RECAPP Facility Evaluation Report

Fort McMurray S Dist #2833



Timberlea School

B3438A Fort McMurray

Facility Details

Address: Timberlea School
Address: 107 Brett Drive
Location: Fort McMurray

Building Id: B3438A
Gross Area (sq. m): 6,045.46
Replacement Cost: \$24,040,000

Construction Year: 1986

Evaluation Details

Evaluation Company: Halsall Associates

Evaluation Date: October 22 2012

Evaluator Name: Jonathan Maynard

Total Maintenance Events Next 5 years: \$2,833,798 5 year Facility Condition Index (FCI): 11.79%

General Summary:

Original 3,755 sq.m. single storey core school built in 1986 serving grades K-9. Masonry and steel construction with brick cladding and BUR over concrete foundation. School originally opened with 10 portables in1986 while permanent construction was being completed. Four of these portables totaling approximately 305 sq. m. remain in place. Two portables of approximately 162 sq. m. were added in 2003. Five portables, including a washroom portable, were added in 2004 with approximately 410 sq. m. A four portable pod to the northwest with approximately 410 sq. m. was added in 2008 (data plate indicates construction date of 2006). Most recently eight portables, including a washroom portable, approximately 982 sq. m. were added in 2009/2010 (data plate indicates construction date of 2007).

Current gross area of the school including 23 portables is 6,406 sq.m. and the student capacity is 702.

The core school and the 23 portables are in good condition.

Structural Summary:

Concrete block load bearing walls on concrete foundation systems. Concrete slab on grade throughout. Suspended floor assembly at mechanical mezzanine are steel framed and bear on masonry walls and steel beams/columns. Suspended floor assembly at gym stage is concrete bearing on masonry. Roof system is steel deck bearing on masonry walls.

Structural systems are in good condition.

Envelope Summary:

Exterior walls are clad with face brick and metal siding. Windows are double glazed aluminum while doors are insulated metal. Original BUR has been replaced with SBS membrane.

Building envelope is in good condition.

Interior Summary:

Partitions are primarily concrete block with limited metal studs and gypsum board. Ceiling finishes include acoustic T-bar grid and gypsum board. Floor finishes include seamless epoxy, carpet, vinyl tile, and wood flooring. Acoustic panels are also required in the gym. Solid core wood and hollow metal doors in pressed steel frames. Millwork is typically painted plywood. Code issues relating to barrier free access have been addressed as of 2008.

Interior is in good condition.

Mechanical Summary:

School consists of original school built in 1986. Classrooms are heated via perimeter radiation. Entrances via fan coil units. One air system serves classrooms and support areas. Second air systems serves gymnasium. Air systems complete with glycol heating coil, Dx cooling coil, supply and return fans. Plumbing fixtures are flush valve and tank water closets, flush valve urinals, vitreous china and stainless steel bowl lavatories time delay faucets. Majority of exhaust fans are roof mounted. Fire protection consists of fire extinguishers. No major concerns were noted during building review.

Mechanical systems and components are in fair to good condition.

Electrical Summary:

HPS lighting at building exterior, fluorescent lighting at building interior retrofitted with T8 lamps with electronic ballasts, DC emergency lighting system, Edwards hard wired fire alarm system, cat 5 & 5e data system, and 800A-600//347V/3PH/4W main power service with 600-120/208V/3PH/4W dry transformers.

Electrical installation in acceptable condition.

Rating Guide				
Condition Rating	Performance			
1 - Critical	Unsafe, high risk of injury or critical system failure.			
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.			
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.			
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.			
5 - Good	Meets all present requirements. No deficiencies.			
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.			

S1 STRUCTURAL

A1010 Standard Foundations*

Perimeter and interior grade beams bearing on concrete piles.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

A1030 Slab on Grade*

Concrete slab on grade throughout.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

B1010.01 Floor Structural Frame (Building Frame)*

Steel frame floor assembly at mechanical penthouse concrete slab at gym stage.

Rating	Installed	Design Life	<u>Updated</u>
5 - Good	1986	0	JAN-08

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

Load bearing concrete block supporting suspended floor assembly at mechanical penthouse and gym stage floor.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

Event: Repair Cracked Masonry, If Required (3 sq. m.)

Concern:

The load bearing concrete block is cracked at the main

entrance of the school. **Recommendation:**

Requires repair pending engineering review.

TypeYearCostPriorityRepair2013\$12,500Medium

Updated: FEB-13

Event: Structural Investigation of Masonry at Main

Entrance Concern:

The load bearing concrete block is cracked at the main entrance of the school. Requires engineered evaluation.

Recommendation:

Structural Investigation of Masonry at Main Entrance

TypeYearCostPriorityStudy2013\$5,000Medium

Updated: FEB-13



IMG_3153 (Large).JPG

B1010.03 Floor Decks, Slabs, and Toppings*

Metal deck with concrete topping a mechanical penthouse and gym stage.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

B1010.05 Mezzanine Construction*

Open web steel joists at mechanical penthouse.

Rating Installed Design Life Updated
5 - Good 1986 0 JAN-08

B1010.09 Floor Construction Fireproofing*

Single-storey building with no basement, therefore floors are not fire proofed.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

B1010.10 Floor Construction Firestopping*

Single-storey building with no basement, therefore floors are not fire stopped.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

B1020.01 Roof Structural Frame*

Steel structure bearing on concrete block and steel beams/columns.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

B1020.04 Canopies*

Steel framed canopy bearing on cast in place concrete at main entrance.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

B1020.07 Roof Construction Firestopping*

No firestopping of the roof construction was noted.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

S2 ENVELOPE

B2010.01.06.03 Metal Siding**

Pre-finished corrugated metal siding at gym walls above adjacent roof.

RatingInstalledDesign LifeUpdated5 - Good198640FEB-13

Event: Replace metal siding (100 sq. m.).

TypeYearCostPriorityLifecycle Replacement2026\$13,100Unassigned

Updated: FEB-13

B2010.01.09 Expansion Control: Ext. Wall*

Periodic control joints in concrete blocks.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

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

Control joints and transitions between dissimilar materials are caulked.

RatingInstalledDesign LifeUpdated3 - Marginal198620FEB-13

Event: Re-caulk building exterior (3,735 sq. m.).

Concern:

Cracked and deteriorated caulking may affect the integrity of the building envelope.

Recommendation:

Re-caulk all joints in the building envelope (3,755 sq. m).

TypeYearCostPriorityFailure Replacement2014\$15,840Low

Updated: FEB-13

B2010.02.03 Masonry Units: Ext. Wall Const.* - Inner Wythe

Concrete block as inner wythe of exterior cavity walls.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

B2010.02.03 Masonry Units: Ext. Wall Const.* - Outer Wythe

Integrally coloured smooth face and split face concrete blocks as outer wythe of cavity walls.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

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

Drawings indicate rigid insulation within cavity of exterior walls.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

B2010.06 Exterior Louvers, Grilles, and Screens*

Painted metal louvres throughout the exterior walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

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

Curtain wall type aluminum framed windows with operable awning unit. Units are double glazed sealed units.

RatingInstalledDesign LifeUpdated5 - Good198640FEB-13

Event: Replace aluminum windows (26 windows).

TypeYearCostPriorityLifecycle Replacement2026\$56,100Unassigned

Updated: FEB-13

B2020.03 Glazed Curtain Wall** - Raised clerestory over atrium

Raised clerestory with curtain wall framing and IGUs over the atrium.

RatingInstalledDesign LifeUpdated6 - Excellent201240FEB-13

Event: Replace clerestory glazing (98.5 sq. m.)

TypeYearCostPriorityLifecycle Replacement2052\$168,730Unassigned

Updated: FEB-13

B2030.01.02 Steel-Framed Storefronts: Doors**

Glazed hollow metal doors set in pressed steel frames at selected entrances. Single glazing in doors, sidelites and transoms.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace insulated metal storefronts (2 doors)

TypeYearCostPriorityLifecycle Replacement2016\$7,200Unassigned

Updated: FEB-13

B2030.01.10 Wood Entrance Door**

Glazed solid wood doors set in pressed steel frames at main entrance. Single glazing in doors, sidelites and transoms.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace solid wood entrance doors (2 doors)

TypeYearCostPriorityLifecycle Replacement2016\$5,304Unassigned

Updated: FEB-13

B2030.02 Exterior Utility Doors**

Insulated hollow metal doors with and without glazing set in pressed steel frames at selected entrances.

RatingInstalledDesign LifeUpdated5 - Good198640FEB-13

Event: Replace metal utility doors (3 doors).

TypeYearCostPriorityLifecycle Replacement2026\$3,300Unassigned

Updated: FEB-13

B3010.01 Deck Vapour Retarder and Insulation*

Drawings indicate vapour retarder and rigid insulation in typical roof assembly.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)** - Zone A1

Single-ply membrane.

RatingInstalledDesign LifeUpdated6 - Excellent201125FEB-13

Event: Replace Roof Membrane (105 sq. m.)

TypeYearCostPriorityLifecycle Replacement2036\$30,712Unassigned

Updated: FEB-13

B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)** - Area C2

Single-ply membrane replaced original BUR in 2004.

RatingInstalledDesign LifeUpdated5 - Good200425FEB-13

Event: Install roof membrane over closed in skylight

Concern:

One of the skylights has been enclosed from the interior so no longer serving skylight function.

Recommendation:

In lieu of replacing the skylight (which is a weak point in roof systems), a better approach is to roof over the skylight by removing the curbs and installing a roof deck and membrane.

Type Year Cost Priority
Operating Efficiency Upgrade 2013 \$7,500 Low

Updated: FEB-13

Event: Replace membrane roofing in area C2 (2,562 sq.

<u>m.).</u>

TypeYearCostPriorityLifecycle Replacement2029\$502,152Unassigned

Updated: FEB-13

B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)** - Areas A1, B1, C1, D1

Single-ply membrane replaced original BUR in 2006.

RatingInstalledDesign LifeUpdated5 - Good200625FEB-13

Event: Replace membrane roofing in areas A1, B1, C1 and

D1 (1,088 sq. m.).

TypeYearCostPriorityLifecycle Replacement2031\$213,248Unassigned

Updated: FEB-13

B3010.09 Roof Specialties and Accessories*

Metal ladder provides access from lower roof to gym roof. Door hatch from mechanical room accessed by steel ship's ladder.

Rating 5 - Good 1986 Design Life Updated FEB-13

B3020.01 Skylights** - Acrylic Domes

Double glazed acrylic domes set in aluminum frame and set on base (4 locations).

RatingInstalledDesign LifeUpdated3 - Marginal198625FEB-13

Event: Replace acrylic dome skylights (13 sq. m.).

Concern:

Skylight over library was leaking at time of review.

Recommendation:

Replace acrylic dome skylights (three- 1.8 x 1.8 meters). One skylight has been enclosed from the interior.

TypeYearCostPriorityFailure Replacement2013\$6,873High

S3 INTERIOR

C1010.01 Interior Fixed Partitions* - Masonry

Predominantly concrete block partitions.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

C1010.01. Interior Fixed Partitions* - Metal Stud

Metal stud gypsum board partitions in office areas.

RatingInstalledDesign LifeUpdated5 - Good1986100FEB-13

C1010.03 Interior Operable Folding Panel Partitions**

Folding panel partition between gym stage and gym.

RatingInstalledDesign LifeUpdated5 - Good198630FEB-13

Event: Replace operable partitions (20 sq. m.).

TypeYearCostPriorityLifecycle Replacement2016\$23,550Unassigned

Updated: FEB-13

C1010.04 Interior Balustrades and Screens, Interior Railings*

Steel railings in mechanical mezzanine around floor opening for ship's ladder.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1010.05 Interior Windows*

Wired and tempered glass set in pressed steel frames.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1010.07 Interior Partition Firestopping*

Firestopping provided at top of rated concrete block partitions.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

C1010.08 Other Partitions*

Suspended fabric curtain divides the gym.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1020.01 Interior Swinging Doors (& Hardware)*

Hollow metal and solid core wood doors set in pressed steel frames.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1020.03 Interior Fire Doors*

Solid core wood set in pressed steel frames at 20 minute assemblies. Hollow metal set in pressed steel frames at assemblies greater than 20 minutes. Wired glass at selected doors.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1020.04 Interior Sliding and Folding Doors*

Overhead aluminum counter door at gym kitchen.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1030.01 Visual Display Boards**

Whiteboards, tackboards, screens and projectors throughout. Based on feedback from Alberta Infrastructure, we understand that the screens and projectors will be replaced as part of the operating budget, and as such, no event for their lifecycle replacement has been included.

RatingInstalledDesign LifeUpdated5 - Good198620FEB-13

Event: Replace whiteboards and tackboards (14

classrooms).

TypeYearCostPriorityLifecycle Replacement2016\$59,556Unassigned

Updated: FEB-13

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

Floor supported plastic laminate clad toilet and shower cubicles.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace toliet partitions (12 cubicles).

TypeYearCostPriorityLifecycle Replacement2016\$21,078Unassigned

Updated: FEB-13

C1030.08 Interior Identifying Devices*

Plastic signage mounted on doors.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1030.10 Lockers**

Metal lockers located in change rooms and some corridors.

Rating Installed Design Life Updated 5 - Good 1986 30 FEB-13

Event: Replace lockers (200 half size)

TypeYearCostPriorityLifecycle Replacement2016\$96,000Unassigned

Updated: FEB-13

C1030.12 Storage Shelving*

Steel shelving in storage rooms.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C1030.14 Toilet, Bath, and Laundry Accessories*

Commercial grade mirrors, soap dispensers, paper towel dispensers, and toilet tissue holders in all washrooms.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C2010 Stair Construction*

Steel framed stairs to gym stage and mechanical mezzanine. Metal ships ladder up to roof access from mezzanine.

C2020.05 Resilient Stair Finishes**

Vinyl tile on two stairs to gym stage.

RatingInstalledDesign LifeUpdated5 - Good198620FEB-13

Event: Replace vinyl tile on stairs (8 risers)

TypeYearCostPriorityLifecycle Replacement2016\$1,000Unassigned

Updated: FEB-13

C2020.08 Stair Railings and Balustrades*

Metal railing at stair to mechanical mezzanine.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

C3010.06 Tile Wall Finishes**

Ceramic wall tile in washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable198640FEB-13

Event: Replace ceramic wall tile (90 sq. m.).

TypeYearCostPriorityLifecycle Replacement2026\$33,345Unassigned

Updated: FEB-13

C3010.11 Interior Wall Painting*

All gypsum board and concrete block wall surfaces are painted.

RatingInstalledDesign LifeUpdated3 - Marginal19980FEB-13

Event: Repaint wall surfaces (7,500 sq.m.).

Concern:

Paint surfaces throughout school are showing signs of aging (yellowing) in many areas.

Recommendation:

Repaint wall surfaces (7,500 sq.m.).

TypeYearCostPriorityFailure Replacement2014\$225,000Low

Updated: FEB-13

C3020.01.02 Painted Concrete Floor Finishes*

Painted concrete floor finishes in service rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

C3020.02 Tile Floor Finishes**

Ceramic floor in washrooms, entrance vestibules and atrium.

RatingInstalledDesign LifeUpdated4 - Acceptable198650FEB-13

Event: Replace ceramic floor tiles (60 sq. m.).

TypeYearCostPriorityLifecycle Replacement2036\$15,030Unassigned

Updated: FEB-13

C3020.04 Wood Flooring**

Sprung hardwood flooring in gym.

RatingInstalledDesign LifeUpdated5 - Good198630FEB-13

Event: Replace gym wood flooring (483 sq. m.).

TypeYearCostPriorityLifecycle Replacement2016\$184,747Unassigned

Updated: FEB-13

C3020.07 Resilient Flooring**

Vinyl tile in most classrooms, storage rooms, science room, staff washrooms and gym kitchen. Sheet vinyl in computer rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable198620FEB-13

Event: Replace resilient floor finishes (1,650 sq. m).

TypeYearCostPriorityLifecycle Replacement2016\$198,000Unassigned

Updated: FEB-13

C3020.08 Carpet Flooring**

Carpet in library, administration offices, music room and three classrooms.

RatingInstalledDesign LifeUpdated3 - Marginal198615FEB-13

Event: Replace carpet floor finishes (2222 sq. m.).

Concern:

Carpet is worn and stained in a number of areas.

Recommendation:

Replace carpet in administration offices, music room, library, atrium pit and 3 classrooms (990 sq. m).

TypeYearCostPriorityFailure Replacement2013\$145,464Low

Updated: FEB-13

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

Suspended T-bar grid system with acoustic tiles in classrooms and offices.

RatingInstalledDesign LifeUpdated4 - Acceptable198625FEB-13

Event: Add acousite ceiling panels (240 sq. m.).

Concern:

Acoustic panels not provided in gym; noisy teaching space.

Recommendation:

Upper portions of walls are textured concrete block. Add

acoustic panels suspended from ceiling.

TypeYearCostPriorityProgram Functional Upgrade2013\$81,000Low

Updated: FEB-13

Event: Replace ceiling tiles (2,700 sq. m)

TypeYearCostPriorityLifecycle Replacement2016\$188,527Unassigned

Updated: FEB-13

C3030.07 Interior Ceiling Painting*

Gypsum board ceilings are painted.

RatingInstalledDesign LifeUpdated3 - Marginal19860JAN-08

Event: Repaint ceiling surfaces (550 sq. m).

Concern:

Painted ceiling surfaces are dirty and yellowing in many areas.

Recommendation:

Repaint gypsum board ceiling surfaces in corridors,

washrooms and storage rooms (550 sq. m.).

TypeYearCostPriorityFailure Replacement2012\$13,519Low

Updated: APR-12

C3030.09 Other Ceiling Finishes*

Painted exposed metal deck and steel structure in gym.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

D1010.02 Lifts**

Wheelchair lift provided at gym stage.

RatingInstalledDesign LifeUpdated5 - Good200025FEB-13

Event: Replace wheelchair lift

TypeYearCostPriorityLifecycle Replacement2025\$36,604Unassigned

S4 MECHANICAL

D2010.04 Sinks** - Classrooms/Offices

There are stainless steel sinks throughout the building.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Sinks (23 sinks)

TypeYearCostPriorityLifecycle Replacement2016\$51,198Unassigned

Updated: FEB-13

D2010.04 Sinks** - Service Rooms

Floor mount, service sinks, Bradley sinks.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Service Sinks (3)

TypeYearCostPriorityLifecycle Replacement2016\$9,819Unassigned

Updated: FEB-13

D2010.05 Showers**

Tiled communal showers in the change rooms. Showers are currently used as storage rooms therefore no budgets for replacement have been included.

RatingInstalledDesign LifeUpdated5 - Good198630FEB-13

Event: Replace Showers (14)

TypeYearCostPriorityLifecycle Replacement2016\$32,991Unassigned

D2010.08 Drinking Fountains/Coolers**

Five stainless steel wall hung drinking fountains.

RatingInstalledDesign LifeUpdated4 - Acceptable198635FEB-13

Event: Replace Drinking Fountains (5 fountains)

TypeYearCostPriorityLifecycle Replacement2021\$11,730Unassigned

Updated: FEB-13

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

26 flush valve and flush tank, 8 water closets, 15 wall urinals (15), lavs.

RatingInstalledDesign LifeUpdated4 - Acceptable198635FEB-13

Event: Replace Washroom Fixtures (26 flush valve and

tank, 8 WCs, 15 urinals)

TypeYearCostPriorityLifecycle Replacement2021\$79,267Unassigned

Updated: FEB-13

D2020.01.01 Pipes and Tubes: Domestic Water*

There is copper piping and fittings throughout the building.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

D2020.01.02 Valves: Domestic Water**

There are isolation valves serving the plumbing distribution piping.

RatingInstalledDesign LifeUpdated4 - Acceptable198640FEB-13

Event: Replace Valves Domestic Water (27 valves)

TypeYearCostPriorityLifecycle Replacement2026\$30,834Unassigned

D2020.01.03 Piping Specialties (Backflow Preventers)**

Installed on irrigation line and heating system make up line.

RatingInstalledDesign LifeUpdated4 - Acceptable198620FEB-13

Event: Replace Backflow Preventers (2 units)

TypeYearCostPriorityLifecycle Replacement2016\$25,792Unassigned

Updated: FEB-13

D2020.02.02 Plumbing Pumps: Domestic Water**

There is an inline pump serving the plumbing distribution system.

RatingInstalledDesign LifeUpdated4 - Acceptable198620FEB-13

Event: Replace Domestic Water Pumps (1 pump)

TypeYearCostPriorityLifecycle Replacement2016\$3,331Unassigned

Updated: FEB-13

D2020.02.06 Domestic Water Heaters**

"A.O. Smith" boiler supplying domestic hot water. The boiler has a capacity of 1,800 GPH.

The storage tank was de-commissioned.

Rating Installed Design Life Updated 5 - Good 2008 20 FEB-13

Event: Replace Domestic Water Heaters (1 heater)

TypeYearCostPriorityLifecycle Replacement2028\$46,861Unassigned

Updated: FEB-13

D2020.03 Water Supply Insulation: Domestic*

Majority of domestic hot, cold and recirculation lines insulated.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D2030.01 Waste and Vent Piping*

Cast iron and copper piping throughout the building.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

D2040.01 Rain Water Drainage Piping Systems*

Piped to underground storm sewer.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D2040.02.04 Roof Drains*

Full flow. Plastic dome. Inverted roof drain.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D3010.02 Gas Supply Systems*

Distribution piping to boilers, domestic hot water heater.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

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

Three "RBI" 1,500 MBH boilers, gas fired.

RatingInstalledDesign LifeUpdated6 - Excellent201235FEB-13

Event: Replace Heating Boilers and Accessories (3

boilers)

TypeYearCostPriorityLifecycle Replacement2047\$135,000Unassigned

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

Class A chimney serving the boilers in the mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable201235FEB-13

Event: Replace Chimneys & Comb. Air (9 m)

TypeYearCostPriorityLifecycle Replacement2047\$11,790Unassigned

Updated: FEB-13

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

Chemical pot feeder and side stream filter.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

D3030.06.02 Refrigerant Condensing Units** - Model CU364/0

Gym condensing unit replaced in 2012.

"EngA" condensing unit with 36 ton cooling capacity.

RatingInstalledDesign LifeUpdated5 - Good201225FEB-13

Event: Replace Refrigerant Condensing Unit (36 tons)

TypeYearCostPriorityLifecycle Replacement2037\$134,588Unassigned

Updated: FEB-13

D3030.06.02 Refrigerant Condensing Units** - Model CU966/0

Main condensing unit replaced in 2012.

"EngA" condensing unit with 96 ton cooling capacity.

RatingInstalledDesign LifeUpdated5 - Good201225FEB-13

Event: Replace Refrigerant Condensing Unit (96 tons)

TypeYearCostPriorityLifecycle Replacement2037\$343,620Unassigned

Updated: FEB-13

D3040.01.01 Air Handling Units: Air Distribution**

"EngA" engineered air unit (35,531 CFM capacity) complete with supply fan, return fan, motorized fresh, return, exhaust dampers, glycol heating coil, filter section.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Gym air system control upgrade.

Concern:

Air system single speed. **Recommendation:**

Install CO2 sensor and variable frequency drives to reduce air supply during low occupancy.

TypeYearCostPriorityEnergy Efficiency Upgrade2013\$45,065Medium

Updated: FEB-13

Event: Replace Air Handling Unit (35,531 CFM)

TypeYearCostPriorityLifecycle Replacement2016\$113,634Unassigned

Updated: FEB-13

D3040.01.03 Air Cleaning Devices: Air Distribution*

Throw away pad filters, medium efficiency after filters.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D3040.01.04 Ducts: Air Distribution*

Low velocity ductwork. Ceiling space return air plenum.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

D3040.01.05 Duct Accessories: Air Distribution*

Balancing dampers installed in branch line ductwork. Fire dampers installed in fire rated wall duct penetrations.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Fixed pattern square diffusers, round diffusers, adjustable and linear bar grilles. Egg crate and linear bar grilles.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

D3040.03.01 Hot Water Distribution Systems**

Two inline pumps circulate heated water via black iron piping.

RatingInstalledDesign LifeUpdated4 - Acceptable198640FEB-13

Event: Replace Hot Water Distribution Systems (3755 sq.

m. and 2 circ pumps)

TypeYearCostPriorityLifecycle Replacement2026\$551,109Unassigned

Updated: FEB-13

D3040.04.01 Fans: Exhaust**

There are roof mounted dome "Cook" exhaust fans.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Exhaust Fans (5 fans)

TypeYearCostPriorityLifecycle Replacement2016\$19,386Unassigned

Updated: FEB-13

D3040.04.03 Ducts: Exhaust*

Low velocity ductwork to air outlets and fans.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

D3040.04.04 Ducts Accessories: Exhaust*

Balancing damper in branch line ducts.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Linear bar and egg crate grilles.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

D3040.05 Heat Exchangers**

There is a coil type heat exchanger located in the mechanical room serving the roof mounted condensing units.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Heat Exchangers (2)

TypeYearCostPriorityLifecycle Replacement2016\$45,606Unassigned

Updated: FEB-13

D3050.03 Humidifiers**

The existing humidifcation system has been de-commissioned.

RatingInstalledDesign LifeUpdated3 - Marginal198625FEB-13

Event: Install New Humidifier (1)

Concern:

Existing humidification system has been de-commissioned and requires replacement.

Recommendation:

Install new humidifcation system.

TypeYearCostPriorityFailure Replacement2013\$16,987Low

Updated: FEB-13

D3050.05.02 Fan Coil Units**

There are fan coil units serving the building's main entrances.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Fancoil Units (5)

TypeYearCostPriorityLifecycle Replacement2016\$39,547Unassigned

Updated: FEB-13

D3050.05.03 Finned Tube Radiation**

The building is primarily heated via perimeter radiation below windows.

RatingInstalledDesign LifeUpdated4 - Acceptable198640FEB-13

Event: Replace Finned Tube Radiation (3755 sq. m.)

TypeYearCostPriorityLifecycle Replacement2026\$173,912Unassigned

Updated: FEB-13

D3060.02.01 Electric and Electronic Controls**

Line voltage stats cycle fan coil fan.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Electric/Electronic Controls (3755 sq. m.)

TypeYearCostPriorityLifecycle Replacement2016\$10,871Unassigned

Updated: FEB-13

D3060.02.02 Pneumatic Controls**

Pneumatic control components.

RatingInstalledDesign LifeUpdated4 - Acceptable198640FEB-13

Event: Replace Phneumatic Controls (3755 sq. m.)

TypeYearCostPriorityLifecycle Replacement2026\$54,358Unassigned

Updated: FEB-13

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

There is a Johnson Controls BMCS system in operation at the building.

RatingInstalledDesign LifeUpdated5 - Good200520FEB-13

Event: Replace BMCS (3755 sq. m.)

TypeYearCostPriorityLifecycle Replacement2025\$98,342Unassigned

Updated: FEB-13

D4010 Sprinklers: Fire Protection*

The building is fully sprinklered.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

D4030.01 Fire Extinguisher, Cabinets and Accessories*

ABC extinguishers on wall hooks and cabinets.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

S5 ELECTRICAL

D5010.01.02 Main Electrical Transformers (Utility Owned)*

300 kVa pad mounted transformer at the north side of the property.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

D5010.02 Secondary Electrical Transformers (Interior)**

600-120/208V/3PH/4W dry type transformers located throughout building.

RatingInstalledDesign LifeUpdated4 - Acceptable198640FEB-13

Event: Replace Transformers (2 <500 kVa)

TypeYearCostPriorityLifecycle Replacement2026\$75,588Unassigned

Updated: FEB-13

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

Federal Pioneer 800A-347/600V/3PH/4W main power distribution switchboard located in electrical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198640FEB-13

Event: Replace Main Electrical Switchboard

TypeYearCostPriorityLifecycle Replacement2026\$45,813Unassigned

Updated: FEB-13

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

Federal Pioneer branch circuit panelboards located throughout building.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Electrical Branch Circuit Panelboards (15

Panels)

TypeYearCostPriorityLifecycle Replacement2016\$106,380Unassigned

D5010.07.01 Switchboards, Panelboards, and (Motor) Control Centers**

Square D motor control center with service to mechanical motors.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Motor Control Center (4 sections)

TypeYearCostPriorityLifecycle Replacement2016\$155,718Unassigned

Updated: FEB-13

D5020.01 Electrical Branch Wiring*

Copper wiring installed in conduit. Ivory coloured devices with stainless steel coverplates.

RatingInstalledDesign LifeUpdated3 - Marginal19860FEB-13

Event: Investigate and Repair Damaged Wiring at Atrium

Concern:

Building operator reported wiring serving the ceiling mounted light fixtures in the atrium were damaged when the atrium skylight was replaced.

Recommendation:

Electrician to investigate and repair the damaged wiring. Budget provided by Operator.

TypeYearCostPriorityFailure Replacement2013\$1,500Medium

Updated: FEB-13

D5020.02.02.02 Interior Fluorescent Fixtures**

Mostly indirect fluorescent lighting in classrooms and surface mounted lighting in corridors. Fixtures retrofitted to T8 lamps with electronic ballasts in 2004.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace Interior Florescent Fixtures (1050 fixtures)

TypeYearCostPriorityLifecycle Replacement2016\$618,975Unassigned

Updated: FEB-13

D5020.02.02.02 Interior Fluorescent Fixtures** - Gymnasium

T-12 ceiling mounted lamps providing light in the Gymnasium

RatingInstalledDesign LifeUpdated3 - Marginal198630FEB-13

Event: Replace and Upgrade Gym Lighting (20 fixtures)

Concern:

Lighting very poor **Recommendation:** Replace Fixtures to T-5.

TypeYearCostPriorityFailure Replacement2013\$11,790Low

Updated: FEB-13

D5020.02.02.04 Interior H.P. Sodium Fixtures*

Indirect HPS pendant lighting to gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D5020.02.03.02 Emergency Lighting Battery Packs**

DC emergency lighting battery pack units with remote heads located throughout school.

RatingInstalledDesign LifeUpdated4 - Acceptable198620FEB-13

Event: Replace Emergency Lighting Battery Packs (48

packs)

TypeYearCostPriorityLifecycle Replacement2016\$84,496Unassigned

Updated: FEB-13

D5020.02.03.03 Exit Signs*

Exit signs with LED lamps at exit doors.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Wall mounted HPS lighting units installed along building perimeter.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

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

The exterior lighting is controlled via a photocell.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

D5030.01 Detection and Fire Alarm**

Edwards hard wired fire alarm system with main fire alarm panel, remote annunciator, fire detectors, and bells.

RatingInstalledDesign LifeUpdated4 - Acceptable198625FEB-13

Event: Replace Fire Alarm System (3755 sq. m.)

TypeYearCostPriorityLifecycle Replacement2016\$120,160Unassigned

Updated: FEB-13

D5030.02.02 Intrusion Detection**

Basic security system with control panel, alarm keypad, motion sensors, and door contacts.

RatingInstalledDesign LifeUpdated4 - Acceptable198625FEB-13

Event: Replace Intrusion Detection (3755 sq. m.)

TypeYearCostPriorityLifecycle Replacement2016\$109,270Unassigned

Updated: FEB-13

D5030.02.04 Video Surveillance**

Security cameras along building perimeter and in building interior, monitored in general office.

RatingInstalledDesign LifeUpdated4 - Acceptable198625FEB-13

Event: Replace Video Surveillance (3755 sq. m.)

TypeYearCostPriorityLifecycle Replacement2016\$44,832Unassigned

Updated: FEB-13

D5030.03 Clock and Program Systems*

Battery operated clock in each classroom.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D5030.04.01 Telephone Systems*

Nortel telephone system with telephone in each office and classroom.

RatingInstalledDesign LifeUpdated4 - Acceptable20070FEB-13

D5030.04.05 Local Area Network Systems*

Cat 5 and 5e data cabling with server installed in room 161.

RatingInstalledDesign LifeUpdated4 - Acceptable19860JAN-08

D5030.05 Public Address and Music Systems**

Intercom system through phone system with speaker in each classroom.

RatingInstalledDesign LifeUpdated4 - Acceptable200720FEB-13

Event: Replace Public Address (14 classrooms + office)

TypeYearCostPriorityLifecycle Replacement2027\$77,895Unassigned

Updated: FEB-13

D5030.06 Television Systems*

Cable TV outlet in each classroom not used.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1986	0	JAN-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.04 Residential Equipment*

Residential grade dishwasher, range, microwave, and refrigerator in staff lounge. Refrigerator and range in gym kitchen.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Six wall and ceiling suspended plywood backboards for basketball in gym. Electric scoreboard in gym.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

E2010.02 Fixed Casework**

Educational Casework: Painted and clear finish plywood with plastic laminate clad countertops in classrooms. Linoleum countertops in science room.

Kitchen Casework: Clear finish plywood with plastic laminate clad countertops in staff lounge kitchen.

Library Casework: Metal and clear plywood shelving in library.

Other Casework: Clear finish casework with plastic laminate countertops in office reception area. Display cases with tempered glass sliding doors. Plastic laminate clad vanities in washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable198635FEB-13

Event: Replace casework in 10 classrooms, washroom

vanities (8 m) and kitchen (4 m).

TypeYearCostPriorityLifecycle Replacement2021\$99,918Unassigned

Updated: FEB-13

E2010.03.01 Blinds**

Metal horizontal blinds at most windows.

RatingInstalledDesign LifeUpdated4 - Acceptable198630FEB-13

Event: Replace window blinds (45 sq. m.).

TypeYearCostPriorityLifecycle Replacement2016\$7,357Unassigned

Updated: FEB-13

S8 SPECIAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Designated parking stall provided in parking lot.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

K4010.02 Barrier Free Entrances*

Barrier free power openers installed at the main entrance doors.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

K4010.03 Barrier Free Interior Circulation*

Access good to all areas. Wheelchair platform lift provided at teaching space on gym stage.

RatingInstalledDesign LifeUpdated3 - Marginal19860FEB-13

Event: Modify public counter in reception

Concern:

Public counter in Reception has a lowered section but knee space not provided as required (ABC 3.8.3.14).

Recommendation:

Remove and replace section of counter in conformance with Code requirements.

TypeYearCostPriorityBarrier Free Access Upgrade2013\$2,500Low

Updated: FEB-13

Event: Replace 48 door locksets

Concern:

Doors have round knobs and locksets where lever design is required.

Recommendation:

Replace door locksets with lever design (48 doors).

Type Year Cost Priority
Barrier Free Access Upgrade 2013 \$25,200 Low

Updated: FEB-13

K4010.04 Barrier Free Washrooms*

Washrooms have acceptable cubicles and grab bars.

RatingInstalledDesign LifeUpdated5 - Good19860JAN-08

K4020.03 Other Codes*

Code analysis is not undertaken at this time.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13

K4030.01 Asbestos*

HAZMAT study not available for review but asbestos not readily observable or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

K4030.02 PCBs*

HAZMAT study not available for review but PCBs not readily observable or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

K4030.04 Mould*

HAZMAT study not available for review but mould not readily observable or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

K4030.07 Ozone Depleting Substances (CFC's, HCFC's, Halon)*

Condensing units were replaced in 2012 and contain R-407c refrigerant and are non-ozone depleting.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

K4030.09 Other Hazardous Materials*

HAZMAT study not available for review but other hazardous materials not readily observable or reported.

RatingInstalledDesign LifeUpdated4 - Acceptable19860FEB-13

K5010.01 Site Documentation*

Prime Consultant: Halsall Associates

Year of Evaluation: 2012

Site Description: The site is large with a bus drop driveway to south of the school and a paved parking lot to the west. The school sits on the southeast corner of the lot.

RatingInstalledDesign LifeUpdated5 - Good19860FEB-13



IMG_3115 (Large).JPG

K5010.02 Building Documentation*

Prime Consultant: Halsall Associates

Year of Evaluation: 2012

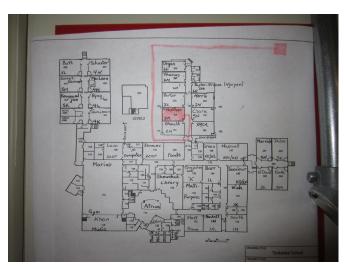
Original 3,755 sq.m. single storey core school built in 1986 serving grades K-9. Masonry and steel construction with brick cladding and BUR over concrete foundation. School originally opened with 10 portables in1986 while permanent construction was being completed.

Area Evaluated: Entire building including all links and portables. The scope included structural, architectural, mechanical, electrical, and site.

Buildings or Sections Not Evaluated: None

Anomalies: There was snow on the ground so the condition for some exterior components such as the roof and site were extrapolated from sample areas.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	1986	0	FEB-13



IMG_3323 (Large).JPG