAR-09

K4010.03 Barrier Free Interior Circulation - Both Sections. *

Round door knobs only provided to interior swinging doors.

RatingInstalledDesign LifeUpdated3 - Marginal00MAR-09

Event: Install 42 Lever Handled Door Hardware

Concern:

Limited handicapped access to teaching and administration spaces with round door knobs only.

Recommendation:

Install lever handled door hardware to meet BFA requirements.

TypeYearCostPriorityBarrier Free Access Upgrade2009\$6,300Medium

Updated: MAR-09

K4010.04 Barrier Free Washrooms - *

Dedicated BFA washroom located in 1967 Section.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	1967	0	MAR-09