

# RECAPP Facility Evaluation Report

## Calgary School District #19



### Mayland Heights Elementary School

B2713A

Calgary

**Facility Details**

**Building Name:** Mayland Heights Elementary  
**Address:** 2324 Maunsell Drive N. E.  
**Location:** Calgary

**Building Id:** B2713A  
**Gross Area (sq. m):** 4,126.90  
**Replacement Cost:** \$11,583,000  
**Construction Year:** 1967

**Evaluation Details**

**Evaluation Company:** Arup Datta Architect Ltd.  
**Evaluation Date:** October 3 2011  
**Evaluator Name:** Brian Dennis

**Total Maintenance Events Next 5 years:** **\$2,590,951**  
**5 year Facility Condition Index (FCI):** **22.37%**

**General Summary:**

The Mayland Heights Elementary School is a two-storey concrete, masonry block and steel-framed structure with a partial basement, originally constructed in 1967. The building has a total floor area of 4382 square metres.

**Structural Summary:**

Structural drawings were not available for review during the assessment, however the building's foundations likely consist of a poured concrete assembly with concrete grade beams and pad footings. The structure consists of reinforced, poured concrete floors and load-bearing concrete/masonry block walls. The suspended second level of the building has pre-cast concrete T-beams with concrete topping. The suspended main floor slab above the basement level is cast-in-place, conventionally reinforced concrete.

The roof structural frame for the gymnasium portion of the building is comprised of wood decking supported by open-webbed steel joists. The majority of the structural frame of the building is pre-cast concrete T-beams spanning between load-bearing concrete walls.

Major work includes the repair of the building's perimeter drainage to prevent stormwater from entering the gymnasium.

Overall, the building structure is in acceptable condition.

**Envelope Summary:**

Exterior cladding consists of cast-in-place concrete. All flat and sloped roof sections consist of a modified bitumen membrane assembly. Main entrance doors have single-pane glazing and are set in aluminum frames. Windows and skylights are fixed double-glazed units set in aluminum frames.

Major work recommended includes localized repairs to the exterior concrete walls.

The building's envelope and exterior components are in acceptable condition.

**Interior Summary:**

Classrooms and corridors typically have vinyl tile flooring. The main boiler room has painted/sealed concrete floors. Wood flooring is provided in the stage area. A pulastic floor is provided in the gymnasium. The majority of the interior walls consist of painted cast-in-place concrete, painted masonry block or painted gypsum board. The majority of the building has either stippled and painted cast concrete or exposed concrete T-beam ceilings. Suspended T-bar ceiling is provided in the corridors and library, and a linear wood deck ceiling is provided in the gymnasium.

Refinishing of the stage area hardwood flooring is recommended. All other work identified is considered a lifecycle replacement.

The building's interior finishes are in acceptable condition.

**Mechanical Summary:**

Mayland Heights Elementary School was originally constructed in 1967. The school currently has a total floor area of 4127 m<sup>2</sup>. Domestic water piping, where visible was copper and sanitary piping is a mix of cast iron, copper, steel and plastic. There are backflow prevention devices installed on the fire suppression system and the main domestic water supply. Domestic hot water is provided by a natural gas fired water heater, which was installed in 2000.

The building's heating is provided by two Wiel Mclain hot water boilers that are original to construction. Hot water is provided to convectors throughout the building. The building does not have air conditioning. Ventilation is provided by washroom exhausts and air handling units. Building controls are pneumatic and electric and provide no energy

management functions. The building has a standpipe system. Fire extinguishers are located at fire hose stations, and throughout the building.

The following actions are recommended over the next five years:

- Remove the swamp coolers and install Steam Humidifiers
- Install a BMCS to control the HVAC system and provide energy management

Overall, the mechanical system are in acceptable condition.

**Electrical Summary:**

Main distribution is set at 500 Amp three phase. Sub panels are located as required. Fire alarm system, emergency lighting, exit signage and intrusion detection are functional. Communication equipment are adequate.

Recommend the following:

- 1- Replace main switchgear.
- 2- Replace 1967 sub panels.
- 3- Replace T12 light fixtures.
- 4- Add fire alarm devices in affected areas.

Overall, the electrical systems are in marginal condition.

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

## S1 STRUCTURAL

### A1010 Standard Foundations\*

Foundations presumably are cast-in-place concrete pad footings and perimeter grade beams with steel reinforcement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1967	0	MAR-12

**Event:** Investigate damage due to flooding BOE order of magnitude cost

**Concern:**

Reported that during heavy rainfall, the gymnasium becomes flooded.

**Recommendation:**

An investigation of the perimeter foundation of the gymnasium to determine any damage due to the flooding is recommended. Perimeter drainage needs to be improved.

**Consequences of Deferral:**

Increased maintenance and repair costs, as well as further deterioration to building components.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2012	\$10,000	High

**Updated:** MAR-12

**Event:** Repair foundation damage identified in study BOE order of magnitude cost

**Concern:**

There is repetitive flooding of the gymnasium after heavy rainfall. Water enters the underground ductwork.

**Recommendation:**

Pending the results of the study, an allowance for foundation perimeter repairs has been provided.

**Consequences of Deferral:**

Increased maintenance and repair costs, as well as further deterioration to building components.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2012	\$40,000	High

**Updated:** MAR-12

### A1030 Slab on Grade\*

The main floor is a cast-in-place concrete slab-on-grade, with steel reinforcement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

There is a small basement below the administration area for the mechanical room. The basement walls are cast-in-place concrete, presumed to have steel reinforcement.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1967	0	MAR-12

**Event: Repair moisture seal. BOE - single penetration**

**Concern:**

Water staining and minor degradation of the concrete was found around a pipe penetration through the basement wall near the Gas Meter Room.

**Recommendation:**

Re-seal the area around the pipe penetration.

**Consequences of Deferral:**

Continued water ingress and degradation of concrete wall.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Repair	2012	\$1,000	Medium

**Updated:** MAR-12

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

The building has cast-in-place concrete walls which support the roof and suspended concrete floor structures.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

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

Load-bearing interior walls throughout the building are concrete masonry block or cast-in-place reinforced concrete.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

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

The suspended second level in the building has pre-cast concrete T-beams topped with cast-in-place concrete. The suspended main floor slab above the basement level is cast-in-place reinforced concrete.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	JAN-07

**B1010.05 Mezzanine Construction\***

The library of the school has a poured concrete mezzanine supported by reinforced concrete columns.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

**B1010.09 Floor Construction Fireproofing\***

Fire rating is provided by cast-in-place and precast concrete floor construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**B1010.10 Floor Construction Firestopping\***

Penetrations of rated construction were observed to be sealed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

The roof structural frame for the majority of the building is sloped and horizontal concrete beams. The gymnasium portion of the building consists of open-webbed steel joists.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**B1020.04 Canopies\***

Canopy over the main building entrance is of cast-in-place concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Any roof fire proofing is integral with the concrete roof slab.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

## S2 ENVELOPE

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

Joint sealant is provided at changes of materials in the building envelope.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	20	MAR-12

#### **Event: Replace Joint Sealers Ext. Wall - BOE: 1000 lm**

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

**Updated:** MAR-12

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

Some areas of the concrete facade have received a paint finish. Exterior stair to the south-east exit stairs have a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1967	15	MAR-12

#### **Event: Replace Paints (& Stains): Exterior Wall - BOE: 214 sq.m**

**Concern:**

Existing paint on front facade is extremely worn, faded, and peeling. Paint on the administration wing is stained with rust. Painted finish to exterior stair wall is damaged and peeling due to impacts and weathering.

**Recommendation:**

Refinish painted areas.

**Consequences of Deferral:**

Continued loss of aesthetic appeal.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$11,000	Medium

**Updated:** MAR-12

**B2010.02.01 Cast-in-place Concrete: Ext. Wall Const\***

The exterior walls of the building are cast-in-place reinforced concrete. Shrinkage cracks around the clerestory skylights, allow water to infiltrate the building. Past heaving of the exterior retaining walls near the south east corner of the library had been repaired using steel corner bracing to support the broken concrete and to prevent further damage.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	1967	0	MAR-12

**Event:** **Repair southeast corner of exterior wall BOE 10 sq m**

**Concern:**

Heaving of the concrete walls on the southeast corner has caused severe cracking of the concrete and exposed the steel reinforcement.

**Recommendation:**

Revise grade to alleviate uplift pressure on structure & proper repair of the concrete walls is recommended.

**Consequences of Deferral:**

Increased maintenance costs, rusting of the internal steel reinforcement and further damage leading to structural failure of the retaining walls.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Repair	2012	\$5,000	Low

**Updated:** MAR-12

**B2010.02.02 Precast Concrete: Ext. Wall Const.\***

Sloped precast concrete slabs are provided along the sides of the building as feature elements and presumably to direct rainwater runoff away from the building. The lower edges of the slabs are deteriorating due to weathering and shifting of the slabs.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

**B2010.02.05 Wood Framing: Ext. Wall Const.\***

Framed exterior wall with painted plywood sheathing is located at the south-east exit stairs. Painted finish is damaged and peeling due to impacts and weathering. For painting refer to B2010.01.03 Paints (& Stains): Ext. Wall.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1967	0	MAR-12

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

The building is presumably provided with vapour and air barriers as well as insulation.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12



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

Metal mesh security screens are provided at the roof parapet on the north and south elevations of the building to prevent unauthorized access to the roof.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	1967	0	MAR-12

**Event:** Re-finish metal screening - BOE: 55 sq m

**Concern:**

Metal mesh and mountings are rusting, causing staining of the building surfaces below the screens.

**Recommendation:**

Re-finish the metal screens and mountings.

**Consequences of Deferral:**

Continued degradation of screens and building surfaces.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Repair	2012	\$3,000	Low

**Updated:** MAR-12

**B2010.09 Exterior Soffits\***

The soffit at the south entrance is of cast-in-place reinforced concrete.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

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

All exterior windows are fixed, double-glazed units set in aluminum frames. The windows and skylights were replaced in approximately 2001.

Clerestory window in Room 17 (214 on plan) was observed to be broken and should be replaced (maintenance).

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2001	40	MAR-12

**Event:** Replace Aluminum Windows (Glass & Frame) - BOE: 82 sq.m

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2041	\$100,000	Unassigned

**Updated:** MAR-12

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

Aluminum framed exterior doors and glazed storefronts located at main entrance and at Science Room on upper floor.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2001	30	MAR-12

**Event: Replace Aluminum-Framed Storefront Doors - BOE: 4 doors, 25 sq.m**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2031	\$40,000	Unassigned

**Updated:** MAR-12

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

Steel framed storefronts at north and south-west exits.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	30	MAR-12

**Event: Replace Steel-Framed Storefronts: Doors - BOE: 3 doors, 18 sq.m**

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

**Updated:** MAR-12

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

Service and secondary exit doors on the building perimeter are painted wood or metal set in painted wood frames.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	40	MAR-12

**Event: Replace Exterior Utility Doors - 1967 Section - BOE: 5 doors**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$13,000	Unassigned

**Updated:** MAR-12

**B3010.01 Deck Vapour Retarder and Insulation\***

Not observed during inspection, but the roof is presumed to be provided with an air/moisture barrier and insulation.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1995	0	MAR-12

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - 1989**

Roof sections above the administration area, main entrance foyer, and east upper floor classrooms (A, A1, E, K, & K1) are provided with a modified bitumen membrane (SBS) assembly installed in 1989.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1989	25	MAR-12

**Event:** Replace SBS Roofing: BOE - 956 sq.m

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$163,000	Unassigned

**Updated:** MAR-12

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - 1995**

Roof sections above the gymnasium and stage areas (B, B1, L) are provided with a modified bitumen membrane (SBS) assembly installed in 1995.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1995	25	MAR-12

**Event:** Replace SBS Roofing: BOE - 540 sq.m

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2020	\$92,000	Unassigned

**Updated:** MAR-12

**B3010.04.04 Modified Bituminous Membrane Roofing (SBS)\*\* - 2000**

Roof sections above the library and remaining upper floor classrooms and corridors (C, D, D1, F, G, H, H1, H2, I, I1, J) are provided with a modified bitumen membrane (SBS) assembly installed in 2000.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2000	25	MAR-12

**Event:** Replace SBS Roofing: BOE - 1217 sq.m

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2025	\$207,000	Unassigned

**Updated:** MAR-12

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

Sloped roofs are provided with metal gutters and downspouts which discharge storm water to the flat roof sections below.

Approximately 44 linear metres of downspouts.

Approximately 20 linear metres of gutter.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1989	30	MAR-12

**Event: Replace Metal Gutters & Downspouts - BOE: 44 lm downspouts, 22 lm gutter**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2019	\$3,000	Unassigned

**Updated:** MAR-12

**B3020.01 Skylights\*\***

Skylights are situated above the ground floor classrooms of the building. The skylights were replaced in 2001. Ongoing building movement creates cracks in the concrete around the skylight frames, causing water ingress. Sealing the cracks around skylight perimeters is performed on a regular basis.

Small skylights: 14

Large skylights: 8 (total 26 sq.m)

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	2001	25	MAR-12

**Event: Redesign and replace skylights BOE 14 small, 8 large**

**Concern:**

An inherent design problem between the installation of the classroom skylights and the concrete ceilings was observed. Moisture ingress into classrooms is occurring due to cracking of the concrete around the skylights. Site personnel reported that the skylights have been replaced within the last five years, but still have the same ongoing problem of leaking around the edges.

**Recommendation:**

Redesign and repair of the skylight and concrete junctions is recommended.

**Consequences of Deferral:**

Ongoing deterioration resulting in increased maintenance and repair costs.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2012	\$35,000	High

**Updated:** MAR-12

### S3 INTERIOR

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

Most interior partitions are painted cast-in-place concrete. Remaining partitions are painted masonry block, with some painted gypsum board partitions in the administration area. The interior walls in the common areas of the building were painted in 2002.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	0	MAR-12

#### C1010.03 Interior Operable Folding Panel Partitions\*\*

There are two ceiling-mounted sliding partitions. One is located in the library on the main floor, the other is located between the library mezzanine and the computer lab on the upper floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

#### Event: Replace Sliding Partitions - BOE: 36 sq.m

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

**Updated:** MAR-12

#### C1010.05 Interior Windows\*

Wood-framed windows are located in the library workroom and librarian's office. A circular window is located at the north exit stair on the second floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Interior wood-framed glazed partitions are located at the entrance to the General Office, the north entrance vestibule, and the north-west exit on the upper floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Penetrations of rated construction were observed to be sealed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

solid core wood doors with standard door hardware. The doors are set in painted wood frames. Classroom doors are provided with a wired glass vision panel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Most fire doors in corridors and stairwells consist of wood doors set in painted wood frames. The doors to the north stairwell are four foot wide custom metal doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

A wood plank sliding door with steel hardware is located between the Gymnasium and Gym Storage room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**C1020.07 Other Interior Doors\***

Six foot wide pivoting custom wood door between Library and main foyer (no fire seal).  
 Ten foot wide custom wood double door on hold-open device located in east corridor (no fire seal).  
 Two wood pass-thru doors between Storage and Concession rooms and Gymnasium.

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

**C1030.01 Visual Display Boards\*\***

A combination of smart boards (16), blackboards (both fixed and operable), whiteboards, and tackboards are provided in each classroom.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	20	MAR-12

**Event: Replace remaining blackboards - BOE: 27 black, 41 white and 114 tack boards**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$113,000	Unassigned

**Updated:** MAR-12

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

Pre-finished metal toilet partitions are provided in the washrooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	30	MAR-12

**Event: Replace Washroom Stall Partitions - BOE: 20 stalls**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$25,000	Unassigned

**Updated:** MAR-12

**C1030.06 Handrails\***

Base-mounted, wood and metal handrails are provided along the open edge of the library mezzanine.  
 Wall-mounted wood handrails are provided at the internal ramp, stairs to the administration area, stairs to the Gymnasium, and the north-west stair.  
 Base-mounted metal handrails are provided at the north entrance steps.  
 Wall-mounted metal handrails are provided at the north stair.  
 Base & wall-mounted metal handrails are provided at the south-east stairs.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

**Event: Code Repair BOE - 3 Im total**

**Concern:**

3-riser stairs in three locations on the upper floor are not provided with handrails

**Recommendation:**

Provide handrails to stairs.

**Consequences of Deferral:**

Non-compliance with Alberta Building Code, falling hazard.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Code Upgrade	2012	\$1,500	High

**Updated:** MAR-12

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

Metal room number tags are mounted on the doors of classrooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	JAN-07

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

Washroom accessories include soap, paper towel & toilet paper dispensers, mirrors, and sanitary & trash disposal containers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**C2010 Stair Construction\***

Stairs leading to the stage are of wood construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**C2010 Stair Construction\* - concrete**

Staircases leading to the Gymnasium, the second floor, the basement level, as well as the mezzanine level in the library, are cast-in-place concrete.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**C2020.01 Tile Stair Finishes\***

Staircases leading to the second level of the school and the Gymnasium are finished with quarry tile.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**C2020.05 Resilient Stair Finishes\*\* - Sheet**

Stairs at the north entrance of the building are finished with resilient sheet treads and risers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2007	20	MAR-12

**Event: Replace Resilient Sheet Treads & Risers - BOE: 10 sq m**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$2,000	Unassigned

**Updated:** MAR-12



**C2020.05 Resilient Stair Finishes\*\* - Tile**

Stairs to the administration area, to the upper floor science room, and in the library have vinyl tile treads and sheet vinyl risers.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	2007	20	MAR-12

**Event:** Replace vinyl tile tread and vinyl risers - BOE: 28 sq m

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2027	\$5,600	Unassigned

**Updated:** MAR-12

**C2020.10 Stair Painting\***

The stair to the basement mechanical room has a painted finish.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

**C2030 Interior Ramps\***

A cast-in-place, conventionally reinforced ramp provides access from the southwest entrance of the building to the main foyer. The ramp is finished with non-slip resilient sheet flooring.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	100	MAR-12

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

The staff kitchen counter backsplash is finished with ceramic tile.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1995	40	MAR-12

**Event:** Replace Tile Wall Finishes - BOE: 3 sq.m

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2035	\$1,200	Unassigned

**Updated:** MAR-12

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

All exposed concrete, masonry block, and gypsum board walls have received a paint finish.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2002	0	MAR-12

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

Painted concrete floors are provided in the mechanical room and storage rooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	MAR-12

**C3020.02 Tile Floor Finishes\*\* - Quarry tile**

Quarry tile finish to stairs to second floor and gym.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	50	MAR-12

**Event: Replace quarry tile Floor BOE 50 sq m**

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

**Updated:** MAR-12

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

Stained hardwood flooring is provided on the gymnasium stage.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	30	MAR-12

**Event: Refinish stage hardwood - BOE: 75 sq.m**

**Concern:**

The exposed hardwood surfaces were observed to be heavily scuffed and scratched. No lifting or separation of the hardwood flooring was noted during the assessment.

**Recommendation:**

Refinish the hardwood on the gymnasium stage.

**Consequences of Deferral:**

Loss of aesthetic appeal and ongoing deterioration from continued use.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Preventative Maintenance	2013	\$7,500	Low

**Updated:** MAR-12

**Event: Replace Wood Flooring- BOE 75 sq m.**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$18,750	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - Pulastic**

A pulastic sports floor with painted lines has been provided in the Gymnasium.

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

**Event: Replace Pulastic Floor - BOE: 360 sq.m**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2029	\$90,000	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - Sheet**

The north entrance vestibule and second floor boys washroom are finished with resilient sheet flooring.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	20	MAR-12

**Event: Replace Resilient Sheet Flooring - BOE: 55 sq.m**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$5,000	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - Tile 1967**

Classrooms and corridors are finished with vinyl tile flooring.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	20	MAR-12

**Event: Replace vinyl tile floors - BOE: 2700 sq.m**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$148,500	Unassigned

**Updated:** MAR-12

**C3020.07 Resilient Flooring\*\* - Tile 2007**

Entrance foyer, administration office, staff room, library, one classroom are finished with vinyl tile flooring.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	2007	20	MAR-12

**Event: Replace vinyl tile floors - BOE: 700 sq.m**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2027	\$38,500	Unassigned

**Updated:** MAR-12

**C3030.05 Veneer Plaster Finishes (Stipple)\***

Painted stipple finish has been provided to the concrete ceilings in the classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Suspended T-bar ceilings are provided in the north and east corridors on both floors, and in the library.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	1967	25	MAR-12

**Event: Replace Acoustic Ceiling Treatment (Susp.T-Bar) - BOE: 710 sq.m**

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

**Updated:** MAR-12

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

Exposed concrete and gypsum board ceilings throughout the building have received a paint finish.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1984	0	MAR-12

**C3030.09 Other Ceiling Finishes\* - Wood Deck**

The Gymnasium is provided with an open truss and linear wood deck ceiling.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

## S4 MECHANICAL

### D2010.04 Sinks\*\*

There are 23 sinks located throughout the building. 20 of which are stainless steel, 1 is iron and enamel, and 2 are iron and enamel service sinks in janitorial rooms. The sinks in classrooms and staff rooms are generally stainless steel, and janitorial sinks are enameled steel.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

#### Event: Replace sinks BOE (23)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$32,800	Unassigned

**Updated:** MAR-12

### D2010.05 Showers\*\*

There is 1 shower located in the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

#### Event: Replace shower BOE (1)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$1,600	Unassigned

**Updated:** MAR-12

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

There are 7 vitreous china, non-refrigerated, drinking fountains throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	35	MAR-12

#### Event: Replace drinking fountains BOE (7)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$11,300	Unassigned

**Updated:** MAR-12

**D2010.10 Washroom Fixtures (WC, Lav, Urnl)\*\* - 1967**

There are flush-tank, and tankless water closets, lavatories, and floor-mounted, urinals throughout washrooms in the building. All fixtures are vitreous china.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	35	MAR-12

**Event:** **Replace washroom fixtures BOE (7) WC, (5) LAV, (11) Urnl**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$38,800	Unassigned

**Updated:** MAR-12

**D2010.10 Washroom Fixtures (WC, Lav, Urnl)\*\* - 2004**

Some fixtures replaced.

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

**Event:** **Replace Fixtures BOE (2) WC, (14) LAV**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2039	\$23,100	Unassigned

**Updated:** MAR-12

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

Domestic water piping is copper throughout the building.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	0	JAN-07

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

Isolation valves located on hot and cold water lines used to isolate fixtures.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	1967	40	MAR-12

**Event:** **Replace Valves BOE (25)**

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Lifecycle Replacement	2015	\$31,400	Unassigned

**Updated:** MAR-12

**D2020.01.03 Piping Specialties (Backflow Preventers)\*\***

Backflow prevention is provided on the main water supply and the fire suppression system. Boiler feed water and swamp cooler lines.

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

**Event: Replace backflow preventers BOE (5)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$16,800	Unassigned

**Updated:** MAR-12

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

Hot Water recirculation pump.

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

**Event: Replace pump BOE (1)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$1,300	Unassigned

**Updated:** MAR-12

**D2020.02.06 Domestic Water Heaters\*\***

Domestic hot water is provided by a John Wood single natural gas fired heater.

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

<u>Capacity Size</u>	<u>Capacity Unit</u>
300	litre

**Event: Replace domestic water heaters BOE (1)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2020	\$2,000	Unassigned

**Updated:** MAR-12

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

Insulation is located on both hot and cold water lines.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Waste and vent piping is generally cast iron and original to the building construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	JAN-07

**D2030.02.04 Floor Drains\***

Brass floor drains are located in washrooms and other service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Rain water drainage piping is generally cast iron and original to the building construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	JAN-07

**D2040.02.04 Roof Drains\***

The roof incorporates roof drains which are each fitted with gravel/debris strainers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	0	MAR-12

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

Natural gas is supplied to the basement level of the building and fuels the boilers and hot water heater.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	JAN-07

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

Heat is generated by two Weil Mclain hot water boilers rated at a heating capacity of 3,300 MBH.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	35	MAR-12

<u>Capacity Size</u>	<u>Capacity Unit</u>
967000	watts

**Event: Replace hot water boilers BOE (2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$117,700	Unassigned

**Updated:** MAR-12



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

Standard venting for Natural Draft Boilers.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	35	MAR-12

**Event: Replace Chimneys & Comb Air BOE (12m)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$8,600	Unassigned

**Updated:** MAR-12

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

Pot Feeder, strainers and side stream filters used to treat filter heating water.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

The air handling system consists of supply and return fans, filters, hot water heating coils, swamp coolers and a mixing chamber. A second unit is dedicated to the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

**Event: Replace the air handling units BOE (2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$193,300	Unassigned

**Updated:** MAR-12

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

Filters located in Air handling unit.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Duct work connected to wall grilles located in classroom and other areas. In the floor duct work for gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Wall and floor grilles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

The hot water distribution piping is generally cast iron and original to the construction of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	MAR-12

**Event: Replace Hot Water Distribution System BOE (4382m2/gfa)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$407,600	Unassigned

**Updated:** MAR-12

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

Washroom and general building exhaust is provided by roof and wall mounted exhaust fans.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	30	MAR-12

**Event: Replace exhaust fans BOE (6)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$7,100	Unassigned

**Updated:** MAR-12

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

Duct work from fans to washrooms and other service areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Grilles in ceiling and walls.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Swamp coolers are the only form of humidification.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	25	MAR-12

**Event: Install Steam Humidiers**

**Concern:**

Swamp coolers have failed. A more effective method of humidification is to use steam humidifiers.

**Recommendation:**

It is recommended that steam humidifiers be installed.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2015	\$24,900	Low

**Updated:** MAR-12

**Event: Replace Swamp Coolers BOE (2)**

**Concern:**

Swamp coolers have failed. The coolers are generally used though to add humidity. A more effective method of humidification is to use steam humidifiers.

**Recommendation:**

Swamp Coolers could be replaced but it is recommended that steam humidifiers be used instead.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$24,900	Low

**Updated:** MAR-12

**D3050.05.01 Convectors\*\***

Some heating is provided to the building by convectors fed by the hot water system. Replacement cost based on replacing approximately 10 convectors throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	MAR-12

**Event: Replace convectors BOE (10)**

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

**Updated:** MAR-12

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

Fan coils located at entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

**Event: Replace fan coil units BOE (2)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$11,600	Unassigned

**Updated:** MAR-12

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

Perimeter radiation located in classrooms, library and other areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	MAR-12

**Event: Replace finned tube radiation BOE (4382m2/gfa)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$204,000	Unassigned

**Updated:** MAR-12

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

Electric controls for force flows and other terminal equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

**Event: Replace electric controls BOE (4382m2/gfa)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$6,700	Unassigned

**Updated:** MAR-12

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

Powers control system operates air handlers and terminal equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	40	MAR-12

**Event: Install a BMCS BOE (4382m2/gfa)**

**Concern:**

Building has no means of energy management or monitoring

**Recommendation:**

Install a Building Energy Management system to operate the fans and HVAC systems.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2015	\$100,500	Low

**Updated:** MAR-12

**Event: Replace pneumatic controls BOE (4382m2/gfa)**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$25,600	Unassigned

**Updated:** MAR-12

**D4020 Standpipes\***

The building has a cast iron standpipe system and fire hoses.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	JAN-07

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

Fire extinguishers are located at fire hose stations and throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1990	0	JAN-07

## S5 ELECTRICAL

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

Pad mounted transformer located at north west side of the school. Owned by ENMAX.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Westinghouse 500 Amp main breaker, 600 Amp MDP, 120/208 Volts, 3 Phase. 100% full.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	40	MAR-12

**Event:** Replace 500 Amp main breaker and 600 Amp MDP.

**Concern:**

Equipment have exceeded its theoretical life. Spare parts are not available.

**Recommendation:**

Replace 500 Amp main breaker and 600 amp MDP.

**Consequences of Deferral:**

Possible loss of power due to equipment failure.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$45,000	Medium

**Updated:** MAR-12

### D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)\*\* - 1967

Seven Westinghouse panels. 90% full.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1967	30	MAR-12

**Event:** Replace seven panels and related breakers.

**Concern:**

Equipment have exceeded its theoretical life. Spare parts not available.

**Recommendation:**

Replace seven panels.

**Consequences of Deferral:**

Possible loss of power due to equipment failure.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$21,000	Medium

**Updated:** MAR-12

**D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)\*\* - 2000**

Two Square D panels. 50% full.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2000	30	MAR-12

**Event: Repalce two panels**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2030	\$6,000	Unassigned

**Updated:** MAR-12

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

Four Allen Bradley motor starters.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

**Event: Replace four motor starters.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$2,500	Unassigned

**Updated:** MAR-12

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

Wiring in EMT conduit. AC90 flex cabling used for final connection to motors and light fixtures.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

GE low voltage relay switching throughout the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**D5020.02.02.02 Interior Fluorescent Fixtures\*\* - 1967**

T12 light fixtures of various styles located in 2036 gfa of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1980	30	MAR-12

**Event:** Replace T12 light fixtures with t8 units for 2036 m2/gfa

**Concern:**

Obsolete technology. High operating and maintenance costs

**Recommendation:**

Replace light fixtures in 2036 gfa with T8 units.

**Consequences of Deferral:**

High operating and maintenance costs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2012	\$87,548	Medium

**Updated:** MAR-12

**D5020.02.02.02 Interior Fluorescent Fixtures\*\* - 2002**

T8light fixtures of various styles located in 2036 gfa of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2002	30	MAR-12

**Event:** Replace lighting in 2036 m2/gfa

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2032	\$87,548	Unassigned

**Updated:** MAR-12

**D5020.02.02.03 Interior Metal Halide Fixtures\***

High bay MH fixtures with remote ballasts installed in Gym.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	0	MAR-12



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

10 Lumacell Lead Acid emergency lighting battery packs with remote lighting heads located throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1988	20	MAR-12

**Event:** Replace 10 emergency lighting battery packs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$13,173	Unassigned

**Updated:** MAR-12

**D5020.02.03.03 Exit Signs\***

LED exit signs located as required. Manufactured by Lumacell.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	0	MAR-12

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

High pressure sodium wall packs are mounted on the exterior of the building to provide lighting around the perimeter.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	JAN-07

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

Photo cell controlled.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	MAR-12

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

Simplex 2001 fire alarm panel with 13 zones used. Bells, detection and initiating devices located as required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1987	25	MAR-12

**Event:** **Add six strobes in washrooms. One bell in music room and six smoke detectors in daycare.**

**Concern:**

Wash rooms and music room do not have signal notification.  
Daycare room 125 does not have smoke detection.

**Recommendation:**

Install six strobes in wash rooms. One bell in music room and six smoke detectors in daycare room 125.

**Consequences of Deferral:**

Loss of fire detection and notification in case of fire alarm.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2012	\$6,500	Medium

**Updated:** MAR-12

**Event:** **Replace fire alarm system for 4382 m2/gfa**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$74,840	Unassigned

**Updated:** MAR-12

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

Silent Knight supervised security system and has motion detectors in the hallways. Card swipe system installed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2002	25	MAR-12

**Event:** **Replace intrusion detection system for 4382 m2/gfa.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2027	\$44,023	Unassigned

**Updated:** MAR-12

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

Simplex master clock system. Battery operated clocks in classrooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	0	MAR-12

**D5030.04.01 Telephone Systems\***

Nortel meridian telephone system. Handsets in classrooms. Interlocked to public address system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1985	0	MAR-12

**D5030.04.05 Local Area Network Systems\***

Supernet and WIFI in school. 4 Amp hubs and 4 Nortel switches. Cat 5 cabling.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2006	0	MAR-12

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

50 Channel Bogen system with radio, tape and CD players. Speakers in classrooms. Interlocked to telephone system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1980	20	MAR-12

**Event:** **Replace the public address console and speakers for 4382 m2/gfa**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$14,285	Unassigned

**Updated:** MAR-12

## S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

### E1090.04 Residential Equipment\*

Residential equipment such as refrigerator, stove, microwave, and dishwasher are provided in the staff room. Additional refrigerators are provided in the concession room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Wall-mounted basketball equipment is provided in the gymnasium. A wall-mounted, wood framed climbing apparatus is also provided on the west wall of the gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	JAN-07

### E2010.01 Fixed Artwork\*

A painted three-dimensional relief map of Alberta is fixed to a wall of the main entrance foyer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

Fixed and painted wood casework is generally provided in each classroom, and in the library, office and administration areas. Fixed wood vanities are provided in the individual washrooms. Wood storage shelving is provided in the storage rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	35	MAR-12

#### Event: Replace wooden casework BOE 4126 m2/gfa

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$363,000	Unassigned

**Updated:** MAR-12

### E2010.03.01 Blinds\*\*

Blinds are provided to the windows in the staff room, and to the clerestory windows on the upper floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

#### Event: Replace Blinds - BOE: 69 sq.m

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$39,055	Unassigned

**Updated:** MAR-12

**E2010.03.03 Shades\***

Shades are provided to the window in the staff workroom, and to the storefront windows in the upper floor science room.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**E2010.03.06 Curtains and Drapes\*\* - Stage**

Manually-operated curtains and drapes are provided on the gymnasium stage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	30	MAR-12

**Event: Replace stage curtains and drapes BOE 130 sq m.**

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2015	\$58,000	Unassigned

**Updated:** MAR-12

**E2020.02.03 Furniture\***

Moveable desks, chairs and tables are provided in each classroom and office area.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1968	0	MAR-12

## S8 SPECIAL ASSESSMENT

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

A handicapped parking stall and signage is provided in the gravel parking area west of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	JAN-07

### K4010.02 Barrier Free Entrances\*

All entrances to the building are manually-operated (i.e., no automated door-openers).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1967	0	MAR-12

#### Event: Install Automated Door-Openers BOE 2 doors

**Concern:**

All entrances to the school are manually-operated and provide poor accessibility for handicapped users.

**Recommendation:**

Install automated door-openers at the building's south entrance and corresponding vestibule entrance.

**Consequences of Deferral:**

Non-compliance with current barrier-free standards and poor accessibility for persons with disabilities.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2012	\$25,000	Low

**Updated:** MAR-12

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

No mechanical means of vertical transportation is provided in the building to access the second floor.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1967	0	MAR-12

#### Event: Install lifts BOE 1 stair, 1 lift

**Concern:**

Access to the second level of the school, or the gymnasium stage is not granted to wheelchair users or handicapped persons.

**Recommendation:**

Install barrier-free lifts on a staircase accessing the second floor, and an additional lift to access the gymnasium stage.

**Consequences of Deferral:**

Non-compliance with current barrier-free standards and poor accessibility for handicapped persons.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2012	\$40,000	Medium

**Updated:** MAR-12

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

None of the washrooms in the building are equipped to accommodate barrier-free usage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	1967	0	MAR-12

**Event: Install Barrier-Free Washrooms BOE 2 washrooms**

**Concern:**

Washrooms distributed throughout the building are not equipped with barrier-free stalls or accessories.

**Recommendation:**

Provide a uni-sex barrier-free washroom on each floor of the school, complete with appropriate signage, fixtures and accessories.

**Consequences of Deferral:**

Non-compliance with current barrier-free requirements and poor accessibility for handicapped persons.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Barrier Free Access Upgrade	2012	\$35,000	Medium

**Updated:** MAR-12

**K4030.01 Asbestos\***

Suspected asbestos-containing materials identified within the building include ceiling tiles, vinyl floor tiles and mechanical pipe insulation and pipe elbows. CBE conducts reports and maintains reports on site for reference.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**K4030.02 PCBs\***

Suspected PCB-containing equipment identified within the building include fluorescent light ballasts and other electrical/transformer equipment.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**K4030.04 Mould\***

No visible signs were observed or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

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

None observed or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12

**K5010.01 Site Documentation\***

Prime Consultant: ARUP DATTA ARCHITECT LTD.

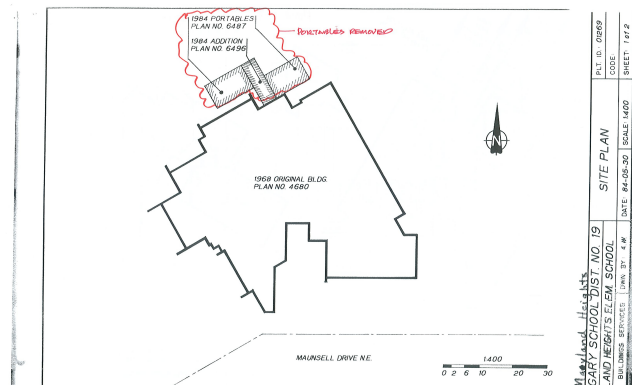
Year of Evaluation: 2011

Site description:

The site is occupied by the Mayland Heights Elementary School, which is located on the south side of the property. The site features include a gravel parking lot to the west of the building and grassed play fields to the east and west of the building. There are concrete or asphalt sidewalks to each building entrance. The landscaped areas are generally provided adjacent to the south side of the building. No irrigation systems are provided on-site. Drainage on landscaped areas is provided by land infiltration and/or overland flow.

Power is underground fed from pad mounted transformer owned by the utility. Car receptacles are rail mounted.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12



AI Site plan with portables removed



**K5010.02 Building Documentation\***

Prime Consultant: ARUP DATTA ARCHITECT LTD.

Year of Evaluation: 2011

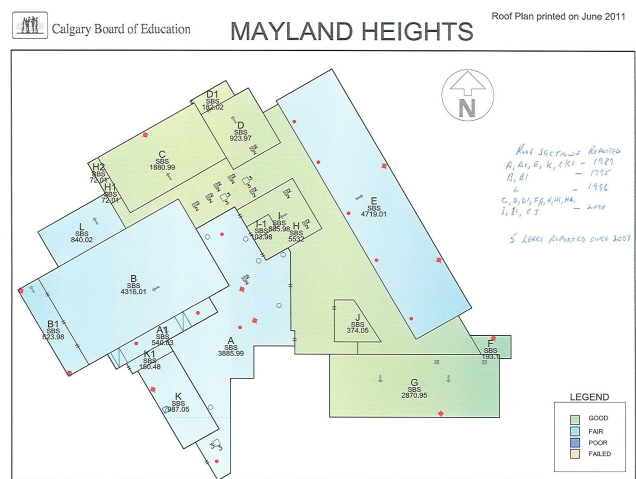
Building area evaluated: Original two-storey building

Building / building sections not evaluated: All areas evaluated

Anomalies regarding evaluation environment, drawings or areas evaluated: Some oversize custom interior doors.  
 Unique exterior image and all concrete construction

The Mayland Heights Elementary School is a two-storey concrete, masonry block and steel-framed structure with a partial basement, originally constructed in 1967. The building has a total floor area of 4382 square metres.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1967	0	MAR-12



Roof plan