# **RECAPP Facility Evaluation Report**

**Prairie Rose Regional Div #8** 



**Senator Gershaw School** 

B2476A Bow Island

# **Bow Island - Senator Gershaw School (B2476A)**

**Facility Details** 

Building Name: Senator Gershaw School

Address: 1 Avenue W. Location: Bow Island

Building Id: B2476A
Gross Area (sq. m): 4,841.58
Replacement Cost: \$16,270,130

Construction Year: 1951

**Evaluation Details** 

Evaluation Company: Golder Associates Ltd.

Evaluation Date: December 2 2010

Evaluator Name: Meaghen Derksen

Total Maintenance Events Next 5 years: \$3,373,900 5 year Facility Condition Index (FCI): 20.74%

**General Summary:** 

Senator Gershaw School is a grades 4-12 school with an enrollment of 199 students in 2010-2011 school year.

The original one and a half storey 2007m2 building was constructed in 1951.

A one-storey 2207 m2 addition was constructed to the east of the original section in 1961.

A one-storey 249 m2 Industrial Arts shop was constructed north of the original section in 1956.

In 1969 a one-storey 130 m2 addition was constructed on the east side of the 1956 Industrial Arts Addition.

A one-storey 237 m2 relocatable classroom was moved to the site in 1969.

The building and its improvements are generally in acceptable condition overall.

### **Structural Summary:**

Structural drawings were not available for review at the time of the evaluation. The building is likely constructed of cast-in-place reinforced strip footings supporting cast-in-place concrete foundation walls.

The majority of building sections are constructed of wood framing and concrete masonry unit walls supporting cast-inplace concrete floors and precast concrete roof panels, wood roof joists and/or open web steel joists.

The building structure is generally in acceptable condition overall.

### **Envelope Summary:**

Exterior walls are primarily clad in brick or stucco veneer. The 1951 Section exterior is accented with metal siding on the top portion of its perimeter. Precast concrete panels are present on sections of the 1961 Addition exterior.

The exterior windows have sealed glazing in a combination of fixed and operable aluminum frames.

Exterior doors are a combination of aluminum framed glazing or steel doors.

The roof assemblies consist of a combination of two-play modified bituminous membrane (SBS), conventional built-up asphalt and gravel, single-ply membrane, and corrugated metal roofing.

The building envelope is generally in acceptable condition.

# **Interior Summary:**

The interior flooring consists of: vinyl tile in the majority of classrooms and corridors throughout; ceramic tile in the washrooms and changerooms; carpet in the Library; and wood flooring in the gymnasiums. Painted and exposed concrete floors are present in the Industrial Arts building, mechanical rooms, and storage rooms throughout.

Interior walls consist mainly of painted gypsum, and painted and unpainted concrete masonry units.

Ceiling finishes are mainly suspended T-bar ceilings with inlaid acoustic tiles.

Interior doors are a combination of painted and stained wood doors in painted wood frames with standard hardware.

Interior finishes are generally in acceptable condition overall.

#### **Mechanical Summary:**

Domestic water distribution is copper and waste water is a combination of cast iron, galvanized steel and ABS.

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Domestic hot water is provided by four "John Wood" domestic water heaters.

Heating hot water is provided by three "Weil McLain" natural gas fired boilers and one "Peerless" natural gas fired boiler plus the associated accessories to fan coil units, finned tube radiation, one unit heater and one air handling unit located throughout the school. Two natural gas fired furnaces and two unit heaters provide heating to the Industrial Arts shop building. The "Peerless" boiler has surpassed its expected service life and replacement is expected within the timeline of this report.

Ventilation and makeup air are provided by two rooftop units. A combination of ceiling exhaust fans, and rooftop axial and centrifugal fans provide ventilation throughout.

The mechanical systems are generally in acceptable overall condition.

#### **Electrical Summary:**

The main power to the site is fed underground from a pad mounted utility-owned transformer on the north side of the IA shop and overhead by multiple pole mounted utility-owned transformers located off-site. 120/0208/240 volt single-phase switchgear, splitters and central distribution panels in mechanical rooms throughout the school provide electrical service to branch circuit panelboards throughout. The building is equipped with branch circuit panelboards throughout and the distribution wiring is copper.

Interior lighting throughout the building is fluorescent T-8 fixtures with electronic ballasts. Exterior lighting is high pressure sodium controlled by time clock. Exit lighting is by incandescent fixtures and emergency lighting is provided by battery packs with remote heads.

The fire protection system is a Mircom fire alarm system. Intrusion alarming is provided by a DSC PC4000 keypad alarm system with motion detectors. A digital video surveillance system with 2 colour and 4 black & white cameras provides surveillance of access points and sensitive areas throughout.

The electrical systems are generally in good overall 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\*

Cast-in-place (CIP) reinforced strip footings and foundation walls support the majority of all building sections. Sulphate staining was present on the foundations throughout. It is recommended that the condition of the foundation be reviewed as part of future infrastructure assessments for significant deterioration of the foundation.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### A1030 Slab on Grade\*

CIP concrete floor slabs are present on the lower levels throughout all building sections.

RatingInstalledDesign LifeUpdated3 - Marginal00APR-11

# **Event:** Perform Geotechnical Investigation

#### Concern:

Significant cracking and settlement of the slab on grade in the 1951 section.

#### Recommendation:

Perform a geotechnical investigation to determine the cause of the slab movement.

TypeYearCostPriorityStudy2011\$7,500Medium

Updated: APR-11

### A2020 Basement Walls (& Crawl Space)\*

CIP concrete walls in lower level, and below the stage of the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

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

Wood joists and decking supported on CIP concrete in the 1951 Section. Stage has tongue and groove (T&G) wood decks on wood strapping or joists.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

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

Concrete masonry unit (CMU) walls and wood framing supporting wood floors in the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

# B1010.03 Floor Decks, Slabs, and Toppings\*

Wood plywood sheathing in the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

### B1010.07 Exterior Stairs\*

CIP concrete steps with painted metal handrail to east entrance in the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable19610APR-11

### B1010.09 Floor Construction Fireproofing\*

Concealed.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

### B1010.10 Floor Construction Firestopping\*

Fire stopping is incomplete or absent from penetrations through the floor in the mechanical room of the 1951 Section.

RatingInstalledDesign LifeUpdated3 - Marginal19510APR-11

### **Event: Provide ULC Approved Firestops**

#### Concern:

Penetrations through ceiling in mechanical room are not sealed.

#### Recommendation:

Provide ULC-approved fire stops at penetrations through fire assemblies.

TypeYearCostPriorityCode Repair2011\$1,500Low

Updated: APR-11

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

Precast concrete slabs throughout 1961 Addition. Wood joists and beams throughout 1951 Section. OWSJ in Industrial Arts (IA) building Additions.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### B1020.02 Structural Interior Walls Supporting Roofs\*

CMU and CIP concrete in 1961, 1956, and 1969 Additions. Wood framing supporting the roof assembly in 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### B1020.03 Roof Decks, Slabs, and Sheathing\*

Plywood sheathing in the 1951 Section, and 1956 and 1969 Additions.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### B1020.04 Canopies\*

Wood framed canopies at the north and south entrances of the 1951 Section constructed in 1985.

Wood framed canopies at the south entrances of the 1956 and 1969 IA building Additions.

Wood framed canopies at the south main and east entrances of the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable19850APR-11

### B1020.06 Roof Construction Fireproofing\*

Concealed.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

# **S2 ENVELOPE**

### B2010.01.01 Precast Concrete: Exterior Wall Skin\*

Exposed aggregate and concrete precast panels on the exterior walls of the east wing of the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable19610APR-11

### B2010.01.02.01 Brick Masonry: Ext. Wall Skin\*

The majority of the 1961 Addition exterior is clad in brick veneer. Step cracking in brick present on the north side. Seal and repair cracking (repair <\$1000).

RatingInstalledDesign LifeUpdated4 - Acceptable19610APR-11

### B2010.01.06.03 Metal Siding\*\*

Prefinshed metal siding accent around the top perimeter of the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable198540APR-11

Event: Replace Metal Siding (~168 m2)

TypeYearCostPriorityLifecycle Replacement2025\$24,800Unassigned

Updated: APR-11

# B2010.01.08 Cement Plaster (Stucco): Ext. Wall\*

Stucco finish on the exterior of the 1951 Section and the 1956 and 1969 IA building Additions.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### B2010.01.09 Expansion Control: Exterior Wall Skin\*

Polyurethane expansion joints between precast panels on the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable19610APR-11

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

Polyurethane joint sealers are present around exterior windows, doors and at locations of material transition throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable198520APR-11

**Event:** Replace Exterior Joint Sealant (~685 m)

TypeYearCostPriorityLifecycle Replacement2014\$23,500Unassigned

**Updated:** APR-11

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

Painted wood soffits at canopies throughout the 1956, 1961, and 1969 Additions.

RatingInstalledDesign LifeUpdated4 - Acceptable198515APR-11

**Event:** Paint Canopy Soffits (~15 m2)

TypeYearCostPriorityLifecycle Replacement2014\$1,000Unassigned

Updated: APR-11

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

Concealed.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

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

Air louvres and vents on the exterior of mechanical rooms throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### B2010.09 Exterior Soffits\*

Painted wood soffits at the canopies of the 1956 and 1969 IA building Additions, and the 1961 Addition. Soffit on the canopy over the east entrance of the 1961 Addition is significantly damaged. Replace damaged soffit (repair <\$1000). Prefinished metal soffit at the canopies of the 1951 Section.

Rating Installed Design Life Updated 3 - Marginal 0 0 APR-11

### B2020.01.01.02 Aluminum Windows (Glass & Frame)\*\* - 1951 Section

Aluminum sealed double pane windows throughout the 1951 Section. Combination of operable and fixed units.

RatingInstalledDesign LifeUpdated4 - Acceptable198540APR-11

**Event: Replace Aluminum Windows (~47 m2)** 

TypeYearCostPriorityLifecycle Replacement2025\$62,000Unassigned

Updated: APR-11

# B2020.01.01.02 Aluminum Windows (Glass & Frame)\*\* - 1961 Section

Aluminum sealed double pane windows throughout the 1961 Addition. Combination of operable and fixed units.

RatingInstalledDesign LifeUpdated4 - Acceptable198940APR-11

Event: Replace Aluminum Windows (~140 m2)

TypeYearCostPriorityLifecycle Replacement2029\$184,600Unassigned

**Updated:** APR-11

# B2020.01.01.05 Wood Windows (Glass & Frame)\*\*

Wood framed fixed glazing in 1956 IA building addition.

RatingInstalledDesign LifeUpdated4 - Acceptable195635APR-11

Event: Replace Wood Windows (~2 m2)

TypeYearCostPriorityLifecycle Replacement2014\$1,900Unassigned

Updated: APR-11

#### B2030.01.01 Aluminum-Framed Storefronts: Doors\*\*

Aluminum framed storefront doors with full glazing and sidelights at the south entrance of the 1961 Addition and at the south and north entrances of the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable198530APR-11

**Event:** Replace Aluminum Storefront Doors (~5 units)

TypeYearCostPriorityLifecycle Replacement2015\$61,900Unassigned

Updated: APR-11

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

Painted steel entrance doors with and without vision glass inserts.

RatingInstalledDesign LifeUpdated4 - Acceptable198530APR-11

**Event:** Replace Steel Doors (~7 units)

TypeYearCostPriorityLifecycle Replacement2015\$19,500Unassigned

Updated: APR-11

### B2030.01.06 Automatic Entrance Doors\*\*

Aluminum framed fully glazed storefront door with automatic door opener provided at the main south entrance of the 1961 Addition.

RatingInstalledDesign LifeUpdated5 - Good201030APR-11

**Event:** Replace Automatic Entrance Door (~1 unit)

TypeYearCostPriorityLifecycle Replacement2040\$15,700Unassigned

Updated: APR-11

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

Steel utility doors present at the gymnasium emergency exits in the 1951 Section and 1961 Addition. Steel utility doors present at the emergency exits of the IA building Additions.

RatingInstalledDesign LifeUpdated4 - Acceptable195140APR-11

**Event: Replace Steel Utility Doors (~4 units)** 

TypeYearCostPriorityLifecycle Replacement2014\$4,100Unassigned

Updated: APR-11

### B3010.01 Deck Vapor Retarder and Insulation\*

Concealed.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

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

Conventional asphalt and gravel built-up roof (BUR) assembly on the majority of the 1951 Section and 1961 Addition, and on the IA building Additions.

RatingInstalledDesign LifeUpdated4 - Acceptable198525APR-11

Event: Replace BUR Assembly (~2966 m2)

TypeYearCostPriorityLifecycle Replacement2014\$621,200Unassigned

Updated: APR-11

#### B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\*

Roofing on the 1961 Addition gymnasium section consists of 2-ply modified bituminous membrane (SBS) assembly with granular surface capsheet and flashing.

RatingInstalledDesign LifeUpdated5 - Good200025APR-11

Event: Replace SBS Roofing (~520 m2)

TypeYearCostPriorityLifecycle Replacement2025\$109,100Unassigned

Updated: APR-11

### B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)\*\*

Single-ply rolled roofing on the 1951 gymnasium section.

RatingInstalledDesign LifeUpdated4 - Acceptable198625APR-11

**Event:** Replace Single Ply Membrane Roofing (~325 m2)

TypeYearCostPriorityLifecycle Replacement2014\$73,700Unassigned

**Updated: APR-11** 

# B3010.07 Sheet Metal Roofing\*\*

Prefinished metal roofing on the north and south canopies of the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable198540APR-11

Event: Replace Sheet Metal Roofing (~10 m2)

TypeYearCostPriorityLifecycle Replacement2025\$2,700Unassigned

**Updated:** APR-11

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

Metal gutters on west wing of 1961 Addition.

Prefinished metal downspouts throughout the perimeter of the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable198530APR-11

**Event:** Replace Metal Gutters and Downspouts (~35 m)

TypeYearCostPriorityLifecycle Replacement2015\$1,000Unassigned

Updated: APR-11

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

Roof access hatches with internal metal ladders, roof vents, and roof drains throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

# S3 INTERIOR

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

Painted CMU and stud frame partitions with gypsum wall board throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### C1010.05 Interior Windows\*

Aluminum framed glass between computer room on the lower level of the 1951 Section. Wood framed glass in the administration offices in the 1961 Addition.

Metal rolling shutter in the kitchen of 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

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

Interior aluminum framed fully glazed storefront doors at the south entrance vestibule of the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable19850APR-11

# **Event: Upgrade doors to Fire Rated Assemblies (2 units)**

### Concern:

Storefront doors at south stairwell in 1951 Section are not fire rated.

#### Recommendation:

Replace doors with ULC-approved and stamped fire rated door assemblies.

TypeYearCostPriorityCode Upgrade2011\$1,800Low

**Updated: APR-11** 

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

A combination of stained and painted wood doors in painted wood frames, and painted metal doors in painted metal frames throughout all building sections. Majority of doors are equipped with standard hardware (refer to K4010.03).

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

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

Fire rated doors at mechanical and boiler rooms.

Steel fire rated doors provided at the top and bottom of the stairwells in the 1951 Section, equipped with electronic hold open devices.

Fire rated door assemblies provided in the corridor at the connection between the 1951 Section and 1961 Addition.

RatingInstalledDesign LifeUpdated3 - Marginal19850APR-11

### **Event: Install Door Hold Open Devices (~2 units)**

#### Concern:

Corridor fire doors were observed to be held open with door stops.

#### **Recommendation:**

Install electrically supervised door hold open devices on corridor fire doors.

TypeYearCostPriorityCode Repair2011\$7,000Low

Updated: APR-11

### C1030.01 Visual Display Boards\*\* - SMART Boards

Digital SMART boards in majority of classrooms throughout all building sections.

RatingInstalledDesign LifeUpdated5 - Good200820APR-11

# **Event:** Replace SMART Boards (~18 units)

TypeYearCostPriorityLifecycle Replacement2028\$135,000Unassigned

Updated: APR-11

### C1030.01 Visual Display Boards\*\* - Tack & White Boards

Wall mounted metal framed cork boards, tack boards and white boards in corridors, offices, and classrooms throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable198520APR-11

**Event:** Replace Tack Boards (~100 units)

TypeYearCostPriorityLifecycle Replacement2014\$78,600Unassigned

**Updated:** APR-11

**Event: Replace White Boards (~40 units)** 

TypeYearCostPriorityLifecycle Replacement2014\$67,400Unassigned

Updated: APR-11

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

Prefinished metal toilet compartments and shower stall partitions present in the student washrooms and changerooms throughout the 1951 Section and 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable198530APR-11

**Event:** Replace Metal Shower Partitions (~16 stalls)

TypeYearCostPriorityLifecycle Replacement2015\$42,600Unassigned

**Updated: APR-11** 

**Event: Replace Toilet Compartments (~11 units)** 

TypeYearCostPriorityLifecycle Replacement2015\$16,800Unassigned

Updated: APR-11

### C1030.08 Interior Identifying Devices\*

Classroom number and name plates, interior signage, wall mounted emergency egress plans etc. throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### C1030.10 Lockers\*\* - 1961

Prefinished steel lockers in the corridor of the 1961 Addition. Combination of full height and half height.

RatingInstalledDesign LifeUpdated4 - Acceptable196130APR-11

Event: Replace Lockers (~134 full units, 36 half units)

TypeYearCostPriorityLifecycle Replacement2014\$106,200Unassigned

Updated: APR-11

#### C1030.10 Lockers\*\* - 1986

Prefinished metal lockers in the corridors of the 1951 Section and in the 1956 IA building Addition. Combination of full height and half height units.

RatingInstalledDesign LifeUpdated4 - Acceptable198630APR-11

**Event:** Replace Lockers (~2 full units, 138 half units)

TypeYearCostPriorityLifecycle Replacement2016\$49,600Unassigned

Updated: APR-11

### C1030.12 Storage Shelving\*

A variety of painted wood storage shelves throughout all building sections. Metal book racks in vestibules throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### C1030.14 Toilet, Bath, and Laundry Accessories\*

Mirrors, liquid soap dispensers, waste baskets, and paper and toilet paper dispensers in washrooms throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### C2010 Stair Construction\*

CIP reinforced concrete stairs to mechanical rooms in 1951 Section and 1961 Addition. Wood framed stairs in 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### C2020.05 Resilient Stair Finishes\*\*

Vinyl tile flooring with metal nosing on stairs in 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable198520APR-11

**Event:** Replace Vinyl Stair Finish (~60 m2)

TypeYearCostPriorityLifecycle Replacement2014\$5,800Unassigned

Updated: APR-11

# C2020.08 Stair Railings and Balustrades\*

Wall mounted varnished wood railings at all stairwells in the 1951 Section.

Painted metal railings at the stairs in the mechanical rooms of the 1951 Section and 1961 Addition.

RatingInstalledDesign LifeUpdated3 - Marginal00APR-11

### **Event: Install Handrails**

Concern:

No handrails provided at concrete stairs in mechanical room of the 1951 Section.

**Recommendation:** 

Install handrails at both sets of concrete stairs in the mechanical room of the 1951 Section.

TypeYearCostPriorityCode Repair2011\$1,500Medium

Updated: APR-11

#### C2020.10 Stair Painting\*

Painted concrete steps in the mechanical rooms of the 1951 Section and 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### C3010.02 Wall Paneling\*\*

Painted wood paneling on the walls of the gymnasium and stage in the 1951 Section. Sections of paneling buckling. Fasten paneling to wall (repair <\$1000).

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

**Event: Replace Wall Paneling (~136 m2)** 

TypeYearCostPriorityLifecycle Replacement2014\$14,200Unassigned

Updated: APR-11

### C3010.06 Tile Wall Finishes\*\* - 1951 Section

Ceramic wall tile in student washrooms and shower rooms in the 1951 Section and 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable195140APR-11

Event: Replace Wall Tile (~115 m2)

TypeYearCostPriorityLifecycle Replacement2014\$35,200Unassigned

Updated: APR-11

# C3010.11 Interior Wall Painting\*

Painted CMU and gypsum board throughout all building sections. Painted wood paneling in 1951 Section gymnasium and stage area.

#### C3020.02 Tile Floor Finishes\*\* - 1951

Ceramic floor tile in staff and student washrooms and shower rooms in the 1951 Section.

RatingInstalledDesign LifeUpdated3 - Marginal195150APR-11

**Event:** Replace Ceramic Floor Tile (~5 m2)

Concern:

Sections of tile missing in the boys showers in the 1951

Section.

Recommendation:
Repair ceramic floor tile.

TypeYearCostPriorityFailure Replacement2011\$1,100Medium

Updated: APR-11

**Event:** Replace Remaining Floor Tile (~90 m2)

TypeYearCostPriorityLifecycle Replacement2014\$18,100Unassigned

Updated: APR-11

C3020.02 Tile Floor Finishes\*\* - 1961

Quarry floor tile present in the staff and student washrooms, changerooms, and shower rooms of the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable196150APR-11

**Event:** Replace Quarry Floor Tile (~105 m2)

TypeYearCostPriorityLifecycle Replacement2014\$34,000Unassigned

Updated: APR-11

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

Strip wood sports flooring in the gymnasiums of the 1951 Section and 1961 Addition. Strip wood flooring present on the stage of the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

Event: Replace Sports Floor (~800 m2)

TypeYearCostPriorityLifecycle Replacement2014\$237,400Unassigned

**Updated:** APR-11

**Event:** Replace Strip Flooring (~50 m2)

TypeYearCostPriorityLifecycle Replacement2014\$11,800Unassigned

Updated: APR-11

C3020.07 Resilient Flooring\*\* - 1988

Vinyl tile flooring present in the majority of classrooms and corridors throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable198820APR-11

Event: Replace Vinyl Floor Tile (~2400 m2)

TypeYearCostPriorityLifecycle Replacement2014\$145,800Unassigned

Updated: APR-11

C3020.07 Resilient Flooring\*\* - 2004

Vinyl tile flooring present in the majority of the Library.

RatingInstalledDesign LifeUpdated5 - Good200420APR-11

**Event:** Replace Vinyl Floor Tile (~70 m2)

TypeYearCostPriorityLifecycle Replacement2024\$4,300Unassigned

**Updated:** APR-11

#### C3020.07 Resilient Flooring\*\* - 2008

Flooring upgraded to vinyl tile in the Home Economics room and adminstration offices.

RatingInstalledDesign LifeUpdated5 - Good200820APR-11

Event: Replace Vinyl Floor Tile (~236 m2)

TypeYearCostPriorityLifecycle Replacement2028\$14,400Unassigned

Updated: APR-11

# C3020.08 Carpet Flooring\*\*

Carpet present in the Library.

RatingInstalledDesign LifeUpdated4 - Acceptable198515APR-11

**Event:** Replace Carpet (~148 m2)

TypeYearCostPriorityLifecycle Replacement2014\$11,600Unassigned

Updated: APR-11

### C3020.11 Floor Painting\*

Painted concrete in custodian rooms throughout all building sections.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### C3030.01 Concrete Ceiling Finishes (Unpainted)\*

Exposed precast concrete slab in mechanical rooms of the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable19610APR-11

# C3030.02 Ceiling Paneling (Wood)\*

Painted wood ceilings in the 1956 and 1969 IA building Additions.

RatingInstalledDesign LifeUpdated4 - Acceptable19560APR-11

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

Suspended T-bar ceilings with inlaid acoustic tiles present in the majority of classrooms, corridors, offices, and Library throughout all building sections.

Isolated tiles missing or stained. Replace as required (repair <\$1000).

RatingInstalledDesign LifeUpdated4 - Acceptable198525APR-11

Event: Replace Acoustic Ceiling Tile (~3215 m2)

TypeYearCostPriorityLifecycle Replacement2014\$170,000Unassigned

Updated: APR-11

# C3030.07 Interior Ceiling Painting\*

Painted gypsum board in washrooms and storage rooms throughout all building sections.

Painted precast concrete slabs in 1961 Addition gymnasium.

Painted wood ceiling in 1956 IA building Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### D1010.02 Lifts\*\*

Wheelchair lift present on the east stairwell of the 1951 Section.

RatingInstalledDesign LifeUpdated6 - Excellent201025APR-11

**Event: Replace Wheelchair Lift (1 unit)** 

TypeYearCostPriorityLifecycle Replacement2035\$29,700Unassigned

**Updated:** APR-11

# **S4 MECHANICAL**

### D2010.04 Sinks\*\* - Enamel Steel

There are two wall mounted enamel steel service sinks - one in the 1951 Section and one in the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

**Event: Replace 2 Service Sinks** 

TypeYearCostPriorityLifecycle Replacement2014\$6,600Unassigned

Updated: APR-11

#### D2010.04 Sinks\*\* - Stainless Steel

Single basin, double basin and trough style service sinks are provided throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

**Event:** Replace 6 Stainless Steel Service Sinks

TypeYearCostPriorityLifecycle Replacement2014\$4,000Unassigned

**Updated: APR-11** 

### D2010.05 Showers\*\*

Wall mounted shower heads and valve sets are provided in the 1951 Section and the 1961 Addition. The shower rooms provided at the lower level of the 1951 Section do not get used and are permanently locked.

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

Event: Replace ~11 Shower Valve Sets

TypeYearCostPriorityLifecycle Replacement2014\$6,400Unassigned

Updated: APR-11

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

Wall mounted vitreous china drinking fountains throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable195135APR-11

**Event:** Replace ~7 Drinking Fountains

TypeYearCostPriorityLifecycle Replacement2014\$13,200Unassigned

Updated: APR-11

# D2010.10 Washroom Fixtures (WC, Lav, Urnl)\*\* - 1951 Section & IA Shop

2 stainless steel lavatories.

- 5 enamel steel lavatories.
- 9 flush tank toilets.
- 2 dump tank urinals.

RatingInstalledDesign LifeUpdated4 - Acceptable195135APR-11

# **Event:** Install Manual or Proximity Sensor Valves (~2 ea.)

#### Concern:

The urinals run on continuous dump and refill cycles, wasting water.

### Recommendation:

Replace the dump tank with a manual or proximity sensor valve on each urinal.

TypeYearCostPriorityEnergy Efficiency Upgrade2011\$1,000Low

**Updated:** APR-11

### Event: Replace 7 Sinks, 9 Toilets & 2 Urinals

TypeYearCostPriorityLifecycle Replacement2014\$31,500Unassigned

Updated: APR-11

#### D2010.10 Washroom Fixtures (WC, Lav, UrnI)\*\* - 1961 Addition

8 vitreous china lavatories.

7 flush tank toilets.

5 flush valve urinals.

RatingInstalledDesign LifeUpdated4 - Acceptable198935APR-11

# **Event:** Replace 8 Sinks, 7 Toilets and 5 Urinals

TypeYearCostPriorityLifecycle Replacement2024\$41,000Unassigned

Updated: APR-11

# D2020.01.01 Pipes and Tubes: Domestic Water\*

Black iron and galvanized water mains with galvanized and copper distribution piping throughout. The main water supply in the 1951 Section failed and was abandoned in 2010. Water for this section is now provided from the water main in the 1961 Addition. There were no water pressure concerns noted or observed.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

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

Isolation valves on domestic water distribution throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable198940APR-11

### Event: Replace Domestic Water Valves (~16 ea.)

TypeYearCostPriorityLifecycle Replacement2029\$21,600Unassigned

**Updated:** APR-11

#### D2020.01.03 Piping Specialties (Backflow Preventors)\*\*

A backflow preventor is provided on the boiler water supply feed in the 1951 Section.

RatingInstalledDesign LifeUpdated3 - Marginal199620APR-11

**Event:** Install ~4 Backflow preventors.

Concern:

Backflow preventors are not supplied on the main water supply, boiler feed water in the 1961 Section, the fire standpipe system and the irrigation system.

Recommendation:

Install backflow preventors.

TypeYearCostPriorityRepair2011\$14,300High

Updated: APR-11

**Event: Replace 1 Backflow Preventor** 

TypeYearCostPriorityLifecycle Replacement2016\$3,600Unassigned

Updated: APR-11

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

One Grundfos inline axial circulation pump is provided on the domestic hot water supply.

RatingInstalledDesign LifeUpdated5 - Good200920APR-11

**Event: Replace 1 Circulation Pump** 

TypeYearCostPriorityLifecycle Replacement2029\$4,000Unassigned

Updated: APR-11

### D2020.02.06 Domestic Water Heaters\*\* - 1951 Section & IA Shop

A "John Wood" natural gas fired 36,000 BTU, 37.3 gallon water heater with a 25.2 gal/hr recovery rate is provided in the mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198720APR-11

**Event: Replace 2 Domestic Water Heaters** 

TypeYearCostPriorityLifecycle Replacement2014\$3,400Unassigned

Updated: APR-11

### D2020.02.06 Domestic Water Heaters\*\* - 1961 Addition

Two "John Wood" natural gas fired 38,000 BTU, 40 gallon water heaters with a 34.5 gal/hr recovery rate are provided in the mechanical room.

RatingInstalledDesign LifeUpdated5 - Good200920APR-11

**Event:** Replace 2 Domestic Water Heaters

TypeYearCostPriorityLifecycle Replacement2029\$4,300Unassigned

Updated: APR-11

#### D2020.03 Water Supply Insulation: Domestic\*

Air cell insulation and cementitious elbows and runs on mechanical insulation likely contains asbestos.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

# D2030.01 Waste and Vent Piping\*

Waste and vent piping is generally cast iron and ABS.

### D2030.02.04 Floor Drains\*

Floor drains are provided in shower rooms and mechanical rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### D2030.03 Waste Piping Equipment\*

A submersible sump is provided in a pit at the lower level of the 1951 Section runs continuously. The sump provides drainage from the weeping tile that runs around most of the foundation of this section. The sump discharges into the sanitary sewer system - a municipal storm sewer system is not present near this school.

RatingInstalledDesign LifeUpdated4 - Acceptable19860APR-11

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

External rain water leaders provide drainage from all roofs. Rain water leaders drain to grade around the building perimeter.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

### D2040.02.04 Roof Drains\*

Roof scuppers discharge to external rain water leaders.

RatingInstalledDesign LifeUpdated4 - Acceptable19860APR-11

### D3010.02 Gas Supply Systems\*

The natural gas supply enters the building at grade supplying the boilers, domestic hot water tank, rooftop units and unit heaters throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

# D3020.02.01 Heating Boilers and Accessories: H.W.\*\* - 1951 Section

Heating hot water is provided by three "Weil McLain" natural gas fired 427 MBTU boilers plus the associated accessories which include (2) 1.0 HP circulation pumps, 1 expansion tank, manual feed chemical pot & micron filter and air separator.

RatingInstalledDesign LifeUpdated4 - Acceptable199735APR-11

#### **Event: Replace 3 Heating Boilers and Accessories**

TypeYearCostPriorityLifecycle Replacement2032\$122,500Unassigned

**Updated:** APR-11

#### D3020.02.01 Heating Boilers and Accessories: H.W.\*\* - 1961 Addition

Heating hot water is provided by one "Peerless" natural gas fired 3570 MBTU boiler plus the associated accessories which include (2) 1.5 HP circulation pumps, 1 expansion tank, manual feed chemical pot & micron filter and air separator.

RatingInstalledDesign LifeUpdated3 - Marginal196135APR-11

Event: Replace1 Heating Boiler with 2 Boilers and

**Accessories** 

Concern:

The boiler has surpassed its expected service life and is showing signs of corrosion. No redundant heating is provided for in the 1961 building if the boiler were to fail.

Recommendation:

Replace the boiler and accessories with two boilers for redundancy.

TypeYearCostPriorityFailure Replacement2011\$97,000Low

Updated: APR-11

### D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler\*\* - 1951 Section

Galvanized steel insulated breeching and B-vent chimney. Galvanized steel combustion air with trap provided.

RatingInstalledDesign LifeUpdated4 - Acceptable199735APR-11

Event: Replace Chimneys & Comb. Air (~20 m)

TypeYearCostPriorityLifecycle Replacement2032\$15,100Unassigned

Updated: APR-11

#### D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler\*\* - 1961 Addition

Single wall breeching covered with >75% chrysolite asbestos insulation. Combustion air with no trap.

Combustion air is not trapped. Asbestos insulation on breeching is breaking up and falling onto the floor. Costs allowed for under boiler replacement.

RatingInstalledDesign LifeUpdated3 - Marginal195135APR-11

### Event: Replace Chimneys & Comb. Air (~12 m)

#### Concern:

The chimney duct itself is concealed, however, based on its age and the condition of the rest of the system and the insulation, the chimney is likely corroded. The combustion air trap is constructed of wood - a fire hazard in a mechanical room.

#### Recommendation:

Replace the chimney and combustion air trap.

TypeYearCostPriorityFailure Replacement2011\$9,100Medium

Updated: APR-11

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

Bypass micron filter and manual chemical pot feeder are provided for the boilers in both mechanical rooms.

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

# D3020.03.01 Furnaces\*\*

Two natural gas fired furnaces are located in the IA shop building, one of which is located in the ceiling space. The other is a Lennox #GH5-150M.

RatingInstalledDesign LifeUpdated3 - Marginal195625APR-11

#### **Event: Replace 2 Furnaces With High Efficiency Models**

#### Concern:

The furnaces have surpassed their expected service life, heat exchangers are probably worn out, and are dirty & corroded.

#### Recommendation:

Replace furnaces with high efficiency models.

TypeYearCostPriorityFailure Replacement2011\$8,900High

Updated: APR-11

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

No combustion air. Galvanized steel venting appears to have been replaced recently.

RatingInstalledDesign LifeUpdated3 - Marginal19510APR-11

**Event:** Replace With Direct Vent Chimney and

**Combustion Air** 

Concern:

Inefficient chimney and combustion air system.

Recommendation:

Replace/install direct vent flu and combustion air concurrent

with high-efficiency furnace replacement.

TypeYearCostPriorityEnergy Efficiency Upgrade2011\$2,000Medium

Updated: APR-11

### D3020.04.03 Fuel-Fired Unit Heaters\*\* - 1956

"Reznor" natural gas fired unit heaters provided in the IA Shop and the ancillary storage building.

RatingInstalledDesign LifeUpdated5 - Good195630APR-11

**Event: Replace 3 Unit Heaters** 

TypeYearCostPriorityLifecycle Replacement2014\$12,000Unassigned

Updated: APR-11

#### D3020.04.03 Fuel-Fired Unit Heaters\*\* - 2000

Reznor natural gas fired unit heater in IA shop - relocated from another school. One "Trane" natural gas fired unit heater in the 1961 Addition mechanical room.

RatingInstalledDesign LifeUpdated5 - Good200030APR-11

**Event:** Replace 2 Unit Heaters

TypeYearCostPriorityLifecycle Replacement2030\$8,000Unassigned

Updated: APR-11

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# D3020.04.04 Chimney (& Comb. Air): Fuel-Fired Heater\*

Galvanized metal chimney provided.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

### D3030.06.02 Refrigerant Condensing Units\*\*

Air cooled condensing unit serves 1951 Section air handler. York model H2CA300A25D, R-22 with 87.9kW capacity.

RatingInstalledDesign LifeUpdated5 - Good200025APR-11

### **Event: Replace 1 Rooftop Refrigerant Condensing Unit**

TypeYearCostPriorityLifecycle Replacement2025\$27,800Unassigned

**Updated: APR-11** 

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

Dust collector serves the IA shop machinery.

RatingInstalledDesign LifeUpdated4 - Acceptable19560APR-11

### D3040.01.04 Ducts: Air Distribution\*

The duct system includes all components related to the air distribution systems in the building. The air distribution systems include ducting supply air, return air, and exhaust air. Exhaust air ducting includes general building exhausts as well as local exhausts. The duct systems include ductwork, insulation, dampers, diffusers and other related components.

RatingInstalledDesign LifeUpdated5 - Good19510APR-11

#### D3040.01.07 Air Outlets & Inlets: Air Distribution\*

The air outlets and inlets are of varying types and include air diffusers, dampers and supply and return grilles.

Rating Installed Design Life Updated
5 - Good 1951 0 APR-11

#### D3040.03.01 Hot Water Distribution Systems\*\*

Copper heating hot water distribution piping throughout the 1951 Section and 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable195140APR-11

**Event:** Replace Hot Water Distribution Systems (~4593)

m2/gfa)

TypeYearCostPriorityLifecycle Replacement2014\$392,000Unassigned

Updated: APR-11

#### D3040.04.01 Fans: Exhaust\*\*

One rooftop centrifugal exhaust fan and two wall mounted axial exhaust fans provide ventilation from the IA shop. Approximately six axial fans provide ventilation from the main school. Assorted ceiling fans provide ventilation from washrooms, storage rooms and classrooms throughout. Two wall mounted axial fans provide exhaust from the crawl space below the 1961 Addition gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

Event: Replace Exhaust Fans (~4593 m2/gfa)

TypeYearCostPriorityLifecycle Replacement2014\$73,600Unassigned

Updated: APR-11

D3040.04.03 Ducts: Exhaust\*

Concealed.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

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

Eggcrate and grilled exhaust covers are original to each section of the building.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

#### D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)\*\* - 1951 Section

Indirect fired natural gas fired rooftop unit serves the 1951 Section. Engineered Air model DGS-70-HON with mixing box, air filters, indirect burners, and supply air fan.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

**Event: Replace 1 Rooftop Unit** 

TypeYearCostPriorityLifecycle Replacement2020\$76,800Unassigned

Updated: APR-11

### D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)\*\* - IA Shop

An 1875 cfm "ICG" makeup air unit serves the IA Shop, interlocked with the dust collector.

RatingInstalledDesign LifeUpdated4 - Acceptable199030APR-11

Event: Replace 1 Rooftop Unit

TypeYearCostPriorityLifecycle Replacement2020\$39,400Unassigned

Updated: APR-11

### D3050.01.03 Packaged Terminal Air Conditioning Units\*

Through the wall air condtioner installed in the Administration area.

RatingInstalledDesign LifeUpdated4 - Acceptable19890APR-11

### D3050.05.01 Convectors\*\*

Two hot water heated convector cabinets are located in the library.

RatingInstalledDesign LifeUpdated4 - Acceptable196140APR-11

**Event: Replace 2 Convector Cabinets** 

TypeYearCostPriorityLifecycle Replacement2014\$1,700Unassigned

**Updated:** APR-11

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### D3050.05.02 Fan Coil Units\*\*

Hot water heated fan coil units are provided at building entrances and addition transitions throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

Event: Replace Fan Coil Units (~8 ea.)

TypeYearCostPriorityLifecycle Replacement2014\$49,500Unassigned

Updated: APR-11

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

Finned tube radiation provides heating at the building perimeter throughout the 1951 Section and 1961 Addition (with the exception of the gymnasium in the 1961 Addition).

RatingInstalledDesign LifeUpdated4 - Acceptable195140APR-11

**Event:** Replace Finned Tube Radiation (~4593 m2/gfa)

TypeYearCostPriorityLifecycle Replacement2014\$196,200Unassigned

Updated: APR-11

# D3050.05.06 Unit Heaters\*\*

Two suspended water heated unit heaters in the gymnasium of the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable196130APR-11

**Event:** Replace 2 Unit Heaters

TypeYearCostPriorityLifecycle Replacement2014\$7,700Unassigned

Updated: APR-11

#### D3060.02.01 Electric and Electronic Controls\*\* - 1961

Electric controls in the 1961 Addition and the IA Shop.

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

Event: Install BMCS (~2456 m2/gfa)

Concern:

Existing controls do not have any energy saving features and rely on occupants to set the temperature back.

Recommendation:

Replace existing controls with a BMCS system.

TypeYearCostPriorityOperating Efficiency Upgrade 2012\$58,400Medium

Updated: APR-11

**Event:** Replace Electric and Electronic Controls (~2456

m2/gfa)

TypeYearCostPriorityLifecycle Replacement2014\$4,600Unassigned

Updated: APR-11

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

A BMCS system is provided in the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable200820APR-11

Event: Replace BMCS (~2007 m2/gfa)

TypeYearCostPriorityLifecycle Replacement2028\$47,400Unassigned

**Updated:** APR-11

D4020 Standpipes\*

Fire hose cabinets installed throughout

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

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

Multipurpose dry type fire extinguishers installed throughout the school

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1951	0	APR-11

# S5 ELECTRICAL

## D5010.01 Main Electrical Transformers\*\*

The main power to the site is fed underground from a pad mounted utility-owned transformer on the north side of the IA shop and overhead by multiple pole mounted utility-owned transformers located off-site.

RatingInstalledDesign LifeUpdated4 - Acceptable195140APR-11

# D5010.03 Main Electrical Switchboards (Main Distribution)\*\* - 1951 Section

The main electrical switchgear is Square "D", providing 120/240 volt,400 amp service in the mechanical room. A splitter and series of disconnects distribute power to branch circuit panelboards throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable195140APR-11

**Event: Replace with Main Electrical Switchgear and CDP** 

TypeYearCostPriorityLifecycle Replacement2014\$52,100Unassigned

Updated: APR-11

# D5010.03 Main Electrical Switchboards (Main Distribution)\*\* - 1961 Addition

The main electrical switchgear is "Panelboard", providing 120/240 volt, 250 amp service in the mechanical room. A 120/240 volt, 400 amp, single-phase, 3-wire "Bulldog" CDP distributes power to branch circuit panelboards throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable040APR-11

**Event: Replace Main Electrical Switchboards** 

TypeYearCostPriorityLifecycle Replacement2014\$52,100Unassigned

Updated: APR-11

## D5010.03 Main Electrical Switchboards (Main Distribution)\*\* - Ancillary Storage Bldg.

An unlabelled distribution panel provides power to the Ancillary Storage building.

RatingInstalledDesign LifeUpdated4 - Acceptable195640APR-11

**Event:** Replace 1 Central Distribution Panel

TypeYearCostPriorityLifecycle Replacement2014\$16,200Unassigned

Updated: APR-11

### D5010.03 Main Electrical Switchboards (Main Distribution)\*\* - IA Shop

An unlabelled switchgear unit and "FPE" CDP provides 120/208 volt, 400 amp, 3-phase, 4-wire service to the IA Shop.

RatingInstalledDesign LifeUpdated4 - Acceptable199840APR-11

**Event: Replace Main Electrical Switchboards** 

TypeYearCostPriorityLifecycle Replacement2038\$52,100Unassigned

Updated: APR-11

# D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)\*\* - 1951 Section/1961 Addition

24 to 42 circuit branch circuit panelboards are located throughout the school. Panel 'A' has built-in surge protection and a "Leviton" surge protector provides protection for the circuit serving the computer lab. Leviton surge protection is provided on Panels 'D' and 'H' for computer labs and servers. The panelboard in the 1951 Section gymnasium has blanks covered with electrical tape (repair <\$1000).

RatingInstalledDesign LifeUpdated4 - Acceptable195130APR-11

**Event:** Replace ~9 Branch Circuit Panelboards

TypeYearCostPriorityLifecycle Replacement2014\$50,200Unassigned

Updated: APR-11

# D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)\*\* - IA Shop

A 30-circuit branch panelboard is provided in the IA shop.

RatingInstalledDesign LifeUpdated5 - Good199830APR-11

Event: Replace ~1 Branch Circuit Panelboard

TypeYearCostPriorityLifecycle Replacement2028\$5,600Unassigned

Updated: APR-11

### D5010.07.02 Motor Starters and Accessories\*\* - 1961

Various motor starters provided for mechanical equipment throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable196130APR-11

Event: Replace ~10 Motor Starters and Accessories

TypeYearCostPriorityLifecycle Replacement2014\$14,400Unassigned

Updated: APR-11

# D5010.07.02 Motor Starters and Accessories\*\* - 1998

Various motor starters provided for mechanical equipment throughout.

RatingInstalledDesign LifeUpdated5 - Good199830APR-11

**Event:** Replace ~10 Motor Starters and Accessories

TypeYearCostPriorityLifecycle Replacement2028\$14,400Unassigned

Updated: APR-11

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

Electrical branch wiring is standard copper in rigid conduit with flexible connectors at end devices as needed.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

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

Keyed and toggle line voltage switches throughout.

# D5020.02.02.01 Interior Incandescent Fixtures\*

Explosion proof ceiling mounted fixture in gas meter room. Ceiling mounted in shower room. Coloured spotlights installed on gymnasium stage.

RatingInstalledDesign LifeUpdated5 - Good00APR-11

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

T-8 lamps in electronic ballasts throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable199830APR-11

Event: Replace Florescent Fixtures (~4593 m2/gfa)

TypeYearCostPriorityLifecycle Replacement2028\$401,000Unassigned

Updated: APR-11

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

Emergency battery packs with remote and integral heads throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable199820APR-11

**Event:** Replace Emergency Lighting Battery Packs (~10

<u>ea.)</u>

TypeYearCostPriorityLifecycle Replacement2018\$13,300Unassigned

Updated: APR-11

# D5020.02.03.03 Exit Signs\*

Assorted incandescent and LED emergency exist signs provided throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

# D5020.02.05 Special Purpose Lighting\*

Receptacle patch panel used to switch theatre lighting in Gymnasium.

RatingInstalledDesign LifeUpdated5 - Good00APR-11

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

High pressure sodium wall mounted lights at building entrances and around the building perimeter.

RatingInstalledDesign LifeUpdated4 - Acceptable19610APR-11

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

Photocell controls.

RatingInstalledDesign LifeUpdated4 - Acceptable19610APR-11

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

Mircom 1000 fire alarm panel. End devices include heat and smoke detectors, strobes/bells, duct smoke detection devices and pull stations.

RatingInstalledDesign LifeUpdated5 - Good200025APR-11

Event: Replace Detection and Fire Alarm (~4593 m2/gfa)

TypeYearCostPriorityLifecycle Replacement2025\$144,400Unassigned

Updated: APR-11

# D5030.02.02 Intrusion Detection\*\*

DSC PC4000 control panel monitors motion sensors in corridors and computer room and keypad at main entry.

RatingInstalledDesign LifeUpdated5 - Good195125APR-11

**Event:** Replace Panel and ~7 Sensor Units

TypeYearCostPriorityLifecycle Replacement2014\$10,900Unassigned

Updated: APR-11

#### D5030.02.04 Video Surveillance\*\*

A digital video surveillance system with 2 colour and 4 black & white cameras provides surveillance of access points and sensitive areas throughout.

RatingInstalledDesign LifeUpdated5 - Good200825APR-11

**Event: Replace Video Surveillance System & 6 Cameras** 

TypeYearCostPriorityLifecycle Replacement2033\$14,500Unassigned

**Updated:** APR-11

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

A Bodet Micrquartz 6 timeclock system is provided.

RatingInstalledDesign LifeUpdated5 - Good19980APR-11

# D5030.04.01 Telephone Systems\*

The building is equipped with a Nortel Northstar Meridian telephone system which provides internal/external calling, paging and intercom functions throughout.

RatingInstalledDesign LifeUpdated5 - Good19980APR-11

# D5030.04.05 Local Area Network Systems\*

Category 5 cabling and Wi-Fi are provided throughout.

RatingInstalledDesign LifeUpdated5 - Good20070APR-11

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

"Inter M" public address system with Toshiba CD player are provided.

RatingInstalledDesign LifeUpdated5 - Good199820APR-11

# **Event:** Replace Public Address and Music System

TypeYearCostPriorityLifecycle Replacement2018\$6,100Unassigned

Updated: APR-11

# D5030.06 Television Systems\*

CATV service is provided.

RatingInstalledDesign LifeUpdated4 - Acceptable19510APR-11

# **S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**

# E1020.02 Library Equipment\*

Wooden fixed and moveable shelving, security system, checkout desk, desks, chairs and computers.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

# E1020.03 Theater and Stage Equipment\*

Stage curtains and various theatrical equipment stored back stage.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

## E1020.07 Laboratory Equipment\*

Scales, microscopes, fume hood, and various science equipment stored in cabinets in science room.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

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

Wall mounted basketball nets.
Miscellaneous program equipment.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

# E2010.02 Fixed Casework\*\*

Wooden fixed casework throughout all building sections in classrooms, Library, science room, staff rooms, dark room, and HE room.

RatingInstalledDesign LifeUpdated4 - Acceptable195135APR-11

## Event: Replace Fixed Casework (~4593 m2/gfa)

TypeYearCostPriorityLifecycle Replacement2014\$481,100Unassigned

**Updated:** APR-11

# E2010.03.01 Blinds\*\* - 1951 Section

A combination of vertical and horizontal blinds on majority of exterior windows throughout the 1951 Section.

RatingInstalledDesign LifeUpdated4 - Acceptable198530APR-11

Event: Replace Blinds (~40 m2)

TypeYearCostPriorityLifecycle Replacement2015\$4,900Unassigned

Updated: APR-11

# E2010.03.01 Blinds\*\* - 1961 Addition

A combination of vertical and horizontal blinds on the majority of exterior and interior windows throughout the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable198930APR-11

Event: Replace Blinds (~140 m2)

TypeYearCostPriorityLifecycle Replacement2019\$17,200Unassigned

Updated: APR-11

### F1010.02.04 Portable and Mobile Buildings\*\*

A one-storey 237 m2 relocatable classroom was moved to the north side of the site in 1969, based on available information, the portable was likely constructed in 1956.

The portable is currently used for storage purposes.

#### **Building Envelope:**

Exterior cladding consists of painted wood siding. The roof assembly is not original and likely consists of a conventional asphalt and gravel built-up (BUR) roof assembly (circa 1986).

Exterior doors are aluminum framed storefront doors. Windows are original wood framed double pane glazing.

#### Interiors

Flooring consists of carpet throughout. The majority of interior walls are painted with wood paneling on the lower portion. The majority of the ceiling consists of painted wood. Acoustic ceiling tiles adhered to gypsum board are present in the west storage room. Isolated tiles are stained and should be replaced (repair <\$1000).

#### Mechanical Systems:

The portable classroom is outfitted with one natural gas fired (~90,000 BTU) gas furnace. The furnace is provided with combustion air via a fresh air intake duct installed on the side of the building. Combustion air is exhausted via an exhaust vent located on top of the building.

## **Electrical Systems:**

Power is fed from the main building into the distribution panelboard located in the furnace room. Telephone, intercom and fire alarm systems are integrated with the main building systems. Fluorescent T-12 lighting, illuminated exit signs are present. A motion detector is provided with connection to the building intrusion detection system.

Rating	<u>Installed</u>	Design Life	<b>Updated</b>
4 - Acceptable	1956	30	APR-11

#### **Event: Replace Electrical Systems**

Type	<u>Year</u>	Cost	<b>Priority</b>
Lifecycle Replacement	2014	\$13,600	Unassigned

**Updated:** APR-11

## **Event:** Replace Exterior Finishes

Type	<u>Year</u>	Cost	<b>Priority</b>
Lifecycle Replacement	2014	\$29,000	Unassigned

**Updated:** APR-11

#### **Event: Replace Interior Finishes**

<u>Type</u>	<u>Year</u>	Cost	<u>Priority</u>
Lifecycle Replacement	2014	\$37,000	Unassigned

**Updated:** APR-11

#### **Event: Replace Mechanical Systems**

<u>Type</u>	<u>Year</u>	Cost	<u>Priority</u>
Lifecycle Replacement	2014	\$4,500	Unassigned

**Updated:** APR-11

# F1010.02.05 Grandstands and Bleachers\*\*

Wall mounted steel retractable bleachers with plastic seats along south wall of the 1961 Addition gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable198630APR-11

**Event:** Replace Bleachers (~150 seats)

TypeYearCostPriorityLifecycle Replacement2016\$41,900Unassigned

**Updated:** APR-11

# **S8 FUNCTIONAL ASSESSMENT**

# K3020.03 Air Conditioning/Cooling\*

None provided for computer lab and servers in 1951 Section.

RatingInstalledDesign LifeUpdated3 - Marginal00APR-11

# **Event:** Provide Computer Room A/C (1 unit)

#### Concern:

No air conditioning provided for the computer lab and servers in the 1951 Section. Computer and servers rely on base-building ventilation for cooling.

#### Recommendation:

Install one A/C unit in the computer lab of the 1951 Section.

TypeYearCostPriorityOperating Efficiency Upgrade 2011\$18,200Medium

Updated: APR-11

# K4010.01 Barrier Free Route: Parking to Entrance\*

Barrier free access from the south parking lot to the main south entrance of the 1961 Addition is provided.

RatingInstalledDesign LifeUpdated3 - Marginal19610APR-11

# **Event:** Provide Parking Stall (~1 unit)

#### Concern:

No designated handicapped parking stall or area provided.

#### Recommendation:

Provide a marked handicapped parking stall or area by the main entrance.

TypeYearCostPriorityBarrier Free Access Upgrade2012\$1,000Low

**Updated:** APR-11

# K4010.02 Barrier Free Entrances\*

Automatic door opener provided at the main south entrance of the 1961 Addition.

RatingInstalledDesign LifeUpdated6 - Excellent20100APR-11

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

Horizontal pathways are structurally sound and of sufficient width to allow wheelchair passage. Wheelchair lift is provided in the 1951 Section to access three levels.

RatingInstalledDesign LifeUpdated3 - Marginal19510APR-11

# **Event:** Install Lever-type Handsets (~25 units)

#### Concern:

Classroom entry doors are equipped with standard door knobs.

#### Recommendation:

Install lever-type handsets on a minimum of one door per classroom throughout all building sections.

TypeYearCostPriorityBarrier Free Access Upgrade2012\$6,250Low

Updated: APR-11

# **Event:** Install Wheelchair Lifts (~2 units)

#### Concern:

No barrier free access provided to the 1951 Section gymnasium and stage area.

# Recommendation:

Install a wheelchair lift at the south stairwell in the 1951 Section to provide access to the gymnasium and at the front of the stage in the 1951 Section.

Type Year Cost Priority
Barrier Free Access Upgrade 2012 \$59,300 Low

**Updated:** APR-11

### K4010.04 Barrier Free Washrooms\*

Barrier free washrooms provided in 1961 Addition.

RatingInstalledDesign LifeUpdated3 - Marginal19610APR-11

# **Event: Provide Universal BFA Washrooms (~3)**

#### Concern:

No barrier free accesible washroom or stall provided on either level of the 1951 Section or in the 1956 IA building Addition.

#### **Recommendation:**

Provide a universal barrier free washroom on each level of the 1951 Section and in the 1956 IA building Addition.

TypeYearCostPriorityBarrier Free Access Upgrade2012\$25,500Medium

Updated: APR-11

#### K4030.01 Asbestos\*

Asbestos management plan is currently in affect and survey was completed.

RatingInstalledDesign LifeUpdated4 - Acceptable20040APR-11

# **Event:** Continue Asbestos Management Program

#### Concern:

Asbestos has been present in certain building materials (ie. Pipe insulation and joint compounds).

# **Recommendation:**

Continue with existing asbestos management program with periodic update surveys.

TypeYearCostPriorityPreventative Maintenance2013\$8,500Medium

Updated: APR-11

# K4030.03 Mercury\*

Some mercury vapour lighting present.

Flourescent lamps contain small amounts of mercury vapour. Mercury containing thermostats are present in the 1961 Addition.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

#### K4030.04 Mould\*

No visible suspect mould identified.

Site representative indicated that mould issues were present in the mechanical room of the 1951 Section. Weeping tile has been installed and no mould has been reported since.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1951	0	APR-11

# K4030.09 Other Hazardous Materials\*

Various chemicals in Science room are stored in locked chemical cabinet.

Petroleum based products, paints, and solvents are found throughout the custodian rooms and in the IA building Addition. Products in IA building Addition should be kept in a proper cabinet (repair <\$1000).

All other products are kept in appropriate areas and containers.

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

# K5010 Reports and Studies\*

Senator Gershaw School was evaluated on December 2, 2010 by Golder Associates.

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

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Senator Gershaw School - Floor Plan (1985)

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