RECAPP Facility Evaluation Report

Edmonton School District No. 7

Montrose Elementary School

B3226A

Edmonton

Report run on: July 17, 2008 3:13 PM

Facility Details

Building Name: Montrose Elementary School
Address: 11931 - 62 Street
Location: Edmonton

Building Id: B3226A
Gross Area (sq. m): 3,288.90
Replacement Cost: $7,168,067
Construction Year: 1951

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: December 13 2007
Evaluator Name: J. R. Irlam

Total Maintenance Events Next 5 years: **$1,971,816**
5 year Facility Condition Index (FCI): **27.51%**

General Summary:

The 3288 square metre single storey school was constructed in three phases. The 1951first phase has a basement and an upper projection room in the gym. It is a single storey eight class room elementary school constructed. In 1952, the following year, a further four class rooms were added on the north side. In 1956 a free standing single storey Annex was constructed to provide four more class rooms on either side of a central multi-purpose area. This Annex building was leased to a children's day care operator. Several days prior to the building audit the school board had closed the Annex due to its poor physical condition.

The school accommodates 160 students in grades K to 6 and 23 staff.

Structural Summary:

1951 Section: There are interior concrete foundation walls under the corridor walls and perimeter concrete foundation walls both carried on spread footings. There are also interior concrete foundation piers carried on pad footings. A reinforced structural concrete slab spans the foundation walls and piers. Most of the concrete substructure is mass concrete with nominal reinforcement or no reinforcing. The building structural frame consists of wood stud load bearing walls spanned by wood trusses.

1952 Section: The foundation system consists of perimeter concrete walls on concrete strip footings. There are internal concrete foundation walls also on concrete strip footings. Internally, there are reinforced concrete piers on concrete pad footings. A reinforced structural concrete slab spans the foundation walls and piers. The building frame consists of fir trusses spanning wood stud walls.

1956 Annex: There are perimeter reinforced concrete foundation walls on concrete strip footings. There are also internal reinforced concrete foundation walls on reinforced concrete strip footings. There is a slab on grade with mesh reinforcement. The single storey structural building frame consists of fir joists over the class rooms and central multi-purpose area which span glulam beams carried on steel pipe columns built into the concrete block walls. There is a deep crack in the floor slab on the west side and cracking and movement of the concrete block wall on the north side both of which require repair.

The overall condition of the structure in the 1951 and 1952 sections is acceptable. The condition of the structure in the 1956 Annex is poor.

Envelope Summary:

1951 and 1952 sections: The SBS roof installation was incomplete with fascias to the canopies on the east and west sides unfinished. Apart from this, the roof is in good condition. The exterior walls have a brick skin to sill height and stucco above windows and on wall areas such as the gym. The windows are fibre glass with sealed units. The overall condition of the building envelope for these two sections is acceptable.

1956 section: The roof over the 1956 Annex is built up and in poor condition with signs of leaking throughout. The exterior walls are concrete block and wood stud, both with minimal insulation. The concrete block wall on the north side is cracking and requires repair. The windows are the original wood and many have rotted. The overall condition of this section of the school is poor.

Interior Summary:

1951 and 1952 sections: The linoleum floor finishes throughout these sections appears to be original and is in poor

condition. The ceilings are predominantly acoustic tile in a T-bar grid with plaster ceilings in washrooms and service rooms. Walls are mainly painted plaster.

1956 section: The vinyl tiles throughout this section are original and damaged. The concrete block walls require repainting. There are acoustic tiles fixed to wood furrings throughout with plaster ceilings in service rooms and washrooms.

The overall condition of the 1951 and 1952 sections is acceptable. The overall condition of the 1956 Annex is poor.

Mechanical Summary:

Heating is provided to the school building with antiquated 1951 boilers that provide low pressure steam to convectors located throughout the facility. Each room is individually thermostatic controlled. Ventilation is provided by a supply air system with mix air capability to each room. The majority of the plumbing fixtures in the facility have been replaced.

A service tunnel to the 1956 Annex provides steam for heating, condensate return, and domestic hot and cold water from the school building. The perimeter classrooms of the Annex building are individually controlled with room ventilators to provide heating and ventilation to the space. The interior multi-purpose area has high ceiling mounted steam unit heaters and exhaust ventilators to exhaust air provided by the classroom unit ventilators, and steam convectors in the entry and washroom areas.

The entire heating and ventilation portions of the mechanical systems are original, antiquated and, although operating in a satisfactory manner, are in need of future replacement. A study is proposed to review the scope and costs involved to replace the boilers and room convectors, as well as a possible upgrade of the automatic control system to direct digital control.

For the 1956 Annex, any replacement of the primary mechanical systems in the school proper will affect the operation of this building, as all services are provided from the existing school mechanical room.

The mechanical systems are generally in an acceptable condition.

Electrical Summary:

There are two services to the school, both are contained in the main switchboard in the basement Electrical Room - 400A, 120/240V single phase and 50A, 208V 3 phase. The single phase service accommodates the building services through the 120/240V single phase panelboards throughout the school while the 208V basically serves the larger three phase mechanical equipment.

The interior lighting system is predominantly fluorescent although with incandescent lights in storage and utility rooms. The system is the standard magnetic ballasts and T12 lamps, surface and recessed fixtures with acrylic lenses, controlled locally by line voltage switches. Exterior lighting consists of incandescent lights at exit locations, metal halide floodlights and high pressure sodium entrance lights and wall lights. Emergency lighting is provided by battery packs with integral and remote lighting heads. Exit lights are fitted with LED strips for AC operations only.

The hard wired fire alarm system has manual and automatic detection devices and audible signaling devices; the control panel with its integral annunciator is in the Administration Office with a remote annunciator at the main entrance. The intrusion alarm system consists of motion detectors in the corridors, offices and Gymnasium and a coded keypad at the entrance to the Boiler Room.

The public address system also provides the class change program and is interfaced with the telephone system, which provides the telephone and intercommunication needs of the school. Recently incorporated interactive screens (LCD screens or projectors) provide teaching aids in the classroom without the benefit of cable television. A computer capability is available in every classroom as well as the computer room. Under construction is a wireless local area network that will further enhance the use of laptops and wireless computer operations. An FM wireless voice enhancement system is also available in every classroom.

The electrical systems are generally in an acceptable condition.

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

S1 STRUCTURAL

A1010 Standard Foundations - 1951 Section*

There are interior concrete foundation walls under the corridor walls and perimeter walls carried on spread footings. There are also interior concrete foundation piers carried on pad footings. The concrete substructure has minimal or no reinforcing.

Rating	Installed	Design Life	Updated
5 - Good	1951	0	MAR-08

A1010 Standard Foundations - 1952 Section*

The foundation system consists of 300mm wide perimeter concrete walls to a depth of 1600mm with reinforcing top and bottom on 600mm wide by 200mm deep concrete strip footings. There are internal 200mm wide concrete foundation walls on 400mm wide by 200 deep concrete strip footings. Internally, there are also 250mm x 250mm and 250mm x 300mm reinforced concrete piers on 675mm x 675mm x 300mm deep and 850mm x 850mm x 300mm concrete pad footings respectively.

Rating	Installed	Design Life	Updated
5 - Good	1952	0	MAR-08

A1010 Standard Foundations - 1956 Section*

There are 250mm wide perimeter reinforced concrete foundation walls on 550mm wide x 250mm deep concrete strip footings at a depth of 1500mm . There are also 200mm wide internal reinforced concrete foundation walls on 450mm wide x 250mm deep reinforced concrete strip footings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

A1030 Slab on Grade - 1956 Section*

There is a 125mm thick steel mesh reinforced concrete slab on 150mm tamped sand and gravel on a poly vapour barrier.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	0	MAR-08

Event: Mudjack 200m2 floor slab

Concern:
The slab is separating from the wall at the perimeter in the south east classroom.

Recommendation:
Mud jack slab.

Consequences of Deferral:
Slab will continue to separate and deteriorate.

Type	Year	Cost	Priority
Repair	2008	$11,440	Medium

Updated: APR-08

A1030 Slab on Grade 1951 Section*

The basement slab is on grade.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	100	MAR-08

Event: Repair basement slab

Concern:
There is water penetration into the basement through the slab which is deteriorating.
Recommendation:
Provide water proofing.
Consequences of Deferral:
Water will continue to penetrate slab.

Type	Year	Cost	Priority
Repair	2008	$11,440	Low

Updated: APR-08

A2020 Basement Walls (& Crawl Space) - 1951 Section*

The basement accommodates the boiler room and has poured concrete walls.
The service tunnel is constructed of poured concrete walls, floor and roof.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Event: Repair basement walls [50m2]

Concern:
The basement walls allow water penetration into the basement causing damage to doors and frames.
Recommendation:
Repair basement walls and provide water proofing.
Consequences of Deferral:
Water penetration will persist.

Type	Year	Cost	Priority
Repair	2008	$5,720	Medium

Updated: APR-08

A2020 Basement Walls (& Crawl Space) - 1952 Section*

There is a 1200mm deep crawl space under all this section. Only the crawl space under the corridor has a 75mm mud slab. The crawl space exterior walls are the 300mm concrete foundation walls. Internally the crawl space is divided into compartments by the 200mm wide foundation walls and connected with doors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B1010.01 Floor Structural Frame (Building Frame) - 1951 Section*

The building structural frame consists of 50mm x 150mm wood stud load bearing walls spanned by wood trusses with bolt connections.

Rating	Installed	Design Life	Updated
5 - Good	1951	0	MAR-08

B1010.01 Floor Structural Frame (Building Frame) - 1952 Section*

The building frame consists of bolted fir trusses spanning wood stud walls.

Rating	Installed	Design Life	Updated
5 - Good	1952	0	MAR-08

B1010.01 Floor Structural Frame (Building Frame) - 1956 Section*

The single storey structural building frame consists of fir joists (50mm x 300mm at 400mm centres) over the class rooms and central multi-purpose area. The joists span 225mm wide x 555mm deep glulam beams over the multi-purpose area and 225mm x 370mm deep glulam beams over classrooms. The service areas on the north and south sides of the building have a system of fir joists and built up beams spanning concrete block walls. The glulam beams are carried on 100mm diameter steel pipe columns built into the 200mm concrete block walls.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	0	MAR-08

Montrose School 017.jpg

Event: Replace two 200mm masonry walls (200m2 block work)

Concern:

There is movement at the top of the exterior concrete block wall on the north west corner of the 1956 section of the school. An October, 2007, consultant's review of the structure observed that "at both the high roof and the low roof approximately where the roof joists bear in the wall, the masonry appears to be cracking at the horizontal mortar joints." The review recommended the removal and replacement of the masonry walls in question.

Recommendation:

Replace cracked masonry walls.

Consequences of Deferral:

Walls will deteriorate further and risk of failure will persist.

Type	Year	Cost	Priority
Repair	2008	$57,200	High

Updated: MAR-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1951 Section*

There are load bearing interior walls of 50mm x 100mm wood studs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1952 Section*

The interior structural class room walls consists of staggered 50mm x 100mm wood studs on 50mm x 150mm top and bottom plates.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1956 Section*

There are structural interior concrete block walls carrying roof loads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

B1010.03 Floor Decks, Slabs, and Toppings - 1951 Section*

The first floor deck is poured concrete slab with a cement topping. The upper mezzanine floor (projection room) is wood deck on wood joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B1010.03 Floor Decks, Slabs, and Toppings - 1952 Section*

The first floor deck is a 125mm reinforced concrete slab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B1010.05 Mezzanine Construction - 1951 Section*

The upper mezzanine floor where the projection room is located is wood deck on wood joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B1010.06 Ramps: Exterior - 1951 Section*

There is a concrete ramp to access the east entrance with painted steel pipe hand rails.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	40	MAR-08

Event: Repair concrete ramp

Concern:
The concrete surface has deteriorated and a steel post attachment to the concrete is separating.
Recommendation:
Refinish concrete surface and repair steel post attachment.
Consequences of Deferral:
Ramp will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$2,288	Medium

Updated: APR-08

B1010.07 Exterior Stairs 1951 Section*

There are two sets of poured concrete stairs with metal nosings on the east side of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	40	MAR-08

B1010.09 Floor Construction Fireproofing - 1951 Section*

The first floor is poured concrete and inherently fire proof. The mezzanine wood floor has a plaster finish to the underside.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B1010.09 Floor Construction Fireproofing - 1952 Section*

The floor is a structural concrete slab and inherently fire proof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B1010.09 Floor Construction Fireproofing - 1956 Section*

The floor is poured concrete and therefore inherently fire proof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

B1010.10 Floor Construction Firestopping - 1952 Section*

Fire stopping appears to be intact in this part of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B1010.10 Floor Construction Firestopping - 1956 Section*

Fire stopping appears to be intact in this part of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

B1010.10 Floor Construction Firestopping 1951 Section*

Fire stopping appears to be intact in this part of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

B1020.01 Roof Structural Frame - 1951 Section*

The gym roof structural frame consists of 1500mm deep wood trusses with bolted connections spanning wood stud walls. There are 75mm x 200mm exposed wood purlins spanning the wood trusses. There are 50mm x 100mm wood joists spanning the purlins. The wood trusses are carried on built up wood columns.
The other areas of the school also have bolted wood trusses as well as wood joists spanning concrete block walls with bond beams and wood stud walls.

Rating	Installed	Design Life	Updated
5 - Good	1951	0	MAR-08

B1020.01 Roof Structural Frame - 1952 Section*

The roof structure consists of 1200mm to 900mm deep bolted fir joists spanning wood stud walls.

Rating	Installed	Design Life	Updated
5 - Good	1952	0	MAR-08

B1020.01 Roof Structural Frame - 1956 Section*

The single storey structural roof frame consists of fir joists (50mm x 300mm at 400mm centres) over the class rooms and central multi-purpose area. The joists span 225mm wide x 555mm deep glulam beams over the multi-purpose area and 225mm x 370mm deep glulam beams over classrooms. The glulam beams are carried on 100mm diameter steel pipe columns built into the 200mm concrete block walls. The service areas on the north and south sides of the building have a system of fir joists and built up beams spanning concrete block walls.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	0	MAR-08

B1020.04 Canopies - 1951 Section*

There are canopies over the entrances on the eat, west and south sides of the school with an SBS roof on wood sheathing on wood joists and a stucco soffit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B1020.04 Canopies - 1952 Section*

There is a canopy on the east side of this part of the school with an SBS roof on wood sheathing on wood joists with a stucco soffit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B1020.04 Canopies - 1956 Section*

There are canopies over the three entrances to this building consisting of a built up roof with 25mm rigid insulation on wood sheathing on 50mm x 200mm fir joists with a painted ply soffit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1951 Section*

There is a brick skin to sill height on all elevations of the school with a back wall of 50mm x 150mm wood studs with wood sheathing and a vapour barrier and an interior finish of "Flexboard" dado or plaster. The sills around the school are concrete which has been covered with a metal cap in some locations.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	75	MAR-08

Event: Repair 30m concrete sill

Concern:
There are sections of the concrete sill which are spilt, appear unsightly and have deteriorated
Recommendation:
Replace deteriorated concrete sill.
Consequences of Deferral:
Sill will deteriorate further with potential damage to interior.

Type	Year	Cost	Priority
Repair	2008	$5,720	Medium

Updated: APR-08

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1952 Section*

There is a brick skin to sill height on all elevations with an air space, wood sheathing on wood studs with 50mm "Rockwool" batts and an interior finish of plaster on gypsum board with a vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	75	MAR-08

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1956 Section*

The brick skin on the east and west elevations of the building is the outer leaf of a 225mm cavity wall with an air space and wire ties to the inner leaf of 100mm concrete block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	75	MAR-08

B2010.01.06.03 Metal Siding - 1951 Section**

There is prefinished metal siding panels over windows on the east elevation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	40	MAR-08

Event: Replace Metal Siding [500 m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$68,640	Unassigned

Updated: MAR-08

B2010.01.06.04 Wood Siding - 1951 Section**

There are painted ply siding panels over the exterior windows on the main (west) elevation.

Rating	Installed	Design Life	Updated
3 - Marginal	1995	40	MAR-08

Event: Repaint 500m2 ply panels over windows

Concern:
The paint on the ply panels above exterior windows is peeling and appears unsightly.

Recommendation:
Repaint panels.

Consequences of Deferral:
Panels will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$6,292	Low

Updated: APR-08

Event: Replace ply siding [500m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$45,760	Unassigned

Updated: MAR-08

B2010.01.06.04 Wood Siding - 1952 Section**

There are painted ply siding panels above the exterior windows.

Rating	Installed	Design Life	Updated
3 - Marginal	1952	40	MAR-08

Event: Repaint 450m2 ply siding panels

Concern:
The paint on the ply siding panels is peeling and appears unsightly.
Recommendation:
Repaint ply siding.
Consequences of Deferral:
Siding will deteriorate further with potential damage to the interior of the school.

Type	Year	Cost	Priority
Repair	2008	$5,148	Medium

Updated: APR-08

Event: Replace 450m2 ply siding panels

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$45,760	Unassigned

Updated: MAR-08

B2010.01.08 Cement Plaster (Stucco): Ext. Wall - 1951 Section*

There is a stucco exterior finish on all elevations above the brick skin on a back wall of 50mm x 150mm wood studs with wood sheathing and vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	75	MAR-08

B2010.01.08 Cement Plaster (Stucco): Ext. Wall - 1952 Section*

There is exterior stucco on all elevations. The stucco is applied to expanded metal lath over building paper on wood sheathing and the wood stud wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	75	MAR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1951 Section**

There is caulking to all door and window frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	20	MAR-08

Event: Replace caulking [500m]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$8,008	Unassigned

Updated: MAR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1952 Section**

There is caulking to all door and window frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	20	MAR-08

Event: Replace caulking [300m]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,148	Unassigned

Updated: APR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1956 Section**

There is caulking to all door and window frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	20	MAR-08

Event: Replace joint sealers [200m]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$4,004	Unassigned

Updated: MAR-08

B2010.01.13 Paints (& Stains): Exterior Wall - 1951 Section**

Exterior stucco as well as soffits and fascias on overhangs are painted on all elevations.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	15	MAR-08

Event: Re-paint 2100m2 stucco, fascisa and soffits

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$18,304	Unassigned

Updated: APR-08

Event: Repaint 100m2 fascia on overhang

Concern:
Painting on the overhang fascias and soffits is peeling.
Recommendation:
Repaint fascias.
Consequences of Deferral:
Fascias will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$1,144	Low

Updated: APR-08

B2010.01.13 Paints (& Stains): Exterior Wall - 1952 Section**

Exterior stucco is painted on all elevations as well as soffits and fascias.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	15	MAR-08

Event: Repaint 1600m2 exterior stucco and soffits/fascia

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$13,728	Unassigned

Updated: MAR-08

B2010.01.13 Paints (& Stains): Exterior Wall - 1956 Section**

Exterior block walls on the north and south sides of the building and the fascias and soffits are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	15	MAR-08

Event: Repaint 600m2 block wall

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,148	Unassigned

Updated: MAR-08

B2010.02.05 Wood Framing : Ext. Wall Const. - 1951 Section*

There are exterior walls of 50mm x 150mm wood studs at 400mm centres with wood sheathing, vapour barrier and batt insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B2010.02.05 Wood Framing : Ext. Wall Const. - 1952 Section*

There are exterior walls consisting of wood studs with batt insulation and a vapour barrier with wood sheathing on the outside face and a plaster interior finish on gypsum board.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1951 Section*

The exterior wall has a vapour barrier and batt insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1952 Section*

Exterior stud walls have 50mm "Rockwool " insulation and a vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1956 Section*

The exterior 225mm concrete block walls have "Lite-Rock" insulation fill.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens - 1951 Section*

There are ventilation slots in the soffits with metal insect screens.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens - 1956 Section*

There are metal louvres in the brick skin walls.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	0	MAR-08

Event: Replace 4 metal louvres

Concern:
Metal louvres are damaged and unsightly.
Recommendation:
Replace metal louvres.
Consequences of Deferral:
Louvres will continue to deteriorate.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,144	Low

Updated: MAR-08

B2010.09 Exterior Soffits - 1951 Section*

Exterior soffits are painted ply wood.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

B2010.09 Exterior Soffits - 1952 Section*

There is a 450mm projection along the tops of the glass block panels above the windows. The soffit to this projection is stucco on expanded metal on building paper on wood sheathing on wood framing. There is also a soffit to the canopy over the east entrance with a stucco finish on metal lath on wood sheathing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	0	MAR-08

B2010.09 Exterior Soffits - 1956 Section*

Exterior soffits ate painted ply wood on a wood frame on wood joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

B2020.01.01.05 Wood Windows (Glass & Frame) - 1956 Section**

The window frames are wood.

Rating	Installed	Design Life	Updated
2 - Poor	1956	40	MAR-08

Event: Replace 150m2 wood windows

Concern:
The wood frames have deteriorated with sections which have rotted.

Recommendation:
Replace wood windows with aluminum frames and sealed glass units.

Type	Year	Cost	Priority
Failure Replacement	2011	$74,360	Unassigned

Updated: MAR-08

B2020.01.01.06 Vinyl, Fibreglass &Plastic Windows - 1951 Section**

The exterior windows are fibre glass with awning openers and sealed units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	40	MAR-08

Event: Replace 200m2 fibre glass windows

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$114,400	Unassigned

Updated: APR-08

B2020.01.01.06 Vinyl, Fibreglass &Plastic Windows - 1952 Section**

Exterior windows are fibre glass with awning openers and sealed units

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	40	MAR-08

Event: Replace 50m2 fibre glass windows

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$22,880	Unassigned

Updated: APR-08

B2030.01.10 Wood Entrance Door - 1951 Section**

Exterior entrance doors are varnished oak with glazed panels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace 12 oak entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$22,880	Unassigned

Updated: APR-08

B2030.01.10 Wood Entrance Door - 1952 Section**

The east entrance has 3 single exterior entrance doors with oak frames and upper glass panels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1952	30	MAR-08

Event: Replace 3 glass entrance doors with oak rails

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$3,432	Unassigned

Updated: APR-08

B2030.01.10 Wood Entrance Door - 1956 Section**

The exterior entrance doors are the original solid core with panic hardware and an upper panel of wired glass with a metal grille on the exterior.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Event: Replace 6 wood entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$12,012	Unassigned

Updated: APR-08

B3010.01 Deck Vapor Retarder and Insulation - 1951 Section*

The two ply SBS roof assembly has rigid insulation and fibre board with a vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	0	MAR-08

B3010.01 Deck Vapor Retarder and Insulation - 1952 Section*

The roof is two ply SBS with rigid insulation, fibre board overlay and poly vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	0	MAR-08

B3010.01 Deck Vapor Retarder and Insulation - 1956 Section*

This is the original built up roof with 25mm rigid insulation on a wood deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) 1956 Section**

This is the original built up roof with 25mm rigid insulation on wood sheathing on fir joists.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	25	MAR-08

Event: Replace 655m2 roof with SBS

Concern:
This roof has deteriorated and has bleeding asphalt, blisters, pooling and gravel migration

Recommendation:
Repair built up roof with SBS roof.

Consequences of Deferral:
The roof will deteriorate further with potential damage to the school interior.

Type	Year	Cost	Priority
Failure Replacement	2008	$22,880	Medium

Updated: APR-08

B3010.04.04 Modified Bituminous Membrane Roofing (SBS) 1951 & 1952 Sections**

This SBS roof was incomplete at the time of inspection requiring flashings and parapet capping to be installed. The roof is a two ply membrane with fibreboard overlay, rigid insulation and vapour barrier.

Rating	Installed	Design Life	Updated
5 - Good	2007	25	MAR-08

Event: Replace 2400m2 SBS roof

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$308,880	Unassigned

Updated: APR-08

B3010.08.02 Metal Gutters and Downspouts - 1951 Section**

The roof system has metal overflow down spouts directing rain water from the roof through the roof void and discharging through the stucco fascia above the projection over the windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace 50m metal rain water pipe

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$11,440	Unassigned

Updated: APR-08

B3010.08.02 Metal Gutters and Downspouts - 1952 Section**

The roof system has metal overflow down spouts directing rain water from the roof through the roof void and discharging through the stucco fascia above the projection over the windows.

Rating	Installed	Design Life	Updated
5 - Good	1952	30	MAR-08

Montrose School 020.jpg

Event: Replace 50m metal rain water piping

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$11,440	Unassigned

Updated: MAR-08

B3010.08.02 Metal Gutters and Downspouts - 1956 Section**

There are copper rain water leaders to drain the high roof over the multi-purpose area onto the roofs below.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Event: Replace Metal Gutters

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$8,140	Unassigned

Updated: MAR-08

B3020.02 Other Roofing Openings (Hatch,Vent, etc) - 1951 Section & 1952 Sections*

There are pipe penetrations with aluminum covers and flashings as wall as rain water drains with cast iron strainers.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	0	MAR-08

B3020.02 Other Roofing Openings (Hatch,Vent, etc) - 1956 Section*

There are roof penetrations for vents and exhausts with metal flashings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

S3 INTERIOR

C1010.01.07 Framed Partitions (Stud)

Interior partitions are wood stud with plaster on gypsum board finish both sides in the 1951 and 1952 sections.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

C1010.05 Interior Windows*

There are clear glass interior windows in the principal's office and general office looking into the entrance lobby.

Rating	Installed	Design Life	Updated
5 - Good	2000	0	MAR-08

C1010.07 Interior Partition Firestopping*

Interior partitions are fire stopped throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

C1020.01 Interior Swinging Doors (& Hardware)*

Interior swinging doors in the 1951 and 1952 sections are painted or vanished birch veneer solid core in wood frames. Doors in the 1956 wing are hollow core in wood frames.

Rating	Installed	Design Life	Updated
2 - Poor	1951	40	MAR-08

Event: Replace 6 door frames in basement

Concern:
The door frames in the basement have rotted due to continual water penetration into the basement.

Recommendation:
Replace door frames.

Consequences of Deferral:
Frames will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$5,720	Low

Updated: APR-08

C1020.03 Interior Fire Doors*

Interior fire doors are solid core with 12mm wired glass panels in the 1952 and 1951 sections. There is a solid core door with metal cladding to the mechanical room inn the 1956 Annex.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

C1030.01 Visual Display Boards**

There are visual display boards in all class rooms and the library consisting of white boards, green boards and tack boards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	20	MAR-08

Event: Replace display boards (90 m)

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$22,880	Unassigned

Updated: MAR-08

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

There are fabricated steel compartments in the staff and student wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	MAR-08

Event: Replace 16 fabriacted compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$17,160	Unassigned

Updated: MAR-08

C1030.08 Interior Identifying Devices*

There are metal numbers on class room doors and other signs to indicate room functions.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

C1030.12 Storage Shelving*

Storage shelving throughout the school is predominantly painted wood.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

C1030.14 Toilet, Bath, and Laundry Accessories*

There are mirrors, soap and towel dispensers on wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

C3010.02 Wall Paneling - 1951 Section**

The gym in the 1951 section has a "flexboard" dado with a painted finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace 150m2 dado with plastic laminated ply

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$17,160	Unassigned

Updated: MAR-08

C3010.06 Tile Wall Finishes**

There are glazed ceramic tile wall finishes in the student washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	40	MAR-08

Event: Replace 150m2 ceramic wall tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$45,760	Unassigned

Updated: MAR-08

C3010.09 Acoustical Wall Treatment**

The gymnasium has painted fibre board wall finishes.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	20	MAR-08

Event: Replace fibre board wall treatment [650m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$74,360	Unassigned

Updated: APR-08

C3010.11 Interior Wall Painting*

Interior plaster and concrete walls are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	10	MAR-08

C3010.12 Wall Coverings*

There are asbestos cement panels in classrooms and in the gym store.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	15	MAR-08

C3020.01.02 Paint Concrete Floor Finishes*

There are painted concrete floor finishes in the boiler room and service rooms in the basement.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	10	MAR-08

Event: Repaint 300m2 concrete floor

Concern:
The painted concrete is worn and unsightly.
Recommendation:
Repaint concrete floor.
Consequences of Deferral:
Floor painting will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$3,432	Low

Updated: MAR-08

C3020.02 Tile Floor Finishes**

There are ceramic mosaic floor finishes in the boys washrooms in the 1956 Annex.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

Event: Replace 50m2 ceramic mosaic floor

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$2,860	Unassigned

Updated: APR-08

C3020.03 Terrazzo Floor Finishes*

There are terrazzo floor finishes in: vestibules, corridors, student washrooms and kitchen in the 1951 section; corridors in the 1952 section; student wash rooms in the 1956 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	75	MAR-08

C3020.04 Wood Flooring**

There is sprung maple flooring in the gym and on the stage.

Rating	Installed	Design Life	Updated
5 - Good	2006	30	MAR-08

Event: Replace 300m2 maple floor

Type	Year	Cost	Priority
Lifecycle Replacement	2036	$96,096	Unassigned

Updated: APR-08

C3020.07 Resilient Flooring**

There are linoleum and vinyl tiles throughout the school including classrooms, offices, service rooms and other areas in the 1951 and 1952 sections and vinyl tiles in classrooms and service rooms in the 1956 section.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	20	MAR-08

Event: Replace 1800m2 resiliant floor with vinyl tiles

Type	Year	Cost	Priority
Failure Replacement	2008	$91,520	Unassigned

Updated: MAR-08

C3020.08 Carpet Flooring**

There is carpet in the staff room, library, music room, computer room, general office and principal's office.

Rating	Installed	Design Life	Updated
5 - Good	2006	15	MAR-08

Event: Replace 400m2 carpet

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$34,320	Unassigned

Updated: MAR-08

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

The ceilings are predominantly T-bar acoustic tiles throughout the 1951 and 1952 sections and acoustic tiles glued to wood furrings between glulam beams in the 1956 Annex..

Rating	Installed	Design Life	Updated
3 - Marginal	1951	25	MAR-08

Event: Replace 2000m2 acoutic tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$57,200	Unassigned

Updated: APR-08

Event: Replace 550m2 acoustic tiles

Concern:
There are sections of acoustic ceiling tiles in the 1956 Annex which are water damaged and require replacement.
Recommendation:
Replace damaged and stained tiles.
Consequences of Deferral:
Tiles will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$16,016	Medium

Updated: APR-08

C3030.07 Interior Ceiling Painting*

Plaster ceilings in service rooms, store rooms and washrooms are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	20	MAR-08

S4 MECHANICAL

D2010.04 Sinks**

There are 13 stainless steel oval classroom sinks with bubblers, 3 cast mop service basins, and 2 single compartment stainless steel kitchen type sinks in the facility. With the exception of the mop service basins, the majority are replacement units installed in the classroom area sinks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	30	MAR-08

Event: Replace 3 mop service basins and 15 Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$22,880	Unassigned

Updated: MAR-08

D2010.05 Showers**

There are 3 showers in the Boy's washroom. This room is used as storage and showers are not used by the facility. The showers in the Girl's washroom have been removed and the room very recently renovated into a handicapped washroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace 3 Showers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$2,288	Unassigned

Updated: MAR-08

D2010.08 Drinking Fountains / Coolers**

There are three ceramic drinking fountains in the corridor areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	35	MAR-08

Event: Replace 3 Drinking Fountains

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$12,584	Unassigned

Updated: APR-08

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

There are 20 lavatories installed throughout the facility. The lavatories in the original school main washrooms are recently installed stainless steel oval basins. In the 1956 annex, the lavatories are original wall hung ceramic basins. There are 5 urinals in the original building that have been recently replaced with wall hung units. The 3 urinals in the 1956 annex are the original floor mounted fixtures. There are 19 waterclosets in the facilities, with flush valves units installed in the recently replaced units in the main washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace Washroom Fixtures (19 WC, 20 Lav, 8 Urnl)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$65,208	Unassigned

Updated: APR-08

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic water lines are insulated copper where exposed and accessible.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D2020.01.02 Valves: Domestic Water**

Aside from the main metering room valves and a main drain valve, there are no isolation valves for the washroom groups indicated in the drawings. Fixtures are isolated with fixture stops.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	40	MAR-08

Event: Replace Valves

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$16,016	Unassigned

Updated: MAR-08

D2020.02.02 Plumbing Pumps: Domestic Water**

There is one small domestic hot water recirculation pump adjacent to the domestic hot water tank. The pump has no nameplate label and size is assumed to be about .06 KW.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	20	MAR-08

Event: Replace Domestic Hot Water Recirc Pump**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$1,373	Unassigned

Updated: MAR-08

D2020.02.06 Domestic Water Heaters**

There is one replacement domestic hot water tank assumed to have been installed mid 1990's. The tank is a State STB-75-120. 108,000 btuh input (31.6KW), 90.8 USgph recovery and 75 USgal storage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	20	MAR-08

Event: Replace One Domestic Water Heater

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,491	Unassigned

Updated: APR-08

D2020.03 Water Supply Insulation: Domestic*

Where exposed, domestic water lines are insulated with a canvas jacketed fiberglass insulation. All piping where exposed, including domestic water have had elbow insulation replaced due to asbestos content.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D2030.01 Waste and Vent Piping*

The majority of waste piping from washrooms has been recently replaced with mechanical jointed cast iron pipe. Vent piping is original, concealed in the walls through to the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D2030.03 Waste Piping Equipment*

There is one small sump with a pump located in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D2040.01 Rain Water Drainage Piping Systems*

The building is drained from 100mm roof drains to a storm main in the crawl space area. Piping material is assumed to be cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D2040.02.04 Roof Drains*

100mm cast roof drains are strategically located throughout the roof area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	40	MAR-08

D3010.02 Gas Supply Systems*

A 75mm steel natural gas main enters the metering room adjacent to the mechanical room on the east face of the building and connects to the boilers and the domestic hot water heater in the mechanical room..

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	60	MAR-08

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

There are two original Reliance Welding Works low pressure (103 Kpa) steam boilers. Each boiler is rated at 53.61 ft2 of heating surface. There boilers were built in 1950, and are inspected at two year intervals with the last inspection in November 2007. The boilers have been recently re-insulated, possibly to remove asbestos containing jacketing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	35	MAR-08

Event: Replace Two Heating Boilers

Type	Year	Cost	Priority
Lifecycle Replacement	2010	$114,400	Unassigned

Updated: MAR-08

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

Natural draft breeching (about 600mm size) from the existing boilers and 100mm breeching from the domestic hot water tank connect to a clay tile lined brick chimney through to the roof of the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace breeching for Boilers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$22,880	Unassigned

Updated: APR-08

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

There is a funnel chemical feeder at the condensate tank for the boilers. School Board personnel advise that the have 3 FTE's dedicated to perform water treatment to the various schools in their jurisdiction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D3040.01.01 Air Handling Units: Air Distribution**

There is one main air supply fan in the original school, a Trane Class 1, Type B-1, 54" fan, set to provide 18 C supply air temperature. Supply air quantity is not known, but the drawings for the 1952 addition indicate 600 cfm to each classroom. This unit is a built-up unit designed to fit into the fan room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace Air Handling Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$68,640	Unassigned

Updated: MAR-08

D3040.01.02 Fans: Air Distribution (Remote from AHU)*

There are unit ventilators installed in the 1956 Annex to provide ventilation air to the four classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

D3040.01.04 Ducts: Air Distribution*

The main supply duct is a gypsum wallboard lined duct and is located above the corridor ceiling. It provides tempered ventilation air to the classroom and administrative spaces. Return air is via the crawlspace return air plenum under the corridor floor. Approximately 600 cfm of air is supplied to each classroom space.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D3040.01.07 Air Outlets & Inlets:Air Distribution*

There are linear high sidewall supply air diffusers to the majority of spaces, square punched return grilles are located on the lower sidewalls of the various rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D3040.02 Steam Distribution Systems: Piping/Pumps**

Steam is distributed and condensate is returned via a main piping system in the crawlspace under the corridor of the original 1951 school and the 1952 addition. Branch lines from these mains extend to the exterior walls of each zone to maintain heat via steam cabinet type convectors.

Steam is distributed also from the main school boilers and condensate is returned to these boilers via a utility tunnel between the original school and the 1956 Annex. In the 1956 Annex steam is distributed to the unit ventilators in each classroom, and to unit heaters at the ceiling level of the main center core area of the building.

There is one main condensate return pump in the mechanical room, and one satellite condensate return pump in the service tunnel at the 1956 Annex.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	40	MAR-08

Event: Replace Steam Distribution Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$320,320	Unassigned

Updated: MAR-08

D3040.04.01 Fans: Exhaust**

There are three roof mounted exhaust fans for the original 1951 building. One is for the main washroom and shower room exhaust, one is for the staff washroom, and one is for the second storey old projector room at the west end of the gymnasium. No information is available as to the capacity of these fans.

There are two roof mounted exhaust fans over the central core of the 1956 Annex. These fans are listed on the drawings as Jenn Air Roof Exhausters model 148CR, rated at 1750 cfm each at 1/4" S.P. With a 1/4 HP motor. There are also 4 roof type exhausters for the washroom areas. These are listed on the drawings as 8" Breidert Air X-hausters, gravity type at 150 cfm each.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace 9 Rooftop Exhaust Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$12,584	Unassigned

Updated: MAR-08

D3040.04.03 Ducts: Exhaust*

For the main washroom and showers in the original 1951 building there is a gypsum lined exhaust shaft up to the roof between the boy's and girl's rooms. Other exhaust ducts run from the individual rooms to the exhaust fans above the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Punched metal ceiling mounted exhaust grilles are located in the various washroom areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

D3050.05.01 Convectors**

Heating to each room in the original 1951 school, the 1952 addition, and the 1956 Annex (except classrooms with unit ventilators) is provided by thermostatically controlled wall mounted steam convectors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	40	MAR-08

Event: Replace 78 Steam Convectors

Recommendation:
Estimates based on $2000 per unit convector and assumes direct replacement with steam units. Refer to the boiler section for recommendations that the heating distribution system be reviewed for a possible conversion to a hydronic system in the future as an alternative.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$178,464	Unassigned

Updated: APR-08

D3050.05.06 Unit Heaters**

There are two ceiling mounted vertical steam unit heaters in the Multi-Purpose room of the 1956 Annex.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Event: Replace Two Steam Unit Heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$6,864	Unassigned

Updated: APR-08

D3050.05.07 Unit Ventilators**

There are four wall mounted steam heated unit ventilators, one in each classroom of the 1956 Annex.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Event: Replace Four Unit Ventilators

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$14,872	Unassigned

Updated: MAR-08

D3060.02.02 Pneumatic Controls**

Automatic controls are provided by the original pneumatic control system with individual control in each classroom, administration and ancillary zone.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace HVAC Instrumentation and Controls

Recommendation:
The study proposed under the boiler section should also include an upgrade to the automatic control system to direct digital controls. The costs provided here are for conversion to a central DDC control panel with remote capability with current to pneumatic (I/P) transducers to each pneumatic actuator in each zone, and assumes approximately 60 control points.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$102,960	Unassigned

Updated: APR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Wall mounted Type ABC fire extinguishers are located throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

S5 ELECTRICAL

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

The Main Electrical Switchboard is a custom-designed service entrance and distribution switchboard manufactured by Westinghouse. It is recessed in the wall of the main electrical room in the basement and contains two separately metered services.
The 400A, 120/240V, single phase, 3 wire service is the general building power supply, with a 400A, 2 pole, main breaker and 5 distribution breakers, ranging from 70A, 2 pole to 150A, 2 pole. Demand is recorded at 38.4 kVA (160A @ 120/240V)

The 50A, 208V, 3 phase, 3 wire service is used essentially to accommodate the three phase mechanical equipment, having only 4 distribution breakers (2-15A breakers for the return pump and compressor, 30A for the main fan unit and 40A for a welding outlet).

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	40	MAR-08

Capacity Size	Capacity Unit
400A, 120/240V & 50A, 208V	N/A

Event: Replace Main Electrical Switchboard

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$68,640	Unassigned

Updated: APR-08

D5010.03.08 Grounding and Bonding - 1951 & 1952 Sections

The 120/240V single phase, 3 wire system is a grounded neutral system. The 208V 3 phase system does not have a neutral. Both systems are bonded to ground.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Repair Grounding Connection

Concern:
The ground connection (system and equipment) is bonded to the water main. As observed, the water main is now PVC, the "ground" , therefore, has been compromised.
Recommendation:
Provide a separate low impedance grounding grid. Connect system ground to grid.
Consequences of Deferral:
The system will experience a high impedance ground, potentially unsafe to personnel in the event of an equipment failure.

Type	Year	Cost	Priority
Repair	2008	$3,432	High

Updated: MAR-08

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1951 & 1952 Sections**

Branch Circuit Panel boards are 120/240V single phase 3 wire panel boards surface or recessed mounted (one by Westinghouse, two by FPE) are located in the 1951 and 1952 sections of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Branch Circuit Panelboards (3)

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$10,296	Unassigned

Updated: MAR-08

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

Branch Circuit Panel boards are 120/240V single phase, 3 wire surface or recessed mounted panel boards,manufactured by Federal Pioneer are located in all sections of the school.

Rating	Installed	Design Life	Updated
5 - Good	1999	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Branch Circuit Panelboards (4)

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$13,728	Unassigned

Updated: MAR-08

D5010.07.02 Motor Starters and Accessories - 1951 &1952 Sections**

Individual motor starters are of the three phase magnetic type (Allen Bradley, Siemen and Westinghouse), whether they serve three phase equipment or not (e.g., return pump in Annex is 220V single phase).
Small 120V equipment is manually switched with manual starters, also by Allen Bradley and Westinghouse.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Magnetic Starters (5)

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,720	Unassigned

Updated: APR-08

D5020.01 Electrical Branch Wiring All Sections*

The advent of computer equipment necessitated the upgrading of the electrical branch wiring, adding receptacles and circuits to classrooms and in the new computer room. Wiring method is still cables in conduits but there is occasional use of Pac Poles in the computer room.

Rating	Installed	Design Life	Updated
5 - Good	1999	50	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.01 Lighting Accessories (Lighting Controls) All Sections*

The interior lighting is controlled by local line voltage switches throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.01 Interior Incandescent Fixtures - 1951 & 1952 Sections*

Incandescent fixtures, surface mounted with prismatic lenses or simple porcelain lamps are located in some foyers, storage rooms and utility areas in all sections of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.02 Interior Fluorescent Fixtures 1956 Section**

There is fluorescent lighting with magnetic ballasts and T12 lamps in the Annex. Fixtures are strip lights with wire guards in the high ceilings and suspended fixtures with wrap around lenses in the classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Fluorescent Fixtures (140)

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$48,048	Unassigned

Updated: APR-08

D5020.02.02.02 Interior Fluorescent Fixtures - 1951 & 1952 Sections**

The fluorescent lighting system remains to be the magnetic ballast and T12 lamp system. Typical fixtures include the 1 X 4 recessed and surface mounted with wrap around lenses, gymnasium strip lights with wireguards and utility strip lights with or without wireguards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Fluorescent Fixtures (480)

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$164,736	Unassigned

Updated: APR-08

D5020.02.03.02 Emergency Lighting Battery Packs - All Sections**

Emergency Lighting Battery Packs with integral twin lighting heads and remote lighting heads are present in corridors, Gymnasium and generally at paths of egress throughout the School.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	20	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Connect Emergency Circuits to exit lights (10)

Concern:
Exit lights do not have emergency circuits.
Recommendation:
Provide a DC circuit connection from the battery packs to the nearest exit lights. Make such connections when replacing the battery packs.

Type	Year	Cost	Priority
Code Upgrade	2011	$5,720	Medium

Updated: APR-08

Event: Replace Emergency Lighting Battery Packs (10)

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,720	Unassigned

Updated: APR-08

D5020.02.03.03 Exit Signs 1951 & 1952 Sections*

Exit signs are the internally illuminated type originally with 2-25 W lamps but are now replaced with LED lamps (2001). The exit lights are not connected to the emergency lighting circuits of the battery packs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.03.03 Exit Signs 1956 Section*

The exit signs are the internally illuminated type, surface or recessed mounted, originally with 2-25W incandescent lamps but are now replaced with LED lamps (2001). The exit lights are not connected to the circuits of the emergency lighting battery packs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.05 Special Purpose Lighting - 1951 Section*

Incandescent stage lighting is located at the front of the stage in the Gymnasium. There are only 3 fixtures and they are controlled by a single dimmer.

Rating	Installed	Design Life	Updated
5 - Good	1998	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.01 Exterior Incandescent Fixtures - 1951 & 1952 Sections*

Weatherproof incandescent fixtures still exist at exit locations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Incorporate motion sensors and timers to outdoor incandescent lights (6)

Concern:

Incandescent outdoor lighting is a high maintenance item - energy inefficient, constant lamp replacement. Some lights are even locally switched.

Recommendation:

Provide individual motion sensor control to each set of outdoor incandescent lights. The motion sensor puts on the light during the night (it is also photoelectric cell deactivated during the day) when it is activated and shuts off after a time interval. Statistically, very little energy will be used; pay back in less than a year.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2008	$3,432	Medium

Updated: APR-08

D5020.03.01.01 Exterior Incandescent Fixtures 1956 Section*

Weatherproof incandescent fixtures still remain at exit locations of the 1956 Annex.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Incorporate motion sensors and timers to outdoor incandescent lights.

Concern:

Incandescent outdoor lighting is a high maintenance item - energy inefficient, frequent lamp replacement. These lights are also locally switched.

Recommendation:

Provide individual motion sensor control at each outdoor incandescent lighting location. The motion sensor puts the light on during the night (the sensor is also deactivated by photoelectric cell during the day) when activated and shuts off after a time interval. Hardly uses any energy at all; pay back in less than a year.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2008	$1,716	Medium

Updated: APR-08

D5020.03.01.03 Exterior Metal Halide Fixtures - 1956 Section*

Metal halide floodlights, mounted on the roof, are provided at the rear of the building and on the south side of the 1956 Annex. A similar floodlight is mounted on top of a pole to illuminate the parking lot in front.

Rating	Installed	Design Life	Updated
5 - Good	1984	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.04 Exterior H.P. Sodium Fixtures - 1951 & 1952 Sections*

The front entrance lights and some perimeter lights are high pressure sodium.

Rating	Installed	Design Life	Updated
5 - Good	1989	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.02 Lighting Accessories: Exterior (Lighting Controls) - 1951 & 1952 Sections*

The metal halide floodlights and high pressure sodium entrance and perimeter lights are centrally controlled by a photoelectric cell while the incandescent lights at exit locations are individually switched from inside the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.01 Detection and Fire Alarm - All Sections**

The Edwards Fire Alarm System is a hard wired, single stage, supervised system. It has 11 alarm zones, using manual, heat and smoke detectors as detection devices, and 1 signal zone, using bells only. Magnetic door-holders were added to the fire rated doors in the corridor at the request of the Fire Marshall in 2001. The control panel is located in the General Office with a remote annuciator at the front entrance, accompanied by a colour coded graphic of the School.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Fire Alarm System (control panel and field devices)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$62,920	Unassigned

Updated: MAR-08

D5030.02.02 Intrusion Detection - All Sections**

The intrusion alarm system is a Magnum Alert 3000 system consisting of infrared motion sensors located in corridors, offices and the Gymnasium and a coded keypad located at the entrance to the basement Boiler Room.

Rating	Installed	Design Life	Updated
5 - Good	1999	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Intrusion Alarm System

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$13,728	Unassigned

Updated: MAR-08

D5030.03 Clock and Program Systems - All Sections*

The public address system includes a programmed clock, providing a signal for class changes.
Clocks are mostly electric clocks with occasional battery powered ones.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.01 Telephone Systems - 1951 & 1952 Sections*

The telephone system is a Northern Telecom Meridian, key system with 3 lines (4 line capacity for the one module provided). It provides the telephone and intercom facilities for the school staff. There is a telephone set in every classroom and office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.05 Local Area Network Systems - 1951 and 1952 Sections*

With the SuperNet entry, the School provides extensive data distribution to the computer room and every classroom and office from the server location. The server is backed by a 1500W UPS by APC. Under construction, is a wireless local network distribution system that will allow laptop connection in every classroom. The data cables for horizontal distribution are category 5 except the new wireless distribution which uses category 6.

Rating	Installed	Design Life	Updated
5 - Good	1999	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.05 Public Address and Music Systems - 1951 & 1952 Sections**

The Public Address System is a Petcom system. ElectroVox loudspeakers are located in corridors and utility areas. The system provides public address functions, interfacing with the telephone system, class change program signaling through the loudspeakers, and broadcasts the national anthem through a CD player.
A portable amplifier provides independent sound reinforcement for the Gymnasium or community functions in the Gymnasium with permanently mounted loudspeakers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	20	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Public Address System

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$16,016	Unassigned

Updated: APR-08

D5030.06 Television Systems - 1951 & 1952 Sections*

Television sets, LCD or projectors to screens, are permanently mounted at the front of some classrooms and are used as interactive screens for educational aids. Connections may be to a computer or DVD player. There is no cable television distribution in the school.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.07.01 Microwave Transmission and Reception Equipment - 1951 & 1952 Sections

A FM Voice Enhancement system is available in every classroom. It is a wireless system using wireless microphone through radio frequency (FM) to the amplifier and distributed (hard wired) to a ceiling mounted loudspeaker or loudspeakers in the classroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

The library is equipped with plastic chairs on steel leg frames, plastic laminated tables, painted adjustable book shelves, mobile book storage and display units. There is also a reading area with residential sectional unholstered seating.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

E1020.03 Theater and Stage Equipment*

The stage has a wood catwalk over the proscenium arch for lighting setup. There is also a manually operated stage curtain.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

E1090.03 Food Service Equipment*

There is a staff kitchenette equipped with a range, fridge, coffee maker, microwave oven, plastic laminated counters with a stainless steel sink and painted wood cupboards above and below.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	MAR-08

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

There are hinged steel supports for the basket ball hoops and back boards in the gym. There are also steel posts at the sides of the gym for volley ball and badminton nets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

E2010.02 Fixed Casework**

There is fixed casework throughout the school in class rooms and store rooms for the storage of books and supplies. It is predominantly painted wood. There are plastic laminated counters in class rooms with stainless steel sinks and cupboards under.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	35	MAR-08

Event: Replace 200m casework

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$45,760	Unassigned

Updated: MAR-08

E2010.03.01 Blinds**

There is a mix of vinyl vertical blinds and roller blinds in teaching areas and staff room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	30	MAR-08

Event: Replace 150 m2 vertical vinyl blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$34,320	Unassigned

Updated: MAR-08

F1040.06 Other Special Facilities*

The music room has a stepped floor consisting of a wood frame with wood sheathing and a carpet finish.

Rating	Installed	Design Life	Updated
5 - Good	1951	0	MAR-08

F2020.01 Asbestos*

A December, 2001, consultant's report identified asbestos in building materials throughout the school including floor tiles, pipe insulation, debris in air ducts, textured ceilings, wall panels and cast iron drain fittings.
Asbestos abatement projects were implemented in 1992 and 2003.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

F2020.04 Mould*

The basement is subject to continual water penetration and there are indications of potential mould development.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Event: Remove mould & sterilize 100m2 of basement.

Concern:
The basement is subject to continual water penetration and there are indications of potential mould development.
Recommendation:
Remove mould from basement and sterilize affected area.
Consequences of Deferral:
Mould growth will persist.

Type	Year	Cost	Priority
Hazardous Materials Abatement	2008	$2,288	Medium

Updated: APR-08

F2020.09 Other Hazardous Materials*

No other hazardous materials were observed or reported during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

The route from the parking lot to the main entrance is barrier free with no curb or other impediments

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

K4010.02 Barrier Free Entrances*

The sidewalks up to the main entrance to the school (1951 section) and to the west entrances to the 1956 section are ramped to provide barrier free access. There is also a concrete ramp to the boys entrance on the east side of the 1951 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

K4010.03 Barrier Free Interior Circulation*

Interior circulation is predominantly barrier free with the exception of the stage and upper level projection room in the gym. There is a wood ramp with carpet finish and steel pipe hand rails in the main entrance lobby.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

K4010.04 Barrier Free Washrooms*

There are barrier free washrooms with grab bars in the student wash rooms. There is also a barrier free staff wash room close to the general office.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	MAR-08

RECAPP Facility Evaluation Report

Montrose Elementary School

S3226

Edmonton

Report run on: July 18, 2008 12:32 PM

Facility Details

Building Name: Montrose Elementary School
Address:
Location: Edmonton

Building Id: S3226
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: December 13 2007
Evaluator Name: J. R. Irlam

Total Maintenance Events Next 5 years: **$430,373**
5 year Facility Condition Index (FCI): **0%**

General Summary:

There is a chain link fence on all sides of the school except for a section in front of the main entrance. There is a play area close to the school on the east side which was built by the community. There are also playing fields with soccer goal posts and a baseball diamond on the east side of the school. At the front of the school there is a concrete square with a central flag pole and wood benches. There are precast benches, waste receptacles and picnic tables on the east side of the school. There are both concrete and asphalt play areas on the eats side of the school. Mature trees and shrubs are located primarily at the front of the school on the west side. There is a metal storage shed against the school on the east side. Grassed areas are located on all sides of the school

The site is generally in an acceptable condition.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

Rating Guide

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

S7 SITE

G2010.02.02 Flexible Pavement Roadway (Asphalt)**

There is a short section of asphalt road leading to the parking lot on the west side of the school and a short access road at the north east corner.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	25	MAR-08

Event: Repair 25m2 asphalt road

Concern:
There is a short access road at the north east corner of the school which is pot holes and deteriorated.
Recommendation:
Repair asphalt and pot hole.
Consequences of Deferral:
The asphalt will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$1,144	Medium

Updated: APR-08

Event: Replace 100m2 of asphalt road

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$11,440	Unassigned

Updated: MAR-08

G2010.05 Roadway Curbs and Gutters*

There are poured concrete curbs level with the road surface.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Event: Replace 170m concrete cubs

Concern:
The concrete curbs have deteriorated, are cracked and appear unsightly.
Recommendation:
Replace concrete curbs.
Consequences of Deferral:
Curbs will continue to deteriorate.

Type	Year	Cost	Priority
Failure Replacement	2008	$45,760	Low

Updated: MAR-08

G2020.02.02 Flexible Paving Parking Lots(Asphalt)**

The asphalt parking lot is on the west side of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	25	MAR-08

Event: Repair 300m2 asphalt parking lot

Concern:
Sections of the asphalt parking lot have deteriorated, are cracked and appear unsightly.

Recommendation:
Repair sections of asphalt which are cracked and have deteriorated.

Consequences of Deferral:
The asphalt will deteriorate further.

Type	Year	Cost	Priority
Repair	2009	$45,760	Medium

Updated: APR-08

Event: Replace 1000m2 asphalt parking

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$171,600	Unassigned

Updated: APR-08

G2020.05 Parking Lot Curbs and Gutters*

There are poured concrete curbs level with the asphalt surface of the parking lot.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G2020.06.01 Traffic Barriers*

There are wood bollards at the rear of the school. There are also a painted steel pipe rail along one side of the parking lot which also accommodates the plug ins.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Event: Replace 6 wood bollards

Concern:
The wood bollards have deteriorated and appear unsightly.
Recommendation:
Replace 150mm x 150mm x 1m high wood bollards.
Consequences of Deferral:
Bollards will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,373	Low

Updated: MAR-08

G2020.06.04 Pavement Markings*

There are painted parking stall lines in the parking lot.

Rating	Installed	Design Life	Updated
5 - Good	1951	0	MAR-08

G2030.04 Rigid Pedestrian Pavement (Concrete)**

There are concrete side walks to at the rear, front and south side of the school. There is also a poured concrete square with a flag pole in the centre and wood benches on the perimeter.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	25	MAR-08

Event: Replace Concrete Pavement [500m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$85,800	Unassigned

Updated: MAR-08

G2040.02.01 Chain Link Fences and Gates*

There are 2m and 1200mm high chain link fences at the perimeter of the school site. There is also a painted steel pipe railing along the sidewalk accessing the south side entrance to the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	30	MAR-08

Event: Repair 50m chain link

Concern:
There are sections of the chain link fence which are damaged and appear unsightly.
Recommendation:
Repair damaged sections of fence.
Consequences of Deferral:
Fence will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$5,720	Low

Updated: APR-08

G2040.03 Athletic and Recreational Surfaces**

There are both concrete and asphalt play areas at the rear of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	25	MAR-08

Event: Replace 1000m2 recreational asphalt surface

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$57,200	Unassigned

Updated: MAR-08

G2040.05 Site and Street Furnishings*

There are wood benches with painted steel leg frames at the front of the school. There are also precast concrete benches, waste receptacles and picnic tables at the rear of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Event: Repair 2 wood benches

Concern:
The wood benches at the front of the school have deteriorated, appear unsightly and the wood seats require replacement.
Recommendation:
Replace wood seats on benches.
Consequences of Deferral:
Seats will deteriorate further.

Type	Year	Cost	Priority
Repair	2009	$1,144	Low

Updated: APR-08

G2040.06 Exterior Signs*

There is painted wood sign affixed to the front of the school. There is also a free standing wood sign in the grassed area at the front of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G2040.08 Flagpoles*

There is a metal flag pole in the front of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G2050.04 Lawns and Grasses*

There are grassed areas on all sides of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Event: Repair 500m2 of grassed area

Concern:
There are sections of grassed areas at the south entrance and on the east side of the school which are bare and require re-sodding.
Recommendation:
Provide top soil and sod for bare grassed areas.
Consequences of Deferral:
Grassed areas will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$2,288	Medium

Updated: APR-08

G2050.05 Trees, Plants and Ground Covers*

There are both mature coniferous and deciduous trees at the front of the school. There are also shrubs along the west side of the school adjacent to the parking, along the sidewalk to the main entrance and around the concrete square at the front of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G2050.07 Planting Accessories*

There is a wood curb forming a planter adjacent to the concrete sidewalk to the main entrance.

Rating	Installed	Design Life	Updated
3 - Marginal	1951	0	MAR-08

Event: Replace 30m wood curb

Concern:
The wood curb is damaged, appears unsightly and requires replacement.
Recommendation:
Replace wood curb.
Consequences of Deferral:
The wood curb will continue to deteriorate.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,144	Low

Updated: APR-08

G3010.02 Site Domestic Water Distribution*

A 150mm cast iron water main enters the site from the north, and travels along the side of the school to the metering room adjacent to the mechanical room in the basement area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G3020.01 Sanitary Sewage Collection*

A 250mm clay tile combined sanitary and storm sewer main leaves the east face of the building and connects to a municipal manhole at the intersection of 61st Street and 119th Avenue. A 100mm cast iron sanitary and 150mm cast iron storm main connect at the south face of the Annex building into an 200mm combined clay tile main. This main connects to the main building 250mm combined sewer at the south property line.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G3030.01 Storm Water Collection*

A 250mm clay tile combined sanitary and storm sewer main leaves the east face of the building and connects to a municipal manhole at the intersection of 61st Street and 119th Avenue. A 100mm cast iron sanitary and 150mm cast iron storm main connect at the south face of the Annex building into an 200mm combined clay tile main. This main connects to the main building 250mm combined sewer at the south property line.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G3060.01 Gas Distribution*

Natural gas service is provided by a 100mm medium pressure municipal gas main along 119th Avenue south of the building. The branch line to the building (size unknown) connects to this main line, and travels north to the metering room on the east face of the basement, immediately adjacent to the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1951	0	MAR-08

G4010.02 Electrical Power Distribution Lines*

The services for the school come from overhead primary line distributions from the back lanes north of the school - the three phase service from the north-south lane and the single phase service from the ease-west lane. These lines end in pole mounted transformers respectively and are dropped from the poles underground to the main switchboard in the basement electrical room.

Rating	Installed	Design Life	Updated
5 - Good	1951	0	MAR-08

G4010.04 Car Plugs-ins*

There are 9 duplex receptacles in weatherproof enclosures mounted on low railings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	MAR-08

G4020.01 Area Lighting*

Metal halide floodlights mounted on the roof provide lighting at the back of the school and the playground; a single floodlight mounted on steel pole illuminates the parking lot in front. There are some high pressure sodium wall lights on the perimeter of the school and there are also high pressure sodium lights at the front entrance."

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	0	MAR-08