RECAPP Facility Evaluation Report

Edmonton School District No. 7

Meyokumin School

B3220A

Edmonton

Report run on: July 17, 2008 2:52 PM

Facility Details

Building Name: Meyokumin School
Address: 5703 - 19a Avenue
Location: Edmonton

Building Id: B3220A
Gross Area (sq. m): 3,954.40
Replacement Cost: $8,618,506
Construction Year: 1980

Evaluation Details

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

Total Maintenance Events Next 5 years: **$1,455,054**
5 year Facility Condition Index (FCI): **16.88%**

General Summary:

The 3058m2 school constructed in 1980 is a single storey building with a brick exterior and accommodates 440 students in grades K to 6 and has a staff complement of 25. There are two side by side gymnasia. The car park is on the west side of the school and accessible by a concrete side walk. There are two pods of metal clad portable class rooms (1982 and 1983) attached to the school with pedestrian links. There is also a free standing portable class room possibly constructed in 2000 and added to the school in 2007.

Structural Summary:

The school is carried on concrete piles with grade beams supporting the superstructure which is a mix of reinforced concrete walls and steel beams and columns. The roof structure consists of open web steel joists spanning load bearing concrete walls and steel beams. There is a slab on grade throughout the school. There is mesh reinforced slab on grade throughout.

Overall the condition of the structure is marginal due to settlement and cracking of the floor slab.

Envelope Summary:

There is a brick exterior skin on all elevations. Behind the brick skin the exterior wall comprises an air space, 38mm rigid insulation on concrete block or 38mm rigid insulation on exterior grade gypsum board on steel studs with fibre glass insulation and an interior finish of drywall on a poly vapour barrier. The SBS roof was installed in 1998.

The building envelope is in good condition.

Interior Summary:

There is a mix of carpet and vinyl tile flooring throughout the school. Wall finishes are painted drywall, painted vinyl covered drywall and painted block. Ceilings are predominantly acoustic tiles in a T-bar grid with painted gypsum board ceilings in washrooms and utility rooms. Windows are double glazed in painted pressed steel frames. There are painted wood open lockers and open storage shelves in classrooms as well as steel sinks in laminated counters. There are also wood cupboards in store rooms.

Overall the interior is in an acceptable condition.

Mechanical Summary:

Two hot water boilers provide heat to the main building via a reverse return perimeter radiation system with individual zones in the classroom and the administrative areas, and force flows in the entry vestibules. Hot water is also provided to the heating coils in the ventilation units and to reheat coils on the ventilation system for the interior zones.

There are two ventilation systems. One system provides ventilation to the classroom and administrative areas via a corridor distribution system. The second system provides ventilation to the gymnasium area.

Domestic hot water is provided from two hot water storage tanks in the mechanical room to the various washrooms in the school.

Overall, the facility mechanical systems are in a satisfactory operating condition.

Electrical Summary:

The Service and Distribution Switchboard is a free standing, circuit breaker type switchboard rated at 800A, 120/208V, 3 phase, 4 wire with capacity to serve the present and future electrical needs of the school. Branch circuit panel boards are 120/208V, 3 phase for the main building and 120/240V, single phase for the portable classrooms. A 45 kW natural gas emergency generator provides power for 10% of the lighting, heating , life safety and essential computer equipment.

Interior lighting system is predominantly fluorescent with T8 or compact fluorescent lamps and electronic ballasts, locally switched by line voltage switches and grouped switched by low voltage switching for the corridors, computer lab and gymnasium. The exit lights with their LED lamps are also under emergency power. Exterior lighting is mainly high pressure sodium, wall mounted on the building and high mast lighting standards in the parking lot, except at the main entrance and some exit locations where they are incandescent.

The hard wired fire alarm system has manual and automatic detection devices and audible signaling devices only - the system is outdated. The state-of-the-art intrusion alarm system uses only motion sensors; alarm signals are transmitted to the School Board.

Recently replaced sound and telephone systems combine to serve the public address, class change program, as well as the intercommunications and telephone needs of the school. The new radio controlled battery powered clocks will serve the school well into the future. Classrooms are provided with telephones, computer terminals, FM voice enhancement systems and portable television sets with DVD and VHS players.

Overall the electrical systems are in a good 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 - 1980 Section*

The foundations consist of 400mm diameter poured concrete piles varying in depth from 6m to 13m carrying grade beams. There are 600mm x 600mm x 600mm pile caps under hollow steel columns in the centre of the school. Grade beams vary between 200mm wide to 300mm and are 900mm deep.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

A1030 Slab on Grade - 1980 Section*

There is a 200mm slab on grade throughout with steel mesh reinforcing on poly vapour barrier on 150mm compacted fill.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

Event: Mudjack 300m2 concrete slab

Concern:
The concrete slab on grade has settled in the west end of the school in the vicinity of the custodian's office and the gym creating a trip hazard at the adjacent entrance.

Recommendation:
Mudjack slab.

Consequences of Deferral:
Slab will continue to settle and create further trip hazards.

Type	Year	Cost	Priority
Repair	2008	$11,440	Medium

Updated: MAR-08

B1010.01 Floor Structural Frame (Building Frame) - 1980 Section*

The single storey building frame consists of sloped open web steel joists (1370mm deep to 560mm) carried on steel beams and hollow steel columns and in some locations on reinforced block walls. The open web steel joists over the gym span between 250mm wide reinforced concrete block walls.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1980 Section*

There are concrete block interior structural walls reinforced with pilasters cast into the wall. These walls are carried on grade beams or on the thickened and reinforced floor slab.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

B1010.03 Floor Decks, Slabs, and Toppings - 1980 Section*

The roof deck consists of 12.5mm gypsum board on a vapour barrier over the steel deck on open web steel joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

B1010.05 Mezzanine Construction - 1980 Section*

There is a mezzanine floor which overlooks the library built of a concrete topping on steel deck on open web steel joists spanning between a steel beam on one side and a concrete beam caste into block wall on the opposite side.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

B1010.09 Floor Construction Fireproofing - 1980 Section*

The slab on grade first floor and the concrete topping on metal deck mezzanine floor are inherently fire proof.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

B1020.01 Roof Structural Frame - 1980 Section*

The roof structural frame consists of open web steel joists spanning between steel beams on hollow section steel columns or concrete beams caste into the block wall.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

B1020.04 Canopies - 1980 Section*

The canopy over the main entrance covers a recessed area in plan and is constructed of steel studs fixed to steel beams with profiled prefinished metal siding forming the soffit and fascia. The soffit and fascia have batt insulation and poly vapour barrier. The roof is metal with 100mm rigid insulation on a vapour barrier on gypsum board on metal deck.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

B1020.06 Roof Construction Fireproofing - 1980 Section*

The roof is a steel non-combustible structure with a gypsum board over the steel deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1980 Section*

There is a brick exterior skin on all elevations. Behind the brick skin the exterior wall comprises an air space, 38mm rigid insulation on 250mm concrete block or 38mm rigid insulation on exterior grade gypsum board on steel studs with fibre glass insulation and an interior finish of drywall on a poly vapour barrier.

Rating	Installed	Design Life	Updated
5 - Good	1980	75	MAR-08

B2010.01.06 Siding Panels 1980 Section

There is profiled prefinished metal siding over all doors and windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

Event: Replace metal siding [200m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$228,800	Unassigned

Updated: MAR-08

B2010.01.09 Expansion Control: Exterior Wall Skin - 1980 Section*

The extent of the brick skin is limited by window and door openings which have infill panels above and below which effectively control expansion.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

B2010.02.04 Load-Bearing-Metal Studs: Ext. Wall - 1980 Section*

There are load bearing metal stud exterior walls behind the brick veneer. The wall is constructed with an air space behind the brick skin then building paper over 38mm rigid insulation on 12.7mm exterior grade gypsum board on 152mm steel studs with batt insulation, poly vapour barrier and drywall interior finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1980 Section*

The exterior steel stud walls incorporate both building paper over rigid insulation behind the brick veneer and batt insulation and poly vapour barrier with the gypsum board interior finish. The brick veneer with an air space over the 250mm exterior block has 38mm rigid insulation and vermiculite fill in the concrete block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens - 1980 Section*

There are prefinished metal louvres in the side walls of the penthouse mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

B2010.09 Exterior Soffits - 1980 Section*

There are soffits under the metal siding over windows and doors consisting of prefinished profiled metal on gypsum board on steel studs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

B2020.01.01.01 Steel Windows (Glass & Frame) 1980 Section**

The windows are double glazed in painted pressed steel frames with bottom metal insulated panels. There are expanded metal screens over some windows which are susceptible to vandalism.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

Event: Replace steel windows [100m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$125,840	Unassigned

Updated: MAR-08

B2030.01.02 Steel-Framed Storefronts: Doors 1980 Section**

The main entrance doors are painted steel with glass panels top and bottom with push rail and side lights. Other entrance doors are painted metal with various window configurations in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace 3 double entrance doors

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

Updated: MAR-08

B2030.02 Exterior Utility Doors - 1980 Section**

Exterior utility doors are painted steel in painted pressed steel frames.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	40	MAR-08

Event: Repair 6 single & 2 double seta utility doors

Concern:
Utility doors are worn and dented and appear unsightly.
Recommendation:
Refinish and repaint utility doors.
Consequences of Deferral:
Doors will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$2,860	Low

Updated: APR-08

Event: Replace 6 single & 2 double utility doors

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$8,008	Unassigned

Updated: APR-08

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

There is an SBS roof over the main school building.

Rating	Installed	Design Life	Updated
5 - Good	1998	25	MAR-08

Event: Replace SBS roof [3050m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$400,400	Unassigned

Updated: APR-08

B3010.07 Sheet Metal Roofing**

There is a sloped metal roof over the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

Event: Replace metal roof [150m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$18,304	Unassigned

Updated: APR-08

B3020.01 Skylights**

There is a section of sloping plastic skylight in a prefinished aluminum frame over the library.

Rating	Installed	Design Life	Updated
5 - Good	1980	25	MAR-08

Event: Replace skylight [100m2]

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

Updated: APR-08

B3020.02 Other Roofing Openings (Hatch,Vent, etc) - 1980 Section*

There is a variety of roof penetrations with prefinished metal flashings including vent pipe penetrations .

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

S3 INTERIOR

C1010.01.07 Framed Partitions (Stud)

The interior partitions between classrooms and support areas are 150mm or 92mm steel studs with gypsum board finishes.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1010.05 Interior Windows*

There are interior aluminum windows in the rooms off the library including the vice principal's office, work room and conference room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1010.06 Interior Glazed Partitions and Storefronts*

There are steel storefronts in the general office and the conference room next to the main entrance. There are also aluminum interior storefronts with wired glass in the mezzanine class room overlooking the library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1010.07 Interior Partition Firestopping*

Partition fire stopping is installed throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1020.01 Interior Swinging Doors (& Hardware)*

Typical interior doors are painted solid core wood doors in painted pressed steel frames including classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

C1020.03 Interior Fire Doors*

Interior fire doors are painted steel in painted pressed steel frames with magnetic hold open devices. There are also rated solid core wood doors in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1030.01 Visual Display Boards**

There is a mix of green boards, white boards and tack boards in class rooms and the staff room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	MAR-08

Event: Replace display boards [36]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,600	Unassigned

Updated: APR-08

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

There are prefinished steel toilet compartments in the student and staff washrooms.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	30	MAR-08

Event: Repair 6 toilet partitions

Concern:
There are toilet partitions in the student wash rooms which are loose and require repair.
Recommendation:
Repair partitions.
Consequences of Deferral:
Partitions will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$1,716	Medium

Updated: APR-08

Event: Replace toilet compartments [20]

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

Updated: MAR-08

C1030.06 Handrails*

There are wood handrails on the store front units adjacent to the main entrance and the storefronts on the mezzanine floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1030.08 Interior Identifying Devices*

There are plastic classroom numbers on doors and other plastic signs for room designations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1030.10 Lockers**

There are open wood lockers with coat hooks in class rooms and 2 prefinished steel two tier lockers in the server room and 3 full height lockers in the custodian's office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace 5 steel & 400 wood lockers

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

Updated: MAR-08

C1030.12 Storage Shelving*

There is painted wood storage shelving in classrooms, work rooms and store rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C1030.14 Toilet, Bath, and Laundry Accessories*

There are mirrors, toilet roll holders, soap dispensers and hand drying machines in staff and student wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

C2010 Stair Construction*

There are two steel stairs with concrete filled tread pans to the mezzanine level with wood handrails and vinyl finish to the treads. There are also two steel stairs leading from the mechanical room to the roof access doors with steel pipe rails and checker plate treads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	100	MAR-08

C2030.01 Ramp Construction*

The music room located in the north west side of the school has stepped wood floor with a wood ramp down one side all with a carpet finish.

Rating	Installed	Design Life	Updated
5 - Good	1980	100	MAR-08

C3010.06 Tile Wall Finishes**

There are glazed ceramic wall tiles in the unused student showers near the gym.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

Event: Replace glazed tiles [100 m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$27,456	Unassigned

Updated: MAR-08

C3010.09 Acoustical Wall Treatment**

There is acoustical wall paneling along the top of the gym walls consisting of horizontal wood strips over fabric covered batts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	MAR-08

Event: Replace wall treatment [250m2]

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

Updated: MAR-08

C3010.11 Interior Wall Painting*

There are painted block and drywall finishes throughout including painted vinyl covered drywall.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	10	MAR-08

Event: Repaint 1000m2 wall

Concern:
There are sections of walls in corridors and class rooms which are damaged requiring repair and repainting.
Recommendation:
Refinish and repaint gypsum board .
Consequences of Deferral:
Wall finishes will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$18,304	Medium

Updated: APR-08

C3010.12 Wall Coverings*

Walls in classrooms and corridors are vinyl covered drywall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	15	MAR-08

C3020.01.02 Paint Concrete Floor Finishes*

There are painted concrete floor finishes in the mechanical room and generator room.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	10	MAR-08

Event: Repaint 900m2 concrete floor

Concern:
The paint on the concrete has deteriorated and appears unsightly.
Recommendation:
Repaint floors.
Consequences of Deferral:
Paint will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$16,016	Medium

Updated: APR-08

C3020.02 Tile Floor Finishes**

There are ceramic mosaic floor tiles in staff and student wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	50	MAR-08

Event: Replace ceramic tile [150m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$28,600	Unassigned

Updated: MAR-08

C3020.04 Wood Flooring**

The floors in the two gymnasia are maple strips on fir sleepers on neoprene pads.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	30	MAR-08

Event: Refinish 480m2 wood floor

Concern:
Sections of the maple floor are worn and damaged.
Recommendation:
Sand and refinish floor.
Consequences of Deferral:
Floor will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$28,600	Low

Updated: APR-08

Event: Replace wood gym floor [480m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$154,440	Unassigned

Updated: MAR-08

C3020.07 Resilient Flooring**

There are vinyl tiles in corridors and sections of vinyl tile in class rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	MAR-08

Event: Replace vinyl tile [1600m2]

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

Updated: MAR-08

C3020.08 Carpet Flooring**

There is carpet throughout the school including class rooms, library, music room and offices.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	15	MAR-08

Event: Replace Carpet [1500m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$154,440	Unassigned

Updated: MAR-08

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

The ceiling finish throughout the school is predominantly acoustic tiles in a T-bar grid in corridors, class rooms and other areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	MAR-08

Event: Replace acoustic tile [2500m2]

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

Updated: MAR-08

C3030.07 Interior Ceiling Painting*

There are painted drywall ceilings in washrooms, utility rooms and other service rooms. The soffits of the metal roof deck which form the ceilings in the two gyms and gym stores are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	MAR-08

S4 MECHANICAL

D2010.04 Sinks**

There are 15 stainless steel sinks c/w drinking bubblers for the classroom units and 1 kitchen sink. There are 4 mop service basins in
separate locations within the school.

Rating	Installed	Design Life	Updated
5 - Good	1980	30	MAR-08

Event: Replace 20 Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$25,168	Unassigned

Updated: MAR-08

D2010.05 Showers**

There are 16 showers in the Boy's and Girl's Locker Room areas, and one shower in the Infirmary washroom. With exception to the Imfirmary washroom, all other showers are not in use and the areas are used for storage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace 17 Showers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$9,724	Unassigned

Updated: MAR-08

D2010.08 Drinking Fountains / Coolers**

There are three main drinking fountains located in the corridors. (All classroom sinks also have individual bubblers.)

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	MAR-08

Event: Replace Drinking Fountains [3]

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$5,148	Unassigned

Updated: MAR-08

D2010.09 Other Plumbing Fixtures - Exterior Hose Bibs*

There are eight non-freeze hose bibs located on the various exterior faces of the building.

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

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

There are 24 stainless steel oval washroom lavatories with metering faucets. There are 22 mainly flush valve type waterclosets. There are 10 semi-recessed urinals with flush valves.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace Washroom Fixtures (22 WC, 24 Lav, 10 Urnl)

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$80,080	Unassigned

Updated: MAR-08

D2020.01.01 Pipes and Tubes: Domestic Water*

A 100mm domestic water service enters the metering room at the south portion of the west face of the building. Hot and cold water in copper piping is distributed via a corridor distribution system to the various fixtures located throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

D2020.01.02 Valves: Domestic Water**

Shut-off valves are provided in the corridor ceiling for each branch line and each group of fixtures. Valves range in size from 100mm at the water meter down to 25mm for the majority of washroom branch lines.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

Event: Replace Domestic Water Valves [40]

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$16,016	Unassigned

Updated: MAR-08

D2020.01.03 Piping Specialties (Backflow Preventors)**

A back flow preventor is provided for the boiler make-up water supply. Backflow preventors are also installed on the janitor mop service basins.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	MAR-08

Event: Replace Heating Boiler Backflow Preventor

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$3,661	Unassigned

Updated: MAR-08

D2020.02.02 Plumbing Pumps: Domestic Water**

There is one small in-line domestic hot water recirculation pump in the upper level mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	MAR-08

Event: Replace Plumbing Pump

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

Updated: MAR-08

D2020.02.06 Domestic Water Heaters**

There are two replacement hot water tanks (circa 1995), State Model # SBT 70 360 NE1 DF CGA, 324,000 btuh input (95 KW), 70 USgal storage, 272 USgph recovery.

Rating	Installed	Design Life	Updated
5 - Good	1995	20	MAR-08

Event: Replace Domestic Water Heaters [2]

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,982	Unassigned

Updated: MAR-08

D2020.03 Water Supply Insulation: Domestic*

Water lines are insulated, jacketed and painted where exposed and in the corridor ceiling spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

D2030.01 Waste and Vent Piping*

Sanitary waste connects from the various fixtures to an underslab (cast iron) 150mm sanitary waste system that exits the north face of the building and connects to a municipal manhole along 19A Avenue. Vent piping is located throughout with various roof penetrations (40, 65, 100mm).

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

D2040.01 Rain Water Drainage Piping Systems*

100mm cast iron roof drains with cages are strategically located throughout the roof area and drain into a 150mm buried storm drain that exits the northwest face of the building to a new manhole at the north property line. A 250mm storm line also enters this manhole from a catch basin in the west parking lot. A 380mm storm main exists the manhole and connects to a municipal manhole at the intersection of 52nd street and 19A avenue.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

D2040.02.04 Roof Drains*

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

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

D3010.02 Gas Supply Systems*

Natural gas enters the metering room on the west portion of the north face of the building and connects to the upper level mechanical room boiler and domestic water heating equipment. A steel gas main exits the mechanical room and distributes gas via the rooftop to the two portable pods on the east and south portions of the building. The 1980 drawings list the total natural gas load at 192.55 m3/hr.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	60	MAR-08

D3020.01.01 Humidification Steam Boiler & Accessories:**

There is one steam boiler provided for the humidification system. This unit has been shut-down as the school is not humidified. The boiler is a Hydrotherm VGA350S rated for 315,000 btuh (92.3 KW) input.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	MAR-08

Event: Replace Humidification Steam Boiler & Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$12,584	Unassigned

Updated: MAR-08

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

There are two heating boilers, each is a SuperHot Model AA1080M, 1,080,000 btuh input (317 KW), 864,000 btuh output 253 KW).

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	MAR-08

Event: Replace Heating Boilers [2]

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$68,640	Unassigned

Updated: MAR-08

D3020.02.01 Heating Pumps: H.W.**

There are two base mounted primary hot water heating pumps, each is a Bell & Gossett 1.0 HP 208/3ø/60 motors, rated for 3.3 lps

There are two secondary in-line pumps for the heating coil mixing valves for the gymnasium ventilation unit. Each is a Bell & Gossett rated at 1/4 HP.

There is one secondary in-line pump for the heating coil mixing valve for the school ventilation unit. This pump is a Bell & Gossett rated at 1/2 HP

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	MAR-08

Event: Replace Heating Pumps [5]

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

Updated: APR-08

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

There is a 500mm Type 'B' gas vent through the roof of the mechanical room for the boilers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace 500mm Type B gas vent

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

Updated: MAR-08

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

A chemical feeder is provided on the hydronic heating system. 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	1980	0	MAR-08

D3040.01.01 Air Handling Unit AS-2: Gymnasium**

One Trane air handling units is supplied to service the Gymnasium area, Unit is complete with supply and return fans, mixing box, and reheat coils. There are two zones, one for the west gym and one for the east gym, each with their own reheat coils . There is no maintenance manual or specifications available on site to verify capacities. Drawing take-off indicates a supply air capacity of 2016 lps. Supply fan is a Trane SLPHFFVUL, return fan is a Trane T8LPHBDHER.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace Air Handling Unit

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

Updated: MAR-08

D3040.01.01 Air Handling Units: AS-1: School**

AHU #1 supplies ventilation air to the classrooms and ancillary space in the facility. The supply fan is a Trane 21LPHFTHR, the return fan is a Trane T14LPHFTHR. There are no specifications or operating and maintenance manuals for verify supply air quantities, Take-off from drawings indicates a supply air volume of 6147 lps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace Air Handling

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$91,520	Unassigned

Updated: MAR-08

D3040.01.04 Ducts: Air Distribution*

There are two ventilation systems using sheet metal ducts. One system provides ventilation to the classroom and administrative areas. The second system provides ventilation to the gymnasium area. Supply air is ducted from the main school air handling unit to the various areas of the facility via a corridor distribution system with interior room zones equipped with reheat coils to prevent the rooms from over-cooling during periods of low or no occupancy. Supply air is ducted from the gymnasium air handling unit via an exposed high sidewall distribution system to the two gymnasium zones.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

D3040.01.07 Air Outlets & Inlets:Air Distribution*

The gymnasium ventilation system has duct mounted diffusers at the ceiling level. For the main school area, square cone ceiling diffusers are provided throughout. There is some evidence of dust build-up in the ductwork, particularly on the east portion of the north side of the building (office 313, art storage 161, science room 130, music room 129, classroom 128). This duct run and does have some interior reheat coils that may also have dirt build-up. Also, the ceiling diffuser in the office near the main entry has been blocked off by the occupant for unknown reasons.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

Event: Clean Ductwork

Concern:

There is some evidence of dust build-up in the ductwork, particularly on the east portion of the north side of the building (office 313, art storage 161, science room 130, music room 129, classroom 128).

See photo

Recommendation:

Ductwork runs should be checked for dust build-up and cleaned as required. Reheat coils on the ventilation units and the interior zones also need to be checked and cleaned as required. Air filtration equipment needs to be checked more frequently, and possibly a more efficient media installed on the air supply systems.

Consequences of Deferral:

Dust does not go away. Reheat coils may become clogged and cleaning costs with increase. Air quality and quantity in the school will deteriorate over time.

Type	Year	Cost	Priority
Repair	2008	$22,880	Low

Updated: MAR-08

D3040.03.01 Hot Water Distribution Systems**

A perimeter hydronic heating system is provided throughout the school area. There are also reheat coils in the duct runs for the interior zones.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

Event: Replace Hot Water Distribution System

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$337,480	Unassigned

Updated: MAR-08

D3040.04.01 Fans: Exhaust**

There are 8 rooftop exhaust fans serving the various washrooms, janitor rooms, storage rooms, and science room of the facility. These fans range from 19 lps through to 586 lps for a total building exhaust (from drawing take-off) of 2304 lps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace Rooftop Fans [8]

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

Updated: APR-08

D3040.04.03 Ducts: Exhaust*

There are 8 separate duct runs in the ceiling spaces to exhaust the various washroom, janitor room, storage and science room spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Ceiling mounted aluminium exhaust grilles are installed throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

D3050.02 Air Coils**

There are 13 reheat coils on the air distribution system for the interior occupied interior rooms of the facility. There are three reheat coils in the mechanical room, 2 on the gymnasium unit, and one for the school unit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace Air Coils [16]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$38,896	Unassigned

Updated: MAR-08

D3050.03 Humidifiers**

There are two steam grid humidifiers for the main ventilation units. These two humidifiers have been shut down as the school does not use humidification.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	MAR-08

Event: Replace Humidifiers [2]

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$4,576	Unassigned

Updated: MAR-08

D3050.05.02 Fan Coil Units**

There are four vestibule entrance fan coil units, three are wall mounted, one is ceiling mounted. Each is controlled by a line voltage thermostat.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace Fan Coil Units [4]

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

Updated: MAR-08

D3050.05.03 Finned Tube Radiation**

Perimeter radiation, zoned for each classroom/ancillary space is located throughout the perimeter of the school. There is approximately 185 meters of finned tube radiation installed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	MAR-08

Event: Replace Finned Tube Radiation [183 m]

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$92,664	Unassigned

Updated: MAR-08

D3050.05.06 Unit Heaters**

There are two unit heaters in the gymnasium at the ceiling level, one unit heater in the mechanical room, and one unit heater in the gas/water metering room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Event: Replace Unit Heaters [4]

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

Updated: MAR-08

D3060.02.02 Pneumatic Controls**

Pneumatic controls have been originally provided for the facility. A contract to replace these controls with digital controls is currently being completed.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	30	MAR-08

Event: Replace HVAC Instrumentation and Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$97,240	Unassigned

Updated: MAR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers are located throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

S5 ELECTRICAL

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

The Main Switchboard is a free- standing circuit breaker Service Entrance and Distribution Switchboard (manufactured by FPE), rated at 800A, 120/208V, 3 phase, 4 wire with a 800A main breaker and distribution breakers ranging from 100A to 200A, all thermal magnetic. Demand is recorded at 70 kVA (195A @ 120/208V).

Rating	Installed	Design Life	Updated
5 - Good	1980	40	MAR-08

Capacity Size	Capacity Unit
800A, 120/208V, 3 phase	N/A

Event: Replace Main Switchgear

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$68,640	Unassigned

Updated: MAR-08

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

Branch Circuit Panelborads are 120/208V, 3 phase, solid neutral panelboards of the circuit breaker type, manufactured by FPE. Typically 42 circuits for a single panel and rated 225A, there are two double panels of 60 and 84 circuits respectively.

Rating	Installed	Design Life	Updated
5 - Good	1980	30	MAR-08

Capacity Size	Capacity Unit
Various	N/A

Event: Replace 3 phase (8) & Single Phase Panelboards (8)

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

Updated: MAR-08

D5010.07.02 Motor Starters and Accessories**

Magnetic starters are the three phase, single speed, non-reversing type (Westinghouse) with overload relays, pilot lights and H-O-A switches.
Fractional horsepower motor starters are single phase manual starters complete with overload relays, also by Westinghouse.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace three phase magnetic starters (8)

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$9,152	Unassigned

Updated: MAR-08

D5020.01 Electrical Branch Wiring*

Wiring is cables in conduits, concealed in finished areas and surface mounted in utility areas; pac poles are used in the Computer Lab to bring the wiring (and data cables) to the computer terminals at desk level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.01 Lighting Accessories (Lighting Controls)*

Lighting control is predominantly by local line voltage switches in the room. Low voltage switching is employed for corridors and special areas (e.g. Gymnasium and Computer Lab).

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.01 Interior Incandescent Fixtures*

The only incandescent lighting is in the Staff Room where the dimmable pot lights are used for special occasions.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.02 Interior Fluorescent Fixtures**

The original fluorescent lighting system was converted to electronic ballasts and T8 lamps (32 watt, 4100K). Lighting fixtures, which were also refurbished, include surface mounted types with wrap-around acrylic lenses or solid sides with lay-in acrylic lenses, recessed types where accessible ceilings are available, standard gymnasium lights with wire-guards and industrial strip lights in utility areas.
The lamps in the incandescent pendant below the skylight in the Library are compact fluorescent lamps.

Rating	Installed	Design Life	Updated
6 - Excellent	2007	30	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Interior Fluorescent Fixtures (780)

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$178,464	Unassigned

Updated: MAR-08

D5020.02.03.03 Exit Signs*

Exit signs are the internally illuminated type with LED lamps with less than 2 W consumption per lamp.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.05 Special Purpose Lighting*

There is a portable stage lighting system, for use in the Gymnasium, complete with solid state dimming devices.

Rating	Installed	Design Life	Updated
5 - Good	2002	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.01 Exterior Incandescent Fixtures*

There are incandescent fixtures, ceiling and wall mounted at the building main entrance and some exits.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Exterior high pressure sodium lighting includes wall mounted fixtures on perimeter walls and a side entrance. There are lighting standards in the parking lot.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

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

Exterior lighting is controlled by photoelectric cell and time clock, with manual override.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.01 Detection and Fire Alarm**

The Edwards 6500 fire detection and alarm system is a single stage, zoned and annunciated system. The hard wired and supervised system contains 10 alarm zones of manual stations, heat and smoke detectors and 2 signal circuits for bells only. The control panel with its integral annunciator is located in the General Office. A remote annunciator is present at the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Fire Alarm System

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

Updated: MAR-08

D5030.02.02 Intrusion Detection**

The Magnum Alert intrusion detection and alarm system includes a solid state control panel located in the Storage Room behind the Custodian's office and a keypad and infrared motion detectors. Armed from the keypad located in the Custodian's office, the signal is transmitted to the Edmonton School Board.

Rating	Installed	Design Life	Updated
5 - Good	1997	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Intrusion Detection

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$16,016	Unassigned

Updated: MAR-08

D5030.03 Clock and Program Systems*

The internal clock in the Bogen Public Address system provides the class change program and signal through the P.A. loudspeakers. There are battery clocks throughout the school which are radio controlled, providing a consistent time throughout the school.

Rating	Installed	Design Life	Updated
6 - Excellent	2007	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.01 Telephone Systems*

The Norstar Network telephone system is a hybrid key system, accommodating the telephone and intercom needs of the school. There are telephone sets in every classroom and in offices. The system interfaces with the public address system for announcements and broadcasts. The system is backed up by a 700 W UPS by APC.

Rating	Installed	Design Life	Updated
5 - Good	2004	25	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.05 Local Area Network Systems*

With a SuperNet entry, the school provides extensive data distribution to the Computer Lab (mezzanine floor) and to every classroom and offices from the Server location in a storage room off the General Offices. A UPS of 1400W by APC backs up the Server. Horizontal distribution uses Category 5 cables.

Rating	Installed	Design Life	Updated
5 - Good	2001	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.05 Public Address and Music Systems**

The public Address system is a Bogen MultiCom system. While the original Bogen control equipment is replaced, the field wiring and loudspeakers remain. The modified system provides public address functions interfacing with the telephone system, school class changing program signaling through the loudspeakers and broadcasts the national anthem from a CD player connection.

Rating	Installed	Design Life	Updated
5 - Good	2004	20	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Public Address System

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

Updated: APR-08

D5030.06 Television Systems*

Portable television sets with DVD and VHS players serve the educational and entertainment needs of the school. There is no cable television.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5030.07.01 Microwave Transmission and Reception Equipment

An FM Voice Enhancement System is available in almost every classroom (except the 2007 portable). It is a wireless system using wireless microphones through radio frequency (FM) to the amplifier and distributed (hard wired) to loudspeakers in the classroom.

Rating	Installed	Design Life	Updated
5 - Good	1990	0	MAR-08

Capacity Size	Capacity Unit
N/A	N/A

D5090.02 Packaged Engine Generator Systems (Emergency Power System)**

The emergency power system is provided by a 45 kW (56.25 kVA @ 0.8 power factor) generator by Kohler. Located in a separate room off the mezzanine mechanical room, the natural gas driven, radiator-cooled engine generator set provides power to the exit and emergency lighting, heating equipment, life safety systems and essential communication equipment for the school. The emergency distribution panelboard (Panel E) is located in the Generator Room beside the Robonic automatic transfer switch.

Rating	Installed	Design Life	Updated
5 - Good	1980	35	MAR-08

Capacity Size	Capacity Unit
45 kW	N/A

Event: **Replace Emergency Power System**

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$68,640	Unassigned

Updated: APR-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

The library is equipped with adjustable painted wood shelving, plastic laminate mobile book storage and display units, plastic laminate tables on steel leg frames and chairs with polypropylene seats and steel leg frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

E1090.03 Food Service Equipment*

There is a community kitchen close to the gym equipped with residential appliances including range and hood, fridge, dishwasher and microwave. There is also a plastic laminate counter with base and wall units. The staff room also has a kitchenette with similar residential equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

There are basket ball hoops with back boards on steel frames and wall bars and ropes in the gyms .

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

E2010.02 Fixed Casework**

There is fixed casework throughout in classrooms, store rooms, work rooms and kitchens.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	35	MAR-08

Event: Relaminate and repair 50m counters

Concern:
There are sections of counters in classrooms, wash rooms and kitchens where edges and tops have delaminated and are chipped.
Recommendation:
Re-laminate edges and counters.
Consequences of Deferral:
Counters will delaminate further.

Type	Year	Cost	Priority
Repair	2008	$2,288	Unassigned

Updated: APR-08

Event: Replace casework [250m]

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$171,600	Unassigned

Updated: MAR-08

E2010.03.06 Curtains and Drapes**

There are drapes over the windows in classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-08

Event: Replace Drapes [300 m2]

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$22,880	Unassigned

Updated: MAR-08

F1010.02.04 Portable and Mobile Buildings 1982 *

The 1982 portable four classroom pod is located on the east side of the school and connected with a wood frame corridor link. It is a wood frame building: wood stud walls with fiberglass insulation, building paper on ply sheathing under the exterior metal cladding and drywall on vapour barrier interior finish. The roof consists of wood joists with insulation and wood roof deck with an built up roof finish. The exterior is prefinished metal cladding with a prefinished metal fascia. The windows are aluminum sliders with drapes and expanded metal screens on the exterior. The exterior doors are metal with panic hardware in pressed steel frames.

Interior:
Finishes include carpet, painted drywall, T-bar acoustic ceiling. The interior doors are painted solid core in pressed steel frames with side lights.

Electrical:
Each classroom has its own self contained 120/240V, single phase panel board. Power is fed from the main building distribution to one of class room (there are 4) and is then sub-fed to the other three. Lighting is surface mounted fluorescent with wrap around lenses with energy efficient electronic ballasts and T8 lamps.

Mechanical:
Two of the portable classrooms have the original Palm furnaces both with an output of 75,600 btu. The other two classrooms have Carrier natural gas furnaces installed in 2002 with outputs of 105,000 btuh and 48,600 btuh.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	MAR-08

1982 portable class rooms

Event: Replace roof with 450m2 SBS and replace roof vent

Concern:
The built up roof is original and is deteriorating with pooling and bleeding of asphalt.
A Type B roof vent to the furnace in portable classroom 148 is crushed and possibly restricted although no down drafting was noted at the time of inspection.

Recommendation:
Replace roof with SBS. Cost $52,000
Replace Type B vent. Cost $1000

Consequences of Deferral:
Roof will deteriorate further.
Down drafting potential will persist.

Type	Year	Cost	Priority
Repair	2008	$60,632	Medium

Updated: APR-08

F1010.02.04 Portable and Mobile Buildings 1983*

The 1983 portable four class room pod is located on the south side of the school and connected with a wood frame corridor link. It is a wood frame building with wood stud walls, fibre glass insulation, vapour barrier and drywall interior finish. The roof consists of wood joists with insulation and wood roof deck with a built up roof finish. The exterior is prefinished metal cladding with a prefinished metal fascia. The windows are aluminum sliders with drapes and expanded metal screens on the exterior.

Interior:
Finishes include carpet, painted drywall, T-bar acoustic ceiling and painted steel exterior doors in a pressed steel frame. The interior doors are painted solid core in pressed steel frames with side lights. Exterior doors are metal in pressed steel frames.

Electrical:
Each classroom has its own self contained 120/240V, single phase panel board. Power is fed from the main building distribution to one class room (there are 4) and is then sub-fed to the other three. Lighting is surface mounted fluorescent with wrap around lenses and energy efficient electronic ballasts and T8 lamps.

Mechanical:
All four classrooms have Carrier 58CTA070 natural gas furnaces with 48,600 btu output.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

1983 portable class rooms

Event: Replace roof with SBS [450m2]

Concern:
The built up roof is original and is deteriorating with pooling and bleeding of asphalt.
Recommendation:
Replace roof with SBS.
Consequences of Deferral:
Roof will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$57,200	High

Updated: APR-08

F1010.02.04 Portable and Mobile Buildings 2007*

The free standing portable classroom on the west side of the school was constructed in 2000 and was installed on the site in 2007. It is a wood frame building: wood stud walls with fibre glass insulation, vapour barrier and drywall interior finish. The wood base frame is carried on steel skids laid on grade. The roof consists of wood joists with insulation and wood roof deck with an SBS finish. The exterior is prefinished metal cladding with a ply skirt at grade with metal ventilation grilles. The windows are aluminum sliders. There are painted steel stairs with steel grille treads and steel pipe rails at the main entrance door and the rear exit door.

Interior:
The interior finishes are carpet, painted drywall, T-bar acoustic ceiling and painted steel exterior doors in a pressed steel frame.

Electrical:
The single portable classroom is fed overhead from the main building. It has a self contained service entrance of 120/240V, single phase, 3 wire panel board with a 50A main breaker and 15A branch circuit breakers. There is a single high pressure sodium entrance light. The interior lighting is surface mounted fluorescent with wrap around lenses with electronic ballasts and T8 lamps.

Mechanical:
The furnace is a Lennox G20R0314E-100-6, natural gas, 80,000 btu output.

Rating	Installed	Design Life	Updated
3 - Marginal	2000	30	MAR-08

2000 portable class room

Event: Repair walls and ceilings

Concern:
The deficiencies of this class room are:

Painted gypsum board walls are damaged and require repair and repainting:

T-bar ceilings are damaged and require repair:

Total repair Cost $4,000
Recommendation:
Repair 100m2 wall: Cost $1,000

Replace 80m2 acoustic tiles: Cost $3,000
Consequences of Deferral:
Walls and ceiling will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$4,576	Medium

Updated: APR-08

F2020.01 Asbestos*

A February, 2000, consultant's report concluded that all samples of building materials taken from the school and tested did not contain asbestos and that no further action was required. The report also also concluded that there could be concealed building materials which may contain asbestos and that this should be considered in the event of future renovations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

F2020.04 Mould*

In 2002 there was a mould abatement project. During the audit there was musty odour outside a portable classroom pod.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

Event: Remove 10m2 mould and sterilise adjacent area

Concern:
During the audit there was a musty odour inside a portable classroom pod. (In 2002 there was a mould abatement project.)

Recommendation:
Locate and remove mould growth and sterilize adjacent area.

Consequences of Deferral:
Mould will continue to grow.

Type	Year	Cost	Priority
Hazardous Materials Abatement	2008	$3,432	High

Updated: APR-08

F2020.09 Other Hazardous Materials*

There were no other hazardous materials observed or reported during the school facility audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

There is a barrier free route from parking to the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

K4010.02 Barrier Free Entrances*

Entrances to the school are barrier free.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

K4010.03 Barrier Free Interior Circulation*

Circulation throughout the school is barrier free, however, the free standing portable class room is accessible only by steel stairs.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

Event: Provide steel ramp

Concern:
The free standing portable class room is accessible by steel stairs.
Recommendation:
Construct metre high steel ramp.
Consequences of Deferral:
The portable class room will remain inaccessible to wheel chairs.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$2,288	Medium

Updated: APR-08

K4010.04 Barrier Free Washrooms*

There are barrier free cubicles in the boys and girls washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

RECAPP Facility Evaluation Report

Meyokumin School

S3220
Edmonton

Report run on: May 6, 2008 2:07 PM

Facility Details

Building Name: Meyokumin School
Address:
Location: Edmonton

Building Id: S3220
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: November 11 2007
Evaluator Name: J. R. Irlam

Total Maintenance Events Next 5 years: **$242,185**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The main entrance to the school site is a concrete sidewalk which ramps up slightly to the main entrance with scrubs in wood planters on either side. The parking lot is located on the west side of the school as is a section of gravel where steel bike racks are located. Here are concrete pedestrian surfaces on the west, north and east sides of the school and asphalt surfaces on the south side. There are grassed areas on all sides of the school with mature trees on the west and north sides.
There is a culvert under the concrete pedestrian surface on the eats side of the school to control run off.

The site is in a generally 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 length of asphalt roadway accessing the parking lot on the west side of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	MAR-08

Event: Repair 250m2 asphalt roadway

Concern:
The roadway is cracked, appears unsightly and requires repair.
Recommendation:
Repair roadway.
Consequences of Deferral:
Roadway will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$7,436	Low

Updated: APR-08

Event: Replace 250m2 asphalt roadway

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

Updated: MAR-08

G2010.05 Roadway Curbs and Gutters*

There are poured concrete curbs to the roadway.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

Event: Repair 50m of concrete curbs

Concern:
There are sections of poured concrete curbs which are damaged and require repair.
Recommendation:
Repair concrete curbs.
Consequences of Deferral:
Curbs will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$5,720	Low

Updated: APR-08

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

There is an asphalt parking lot on the west side of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	MAR-08

Event: Repair 650m2 asphalt parking lot

Concern:
The parking lot is cracked and pooling in one corner.
Recommendation:
Repair parking lot.
Consequences of Deferral:
Parking lot will deteriorate further.

Type	Year	Cost	Priority
Repair	2008	$19,448	Medium

Updated: APR-08

Event: Replace 650m2 asphalt parking lot

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,600	Unassigned

Updated: APR-08

G2020.05 Parking Lot Curbs and Gutters*

The are poured concrete curbs for the parking lot asphalt surface.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

Event: Repair 70m concrete curb

Concern:
There are sections of poured concrete curbs which are damaged and require repair.
Recommendation:
Repair concrete curbs.
Consequences of Deferral:
Curbs will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$8,008	Low

Updated: MAR-08

G2020.06.01 Traffic Barriers*

There are painted steel barriers with horizontal rails and posts along each side of the parking lot which also accommodate plug ins. The is a line of wood bollards at the south end of the parking lot and a steel bollard in the gap in the steel barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G2020.06.03 Parking Lot Signs*

There are "staff only" parking signs at the entrance to the lot. Each stall has a painted number on the steel rails.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G2020.06.04 Pavement Markings*

There are stall lines painted on the asphalt surface.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	MAR-08

Event: Repaint 60m stall lines

Concern:
The painted stall lines have worn and are indistinct.
Recommendation:
Repaint lines.
Consequences of Deferral:
Lines will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$1,373	Low

Updated: APR-08

G2030.04 Rigid Pedestrian Pavement (Concrete)**

There is concrete pedestrian pavement on the north, east and west sides of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	MAR-08

Event: Repair 50m2 concrete

Concern:
There are sections of the pedestrian pavement which have settled and created a trip hazard including the north side of the school near the main entrance and adjacent to the entrance on the east side.

Recommendation:
Repair concrete.

Consequences of Deferral:
Concrete will continue to settle and the trip hazard will be aggravated.

Type	Year	Cost	Priority
Repair	2008	$5,720	Medium

Updated: APR-08

Event: Replace 500m2 concrete

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

Updated: APR-08

G2030.06 Exterior Steps and Ramps*

The concrete sidewalk is ramped up to the entrance on the north west side of the school.

Rating	Installed	Design Life	Updated
5 - Good	0	15	MAR-08

G2040.02.02 Ornamental Metal Fences and Gates*

There is a painted steel pipe lawn fence on each side of the main entrance sidewalk next to the city side walk.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-08

G2040.03 Athletic and Recreational Surfaces**

Both concrete and asphalt are used for recreational surfaces on the east and west sides of the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	MAR-08

Event: Repair 200m2 concrete and 200m2 asphalt

Concern:
There are sections of asphalt and concrete recreation surfaces which are damaged and require repair.
Recommendation:
Repair recreational surfaces.
Consequences of Deferral:
Surfaces will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$17,160	Medium

Updated: APR-08

Event: Replace 200m2 concrete and 200m2 asphalt

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

Updated: MAR-08

G2040.05 Site and Street Furnishings*

There are benches arranged around a tree on the west side of the school consisting of a painted steel frame and wood seats.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G2040.06 Exterior Signs*

There is a metal sign affixed to the exterior wall of the school next to the main entrance. There is also a free standing wood sign in the grassed area near to the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G2040.08 Flagpoles*

There is a self coloured metal flag pole near the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	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	1980	0	MAR-08

Event: Repair 2000m2 grassed area

Concern:
There are worn patches in grassed areas on all sides of the school which appear unsightly and require repair.
Recommendation:
Re-sod worn areas.
Consequences of Deferral:
Grassed areas will continue to deteriorate.

Type	Year	Cost	Priority
Repair	2008	$11,440	Medium

Updated: APR-08

G2050.05 Trees, Plants and Ground Covers*

There are both mature coniferous and deciduous trees on the west and north sides of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G2050.07 Planting Accessories*

There are wood planters on both sides of the main entrance planted with scrubs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G3010.02 Site Domestic Water Distribution*

A 100mm domestic water service enters the metering room at the south portion of the west face of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G3020.01 Sanitary Sewage Collection*

Sanitary waste connects from the various fixtures to an underslab 150mm sanitary waste system that exits the north face of the building and connects to a municipal manhole in 19A Avenue.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G3030.01 Storm Water Collection*

100mm roof drains are strategically located throughout the roof area and drain into a 150mm buried storm drain that exits the northwest face of the building to a new manhole at the north property line. A 250mm storm line also enters this manhole from a catch basin in the west parking lot. A 380mm storm main exits the manhole and connects to a municipal manhole at the intersection of 52nd street and 19A avenue.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G3060.01 Gas Distribution*

Natural gas enters the metering room on the west portion of the north face of the building and connects to the upper level mechanical room boiler and domestic water heating equipment. A gas main exists the mechanical room and distributes gas via the rooftop to the two portable pods on the east and south portions of the building. The 1980 drawings list the total natural gas load at 192.55 m3/hr.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G4010.02 Electrical Power Distribution Lines*

There is an underground primary line from 19A Avenue to the pad mounted transformer on the west side of the school, next to the parking lot.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	MAR-08

G4010.04 Car Plugs-ins*

There are energized parking stalls for 24 cars with car parking receptacles in weatherproof enclosures on steel railings. These split receptacles with dedicated circuits are thermostically and time clock controlled from the building management system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08

G4020.01 Area Lighting*

High pressure sodium wall mounted fixtures on the building exterior provide perimeter lighting. The parking lot has high mast lighting, shared with the adjacent Community Centre.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	MAR-08