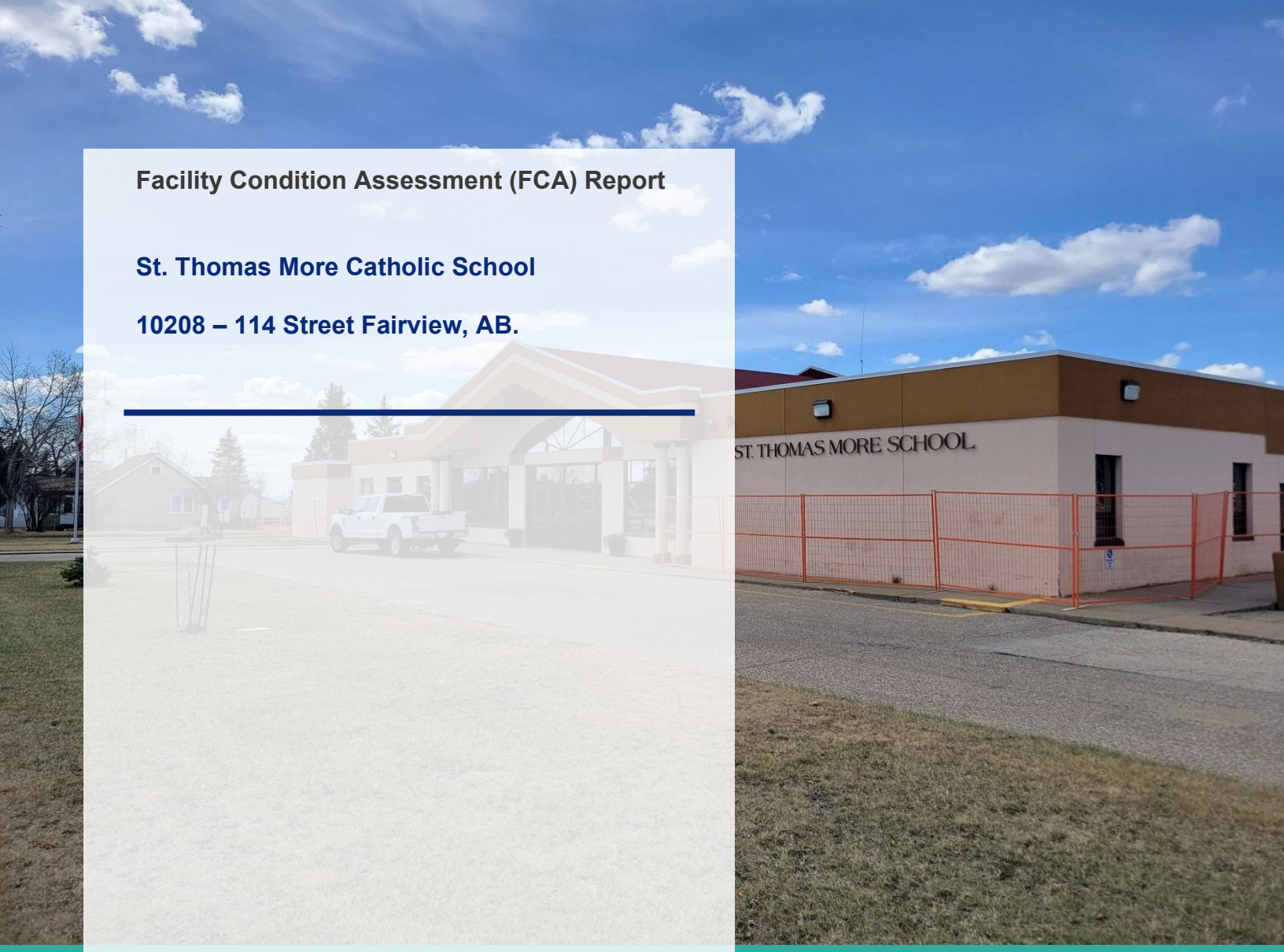


# Facility Condition Assessment (FCA) Report

## St. Thomas More Catholic School

## 10208 – 114 Street Fairview, AB.

June 19, 2024

**PREPARED FOR ALBERTA INFRASTRUCTURE**

bacz CONSULTING Inc.
Consulting Professional Engineers

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# 1. Executive Summary

## 1.1 Introduction

Bacz Consulting Inc. was retained by Alberta Infrastructure ("AI"), to perform a Facility Audit of the St. Thomas More Catholic School located at 10208 – 114 Street, Fairview, AB. The site audit was carried out on May 03, 2024 by the Bacz Consulting Team.

Project team:
Isaac Martinez AAA, MRAIC / Angela Flinn – Architectural / Structural
Slavek Strzelczyk, P.Eng. / Roy Wilkins – Mechanical / Civil
Yi Yang, P.Eng. – Electrical

The objective of the facility audit is to evaluate the operational, systematic and/or visible or reported civil, structural, mechanical, and electrical overall building conditions and discover any safety issues. Information obtained on each aspect or issue is reviewed and evaluated for condition and/or conformity to applicable building codes, guidelines, regulatory requirements, and other reference criteria.

Installation dates of building components were assumed based on on-site information provided by Mark Coffin - Director of Facilities, the 2019 AI FCA Report, the 1989 drawings, and overall observations by the consultant team.

More specifically, the primary focus of the facility audit is to identify and document:

a. An inventory of the mechanical, electrical, and other systems located in the above noted property and their respective conditions.

b. A comprehensive Building Condition Assessment (BCA) of buildings through visual, non-destructive site assessments and review of existing building data and maintenance history for the following components:

- Building Code and Accessibility
- Architectural Components
- Building Envelope
- Hazardous Materials
- Structural Conditions
- Mechanical Equipment

- Plumbing Systems
- HVAC Equipment
- Electrical Equipment
- Energy Savings

c. Estimated remaining service life based on construction date and past maintenance.

d. An estimate of the costs to remediate deficient conditions, including deferred maintenance, grandfathered code issues, building equipment needs etc.

Recommendations were developed and assigned a priority ranking in accordance with the following structure:

| Condition Rating | | Performance |
|---|---|---|
| F | Critical | Unsafe, high risk of imminent injury. |
| E | Poor | Does not meet requirements, has significant deficiencies. May have high operating / maintenance costs. |
| D | Marginal | Meets minimum requirements, has significant deficiencies. May have above average operating / maintenance costs. |
| C | Acceptable | Meets present requirements, minor deficiencies. Average operating / maintenance costs. |
| B | Good | Meets all present requirements. Negligible deficiencies. |
| A | Excellent | As new / state of the art, meets present and foreseeable requirements. |
| NA | Other | Met the Building Code when constructed but it not up to current standards. Could be considered for future upgrading OR other discretionary upgrading items. |
| FI | Further Investigation | Further investigation required. |

## 1.2 Existing Facility Description

St. Thomas More School was originally built in 1956, with additions in 1962, 1967, 1974, and 1989. The last major renovation was completed in 1989, and minor renovations have been completed over the years. The 1989 renovation included infilling the courtyard The oldest section of the school was built in 1956 and in 1989, the 1956 section was demolished and a new addition was attached including building in the courtyard and turning this area into Library and Ancillary Space. For the purpose of this report, the school's original construction date is noted as 1962 as none of the 1956 area remains. The total built-up area is noted to be 4,287 sq.m.

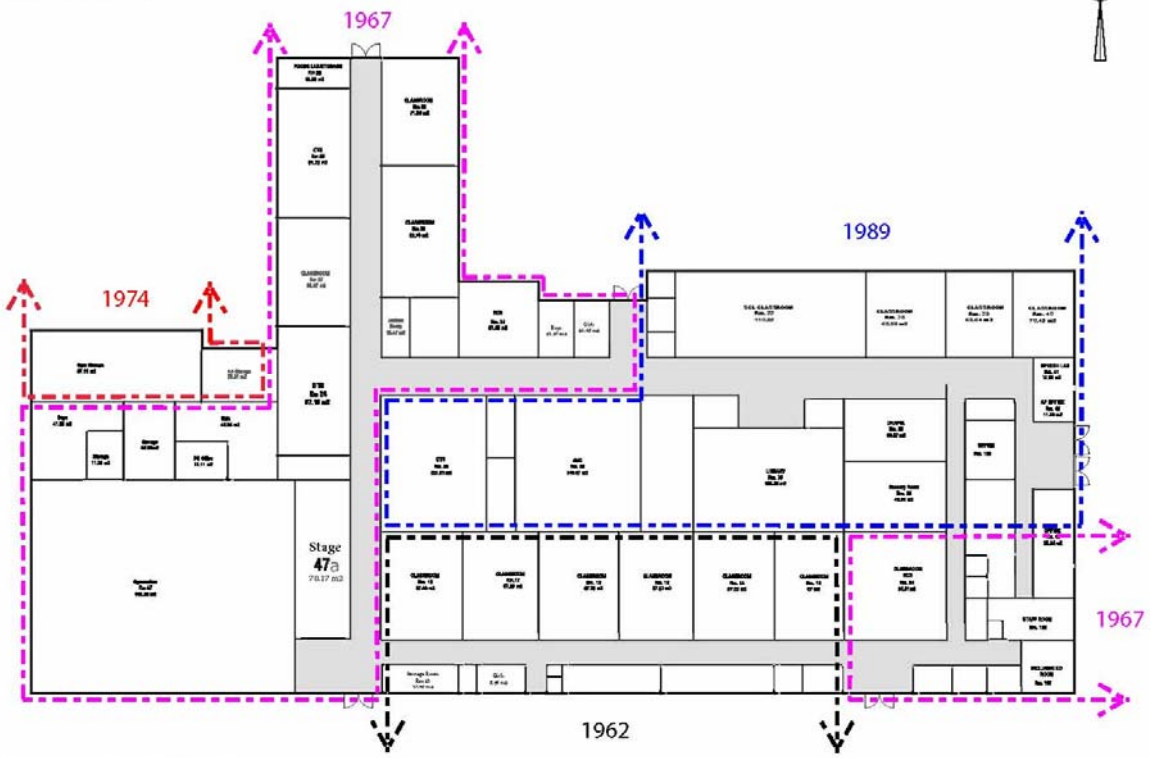
The school was closed in September 2023 due to asbestos concerns found throughout the school. The students have been relocated to Northwestern Polytechnic, located in Fairview.

The asbestos concern started in the northwest classroom, which is the CTS Foods Lab, as vermiculite was coming out of the walls at a corner connection between the concrete block walls. It was then discovered in many locations and was noted to be airborne. The abatement has recently been completed and the orange tarps were still in place in many locations; the intent was to complete some interior renovations to repair the interior finishes affected by the abatement. It was noted that it was safe for us to be in the school. The gym is full of furniture, under tarps, that has been contaminated due to hazardous materials, and it is noted that this will need to be cleaned or disposed of.

The scope of the renovation has increased to a point where we were engaged to complete a third-party review by Alberta Infrastructure to assist in determining the future of the building.

When the school was operational, it was a Kindergarten to Grade 12 School, with approximately 250 students. It was noted that the high school program averages 25 students and the current graduating class has 4 students. The school has several classrooms, with 9 classrooms having no natural light due to the courtyard infill in the 1989 addition.
The school is a single-storey building, with concrete slab on grade foundation, concrete block structure, and a mixture of wood and OWSJ roof structure. There no sprinklers were found in the school.

ST THOMAS MORE CATHOLIC HIGH SCHOOL
SMALL SCALE PLANS




TOTAL INSTRUCTIONAL AREA:
TOTAL GROSS AREA: 1305.86 m2

UPDATED: APRIL 2024

### 1.2.1 Structural Summary

The original building, 1962, 1967, and the 1974 sections is a concrete strip and pad footing foundation system. The courtyard infill and the addition done in 1989 have a pile and grade beam foundation system. The floor is a concrete slab on grade throughout.

Load-bearing walls are concrete block masonry. The roof structure is generally a wood framed system, with wood decking supported on load bearing concrete block walls for the older building sections. The 1974 and 1989 additions are an open-web steel joist (OWSJ) system on concrete block walls. The high flat roof structure over the gymnasium is wood deck over deep glulam beams with glulam purlins. No significant cracking, excessive deflection, heaving, or settlement was observed that could indicate structural distress.

The structural components of the building appear to be in acceptable condition. If major renovations were to occur, considerations will be needed to upgrade portions of the roof to meet current snow and wind loads.

### 1.2.2 Building Envelope Summary

The exterior walls are finished with an acrylic stucco throughout, likely installed in 1989. It is assumed to include 50 mm of rigid insulation and an air vapour barrier behind the acrylic stucco. Hairline cracks in the stucco can be found around the building, and in many locations where the cracks are found, the stucco is darker in colour, and it is assumed that moisture penetration is occurring. The stucco is damaged, including large holes that are found at most corners and around the playground due to student use. On the south side of the school about 2.5 metres above grade, a large hole was observed, and it appears that birds have created a nest in the area. The stucco is also damaged on the lower 300 mm of the walls in many locations due to snow removal and grass cutting equipment. There was also observation on the north side of the school, mainly near the gym, where small rodents (likely mice) are digging and nesting to get inside insulation in the building envelope.

All exterior concrete block walls are noted to include asbestos containing vermiculite, and this has been contained.

Exterior windows are insulated glazing units (IGUs) set in aluminum frames throughout. The age of the glazing ranges between 1979 and 1989. The main entrance to the building is through aluminum storefront doors. Secondary entrances are a combination of aluminum storefront doors and painted metal doors with glass inserts set in painted metal frames. Utility doors are painted metal doors set in painted metal frames. A sectional overhead door is provided to access the gymnasium storage.

The roof for the building is a combination of flat and sloped roof sections. The 1989 section has a Built-Up roof (BUR) with asphalt and gravel, and the remaining school roofing is styrene-butadiene styrene (SBS) roofing. The BUR has significant blisters. Significant ponding was found on all areas of the roof, the roof drains were typically found to be higher than the lowest areas of the roof, and most roof drains were missing the basket cover. Future renovations need to include roof access, as the other way to access the roof is by extension ladders, and the upper gym roof was not accessible.

### 1.2.3 Building Interior Summary

The interior of the building has a range of finishes and ages, but they are primarily original or from 1989 renovation.

The walls are mainly painted concrete block walls throughout the facility.

No firestopping was found at wall penetrations in fire rated walls, such as service rooms and storage rooms.

Interior windows are metal framed with single glazing in the library and aluminum frames in the administration area.

The interior doors are painted solid wood doors and mainly metal frames. Fire rating labels were not observed around the facility. The door hardware is knob locksets. Service room doors typically do not include closers.

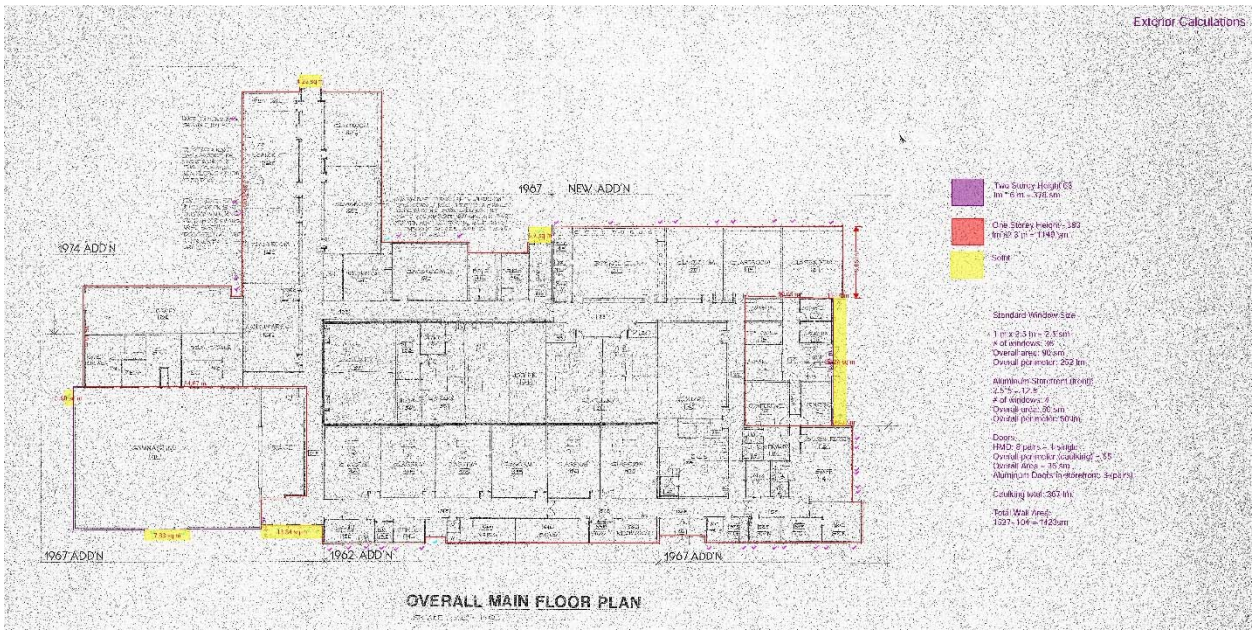
The flooring is a wide range of finishes and ages.

- There is original asbestos vinyl tile flooring in the corridor, including under the recently installed sheet good corridor flooring.
- Sheet good flooring in a portion of the corridor, and from the east corridor to the west corridor doors.
- Ceramic and quarry floor tiling in the washrooms, administration area, and corridor ramps.
- Carpet is in offices, library, Carpet ranges in age from 1989 to approximately 2010.
- The south washrooms have painted concrete floors.
- The gym and stage flooring are wood.

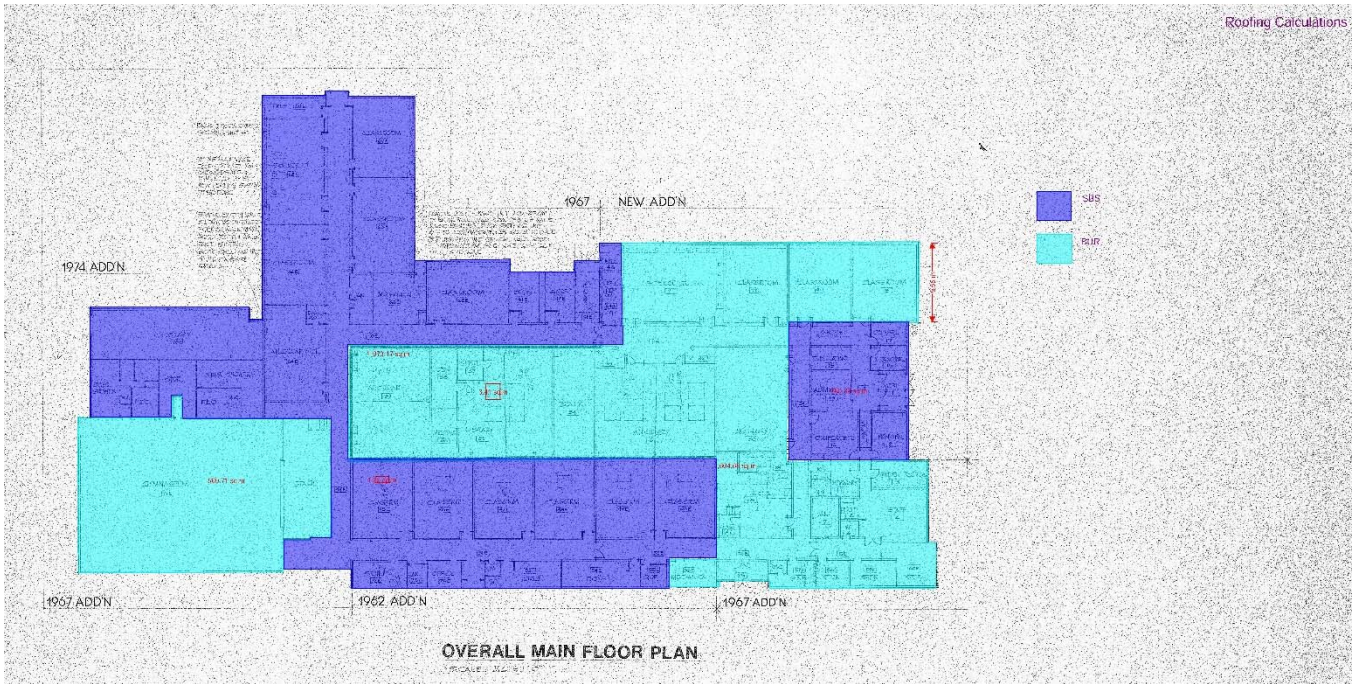
Most of the millwork in the building is from the 1989 renovation and consist of painted wood boxes with plastic laminate exposed faces and plastic laminate countertops.

Most of the ceilings have been removed as part of the abatement project.

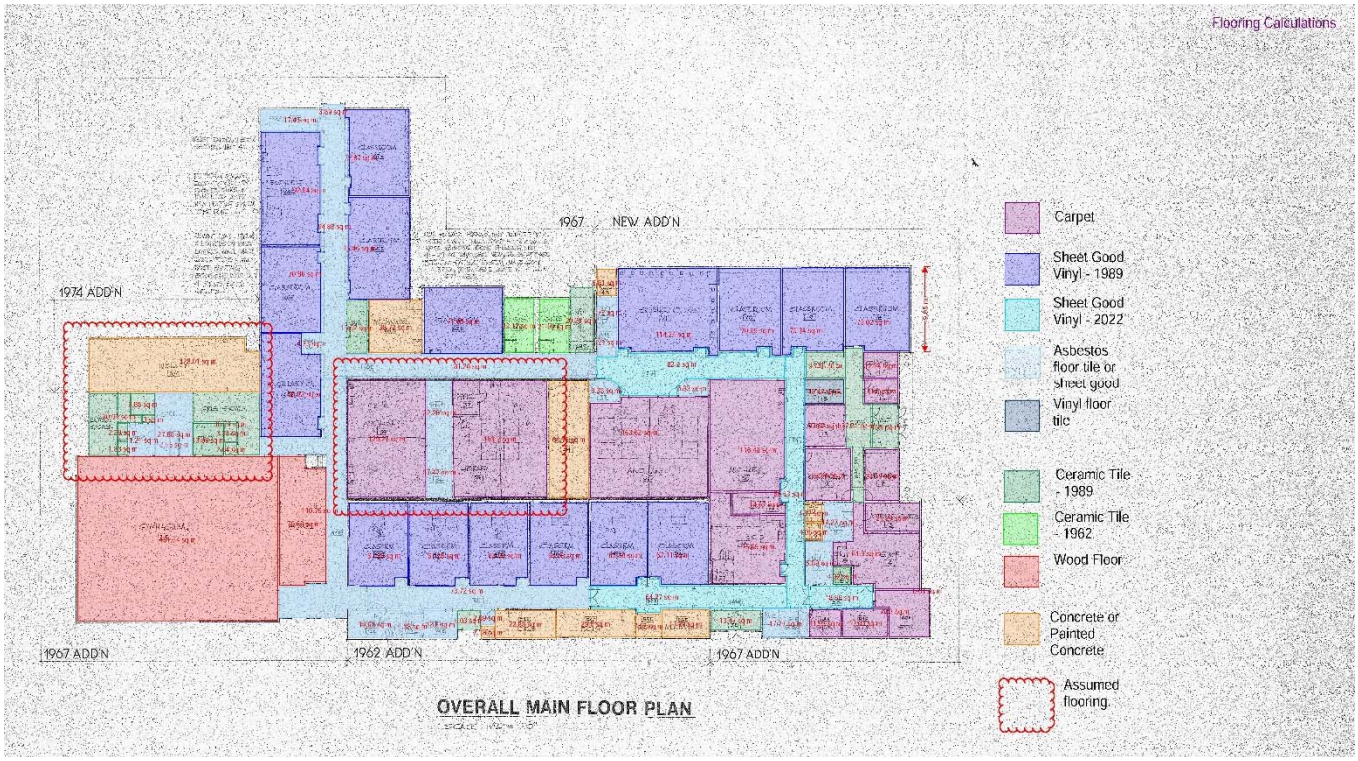
Overall, the interior finishes are in marginal condition and upgrades are needed.

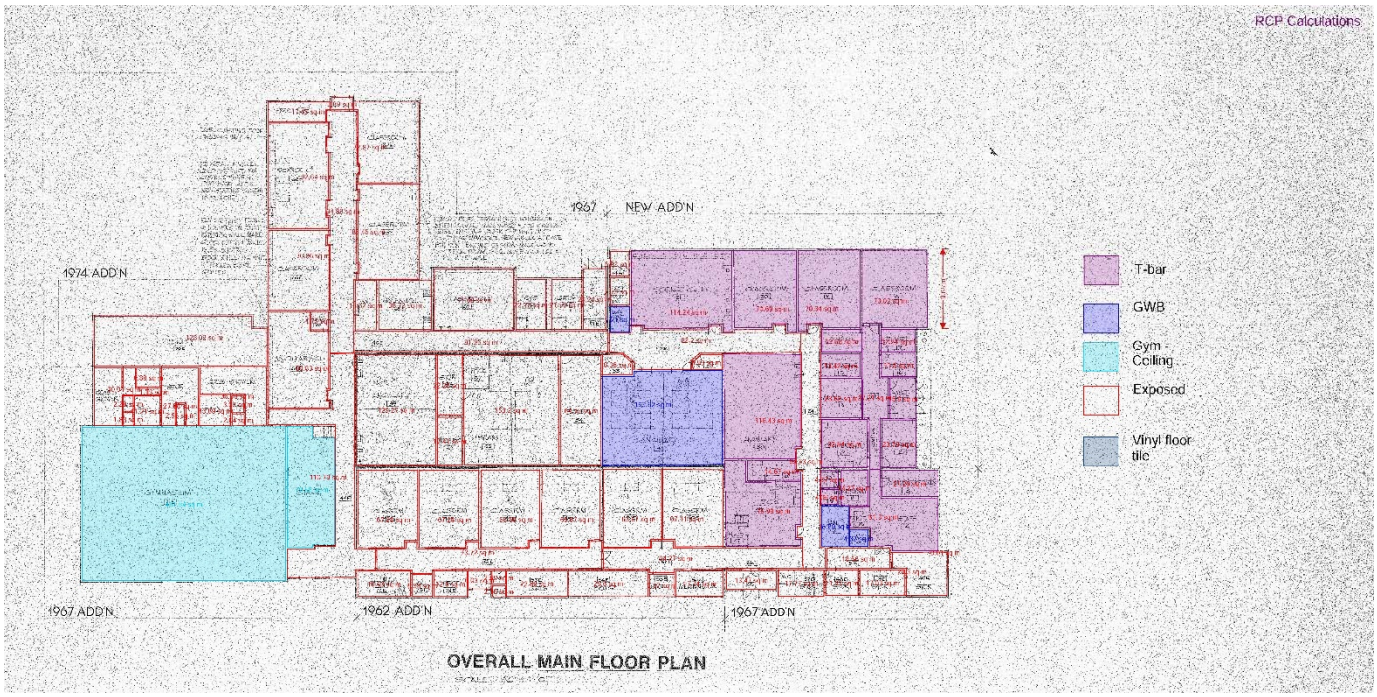


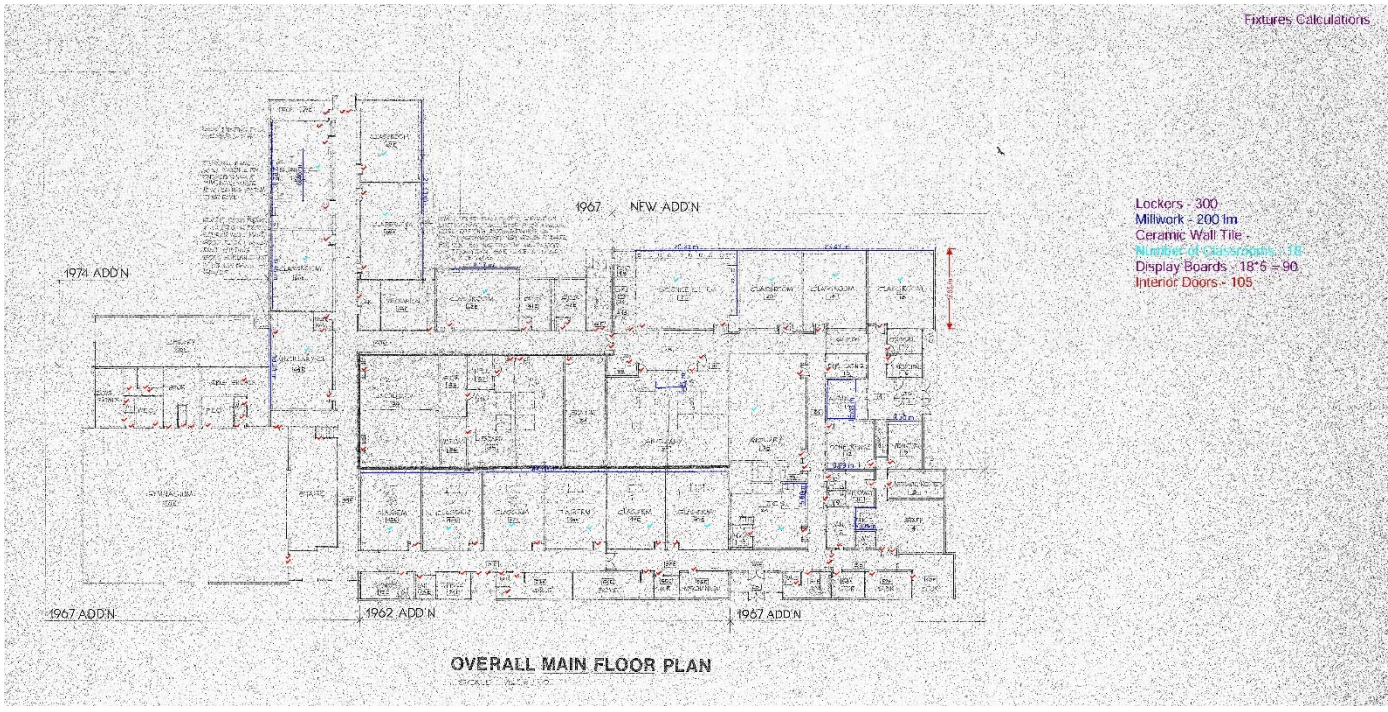
Roofing Calculations




Flooring Calculations






### 1.2.4 Energy / Environmental Summary

Overall, the building is not energy efficient, which is expected based on the age of construction. The building envelope was renovated in 1996, and this increased the exterior insulation.

A few ways to help improve the building's energy efficiency are to replace the windows, aluminum storefronts, and metal doors to increase energy efficiencies. Replace all glazing units with triple-glazed units. Increasing the insulation in the walls and on the roof will also help increase the energy efficiencies.

Installation of LED lamps in all light fixtures can achieve longer life, thereby lowering maintenance costs and providing energy usage savings. New high efficiency boilers and mechanical equipment would reduce operating costs and provide better reliability.

### 1.2.5 Barrier Free Accessibility Summary

The building is not barrier free and has no barrier free components. The entrance is missing a door operator, and there are no barrier free washrooms meeting current code. There are ramps between the administration area and the rest of the school and on one exit on the north side of the school. The slopes are steep and likely do not meet building code requirements.

### 1.2.6 Hazardous Materials Summary

An environmental assessment was completed by EnviroFocus, and the asbestos has been removed or encapsulated in the walls and ceilings. The vermiculite in the concrete block walls remains but has been encapsulated. Several areas of the flooring still contained asbestos; however, the flooring is in good condition. The corridor flooring is noted to still have asbestos flooring under the new sheet good flooring. The classroom flooring may have asbestos flooring under the sheet good flooring.

### 1.2.7 Building Code Summary

The following are excerpts from the National Building Code 2023 – Alberta Edition. This is the most recent release of the building code, and any renovations will need to follow the latest revision.

If renovations occur to the building, the building will need to meet the following classification: the biggest challenge is to add a sprinkler system to the building.

**3.2.2.25. Group A, Division 2, up to 2 Storeys**

**1)** A *building* classified as Group A, Division 2 is permitted to conform to Sentence (2) provided

a) it is not more than 2 *storeys* in *building height*, and

b) it has a *building area* not more than the value in Table 3.2.2.25.

**Table 3.2.2.25.**
**Maximum Building Area, Group A, Division 2, up to 2 Storeys**
Forming Part of Sentence 3.2.2.25.(1)

| No. of *Storeys* | Maximum Area, m² | | |
|---|---|---|---|
| | Facing 1 *Street* | Facing 2 *Streets* | Facing 3 *Streets* |
| 1 | 1 600 | 2 000 | 2 400 |
| 2 | 800 | 1 000 | 1 200 |

**2)** The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and

a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

b) except as permitted by Article 3.2.2.17., *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

c) except as permitted by Article 3.2.2.17., roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, except that in a *building* not more than 1 *storey* in *building height*, the *fire-resistance rating* is permitted to be waived provided the roof assembly is constructed as a *fire-retardant-treated wood* roof system conforming to Article 3.1.14.1., and the *building area* is not more than

i) 800 m² if facing one *street*,

ii) 1 000 m² if facing 2 *streets*, or

iii) 1 200 m² if facing 3 *streets*, and

d) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating* shall

i) have a *fire-resistance rating* not less than 45 min, or

ii) be of *noncombustible construction*.

This classification will not require a sprinkler to be added to the school, however, a 2-hour fire wall will be needed to separate the building into two fire compartments. The fire wall will need to extend to 1000 mm above the roof line. All roof structures will require a 45 minute fire rating, as noted in 3.2.2.25.2)c).

The following information was gathered from 3.2.2.25.:

- The building faces 3 streets, therefore the area can be 2,400 square metres max with a fire rated ceiling.
- For the roof structure to be un-rated the area can only be 1,200 sm as per 3.2.2.25.2)c).
- All ceilings/roof will require a 45 fire rating – likely through 2 layers of Type X Gypsum Wallboard.
    - Areas of the roof can achieve the required 45 minute fire rated spray on Open Web Steel Joists (OWSJ) and metal deck areas (which is found in 1990's addition. This would likely result in a cost savings as there is less labour involved.

The Alberta Building Code has a full section on firewalls under 3.10. The new firewall will be required to meet the following:

> *Firewall* means a type of *fire separation* of *noncombustible construction* that subdivides a *building* or separates adjoining *buildings* to resist the spread of fire and that has a *fire-resistance rating* as prescribed in this Code and has structural stability to remain intact under fire conditions for the required fire-rated time.

As per 3.1.10.2.2) Ratings of Firewalls, a 2 hour fire wall is required:

**2)** A *firewall* that separates a *building* or *buildings* with *floor areas* containing *major occupancies* other than Group E or Group F, Division 1 or 2 shall be constructed as a *fire separation* of *noncombustible construction* having a *fire-resistance rating* not less than 2 h.

**3)** Except as permitted by Sentence (4), the required *fire-resistance rating* of a *firewall*, except for *closures*, shall be provided by masonry or concrete.

**4)** A *firewall* permitted to have a *fire-resistance rating* not more than 2 h need not be constructed of masonry or concrete, provided

a) the assembly providing the *fire-resistance rating* is protected against damage that would compromise the integrity of the assembly, and
b) the design conforms to Article 4.1.5.17.

(See Note A-3.1.10.2.(4).)

**4.1.5.17. Firewalls**

(See Note A-4.1.5.17.)

**1)** *Firewalls* shall be designed to resist the maximum effect due to

a) the appropriate lateral design loads prescribed elsewhere in this Section, or
b) a factored lateral load of 0.5 kPa under fire conditions, as described in Sentence (2).

**2)** Under fire conditions, where the *fire-resistance rating* of the structure is less than that of the *firewall*,

a) lateral support shall be assumed to be provided by the structure on one side only, or
b) another structural support system capable of resisting the loads imposed by a fire on either side of the *firewall* shall be provided.

Walking through the building, the first item and the most serious concern is a dead-end corridor found in the Administration / Main Entrance. It is located to the left (or south) of the main entrance corridor. The length of the corridor is approximately 8 metres long. The building code permits a dead-end corridor provided that it is not more than 6 metres long. There is a door into the staff space at the end of the corridor, and you can exit through the staff area to another exit; however, exiting the space through a different space is not permitted by the building code.

**3.3.1.9. Corridors**

**1)** The minimum width of a *public corridor* shall be 1 100 mm.

**2)** Except as required by Sentence 3.3.3.3.(3), the minimum unobstructed width of a corridor used by the public or a corridor serving classrooms or patients' sleeping rooms shall be 1 100 mm.

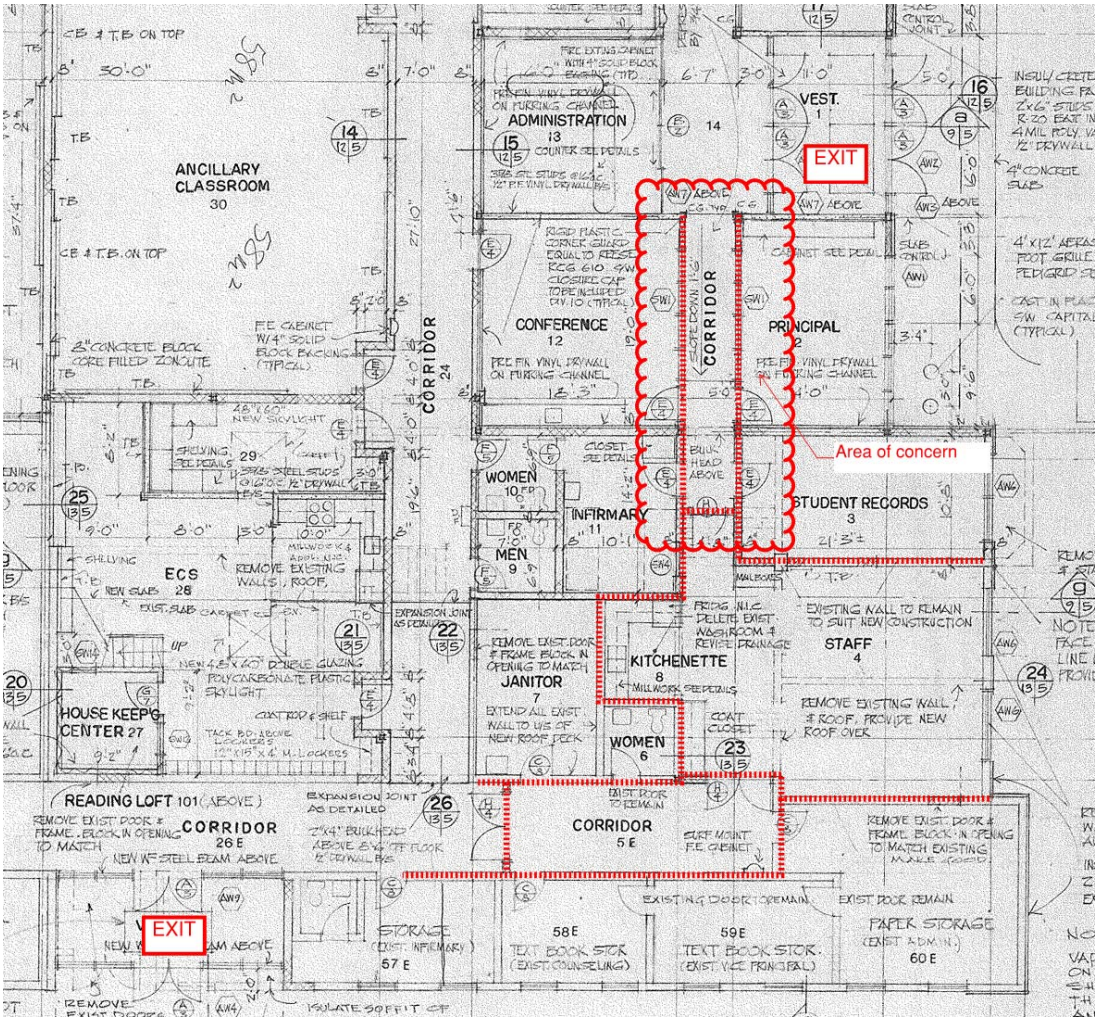
**3)** If a corridor contains an *occupancy*, the *occupancy* shall not reduce the unobstructed width of the corridor to less than its required width.

**4)** If a *public corridor* conforming to Clause 3.4.2.5.(1)(d) contains an *occupancy*,

a) the *occupancy* shall be located so that for pedestrian travel there is an unobstructed width not less than 3 m at all times adjacent and parallel to all rooms and *suites* that front onto the *public corridor*, and

b) the combined area of all *occupancies* in the *public corridor* shall be not more than 15% of the area of the *public corridor*.

**5)** Except for a dead-end corridor that is entirely within a *suite* or as permitted by Sentences 3.3.3.3.(1) and 3.3.4.4.(6), a dead-end corridor is permitted provided it is not more than 6 m long.




During the walk-through, no firestopping was found at penetrations in fire rated walls at any locations in the school, and this needs to be corrected as a top priority.

### 1.2.8 Mechanical Summary

Building heating systems are provided via four (4) natural gas fired condensing boilers complete with circulation pumps an accessories. Heating water / glycol mixture is distributed to heating coil serving air handling units, perimeter radiation, unit heaters and force flow heaters.

heating, cooling, and ventilation systems are controlled by Honeywell analog thermostats.

Ventilation system for the facility consists of one packed multi-zone system (1962) serving Gymnasium and adjacent Administration areas, two indoor built-up air handling units (1989) serving classrooms and common areas, five (5) packaged natural gas heating / electric cooling rooftop units (1998-2000) and one natural gas fired furnace serving Gymnasium Storage. Air is distributed through galvanized metal ductwork, concealed within the ceiling space.

Domestic water is supplied via copper piping. Two natural gas fired tank type water heaters provide domestic hot water systems to plumbing fixtures. The system is completed with designated domestic hot water recirculation pumps.
Conventional plumbing fixtures are located throughout the facility.
Controls are basic electric type.
Fire protection is provided in the form of handheld fire extinguishers.

Other the newer boilers and domestic water heaters, mechanical systems have passed expected service live and are in marginal condition.

### 1.2.9 Electrical Summary

The main distribution switchgear is 120/208V, 3 phase, 4 wire and rated 1200A. The branch panelboards are installed in the mechanical room, storage room and janitor room. Copper wires are used throughout the building. LED light fixtures are installed in most classrooms and hallways; T-8 fluorescent lights are still used in offices. The emergency lights and Exit signs passed lifecycle time and need to be replaced or upgraded to current code. The fire alarm panel is conventional hard wired single stage Edward 6500. The fire alarm system has passed its 15-year lifecycle time and needed to be replaced and upgraded to meet current code. The paging and intrusion system meets current facility. The telephone machine was removed during the school closure last year.

Electrical systems have passed expected service live and are in marginal condition.

### 1.2.10 Site Summary

#### 1.2.10.1 Architectural Site Summary

The site is located at 10208-114 Street, Fairview, Alberta. The property line is reported to be located just west of the basketball courts. The remainder of the site is noted to be the Town of Fairview's property.
The site is a large grass-covered property and is relatively flat. There do not appear to be any drainage issues on the site. There is a drop-off lane on the east side of the site, with two parking lots on the north side of the school. The parking lot closest to the school was constructed during the 1989 renovation and will need to be repaved in the next few years. The second parking lot was installed in 2022 and reportedly cost $1,000,000.00 to complete due to hydrocarbons found in the ground. The playground equipment is located on the west side of the school.
The concrete sidewalks around the school were likely installed during the 1989 renovation. New asphalt paving was installed on the west side of the side, and the concrete stairs were replaced in 2022. Both areas are showing heaving. The stairs are cracked. The exit doors from the gym cannot open, due to slight heaving, but there is nothing overly obvious showing heaving.
There is a large storage/garage building on the northeast corner of the site that was not reviewed, and it is noted to be part of the St. Thomas More School property.

Overall, the site is in acceptable condition.

### 1.2.10.2 Mechanical Site Summary

Domestic cold-water service for the building consists of two (2) 50mm diameter services entering the building on the north and east side service rooms. Domestic water services are copper type L and connect to municipal main on 114 Street.

200mm diameter sanitary service leaves the building on the east side and connects to municipal main on 114 Street.

Storm system is surface run off type. Variety of storm water rainwater leader discharges on the ground around the building perimeter.

Overall, the site is in acceptable condition.

### 1.2.10.3 Electrical Site Summary

Electrical service is provided to building via underground distribution line from pad mounted transformer to main distribution switchgear in main electrical room.

Overall, the site is in acceptable condition.

Priority:
H - High
M - Medium
L - Low

## 2. Building Condition and Lifecycle Assessment

**Building Summary Table**

| Uniformat # | Name | Year Installed | Description | Rating (A-F) | Life Expectancy (<5, 5-10, >10) | Summary of Concerns (Code, Life Safety, Repair, Replacement) | Recommendations | Estimated Quantity | Unit | Unit Cost | Estimated Cost to Upgrade | Priority (H, M, L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Exterior Systems - Envelope** | | | | | | | | | | | | |
| B2011.03 | Masonry Units: Ext. Wall Const. | 1962 | The exterior walls throughout are concrete masonry units. | C | >10 | No concerns. | | | | | | |
| B2011.07 | Exterior Wall Vapour Retarders, Air Barriers and Insulation | 1989 | Concealed and not directly reviewed. According to the previous report, concrete block walls filled with zonolite insulation are present in the 1962, 1967 and 1974 building sections. Based on the existing 1989 drawings the exterior of the building is finished with 50 mm of rigid insulation, building paper, 12.7 mm plywood. | D | 5-10 | The stucco finish is has cracks and has likely compromised the insulation and barriers. | Remove and replace insulation and barriers. | 1,450 | sq.m. | $75.00 | $108,750.00 | H |
| B2016 | Exterior Soffits | 1989 | Stucco finished soffits are provided on the under side of canopies throughout. | D | 5-10 | Replace the stucco with metal soffit to match the renovated exterior finish. | Replace the stucco with metal soffit to match the renovated exterior finish, assuming metal soffits. | 60 | sq.m. | $115.00 | $6,900.00 | H |
| B2017.10 | Cement Plaster (Stucco): Ext. Wall | 1989 | Smooth acrylic stucco walls over insulation on the 1989 addition. | D | 5-10 | There are hairline cracks in the stucco found around the bulding. There is damage due to equipment or students playing found in various locations. The concern is water penetrating the building envelope and is creating damage. At the hairline cracks the stucco appears to be darker in colour, which indicates water pentration and not drying out. | Based on the amount of hairline cracks, replacement of the stucco is needed, and replace with a durable product like a mixutre of concrete block and metal cladding. | 356 | sq.m. | $115.00 | $40,940.00 | H |

Priority:
H - High
M - Medium
L - Low

## 2. Building Condition and Lifecycle Assessment

**Building Summary Table**

| Uniformat # | Name | Year Installed | Description | Rating (A-F) | Life Expectancy (<5, 5-10, >10) | Summary of Concerns (Code, Life Safety, Repair, Replacement) | Recommendations | Estimated Quantity | Unit | Unit Cost | Estimated Cost to Upgrade | Priority (H, M, L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B2017.10 | Cement Plaster (Stucco): Ext. Wall | 1996 | Spanish stucco and coloured stucco band over insulation to match acrylic stucco on 1989 addition is provided for the 1962, 1967 and 1974 sections. | D | <5 | There are hairline cracks in the stucco found around the bulding. There is damage due to equipment or students playing found in various locations. The concern is water penetrating the building envelope and is creating damage. At the hairline cracks the stucco appears to be darker in colour, which indicates water pentration and not drying out. | Based on the amount of hairline cracks, replacement of the stucco is needed, and replace with a durable product like a mixutre of concrete block and metal cladding. | 1,067 | sq.m. | $115.00 | $122,705.00 | H |
| B2017.12 | Joint Sealers (caulking): Ext. Wall | 1996 | Caulking is provided at windows and door frames throughout the exterior walls | D | <5 | Caulking and expansion joints around the building are hardening, and starting to crack. The will impact the air tightness in the building and moisture protection in the builidng. | Replace exterior caulking and joint sealants. | 500 | l.m. | $80.00 | $40,000.00 | H |
| B2021.02* | Aluminum Windows (Glass & Frame)* | 1989 | 1989 Addition - Exterior windows are insulated glazing units set in factory painted aluminum frames installed throughout . The windo w types are a combination of fixed panes, sliders (admin office area) and casements with awnings (classrooms). | C | <10 | Windows are near the end of the intended lifecycle, they are not energy efficient. | Replace aluminum windows. | 15 | sq.m. | $1,200.00 | $18,000.00 | M |
| B2021.02* | Aluminum Windows (Glass & Frame)* | 1996 | 1962, 1967, and 1974 Additions - Exterior windows are insulated glazing units set in factory painted aluminum frames installed throughout . The wind w types are a combination of fixed panes and casements with awnings. | C | <10 | Windows are near the end of the intended lifecycle, they are not energy efficient. | Replace aluminum windows. | 75 | sq.m. | $1,200.00 | $90,000.00 | M |
| B2031.01* | Aluminum-Framed Storefronts: Doors | 1967 | Aluminum framed storefront doors are provided on the south elevation. The doors are double swing and are completed with matching transom and sidelights. Door count includes vestibules doors. | C | <10 | Doors are at the end of the intended lifecycle, and will require significant maintenance. | Replace aluminum storefront doors. | 2 | each | $14,000.00 | $28,000.00 | M |

Priority:
H - High
M - Medium
L - Low

## 2. Building Condition and Lifecycle Assessment

**Building Summary Table**

| Uniformat # | Name | Year Installed | Description | Rating (A-F) | Life Expectancy (<5, 5-10, >10) | Summary of Concerns (Code, Life Safety, Repair, Replacement) | Recommendations | Estimated Quantity | Unit | Unit Cost | Estimated Cost to Upgrade | Priority (H, M, L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B2031.01* | Aluminum-Framed Storefronts: Doors | 1989 | Aluminum framed storefront doors are provided on the east elevation (main entrance). The doors are double swing and are completed with matching transom and sidelights. Door count includes vestibules doors. | C | <10 | Doors are at the end of the intended lifecycle, and will require significant maintenance. | Replace aluminum storefront doors. | 4 | each | $14,000.00 | $56,000.00 | M |
| B2032.03 | Exterior Utility Doors | 1996 | Exterior utility insulated painted metal doors set in painted metal doors are installed at the student exit doors, gymnasium exits and mechanical room exterior access. Paired and single door sets were observed. | C | >10 | No Concerns. | | 17 | each | $8,000.00 | $136,000.00 | L |
| B2034 | Large Exterior Special Doors (Overhead) | 1996 | A sectional insulated overhead doo r is provided on the west elevation to access the Gym Storage. | C | >10 | No Concerns. | | 1 | each | $7,000.00 | $7,000.00 | L |
| B3011.06 | Built-up Bituminous Roofing (Asphalt & Gravel) | 1989 | A 4 ply build up roofing with pea gravel on 12.7mm fibreboard over insulation is provided on the 1989 building section. | D | <5 | The roof has blisters and lots of ponding. The Gym is noted to have had repairs in the last few years, but still leaks. | Replace BUR with SBS roofing. | 2000 | sm | $ 350.00 | $700,000.00 | H |
| B3011.09 | Modified Bitumous Membrane Roofing (SBS) | 2005 | An SBS roofing membrane is installed on the 1962, 1967 and 1974 building sections. The sloped roof sections above the main entrance and the centre block are provided with a red coloured SBS roofing membrane. | D | <5 | The roof has lots of ponding, and the roof drains are higher than the roof in many locations. No major leaks are noted. | Replace SBS roof with SBS roofing. | 2600 | sm | $ 375.00 | $975,000.00 | H |
| B3013 | Vapour Retarder and Insulation* | 1989 | 100mm roofmate rigid<br>roof insulation on vapour retarder is provided on the 1989 sections. It is assumed that the SBS roof sections are provided with rigid insulation and a vapour barrier. | C | >10 | No Concerns. | | | | | | |
| B3021 | Skylights | 1989 | Skylights are sealed double skin pyramid acrylic skylights installed on the courtyard addition, over 6 existing classrooms and 2 washroom s in element ary schoo l area. | D | <5 | Library skylight is leaking. | | 51 | sm | $ 300.00 | $15,300.00 | H |
| B3022 | Other Roofing Openings (Hatch, Vent, etc)* | - | No easy access to the roof. | D | <5 | The only way to access the roof is by extention ladder, and then adding extension ladders to the other roof areas that are raised. | Install roof access hatch and ladders to provide easy access to the roof for maintenance. | 1 | each | $15,000.00 | $15,000.00 | H |

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## 2. Building Condition and Lifecycle Assessment

**Building Summary Table**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Interior Construction** | | | | | | | | | | | | |
| C1011 | Interior Fixed Partitions* - Masonry | 1962 | Exposed painted concrete block walls are present throughout all building sections including: in admin area, staff rooms, classrooms, mechanical room, storage rooms, washrooms, change/ shower rooms and stage area. | C | >10 | Normal damge found on the walls. No major concerns. | Overall repairs. | 4286 | sm | $22.00 | $94,292.00 | L |
| C1011 | Interior Fixed Partitions* - Stud Framing | 1989 | Steel and wood stud wall partitions are provided in small storage areas throughout all building sections. | C | >10 | Normal damge found on the walls. No major concerns. | Overall repairs. See above for pricing. | | | | $0.00 | L |
| C1013 | Interior Operable Folding Panel Partitions | 1989 | Stackable acoustic folding partition is provided in the Gymnasium completed with track and recessed storage pocket. | C | <10 | The folding walls are past the intented lifecycle, and will require high maintenance costs. | Replace folding walls. | 1 | each | $50,000.00 | $50,000.00 | L |
| C1017 | Interior Windows | 1989 | Interior windows are wired glass windows set in rated painted steel frames in the Admin. Area. | C | >10 | Wired glass is a danger to users if broken and is no longer recommended for use, and is being written out of the building code. | Replaced wired glass with a tempered glass, or fire rated glass if required. | 15 | sm | $1,500.00 | $22,500.00 | L |
| C1018 | Interior Partition Firestopping | 1962 | Firestopping is not present at fire rated partition penetrations. All penetrations in the mechanical/ electrical rooms were not sealed with firestopping. | E | <5 | Firestopping is missing at all fire rated penetrations. | Install firestopping throughout the school at the required openings. | 4286 | sm | $75.00 | $321,450.00 | H |
| C1018 | Interior Partition Firestopping | 1962 | Additional fire wall is required by code. | F | <5 | Additional fire wall is required. | Install additional fire wall | 1 | each | $200,000.00 | $200,000.00 | H |
| C1021.01 | Interior Swinging Doors (& Hardware) | 1989 | Interior doors are stained or varnished wood doors set in painted met al frames. Some of the doors are completed with glass vision panels. According to the previous report, some of the doors have been replaced as per the following schedule:<br><br>(1998) Replaced 4 Solid Core wood doors in hallway by Gymnasium. (2001) Replaced 20 Solid Core wood doors in Junior wing in 1967 Addition. (2003) Replaced 12 Solid Core wood doors in Elem. wing in 1962 Addition. | C | <10 | None. | Replace wood doors and hardware. | 105 | each | $1,000.00 | $105,000.00 | L |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1021.03 | Interior Fire Doors | 1962 | Painted metal fire rated doors set in painted metal fire rated frames are provided throughout school at fire rated partitions including all mechanical/ electrical rooms. Fire labels are missing on most doors. | D | <5 | Fire labels are missing on most fire rated doors. | Replace doors and frames with fire rated (including label) doors and frames and hardware. | 10 | each | $2,500.00 | $25,000.00 | H |
| C1021.04 | Interior Sliding and Folding Doors | 1962 | Aluminum framed sliding glass doors set in aluminum frames are installed at entry to General Office and Copy Room. | C | >10 | None. | | 2 | each | $4,000.00 | $8,000.00 | L |
| C1031.01 | Fabricated Compartments (Toilets/Showers) | 1989 | Factory painted metal toilet partitions are installed in all washroom s and Girl's showers in the change room throughout all building sections. | C | <10 | No concerns, but the bathroom partitions are past the end of the expected lifecycle. | Replace bathroom partitions. | 15 | each | $2,000.00 | $30,000.00 | L |
| C1033.01 | Lockers | 2000 | Two-tier factory painted metal lockers are present in corridors. | C | <10 | No concerns, but the lockers are near the end of the expected lifecycle. | Replace lockers | 300 | each | $900.00 | $270,000.00 | L |
| C1033.02 | Storage Shelving | 1962 | Painted wood shelving is provided throughout, found in storage rooms and closets. | C | >10 | None. | | 1 | each | $50,000.00 | $50,000.00 | L |
| C1035 | Interior Identifying Devices | 1962 | Plastic signage plates ident ify all rooms throughout all building sections. Install year is unknown | C | >10 | None. | | 1 | each | $30,000.00 | $30,000.00 | L |
| C1037.07 | Visual Display Boards | 2000 | The classrooms are outfitted with whiteboards and tackboards | C | <10 | No concerns, but the display boards are past the end of the expected lifecycle. | | 118 | each | $2,000.00 | $236,000.00 | L |
| C1037.08 | Toilet, Bath, and Laundry Accessories | 1989 | Toilet accessories include Individual mirrors, soap dispensers, grab bars, trash receptacles, feminine products dispenser, towel and paper toilet dispensers. | C | <10 | No concerns, but the bathroom accessories are past the end of the expected lifecycle. | Replace bathroom accessories. | 7 | each | $8,000.00 | $56,000.00 | L |
| C1037.09 | Other Fittings | 1989 | Metal shoe racks are provided at some entrance vestibules and corridors | C | >10 | None. | | | | | | |
| C2011 | Stair Construction - Concrete | 1967 | The stairs leading up to to the stage are of concrete construction | C | >10 | None. | | | | | | |
| C2011 | Stair Construction - Metal | 1967 | Metal stairs and stringer completed with metal handrail is present in the mechanical room to exit to the exterior. | C | >10 | None. | | | | | | |

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| C2011 | Stair Construction - Wood | 1967 | A painted wood stair with treads and stringers is provided in the mechanical room from corridor. A wood stair s also provided in the kindergarten classroom to access a small mezzanine area. | C | >10 | None. | | | | | | |
| C2020.04 | Resilient Stair Finishes | 1967 | Rubber stair tread and riser finish on concrete stairs leading up to the stage from corridor. | C | <10 | No concerns, but the stair finish is past the end of the expected lifecycle. | Replace rubber stair finishes | 1 | each | $6,000.00 | $6,000.00 | L |
| C2020.06 | Stair Painting | 1962 | The wood stairs in the mechanical room and kindergarten classroom are finished with paint. The met al stair in the mechanical room is also finished with paint | C | >10 | None. | | | | | | |
| C2023 | Stair Railings and Balustrades | 1962 | The stairs in the building are provided with painted metal handrails on one side. The stairs and mezzanine in the kindergarten classroom are painted wood handrails and balustrades | C | >10 | None. | | | | | | |
| C2030 | Interior Ramps | 1989 | The interior ramps are concrete construction. The ramp is finished with ceramic tiles and is provided with wall mounted painted wood handrails on both sides | C | >10 | None. | | | | | | |
| C3012.02 | Wall Paneling | 1989 | The main entrance foyer walls are partially finished with stained wood paneling on walls approximately 1200mm high | C | >10 | None. | | 10 | sm | $5,000.00 | $50,000.00 | L |
| C3012.05 | Tile Wall Finishes | 1962 | The urinals surrounding walls in the boys' washrooms and change rooms are finished with ceramic tiles | C | <10 | No concerns, but the ceramic wall tile is past the end of the expected lifecycle. | Replace ceramic wall tile finishes | 25 | sm | $500.00 | $12,500.00 | L |
| C3012.10 | Interior Wall Painting | 2008 | Interior walls are finished with paint throughout | D | <5 | The school needs to be repainted, due to age, user wear, and the completed abatement. | Repaint the school. | 4268 | sm | $100.00 | $426,800.00 | H |
| C3024.01 | Tile Floor Finishes | 1967 | 25mm x 25mm mosaic tile is installed on the washroom floors in the 1967 building addition | D | <5 | No concerns, but the ceramic tile is past the end of the expected lifecycle. | Replace ceramic floor tile. | 45 | sm | $500.00 | $22,500.00 | H |
| C3024.01 | Tile Floor Finishes | 1989 | Main Entry and Foyer floor have 200mm x 200mm patterned & textured non slip quarry tile | C | <10 | No concerns, but the ceramic tile is near the end of the expected lifecycle. | | 110 | sm | $500.00 | $55,000.00 | L |
| C3024.03 | Wood Flooring | 2000 | Hardwood floating Gymnasium floor and stage is installed with new game lines | C | <10 | No concerns, but the wood floor is near the end of the expected lifecycle. | Replace wood floor. | 545 | sm | $500.00 | $272,500.00 | M |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C3024.06 | Resilient Flooring | 1964 | Vinyl asbestos tiles are present in corridors of the 1962 section and service rooms. | D | <5 | Floor is in acceptable condition, no holes or major wearing noted, but it does contain asbestos | Remove asbestos flooring. | 600 | sm | $400.00 | $240,000.00 | H |
| C3024.06 | Resilient Flooring | 1989-2000 | Resilient sheet vinyl flooring is provided classrooms. | C | <10 | No concerns, but the sheet good flooring is past the end of the expected lifecycle. | Replace sheet good flooring. | 1200 | sm | $250.00 | $300,000.00 | M |
| C3024.06 | Resilient Flooring | 2022 | Resilient sheet vinyl flooring installed in 2022 is provided in the east corridor. Original asbestos tile remains under the flooring | B | >10 | No concerns. | | 225 | sm | $250.00 | $56,250.00 | M |
| C3024.07 | Floor Painting | 1962 | Painted concrete floor in storage room of the 1962 section and in Mechanical room in the 1967 addition. The paint finish is faded and worn | C | <10 | No concerns. | Will need to be repainted. | 205 | sm | $100.00 | $20,500.00 | L |
| C3024.09 | Other Floor Finishes | 1967 | The floors in the boys and girls washroom s in the 1967 section are finished with a stained concrete finish. | C | >10 | No concerns. | | | | | | |
| C3025 | Carpet Flooring | 2000 | Flooring in some of the classrooms, offices and conference rooms are finished with broadloom carpet | D | <5 | Carpet is stained and worn. | Replace carpet flooring | 1000 | sm | $175.00 | $175,000.00 | |
| C3031.04 | Gypsum Board Ceiling Finishes (Unpainted) | 1962 | Some ceilings in the building are finished with gypsum boards | | | | | | | | | |
| C3031.06 | Interior Ceiling Painting | 1962 | Interior gypsum board ceilings are finished w | D | <5 | Painted gypsum board is damaged due to the leaking skylights. | Repair gypsum board ceilings. | 200 | sm | $75.00 | $15,000.00 | H |
| C3032 | Acoustic Ceiling Treatment (Susp. T-Bar) | 1989 | Sloped T-Bar ceiling with acoustic ceiling tiles are installed in the main entrance foyer, in classrooms and corridors in school of the 1989 building section | C | <10 | No concerns, but the t-bar is past the end of the expected lifecycle. | | 900 | sm | $200.00 | $180,000.00 | L |
| C3033 | Other Ceiling Finishes | 1967 | Gym ceiling is an acoustic stippled materials. Product has been tested a few times to confirm there is no asbestos. | D | <5 | The finish is stained due to moisture penetrations due to the roof leaks. | Replace the finish with a modern product, with acoustic properties. | 545 | sm | $300.00 | $163,500.00 | H |
| C3033 | Other Ceiling Finishes | 1962 | Most of the school ceilings are currently exposed to the structure due to abatement. | D | <5 | No ceiling finishes throughout most of the school. | Install t-bar ceilings throughout. | 2500 | sm | $200.00 | $500,000.00 | H |
| E1023 | Theatre and Stage Equipment | 1967 | Stage is open to Gymnasium and is provided with a stage curtain in front of opening. Tracks on ceiling for backdrops and scenes | C | >10 | No concerns, but the equipment is past the end of the expected lifecycle. | Replace stage curtain | 1 | each | $30,000.00 | $30,000.00 | L |

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| E1027 | Laboratory Equipment | 1989 | Normal laboratory apparatus provided in the Science Lab. Emergency eyewash equipment provided | C | <10 | No concerns, but the equipment is past the end of the expected lifecycle. | Replace equipment. | 1 | each | $25,000.00 | $25,000.00 | L |
| E1094 | Residential Equipment | 2005 | The Home Economics classroom is equipped with residential grade cooking ranges and cooking range exhaust fans. A residential grade washer and dryer are also provided . The kitchen is equipped with one commercial grade refrigerator and one residential grade refrigerator and freezer. The staff kitchen is provided with a residential grade dishwasher and refrigerator | C | <10 | No concerns, but the equipment is near the end of the expected lifecycle. | Replace kitchen equipment. | 6 | each | $10,000.00 | $60,000.00 | L |
| E1096 | Athletic, Recreational, and Therapeutic Equipment | 1989 | The gymnasium is equipped with 6 retractable wall / ceiling mounted basketball hoops, volleyball nets, electric scoreboard, climbing ropes and various exercise apparatus in the storeroom. Big projection screen at one corner | C | <10 | Millwork is in acceptable condition considering the age. Should be replaced if the school is fully renovated. | Replace gym equipment. | 1 | each | $ 50,000.00 | $50,000.00 | L |
| E2012 | Fixed Casework | 1989 | Millwork shelving and countertops installed in classrooms in the 1989 section | C | <10 | No Concerns. | Replace millwork. | 125 | lm | $2,500.00 | $312,500.00 | M |
| E2012 | Fixed Casework | 2016 | The library is provided with fixed casework. The librarian's desk is finished with wood laminate | B | >10 | Millwork is in acceptable condition considering the age. Should be replaced if the school is fully renovated. | No Concerns. | 6 | lm | $2,500.00 | $15,000.00 | L |
| E2012 | Fixed Casework | 2003 | Clear birch finished millwork with countertop s are provided in 6 elementary classrooms and the Lunch Room in the 1962 section | C | <10 | None. | Replace millwork. | 45 | lm | $2,500.00 | $112,500.00 | L |
| E2012 | Fixed Casework | 2005 | Stained wood upper and lower cabinets completed with laminate countertops are provided in the Home Economics classroom. The cabinets were reportedly installed in 2005 | C | <10 | Millwork is in acceptable condition considering the age. The countertops are stained. | Replace millwork. | 25 | lm | $2,500.00 | $62,500.00 | L |
| E2012 | Fixed Casework - Laboratory | 1989 | Science lab has work tables with acid resistant work tops. Fixed cabinets along walls with acid resistant countertops | C | >10 | Install millwork | Replace millwork. | 25 | lm | $3,000.00 | $75,000.00 | M |

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| E2012 | Fixed Casework | Various | Millwork has been removed from walls in many locations around the school due to abatement. | D | <5 | Window coverings are past the intended lifecycle. Some of the window coverings are missing panels, or damaged. | Re-install millwork | 100 | lm | $300.00 | $30,000.00 | H |
| E2013.01 | Blinds | 1989 | Vertical fabric / PVC blinds are present most classrooms and administration office | D | <5 | Blinds are worn out. | Replace window coverings | 90 | sm | $600.00 | $54,000.00 | H |
| **Structural Components** | | | | | | | | | | | | |
| A1010 | Standard Foundations | 1962 | Concealed and not directly reviewed. Cast-in-place concrete strip and spread footings are assumed to be present throughout the 1962, 1967 and 1974 building sections. | C | >10 | No concerns. | | | | | | |
| A1020 | Special Foundations | 1989 | 1989 section is provided with cast-in-place concrete piles and grade beams in the courtyard area and strip footings on exterior. | C | >10 | No concerns. | | | | | | |
| A1030 | Slab on Grade | 1962 | A cast-in-place concrete slab on grade is present throughout the building, including the 1962, 1967, 1974 and 1989 sections. | C | >10 | No concerns. | | | | | | |
| B1021.01 | Roof Structural Frame | 1962 | The roof frame for the 1962 and 1967 section is comprised of wood joists. | C | >10 | No concerns. | | | | | | |
| B1021.01 | Roof Structural Frame | 1974 | The roof structural frame for the 1974 and 1989 Sections is comprised of OWSJ. | C | >10 | No concerns. | | | | | | |
| B1021.01 | Roof Structural Frame | 1967 | The Gymnasium has long span deep glulam beams with glulam purlins. | C | >10 | No concerns. | | | | | | |
| B1021.02 | Structural Interior Walls Supporting Roofs | 1962 | The roof frame structure for all building sections is supported by load-bearing concrete masonry unit walls. | C | >10 | No concerns. | | | | | | |
| B1021.03 | Roof Decks, Slabs, and Sheathing | 1974 | The 1974 and 1989 sections are provided with a corrugated steel deck. | C | >10 | No concerns. | | | | | | |
| B1021.03 | Roof Decks, Slabs, and Sheathing | 1962 | The 1962, 1967 sections and the gymnasium are provided with a plywood deck. | C | >10 | No concerns. | | | | | | |

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| B1023 | Canopies | 1989 | Stucco faced sloped canopy / overhang at front entrance as feature over main entry. Stucco faced canopies are also present on the south and west elevations over the gymnasium exits. | C | >10 | No concerns. | | | | | | |
| B1024 | Roof Construction Fireproofing and Firestopping | 1962 | No fireproofing or firestopping is found. Rating of not less than 45 min. is required for roof assemblies of combustible construction | H | <5 | Existing combustible roof construction does not meet min. fire rating requirements. | Install 45 min fire rated ceiling in all areas with combustible roof construction. | 2000 | sm | $160.00 | $320,000.00 | H |
| B000 | General Structural Upgrades | 1962 | General Structural Upgrades to meet current building codes. | D | 5-10 | General Structural Upgrades to meet current building codes. | Assumed costs | 1 | each | $1,500,000.00 | $1,500,000.00 | H |
| **Site - Architectural, Civil, Structural, Mechanical, Electrical** | | | | | | | | | | | | |
| G1031 | Site Earthwork (Site Grading) | 1962 | There are minimal sloping away from the building. It was noted that the north side east of the building has had some water issues with ground water entering the building and a sump pump was added to the building. | D | 5-10 | Incorrect slope. | Regrade the site on the north side of the school near the 1967 section. | 1 | each | $ 25,000.00 | $ 25,000.00 | H |
| G2022.02 | Flexible Pavement Parking Lot (Asphalt) | 1989 | An asphalt paved access roadway is provided from the main street to the front of the school.<br>An asphalt parking lot is located north of the site, directly north of the school, with access from 114 street. | D | <5 | Asphalt paving has signs of raveling. Not major pot holes are found, and drainage appears acceptable. | Repave the parking lot and repair concrete curbs. - No site preparation. | 2050 | sm | $ 100.00 | $ 205,000.00 | H |
| G2022.02 | Flexible Pavement Parking Lot (Asphalt) | 2022 | An asphalt parking lot is located north of the site, with access from the 103 Avenue. | B | >10 | No concerns | Repave the parking lot and repair concrete curbs. - No site preparation. | 1,410 | sm | $ 100.00 | $ 141,000.00 | L |
| G2023.01 | Parking Lot Curbs and Gutter s | 1989 | Cast-in-place concrete curbs and gutter s are present at the perimeter of the paved parking lot. | C | >10 | No concerns | | | | | | |
| G2023.02 | Traffic Barriers | 1989 | The perimeter of the pad mounted utility transformer is protected by concrete filled painted metal bollards with painted tubular rails. Precast concrete barriers are also present north of the parking lot. Some peeling paint was noted on the bollards. We recommend repainting at a cost below the Capital Threshold | C | >10 | No concerns | | | | | | |
| G2025.01 | Pavement Markings | 1989 | Parking lot lines painted over asphalt surface separating each parking stall | D | <5 | Lines are fading and should be repainted. | Repaint parking lines. | 1 | each | $ 8,000.00 | $ 8,000.00 | M |

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| G2025.02 | Parking Lots Signs | 1989 | Barrier free parking stall sign. | C | >10 | None. | | 1 | each | $ 1,000.00 | $ 1,000.00 | L |
| G2031.02 | Asphalt Pedestrian Pavement | 1999 | Asphalt paving is provided on the south side of the school between the building and the concrete sidewalk. There is a small areas on the west side of gym for vehicular and pedestrian access to Gym Storage Bay, some of this has been recently repaved. Previous report noted installation year of 1999 and not 1989. | D | <10 | Asphalt paving has signs of raveling in most areas. Not major pot holes are found, and drainage appears acceptable and drains away from the building. | Repave asphalts pedestrian surfaces. | 1000 | sm | $ 80.00 | $ 80,000.00 | M |
| G2031.02 | Asphalt Pedestrian Pavement | 2022 | Asphalt paving is provided on the west side of gym for vehicular and pedestrian access to Gym Storage Bay. | B | >10 | No concerns | | 570 | sm | $ 80.00 | $ 45,600.00 | L |
| G2031.05* | Rigid Pedestrian Pavement (Concrete)* | 1999 | Cast-in-place concrete sidewalks are present east, north and south of the site. Previous report noted various ages, average installation year of 1999. | C | <10 | No concerns | Replace concrete sidewalks. | 200 | sm | $ 140.00 | $ 28,000.00 | L |
| G2033 | Exterior Steps and Ramps | 1989 | Concrete stairs and ramps at building exits on the south side of the school near the gym. | D | <10 | Replace sidewalks as needed due to age of the sidewalks, and expected failing to occur. | Replace concrete stairs and ramps. | 2 | each | $ 15,000.00 | $ 30,000.00 | M |
| G2033 | Exterior Steps and Ramps | 2022 | Concrete stairs and ramps at building exits one exit on the north side of the school. | D | <5 | Concrete stairs have cracked and separated from the 1989 stairs. | Repair concrete stairs. | 1 | each | $ 5,000.00 | $ 5,000.00 | H |
| G2041.01 | Chain Link Fences and Gates | 1989 | Chain link fencing is provided around the site. | C | >10 | No concerns. | | | | | | |
| G2044 | Exterior Signs | 1989 | A wall mounted sign is provided for the designated barrier-free parking stall in the parking lot | C | >10 | No concerns. | Will need to be replaced if the building envelope is replaced. | 1 | each | $ 5,000.00 | $ 5,000.00 | |
| G2047.03 | Playground Equipment | 1989 | Playground equipment is provided northwest of the building. | C | | | | | | | | |
| G2048 | Flagpoles | 1989 | Painted metal flagpole with lanyard is provided in front of the school. | C | >10 | No concerns. | | | | | | |
| G2054 | Lawns and Grasses | 1962 | Grassed areas are present around school and playfields. The site was mostly snow covered at the time of the assessment , limiting our observations on site. | C | >10 | No concerns. | Expect repairs will be required with building envelope upgrades. | 1 | each | $ 20,000.00 | $ 20,000.00 | L |
| G2055 | Trees, Plants, and Ground Covers | 1962 | Coniferous and deciduous s trees are present on some areas of the site | C | >10 | No concerns. | | | | | | |

Priority:
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M - Medium
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## 2. Building Condition and Lifecycle Assessment

**Building Summary Table**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G3011 | Site Domestic Water Distribution | 1962 | Domestic cold-water service for the building | C | >10 | New fire water service will be required to serve the addition of sprinkler system. | Install new fire water service to the building from the main on the street complete with backflow prevention device. | 1 | each | $ 45,000.00 | $ 45,000.00 | H |
| G3021 | Sanitary Sewage Collection | 1962 | 200mm diameter sanitary service leaves the building on the east side and connects to municipal main on 114 Street. | C | >10 | No concerns. | | | | | | |
| G3031 | Storm Water Collection | 1962 | Storm system is surface run off type. Variety | C | >10 | No concerns. | | | | | | |
| G3014 | Site Fire Protection Water Distribution | 1962 | A fire hydrant is located in SW corner of the s | C | >10 | No concerns. | | | | | | |
| G3061 | Gas Distribution | 1962 | Natural gas is supplied from the utility service | C | >10 | No concerns. | | | | | | |
| G4012 | Electrical Power Distribution Lines | 1962 | Power is fed to the building through underground conductors from an on site pad mounted transformer. | C | >10 | No concerns. | | | | | | |
| G4015 | Car Plug-ins | 1962 | Car duplex plug-ins are provided for staff use in the staff parking lot. Car plugs are recessed mounted in concrete pedestals. Car plugs are time and temperature controlled. | C | >10 | No concerns. | | | | | | |
| | | | | | | | | | | | | |
| **Special Assessment** | | | | | | | | | | | | |
| K4010.01 | Barrier Free Route: Parking to Entrance | 1989 | One barrier free parking stall in the north parking lot. | B | >10 | None. | | | | | | |
| K4010.02 | Barrier Free Entrances | 1989 | Front Entrance meets barrier free clearance requirements, missing the automatic door operator. | D | <5 | Install barrier free automatic door operator. | | 1 | each | $5,000.00 | $5,000.00 | H |
| K4010.03 | Barrier Free Interior Circulation | 1989 | Overall the interior circulation is barrier free, there are ramps at the elevation changes. | C | >10 | The ramps are a bit steep and do not have a 1/12 slope, the steepest ramp is likely about a 1.25/12 slope. Based on the floor plan, changing the ramps to be code compliant is not possible. | | | | | | |
| K4010.04 | Barrier Free Washrooms | - | There are no barrier-free washrooms meeting current barrier standards. | D | <5 | No barrier free washroom. | Install a barrier free washroom. Price includes A/S work. | 1 | each | $90,000.00 | $90,000.00 | H |
| K4030.01 | Asbestos | 1967 | There are asbestos-containing materials were observed and reported. Abatement has been completed in the ceilings, and the walls with concern have been sealed. | E | <5 | None. | Asbestos removal as per MBC Engineering (Group) dated May 28, 2024 | 1 | each | $496,449.64 | $496,449.64 | H |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K4030.04 | Mould | - | No mould was observed or reported. | C | >10 | None. | | | | | | |
| K4030.09 | Other Hazardous Materials | - | No other hazardous materials were observed or reported. | C | >10 | None. | | | | | | |
| Mechanical | | | | | | | | | | | | |
| D2011 | Washroom Fixtures (WC, Lav, Urnl) | 1967 | Lavatories are comprised of counter mounted enamelled steel lavatories and vitreous china wall mounted lavatories. Tank type toilets, floor mounted vitreous china. Urinals in the Boy's washroom are vitreous china, flush tank, floor mounted urinals. | D | <5 | Fixtures are worn out. | Replace lavatories. | 20 | each | $1,500.00 | $30,000.00 | H |
| D2011 | Washroom Fixtures (WC, Lav, Urnl) | 1989 | Lavatories are installed in the 1989 building section comprised of counter mounted enamelled steel lavatories, molded lavatory and vitreous china wall mounted lavatories. Tank type toilets, floor mounted vitreous china. | D | <5 | Fixtures are worn out. | Replace lavatories. | 32 | each | $1,500.00 | $48,000.00 | H |
| D2014 | Sinks General Use | 1967 | A double compartment sink complete with bubbler and extra valve set in second compartment is provided in the Kindergarten room. A large single compartment sink complete with goose neck is provided in the Art room. | D | <5 | Fixtures are worn out. | Replace lavatories. | 2 | each | $1,000.00 | $2,000.00 | H |
| D2014 | Sinks General Use | 1974 | A single compartment sink complete with single lever is provided in the Conference Room. | C | 5-10 | Passed lifecycle. | | 1 | each | $1,000.00 | $1,000.00 | L |
| D2014 | Sinks Lab | 1974 | Epoxy coated plastic with PVC traps and gooseneck faucets complete with teacher's prep sink are provided in the Laboratory. | C | 5-10 | Passed lifecycle. | | 12 | each | $1,000.00 | $12,000.00 | L |
| D2014 | Sinks General Use | 1989 | Double compartment, stainless steel sinks completed with goose neck faucets are installed in the Home Economics Classroom. Some classrooms are provided with single compartment stainless steel sinks complete with hand spray. A double compartment sink was also observed in the storage room (no taps). | C | 5-10 | Passed lifecycle. | | 6 | each | $1,800.00 | $10,800.00 | L |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D2014 | Sinks - Mop Sinks | 1962 | Mop sinks were observed in the building in the boiler and janitor's rooms. The sinks are generally cast iron wall mount sinks. | D | <5 | Fixtures are worn out. | Replace sinks. | 2 | each | $3,500.00 | $7,000.00 | L |
| D2017 | Showers | 1974 | The gymnasium change rooms are equipped with shower inserts in the Girls' Change Room and a combination of gang showers and shower inserts in the Boy's Change Room. The showers use low flow heads and thermostatic mixing valves. | C | 5-10 | Passed lifecycle. | | 10 | each | $2,500.00 | $25,000.00 | L |
| D2018 | Drinking Fountains/Coolers | 1967 | Wall mounted, vitreous china, non-refrigerated drinking fountains are installed in the corridors and gymnasium. | F | <5 | Existing drinking fountains are cracked and leak. | Replace existing drinking fountains. | 3 | each | $2,000.00 | $6,000.00 | M |
| D2018 | Drinking Fountains/Coolers | 1989 | Non refrigerated stainless steel drinking fountain located in the hallway. | C | >10 | No Concerns. | | 2 | each | $3,000.00 | $6,000.00 | L |
| D2018 | Drinking Fountains/Coolers | 2018 | A refrigerated, stainless steel, drinking fountain with water bottle filler feature is present in the building. | C | >10 | No Concerns. | | 1 | each | $3,000.00 | $3,000.00 | L |
| D2019 | Other Plumbing Fixtures | 1996 | Emergency Shower and eye wash station sewrving Science Lab. | C | >10 | No Concerns. | | 1 | each | $8,000.00 | $8,000.00 | L |
| D2023.01 | Domestic Water Heaters | 2022 | Domestic water heater is a Bradford White model RG250S6N with a storage capacity of 50 gallons and heating capacity of 45MBH. | C | >10 | No Concerns. | | 1 | each | $8,000.00 | $8,000.00 | L |
| D2023.01 | Domestic Water Heaters | 2021 | Domestic water heater is a Rheem model RPROG40S with a storage capacity of 40 gallons and heating capacity of 38MBH. | C | >10 | No Concerns. | | 1 | each | $8,000.00 | $8,000.00 | L |
| D2023.03 | Piping Specialties (Backflow Preventers) | 1967 | 50mm water service is not equipped with backflow prevention device. | E | <5 | Possible cross contamointaion of potable water system. | Install backflow preventor. | 1 | each | $3,000.00 | $3,000.00 | H |
| D2023.03 | Piping Specialties (Backflow Preventers) | 1989 | 50mm water service is not equipped with backflow prevention device. | E | <5 | Possible cross contamointaion of potable water system. | Install backflow preventor. | 1 | each | $3,000.00 | $3,000.00 | H |
| D2023.03 | Piping Specialties (Backflow Preventers) | 1989 | Backflow prevention devices installed on boiler make-up water system. | C | >10 | No Concerns. | | 1 | each | $8,000.00 | $8,000.00 | L |
| D2023.04 | Bibbs | 1989 | Non-freeze hose bibbs were observed on the exterior of the building. | C | 5-10 | No Concerns. | | | | | | |

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## 2. Building Condition and Lifecycle Assessment

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D2023.05 | Domestic Water Pumps | 2008 | Recirculation pumps are installed for the domestic hot water system. The pumps are Grundfos make and are installed in old boiler room and the in old mechanical room. | C | >10 | No Concerns. | | 2 | each | $2,000.00 | $4,000.00 | L |
| D2023.08 | Domestic Water Valves | 1989 | Ball and globe isolation valves serving plumbing fixtures. Valves replaced on as per needed basis. Some leaks observed. | C | >10 | No Concerns. | | 220 | each | $300.00 | $66,000.00 | L |
| D2024 | Pipes & Tubes: Domestic Water | 1989 | Copper piping distribution from water meter to plumbing fixtures located throughout the building. | C | >10 | No Concerns. | | | | | | |
| D2030 | Waste & Vent Piping and Equipment | 1967 | Cast iron, ABS and PVC overhead sanitary piping, cast iron underground lines. | C | >10 | No Concerns. | | | | | | |
| D2033 | Floor Drains | 1967 | Floor drains installed in washrooms and mechanical rooms | C | >10 | No Concerns. | | | | | | |
| D2034 | Sanitary Waste | 1962 | Sump pump located in the original boiler room. | C | >10 | No Concerns. | | | | | | |
| D2035.01 | Domestic Water Piping Insulation | 1962 | Domestic hot water lines insulated with foil back vapour barrier | C | >10 | No Concerns. | | | | | | |
| D2041 | Rain Water Drainage Piping Systems | 1962 | Rain water drainage systems in the building are generally cast iron piping concealed within the ceiling space and directed to exterior surface splash pads. | C | >10 | No Concerns. | | | | | | |
| D2042 | Roof Drains | 1962 | Roof drains are present on the flat roof sections. The drains observed were not provided with strainers. | E | <5 | Strainers missing on numerous roof drains location. | Install strainers | 16 | each | $350.00 | $5,600.00 | H |
| D3012 | Gas Supply Systems | 1962 | Natural gas enters the janitor's room (old boiler room) at 30# where it is regulated to 7" and metered. Science room - gas turrets c/w master valve at teaching station. Gas lines on roof do not have proper supports except one which now has significant flexing. Pipe showing significant surface rust. Steel schedule 40 natural gas distribution piping to heating boilers, rooftop units and domestic water heater. | E | <5 | Gas lines on roof do not have proper supports except one which now has significant flexing. Pipe showing significant surface rust. | Re-support and paint all gas piping on roof. Paint gas lines. | 1 | each | $8,000.00 | $8,000.00 | H |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3021.11 | Heating Boilers and Accessories | 2018 | Building heating systems consists of boiler plant (four gas fired boilers), boiler circulation pumps, system circulation pumps. System utilizes 50% propylene glycol mixture. Boiler 1 abd 2 are RBI model IB500 high efficiency condensing boilers. Boilers B-3&4 are NTI model TFT300 high efficiency condesnig boilers. Each boiler is complete with circulation pump. | C | >10 | No Concerns. | Replace boilers and accessories. | 4 | each | $45,000.00 | $180,000.00 | L |
| D3021.12 | Chimneys (& Comb. Air): H.W. Boiler | 2018 | Combustion air ductwork and eskimo trap provided. Stainless steel abd PVC venting serving boilers up through roof. | C | >10 | No Concerns. | | | | | | |
| D3021.13 | Water Treatment: H. W. Boiler | 2016 | Pot feeders used for chemical treatment and side stream filtration installed in mechanical room. | C | >10 | No Concerns. | | | | | | |
| D3025.01 | Furnaces | 2005 | According to information provided, the gymnasium is heated by a furnace located in the storage room. The furnace was not accessible at the time of the assessment. | C | 5-10 | No Concerns. | | 1 | each | $7,000.00 | $7,000.00 | L |
| D3025.02 | Chimneys (& Comb. Air): Furnace | 2005 | Galvanized metal chimney up through roof. | C | 5-10 | No Concerns. | | | | | | |
| D3041.01 | Air Handling Units | 1962 | One built-up multi-zone unit serves the gymnasium area including administration and gymnasium entrances. New Honeywell zone actuators have been installed (1999). A Joy 3300 centrifugal fan complete with built-in air system with Brook axial return fan is present in the Gymnasium. | E | <5 | Existing air handling unit serving gymnasium and administration areas does not provide adequate air exchange resulting in poor indoor air quality. The unit is obsolete and passed exoected service life. Replacement parts no longer availbale. | Replace air handling unit with new. | 1 | each | $185,000.00 | $185,000.00 | H |
| D3041.01 | Air Handling Units | 1989 | Two Trane T35 VMP-HF-FVU air handling units are provided. Damper linkage on both has been disconnected. | E | <5 | Existing air handling units does not provide adequate air exchange resulting in poor indoor air quality. The unit is obsolete and passed exoected service life. Replacement parts no longer availbale. | Replace air handling unit with new. | 2 | each | $180,000.00 | $360,000.00 | H |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3041.03 | Air Distribution - Cleaning Devices | 1989 | All air systems have 2" filters installed. | C | 5-10 | No Concerns. | | | | | | |
| D3041.04 | Air Distribution Ducts | 1989 | Standard galvanized steel ducting is present in the building. Low pressure ductwork connected to air handling units delivers ventilation air throughout the school. | E | <5 | Some of the schhol area utilizes ceiling space as a return air plenum with exposed combustible building structure elements. Distribution sizing appears to be marginal, and high static pressure losses are reported. | Duct all return air back to air handling system. Re-arrange ductwork. | 1 | each | $95,000.00 | $95,000.00 | H |
| D3041.07 | Air Distribution Outlets & Inlets | 1989 | Ceiling diffusers and wall grilles were observed throughout. | C | 5-10 | No Concerns. | | | | | | |
| D3042.01 | Exhaust Fans | 1962 | Wall, roof and ceiling mounetd exhaust fans serving washrooms and Gymnasium. | E | <5 | Exhaust fans passed expected service life. Replacement parts no longer available. | Install new exhaust fans along with associated ductwork and accessories. | 12 | each | $3,000.00 | $36,000.00 | H |
| D3042.03 | Exhaust Ducts | 1989 | The exhaust ducts throughout are galvanized steel and connect exhaust fans to the grilles. | C | 5-10 | No Concerns. | | | | | | |
| D3044 | Hot Water Distribution Systems | 1989 | Hot water from boilers is circulated through piping to perimeter radiation. The system is completed with heating pumps manufactured by Grundfos, model UPC-65-160, low water cutoff/pressure relief valves, and failure alarms. Heating piping is schedule steel with Victaulic fittings. The system is also provided with expansion tank and air separator. | C | 5-10 | No Concerns. | | 4286 | sq.m. | $180 | $771,480.00 | H |
| D3051.01 | Air Coils | 1989 | Reheat coils are provided in ductwork to interior classrooms. | C | 5-10 | No Concerns. | | 2 | each | $5,000.00 | $10,000.00 | L |
| D3051.04 | Finned Tube Radiation | 1989 | Perimeter radiation is present throughout within cabinet enclosures. Bare-fin radiation integrated with millwork was observed in classrooms. | E | <5 | Radiation have damaged or missing enclosures. Bare finn are worn out. | Replace perimeter radiation. | 310 | LM | $300.00 | $93,000.00 | H |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3051.07 | Unit Heaters | 1989 | Ceiling mounted hydronic unit heaters rae provided throughout the school at each entrance and in the hallways. | E | <5 | Ceiling mounted unit heaters does not provide effective heat distribution into occupied space where ceiling grid is installed. | Replace ceiling mounted unit heaters with a force flow heaters. | 13 | each | $5,000.00 | $65,000.00 | H |
| D3051.08 | Fgorce Flow Heaters | 1989 | Wall mounted hydronic unit heaters rae provided throughout the school at each entrance and in the hallways. | C | 5-10 | No Concerns. | | 3 | each | $5,000.00 | $15,000.00 | L |
| D3052.02 | Packaged Rooftop Air Conditioning Units | 1998 | A gas-fired packaged rooftop unit with DX cooling is present on the roof. Lennox GCS16-413, GCS16-513, GCS16-120. Units have capacities ranging from 5 to 10 tons of cooling. | E | <5 | All units passed expected service life. All unts utilize R22 refrigerant. Operational cost of the existing RTUs may increase significantly once R-22 refrigerant supplies start running low. | Replace packaged rooftop units. | 5 | each | $30,000.00 | $150,000.00 | H |
| D3069.02 | Controls | 2000 | Building controls are predominantly local controllers interlock with central BMS system. Variety of Belimo actuators and thermostats have been replaced in some areas of the school. There is a number of original thermostats still in place - mainly hallways and common areas. Honeywell electric controls are provided for heating and ventilation systems. Rooftop units have standard heat/cool thermostats. | E | <5 | Existing controls have passed expexted service life. | Replace control system. | 4286 | sq.m. | $40 | $171,440.00 | H |
| D4011 | Sprinklers | N/A | Currently building is not equipped with sprinkler system. | E | <5 | Building fire protection system does not comply with National Building Code 2023 - Alberta Edition. | Install sprinler system. | 4286 | sq.m. | $70 | $300,020.00 | H |
| D4031 | Fire Extinguishers | 1989 | ABC rated fire extinguishers are located throughout the building | C | >10 | No Concerns. | | | | | | |
| **Electrical** | | | | | | | | | | | | |
| D5011.02 | Main Electrical Transformers (Utility Owned) | 1989 | The utility owned Pad mounted transformer is installed for building service and located at noryth side of the building | C | >10 | No Concerns. | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D5012.02.1 | Main Electrical Switchboards (Main Distribution) | 1989 | A 1200A, 120/208V, 3 Phase, 4 Wire switchboard is installed for building main distribution and underground fed from site pad mounted transformer. The distribution section has ample spare space for furture additional breakers | C | 5-10 | The equipment is at end of 40 year lifecycal time of filed review . | Replace main electrical switchboard. | 1 | 1 | $65,000 | $65,000 | H |
| D5012.03.1 | Electrical Branch Circuit Panel boards (Secondary Distribution) | 1989 | The branch circuit panelboards are located in the storeage room, utility room and jantor rooms throughout building. Most of them are 120/208V, 3 phase, 4 wire and rated 125 to 225A with 42 circuit capacity. | C | >10 | The equipment is pass 30 year lifecycal time. | Replace brach circuit panleboard | 10 | 1 | $8,000 | $80,000 | H |
| D5012.06.1 | Motor Starters and Accessories | 1989 | Magntic Motor starters with start/storp were used for major water pumps. | D | <5 | Obsolete, replacement parts no longer available. | Replace motor starters | 10 | 1 | $800 | $8,000 | H |
| D5021 | Electrical Branch Wiring | 1989 | Copper wires are unsed throughout the building | C | >10 | No Concern | | | | | | |
| D5022.02.1 | Interior Fluorescent Fixtures | 1989 | The T-8 lamp fixtures are installed throughout school hallway and common areas and most of them are replaced by new LED fixtures. | D | <5 | Obsolete and inefficent fixtures. | Replace T-8 Flourescent light fixtures. | 180 | 1 | $400 | $72,000 | H |
| D5022.06 | Interior LED Light Fixtures | 2022 | The LED fixtures are installed throughout building common areas and most of classrooms. | B | >10 | No Concern | Replace LED lights | 300 | 1 | $400 | $120,000 | L |
| D5022.03 | Interior Metal Halide Fixture | 1989 | The pot lights are installed in the library areas | D | <5 | Obsolete and inefficent fixtures. | Replace interior Metal Halide Fixtures | 48 | 1 | $200 | $9,600 | L |
| D5023.02 | Exterior LED Fixtures | 2022 | The fixtures are installed off the building premeter | B | 5-10 | No Concern | Replace LED lights | 20 | 1 | $400 | $8,000 | L |
| D5025.01 | Lighting Accessories - Interior lighting controls | 2022 | The common area are controlled by manual switches located in the central locations; toggle switches are used in the offices and motion sensors are usted in the classrooms. | B | >10 | No Concern | Replace swtiches | 80 | 1 | $80 | $6,400 | |
| D5025.02 | Lighting Accessories - Exterior lighting controls | 1989 | The exterior lights are controlled by photocell and timer | C | >10 | No Concern | Replace exterior light controls | 1 | 1 | $2,000 | $2,000 | |
| D5031 | Public Address and Music Systeim | 2015 | The Multilin 2000 are isntalled for school paging system and have speakers installed throughout school hallways, common areas and classroom. | B | 5-10 | No Concern | Replace paging system | 4286 | sq.m. | $26 | $111,436 | |
| D5033 | Telephone Systems | 2015 | The telephone machine was removed when the school was closed. | C | 5-10 | No Concern | Repalce telephone system. | 4286 | sq.m. | $33 | $141,438 | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D5037 | Detection & Fire Alarm | 1989 | The convensional Edwards 6500 fire alarm panel and system is old and it is difficulty to find replacement parts. | D | <5 | The equipment is pass 15 year lifecycal time. Doesn't meet current code requirement. | Replace existing system with new technology system and add both Pizzio and Strobe signal devices. | 4286 | sq.m. | $50 | $214,300 | H |
| D5038.02 | Intrusion Detection | 2015 | A DSC PC5010 intrusion alarm system is installed and has motion detectors and door contacts installed throughtout. | B | 5-10 | No Concern | Repalce Intruson system. | 4286 | sq.m. | $13 | $55,718 | M |
| D5092.02 | Emergency Lighting Battery Parks | 1995 | The emergency lighting bettery packs and remote heats are installed in hallways and common areass | D | <5 | Obsolete can fail anytime. | Replace emergency lighting battery packs and romote heads | 20 | 1 | $600 | $12,000 | H |
| D5092.03 | Exit Signs | 1984 | RED lettle Exit Signs are installed at exit doors and to identify paths to exit | D | <5 | The RUNNING MAN green Eixt signs are required as per Code requirements | Replace Exit Signs with new green Running Man type Exit Sign | 25 | 1 | $250 | $6,250 | H |

## 3. Conclusions

### 3.1 Architectural:

As the building was constructed in 1956 with additions in 1962, 1967, 1974 and 1989 most of the interior finishes and fixtures are nearing or past their life expectancy. It is noted that maintenance of interior finishes was sustained as most finishes are still in good working condition and at an acceptable level.

The exterior of the building shows signs of weathering and warping due to sun exposure. The stucco finishes have cracks and likely compromised insulation and barriers. It is recommended that the stucco be replaced.

Caulking and expansion joints around the building are hardening and starting to crack. It is recommended to replace joint sealers.

The exterior windows and doors are all at the end-of-life expectancy. It is recommended that all doors and windows' c/w frames be replaced.

Existing Built-up Bituminous roof has blisters resulting in significant amount of water ponding. It is recommended that the existing roof be replaced with new SBS.

There are significant deficiencies related to fire stopping of interior partition walls. Fire stopping is missing at all fire rated wall penetrations. It is recommended to install new firestopping throughout the school, including all opening and new fire doors.

T-bar has been either removed in many locations, existing sections are damaged or stained due to leaks. It is recommended to replace t-bar throughout the school.

The gymnasium ceiling is stained due to moisture penetrations. It is recommended to replace the gymnasium ceiling.

Millwork throughout the school is in acceptable condition but will require replacement with school renovation.

The flooring will require replacement in the near future due to it's age.

The building requires significant renovation as there have been no major renovations in over 35 years. Most of the components in the building are past the intended lifecycle. Due to the nature of the user-group, the building is well used. Considering the age of the finishes, the school has been well taken care of, and you can see the pride the staff has taken in maintaining the building. Even with no students or staff occupying the school since September, and the abatement tarps still in place, it is obvious that the school has been well cared for.

### 3.2 Building Code:

As noted in the report; large upgrade is required to conform to current building codes specifically restoring the fire resistance ratings of mechanical and janitor rooms as well as stairwells with additional fire rating of loadbearing support structures, floor and roof assemblies and stairwells. Addition of sprinkler system will be required in order to meet present building code.

## 3.3 Barrier Free Accessibility:

Barrier free requirements have significantly changed since the construction of the facility. It is noted that attempts were made to address barrier free requirements at certain periods in the past, most notably during 1989 addition and renovation.
Upgrades are recommended for the barrier-free washrooms and automatic door openers.

## 3.4 Hazardous Materials:

Asbestos was commonly used in construction material prior to 1990 in a wide range of applications. Common materials included ceiling sealants, roofing materials, plaster, drywall, sealants, pipe insulation, cement sheets, ceiling tiles and composite flooring.
As noted in the report, there are asbestos-containing materials that were observed and reported. Abatement has been completed in the ceilings, and the walls with concern have been sealed. Asbestos removal shall be completed for the flooring, windows, drywall /plaster, electrical fixtures, piping insulation and controls throughout the school. Refer to report prepared by MBC Engineering (Group) for detailed cost breakdown of each component.

## 3.5 Structural:

The building structure was mostly concealed and not directly reviewed. 1962, 1967 and the 1974 sections have a concrete strip and pad footing foundation system. The structural components of the building appear to be in acceptable condition. If major renovations were to occur, considerations will be needed to upgrade portions of the roof to meet current snow and wind loads.

## 3.6 Mechanical:

Mechanical systems (other than the newer boiler and water heaters) are in marginal condition and will require replacement soon. Existing HVAC system do not meet present design requirements and have passed expected service life. Units are inefficient and replacement parts are no longer available. Ventilation systems cannot provide sufficient air exchange as outline in ASHARE 62.1-2016.
Plumbing systems are worn out with many leaks observed throughout the building. Piping insulation contains asbestos.
Controls systems provide very basic operation of the mechanical system components without possibility of future upgrades / expansion.
It is recommended to provide an upgrade of the mechanical systems' major components to meet present building code standards.

## 3.7 Electrical:

The majority of the electrical system components have passed the expected service life including the following: main distribution switchgear, branch panelboards, copper wires T-8 fluorescent lights, emergency lights, exit signs and fire alarm panel. These systems shall be replaced and upgraded to meet current code. The paging and intrusion system meets current standards.

## 3.8 Energy Efficiency:

Based on the school age and present energy efficiency standards, it was expected that a school of this age would not achieve high energy savings.
The main reasons for poor energy performance are:

- Poor building envelope insulation
- Poor R-value of the existing windows and doors
- Inefficient mechanical ventilation and heating distribution systems
- Obsolete lights and controls in certain areas of the building.

The following action can be taken to improve overall building efficiency:

- Replacement of the windows, doors and associated seals as outlined in the architectural portion of this facility condition assessment.
- Replacing of the existing air handling units with new and incorporation of the heat recovery strategy (see mechanical).
- Insulating domestic water and heating distribution lines (see mechanical).
- Replacing existing fluorescent lights with LED sourced lights and upgrade light control strategy.

## 4.0 Key Priorities Required for Occupancy

The below cost summaries only reflect needed capital maintenance components and any health and safety items requiring immediate occupancy of the building (within next 5 years).

### 4.1 Site

| Parameter | | Priority | Description |
|---|---|---|---|
| Site | | | |
| G1031 | Site Earthwork (Site Grading) | H | Regrade the site on the north side of the school near the 1967 section. |
| G2022.02 | Flexible Pavement Parking Lot (Asphalt) | H | Repave the parking lot and repair concrete curbs. - No site preparation. |
| G2025.01 | Pavement Markings | M | Repaint parking lines. |
| G3011 | Site Domestic Water Distribution | H | New fire water service will be required to serve the addition of sprinkler system. |
| Contractor Cost of Site Recommendations | | | $425,000 |

## 4.2 Architectural

| Parameter | | Priority | Description |
|---|---|---|---|
| **Building Architectural** | | | |
| B1024 | Roof Construction Fireproofing and Firestopping | H | Install 45 min fire rated ceilings in all areas with combustible roof construction. |
| B2011.03 | Exterior Wall Vapour Retarders, Air Barriers, and Insulation | H | Remove and replace insulation and barriers. |
| B2016 | Exterior Soffits | H | Replace the stucco with metal soffit to match the renovated exterior finish, assuming metal soffits. |
| B2017.10 | Cement Plaster (Stucco): Ext. Wall | H | Replace with a mixture of concrete block and metal cladding. |
| B2017.12 | Joint Sealers (caulking): Ext. Wall | H | Replace exterior caulking and joint sealants. |
| B3011.06 | Built-up Bituminous Roofing (Asphalt & Gravel) | H | Replace roof. |
| B3011.09 | Modified Bituminous Membrane Roofing (SBS) | H | Replace roof. |
| B3021 | Skylights | H | Replace skylights |
| B3022 | Roof Access | H | Install roof access hatch and ladder |
| C1018 | Interior Partition Firestopping | H | Install firestopping throughout the school. |
| C1018 | Interior Partition Firestopping | H | Install additional firewal. |
| C1021.03 | Interior Fire Doors | H | Replace doors and frames |
| C3012.10 | Interior Wall Painting | H | Repaint the school. |
| C3024.01 | Tile Floor Finishes | H | Replace ceramic floor tile. |
| C3025 | Carpet Flooring | H | Replace carpet flooring |
| C3031.06 | Interior Ceiling Painting | H | Repair gypsum board ceilings. |
| C3033 | Other Ceiling Finishes | H | Replace ceilings. |
| E2012 | Fixed Casework | H | Re-install millwork |
| E2013.01 | Blinds | H | Replace window coverings |
| **Contractor Cost of Building Architectural Recommendations** | | | **$4,472,490** |

## 4.3 Structural

| Parameter | | Priority | Description |
|---|---|---|---|
| **Building Structural** | | | |
| | | | |
| **Contractor Cost of Building Structural Recommendations** | | | **$00.00** |

## 4.4 Barrier Free and Building Code Upgrades

| Parameter | | Priority | Description |
|---|---|---|---|
| **Barrier Free Code Upgrades Compliance** | | | |
| K4010.02 | Barrier Free Entrances | H | Install barrier free automatic door operator. |
| K4010.04 | Barrier Free Washrooms | H | Install a barrier free washroom. |
| K4030.01 | Asbestos | H | Asbestos removal as per MBC Engineering (Group) dated May 28, 2024 |
| | | | |
| **Contractor Cost of Special Assessment Upgrades Recommendations** | | | **$720,030** |

## 4.5 Mechanical

| Parameter | | Priority | Description |
|---|---|---|---|
| **Mechanical** | | | |
| D2011 | Washroom Fixtures (WC, Lav, Urnl) | H | Replace washroom fixtures. |
| D2014 | Sinks | H | Replace sinks. |
| D2018 | Drinking Fountains/Coolers | H | Replace existing drinking fountains. |
| D2023.03 | Piping Specialties (Backflow Preventers) | H | Install backflow preventor. |
| D2042 | Roof Drains | H | Install strainers |
| D3012 | Gas Supply Systems | H | Re-support and paint all gas piping on roof. Paint gas lines. |
| D3041.01 | Air Handling Units | H | Replace air handling units. |
| D3041.04 | Air Distribution Ducts | H | Duct all return air back to air handling system. Re-arrange ductwork. |
| D3042.01 | Exhaust Fans | H | Install new exhaust fans along with associated ductwork and accessories. |
| D3051.04 | Finned Tube Radiation | H | Replace perimeter radiation. |
| D3051.07 | Unit Heaters | H | Replace ceiling mounted unit heaters with a force flow heaters. |
| D3052.02 | Packaged Rooftop Air Conditioning Units | H | Replace packaged rooftop units. |
| D3069.02 | Controls | H | Replace control system. |
| D4011 | Sprinklers | H | Install sprinkler system. |
| **Contractor Cost of Mechanical Recommendations** | | | **$1,475,060** |

## 4.6 Electrical

| Parameter | | Priority | Description |
|---|---|---|---|
| **Electrical Building** | | | |
| D5012.06.1 | Motor Starters and Accessories | H | Replace motor starters |
| D5022.02.1 | Interior Fluorescent Fixtures | H | Replace T-8 Fluorescent light fixtures |
| D5022.03 | Interior Metal Halide Fixture | L | Replace interior Metal Halide Fixtures |
| D5037 | Detection & Fire Alarm | H | Replace existing system with new technology system and add both Pizzio and Strobe signal devices. |
| D5092.02 | Emergency Lighting Battery Parks | H | Replace emergency lighting battery packs and remote heads |
| D5092.03 | Exit Signs | H | Replace Exit Signs with new green Running Man type Exit Sign |
| **Contractor Cost of Electrical Recommendations** | | | $322,150 |

| Summary of Project Costs | |
|---|---|
| Construction Total | **$7,414,730** |
| Project Expenses | **$370,737** |
| Net Construction Budget Estimate | **$7,785,467** |
| Contingency | **$700,692** |
| Professional Fees | **$622,837** |
| **Total Project Budget** | **$9,108,996** |

The above listed components represent budget key priorities and immediate deferred maintenance items that are required to meet minimum code requirements and do not include all building components that will require lifecycle replacement within 5+ years.

## 4.7 Facility Condition Index

**Current 5 years facility condition index (FCI) is estimated at 0.26 based on overall capital and recurring maintenance costs.**

## 5.0 Limitations

The opinions of probable cost provided in this report are estimations only and are subject to confirmation and adjustment from contractor and suppliers.

Any opinions of probable cost and any maintenance, repair or replacement schedules contained in this report assume that the recommendations contained in this report will be carried out, that the property will be maintained on a regular and routine basis by skilled and qualified tradesmen, and that a program of periodic professional review will be carried out throughout the life of the property. Failure to undertake any of these tasks in an expeditious manner may result in unanticipated failure of any of the systems and components that form the property and its improvements and lead to issues of public safety.

The information presented in this report is based on direct visual observation made by personnel of Bacz Consulting Inc. and their sub-consultants / employees. Recommendations contained within this report reflect our informed opinion, based on the information gathered during the site visit. The findings cannot be extended to components of the building or portions of the site that were not reviewed, or that were concealed, or unavailable for direct observation at the time of visit. There is a possibility of additional deficiencies being present in the building which have not been identified during our visit, given the limited nature of this review.

Our mandate was to complete a visual walk-through survey of items, components and systems that were conspicuous, patent and which could be observed visually during the walk-through survey without intrusion, removal of material, exploratory probing, or the use of special equipment. Therefore, concealed, or inaccessible physical deficiencies were specifically excluded from our review. Our interviews of building personnel attempted to uncover known concerns in the building, but we cannot attest to the integrity or knowledge of the interviewees, nor can this process, or the accepted scope of work in its entirety, be considered technically exhaustive or be considered to eliminate all risks related to owning or having a financial interest in this property.

No legal survey, geotechnical investigation, detailed structural engineering investigation, or quantity survey compilation have been made. Our scope of services for this assignment did not include a design review or engineering analysis of any of the building's systems or components. No responsibility, therefore, is assumed concerning these matters, or for any failure to carry out those technical or engineering procedures required to discover any inherent or hidden condition of this property.

The conclusions and recommendations detailed in this report are based upon the information available at the time of preparation of the report. No investigative method eliminates the possibility of obtaining imprecise or incomplete information. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of our conclusions and recommendations. The recommendations are not intended to be utilized as a detailed specification for any remedial work that may be required. Bacz Consulting Inc. accepts no responsibility for interpretation of our recommendations, or actions taken based on them without our consultation and supervision.

The mechanical and electrical equipment and the fire safety systems were visually reviewed where accessible. The systems were not dismantled to verify the condition of the internal components. We did not carry out a review to check compliance with all Building or Fire Code requirements which may have been applied at the time of construction, or which may be retroactively applied to this building. Our review assumes that the design professionals and building permit process have created a design (and subsequent construction) that is code compliant.

Information provided by Bacz Consulting Inc. is intended for the exclusive use of the Alberta Infrastructure ("AI"), and their approved agents. Bacz Consulting Inc. will not provide results or information to any party other than the Alberta Infrastructure, unless "AI", in writing, requests that information be provided to a third party or unless disclosure by Bacz Consulting Inc. is required by law.

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Bacz Consulting Inc. accepts no responsibility for damages suffered by any third party because of decisions made or work carried out based on reports or documents authored by Bacz Consulting Inc. Bacz Consulting Inc. makes no representations concerning the legal and medical significance of our findings.

With respect to regulatory compliance requirements, regulations change from time to time, and interpretation of their meaning and intent may also change. Bacz Consulting Inc. accepts no responsibility for any legal interpretation of the Regulations, or the consequent financial effect on transactions, property values, or requirements for follow-up actions and costs. Bacz Consulting Inc. is not responsible for consequential or indirect damages.

Alberta Infrastructure expressly agrees that it has entered into this agreement with Bacz Consulting Inc., both on its own behalf and as agent on behalf of its employees and principals. The Alberta Infrastructure expressly agrees that Bacz Consulting Inc. employees and principals shall have no personal liability to Bacz Consulting Inc. in respect of a claim, whether in contract, or tort, or in any other cause of action in law. Accordingly, Alberta Infrastructure expressly agrees that it will bring no proceedings and will take no action in any court of law against any of Bacz Consulting Inc.'s employees, sub-consultants, or principals.

We trust that the information provided is sufficient for your present needs and will be pleased to review the contents of this report in greater detail should you so require.

## 6. Appendix A Building and Site Pictures

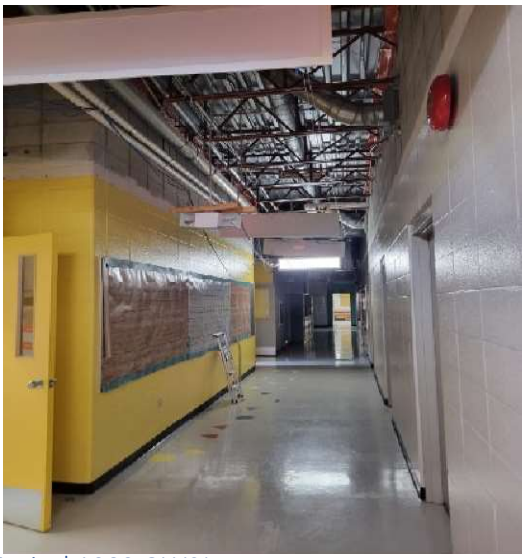
### Site Aerial View

Limited concrete stairs around the site.

Gym glulam structure

Typical 1962 & 1967 wood structure.

Typical 1962 & 1967 wood structure.

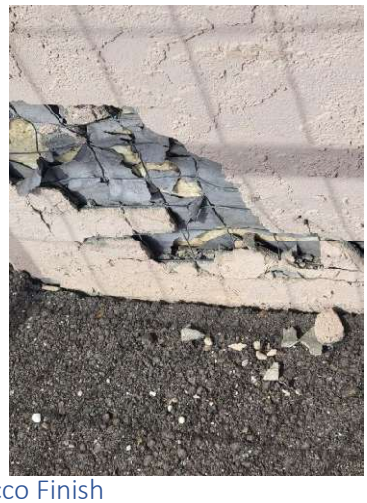


Typical 1989 OWSJ

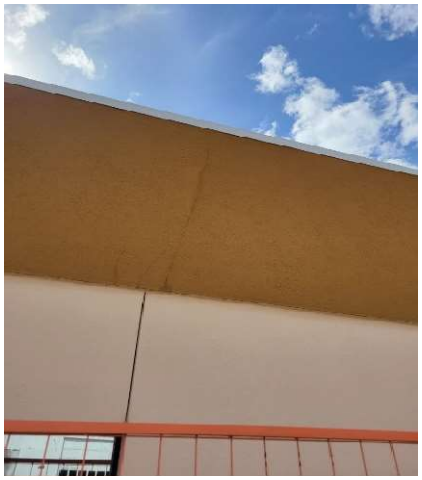
Typical Canopy

Underside of soffits are finished with stucco.

Stucco Finish



Stucco Finish



Stucco Finish

Stucco Finish

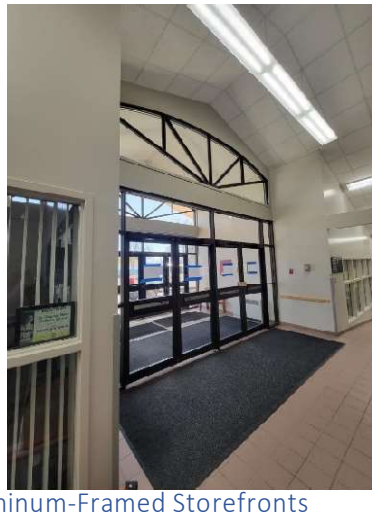
Joint Sealers

Joint Sealers

Aluminum Windows

Aluminum Windows

Aluminum Windows



Aluminum-Framed Storefronts

Aluminum-Framed Storefronts

Aluminum-Framed Storefronts

Exterior Utility Doors

Exterior Utility Doors

Large Exterior Special Doors

Built-up Bituminous Roofing (Asphalt & Gravel)

Built-up Bituminous Roofing (Asphalt & Gravel)

Built-up Bituminous Roofing (Asphalt & Gravel)

Built-up Bituminous Roofing (Asphalt & Gravel)

Modified Bituminous Membrane Roofing (SBS)

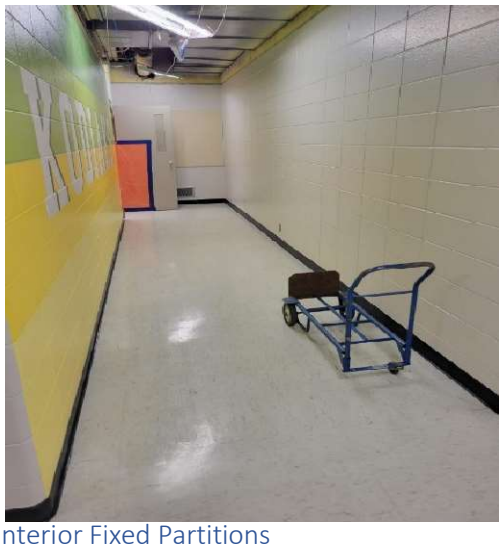
Modified Bituminous Membrane Roofing (SBS)

Modified Bituminous Membrane Roofing (SBS)

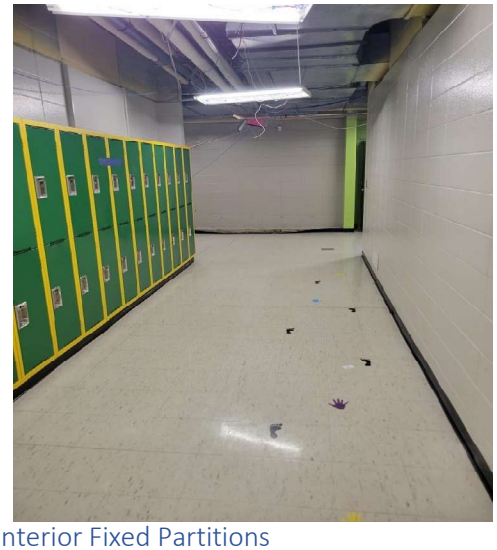
Modified Bituminous Membrane Roofing (SBS)

Skylights

Skylights



Interior Fixed Partitions



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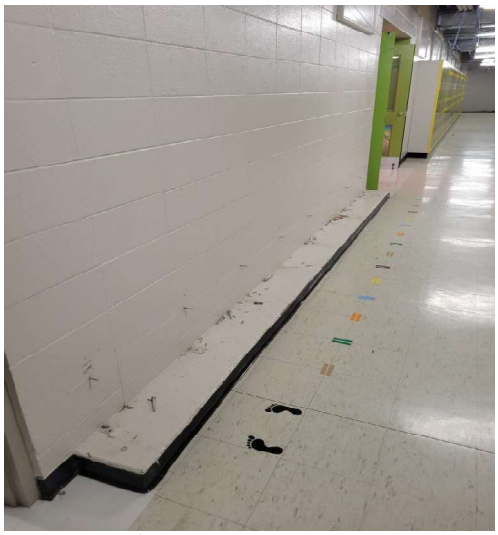

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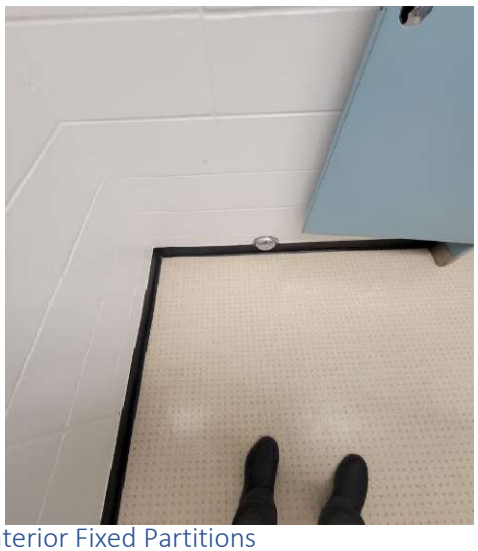

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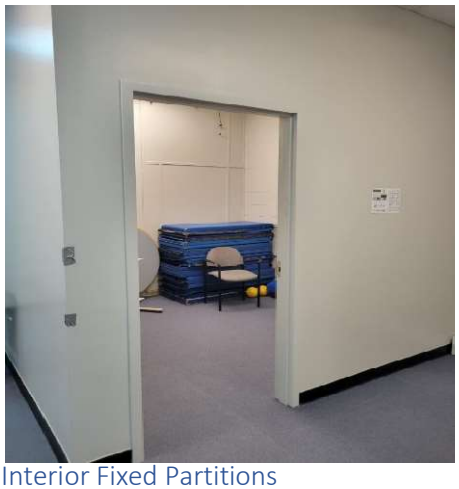

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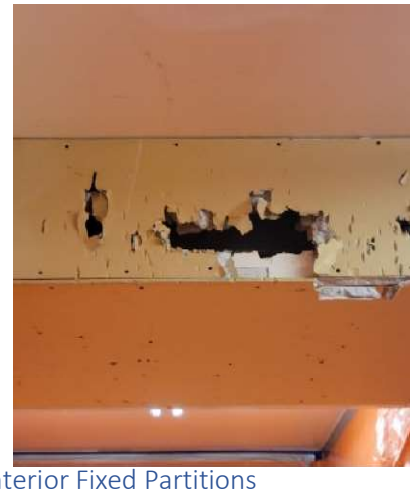

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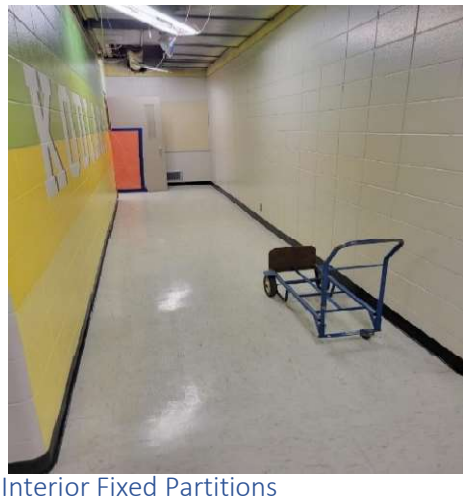

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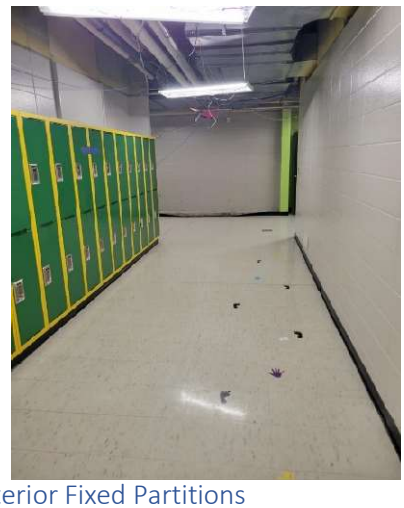


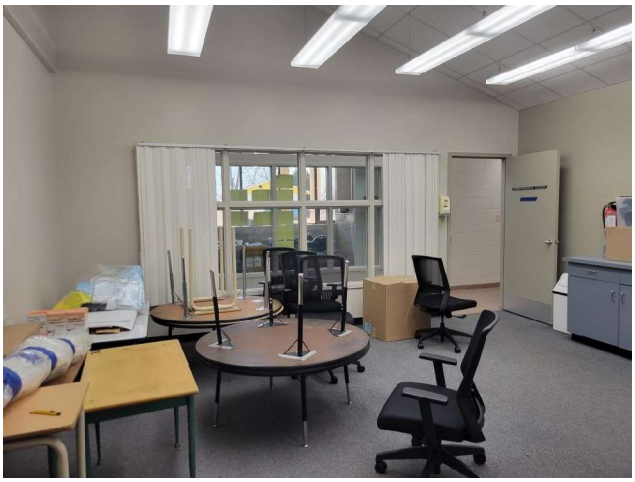
Interior Fixed Partitions

Interior Operable Folding Panel Partitions

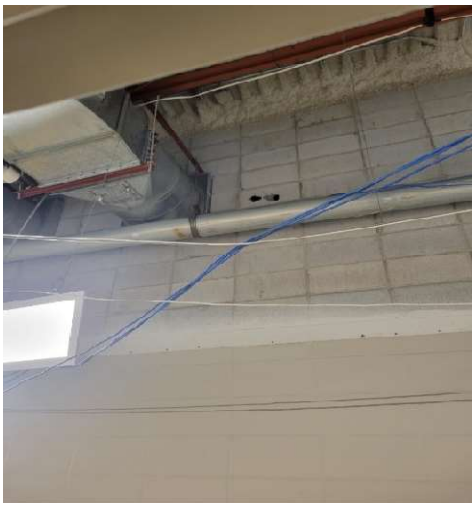
Interior Windows

Interior Windows

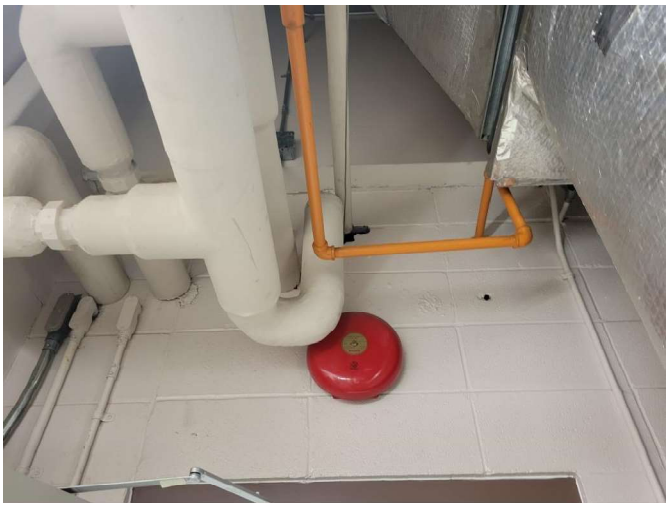
Interior Windows



Interior Windows



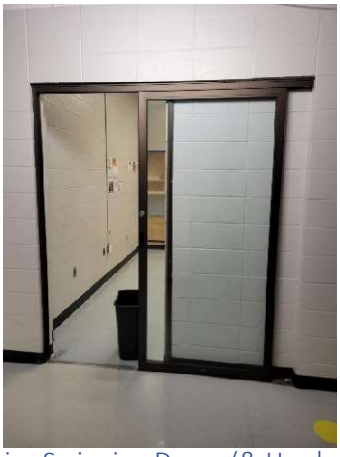
Interior Partition Firestopping



Interior Partition Firestopping

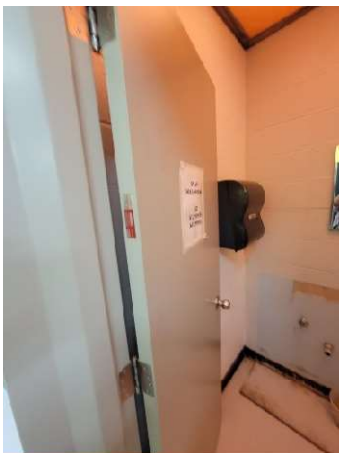

Interior Swinging Doors (& Hardware)


Interior Swinging Doors (& Hardware)

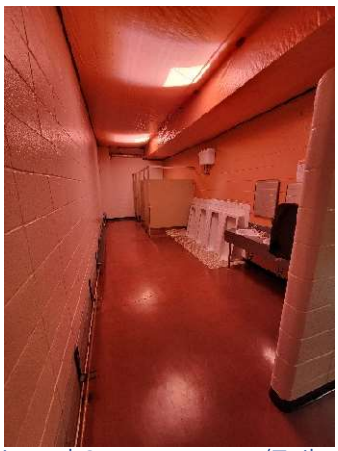


Interior Swinging Doors (& Hardware)


Interior Swinging Doors (& Hardware)



Interior Fire Doors



Fabricated Compartments (Toilets/Showers)

Fabricated Compartments (Toilets/Showers)

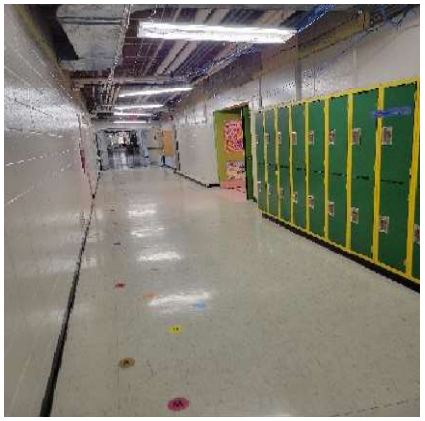
Fabricated Compartments (Toilets/Showers)

Fabricated Compartments (Toilets/Showers)

Fabricated Compartments (Toilets/Showers)

Lockers

Lockers



Lockers

Interior Identifying Devices

Interior Identifying Devices

Interior Identifying Devices


Visual Display Boards


Visual Display Boards


Visual Display Boards

Toilet, Bath, and Laundry Accessories

Toilet, Bath, and Laundry Accessories

Toilet, Bath, and Laundry Accessories

Toilet, Bath, and Laundry Accessories

Toilet, Bath, and Laundry Accessories

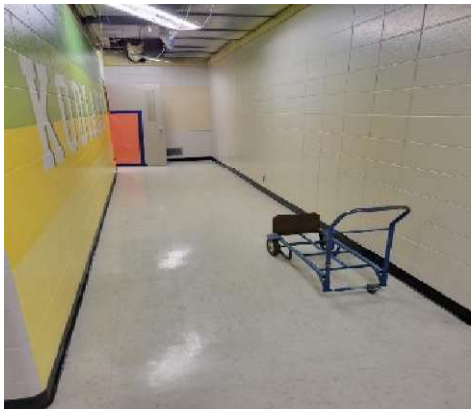
Stair Construction

Interior Ramps

Tile Wall Finishes

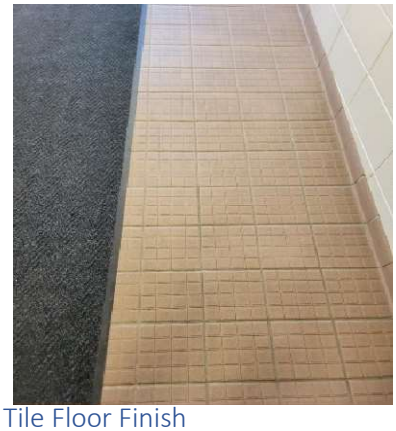
Interior Wall Painting

Interior Wall Painting

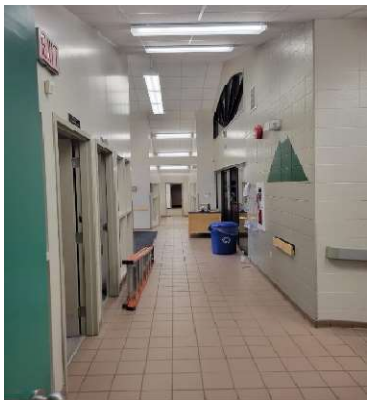


Interior Wall Painting

Interior Wall Painting

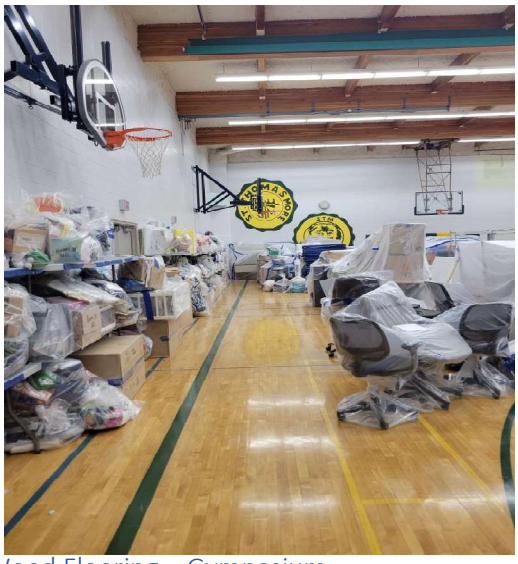


Tile Floor Finish

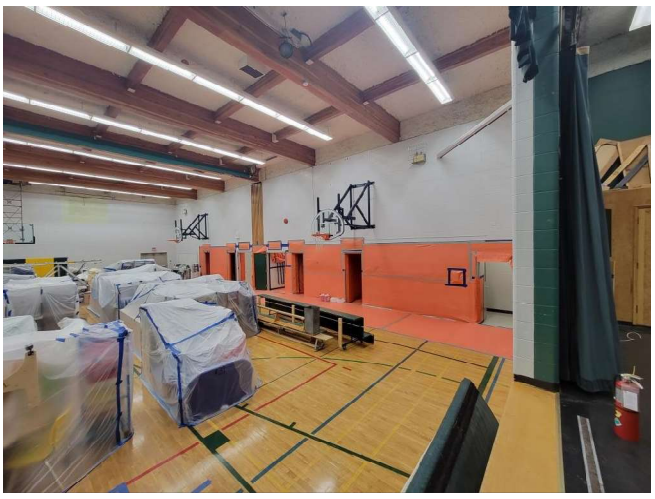


Tile Floor Finish

Tile Floor Finish

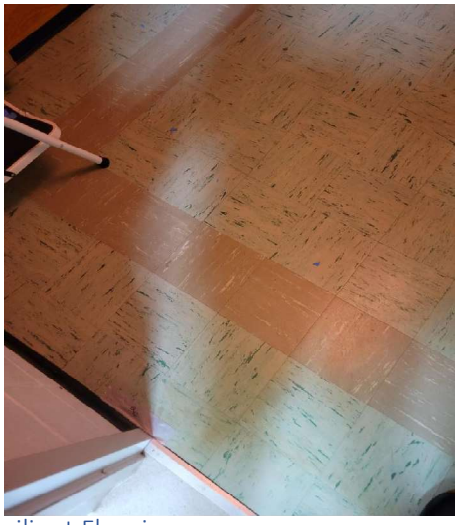


Wood Flooring – Gymnasium

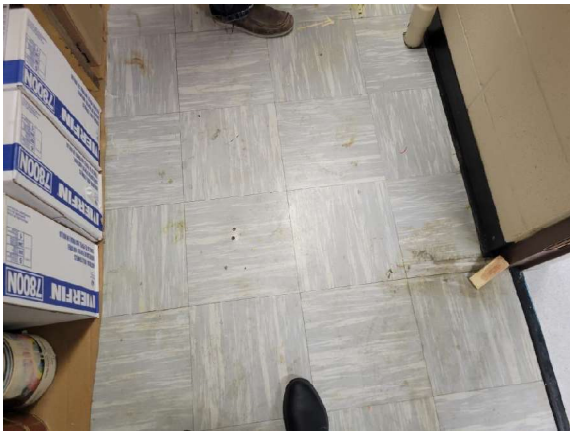


Wood Flooring – Gymnasium

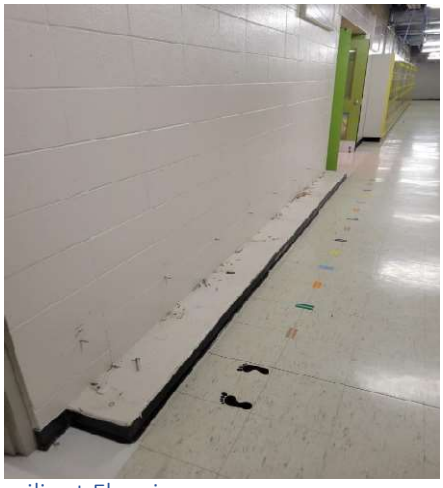
Resilient Flooring



Resilient Flooring

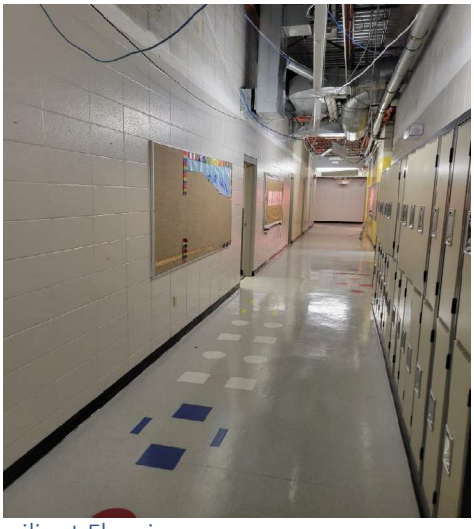


Resilient Flooring



Resilient Flooring

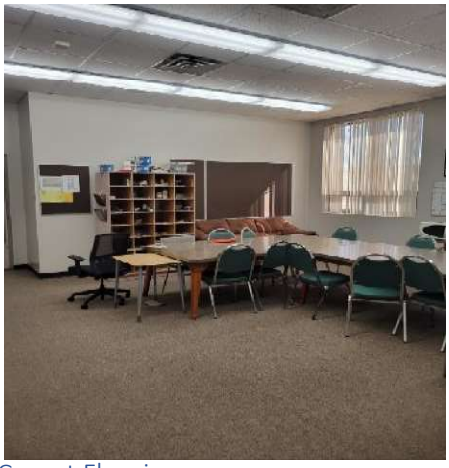
Resilient Flooring



Resilient Flooring

Resilient Flooring

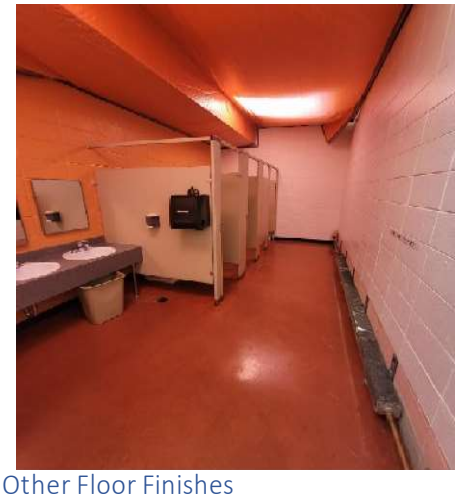
Carpet Flooring



Carpet Flooring

Carpet Flooring

Carpet Flooring



Other Floor Finishes

Acoustic Ceiling Treatment (Susp. T-Bar)

Acoustic Ceiling Treatment (Susp. T-Bar)

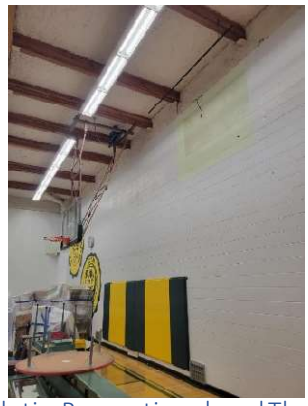
Acoustic Ceiling Treatment (Susp. T-Bar)

Acoustic Ceiling Treatment (Susp. T-Bar)

Other Ceiling Finishes

Other Ceiling Finishes

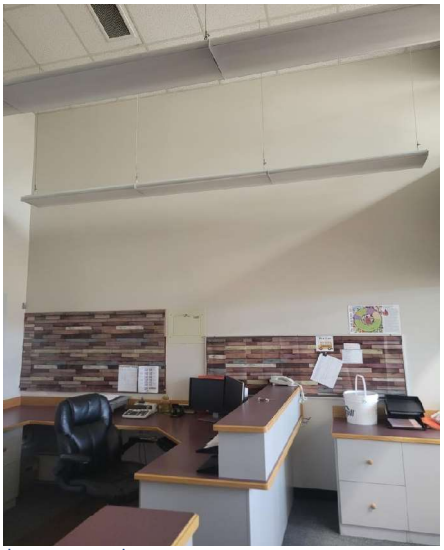
Other Ceiling Finishes



Athletic, Recreational, and Therapeutic Equipment

Athletic, Recreational, and Therapeutic Equipment

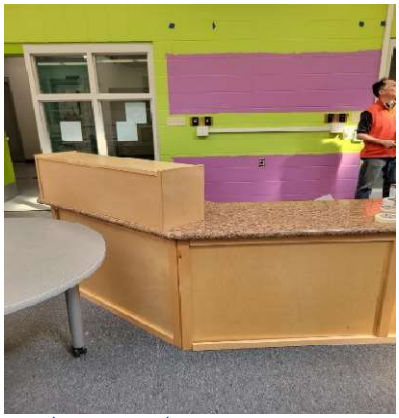
Athletic, Recreational, and Therapeutic Equipment



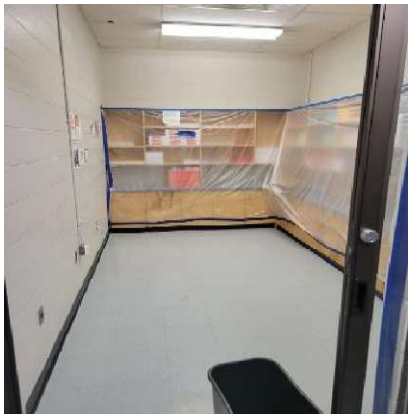
Fixed Casework

Fixed Casework

Fixed Casework



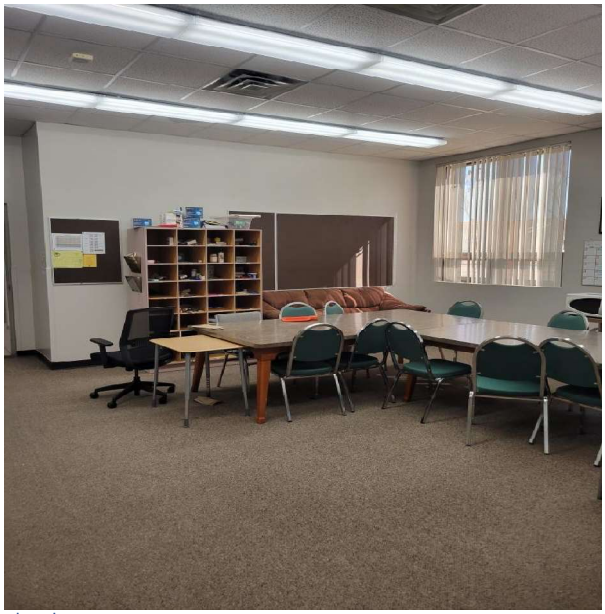
Fixed Casework



Fixed Casework


Fixed Casework

Fixed Casework

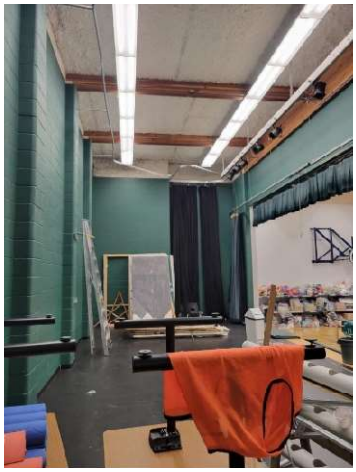


Blinds


Blinds

Interior Shutters

Interior Shutters



Curtains and Drapes – Stage


Barrier Free Route: Parking to Entrance

Parking Lot Signs

Parking Lot Signs

Rigid Pedestrian Pavement (Concrete)

Rigid Pedestrian Pavement (Concrete)

Exterior Steps and Ramps

Exterior Steps and Ramps


Exterior Signs

Athletic and Recreational Surfaces

Athletic and Recreational Surfaces

Athletic and Recreational Surfaces

Athletic and Recreational Surfaces

## Mechanical


Public Washroom

Science Lab Emergency Shower

Lavatories Student Washroom

Sinks Science Lab

Showers in Gymnasium Changeroom

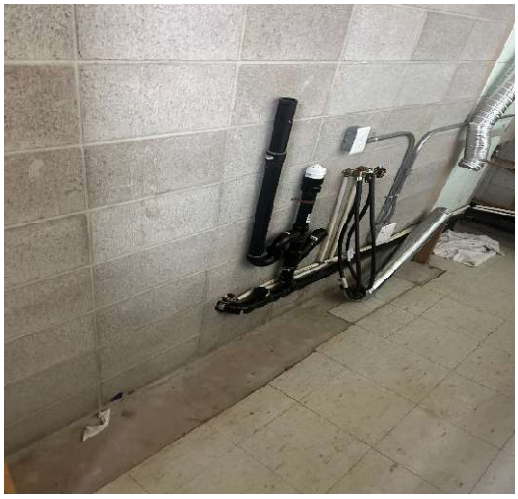
Urinal in Gymnasium Changeroom

Administration Area Sink

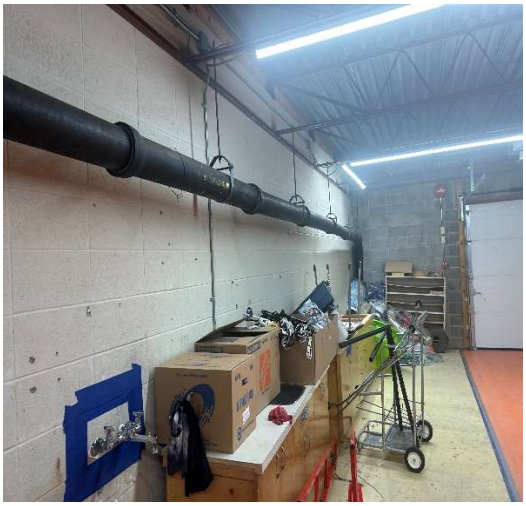
Drinking Fountain

Water Meter

Domestic Hot Water Recirculation Pump



Sanitary Piping

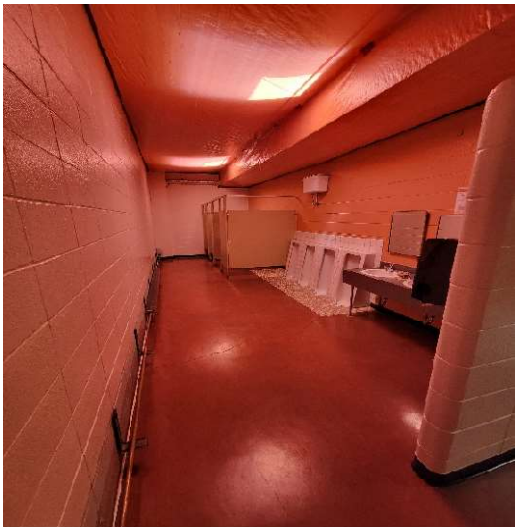


Storm Piping

Natural Gas Piping

Drinking Fountain

Natural Gas Meter



Urinals

Sink

## Mechanical - HVAC Systems

Perimeter Radiation – Administration Area

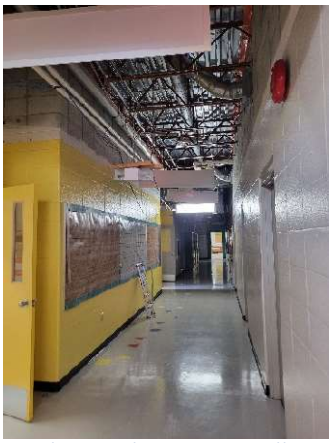
Boilers – Mechanical Room

Air Handling Unit – Mechanical Room

Boiler Circulation Pump – Mechanical Room

Boiler Vents – Mechanical Room

Air Handling Unit – Mechanical Room



Ductwork Distribution in Hallways

Ceiling Mounted Exhaust Fan

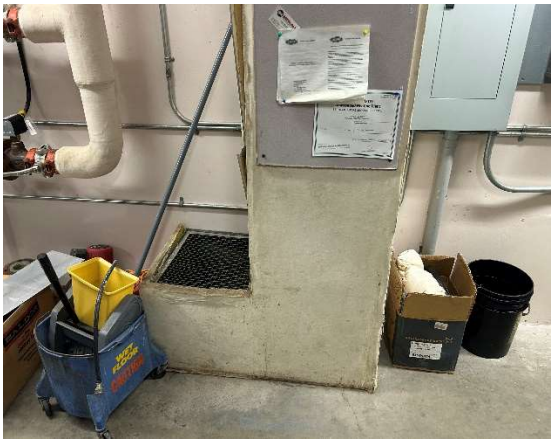
Boiler Room

Glycol Make-up System

Force Flow Heater

Kitchen Range Hood Fan

Primary Heating Circulation Pumps



Combustion Air Duct

Heating Piping Distribution in Mech. Room

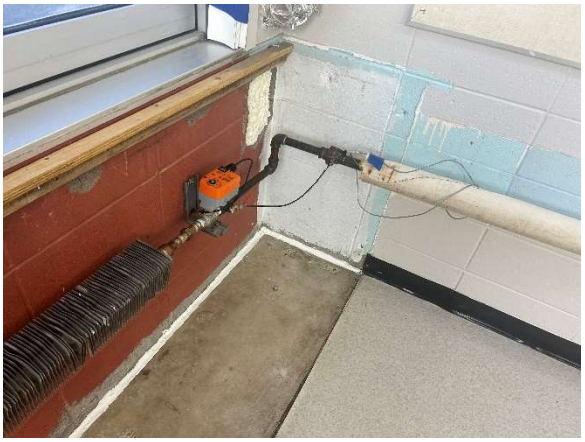
Unit Heater

Package Rooftop Unit

Roof Mounted Exhaust Fans

Fire Dampers Serving Duct Penetration

Typical Ductwork Distribution in Classroom



Radiation Control Valve

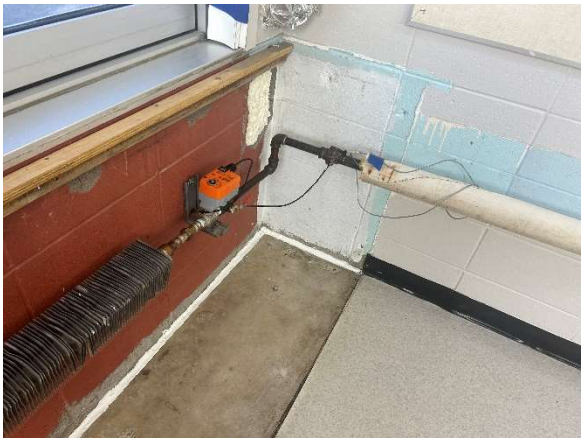
Typical Diffusers Serving Classrooms

Package Rooftop Unit

Roof Mounted Exhaust Fans

Fire Dampers Serving Duct Penetration

Typical Ductwork Distribution in Classroom



Radiation Control Valve

Typical Diffusers Serving Classrooms

Package Rooftop Unit

Roof Mounted Exhaust Fans

## Electrical

Pad Mounted Transformer

Main Distribution Switchgear

House Branch Circuit Panelboard


PA System

Fire Alarm Panel