RECAPP Facility Evaluation Report

St Albert Pss Dist #6



William D. Cuts School B4087A St. Albert

Report run on: April 14, 2010 4:58 PM

St. Albert - William D. Cuts School (B4087A)

Fac	ility Details	Evaluation Details	
Building Name:	William D. Cuts School	Evaluation Company: Robert Irlam Consulting Inc.	
	149 Larose Drive	Evaluation Date: September 9 2005	
Location:	St. Albert	Evaluator Name: J. R. Irlam	
Building Id:	B4087A		
Gross Area (sq. m):	4,294.50		
Replacement Cost:	\$11,442,793		
Construction Year:	1977	Total Maintenance Events Next 5 years: \$2,794,617	
General Summary:		5 year Facility Condition Index (FCI): 24.42%	

General Summary:

The single storey brick school was constructed in 1977. Eight portable class rooms were added on the south side of the school in 1978. The school has 274 junior high students and a staff of 21.

Structural Summary:

The foundations are poured concrete foundation walls on strip footings. The building frame consists of open web steel joists spanning bond beams in concrete block walls. Wide spans are achieved with wide flange steel beams spanning hollow section steel columns carrying the open web joists. There are also interior concrete block structural walls with bond beam stiffening.

The structure of the school is in an acceptable condition.

Envelope Summary:

There is a brick skin on all exterior walls of the school with an air space, insulation and a concrete block backing wall. The roofs are SBS and the windows are the original aluminum frames with sealed units. The building envelope is in an acceptable condition.

Interior Summary:

Interior finishes consist of T-bar acoustic tile ceilings, a mix of vinyl tiles and sheet vinyl flooring with carpet in staff areas and library and some teaching rooms. Walls are painted concrete block. Furniture in class rooms is typically plastic laminate desks and tables and chairs with plastic seats and steel leg frames. Fixed casework is wood storage cupboards and shelving. The interior of the school is in an acceptable condition.

Mechanical Summary:

A 4" domestic water service enters the east face of the building at the Outside Storage Room 144 and enters the adjacent mechanical room to service the process and domestic loads for the building.

Plumbing fixtures are flush tank water closets, wall-mounted urinals, lavatories, and stainless steel sinks.

Waste from the various plumbing fixtures drains to cast iron piping under the floor slab and a 6" sanitary main drains to the municipal sanitary sewer system located north of the building at Larose Drive.

Storm drainage from the various roof drains exits the east face of the north side of the building and connects via a 12" main to a manhole at the northeast corner of the property line. In addition, 3 catch basins located on the east and south sides of the building connect to this manhole. From this manhole, storm drainage connects to a municipal manhole in Larose Drive.

Natural gas from the municipal main located at Larose Drive enters the east face of the building where it is metered at outdoor storage room 144.

For exterior fire protection, there is a fire hydrant located at the property line at Larose Drive northwest of the main building entrance.

Two natural gas fired boilers provide heat for the building via a perimeter hydronic radiation system. Ventilation to the school is provided via an underslab ductwork system to outlets under the perimeter radiation cabinets with the radiation providing the zone reheat. An above-corridor ceiling ducted return air system provides return air to the ventilation unit. Natural gas fired furnaces provide heat and ventilation to the Gymnasium via an underslab perimeter air supply system. A low pressure steam boiler is include for humidification to the ventilation systems.

Internal building fire protection consists of a hose and standpipe system and wall mounted fire extinguishers.

Overall, the school is well maintained, and the mechanical systems are in an acceptable condition.

Electrical Summary:

Service to the school is 1200A, 120/208V, 3 phase, 4 wire from a pad mounted transformer to the service and distribution switchboard, with a 1200A main breaker and distribution breakers, ranging from 70A to 200A, to 3 phase branch circuit panelboards throughout the school, including two serving only the portable classrooms.

Interior lighting is predominantly fluorescent of the energy efficient type - electronic ballasts and T8 lamps. The Gymnasium uses metal halide. Emergency lighting is provided by battery packs with integral and remote lighting heads with no connection to the exit lights. Exterior lighting is high pressure sodium consisting of wall lights along the perimeter and pole lights in the parking lot, photoelectric cell controlled with manual override.

The single stage, hard wired fire alarm system has manual and automatic detection devices and audible only (bells) signaling devices. Security is provided by the recently added CCTV system and the recently upgraded intrusion alarm system. Communication systems include a new telephone system which interfaces with the also recently upgraded public address system, an extensive local area network for computers and cable television. Classrooms are provided with either projection screen television sets or Smart Boards and wireless sound reinforcement systems. The overall condition of the electrical systems is considered to be acceptable.

Rating Guide			
Performance			
Unsafe, high risk of injury or critical system failure.			
Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.			
Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.			
Meets present requirements, minor deficiencies. Average operating/maintenance costs.			
Meets all present requirements. No deficiencies.			
As new/state of the art, meets present and foreseeable requirements.			

S1 STRUCTURAL

A1010 Standard Foundations *

The foundations consist of predominantly 200mm poured reinforced concrete foundation walls on reinforced concrete strip footings which vary between 1065mm to 610mm wide by 200mm or 250mm deep.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1977	100	APR-10

A1030 Slab on Grade*

There is concrete slab on grade throughout the school with 150mm x 150mm wire mesh reinforcement on poly vapour barrier on 25mm compacted sand and 125 pit run gravel.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	100	APR-10

B1010.01 Floor Structural Frame (Building Frame) *

The building frame consists of open web steel joists carried on bond beams cast into the concrete block walls. Wide spans are achieved with wide flange steel beams spanning hollow section steel columns carrying the open web joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	100	APR-10

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

Interior structural walls are concrete block with bond beam stiffening.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	100	APR-10

B1010.03 Floor Decks, Slabs, and Toppings*

The slab on grade provides a toweled deck to receive the floor finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	100	APR-10

B1010.06 Ramps: Exterior*

There is a concrete ramp on the east side of the school adjacent to the gym.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1977	40	APR-10

Event: Repair ramp retaining wall

Concern:

The reinforced concrete retaining wall for the ramp is moving and requires stabilization. **Recommendation:**

Replace retaining wall and guard rail.

Consequences of Deferral:

Wall will continue to deflect.

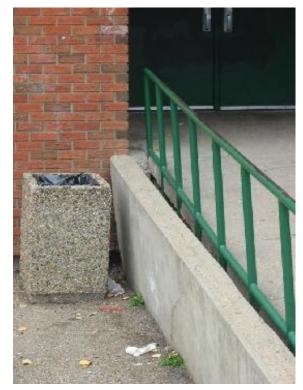
Туре	
Failure Replacement	

Updated: APR-10

 Year
 Cost

 2010
 \$50,000

<u>Priority</u> Medium



Failure at retaining wall ramp. Handrail too low.

B1010.07 Exterior Stairs *

There are concrete stairs at the main entrance which are integral with the slab and grade and have four risers. There are also exterior concrete stairs with six risers at the exit to the gym.

Rating	Installed	Design Life	<u>Updated</u>
3 - Marginal	1977	40	APR-10

Event: Repair stairs

Concern:

The brick wall enclosing the concrete stairs is settling and moving away from the gym wall. **Recommendation:** Mud jack wall foundation to restore wall to the vertical.

Consequences of Deferral:

Wall will continue to move.

Туре	<u>Year</u>	Cost	Priority
Repair	2010	\$10,000	Medium

B1010.09 Floor Construction Fireproofing *

The single storey building has one floor of concrete slab on grade which is fire proof.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	50	APR-10

B1020.01 Roof Structural Frame*

The roof structural frame consists of metal deck on open web steel joists spanning concrete block walls and wide flange steel beams.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	100	APR-10

B1020.04 Canopies *

The canopies over the main entrance and the ramp is an extension of the adjacent roof structure. They are constructed of painted soffits on wood framing attached to the adjacent walls or suspended from the open web steel joists with fibre glass insulation and poly vapour barrier.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	50	APR-10

B1020.06 Roof Construction Fireproofing*

The open web steel joists in the mechanical room have a sprayed fire protection.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	50	APR-10

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

There is a brick masonry wall skin on all exterior walls of the school. The walls are constructed with 100mm brick face, 12mm air space, 25mm rigid insulation on a back structural wall of 200mm concrete block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	75	APR-10

B2010.01.09 Expansion Control: Exterior Wall Skin*

There are control joints in the brick skin consisting of a flexible caulking on a metal insert in the vertical joint.

<u>Rating</u>	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	75	APR-10

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

All window and door frames are caulked where they meet the brick skin.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	20	APR-10

Event: Replace 300m caulking

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$10,000	Unassigned

Updated: APR-10

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

There is a concrete block structural backing wall to the exterior brick skin.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	100	APR-10

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

Exterior walls are insulated with 50mm rigid insulation with no vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	100	APR-10

B2010.05 Parapets*

Parapets are constructed of galvanized metal cap and roof flashing on wood capping on the concrete block wall perimeter upstand.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1996	50	APR-10

B2010.06 Exterior Louvers, Grilles, and Screens *

There is a compartment on the roof with aluminum walls serving which is part of the mechanical system.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	50	APR-10

B2010.09 Exterior Soffits*

There are cedar strip soffits on wood framing over exterior doors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	50	APR-10

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

There are aluminum windows throughout the school with sealed units and opening lights.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1977	40	APR-10

Event: Replace 150m2 windows

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2017	\$150,000	Unassigned

Updated: APR-10

B2020.02 Storefronts: Windows**

There are pressed steel store fronts with the main entrance doors.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	35	APR-10

Event: Replace 10m2 store front

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$10,000	Unassigned

B2030.01.02 Steel-Framed Storefronts: Doors**

There are steel store front doors at the main entrance.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace 3 store front doors
Type Year Cost Priority
Lifecycle Replacement 2013 \$15,000 Unassigned
Updated: APR-10
B2030.02 Exterior Utility Doors **
Exterior utility doors to the gym exit and the double doors to grounds storage are hollow insulated metal in pressed steel frames.
RatingInstalledDesign LifeUpdated4 - Acceptable197740APR-10
Event: Replace 3 utility doors
TypeYearCostPriorityLifecycle Replacement2017\$3,000Unassigned
Updated: APR-10
B3010.01 Deck Vapor Retarder and Insulation*
Roof decks have rigid insulation and vapour barrier.
Rating Installed Design Life Updated
4 - Acceptable 1977 25 APR-10
B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** Main School
There is an SBS roof over all the school.
RatingInstalledDesign LifeUpdated5 - Good199525APR-10
Event: Replace 3000m2 SBS roof
Type Year Cost Priority
Lifecycle Replacement 2020 \$600,000 Unassigned
Updated: APR-10

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

There is an SBS roof over the gym.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
5 - Good	2008	25	APR-10

Event: Repaice 500m2 SBS roof

<u>Type</u>	Year	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2033	\$100,000	Unassigned

Updated: APR-10

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

Roof access is by means of a fabricated metal hatch with curb and flashings. Other roof openings for vents and ducts have metal flashing collars.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	25	APR-10

S3 INTERIOR

S3 INTERIOR	
C1010.01 Interior Fixe	d Partitions*
Interior fixed partitions	are concrete block throughout the school.
Rating 4 - Acceptable	Installed Design Life Updated 1977 0 APR-10
C1010.01.07 Framed F	Partitions (Stud)
There are gypsum boar	rd on 90mm x 50mm or 150mm x 50mm metal studs in the 2006 office renovations.
<u>Rating</u> 5 - Good	InstalledDesign LifeUpdated2006100APR-10
C1010.03 Interior Ope	erable Folding Panel Partitions **
There is an operable vi	nyl fabric dividing curtain the in the gym.
Rating 4 - Acceptable	InstalledDesign LifeUpdated197730APR-10
Type Lifecycle Replac Updated: AP C1010.05 Interior Wind	R-10
	ows in the library office with clear glass in pressed steel frames.
Rating 4 - Acceptable	Installed Design Life Updated 1977 80 APR-10
C1010.05 Interior Wine	dows* 2006 Office Renovations
There are three interio frames.	or windows in the time out area and one in the infirmary. They are clear glass in pressed steel
Rating 4 - Acceptable	InstalledDesign LifeUpdated200680APR-10
C1010.07 Interior Part	ition Firestopping*
Interior partition fire sto	opping is complete throughout the school.
Rating 4 - Acceptable	InstalledDesign LifeUpdated197750APR-10

C1020.01 Interior Swinging Doors (& Hardware)*

Doors to class rooms are typically painted solid core wood doors with three hinges.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	40	APR-10

C1020.03 Interior Fire Doors*

Interior fire doors in corridors are hollow metal in pressed steel frames with wired glass upper panel, panic bars and magnetic hold open devices.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	50	APR-10

C1030.01 Visual Display Boards**

There are white boards and tack boards in class rooms and other spaces throughout the school.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	20	APR-10

Event: Replace 80 visual display boards

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2013	\$65,000	Unassigned

Updated: APR-10

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

There are fabricated metal toilet partitions in student wash rooms and girls shower area. 18 toilet cubicles at 1500 each = 27,0004 shower cubicles at 2500 each = 10,000

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace 18 toilet & 4 shower fabricated cubicles

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$37,000	Unassigned

Updated: APR-10

C1030.08 Interior Identifying Devices *

All rooms have plastic room numbers on the head of the door frame. Some teaching rooms also have teachers names or room designation on doors.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	20	APR-10

C1030.10 Lockers**

Hallway metal lockers

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	2002	30	APR-10

Event: Replace 300 lockers

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2032	\$195,000	Unassigned

Updated: APR-10

C1030.12 Storage Shelving *

There is wood storage shelving in class rooms and store rooms throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10

C1030.14 Toilet, Bath, and Laundry Accessories *

There are mirrors, soap and paper towel dispensers, toilet roll holders in student and staff wash rooms.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	20	APR-10

C2010 Stair Construction *

There is a poured reinforced concrete five tread stair down to the mechanical room with steel pipe rails.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	100	APR-10

C3010.01 Concrete Wall Finishes (Unpainted)*

Wall finishes throughout the school are typically painted concrete block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	100	APR-10

C3010.04 Gypsum Board Wall Finishes (Unpainted) *

There are gypsum board wall finishes in the renovated office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	2006	60	APR-10

C3010.06 Tile Wall Finishes **

	There are glazed	ceramic tile	wall finishes	in the	student	shower areas
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<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	40	APR-10

Event: Replace 250m2 glazed wall tiles

Туре	Year	Cost	Priority
Lifecycle Replacement	2017	\$75,000	Unassigned

Updated: APR-10

C3010.09 Acoustical Wall Treatment **

There are fabric acoustic wall panels in the music room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2008	20	APR-10

Event: Replace 200m2 acoustic panels

Туре	Year	Cost	Priority
Lifecycle Replacement	2028	\$50,000	Unassigned

Updated: APR-10

C3010.11 Interior Wall Painting*

All interior wall surfaces are painted.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1995	10	APR-10

C3020.02 Tile Floor Finishes**

There are ceramic mosaic floors in the wash room and shower room areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	50	APR-10

Event: Replace [C3020.02 Tile Floor Finishes** -]

Туре	Year	Cost	Priority
Lifecycle Replacement	2027	\$16,455	Unassigned

Updated: FEB-09

C3020.04 Wood Flooring**

There is a hardwood strip floor in the gymnasium.

Rating	Installed	Design Life	Updated
3 - Marginal	1977	30	APR-10

Event: Replace 500 m2 hard wood floor

Concern:

The gym floor has been refinished several times and is damaged and requires replacement. **Recommendation:** Replace floor. **Consequences of Deferral:** Floor will deteriorate further.

Туре	Year	Cost	Priority
Failure Replacement	2010	\$40,000	Low

Updated: APR-10

C3020.07.01 Resilient Tile Flooring

There are vinyl tiles throughout the school including class rooms and corridors.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1977	0	APR-10

Event: Replace 1500m2 vinyl tile floor

Concern: The vinyl tile flooring throughout the school is marked, damaged and requires replacement. Recommendation: Replace damaged floor. Consequences of Deferral: Floor will deteriorate further.

Туре	Year	Cost	Priority
Failure Replacement	2010	\$90,000	Medium

C3020.08 Carpet Flooring**

There is carpeting throughout the school in offices, library, class rooms and music room.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1977	15	APR-10

Event: Replace 150m2 carpet

Concern:

The carpet in some class rooms and the music room is stained and damaged and requires replacement. **Recommendation:** Replace carpet within 5 years. **Consequences of Deferral:** Higher maintenance costs.

Туре	Year	Cost	Priority
Failure Replacement	2010	\$15,000	Low

Updated: APR-10

C3020.14 Other Floor Finishes*

There are ceramic floor tiles in the main entrance area.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
5 - Good	2006	0	APR-10

C3030.04 Gypsum Board Ceiling Finishes (Unpainted) *

There are gypsum board ceiling finishes in wash rooms and kitchen.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	60	APR-10

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

Ceilings throughout the school are typically acoustic tiles in a T-bar grid including class rooms, offices and corridors.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1977	25	APR-10

Event: Replace 200m2 acoustic tiles

Concern:

There are acoustic tiles in the computer rooms, change areas, music room, class rooms, drama store which are damaged, appear unsightly and require replacement. **Recommendation:** Replace damaged tiles.

Consequences of Deferral:

Tiles will deteriorate further.

Туре	Year	Cost	Priority
Repair	2010	\$10,000	Medium

Updated: APR-10

Event: Replace 2500m2 acoustic tiles

Туре	Year	Cost	<u>Priority</u>
Lifecycle Replacement	2013	\$125,000	Unassigned

Updated: APR-10

C3030.07 Interior Ceiling Painting *

The underside of the metal deck is painted where exposed in the gym. Gypsum board ceilings are painted in wash rooms and kitchen.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	20	APR-10

S4 MECHANICAL

D2010.04 Sinks**

There are 19 single compartment stainless steel sinks, 2 double compartment stainless steel sinks, and 2 composite type mop service basins

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace 23 Sinks

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$38,000	Unassigned

Updated: APR-10

D2010.05 Showers**

There are 12 showers located in the Gymnasium Change Rooms and the Physical Education instructors offices.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace 12 Showers

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$6,400	Unassigned

Updated: APR-10

D2010.08 Drinking Fountains / Coolers**

There are 3 non-refrigerated drinking fountains located in the corridor areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	35	APR-10

Event: Replace 3 Drinking Fountains

Type	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$5,300	Unassigned

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

There are 14 wall mounted flush valve water closets, 8 floor mounted flush valve water closets, 20 counter top oval lavatories, 5 ceramic wall hung lavatories, and 7 wall hung urinals in the facility.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	35	APR-10

Event: Replace 22 WCs, 25 Lavs, 7 Urnls

Туре	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$94,000	Unassigned

Updated: APR-10

D2020.01.01 Pipes and Tubes: Domestic Water*

A 4" domestic water service enters the east face of the building at the Outside Storage Room 144 and enters the adjacent mechanical room to service the process and domestic loads. Copper mains from the mechanical room distribute domestic hot and cold water via copper mains in an above corridor distribution system to the various fixtures throughout,

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	40	APR-10

D2020.01.02 Valves: Domestic Water**

Isolation valves are provided for the main water services, and isolation of the various plumbing fixture hot and cold lines.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	40	APR-10

Event: Replace 150 Valves

TypeYearCostPriorityLifecycle Replacement2017\$45,000Unassigned

Updated: APR-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Backflow prevention is provided for the fire standpipe system (check valves). Backflow preventor provided for boiler make-up water. Vacuum breakers are integral with the mop service basin valve sets.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	20	APR-10

Event: Replace 2 Backflow Preventors

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$6,600	Unassigned

D2020.02.02 Plumbing Pumps: Domestic Water**

A domestic hot water primary circulation pump rated for 55 USgpm with a 1/4 HP motor is provided to circulate water between the domestic hot water boiler and the storage tank. A Grundfos UP15-42 domestic hot water recirculation pump is provided to circulate hot water throughout the facility.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	20	APR-10

Event: Replace 2 Plumbing Pumps

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$2,000	Unassigned

Updated: APR-10

D2020.02.03 Water Storage Tanks**

There is one 80 gallon lined steel domestic hot water storage tank in Mechanical Room 143

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace 80 Gallon Water Storage Tank

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2013	\$4,000	Unassigned

Updated: APR-10

D2020.02.06 Domestic Water Heaters**

Domestic hot water is heated via a Raypac Model 685WT boiler with 684,600 btuh input on natural gas.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	20	APR-10

Event: Replace Domestic Hot Water Boiler

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$22,000	Unassigned

Updated: APR-10

D2020.03 Water Supply Insulation: Domestic*

Where exposed for inspection, domestic water lines are insulated with fiberglass insulation and canvas jacketed.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1977	40	APR-10

D2030.01 Waste and Vent Piping*

Waste from the various plumbing fixtures drains to cast iron piping under the floor slab and a 6" sanitary main drains to the municipal sanitary sewer system located north of the building at Larose Drive. Vent piping from the various fixtures to roof vents is copper.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	50	APR-10

D2040.01 Rain Water Drainage Piping Systems*

Storm drainage from the various roof drains collects in an underslab cast iron storm drainage system that exits the east face of the north side of the building and connects via a 12" main to a manhole at the northeast corner of the property line. From this manhole, storm drainage connects to a municipal manhole in Larose Drive.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1977	50	APR-10

D2040.02.04 Roof Drains*

3", 4" and 6" cast iron roof drains are provided for storm water drainage.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	40	APR-10

D3010.02 Gas Supply Systems*

Natural gas from the municipal main located at Larose Drive enters the east face of the building where it is metered at outdoor storage room 144. This service then enters the adjacent mechanical room to service the boilers, and a branch line located above the corridor ceiling provides natural gas service to the gas outlets in Science Rooms 134, 135, 136, 137 and 138. The gas service in each of these Science Rooms is no longer used and is isolated in each room via a master shut-off valve.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1977	60	APR-10

D3020.01.01 Heating Boilers & Accessories: Steam**

There is one Weil McLean Model AE6-65 steam boiler rated at 225,000 btuh input on natural gas. This boiler is rated for 10# steam and is currently operating at 7# to provide steam for the two steam grid humidifiers.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	35	APR-10

Event: Replace Heating Boiler & Accessories

<u>Type</u>	Year	Cost	Priority
Lifecycle Replacement	2013	\$12,000	Unassigned

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

Water for the hot water heating system is heated via two Raytherm Model 1353WTD boilers each rated for 1,352,900 btuh input on natural gas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	35	APR-10

Event: Replace Two Heating Boilers and Accessories

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$100,000	Unassigned

Updated: APR-10

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

There is a Type 'B' gas vent for the boiler chimney.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1977	30	APR-10

Event: Replace 15m Chimney

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$12,000	Unassigned

Updated: APR-10

Event: Replace 2m boiler chimney

Concern:

There is rust on the exterior of the Type 'B' gas vent above the building roof line.

Recommendation:

Replace boiler Type 'B' gas vent above the roof.

Consequences of Deferral:

Should pitting of the surface penetrate the exterior wall of the chimney, water could enter and cause rusting of the interior lining of the chimney.

Туре	<u>Year</u>	Cost	Priority
Failure Replacement	2011	\$3,000	Medium

Rust on the exterior portion of the boiler chimney.

Updated: APR-10

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

A chemical pot feeder and side stream filter is located in the mechanical room. Facilities Management performs a scheduled chemical treatment program.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10

D3020.03.01 Furnaces**

There are three Lennox Model G12R03-150-1 furnaces, each rated for 135,000 btuh input on natural gas and installed in the main mechanical room to provide heating and ventilation to the Gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	25	APR-10

Event: Replace 3 Furnaces

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$15,000	Unassigned

Updated: APR-10

D3020.03.02 Chimneys (&Comb. Air): Furnace*

Three 6" gas vents have been provided for the three furnaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	25	APR-10

D3040.01.01 Air Handling Units: Air Distribution**

A Markhot ventilation unit is provided in the main Mechanical Room for ventilation air to the school. The unit contains a return air fan (Markhot WE7IO-6 rated for 19000 cfm at 1.5" ESP), an exhaust air and fresh air mixing box, a disposable filter section, a steam grid humidifier, and a supply air fan (Markhot WE7IO-8 rated for 21000 cfm at 2" ESP)

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace Main Air Handling Unit

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$60,000	Unassigned

Updated: APR-10

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

There is one centrifugal cabinet type return air fan in the Mechanical Room (Delhi Model 418 rated for 4800 cfm at 0.25" ESP) serving the Gymnasium ventilation system.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

D3040.01.03 Air Cleaning Devices: Air Distribution*

Disposable media type air filters are provided for the main school and gymnasium ventilation systems.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	30	APR-10

D3040.01.04 Ducts: Air Distribution*

Galvanized steel supply air ductwork from both the Gymnasium and main school ventilation units provide air to the various zones of the building via an underslab distribution system.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	50	APR-10

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Air outlets for the main school are provided at the floor level to the perimeter radiation cabinets. Steel floor grilles are provided at the floor level for the perimeter of the Gymnasium.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	30	APR-10

D3040.03.01 Hot Water Distribution Systems**

Heating hot water is provided from the main Mechanical Room via steel pipes located above the corridor ceilings to service the perimeter radiation system.

Replacement costs based on \$93.00 per m2 GFA (not including the Gymnasium portion of the school).

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	40	APR-10

Event: Replace Hot Water Distribution Systems

Туре	Year	Cost	Priority
Lifecycle Replacement	2017	\$337,000	Unassigned

Updated: APR-10

D3040.04.01 Fans: Exhaust**

The following rooftop exhaust fans are installed:

Delhi (model unknown) serving the kiln room. Cook Model 150 ACE installed in 2005 to serve the soapstone exhaust table Room 139 Dome fan (model unknown) serving the Girls Change Room (upgraded in 2006) Greenheck Model CE8D serving the Gymnasium Storage Room Greenheck Model CBE-14-4 serving the Boys Change Room Greenheck Model GB101LMDX9D serving the Staff Wash rooms Greenheck Model GB131LMDX9D serving the Janitor Room Greenheck Model CBE-10-4 serving the Counselors Office Greenheck Model GB180LMDX9D serving the Boys and Girls main Wash rooms Greenheck Model CUBE161LMDS9D serving the Kitchen Range Hood.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace 9 Roof Mounted Fans

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$18,000	Unassigned

D3040.04.03 Ducts: Exhaust*

Galvanized steel exhaust ducts return air from the various zones in the school and are located in the corridor ceiling space. Dedicated galvanized steel exhaust ducts from wash rooms and other dedicated areas exhaust air through the roof mounted exhaust fans.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	50	APR-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Linear and steel egg crate type return air and exhaust grilles are provided throughout the various zones of the facility.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

D3050.03 Humidifiers**

Two steam grid humidifiers are installed. One for the main school ventilation unit, and one for the Gymnasium ventilation system.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	25	APR-10

Event: Replace 2 Steam Grid Humidifiers

<u>Type</u>	<u>Year</u> Co	ost <u>Priority</u>	
Lifecycle Replacement	2013 \$9	9,000 Unassigned	

Updated: APR-10

D3050.05.02 Fan Coil Units**

There are four above ceiling mounted force-flows and one wall-mounted unit installed in the main school building vestibule entrances. Two electric force-flows are installed at the two exterior entrances to the Portable corridor.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace 6 Fan Coil Units

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$23,000	Unassigned

D3050.05.03 Finned Tube Radiation**

Perimeter radiation is provided throughout the school facility with exception of the Gymnasium. This radiation is installed in convector cabinets, or, in the case of some classrooms, behind the perimeter millwork. The perimeter radiation also serves as reheat for the ventilation system air which is supplied via floor grilles installed underneath. Replacement costs based on \$46.55 per square meter of gross floor area (less the Gymnasium area).

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	40	APR-10

Event: Replace Finned Tube Radiation

Туре	Year	Cost	Priority
Lifecycle Replacement	2017	\$170,000	Unassigned

Updated: APR-10

D3050.05.06 Unit Heaters**

There is one unit heater in the main mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10

Event: Replace One Unit Heater

Туре	<u>Year</u> <u>Co</u>	<u>st</u> <u>Priority</u>
Lifecycle Replacement	2013 \$3,	,600 Unassigned

Updated: APR-10

D3060.02.01 Electric and Electronic Controls**

Line voltage electric thermostats are provided for the entranceway forceflows and the mechanical room unit heater.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	30	APR-10

Event: Replace 7 Electric Controls

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$2,800	Unassigned

D3060.02.02 Pneumatic Controls**

Pneumatic controls are provided for zone control throughout the facility as well as for the control dampers on the main ventilation unit. A simplex Honeywell Model 220 control air compressor is located in the main mechanical room, complete with a refrigerated after dryer (installed in 2006).

Replacement costs based on \$5.82 per square meter of gross floor area (not including the Gymnasium).

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	40	APR-10

Event: Replace Pneumatic Controls

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2017	\$22,000	Unassigned

Updated: APR-10

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

A Delta building management control system was installed in 1996 complete with I/P control transducers for the pneumatic controllers. Currently, some of the circuit boards for the system are obsolete and difficult to replace. Replacement costs include the main panels and interface only, and not complete conversion to a DDC control system.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1996	25	APR-10

Event: Replace Building Systems Controls

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2021	\$45,000	Unassigned

Updated: APR-10

D4020 Standpipes*

Firehose cabinets located throughout building.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1977	60	APR-10

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Dry chemical ABC fire extinguishers located throughout building and inside fire hose cabinets.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10

S5 ELECTRICAL

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

The main switchboard is a free-standing, wall-supported Service and Distribution Switchboard of the circuit breaker type by Westinghouse, with a 1200A thermal magnetic main breaker and distribution breakers ranging from 70A to 225A.

Rating

4 - Acceptable

Installed Design Life Updated 1977 40 **APR-10**

Capacity Size **Capacity Unit** 1200A. N/A 120/208V

Event: Replace Main Switchboard

Туре	Year	Cost	Priority
Lifecycle Replacement	2017	\$100,000	Unassigned

Updated: APR-10

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

Branch circuit panelboards are 120/208V, 3 phase, 4 wire circuit breaker type panelboards by Westinghouse, rated 225A, 42 circuits, recessed in public areas and surface mounted in utility areas and computer room. The panel for computer equipment, Panel I, is upgraded and is now protected by a TVSS (Transient Voltage Surge

Suppressor). Panel J, the parking receptacles panel, is complete with a contactor and is controlled by the Building Management System.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10
	Capacity	<u>Size Capac</u>	ity Unit
	Varies	5 N	I/A

Replace Branch Circuit Panelboards (8) Event:

<u>Type</u>	Year	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2013	\$40,000	Unassigned

Updated: APR-10

D5010.07.02 Motor Starters and Accessories** - 1977

Magnetic and manual starters are used singly or in groups for motor control. 208V 3 phase magnetic starters by Klockner-Moeller and 120V single phase manual starters by Westinghouse.

Rating

4 - Acceptable

Installed Design Life Updated 1977

30 **APR-10**

Capacity Size **Capacity Unit** N/A

N/A

Event: **Replace Motor Starters (9)**

Туре	Year	Cost	<u>Priority</u>
Lifecycle Replacement	2013	\$5,000	Unassigned

D5010.07.02 Motor Starters and Accessories** - 1996

208V 3 phase magnetic starters by Telemecanique and Federal Pioneer, replacing the original ones that failed.

Rating	
nauny	

Rating		Design Life	
5 - Good	1996	30	APR-10
	Capacity S	<u>Size</u> <u>Capac</u>	ity Unit
	N/A		N/A

Replace Magnetic Starters (2) Event:

Туре	Year	Cost	Priority
Lifecycle Replacement	2026	\$3,000	Unassigned

Updated: APR-10

D5020.01 Electrical Branch Wiring*

The wiring method is cables in conduit, concealed in finished areas and surface mounted in utility areas. The addition of computer power outlets makes extensive use of surface wireways (Wiremold G-4000) in the Computer Rooms and in the Library.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	50	APR-10
	Capacity S	Size Capaci	ity Unit
	N/A	Ν	I/A

D5020.02.01 Lighting Accessories (Lighting Controls)*

Lighting in a room is controlled locally by line voltage switches. Low voltage switching is used for group switching of corridor lights and the Gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	30	APR-10
	Capacity	<u>Size</u> <u>Capac</u>	ity Unit
	N/A	Ν	I/A

D5020.02.02.01 Interior Incandescent Fixtures*

High intensity halogen stage lights are located in the Drama Room, complete with dimming facility.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10
	Capacity S	<u>Size</u> <u>Capac</u>	ity Unit
	N/A	Ν	I/A

D5020.02.02.02 Interior Fluorescent Fixtures** - 1996

The fluorescent lighting system is the energy efficient type using electronic ballasts and 32WT8 lamps. Fixtures include the single lamp surface mounted with wrap-around acrylic lenses in the corridors, 2X4 surface with drop-in lenses in the offices, 2-lamp industrial strips in the utility areas and the one-lamp classroom fixtures with "Holophane" prismatic lenses.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
5 - Good	1996	30	APR-10

<u>Capacity Size</u> <u>Capacity Unit</u> N/A N/A

Event: Replace Fluorescent Fixtures (1000)

Туре	Year	Cost	Priority
Lifecycle Replacement	2026	\$250,000	Unassigned

Updated: APR-10

D5020.02.02.02 Interior Fluorescent Fixtures** - 2006

The office renovation in 2006 changed the lighting to recessed 2X4 with drop-in acrylic lenses in the General Office and front entrance to match the ceiling using energy efficient electronic ballasts and 32WT8 lamps.

Rating	Installed	Design Life	Updated
5 - Good	2006	30	APR-10
	Capacity :	Size Capac	ity Unit
	N/A	Ν	I/A

Event: Replace Fluorescent Fixtures (20)

Туре	Year	Cost	<u>Priority</u>
Lifecycle Replacement	2036	\$6,000	Unassigned

Updated: APR-10

D5020.02.02.03 Interior Metal Halide Fixture*

The main lighting system in the Gymnasium is metal halide, using 400W pendant mounted industrial type fixtures with wire guard protectors.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1996	30	APR-10
	Capacity N/A		ity Unit ⊮A

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting battery packs with integral and remote lighting heads (including the public washrooms) are used throughout the school. Typically located in the corridors except the Gymnasium and Drama Room which have their own units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	20	APR-10
		Size Capac	
	N/A	N	I/A

Event: Provide 4 lighting battery packs

Concern:

The emergency lighting in the school is inadequate at exit locations and along paths of egress. Furthermore, exit lights do not receive power from the battery packs.

Recommendation:

Add emergency lighting battery packs to supplement the existing and connect battery power to exit lights. Modify exit lights to accept AC/DC connections.

Consequences of Deferral:

School will continue to have inadequate exit lights.

Туре	Year	Cost	Priority
Operating Efficiency Upgrade	2013	\$5,000	Medium

Updated: APR-10

Event: Replace Emergency Lighting Battery Packs (12)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2016	\$6,000	Unassigned

Updated: APR-10

D5020.02.03.03 Exit Signs*

Exit signs are internally illuminated exit lights, steel or plastic housing with stencil letters. Originally incandescent, the lamps have been converted to LED in 1996 but they continue to receive power from the normal power source only - no DC connection from the battery packs.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1996	30	APR-10
	Capacity S	<u>Size Capaci</u>	ty Unit
	N/A	N	/A

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Exterior lighting is entirely high pressure sodium wall packs along the perimeter, pole mounted twin lights in the parking lot and a surface mount under the soffit.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	30	APR-10
	Capacity N/A		it<u>y Unit</u> I/A

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

The exterior lighting is photoelectric cell controlled with manual override.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	30	APR-10
	Capacity S	Size <u>Capac</u> i	ity Unit
	N/A	Ν	I/A

D5030.01 Detection and Fire Alarm**

The fire alarm system is a hard-wired, single stage and zoned system with 7 detection zones and 2 signaling zones. The Simplex 4002 system uses manual stations, heat and smoke detectors as detection devices and bells as signaling devices. The control panel, with its integral annunciator, is located at the front entrance (just outside the General Office) unaccompanied by a graphic.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1990	25	APR-10
	Capacity S	<u>Size Capaci</u>	ity Unit
	N/A	N	I/A

Event: Replace Fire Alarm System

Туре	<u>Year</u>	Cost	<u>Priority</u>
Lifecycle Replacement	2015	\$85,000	Unassigned

D5030.02.02 Intrusion Detection**

The intrusion alarm system is a DSC Security system, using mainly infrared motion sensors, supplemented by magnetic door contacts. The system may be activated by a coded keypad, located at the front entrance. The system is monitored by Telsco Security.

<u>Rating</u> 5 - Good		6	esign Life Update	
	Capa	<u>city Siz</u> N/A	<u>Capacity Unit</u> N/A	
Event:	Completed - Repair or R (The system is replaced Intrusion Alarm System) Concern: False alarms. Parts not available. Recommendation: Replace the security system Consequences of Defern No security system if maju for replacement.	by a st in 2006 em or ha al: or part f	ate-of-the-art	available
	Type Failure Replacement	<u>Year</u> 2009	<u>Cost</u> \$7,767	Priority Low
	Updated: APR-10			
Event:	Replace Intrusion Alarm	Syster	<u>n</u>	
	Type Lifecycle Replacement	<u>Year</u> 2034	<u>Cost</u> \$14,000	<u>Priority</u> Unassigned
	Updated: APR-10			
D5030.0	02.04 Video Surveillance**			
located	in the General Office. The igitally records events and	PC ori	ented system, with	xterior and interior cameras and multiple-screen monitors its control equipment located in an adjacent office storage horized computer in the school, e.g., the Principal and Vice-
Rating 5 - Good	<u>Insta</u> 200		25 APR-	
	<u>Capa</u>	<mark>city Siz</mark> N/A	<u>Capacity Unit</u> N/A	
Event:	Replace Video Surveilla	nce Sys	stem	
	<u>Type</u> Lifecycle Replacement	<u>Year</u> 2031	<u>Cost</u> \$12,000	Priority Unassigned
	Updated: APR-10			

D5030.03 Clock and Program Systems*

The upgraded Dukane MCS-350 provides the program for class changes, broadcasting through the Public Address loudspeakers. Clocks are either electric or battery powered.

Rating
4 - AcceptableInstalled
1993Design Life
25Updated
APR-10Capacity Size
N/ACapacity Unit
N/A

D5030.04.01 Telephone Systems*

The telephone system is an NEC system. In addition to serving the telephone needs of the school administration and staff, it interfaces with the public address system providing access to paging and intercommunications between classrooms and the office.

Rating	Installed	Design Life	<u>Updated</u>
5 - Good	2006	25	APR-10
	Capacity S	Size Capac	ity Unit
	N/A	Ν	I/A

Event: Completed - Replace Telephone system

Concern:

Telephone switch has experienced failures in the past. **Recommendation:** Replace telephone switch. **Consequences of Deferral:** Telephone system may fail and be unable to carry normal activities of the day.

Туре	Year	Cost	Priority
Failure Replacement	2009	\$8,630	Low

Updated: APR-10

D5030.04.05 Local Area Network Systems*

Located at the entrance of the Mechanical Room, an enclosed data rack, housing terminals and switches, provides the local area network for the extensive distribution of data system in the facility. The facility has a SuperNet entry.

Rating	Installed	Design L	ife Updated
4 - Acceptable	1993	15	APR-10
	Capacity	<u>Size</u> Ca	pacity Unit
	N/A		N/A

D5030.04.07 Microwave and Radio Systems*

A FM Voice Enhancement System is available in most classrooms. It is a wireless system, using a wireless microphone through radio frequency (FM) to the amplifier (TOA equipment, mostly) and distributed (hardwired) to ceiling or wall speakers in the classroom.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1990	0	APR-10
	Capacity S	<u>Size Capaci</u>	ity Unit
	N/A	N	I/A

D5030.05 Public Address and Music Systems**

The initial public address system is maintained with an upgraded Dukane school sound system and a Bogen amplifier. Interfacing with the telephone system for public address announcements and intercom with the classrooms, the system makes little use of the Dukane equipment but uses a remote DVD player for the playing of the national anthem.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	25	APR-10
	Capacity S	<u>Size</u> <u>Capac</u>	ity Unit
	N/A	Ν	I/A

Event: Replace Public Address System

Туре	Year	Cost	Priority
Lifecycle Replacement	2018	\$22,000	Unassigned

Updated: APR-10

D5030.06 Television Systems*

Portable television sets with DVD and VHS players are still present in the facility although they are seldom used, replaced by large retractable screens with projectors and Smart Boards - touch screens that interact with students - which are generally PC compatible. Large flat screens are located in corridor areas and the Drama room for public displays of video information and for special entertainment.

A cable television distribution system, with outlets in classrooms, is still available (original installation); but its use has greatly diminished.

<u>Rating</u>	Installed	Design Life	Updated
5 - Good	2006	20	APR-10
	Capacity N/A		<mark>city Unit</mark> N/A

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.03 Theater and Stage Equipment*

The drama room is equipped with a raised platform system for a stage with a stage curtain surround. There are over head and front of house flood and spot lights.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	2000	25	APR-10

E1020.07 Laboratory Equipment*

The science class rooms 134, 135, 136, 137 are equipped with laboratory benches with plastic laminate counters, stainless steel sinks, goose neck taps and gas outlets and fumes cupboards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	25	APR-10

E1090.03 Food Service Equipment*

The kitchen which provides a limited number of hot lunches (typically 12 to 24) is equipped with a Sanyo bar fridge, General Electric and Kenmore residential fridges, Hotpoint range and hood. The staff room has a kitchenette area equipped with range, microwave oven, residential fridge, dish washer, stainless steel sink in plastic laminate counter with cupboard above and below.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	25	APR-10

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

The gym is equipped with retractable basket ball hoops and back boards and floor markings for various games.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	15	APR-10

E2010.02 Fixed Casework **

There is fixed wood and plastic laminate casework throughout the school in class rooms, library office and storage areas.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1977	35	APR-10

Event: Replace fixed casework (7800gfa)

<u>Type</u>	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2013	\$780,000	Unassigned

E2010.03.01 Blinds**

There are mainly vertical vinyl blinds throughout the school in class rooms and other areas and Venetian blinds in some locations such as the staff copy room.

Rating	Installed	Design Life	Updated
3 - Marginal	1977	30	APR-10

Event: Replace 150m2 blinds

Туре	Year	Cost	Priority
Lifecycle Replacement	2013	\$20,000	Unassigned

Updated: APR-10

E2020 Moveable Furnishings

There are a variety of plastic laminate tables and desks with steel and chrome leg frames in class rooms and library as well as staff rooms. There are are also chairs with polypropylene seats and steel leg frames. Staff and office areas have upholstered office swivel chairs and sofas and lounge chairs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	0	APR-10

F1010.02.04 Portable and Mobile Buildings *

Eight portable class rooms were added to the south side of the school in 1978. Two additional portable class rooms were added in 1982 and have since been removed from the site and relocated at another school.

The wall construction consists of stucco on metal lath on building paper on plywood sheathing on 50mm X 100mm wood studs with fibre glass insulation and an interior finish of gypsum board on poly vapour barrier. The roof construction consists of a built up roof on fir plywood deck on 355mm deep wood truss joists with insulation and poly vapour barrier. Floors consist of 50mm X 200mm wood joists spanning between steel beams carried on 75mm steel pipe columns on 600mm diameter concrete piles. The floors are finished with two layers of plywood.

Life cycle replacement based on 8 portable class rooms with a total gross area including circulation space of 1000m2 and a cost per square meter of \$500 to replace the building envelope.

Life cycle replacement based on 8 portable class rooms with a total gross area including circulation space of 1000m2 and a cost per square meter of \$110 to replace the building interiors

Electrical:

There are two panelboards: one, recessed, at the entrance of the corridor to the portables (for everything in the classrooms and the corridor, except the air conditioning units) and the other, weatherproof, on the roof of the portables (for the A/C units of the portable classrooms) - both of them 120/208V, 3 phase 4 wire by Westinghouse.

Single lamp, wrap around prismatic acrylic lens, surface mounted fluorescent fixtures form the lighting system in the classrooms, manually controlled by two line voltage switches. Retractable screens with projector or Smart Board for television provision. All have computers, cable TV outlets, telphones, public adress loudspeakers and the wireless FM sound reinforcement.

Life cycle replacement based on 8 portable class rooms with a total gross area including circulation space of 1000m2 and a cost per square meter of \$95 to replace the building electrical systems.

Mechanical:

Portable class rooms 159,160,161,162,163,164,165 (7 portables)

Each portable is provided with a Lennox upflow furnace (circa 1987) rated at 100,000 btuh input on natural gas. Air is provided via square cone ceiling diffusers with a low sidewall return air grille. Air conditioning is provided via an A-Frame coil in each furnace with a Lennox HS18-261-C6P condensing unit located on the roof level. Each furnace is controlled via a Delta DDC controller.

Life cycle replacement based on 8 portable class rooms with a total gross area including circulation space of 1000m2 and a cost per square meter of \$100 to replace the building mechanical systems.

For portable class room 166, the furnace was upgraded circa 2006 with a Lennox GMA24M3-4-100S furnace rated for 100,000 btuh input on natural gas. Air conditioning is provided via an A-Frame coil with a Lennox HS18-261-C6P condensing unit located on the roof level. Mix air controls were added (circa 2006) to allow for intermediate season free cooling.

Rating	Installed	Design Life	Updated
3 - Marginal	1978	30	APR-10

Event: Replace 800m2 roof with SBS

Concern:

The built up roofs are the original and have deteriorated with sections of bitumen bleeding through the gravel. **Recommendation:** Replace built up roofs with SBS.

Consequences of Deferral:

Roofs will deteriorate further.

Туре	Year	Cost	Priority
Failure Replacement	2010	\$160,000	Medium

Updated: APR-10

Event: Replace building envelope

	Type Lifecycle Replacement	<u>Year</u> 2013	<u>Cost</u> \$500,000	Priority Unassigned
	Updated: APR-10			
Event:	Replace building interio	rs		
	Type Lifecycle Replacement	<u>Year</u> 2013	<u>Cost</u> \$110,000	Priority Unassigned
	Updated: APR-10			
Event:	Replace electrical syste	<u>ms</u>		
	Type Lifecycle Replacement	<u>Year</u> 2013	<u>Cost</u> \$95,000	Priority Unassigned
	Updated: APR-10	2010	<i>400,000</i>	
Event:	Replace mechanical sys	tems		
	Type Lifecycle Replacement	<u>Year</u> 2013	<u>Cost</u> \$100,000	<u>Priority</u> Unassigned
	Updated: APR-10			
F1030.0	05 Other Special Construc	tion Sy	vstems*	
	s a work room off the ar eath for soap stone carving.		which has an un	used bench of perforated metal with an exhaust system

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	0	APR-10

S8 FUNCTIONAL ASSESSMENT

K3020 Indoor Environment

Computer Room 117 is very hot and does not have proper cooling provided.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	1977	0	APR-10

Event: Install computer room cooling stsyem

Concern:

Above average room temperatures in the Computer Lab Classroom requires additional cooling for the benefit of equipment and users.

Recommendation:

Provide cooling to the Computer Room with a Mutsubitshi Mr. Slim type of split system with a roof mounted condensing unit. **Consequences of Deferral:**

The room will remain uncomfortable due to the high ambient temperature.

Туре	Year	Cost	<u>Priority</u>
Indoor Air Quality Upgrade	2010	\$11,000	Medium

Updated: APR-10

K4010 Barrier Free Access

There is a concrete ramp with steel pipe rail on the east side of the school.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	APR-10

Front entrance is about 750mm above grade - no Event:

ramp Concern: Front entrance is not B/F **Recommendation:** Add ramp - \$15,000 Add door opener - \$5,000

Туре	<u>Year</u>	<u>Cost</u>	Priority
Code Repair	2010	\$34,520	Low

Updated: APR-10

K4010.01 Barrier Free Route: Parking to Entrance*

There is a barrier free access to the ramp on the east entrance to the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	APR-10

K4010.02 Barrier Free Entrances*

There is a barrier free entrance on the east side of the school.

Rating	Installed	<u>Design Life</u>	Updated
2 - Poor	1977	0	APR-10

Event: Ugrade entrance doors

Concern:

Entrance to school is not barrier-free. **Recommendation:** Add power assist to West entrance complete with activators. **Consequences of Deferral:** Continued lack of barrier-free access.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2010	\$6,041	Low

Updated: APR-10

K4010.03 Barrier Free Interior Circulation*

All rooms are on one level with no steps or obstacles and are barrier free.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
5 - Good	1977	0	APR-10

K4010.04 Barrier Free Washrooms*

There are enlarged toilet cubicles in student wash rooms with grab bars.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	0	APR-10

K4030.01 Asbestos*

A 2002 consultant's report on asbestos in the school indicated that there is asbestos in floor tiles, exterior soffit stucco, fume hood, sheet flooring and HVAC insulation. The report concluded that the asbestos containing materials were in good condition and no action was required at that time. The report recommended that an asbestos management program be implemented and that a proper training program for maintenance staff and persons working in the building be implemented.

4 - Acceptable

	Installed	Design Life	Updated
)	1977	0	APR-10

Completed - Develop Asbestos Management Event:

Program

Concern:

There does not appear to be an asbestos management plan in place.

Recommendation:

It is recommended that the school board engage consultants to develop an asbestos management plan for this school. **Consequences of Deferral:**

Asbestos will go unmanaged in the school.

<u>Priority</u>
High

Updated: APR-10

K4030.02 PCBs*

There were no PCBs observed or reported during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	APR-10

K4030.04 Mould*

There was no mould reported or observed during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	APR-10

K4030.09 Other Hazardous Materials*

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

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1977	0	APR-10