RECAPP Facility Evaluation Report



Fort McKay School B3418A Fort Mackay

Fort Mackay - Fort McKay School (B3418A)

Facility Details

Building Name: Fort McKay School

Address:

Location: Fort Mackay

Building Id: B3418A Gross Area (sq. m): 0.00

Replacement Cost: \$3,193,364

Construction Year: 0

Evaluation Details

Evaluation Company: Denzil Lobo Architect

Evaluation Date: December 1 2004

Evaluator Name: Mr. Denzil Lobo

Total Maintenance Events Next 5 years: \$170,532 5 year Facility Condition Index (FCI): 5.34%

General Summary:

The Fort McKay School was constructed in 1976 with a small addition in 1984. The School is a single Storey building with a built-up area of 1530.78 m2. The building has seven standard classrooms and a gymnasium

A portable kitchen unit was attached to the school in 1991 to serve the hot lunch program in the school. It is a K-9 school with a student capacity of 152 Students. The building is presently being renovated under a modernization program started in 2001. The building presently is in marginal condition and continues to be upgraded under the 2001 program. It lacks some Barrier Free facilities at this time.

Structural Summary:

The building has a concrete strip footing foundation system. The main floor is a concrete slab on grade. The roof structure is a Steel framing system of Open Web Steel Joists, Steel Trusses and metal decking supported on load bearing Concrete block walls. The structural components of the building are in good condition.

Envelope Summary:

Exterior walls are Concrete Block clad with Brick, and a stucco band above the height of the windows. The exterior brick is vandalized with grafitti. Exterior Concrete block walls and interior of classrooms were repainted in 2003. The roof over the school is a flat roof that was completely replaced with an SBS membrane roof in 2003. The high gymnasium roof was re-roofed in 1993. Exterior doors and hardware require replacement. 5 exterior windows in the school were replaced with new Aluminum Windows in 2003. The building envelope is in acceptable condition.

Interior Summary:

All the floor coverings in the school were replaced with Vinyl Tile in 2002. The carpet in the administration office and library remain to be replaced. Interior wall surfaces were repainted in 2002 in the classrooms and are painted concrete block.with some painted gypsum board surfaces in the office area. Ceilings are acoustic tile, drywall and exposed metal deck and structure. Ceilings and floor finishes in Washrooms require replacement. 4 classrooms received new millwork and shelving in 2003, while three others require additional shelving and counter-tops. Health and safety concerns generally acceptable except lack of acoustic treatment in Gym. Confirmation is required in regard to any hazzardous materials audit being done. The interior finishes in the school and the kitchen portable are in acceptable condition.

Mechanical Summary:

Heating and ventilation for the building is provided by distributed packaged gas-fired roof top units. A gas fired furnace is used to heat the kitchen trailer.

Surface site drainage, no irrigation system. Fire hydrant at front of building, fire extinguishers throughout School. Kitchen hood in Lunch Trailer has fire suppression system. Municipal water and sewage system. Pipes, fixtures and fittings in good condition. Some plastic plumbing pipes in return plenums require replacement.

Tankless domsticwater heater installed in 2004 requires repairs and commissioning. Kitchen Trailer has independent tank type water heater.

Packaged Rooftop Heating Ventilation and A/C system with independant units for each classroom or zone replaced original furnaces in 2000. These units do not provided adequate ventilation air for the facility and are a significant maintenance concern. The RTU's should be replaced or upgraded to allow reliable operation with higher volumes of outside air.

Kitchen has range hood exhaust. There is no humidification in the school. Some ductwork insulation requires repair. Thermostats should be upgraded. There is no energy management system. RTU's generally cycle on-off on heat/cool demand.

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Electrical Summary:

The school has been provided with a 600 Amp, 120/240V, 1 phase, 3 wire service, obtained from a pole mounted transformer located on the east side of the building. Distribution within the building is via a Federal Pioneer, 600 Amp main switchboard which is complete with a 600 Amp main disconnect switch. Branch circuit panel boards are located throughout the school. Motor control is provided by wall mounted motor starters. Lighting is provided by fluorescent fixtures with T12 lamps and magnetic ballasts. Emergency lighting is provided by battery packs and remote heads located throughout the school. An Edwards 6500 fire alarm system has been provided complete with detection devices, pull stations, and audible signal devices. Paging/Call system is the product of Telecor Model XL with a TOA amplifier. Cat 5 data cabling has been installed throughout the school. Electrical systems are generally in acceptable condition.

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

S1 STRUCTURAL

A1010 Standard Foundations*

(1976) Concrete strip footing

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	0	100	DEC-04

A1030 Slab on Grade*

(1976) Concrete slab on grade

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	0	100	DEC-04

B1010.02 Structural Interior Walls Supporting Floors*

(1976) Interior Concrete loadbearing walls

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	100	DEC-04

B1010.05 Mezzanine Construction*

(1976) Wood Framed Mezzanine level beside stage

Rating	<u>Installed</u> I	Design Life	<u>Updated</u>
4 - Acceptable	0	100	DEC-04

B1020.01 Roof Structural Frame*

(1976) Steel joists over loadbearing masonry walls

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	0	100	DEC-04

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

(1976) Exterior Brick facing

RatingInstalledDesign LifeUpdated3 - Marginal075DEC-04

Event: Remove grafitti on brick face.

Concern:

Exposed brick faces on all sides of building are covered in grafitti.

Recommendation:

Acid wash brick faces to remove grafitti specially at front of building.

TypeYearCostPriorityRepair2008\$4,320Low

Updated: March 4 2005

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

(1976) Concrete block exterior wall repainted in 2003 to cover up grafitti.

RatingInstalledDesign LifeUpdated5 - Good075DEC-04

B2010.01.09 Expansion Control: Exterior Wall Skin*

(1976) Caulked expansion joints

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

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

Exterior caulking appears to have been redone.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

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

(2003) Exterior Concrete block wall surfaces of Gymnasium, sides and back of school have been repainted.

Rating Installed Design Life Updated 5 - Good 0 15 DEC-04

B2010.01.99 Other Exterior Wall Skin*

(1991) Wood Siding on back entry vestibule to Kitchen Trailer

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide new siding on back entry vestibule addition

Concern:

Back entry vestibule was added in 1991 and is wood framed with wood siding on exterior. Siding is warped, rotting, discoloured, deteriorating and unsightly.

Recommendation:

Remove existing wood siding and reclad with new metal siding or stucco finish.

TypeYearCostPriorityProgram Functional Upgrade2006\$5,400Medium

Updated: March 4 2005



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

100mm wide Concrete block backing for stucco fascia over exterior brick facing.

RatingInstalledDesign LifeUpdated3 - Marginal0100DEC-04

Event: Install lintel for blockwork at new window location on front of school.

Concern:

New window installed in exterior wall at front of building. Concrete block for stucco banding was not supported on steel angle lintel and presently remains in place due to mortar.

Recommendation:

Provide steel angle lintel at new window location prior to finishing off opening and installation.

TypeYearCostPriorityRepair2006\$3,780Medium

Updated: March 4 2005



B2010.06 Exterior Louvers, Grilles, and Screens*

(1976) Original metal louvres on exterior

RatingInstalledDesign LifeUpdated4 - Acceptable020DEC-04

B2010.09 Exterior Soffits*

(1976) Wood soffit at main entry.

<u>Rating</u>	Installed	Design Life	<u>Updated</u>
5 - Good	0	20	DEC-04

B2020.01.01.02 Aluminum Windows*

(1976) Aluminum windows with fixed sealed units at the top and awning style ventilators in the middle and insulated spandrel panels below.

RatingInstalledDesign LifeUpdated4 - Acceptable035DEC-04

B2030.01.02 Steel-Framed Storefronts*

(1976) Main Entrance door frames are hollow metal frames with glazed sidelights.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Replace Main Entry Door Frame

Concern:

Main entrance door frames are warped, damaged, dented and unsightly. Replace hardware as well

Recommendation:

Replace main entry door frames with new frames and sidelights.

TypeYearCostPriorityFailure Replacement2007\$2,160Medium

Updated: March 4 2005



B2030.01.10 Wood Entrance Door*

(1991) Wood Entrance door at back entrance vestibule

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

B2030.02 Exterior Utility Doors*

(1976) Hollow metal doors.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Replace exterior H.M.Doors

Concern:

4 sets of Exterior double doors are worn out, warped and do not close tight.

Recommendation:

Replace 4 sets of Hollow metal doors with new doors.

TypeYearCostPriorityRepair2006\$3,780Medium

Updated: March 4 2005

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

(1993) Built up roof over Gymnasium area

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)*

(2003) Entire school (except Gym area) was re-roofed with an SBS Roof. Wet and damaged insulation was replaced, and all roof flashings were replaced with new pre-finished metal flashings.

Rating	Installed	Design Life	<u>Updated</u>
5 - Good	0	25	DEC-04

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

(1976) Concrete block throughout school. Gypsum Board and wood studs around stage mezzanine area, storage rooms and Dressing / Shower rooms..

RatingInstalledDesign LifeUpdated5 - Good050DEC-04

C1010.02 Interior Demountable Partitions*

Demountable partitions within Administration area and fire separated compartments

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

C1010.03 Interior Operable Folding Panel Partitions*

(1994) Operable folding panel partition at stage opening has been sealed off as stage is used as a classroom.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

C1010.04 Interior Balustrades and Screens, Interior Railings*

(1991) Railing at ramp to attached Kitchen Trailler is woor with 2 x 4 balusters.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

C1010.05 Interior Windows*

Pressed steel frames with wired glass windows.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

C1020.01 Interior Swinging Doors*

Solid core wood doors in Pressed steel frames. New door has glass panels.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

C1020.02 Interior Entrance Doors*

(1976) Hollow metal doors in Pressed steel frames.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

C1020.03 Interior Fire Doors*

ULC labelled H.M. double doors in Pressed steel frames.

Rating Installed Design Life Updated
4 - Acceptable 0 50 DEC-04

C1030.01 Visual Display Boards*

(2000) White Boards and Vinyl tackboards

RatingInstalledDesign LifeUpdated5 - Good00DEC-04

C1030.02 Fabricated Compartments(Toilets/Showers)*

Metal Toilet partitions.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

C1030.08 Interior Identifying Devices*

Rating Installed Design Life Updated

N/A 0 0 DEC-04

C1030.10 Lockers*

(1976) Metal Double tier lockers are original

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Provide new & Replace existing lockers

Concern:

Metal Double tier lockers are original and some are in poor condition. There are also not enough lockers for the students in the school.

Recommendation:

Provide 80 new Double tier lockers to replace existing units and to provide new lockers in hallway

TypeYearCostPriorityLifecycle Replacement2008\$21,600Low

Updated: March 4 2005

C1030.17 Other Fittings*

Vinyl coated Metal coat hooks along corridor walls

RatingInstalledDesign LifeUpdated5 - Good00DEC-04

C3010.02 Wall Paneling*

(1976) Cedar wood boards in Gymnasium around original stage opening

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

C3010.04 Gypsum Board Wall Finishes*

Generally painted. Vinyl wall covering in some classroom areas and in Kitchen in attached trailer

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

C3010.11 Interior Wall Painting*

(2003) Interior of all classrooms were re-painted. Hallways remain to be repainted.

RatingInstalledDesign LifeUpdated3 - Marginal05DEC-04

Event: Repaint all hallways in school

Concern:

Hallways in the school have not been painted and are dirty, marked and in need of repainting. New windows and modifications in administration area make the hallways look unfinished.

Recommendation:

Repaint all hallways and office areas in school

TypeYearCostPriorityRepair2006\$10,800Low

Updated: March 4 2005

C3020.07 Resilient Flooring*

(2003) Resilient tile installed in all classrooms and hallways.

RatingInstalledDesign LifeUpdated5 - Good020DEC-04

C3020.08 Carpet Flooring*

(1976) Original Carpet in administration area and library

Rating Installed Design Life Updated 2 - Poor 0 10 DEC-04

Event: Replace carpet in office and library areas.

Concern:

Carpet in office and library is old worn and torn in some places. Has been patched.

Recommendation:

Replace carpet in office and library (approx 160 sq.m)

TypeYearCostPriorityLifecycle Replacement2007\$6,480Medium

Updated: March 4 2005

C3020.14 Other Floor Finishes*

(1976) Quartzite epoxy flooring in washrooms

RatingInstalledDesign LifeUpdated2 - Poor00DEC-04

Event: Replace floor finish with new quarry tile floor.

Concern:

Quartzite epoxy floor has hariline cracks at different locations, is stained and appear unsanitary.

Recommendation:

Replace floor finish with new quarry tile floor. Will require transition tresholds at doorways. (approx 50 sq.m)

TypeYearCostPriorityFailure Replacement2008\$16,200Low

Updated: March 4 2005

C3030.04 Gypsum Board Ceiling Finishes*

(1976) Gypsum board in Storage rooms (1984) Drywall in dressing / shower rooms

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

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

(1976) Acoustic tile in t-bar ceiling throughout school

RatingInstalledDesign LifeUpdated3 - Marginal025DEC-04

Event: Replace ceilings in washrooms with drywall ceilings.

Concern:

Main washrooms have suspended T-Bar and acoustic tile. This creates a hygene concern as the ceiling is stained and dirty.

Recommendation:

Replace ceiling in both washrooms with new Gypsum board ceiling painted. (Approx 50 sq.m)

TypeYearCostPriorityRepair2007\$21,600Medium

Updated: March 4 2005

C3030.09 Other Ceiling Finishes*

(1976) Flat steel deck over open web steel joists in Gymnasium.

Rating Installed Design Life Updated
5 - Good 0 0 DEC-04

S4 MECHANICAL

D2010.01 Water Closets* (1977)

(1977) Flush tank water closets with round bowls and open front seats. Water closets located in staff washrooms are functional, but old and use 5 gallons per flush.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2010.01 Water Closets* (2004)

(2004) Main washrooms have been upgraded to touchless flush valves. New ULF flush tanks closets provided for the new (2004) staff area.

RatingInstalledDesign LifeUpdated6 - Excellent030DEC-04

D2010.02 Urinals*

(1977) Urinals in the main washroom have been fitted with touchless flush valves.

RatingInstalledDesign LifeUpdated5 - Good030DEC-04

D2010.03 Lavatories* (1977)

(1977) Porcelain enamel lavatories in existing staff washrooms and gymnasium washroom.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2010.03 Lavatories* (2004)

(2004) Main washrooms and new staffroom washrooms have stainless steel vanity mounted lavatories. Touchless faucets have been provided in the main washrooms. Some concerns with sediment in the water affecting the operation of the touchless faucets.

RatingInstalledDesign LifeUpdated5 - Good030DEC-04

D2010.04 Sinks*

(1977) Single compartment and double compartment stainless steel sinks provded in staff rooms, classrooms, and infirmary.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2010.05 Showers*

(2004) Two fiberglass shower stalls provided in 2004 to replace gang showers in gymnasium change rooms.

D2010.08 Drinking Fountains / Coolers*

(2004) Refrigerated drinking fountains in corridors.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2010.09 Other Plumbing Fixtures* Science Lab Sinks

(1977) Two (2) single compartment stainless steel sinks in the science lab with bottle traps and gooseneck faucets.

RatingInstalledDesign LifeUpdated5 - Good00DEC-04

D2020.01.01 Pipes and Tubes: Domestic Water*

(1977) Most piping is copper. Some plastic piping has been used in renovated areas. There is some plastic piping run in the ceiling return plenum.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

Event: Replace Polybutylene water line.

Concern:

Polybutylene domestic cold water piping has been used to serve a refridgerated water fountain and the kitchen trailer. The piping runs through the ceiling space, which is used as a return air plenum. This is a code concern due the smoke-spread potential of the pipe.

Recommendation:

Replace the water piping with copper and insulate.

TypeYearCostPriorityCode Repair2005\$1,296Medium

Updated: February 28 2005

D2020.01.02 Valves: Domestic Water

(1977/2004) Brass ball valves and globe valves used for domestic water applications. Shut-off valves have been provided at each plumbing fixture.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D2020.01.03 Piping Specialties (Backflow Preventors)*

(2004) Vacuum breakers provided on exterior hose connections. No vacuum breakers on hose bibbs in electrical room.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide vacuum breakers

Concern:

No vacuum breakers on hose bibbs in electrical room and assorted other locations.

Recommendation:

Provide vacuum breakers throughout school. Approximately 6 in total.

TypeYearCostPriorityCode Repair2006\$1,080Low

Updated: February 28 2005

D2020.02.02 Plumbing Pumps: Domestic Water*

(2004) B&G domestic water re-circulating pump provided on domestic hot water system. Pump does not appear to be of bronze construction.

RatingInstalledDesign LifeUpdated3 - Marginal020DEC-04

Event: Replace recirculating pump.

Concern:

Pump has ferrous pump body construction.

Recommendation: Replace pump.

TypeYearCostPriorityCode Repair2006\$1,080Low

Updated: February 28 2005

D2020.02.04 Domestic Water Conditioning Equipment*

No conditioning of domestic water.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide domestic water filtration.

Concern:

Silt and sediment is entering the system and causing maintenance problems with the new electronic touchless plumbing valves.

Recommendation:

Provide filtration on the domestic water service.

TypeYearCostPriorityPreventative Maintenance2006\$3,240Low

Updated: February 28 2005

D2020.02.06 Domestic Water Heaters* - Lunch Trailer

(1997) Jetglas MI40 tank type natural gas water heater.

RatingInstalledDesign LifeUpdated4 - Acceptable020DEC-04

Event: Replace water heater.

Concern:

Water heater is approching the end of its service life and is showing signs of wear.

Recommendation:

Replace water heater.

TypeYearCostPriorityLifecycle Replacement2010\$1,296Low

Updated: February 28 2005

D2020.02.06 Domestic Water Heaters* Main School

(2004) Tankless domestic water heater installed. Unit cuts out on high temperature limit. Piping froze due to rooftop heating unit failure. Water heater was not operational at the time of our visit.

RatingInstalledDesign LifeUpdated2 - Poor020DEC-04

Event: Repair water heater and piping.

Concern:

Water heater is not functioning. System was damaged by freezing. System cuts-out on high temperature alarm.

Recommendation:

Replace piping, valves, and fittings damaged do to freezing. Trouble shoot and commission installation. Insulate all piping.

TypeYearCostPriorityRepair2005\$2,160Low

Updated: February 28 2005

D2020.03 Water Supply Insulation*: Domestic

(2004) The majority of the visible domestic water piping is not insulated.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Insulate domestic water piping

Concern:

Domestic water piping is not insulated.

Recommendation:

Insulate approximately 500' domestic hot and cold water piping.

TypeYearCostPriorityEnergy Efficiency Upgrade2006\$2,700Low

Updated: February 28 2005

D2030.01 Waste and Vent Piping*

(1977) ABS and copper piping used.

(2004) New piping in 2004 renovation areas use ABS for vent piping.

RatingInstalledDesign LifeUpdated3 - Marginal050DEC-04

Event: Replace ABS vent piping in return plenum.

Concern:

ABS vent piping in return plenum is not permitted due to the high smoke development potential.

Recommendation:

Replace ABS pipig with copper DWV.

TypeYearCostPriorityCode Repair2005\$3,240High

Updated: February 28 2005

D2030.03.01 Interceptors: Waste

(1977) Bottle traps provided on science lab plumbing traps.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3010.02 Gas Supply Systems*

(2000) Natural gas enters meter room at 80# and is regulated to 7". Distribution to gas fired equipment on the roof.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D3020.03.01 Furnaces*

(1997) A single gas-fired furnace is used to provide heating for the kitchen trailer.

RatingInstalledDesign LifeUpdated5 - Good025DEC-04

D3040.01.01 Air Handling Units: Air Distribution*

(2000) Engineered Air DJ-60 gas fired make-up air unit on roof serves gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D3040.01.03 Air Cleaning Devices:Air Distribution*

(2000) 2" summer filters.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3040.01.04 Ducts: Air Distribution*

(2000) Low pressure distribution ductwork throughout. Much of the ductwork was replaced in 2000.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D3040.01.05 Duct Accessories: Air Distribution*

(2000) Balancing dampers have been provided in brach ducts.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3040.01.07 Air Outlets & Inlets:Air Distribution*

(2000) Square ceiling diffusers are used in most areas for overhead distribution. Floor grilles are used in the staff room and administration areas at the perimeter walls.

RatingInstalledDesign LifeUpdated3 - Marginal050DEC-04

Event: Replace floor grilles.

Concern:

Floor grilles in some areas, including the old staff room, are in very poor condition.

Recommendation:

Replace approximately 8 floor grilles with heavy duty linear bar grilles.

TypeYearCostPriorityRepair2006\$1,296Low

Updated: February 28 2005

D3040.04 Special Exhaust Systems - Trailer

(1997) Kitchen exhaust hood in lunch trailer.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D3040.04.01 Fans*: Exhaust

(1977) In-line and roof mounted exhaust fans for washrooms and showers.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D3040.04.03 Ducts*: Exhaust

(2000) Low pressure ductwork.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3040.04.05 Air Outlets and Inlets*: Exhaust

(1977) Ceiling mounted exhaust grilles.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)*

(2000) Furnaces were replaced in 2000 with Lennox roof mounted heat/cool units. Generally, packaged rooftop units do not have enough outside air capacity for use in a classroom. All of the RTU's have had thier heat exchangers replaced in 2004 due to cracks caused by thermal shock.

RatingInstalledDesign LifeUpdated2 - Poor00DEC-04

Event: Upgrade classroom ventilation.

Concern:

RTU's are not capable of providing adequate outside air to the classrooms. Heat exchangers are experiencing wide spead premature failure. Operating costs and maintenance costs are high.

Recommendation:

Provide eight air-to-air heat exchangers to maintain indoor air quality ,or replace RTU's with more appropriate air systems.

TypeYearCostPriorityCode Repair2006\$32,400Medium

Updated: February 28 2005

D3050.03 Humidifiers*

No hunidifiaction is provided.

RatingInstalledDesign LifeUpdated1 - Critical025DEC-04

Event: Provide humidification.

Concern:

Low wintertime humidification levels can cause health concerns and will affect the operation of paper handling equipment such as photocopiers and printers.

Recommendation:

Provide a new humidification system and distribution for building.

Type Year Cost Priority
Program Functional Upgrade 2006 \$19,440 Low

Updated: February 28 2005

D3050.05.02 Fan Coil Units*

(1977) Electric force flow units are used as some vestibules.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3060.02.01 Electric and Electronic Controls*

(2000) Electric heat/cool thermostats are used to control each rooftop unit. Thermostats have programable temperature setbacks and manual sub bases for fan control.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Replace thermostats

Concern:

Thermostats cannot be programmed for continuous fan operation during occupied hours. The thermostats have lockable covers and are therefore set and left. This mean that the fans are either continuously ON, or are set in AUTO mode. When in continuous operation, the system is not efficient when the building is not occupied. When in AUTO mode, the fan only runs when there is a need for heating or cooling. At other times, no ventilation is available.

Recommendation:

Replace eight thermostats with units that allow programmed or occupancy controlled operation of the fan.

TypeYearCostPriorityCode Repair2006\$4,320Low

Updated: February 28 2005

D4030.01 Fire Extinguisher, Cabinets and Accessories*

(2000) Hand held fire extiguishers provided throughout. Inspections are not up to date.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

Event: Inpect fire extiguishers.

Concern:

Inspections are not up to date.

Recommendation:

Inspect fire extiguishers.

TypeYearCostPriorityCode Repair2005\$1,080Medium

Updated: February 28 2005

D4030.02 Fire Blankets and Cabinets

(1977) Fire blanket provided in science lab.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D4090 Other Fire Protection Systems*

(1997) Fire suppression system is provided in kitchen exhaust hood in lunch trailer.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

S5 ELECTRICAL

D5010.01 Main Electrical Transformers*

(1977): Pole mounted transformer, service is overhead, entering the building on the east side. Service installation is satisfactory. Service is rated at 600 Amp, 120/240 Volt, 1 phase, 3 wire.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

D5010.03 Main Electrical Switchboards (Main Distribution)*

(1977): Main distribution centre is the product of Federal Pioneer and rated at 600A, 120/240V, 1 phase, 3 wire. Main device is a fusible disconnect switch and the distribution section is equipped with breakers. All breakers have been identified. Spare space is available in the distribution centre. Parts are still available for this distribution centre.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

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

(1977): Branch circuit panel boards have been provided in various parts of the school for providing power to the loads in the respective areas. Panels are in good condition and have spare capacity in them. Panel directories have been provided.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5010.07.02 Motor Starters and Accessories*

(1977): Wall mounted magnetic motor starters have been provided for motor control. Starters are the product of Westinghouse. Operation is satisfactory. Product is still supported by the manufacturer.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D5020.01 Electrical Branch Wiring*

(1977): Majority of the branch wiring is in conduit. Some recent wiring has been done using armored cable which is acceptable. All wire is copper.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D5020.01.03 Wiring Devices*

(1977/200): Receptacles have been provided throughout the school. Classrooms were provided with additional receptacles when computers were introduced in the classrooms. These receptacles are on dedicated circuits as are the receptacles in the computer lab. All receptacles are with coverplates.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D5020.02.01 Lighting Accessories (Lighting Controls)*

(1977): All interior lighting is controlled by line voltage switches provided in each area and/or room. All switches are with cover plates.

 Rating
 Installed
 Design Life
 Updated

 4 - Acceptable
 0
 30
 DEC-04

D5020.02.02.02 Interior Fluorescent Fixtures*

(1977):Interior lighting fixtures are primarily of the recessed type with prismatic lenses. Some of the fixtures are of the surface mounted type. Fixtures are with T12 lamps and magnetic ballasts. Illumination levels are satisfactory.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Provide energy efficient fixtures.

Concern:

Fixtures are not energy efficient type and are showing their age.

Recommendation:

Replace existing fixtures with new ones, utilizing energy efficient T8 lamps and electronic ballasts.

TypeYearCostPriorityEnergy Efficiency Upgrade2006\$12,960Low

Updated: March 2 2005

D5020.02.03.03 Exit Signs*

(1977): Exit lights are of the incandescent type. Several exit lights are not operational, possibly due to burnt out lamps.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide LED exit lights to replace exisiting exit lights.

Concern:

Several exit lightare not operational, possibly due to burnt out lamps. Incandescent lights are not energt cost effective.

Recommendation:

Replace the old exit lights with new ones that utilize LED technology, for energy efficiency and offer low maintenance.

TypeYearCostPriorityEnergy Efficiency Upgrade2006\$1,620Low

Updated: March 2 2005

D5020.03.01.03 Exterior Metal Halide Fixtures*

(1977): Exterior wall mounted metal halide fixtures have been provided on the south face of the building and recessed metal halide fixtures on the east, (front) of the building. Lighting coverage on the south face is acceptable.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide lighting along the west and north sides of the building.

Concern:

There is no illumination along the north and west sides of the building, making it unsafe.

Recommendation:

Provide wall mounted flood lights of the halogen type, on each of the west and north faces of the building. These flood lights can be motion activated for more effect and energy conservation.

TypeYearCostPriorityRepair2006\$3,780Medium

Updated: March 2 2005

D5020.03.02 Lighting Accessories (Lighting Controls)*

(1977): Exterior lighting is controlled by photo cell with manual override.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	0	25	DEC-04

D5020.03.03 Emergency Lighting*

(1977): Emergency lighting is provided by means of battery packs and remote located so as to illuminate paths of egress.

<u>Rating</u>	Installed Design	Life Updated
4 - Acceptable	0 30	DEC-04

D5030.01 Detection and Alarm Fire Alarm*

(1977): The fire alarm system is an Edwards, Model 6500. The fire alarm system is of the hard wired type and is complete with detection devices, manual pull stations, bells, and end of line resistors. The system is monitored and tested annually.

Rating Installed Design Life Updated
3 - Marginal 0 25 DEC-04

Event: Replace existing fire alarm system

Concern:

Edwards 6500 systems are obsolete and no longer supported by the manufacturer. Parts are no longer available from the manufacturer, and are kept in operation only by scavenging parts from similar systems when they are replaced with new ones.

Recommendation:

Replace existing system with a new system with compatible devices.

TypeYearCostPriorityLifecycle Replacement2006\$16,200Medium

Updated: March 2 2005

D5030.02.02 Intrusion Detection*

(1998): An intrusion alarm system has been provided consisting of motion sensors, door contacts and key pad. The keypad is located in the general office. The system is the product of DSC. The needs of the school are being met with the present system.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5030.04.01 Telephone Systems*

(1977): Telephone service is underground and terminates on a backboard in located in a suitable closet in the mechanical room. The supernet fibre optic service is also in this closet. School does not have a telephone system; three telephone lines are active, one of which is used for the fax and for monitoring the security/fire alarm systems. The present needs of the school are being met.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5030.04.02 Paging Systems*

(2000): Paging is accomplished via an amplifier that is interfaced with intercom system. The amplifier is the product of TOA, model. 900. Speakers have been provided in the classrooms and in all common areas such as corridors, and washrooms. System meets the present needs of the school.

RatingInstalledDesign LifeUpdated5 - Good025DEC-04

D5030.04.03 Call Systems*

(2000): An intercom system has been provided that is the product of Telecor, model XL. The classrooms have been provided with telephone type sets. Main console is located in the general office. System meets the needs of the school.

Rating Installed Design Life Updated 5 - Good 0 DEC-04

D5030.04.04 Data Systems*

(2000): Cat 5 data cabling has been provided in all classrooms and the computer lab. All cabling in the classrooms and the computer is open, and hangs unsupported to the work stations.

Rating Installed Design Life Updated 3 - Marginal 0 0 DEC-04

Event: Install the data cabling in raceways.

Concern:

Data wiring in all locations is open, run down the walls or in some cases in free air to the work stations. In many cases, the cabling is run on the floor, posing a tripping hazard.

Recommendation:

Re-install all data cabling in proper surface mounted raceways, (wiremold), and in the computer lab utilize service poles for routing the cables to the work stations.

TypeYearCostPriorityRepair2006\$5,400Medium

Updated: March 2 2005

D5030.04.05 Local Area Network Systems*

(2000): Main server has been provided to which all the data cabling from the classrooms is run. The hubs and patch panels have just been placed on top of a closet.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Repair the data cabling to the patch panels.

Concern:

All data wiring is run open and unsupported to the patch panel and the hubs. The hubs and the patch panel are not secured in place; they have been placed unsecured on top of a closet.

Recommendation:

Provide a wall mounted data rack, for mounting the patch panels and the hub. Provide a slotted covered PVC raceway, mounted on the wall, for routing the data cables to the data rack for termination.

TypeYearCostPriorityRepair2006\$3,240Medium

Updated: March 2 2005

D5090.01 Uninterruptible Power Supply Systems*

(2000) A stand alone UPS system has been provided for the server. It is the product of APC.

Rating Installed Design Life Updated 5 - Good 0 25 DEC-04

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

(1976) Library tables, Chairs, portable book racks, Book & Magazine shelves along walls.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E1020.03 Theater and Stage Equipment*

Portable Stage equipment consisting of Plywood Platforms and step riser units.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E1020.07 Laboratory Equipment*

Basic laboratory equipment provided. Appears to meet program requirements.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E1090.03 Food Service Equipment*

Portable food serving equipment located in Kitchen in attached trailler. Kitchen has Garland Commercial gas range and grille under stainless steel exhaust hood, Stainless steel Dishwashing counter, 1 upright Freezer, 1 Upright Cooler, 1 long Freezer unit, Portable Stainless Steel Food Service tables

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Has 2 wall mounted Basketball backstops and 2 new ceiling mounted adjustable basketball backstops.

RatingInstalledDesign LifeUpdated5 - Good00DEC-04

E2010.02.05 Educational Facility Casework*

(1976) Metal Open shelves and countertops in 3 classrooms not upgraded.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide new millwork in 3 classrooms.

Concern:

3 classrooms require more shelving and cabinet units. Counters are old and worn.

Recommendation:

Provide new millwork in 3 classrooms to match new millwork installed in 4 other classrooms.

TypeYearCostPriorityProgram Functional Upgrade2006\$11,340Low

Updated: March 4 2005

E2010.02.05 Educational Facility Casework*

(2003) New millwork and countertops provided in 4 classrooms.

RatingInstalledDesign LifeUpdated5 - Good00DEC-04

E2010.02.07 Kitchen Casework*

(1991) Plastic laminated preparation counter and solid hardwood cutting table.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E2010.02.99 Other Casework*

(2003) Long plastic laminated serving tables hinged to concrete block in corridor for warm Lunch Service provided to students. Tables fold down over wall when not in use.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E2010.03.01 Blinds*

Vertical Vinyl blinds and metal Horizontal venetian blinds used in classrooms and office area.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E2020 Moveable Furnishings*

PVC Moulded chairs used in Gymnasium for public functions.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

F1010.02.04 Portable and Mobile Buildings

KITCHEN TRAILLER UNIT.

Unit is set in place and connected to the school on the back. A wood framed ramp connects Kitchen floor to school floor through a wood framed vestibule built on the back. Wood Framed construction raised on stilts on concrete pads with metal skirting around base of unit. Exterior walls are wood framed, insulated with metal cladding on the outside and Vinyl Gypsum board finish on the inside. Roof is flat, wood framed insulated, with an SBS roof membrane and Vinyl clad Tile in T-Bar Ceiling. Floors are wood framed insulated, finished on the interior with Resilient Sheet Vinyl. Windows are Aluminum sliders with wire mesh security grilles. Doors are solid Core wood doors with Site built wood frames. Lighting is flourescent in T-Bar ceiling using T12 fixtures. Unit has a wood loading dock built in 2004 with a new door way for access. Existing entrance doorway has been closed off on the side of the unit. Overall condition of the unit is acceptable.

Rating Installed Design Life Updated 4 - Acceptable 0 0 DEC-04

F1020.02 Special Purpose Rooms (Stage Classroom)*

(2002) Original stage has been converted to a Classroom.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide clearstorey windows in new classroom on

stage.

Concern:

Classroom on stage has no natural lighting.

Recommendation:

Cut out three clearstorey windows in high Block wall with

sealed aluminum windows

TypeYearCostPriorityProgram Functional Upgrade2007\$8,640Low

Updated: March 4 2005

F1020.02 Special Purpose Rooms (Gymnasium)*

Existing gymnasium has no acoustic treatment and is a high concrete block space.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide acoustic treatment in Gymnasium.

Concern:

Gymnasium echoes and is very noisy.

Recommendation:

Provide acoustic absorbption panels in gymnasium

TypeYearCostPriorityProgram Functional Upgrade2006\$16,200High

Updated: March 4 2005

F2020.01 Asbestos*

It is not certain if an Hazzardous material audit has been done on the school.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Review hazzardous materials condition of the building.

Concern:

Uncertain if an audit has been done to determine if building contains any hazzardous materials

Recommendation:

Do hazzardous materials audit if this has not been done as school is of the era when asbestos was still being used.

TypeYearCostPriorityStudy2006\$5,400High

Updated: March 4 2005

Fort Mackay - Fort Mckay School (S3418)

Facility Details

Building Name: Fort Mckay School

Address:

Location: Fort Mackay

Building Id: \$3418
Gross Area (sq. m): 0.00
Replacement Cost: \$0
Construction Year: 0

Evaluation Details

Evaluation Company: Denzil Lobo Architect

Evaluation Date: December 1 2004

Evaluator Name: Mr. Denzil Lobo

Total Maintenance Events Next 5 years:

5 year Facility Condition Index (FCI):

General Summary:

Site size is sufficient with access to adjacent Community Sport Facilities. In 2003 Landscape and athletic areas were re-graded around playground and garage area to correct drainage problems in this area. Playground equipment is new and attractive. A concrete sidewalk runs in front of the school. Access road and bus drop off was extended in 2003 for a bus loop. 4 energized stalls provided. An additional 6 stalls are required to stop people from parking in the firelane. Parking areas were re-graded in 2003 but require guard-rails and signage. A barrier free curb cut at the sidewalk is also required. The site requires to be fenced to stop people from riding their quads across the school grounds. Overall condition of the site is acceptable.

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.		

Report run on: February 13, 2006 4:07 PM

0%

S7 SITE

G2010.02.01 Aggregate Roadway (Gravel)*

Gravel surface access from Town roadway provides vehicular access on front and north side of school.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2020.02.01 Aggregate Parking Lots (Gravel)*

(2004) Gravel parking lot and School bus drop-off area was extended for a bus loop. Also improved access road to Kitchen Trailler.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2020.06.03 Parking Lot Signs*

Site has no signage

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide signage in Parking Lot

Concern:

Site has no signage for Parking or Handicapped Dropoff, or No Parking in Firelane signs.

Recommendation:

Provide Signs identifying Parking area, dropoff and "No Parking zones".

Type Year Cost Priority
Operating Efficiency Upgrade 2006 \$1,080 Medium

Updated: February 25 2005

G2030.04 Rigid Pedestrian Pavement (Concrete)*

Concrete sidewalk in front of building

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

Report run on: February 13, 2006 4:07 PM

G2040.02 Fences and Gates*

Site has no fences or gates.

RatingInstalledDesign LifeUpdated2 - Poor00DEC-04

Event: Provide a fence around the property.

Concern:

The site has a problem of people ridding their quads across the school yard. This can be dangerous for student playing in the school yard.

Recommendation:

Provide a chain link fence around the school yard . (Approx 1800 meters long)

Type Year Cost Priority
Operating Efficiency Upgrade 2006 \$81,000 High

Updated: February 25 2005

G2040.03 Athletic and Recreational Surfaces*

Site is adjacent to Community sports fields. New Playground equipment installed in a sand pit.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2040.06 Exterior Signs*

Building signage is mounted on brick wall beside main entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2040.08 Flagpoles*

One Flagpole in front of the school main entrance.

RatingInstalledDesign LifeUpdated5 - Good00DEC-04

G2050.04 Lawns and Grasses*

Grassed area in the front of building (on the East side) and on the South side extending to the playground.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2050.05 Trees, Plants and Ground Covers*

Trees and Plants are local to the area. No new trees planted.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

Report run on: February 13, 2006 4:07 PM

G3010.02 Site Domestic Water Distribution*

Water supplied by Municipal water system

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

G3020.01 Sanitary Sewage Collection*

Sewage services tied into Town sewage system

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G4010.04 Car Plugs-ins*

(1977): 4 energized parking stalls have been provided for staff use. These receptacles are not controlled in any way. The receptacles are rail mounted ..

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide additional energized paking stalls.

Concern:

The number of energized parking stalls provided does not meet the current need of the staff.

Recommendation:

Provide an additional 5 energized stalls.

TypeYearCostPriorityProgram Functional Upgrade2006\$4,320Low

Updated: February 25 2005

Report run on: February 13, 2006 4:07 PM

S8 FUNCTIONAL ASSESSMENT

K40 Current Code Issues

Building was constructed to meet Building code at that time.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

K4010.01 Barrier Free Route: Parking to Entrance

Entrance is accessable over concrete paving at Main Entrance and on concrete sidewalk.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide Hard Surface Concrete or asphalt pad at entry for Handicapped.

Concern:

Parking lot is gravelled and not paved.

Recommendation:

Provide a Concrete Pad as a Handicapped dropoff level with the Main Entrance Concrete paving. Provide Signage and markings as required.

TypeYearCostPriorityBarrier Free Access Upgrade 2007\$5,400Medium

Updated: March 4 2005

K4010.02 Barrier Free Entrances

Two Single Aluminum Doors at main entry

RatingInstalledDesign LifeUpdated2 - Poor00DEC-04

Event: Provide Power Assisted Door Operator at main

entrance.

Concern:

Existing Single Doors at front entrances are not equipped with Power Assisted Operators.

Recommendation:

Provide Power assisted Door Operator on one door as required at main entry to meet Barrier Free Code Requirements.

TypeYearCostPriorityBarrier Free Access Upgrade 2007\$10,800Medium

Updated: March 4 2005

K4010.03 Barrier Free Interior Circulation

All areas of the Building are wheelchair accessable except fpr the classroom on the stage. Should the need arise activities for this classroom will need to be scheduled in regular classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

K4010.04 Barrier Free Washrooms

(2002) Washrooms have been modified for handicapped accessability.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04