RECAPP Facility Evaluation Report

Calgary School District #19

Colonel Sanders Elementary School

B2586A

Calgary

Report run on: April 7, 2011 4:32 PM

Facility Details

Building Name: Colonel Sanders Elementary
Address: 226 Northmount Drive N. W.
Location: Calgary

Building Id: B2586A
Gross Area (sq. m): 2,735.70
Replacement Cost: $7,335,506
Construction Year: 1955

Evaluation Details

Evaluation Company: DC Stewart Architect Limited
Evaluation Date: January 6 2011
Evaluator Name: Don Stewart

Total Maintenance Events Next 5 years: **$1,506,000**
5 year Facility Condition Index (FCI): **20.53%**

General Summary:

Colonel Sanders School (the Traditional Learning Centre) is a single-storey load-bearing masonry structure, developed in 1955, with a partial basement for the boiler room and mechanical service tunnels. There were portable classroom units on this site at one time, but these have been removed. Current total area of the building is 2735 square metres. The school provides classes in grades 1 to 4 with a total enrollment of 383 students. No barrier free access is provided in this building. The building envelope requires considerable upgrading due to failing components, although the interiors have undergone recent renovations. Overall, the condition of this school is acceptable.

Structural Summary:

This school's structural systems are comprised of cast in place concrete strip footings, concrete slabs on grade, and load bearing masonry interior and exterior walls. There is a reinforced concrete basement, and extensive reinforced concrete service tunnels. The concrete frame and slabs are sound and exhibit no movement. The roof supported by steel and wood joists, with wood planking on top. The structural systems of this school are, in general, in acceptable condition.

Envelope Summary:

The building envelope is primarily stucco, and horizontal wood siding with a paint finish which has failed. Original wood windows have failed, with rot and deterioration present, and moisture penetration. New steel framed entrance doors have been installed. The original asphalt and gravel built-up roof has been replaced with a SBS membrane. In general, the building envelope has suffered from neglect and major repairs and upgrading are necessary. Overall, the condition of the building envelope is marginal.

Interior Summary:

The interiors of this building are painted concrete block and gypsum board, with a combination of vinyl flooring and carpeting. Ceilings are mostly glue-on acoustic tile with some newer suspended acoustic tee-bar ceilings. Asbestos is present in the floor tiles and ceiling tiles and must be remediated. The doors are mostly solid core wood in solid wood frames, with a natural finish. Fire doors are metal clad solid core wood. Cabinetwork is of plywood construction, mostly of good quality, painted. There are no lockers in this school. Overall, the condition of the interiors is acceptable.

Mechanical Summary:

Domestic water piping has been converted from galvanized steel piping to copper in approximately 1980. Where visible, the sanitary, rain water drainage, and steam distribution piping was original cast iron. There are backflow prevention devices present on the domestic water supply, condensate make up supply, and fire standpipe systems and irrigation system. The building is heated by a single low-pressure steam boiler. Steam is provided to unit ventilators and convectors throughout the building. The steam distribution system is reported to be original. The boiler is due for replacement. The building has a standpipe system complete with fire hoses for life safety.

A general exhaust fan located in the basement mechanical area provides exhaust for the majority of the building. Bathrooms and kitchen areas throughout the building are equipped with independently operated roof-mounted exhaust fans. There is no air conditioning in the building. The HVAC controls are pneumatic and provide no energy management functions. The unit ventilators provided poor control, ventilation and parts are hard to locate.

Overall the mechanical systems are acceptable.

Electrical Summary:

The building has added a 120/208 Volt 3 phase service which feeds the mechanical equipment with in the facility. A separately metered single phase electrical service (rated at 400 Amps) feeds the branch circuit panels with in the building. The electrical sub-panels and wiring was generally original with some additions/replacements as required. All observed panels were at capacity. All wiring observed was in conduit. Interior lighting is mainly provided by T-12 fluorescent technology with the exception of the gymnasium which was upgraded to T-8 technology in 1998. High Pressure Sodium fixtures illuminate some exterior exits. The facility has had some minor upgrades to the emergency lighting and exits, however the problems are still present and additional upgrades are recommended.

The fire alarm with in the building consists of a 120 volt fire alarm system. The facility has recently added a Silent Knight off site monitoring, however the issues regarding the coverage of the existing system are still present. The 120 volt fire alarm does not provide supervision of the system, thus any devise can be removed and the system will not indicate a trouble signal to the offsite monitoring company. The building also has a Silent Knight monitored security system, Norstar Meridian telephone system, Bogen public address system, Bell fibreoptic intent service, a Local Area Network (including wireless component) and a music system for the gymnasium.

Overall the electrical system is 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*

The building foundations are a combination of cast in place reinforced concrete foundation walls and column pier foundations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

A1030 Slab on Grade*

The basement and the classrooms are reinforced concrete slabs on grade.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

A2020 Basement Walls (& Crawl Space)*

The basement walls in the boiler room and mechanical service tunnels are reinforced cast in place concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B1010.01 Floor Structural Frame (Building Frame)*

Corridor floors over mechanical service tunnels are reinforced concrete suspended structural slabs bearing on reinforced concrete foundations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

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

Interior bearing walls are concrete block masonry.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B1010.03 Floor Decks, Slabs, and Toppings*

Main floor slabs are reinforced concrete.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	0	APR-11

Event: Remove, repair, replace concrete slab (20 sm)

Concern:
The concrete slab in the small central storage room is settling, and moving attached plumbing lines.
Recommendation:
Remove concrete slab, determine problem, and reinstall concrete slab.

Type	Year	Cost	Priority
Preventative Maintenance	2012	$10,000	Low

Updated: APR-11

B1010.07 Exterior Stairs*

Exterior steps from Northmount drive to the main entrance and at each of the south exits, are of reinforced, cast in place concrete with painted steel handrails.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B1010.09 Floor Construction Fireproofing*

Fireproofing on the underside of the wood flooring in the classroom above the basement storage room consists of un-taped, unfinished and discontinuous gypsum board.

Rating	Installed	Design Life	Updated
2 - Poor	1955	0	APR-11

Event: Install gypsum board fire separation (120 sm)

Concern:
Gypsum board fireproofing on the soffit of the classroom floor above the basement storage room is non-compliant. A single layer of non-rated 19 mm gypsum board with joints not taped and exposed structural beam/columns are provided.
Recommendation:
Apply second layer of rated gypsum board, tape and finish.
Consequences of Deferral:
Potential safety hazard in the event of a fire in the basement storage room.

Type	Year	Cost	Priority
Code Repair	2012	$8,000	High

Updated: APR-11

B1010.10 Floor Construction Firestopping*

Where visible, penetrations appear to be fire sealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B1020.01 Roof Structural Frame*

Roof structural framing consists of steel beams supporting wooden roof decking in the gymnasium, and wood trusses supporting wood roof decking elsewhere.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B1020.04 Canopies*

The canopy at the main (northeast) entrance is wood framed, supported on painted steel posts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

There is a panel of face brick at each of the entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B2010.01.06.04 Wood Siding**

The lower section of the building exteriors, on all portions of the building, have painted horizontal cedar siding.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	40	APR-11

Event: Replace damaged wood siding

Concern:

Random physical damage to the lower sections of wood siding was observed, particularly within the playing area courtyard. The paint finish has deteriorated (refer to section B2010.01.13 for costs).

Recommendation:

Replace damaged sections of wood siding, repair and refinish.

Type	Year	Cost	Priority
Repair	2012	$3,000	Low

Updated: APR-11

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

The upper sections of all elevations, are clad with painted stucco on metal lathe.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

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

Exterior window and door frames are caulked to adjacent materials.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	20	APR-11

Event: Recaulk doors and windows (120 frames)

Concern:
Exterior wall joint sealers are aged and deteriorated or missing.

Recommendation:
Replace exterior wall joint sealers at all window and door frames.

Type	Year	Cost	Priority
Failure Replacement	2012	$8,000	Medium

Updated: APR-11

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

The exterior wall skin, both wood siding and cement stucco components, are painted.

Rating	Installed	Design Life	Updated
2 - Poor	1955	15	APR-11

Event: Refinish and repaint the wood siding (300 sm)

Concern:
The paint finish on the wood siding has failed. Some touch-up maintenance is required on the stucco finishes.

Recommendation:
Scrape deficient paint, repair, and repaint.

Type	Year	Cost	Priority
Failure Replacement	2012	$22,000	Medium

Updated: APR-11

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

Glass block has been installed adjacent the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B2010.06 Exterior Louvers, Grilles, and Screens*

Ventilation louvers and screens on windows are of painted metal construction in painted wood framing.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	0	APR-11

Event: Replace wood trim around metal louvers

Concern:
Painted wood trim around screens and louvers is deteriorated and weathered, with some evidence of localized wood rot.

Recommendation:
Replace wood trim around metal louvers and screening.

Type	Year	Cost	Priority
Failure Replacement	2012	$1,000	Low

Updated: APR-11

B2010.09 Exterior Soffits*

The roof extends beyond the exterior face along the north east wall, a wood soffit is installed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

B2020.01.01.05 Wood Windows (Glass & Frame)**

Exterior windows are original single-pane wood framed vertical sliders and fixed windows with wood frame and aluminum storms.

Rating	Installed	Design Life	Updated
2 - Poor	1955	35	APR-11

Event: Replace 113 wood windows

Concern:
The original wood frame windows are weathered and the paint has peeled. Wood has rotted and moisture has entered.

Recommendation:
Replace original wood frame windows with sealed units.

Type	Year	Cost	Priority
Failure Replacement	2012	$160,000	Medium

Updated: APR-11

B2030.01.02 Steel-Framed Storefronts: Doors**

Flush steel doors, with wired glass, in pressed steel frames, paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	30	APR-11

Event: Replace 14 steel entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$42,000	Unassigned

Updated: APR-11

B2030.01.10 Wood Entrance Door**

All wood entrance doors have been replaced.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	30	APR-11

Event: Completed 2009 - Replace original entrance door hardware.

Concern:
*** This event is from the previous report and can not be changed ***

Type	Year	Cost	Priority
Failure Replacement	2009	$11,262	Low

Updated: APR-11

Event: Replace entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$12,000	Unassigned

Updated: APR-11

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

The original asphalt and gravel roof has been replaced with a 2 ply SBS membrane roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	25	APR-11

Event: Replace SBS roof membrane (2600 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$455,000	Unassigned

Updated: APR-11

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

Roof access is gained through a spring loaded steel roof hatch, located above the janitorial closet.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior fixed partitions consist of concrete block, and plaster or gypsum board, all paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1010.02 Interior Demountable Partitions*

Interior demountable partitions with metal framing and fabric cover are located in the administrative offices and library resource centre.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1010.03 Interior Operable Folding Panel Partitions**

Interior operable folding panel partitions are provided at the stage area of the gymnasium. They are fabric-covered and appeared to be a recent installation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace folding panel partition (25 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$26,000	Unassigned

Updated: APR-11

C1010.05 Interior Windows*

Interior windows are provided at high level between classrooms and corridor, obscure glass. Interior aluminum framed windows, with safety glazing, at the main offices.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1010.07 Interior Partition Firestopping*

Where visible, penetrations appear to be fire sealed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1020.01 Interior Swinging Doors (& Hardware)*

Interior doors are solid core wood in wood frames, most natural finish, some paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1020.03 Interior Fire Doors*

Interior fire doors are the original sheet metal clad solid core wood and are equipped with magnetic door hold open devices, controlled by the fire alarm.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1030.01 Visual Display Boards**

Visual display boards consist of whiteboards and tackboards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	20	APR-11

Event: Replace 65 display boards

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$42,000	Unassigned

Updated: APR-11

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

Original painted metal toilet partitions are provided in the Boys and Girls washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace 12 toilet compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$15,000	Unassigned

Updated: APR-11

C1030.08 Interior Identifying Devices*

Classroom signage consists of original metal numerals and engraved plastic door signs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1030.12 Storage Shelving*

Storage shelving in storage rooms, coat closets and classrooms consists of plywood shelving and cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C1030.14 Toilet, Bath, and Laundry Accessories*

Standard institutional quality washroom accessories.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C2010 Stair Construction*

Stairs to the basement boiler room and service tunnels are cast in place concrete. Stairs leading to the boiler area are steel framed, with open grate treads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C2020.08 Stair Railings and Balustrades*

Stair railings are welded steel pipe, wall attached, paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C3010.02 Wall Paneling**

The lower section of the gymnasium walls are fir plywood, natural finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace gymnasium wall paneling (130 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$8,000	Unassigned

Updated: APR-11

C3010.06 Tile Wall Finishes**

Ceramic wall tile is provided around the urinals in the Boys washroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	40	APR-11

Event: Replace ceramic tile wall finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$1,000	Unassigned

Updated: APR-11

C3010.11 Interior Wall Painting*

Concrete block, plaster, and gypsum board walls are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C3020.02 Tile Floor Finishes**

Quarry tile flooring in boys and girls washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	50	APR-11

Event: Replace quarry tile flooring (90 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$24,000	Unassigned

Updated: APR-11

C3020.03 Terrazzo Floor Finishes*

Terrazzo flooring is provided in the boys and girls coat rooms. Some of this flooring was covered over in adjacent rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

C3020.04 Wood Flooring**

Solid wood strip flooring provided in gymnasium and stage, light sanding and refinish in 2005.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace gymnasium wood flooring (370 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$91,000	Unassigned

Updated: APR-11

C3020.07 Resilient Flooring**

Sheet vinyl flooring and vinyl tile is provided in corridors, classrooms, staff rooms, kitchens and service rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	20	APR-11

Event: Replace resilient flooring (1100 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$88,000	Unassigned

Updated: APR-11

C3020.08 Carpet Flooring**

Carpet flooring is provided in the library resource centre, staff rooms, and offices.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	15	APR-11

Event: Completed 2007 - Replace carpet tile in former staff room.

Concern:
*** This event is from the previous report and can not be changed ***

Type	Year	Cost	Priority
Failure Replacement	2007	$5,256	Low

Updated: APR-11

Event: Replace carpet flooring (300 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$19,000	Unassigned

Updated: APR-11

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

Corridors and some classrooms have tee-bar suspended acoustic tile ceiling assemblies. Other classrooms, staff rooms, gymnasium, and common areas have 300 x 300 adhesive applied acoustic tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	25	APR-11

Event: Replace acoustic ceiling tile (2000 sm)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$88,000	Unassigned

Updated: APR-11

C3030.07 Interior Ceiling Painting*

Plaster and gypsum board ceilings are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

S4 MECHANICAL

D2010.04 Sinks**

Enameled steel janitor sink - 1 Unit

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace Sink - 1 Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$1,500	Unassigned

Updated: APR-11

D2010.04 Sinks** - 2006

Single bowl SS sink - 18 Units
Poly janitor sink - 1 Unit

Rating	Installed	Design Life	Updated
4 - Acceptable	2006	30	APR-11

Event: Replace Sinks - 18 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2036	$27,000	Unassigned

Updated: APR-11

D2010.08 Drinking Fountains/Coolers**

Non-refrigerated vitreous china drinking fountains - 8 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	35	APR-11

Event: Replace Drinking Fountains - 8 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$12,000	Unassigned

Updated: APR-11

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

Floor-mounted vitreous china urinals - 9 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	35	APR-11

Event: Replace Urinals - 9 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$13,000	Unassigned

Updated: APR-11

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 2006

Flush valve WC - 15 Units
Drop in enameled steel lav - 1 Unit
Drop in SS lav - 15 Units

Rating	Installed	Design Life	Updated
4 - Acceptable	2006	35	APR-11

Event: Replace Washroom Fixtures - 31 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2041	$46,000	Unassigned

Updated: APR-11

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic water piping is copper throughout the building. Domestic water piping was converted from galvanized steel piping in approximately 1980.

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

D2020.01.02 Valves: Domestic Water**

Isolation valves are located in the service tunnels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	APR-11

Event: Replace Domestic Water Isolation Valves - 12 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$10,000	Unassigned

Updated: APR-11

D2020.01.03 Piping Specialties (Backflow Preventors)**

There are backflow prevention devices on the domestic water supply, condensate make up water supply, and the main fire protection standpipe system and two for irrigation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	20	APR-11

Event: Completed 2008 - Test and repair domestic water supply backflow prevention devices.

Concern:
*** This event is from the previous report and can not be changed ***

Type	Year	Cost	Priority
Repair	2008	$7,508	Medium

Updated: APR-11

Event: Replace Backflow Preventors - 5 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$7,500	Unassigned

Updated: APR-11

D2020.02.02 Plumbing Pumps: Domestic Water**

Grundfos recirc pump provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	20	APR-11

Event: Replace Domestic Water Recirc Pump - 1 Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$1,500	Unassigned

Updated: APR-11

D2020.02.06 Domestic Water Heaters**

John Wood domestic hot water heater tank model JW40S34FV-04.

Rating	Installed	Design Life	Updated
4 - Acceptable	2007	20	APR-11

Capacity Size	Capacity Unit
11	kW

Event: Replace Water Heater - 1 Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$5,000	Unassigned

Updated: APR-11

D2020.03 Water Supply Insulation: Domestic*

Domestic piping is not insulated.

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

Event: Insulate Domestic Piping

Concern:
Domestic piping is not insulated. Heat loss and condensation are probable.

Recommendation:
Insulate domestic piping.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2012	$7,000	Low

Updated: APR-11

D2030.01 Waste and Vent Piping*

Waste and vent piping is generally cast iron and original to the construction of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	FEB-06

D2030.02.04 Floor Drains*

Floor drains are provided in the mechanical room and washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D2030.03 Waste Piping Equipment*

A sump pump is provided in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D2040.01 Rain Water Drainage Piping Systems*

Rain water drainage piping is generally cast iron and original to the building construction.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	FEB-06

D2040.02.04 Roof Drains*

Flat roof areas are provided with roof drains.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D3010.02 Gas Supply Systems*

The natural gas supply is provided below grade on the north side of the building. The piping feeds the boiler and domestic hot water tank.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	FEB-06

D3020.01.01 Heating Boilers & Accessories: Steam**

The building's heat source is a single low-pressure steam boiler that is original to the building. The boiler was originally coal-fired but was converted to natural gas in approximately 1975.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	35	APR-11

Event: Replace Steam Boiler

Concern:
Existing boiler has surpassed its life expectancy. This is the schools only source of heat. The boiler is inefficient.

Recommendation:
Replace steam boiler.

Type	Year	Cost	Priority
Failure Replacement	2012	$75,000	High

Updated: APR-11

D3020.01.04 Water Treatment: Steam Boilers*

The steam heating system has an automatic boiler make up water treatement system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D3020.03.01 Furnaces**

Converted stage classroom is provided with a Change Air furnace complete with heat recovery.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	25	APR-11

Event: Replace Furnace - 1 Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$5,000	Unassigned

Updated: APR-11

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

Furnace is directly vented.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	0	APR-11

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

Heating distribution is through original cast iron piping to convectors and unit ventilators throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	40	APR-11

Event: Replace Steam System

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$230,000	Unassigned

Updated: APR-11

D3040.04.01 Fans: Exhaust**

General building exhaust is provided by an original centrifugal exhaust fan located in the basement mechanical room. Washroom and kitchen exhaust is provided by roof mounted exhaust fans with an average installation date of approximately 1990.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace Exhaust Fans - 5 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$15,000	Unassigned

Updated: APR-11

D3040.04.03 Ducts: Exhaust*

Exhaust ducts are constructed from galvanized sheet metal.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust grilles are located in each washroom, service room and classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D3050.05.01 Convectors**

Primary heating is provided to auxillary spaces (janitorial rooms, washrooms) by wall mounted convection heaters. Auxillary heating is also supplied to classroom spaces by wall mounted convection heaters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	40	APR-11

Event: Replace Convectors

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$60,000	Unassigned

Updated: APR-11

D3050.05.02 Fan Coil Units**

Fan coils serve the multi-purpose room and library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace Fan Coil Units - 2 Units

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$5,000	Unassigned

Updated: APR-11

D3050.05.07 Unit Ventilators**

Primary heating is provided to classrooms throughout the building by unit ventilators. Heating is controlled by space-mounted, hand-adjustable unitary thermostats.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	30	APR-11

Event: Replace Unit Ventilators - 25 Units

Concern:
Current unit ventilators are unreliable and frequently require repair.

Recommendation:
Replace unit ventilators.

Type	Year	Cost	Priority
Failure Replacement	2012	$75,000	Medium

Updated: APR-11

D3060.02.02 Pneumatic Controls**

Building controls are pneumatic and provide no energy management functions. The control air compressor has a recently replaced motor and pump (~2002).

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	40	APR-11

Event: Replace Pneumatic Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$15,000	Unassigned

Updated: APR-11

D4020 Standpipes*

The building is equipped with a cast iron standpipe system complete with fire hoses.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	FEB-06

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers are located at fire hose stations throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	FEB-06

S5 ELECTRICAL

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

The facility has two separately metered services to. The first service, that was installed in 1970, is a 3 phase 120/208 volt 4 wire service. This service feeds mechanical loads only. The second service is a 120/240 volt 400 amp single phase 3 wire service, that feeds all the branch circuit panels through out the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	40	APR-11

Event: Replace the 3 phase and single phase services with one larger 3 phase service

Concern:

The use of two services into one facility of this size is no longer acceptable by code.

Recommendation:

Replace the three phase and the single phase service with a one three phase service of adequate size.

Consequences of Deferral:

Increased administration costs as a result of having two utility bills, and increased costs as a result of equipment being connected to the wrong service.

Type	Year	Cost	Priority
Code Upgrade	2012	$55,000	Medium

Updated: APR-11

Event: Replace the 3 phase main service switch and the 120/240 400 amp main service switch

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$35,000	Unassigned

Updated: APR-11

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

The facility has branch circuit panels installed through out the facility. All the existing panels appear to have limited room for expansion. One additional Square D panel has been added in the East corridor with in the last two years(2008).

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace 8 120/240 volt panels

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$16,500	Unassigned

Updated: APR-11

D5010.07.02 Motor Starters and Accessories**

The facility has loose starters the control the main exhaust fan and return pump.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace two loose starters

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$1,500	Unassigned

Updated: APR-11

D5020.01 Electrical Branch Wiring*

The facility branch circuit wiring appears to mainly made up of single conductor cable installed in conduit. The facility also uses flexible conduit and AC90 cable with in walls, to connect mechanical equipment and to make the final connections to fluorescent lights.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

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

The interior lighting with in this facility is controlled with the use of line voltage switches through out.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D5020.02.02.01 Interior Incandescent Fixtures*

The facility has keyless fixtures installed in each storage room, mechanical room, in the basement and along each tunnel. The facility also uses pendant down lights for accent lighting on the stage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D5020.02.02.02 Interior Fluorescent Fixtures**

The facility was upgraded in 1970 to T12 fluorescent fixtures through out. These fixtures are mainly surface and pendant mounted fixtures. The gym lighting was upgraded to T8 lamps in 1998. The remainder of the fixtures are scheduled to be replaced to T8 lamps in 2011.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	30	APR-11

Event: Replace 495 T12 fixtures with T8 Fixtures

Concern:
The existing T12 fluorescents are not as energy efficient as the newer T8 fixtures.
Recommendation:
Replace all fixtures with t8 lamps and electronic ballasts.
Consequences of Deferral:
Increased power consumption.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2014	$145,500	Low

Updated: APR-11

Event: Replace 495 fixtures with T12 fluorescent fixtures.

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$130,500	Unassigned

Updated: APR-11

D5020.02.03 Emergency Lighting

Emergency lighting is provided by battery packs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

Event: Completed 2006 - Install an emergency lighting system and upgrade EXIT lighting to LED

Concern:
*** This event is from the previous report and can not be changed ***

Type	Year	Cost	Priority
Code Upgrade	2006	$24,026	High

Updated: APR-11

D5020.02.03.02 Emergency Lighting Battery Packs**

The coverage of the emergency lighting is very limited. In 2006 one battery pack and some remote heads with in the gym and the north corridor were installed.

Rating	Installed	Design Life	Updated
4 - Acceptable	2006	20	APR-11

Event: Replace one battery pack

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$2,000	Unassigned

Updated: APR-11

Event: Supply additional battery packs complete with remote heads

Concern:

The classroom wings and the basement do not appear to have any emergency lighting.

Recommendation:

Install additional battery packs complete with remote heads.

Consequences of Deferral:

If the building does have a power failure, the exit corridors will not have adequate lighting.

Type	Year	Cost	Priority
Code Upgrade	2012	$8,000	Medium

Updated: APR-11

D5020.02.03.03 Exit Signs*

The existing exit lights consist of a 120 volt incandescent lamp only. One exit light was changed to an LED style fixture that is also connected to a battery pack, however the remainder of the fixtures do not have an emergency power supply available.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

Event: Replace 10 existing Exit lights with LED style exit lights , and connect them to the closest battery pack

Concern:
The exit lights do not have emergency power available.
Recommendation:
Replace exit light fixture with LED style fixtures, and ensure all low voltage wire is installed to connect them to the closets battery packs.
Consequences of Deferral:
If power fails to the facility the existing exit lights fixtures may not be visible in case of an emergency.

Type	Year	Cost	Priority
Code Upgrade	2012	$5,500	Medium

Updated: APR-11

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The facility has wall mounted High Pressure Sodium fixtures installed. These fixtures were added in 1990 at specific locations around the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	APR-11

Event: Add an addtional 8 High Pressure Sodium Fixtures around the facility

Concern:
Exterior lighting has very limited coverage.
Recommendation:
Add an additional eight wall pack fixtures around the facility.

Type	Year	Cost	Priority
Program Functional Upgrade	2012	$9,500	Low

Updated: APR-11

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

The exterior lighting appears to be controlled with the use of photocells.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

D5030.01 Detection and Fire Alarm**

The fire alarm system in this facility is a 120 volt system that consists of horns, smoke detectors, heat detectors and manual pull stations.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	25	APR-11

Event: Completed 2006 - Replace existing detection and fire alarm system with a supervised fire alarm panel.

Concern:

*** This event is from the previous report and can not be changed ***

Type	Year	Cost	Priority
Failure Replacement	2006	$18,019	Medium

Updated: APR-11

Event: Replace 120 volt fire alarm system

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$35,500	Unassigned

Updated: APR-11

Event: Replace existing 120 volt system with new fully addressable system

Concern:

Manual pull station, smoke detectors, heat detectors and horn locations do not provide adequate coverage and the existing system is obsolete.

Recommendation:

Replace the entire fire alarm system with addressable technology to meet the latest codes.

Consequences of Deferral:

With inadequate coverage of devises, the chance of injury could increase as a result improper notification.

Type	Year	Cost	Priority
Code Upgrade	2012	$55,500	High

Updated: APR-11

D5030.02.02 Intrusion Detection**

The building is equipped with a Silent Knight supervised security system that was installed in 2006. The system consists of motion sensors and door contacts through out.

Rating	Installed	Design Life	Updated
4 - Acceptable	2006	25	APR-11

Event: Replace Silent Knight security System

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$27,500	Unassigned

Updated: APR-11

D5030.03 Clock and Program Systems*

The building is equipped with a Simplex master clock system that controls the bells, that was installed in 1980. Clocks observed in the classrooms are not part of the system.

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

D5030.04.01 Telephone Systems*

The building is equipped with a Nortel Meridian telephone system that was installed in 1985. The system incorporates handsets that have been installed in each class room and office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	0	APR-11

D5030.04.04 Data Systems*

The Alberta Supernet fiber optic system was installed in 2002. Each data jack is then extended to the final location with the use of CAT5 cabling.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	0	APR-11

D5030.04.05 Local Area Network Systems*

The facility has a wireless network system that was upgraded in 2010. This system connects each wireless hub to the data system with a CAT5 cabling system.

Rating	Installed	Design Life	Updated
5 - Good	2010	0	APR-11

D5030.05 Public Address and Music Systems**

The facility has a Bogen public address system that is complete with a cassette deck player. This system was installed in 1989, and is interconnected to the clock system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	20	APR-11

Event: Replace Bogen Public Address Control Panel

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$18,500	Unassigned

Updated: APR-11

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.04 Residential Equipment*

Residential quality refrigerators, range/stove and microwave oven are provided in the staff lounge.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Basketball backboards, wall-mounted climber, gymnastic equipment and various sports equipment provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

E2010.02 Fixed Casework**

Plywood cabinets and shelving in classrooms, shelving in library, cabinets and counters in offices, staff rooms and workrooms, mostly natural finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	35	APR-11

Event: Replace wood cabinets and shelving (70 lm)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$53,000	Unassigned

Updated: APR-11

E2010.03.01 Blinds**

Window coverings are a mix of horizontal metal venetian blinds and vertical fabric covered louvre blinds.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	30	APR-11

Event: Replace 113 window blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$19,000	Unassigned

Updated: APR-11

E2020 Moveable Furnishings

Moveable furnishings include student and teacher desks and chairs, folding bench tables, folding tables, stackable chairs,arm chairs, conference tables, and audio/visual equipment trolleys.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

There is a steep asphalt ramp to the side door, there is no access from parking to the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

Event: Provide wheelchair ramp to main entrance (20 m)

Concern:
No barrier free access is provided to the main entrance.
Recommendation:
Provide a barrier-free wheelchair ramp from the parking lot to the main entrance.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2012	$50,000	Low

Updated: APR-11

K4010.02 Barrier Free Entrances*

There is no barrier free entrance into the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

Event: Install a power door operator

Concern:
None of the entrances to the school has an automatic door opener.
Recommendation:
Provide an automatic door opener at the main entrance.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2012	$3,000	Low

Updated: APR-11

K4010.03 Barrier Free Interior Circulation*

Corridors are wide and unobstructed. Doors require lever handsets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

Event: Install 32 lever latchsets

Concern:
Doors have knob latchsets, which are not barrier free compliant.

Recommendation:
Install lever latchsets to all interior doors.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2012	$8,000	Low

Updated: APR-11

K4010.04 Barrier Free Washrooms*

Student and staff washrooms do not meet barrier-free access requirements.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

Event: Upgrade two barrier free washrooms

Concern:
No barrier free washrooms are provided.

Recommendation:
Upgrade existing washrooms to provide a minimum one barrier-free stall in each boys and girls washroom.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2012	$30,000	Low

Updated: APR-11

K4020.03 Other Codes*

Access to exits, travel distances, and fire separations all appear to comply.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

K4030.01 Asbestos*

It is reported that there is asbestos content in the floor tile and in the ceiling tile.

Rating	Installed	Design Life	Updated
3 - Marginal	1955	0	APR-11

Event: Remove and replace asbestos content tiles

Concern:
Materials with asbestos content should be removed.
Recommendation:
Remove and replace asbestos containing floor tile and ceiling tile.

Type	Year	Cost	Priority
Hazardous Materials Abatement	2012	$100,000	Medium

Updated: APR-11

K4030.02 PCBs*

No PCB's were noted or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

K4030.04 Mould*

No conditions supporting mould growth were noted or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

K4030.09 Other Hazardous Materials*

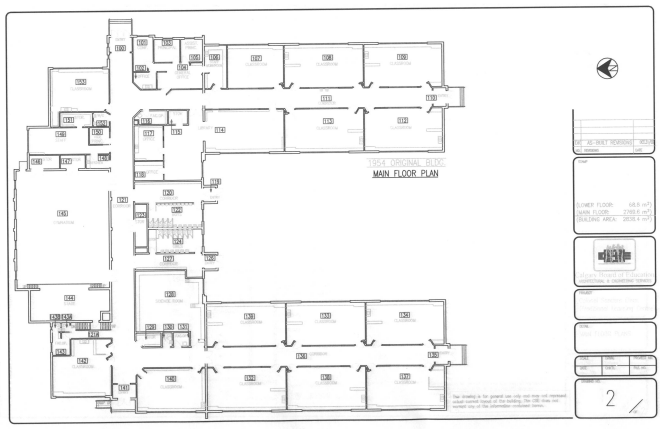
No other hazardous materials were noted or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	1955	0	APR-11

K5010 Reports and Studies*

Floor plan drawings provided by building maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	2010	0	APR-11



Main Floor Plan