RECAPP Facility Evaluation Report

Calgary RCSSD #1



Mother Teresa Elementary School B2724A Calgary

Calgary - Mother Teresa Elementary School (B2724A)

Facility Details

Building Name: Mother Teresa Elementary S

Address: 121 Midlake Boulevard S. E.

Location: Calgary

Building Id: B2724A

Gross Area (sq. m): 2,688.20 Replacement Cost: \$7,208,150

Construction Year: 1980

Evaluation Details

Evaluation Company: Quinn Young Architects, Ltd.

Evaluation Date: December 17 2010

Evaluator Name: Lance G. Henderson

Total Maintenance Events Next 5 years: \$2,061,200 5 year Facility Condition Index (FCI): 28.60%

General Summary:

Single story elementary school built in 1980.

2,597 square meters.

Eleven portables in total on site:

-six portables (1981) are placed along the southwest side of the school in 2010.

-five additional portables are placed on the northwest side starting in 1988.

Student capacity is 400.

Structural Summary:

Concrete foundation and strip footings are provided.

Concrete block perimeter wall assemblies, combined with giant brick walls, are supporting steel roof trusses and metal roof decking.

Steel posts and steel beams are integrated with load bearing concrete block interior partitions.

The structure is in acceptable condition.

Envelope Summary:

Giant brick combined with an air space, rigid wall insulation, and a concrete block interior wall backing.

Steel studs with batt insulation have been placed over the interior concrete block perimeter walls.

Metal roof deck w/ SBS bituminous roofing application (2003) installed over 80 mm of rigid insulation, and a vapor barrier.

Aluminum window units are installed at perimeter exterior partition locations, and appear caulked and flashed.

The upper third of the perimeter wall assemblies consist of horizontal metal siding.

Accumulation of loose asphalt granules on Eastern edges of all roof portions was observed.

Ponding above SE corridor/ general office areas.

Recommend to remove accumulation of granules.

The envelope is in acceptable condition.

Interior Summary:

Painted concrete block walls.

Gypsum board vinyl wall paper covered partitions.

Ceiling assembly finish consists of T-bar acoustic tiles & gypsum board ceilings.

Metal roof decking.

Flooring: sheet vinyl flooring / composite tile flooring, carpeting.

The interiors in acceptable condition.

Mechanical Summary:

The School was built in 1981. The Schools heating is generated by six Galaxy Boilers, that supply hot water to, perimeter baseboard radiation, and for the Air Handling Units coils. Control for the mechanical equipment is with pneumatic, electric, and electronic controls. There is also a BMS for the School. Domestic hot water is provided with one hot water tank. Sanitary sewer, domestic water, and natural gas are all supplied by municipal services. The plumbing fixtures are originals. There are fire extinguishers and hose cabinets throughout the School, the School is not sprinklered.

The mechanical systems are nearing the end of there life expectancy but are in acceptable condition.

Electrical Summary:

The main service to the facility is provided through a padmount transformer and is fed underground to the main service to the building. Which consists of a 800 Amp 3 phase 4 wire, 12/208 Volt Service. From the main distribution the secondary power branches out to the various panels throughout the school.

The fire alarm system is a Edwards Custom 6500, and is tested yearly.

The majority of the lighting in the school is fluorescent fixtures complete with T-12 lamps.

Security System is a Silent Knight utilizing motion detectors throughout the school.

The electrical equipment throughout the facility in general appears to be in good working order.

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*

Concrete foundations with concrete strip footings are installed.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

A1030 Slab on Grade*

125mm concrete slab is placed over a 6 MIL poly vapour barrier, and 150mm crushed gravel.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

A2020 Basement Walls (& Crawl Space)*

Gymnasium interior walls at exterior perimeter locations are constructed with concrete block and are exposed to the interior of the gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B1010.01 Floor Structural Frame (Building Frame)*

Mezzanine floor- 150mm cast concrete

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

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

Load bearing perimeter and interior concrete block walls support steel roof trusses.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B1010.03 Floor Decks, Slabs, and Toppings*

Metal roof decking over steel roof trusses.

A reinforced concrete slab is installed for mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B1010.07 Exterior Stairs*

Concrete exterior stairs are provided at the Northwest and Southwest entrances.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B1010.11 Other Floor Construction*

Barrier free ramp and stairs @ West gymnasium entrance.

Concrete ramp @ North gymnasium entrance.

Concrete ramp @ East side of the school.

Concrete stairs@ mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B1020.01 Roof Structural Frame*

Steel roof trusses rest on load bearing concrete block exterior & interior load bearing walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B1020.02 Structural Interior Walls Supporting Roofs*

Load bearing concrete block

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B1020.03 Roof Decks, Slabs, and Sheathing*

Metal deck on OWSJ.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

A variety of 100mm, 200mm, and 150mm giant brick are installed.

Several bricks at lower portion of the SE corner are cracked- estimated cost of repair less than \$1000.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

Behind the giant brick exterior, an air space and rigid insulation has been installed and concrete block interior load bearing walls have been installed behind the exterior outer assembly described above.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B2010.01.06.03 Metal Siding**

Approximate upper third of the building elevation is covered with metal siding. The appearance of metal siding currently is faded & finish is deteriorated.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace Metal Siding (approx. 820 m2)

TypeYearCostPriorityLifecycle Replacement2020\$240,000Unassigned

Updated: APR-11

B2010.01.09 Expansion Control: Exterior Wall Skin*

Caulking has been applied to all of the vertical expansion joints observed.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

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

Caulking has been applied to all of the vertical expansion joints observed.

RatingInstalledDesign LifeUpdated4 - Acceptable199520APR-11

Event: Replace caulking approx. 185 m

TypeYearCostPriorityLifecycle Replacement2015\$5,500Unassigned

Updated: APR-11

Report run on: April 7, 2011 4:50 PM Page 6 of 40

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

All soffits are stained dark brown.

RatingInstalledDesign LifeUpdated4 - Acceptable198015APR-11

Event: Repaint / Restain Exterior Wall (approx. 315 m2)

TypeYearCostPriorityLifecycle Replacement2014\$6,000Unassigned

Updated: APR-11

B2010.02.03 Masonry Units: Ext. Wall Const.*

Concrete block load bearing walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B2010.02.99 Other Exterior Wall Construction*

Metal studs to fur out metal cladding

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

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

Flexible self-adhesive air/moisture membrane. Vapour barrier.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B2010.06 Exterior Louvers, Grilles, and Screens*

Prefinished metal louver grills are installed at the upper roof height @ mechanical penthouse.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

B2010.09 Exterior Soffits*

Plywood on wood framing @ entrances.

Below the upper metal siding, wood blocking & plywood have also been installed.

RatingInstalledDesign LifeUpdated3 - Marginal19800APR-11

Event: Repair Exterior Soffits

Concern:

Wood soffit is deteriorated & appears to be rotting.

Recommendation:

Wood soffit needs to be replaced Consequences of Deferral:

Continued deterioration.

 Type
 Year
 Cost
 Priority

 Repair
 2011
 \$5,000
 Medium

Updated: APR-11

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

Clear anodized aluminum window frames.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace windows (approx 37 m2)

TypeYearCostPriorityLifecycle Replacement2020\$41,000Unassigned

Updated: APR-11

B2030.01.02 Steel-Framed Storefronts: Doors**

Installed at building entrances (10).

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace Steel-Framed Exterior Doors

TypeYearCostPriorityLifecycle Replacement2011\$25,000Unassigned

Updated: APR-11

B2030.02 Exterior Utility Doors**

Roof access door @ mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace acess door

TypeYearCostPriorityLifecycle Replacement2020\$1,000Unassigned

Updated: APR-11

B3010.01 Deck Vapor Retarder and Insulation*

Poly vapor barrier.

40mm rigid fibrous insulation.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

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

2-ply SBS roofing.

RatingInstalledDesign LifeUpdated3 - Marginal200325APR-11

Event: Repait and Clean SBS Roof

Concern:

Accumulation of loose granules on Eastern edges of all roof portions.

Ponding above SE corridor/general office areas.

Recommendation:

Remove accumulation of granules.

Replace roof providing proper sloping requirements.

Consequences of Deferral:

Continued accumulation of debris & moisture at all Eastern parapets.

Further deterioration due to ponding & moisture.

TypeYearCostPriorityRepair2011\$30,000Low

Updated: APR-11

Event: Replace SBS Roofing (approx. 2685 m2)

TypeYearCostPriorityLifecycle Replacement2028\$470,000Unassigned

Updated: APR-11

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Majority of interior partitions consist of painted concrete block walls.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1010.02 Interior Demountable Partitions*

Vinyl wall papered gypsum board partitions in offices & between gymnasium/ stage. Torn vinyl wall paper was visible in Vice Principal office.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1010.04 Interior Balustrades and Screens, Interior Railings*

Balustrade in East corridor to separate ramp and stair condition.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1010.05 Interior Windows*

Clear glass interior window between office administration area & principal office.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1010.07 Interior Partition Firestopping*

Firestopping has been placed around penetrations in the mechanical room and caretaker rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1020.01 Interior Swinging Doors (& Hardware)*

Painted pressed steel frames & a combination of painted hollow metal & wood doors. The hardware appears functional.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1020.03 Interior Fire Doors*

Hollow metal doors in pressed steel frames at Storage, Caretakers, & Mechanical rooms.

RatingInstalledDesign LifeUpdated3 - Marginal19800APR-11

Event: Replace Fire-Rated Doors and Frames (approx. 10)

Concern:

Particular doors and frames need to be confirmed to have adequate fire ratings.

Recommendation:

As required, provide fire rating labels to the doors and frames.

Replace fire rated doors and frames as required.

Consequences of Deferral:

Inadequate fire rating protection in case of fire.

TypeYearCostPriorityCode Repair2012\$18,000Medium

Updated: APR-11

Event: Study to confirm door fire ratings

Concern:

Particular doors and frames need to be confirmed to have adequate fire ratings.

Recommendation:

Confirm if specified doors and frames are adequately fire rated by conducting a study.

Determine quantity of doors affected.

Consequences of Deferral:

Inadequate fire rating protection in case of fire.

TypeYearCostPriorityStudy2012\$5,000Medium

Updated: APR-11

C1020.07 Other Interior Doors*

Fire rated rolling shutter at Administration counter.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1030.01 Visual Display Boards**

4 Whiteboards & 44 Tackboards and 4 Chalkboards in classrooms, science labs and computer labs. One Smartboard identified.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-11

Event: Replace Visual Display Boards

TypeYearCostPriorityLifecycle Replacement2014\$38,000Unassigned

Updated: APR-11

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

19 prefinished metal toilet partitions.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace Fabricated Compartments-

Toilets/Showers

TypeYearCostPriorityLifecycle Replacement2014\$23,000Unassigned

Updated: APR-11

C1030.08 Interior Identifying Devices*

Plastic signage throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1030.12 Storage Shelving*

Metal storage shelving provided in classrooms & corridors.

Wood cabinetry has also been provided in the classrooms.

A large wood paper storage cabinet, equipped with doors was also observed in some of the classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C1030.14 Toilet, Bath, and Laundry Accessories*

White painted towel dispensers. Plastic soap dispensers. Steel toilet paper dispensers.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C2010 Stair Construction*

Stairs are all poured in place reinforced concrete. A steel ships ladder is in the mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C2020.05 Resilient Stair Finishes**

Rubber stair treads

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-11

Event: Replacement Rubber Stair Treads

TypeYearCostPriorityLifecycle Replacement2014\$1,000Unassigned

Updated: APR-11

C2020.08 Stair Railings and Balustrades*

Painted steel handrails.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C2020.10 Stair Painting*

Painted concrete stair to mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable19980APR-11

C2030 Interior Ramps*

Cast-in-place concrete.

Slip resistant sheet good at barrier free ramps.

Painted steel railings.

RatingInstalledDesign LifeUpdated4 - Acceptable00APR-11

C3010.06 Tile Wall Finishes**

Urinals & shower stalls.

Corner base at girl's change room needs repair.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace Tile Wall Finishes

TypeYearCostPriorityLifecycle Replacement2020\$25,000Unassigned

Updated: APR-11

C3010.09 Acoustical Wall Treatment**

Acoustic spray applied to the upper 2m of the gymnasium walls.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-11

Event: Replace Acoustical Wall Treatment

TypeYearCostPriorityLifecycle Replacement2014\$33,000Unassigned

Updated: APR-11

C3010.11 Interior Wall Painting*

Painted concrete block wall surfaces through the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C3010.12 Wall Coverings*

Vinyl wallpaper.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

C3020.01.02 Paint Concrete Floor Finishes*

Mechanical room floor and stairs, caretakers room, and the meter room.

RatingInstalledDesign LifeUpdated4 - Acceptable19890APR-11

C3020.02 Tile Floor Finishes**

Ceramic tile in girls/ boys washrooms, changing rooms, & caretakers room (217sm). Quarry tile at Northeast mud room and Northwest entrances (48sm).

RatingInstalledDesign LifeUpdated4 - Acceptable198050APR-11

Event: Replace Tile Floor Finishes (265sm)

TypeYearCostPriorityLifecycle Replacement2030\$47,000Unassigned

Updated: APR-11

C3020.04 Wood Flooring**

The gymnasium has hardwood maple flooring refinished in 2003.

RatingInstalledDesign LifeUpdated4 - Acceptable200330APR-11

Event: Replace Wood Flooring (approx. 410 sm)

TypeYearCostPriorityLifecycle Replacement2033\$101,000Unassigned

Updated: APR-11

C3020.07 Resilient Flooring**

A combination of vinyl tile flooring & sheet goods installed in classrooms, and staff washrooms.

Slip resistant sheet good at barrier free ramps.

VCT: 385 sm.

Sheet Goods: 790 sm.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-11

Event: Replace Resilient Flooring (approx. 1175 m2)

TypeYearCostPriorityLifecycle Replacement2014\$84,000Unassigned

Updated: APR-11

C3020.08 Carpet Flooring**

Carpet has been installed in the library, administration office, & portions of the classrooms. 276sm

RatingInstalledDesign LifeUpdated4 - Acceptable198015APR-11

Event: Replace Carpet Flooring

TypeYearCostPriorityLifecycle Replacement2014\$13,000Unassigned

Updated: APR-11

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Unpainted gypsum board in Storage rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

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

T-bar throughout.

Some areas show staining and/ or chipping. 1800sm

RatingInstalledDesign LifeUpdated4 - Acceptable198025APR-11

Event: Replace Acoustic Ceiling Treatment (Susp.T-Bar)

TypeYearCostPriorityLifecycle Replacement2014\$80,000Unassigned

Updated: APR-11

C3030.07 Interior Ceiling Painting*

Painted ceilings in Washrooms/ Change Rooms

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

S4 MECHANICAL

D2010.04 Sinks**

There are several double and single stainless steel sinks in the school, for the staff, stage, kitchen and pre-School. There is also a porcelain floor mounted mop sink.

RatingInstalledDesign LifeUpdated4 - Acceptable198130APR-11

Event: Replace 6 Sinks

TypeYearCostPriorityLifecycle Replacement2014\$6,000Unassigned

Updated: APR-11

D2010.05 Showers**

The School has tempered water to 8 institutional type heads. Hand wheels operate showers. These Showers are not in use.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace Showers

TypeYearCostPriorityLifecycle Replacement2014\$8,000Unassigned

Updated: APR-11

D2010.08 Drinking Fountains/Coolers**

The School has several Wall hung vitreous china drinking fountains without chillers.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-11

Event: Replace 9 Drinking Fountains/Coolers

TypeYearCostPriorityLifecycle Replacement2015\$7,200Unassigned

Updated: APR-11

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

The School has Floor mounted flush valve with a few tank type toilets with elongated bowls. The basins are mostly counter types with a few wall hung basins. The urinals are full length floor to wall, with flush valves.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-11

Event: Replace 28 Washroom Fixtures (WC, Lav, Urnl)

TypeYearCostPriorityLifecycle Replacement2015\$23,000Unassigned

Updated: APR-11

D2020.01.01 Pipes and Tubes: Domestic Water*

The School has a four inch ductile iron water service riser. The piping inside the School is copper.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D2020.01.02 Valves: Domestic Water**

The School has a variety of isolation valves with most being gate valves. There is a tempered water mixing valve located in Mechanical Room for gym showers.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace Valves: Domestic Water

TypeYearCostPriorityLifecycle Replacement2020\$13,000Unassigned

Updated: APR-11

D2020.01.03 Piping Specialties (Backflow Preventors)**

There are Backflow preventors on domestic and irrigation water services as well as the boiler feed.

Rating Installed Design Life Updated 4 - Acceptable 1990 20 APR-11

Event: Replace Piping Specialties (Backflow Preventors)

TypeYearCostPriorityLifecycle Replacement2014\$4,500Unassigned

Updated: APR-11

D2020.01.08 Hose Bibbs*

There are 3 outside hose bibs in brass cabinets.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D2020.02.02 Plumbing Pumps: Domestic Water**

Domestic recirculation pump recirculates hot water throughout building.

RatingInstalledDesign LifeUpdated4 - Acceptable200020APR-11

Event: Replace Plumbing Pumps: Domestic Water

TypeYearCostPriorityLifecycle Replacement2020\$1,100Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters**

One natural draft gas-fired 65 Gal. water heater A.O. Smith, 274.5 MBH input, 266.2 gph rec, flue damper, recently installed.

RatingInstalledDesign LifeUpdated4 - Acceptable200020APR-11

Event: Replace One Domestic Water Heater

TypeYearCostPriorityLifecycle Replacement2020\$2,500Unassigned

Updated: APR-11

D2020.03 Water Supply Insulation: Domestic*

The domestic water lines have formed fiberglass insulation to prevent heat loss and sweating.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D2030.01 Waste and Vent Piping*

The sanitary sewer is a mix of cast iron, copper and a limited amount of plastic. Plumbing vents at roof appear good.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

Report run on: April 7, 2011 4:50 PM Page 19 of 40

D2030.02.04 Floor Drains*

The floor drains have cast iron p traps and brass grates.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D2040.01 Rain Water Drainage Piping Systems*

The Storm sewer is cast iron and drains to a municipal service. There are catch basin drains front parking area.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D2040.02.04 Roof Drains*

Roof drains are cast iron body with cast domes piped to below slab.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D3010.02 Gas Supply Systems*

There is a natural gas service for the School.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

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

Six natural draft gas-fired cast iron hot water boilers Slant-Fin Ltd. Galaxy Model GG-350, 315 MBH input, 252 MBH output, appear original. Two hot water heating pumps supply plate & frame water/glycol heat exchanger. Glycol pump delivers glycol to air system heating coils. Hot water plain steel expansion tank is suspended from roof structure. Glycol feed and diaphragm expansion tank sit on floor.

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-11

Event: Replace 6 Heating Boilers and Accessories: H.W.

TypeYearCostPriorityLifecycle Replacement2015\$75,000Unassigned

Updated: APR-11

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

There is a Combined flue to roof. Combustion and relief air ductwork were noted.

Rating Installed Design Life Updated 4 - Acceptable 1980 35 APR-11

Event: Replace one Chimneys (& Comb. Air): H.W. Boiler

Priority Year Cost Lifecycle Replacement 2015 \$28,000 Unassigned

Updated: APR-11

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

There is a Pot feeder and micron filter noted.

Rating Installed Design Life Updated 4 - Acceptable 1980 0 APR-11

D3040.01.01 Air Handling Units: Air Distribution**

The Gym Unit: Dunham-Bush Model HHU-118, glycol heating coil, mixed air, flat filters, relief ducts in gym. The Classrooms Unit: Dunham-Bush Model HHU-318, glycol heating coil, mixed air, flat filters, relief ducts in building.

Rating Installed Design Life Updated 4 - Acceptable APR-11 1980 30

Event: Replace 2 Air Handling Units: Air Distribution

Year Cost **Priority** Type Lifecycle Replacement 2014 \$150,000 Unassigned

Updated: APR-11

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

There is a Dlhi fan 200 series that supplies air into a duct for the fan coils that serve the portable school units. The furnaces in the portables are not operational.

Rating Installed Design Life Updated 4 - Acceptable 1980 APR-11

D3040.01.03 Air Cleaning Devices: Air Distribution*

There are flat removable filters in air handling units.

Rating Installed Design Life Updated 4 - Acceptable 1980 0 APR-11

D3040.01.04 Ducts: Air Distribution*

Rectangle metal duct work serves the Schools ventilation.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D3040.01.07 Air Outlets & Inlets: Air Distribution*

There are a series of small square diffusers for the supply air, the return uses egg crate returns in the ceiling or under door return.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D3040.03.01 Hot Water Distribution Systems**

Sch. 40 steel piping is used for the hot water heat. There are also copper pipe branches.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace Hot Water Distribution Systems

TypeYearCostPriorityLifecycle Replacement2020\$150,000Unassigned

Updated: APR-11

D3040.04.01 Fans: Exhaust**

Multiple roof mounted exhaust fans serve washrooms. Circulating fans with cages serve gymnasium. Kitchen ranges require range hood exhaust. Whirly birds ventilate portable attics. Kiln has dedicated exhaust.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Provide range hoods

Concern:

Life safety and fire hazard.

Recommendation:

Provide new range hoods. **Consequences of Deferral:**

Smoke inhalation, with damage to ceilings and surroundings.

TypeYearCostPriorityCode Upgrade2011\$3,200Low

Updated: APR-11

Event: Replace 10 Fans: Exhaust

TypeYearCostPriorityLifecycle Replacement2014\$10,000Unassigned

Updated: APR-11

D3040.04.03 Ducts: Exhaust*

The exhaust duct work in metal.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D3040.04.05 Air Outlets and Inlets: Exhaust*

The exhaust uses a variety of grills.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

D3040.05 Heat Exchangers**

Water/glycol plate and frame heat exchanger serves air system coils.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace One Heat Exchanger

TypeYearCostPriorityLifecycle Replacement2014\$8,000Unassigned

Updated: APR-11

D3050.02 Air Coils**

Glycol heating coils in air handling units. Three way control valves with bypass, fail to heat, electric control.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace Two Air Coils

TypeYearCostPriorityLifecycle Replacement2014\$9,500Unassigned

Updated: APR-11

D3050.03 Humidifiers**

There are two stainless steel humidifiers on the Air Handling Units.

RatingInstalledDesign LifeUpdated4 - Acceptable198025APR-11

Event: Replace Two Humidifiers

TypeYearCostPriorityLifecycle Replacement2014\$6,000Unassigned

Updated: APR-11

D3050.05.02 Fan Coil Units**

There are 6 fan coils serving the portable school units. These fan coils have supply air from the School and use the portable duct work. The furnaces in the portables is not used.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace 6 Fan Coil Units

TypeYearCostPriorityLifecycle Replacement2014\$6,500Unassigned

Updated: APR-11

D3050.05.03 Finned Tube Radiation**

Hot water finned tube radiation serves perimeter of the School.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace Finned Tube Radiation

TypeYearCostPriorityLifecycle Replacement2020\$35,000Unassigned

Updated: APR-11

D3050.05.06 Unit Heaters**

Hot water unit heaters serve entries and mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace 2 Unit Heaters

TypeYearCostPriorityLifecycle Replacement2014\$2,200Unassigned

Updated: APR-11

D3060.02.01 Electric and Electronic Controls**

There are a few electric and electronic controls in the School.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace Electric and Electronic Controls

TypeYearCostPriorityLifecycle Replacement2014\$1,500Unassigned

Updated: APR-11

D3060.02.02 Pneumatic Controls**

Dual compressors and air dryer provide heating control.

RatingInstalledDesign LifeUpdated4 - Acceptable198040APR-11

Event: Replace Pneumatic Controls

TypeYearCostPriorityLifecycle Replacement2020\$15,000Unassigned

Updated: APR-11

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

Paragon system for scheduling, alarms and remote monitoring. Johnson's local control panel.

RatingInstalledDesign LifeUpdated4 - Acceptable198020APR-11

Event: Replace Building Systems Controls (BMCS, EMCS)

TypeYearCostPriorityLifecycle Replacement2014\$25,000Unassigned

Updated: APR-11

D4030.01 Fire Extinguisher, Cabinets and Accessories*

There are ABC fire extinguishers through out the School.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

S5 ELECTRICAL

D5010.01 Main Electrical Transformers**

Utility owned padmount transformer.

RatingInstalledDesign LifeUpdated5 - Good198140APR-11

Capacity Size Capacity Unit

Event: Replace Main Electrical Transformer

TypeYearCostPriorityLifecycle Replacement2021\$60,000Unassigned

Updated: APR-11

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

The main service is a Westinghouse 800 amps, 120/208 volts, 3 phase, 4 wire system.

RatingInstalledDesign LifeUpdated5 - Good198140APR-11

Capacity Size Capacity Unit 800 amps

Event: Replace Main Electrical Switch Board

TypeYearCostPriorityLifecycle Replacement2021\$100,000Unassigned

Updated: APR-11

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

Branch panels located in different wings not upgraded since the original building construction.

RatingInstalledDesign LifeUpdated4 - Acceptable198130APR-11

Event: Replace Electrical Branch Circuit Panelboards

(Secondary Distribution)

TypeYearCostPriorityLifecycle Replacement2014\$18,000Unassigned

Updated: APR-11

D5010.07.02 Motor Starters and Accessories**

Motor starters in the facility are Westinghouse. The starters are used to control various mechanical equipment.

RatingInstalledDesign LifeUpdated4 - Acceptable198130APR-11

Event: Replace Motor Starters and Accessories

TypeYearCostPriorityLifecycle Replacement2014\$2,500Unassigned

Updated: APR-11

D5020.01 Electrical Branch Wiring*

The wiring throughout the facility utilizes conduit and single strand wire as well as AC 90 cable.

RatingInstalledDesign LifeUpdated4 - Acceptable19810APR-11

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

The lighting control is operated locally to each area or class.

RatingInstalledDesign LifeUpdated4 - Acceptable19810APR-11

D5020.02.02.02 Interior Fluorescent Fixtures**

The majority of the lighting in the facility is fluorescent with T-12 lamps and K19 lenses.

RatingInstalledDesign LifeUpdated4 - Acceptable198130APR-11

Event: Replace or retrofit lighting fixtures (350)

Concern:

T-12 lamps and magnetic ballasts are in place. Better efficiency can be realized.

Recommendation:

Replace fixtures with T-8 lamps and electronic ballasts.

Fixtures to fit into metric grids.

TypeYearCostPriorityEnergy Efficiency Upgrade2014\$35,000Low

Updated: APR-11

D5020.02.02.03 Interior Metal Halide Fixtures*

The Gym fixtures are metal halide high bays with wire guards.

RatingInstalledDesign LifeUpdated4 - Acceptable19810APR-11

D5020.02.03.02 Emergency Lighting Battery Packs**

Remote heads fed by an inverter pack. The pack has been modified to a 24 volt system.

RatingInstalledDesign LifeUpdated4 - Acceptable198120APR-11

Event: Install proper emergency lighting system.

Concern:

The system used does not meet current ULC standards.

Recommendation:

Install new remote heads and battery packs with remote

heads and exit signs.

Consequences of Deferral:

Loss of emergency lighting.

TypeYearCostPriorityCode Upgrade2011\$26,000High

Updated: APR-11

D5020.02.03.03 Exit Signs*

The exit lights are Lumacell and utilizes incandescent lighting.

RatingInstalledDesign LifeUpdated4 - Acceptable19810APR-11

D5020.03.01.03 Exterior Metal Halide Fixtures*

The exterior fixtures are HID and are wall pack style at various locations around the school.

RatingInstalledDesign LifeUpdated4 - Acceptable19810APR-11

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

The exterior lighting control is provided through photo cell and time clock over ride.

RatingInstalledDesign LifeUpdated4 - Acceptable19810APR-11

D5030.01 Detection and Fire Alarm**

Edwards 6500 in the janitor's room with a graphic annunciator at the main entrance.

Systems is complete with signaling and initiating devices.

RatingInstalledDesign LifeUpdated4 - Acceptable198125APR-11

Event: Replacement of Detection and Fire Alarm m2/gfa

TypeYearCostPriorityLifecycle Replacement2014\$65,000Unassigned

Updated: APR-11

D5030.02.02 Intrusion Detection**

Silent Knight system with motion detectors throughout the facility. The system is monitored externally.

RatingInstalledDesign LifeUpdated4 - Acceptable198125APR-11

Event: Replace Intrusion Detection m2/gfa

TypeYearCostPriorityLifecycle Replacement2014\$5,500Unassigned

Updated: APR-11

D5030.04.01 Telephone Systems*

The telephone system is a Nortel System. The system utilizes multiple lines to service the facility.

RatingInstalledDesign LifeUpdated4 - Acceptable20020APR-11

D5030.04.04 Data Systems*

Cat 5e system with a floor mounted rack in dedicated data room. System utilizes 3com and Sisco switches as well as AMP patch panels.

RatingInstalledDesign LifeUpdated4 - Acceptable20020APR-11

D5030.05 Public Address and Music Systems**

The PA system has an InterM Amp. The PA system utilizes the phone system for announcements.

RatingInstalledDesign LifeUpdated4 - Acceptable200220APR-11

Event: Replace Public Address and Music Systems (1)

TypeYearCostPriorityLifecycle Replacement2022\$7,000Unassigned

Updated: APR-11

D5030.06 Television Systems*

TVs on carts with VCR. No cabling to classrooms.

Rating	<u>Installed</u>	Design Life	Updated	
4 - Acceptable	1981	0	APR-11	

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1010.08 Office Equipment*

Thirty-one computers in the computer lab.

Two computers in the ECS classroom.

Four computers in the classroom to the south of it.

RatingInstalledDesign LifeUpdated4 - Acceptable20050APR-11

E1020.02 Library Equipment*

Two computers and one laser printer is located in the library.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

E1020.03 Theater and Stage Equipment*

A lighting rod has been added to the gymnasium ceiling for drama plays and presentations.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

E1020.05 Audiovisual Equipment*

Projector screens have been provided in the classrooms.

Three TV and video machines are stored in the work room adjoining the library.

RatingInstalledDesign LifeUpdated4 - Acceptable20000APR-11

E1020.07 Laboratory Equipment*

A kiln is located at the end of the extended kitchen space (currently storage area).

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

E1090.04 Residential Equipment*

Three fridges.

Two freezers.

Two microwaves.

Two stoves.

Popcorn making machine.

One dishwasher.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Six basketball backstops have been installed in the gymnasium.

A climbing wall apparatus has been installed on the South perimeter wall of the gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

E2010.02 Fixed Casework**

Adjacent to the administrative office.

Wooden upper and lower cabinetry in the kitchen, staff room, & science room. Sixteen wood book shelves in library, along with a wooden checkout counter.

Repair damaged countertops/ laminate at staff kitchen (less than \$1000).

RatingInstalledDesign LifeUpdated4 - Acceptable198035APR-11

Event: Replace Fixed Casework (approx. 30 m)

TypeYearCostPriorityLifecycle Replacement2015\$22,000Unassigned

Updated: APR-11

E2010.03.01 Blinds**

Horizontal blinds are installed on 4 administrative office area windows & one classroom.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace Blinds

TypeYearCostPriorityLifecycle Replacement2014\$1,000Unassigned

Updated: APR-11

E2010.03.06 Curtains and Drapes**

Drapes are installed at perimeter classroom window unit locations.

RatingInstalledDesign LifeUpdated4 - Acceptable198030APR-11

Event: Replace curtains & drapes

TypeYearCostPriorityLifecycle Replacement2014\$1,000Unassigned

Updated: APR-11

F1010.02.04 Portable and Mobile Buildings**- 1981 Portables

Portable classroom numbers:

C81CS11, C81CS12, C81CS13, C81CS14, C81CS15, C81CS41,C81CS50, C81CS52, C81CS71.

Building Envelope: (Acceptable)

Wood frame construction.

Exterior cladding: cedar tongue and grove siding/composite exterior board.

Wood skirting @ portable base.

Anodized aluminum window units have been installed w/ metal grills.

2-ply SBS roofing.

Wood stain needs to be reapplied to exterior plywood sheathing

Interior: (Acceptable)

Stippled gypsum board ceilings, vinyl covered drywall, sheet vinyl flooring throughout.

Each has four chalk boards, four side tack boards, and one projector screen.

Four chalkboards, four tackboards, two wood storage units, two book shelves, two lower book shelves, two metal desks, and one metal teaching desk is provided within the portable.

Drapes @ each window.

Visible staining on ceiling in classroom- recommend to repaint ceiling.

Mechanical: (Acceptable)

There are 6 portable units in a cluster, these units are; C81CS-11, C81CS-12, C81CS-13, C81CS-14, C81CS-15,

C81CS52.

These units are supplied with heated air from the main School - the furnaces are not operational.

There are 3 other portable units: C81CS-41, C81CS-50, C81CS-71.

These units have corner furnaces with supply air duct work in the upper or lower corner of the room.

The return air is on the side of the furnace closet.

The furnaces have been replaced in 2010.

The thermostats are all programmable.

Electrical: (Acceptable)

Electrical Panel - Sylvania, 12 circuit 100 Amp, Single Phase, 120/240 Volts.

Fire Alarm - consists of one smoke detector, one pull station, and one bell which is tied into the main school fire alarm system.

Data System - is 3 COM.

Life Safety - one battery pack complete with 2 remote heads and one exit light.

Lighting - is recessed fluorescent.

Phone System - is Nortel which is tied in to the school phone system.

Rating	<u>Installed</u>	Design Life	Updated	
4 - Accentable	1981	0	APR-11	

Event: Replace Portable Building Envelope (9)

TypeYearCostPriorityLifecycle Replacement2014\$684,000Unassigned

Updated: APR-11

Event: Replace Portable Electrical Systems (9)

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2014	\$135,000	Unassigned

Updated: APR-11

Event: Replace Portable Interiors (9)

TypeYearCostPriorityLifecycle Replacement2014\$162,000Unassigned

Updated: APR-11

Event: Replace Portable Mechanical Systems (9)

TypeYearCostPriorityLifecycle Replacement2014\$144,000Unassigned

Updated: APR-11

F1010.02.04 Portable and Mobile Buildings**- 1984 Portables

Portable classroom numbers:

C84CS20, C84CS26.

Building Envelope: (Acceptable)

Wood frame construction.

Exterior cladding: cedar tongue and grove siding/composite exterior board.

Wood skirting @ portable base.

Anodized aluminum window units have been installed w/ metal grills.

2-ply SBS roofing.

Wood stain needs to be reapplied to exterior plywood sheathing

Interior: (Acceptable)

Stippled gypsum board ceilings, vinyl covered drywall, sheet vinyl flooring throughout.

Each has four chalk boards, four side tack boards, and one projector screen.

Four chalkboards, four tackboards, two wood storage units, two book shelves, two lower book shelves, two metal desks,

and one metal teaching desk is provided within the portable.

Drapes @ each window.

Visible staining on ceiling in classroom- recommend to repaint ceiling.

Mechanical: (Acceptable)

There are 2 other portable units: C84CS-20, C84CS -24.

These units have corner furnaces with supply air duct work in the upper or lower corner of the room.

The return air is on the side of the furnace closet.

The thermostats are all programmable.

Electrical: (Acceptable)

Electrical Panel - Sylvania, 12 circuit 100 Amp, Single Phase, 120/240 Volts.

Fire Alarm - consists of one smoke detector, one pull station, and one bell which is tied into the main school fire alarm

system.

Data System - is 3 COM.

Life Safety - one battery pack complete with 2 remote heads and one exit light.

Lighting - is recessed fluorescent.

Phone System - is Nortel which is tied in to the school phone system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1981	30	APR-11

Event: Replace Portable Building Envelope (2)

TypeYearCostPriorityLifecycle Replacement2014\$152,000Unassigned

Updated: APR-11

Event: Replace Portable Electrical Systems (2)

TypeYearCostPriorityLifecycle Replacement2014\$30,000Unassigned

Updated: APR-11

Event: Replace Portable Interiors (2)

TypeYearCostPriorityLifecycle Replacement2014\$36,000Unassigned

Updated: APR-11

Event: Replace Portable Mechanical Systems (2)

TypeYearCostPriorityLifecycle Replacement2014\$32,000Unassigned

Updated: APR-11

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Barrier free parking stall, ramp & sign directly in front of the building.

Asphalt parking lot paving has been brought up to curb height allowing for wheel chair access to occur from the barrier free stall to the concrete entrance sidewalk.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

K4010.02 Barrier Free Entrances*

The main entrance of the school is barrier free accessible from the parking lot and unloading area. Other entrances and exits from the building are not barrier free due to the placement of interior and exterior concrete stairs. No electronic door openers have been provided at the entrances to the school.

Rating Installed Design Life Updated
3 - Marginal 1980 0 APR-11

Event: Add additional barrier free exits

Concern:

No electronic door opener has been provided at the existing barrier free entrance.

Recommendation:

At the Northwest entrance of the school, a barrier free ramp needs to be built to allow barrier free students to gain access to the asphalt playing area on that side of the school and to allow for a second means of egress in the event that there is a fire. The Ramp is to have a 1:12 slope and is to be equipped with the appropriate metal handrails and guards to meet current Alberta Building code standards. Remove a portion of the existing concrete stair, excavate as required, and pour in place a concrete barrier free ramp. Secure steel handrails on either side of the barrier free ramp. Install electronic door openers at the existing and new barrier free entrance locations.

Consequences of Deferral:

In the event of a fire at the Southeast main entrance of the school, a barrier free user would not be able to exit the building. As per the Alberta building code, at least fifty percent of the main entrances should be barrier free accessible. This is currently not the case.

TypeYearCostPriorityBarrier Free Access Upgrade2011\$15,000Unassigned

Updated: APR-11

K4010.03 Barrier Free Interior Circulation*

Barrier-free ramps are provided to gymnasium and portable classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

K4010.04 Barrier Free Washrooms*

2 barrier free toilet partitions stalls.

RatingInstalledDesign LifeUpdated3 - Marginal19800APR-11

Event: Add additional barrier free washroom

Concern:

As per current Alberta Building Code Requirements, the classroom portables located on the West side of the school are more than 45 meters from the barrier free washrooms located adjacent to the main administrative office.

Recommendation:

Convert the science preparation room into a unisex barrier free washroom. Reuse the existing hollow metal frame and door, but add new hardware that will meet barrier free requirements. Patch and make good the existing door opening leading into the science room classroom.

Consequences of Deferral:

The current layout of the school does not accommodate a barrier free user adequately regarding barrier free washroom placement.

TypeYearCostPriorityBarrier Free Access Upgrade2011\$15,000Unassigned

Updated: APR-11

K4030.01 Asbestos*

Asbestos-containing floor tile (approx. 225 m2) and sheet flooring (approx. 80 m2) is present in some classrooms, offices, storage rooms and caretaker's rooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

Event: Hazardous Material Management Upgrade (approx

<u>305 m2)</u>

Concern:

Asbestos in floor tile and sheet flooring.

Recommendation:

Remove and dispose of asbestos-containing materials. Refer to Element C3020.07 for cost of floor replacement.

Consequences of Deferral:

Potential exposure to airborne asbestos fibres.

TypeYearCostPriorityHazardous Material2014\$22,000Low

Management Upgrade

Updated: APR-11

K4030.02 PCBs*

None were noted during the visit site.

RatingInstalledDesign LifeUpdated4 - Acceptable19800APR-11

K4030.04 Mould*

No suspect mould was observed during the site visit.

RatingInstalledDesign LifeUpdated4 - Acceptable19800JAN-07

K4030.09 Other Hazardous Materials*

No other hazardous materials were observed during the site visit.

RatingInstalledDesign LifeUpdated4 - Acceptable19800JAN-07

K5010 Reports and Studies*

Quinn Young Architects Ltd.

2011

Main Building: 2688 m2

Portable Classrooms: 1100 m2

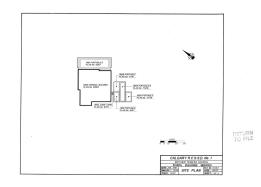
The north arrow on the single line drawings points south.

RatingInstalledDesign LifeUpdated6 - Excellent20110APR-11

Event: Plans and Drawings

TypeYearCostPriorityStudy2010\$0Unassigned

Updated: APR-11



Mother Teresa_Page_1.jpg