RECAPP Facility Evaluation Report

Calgary School District #19



James Short Memorial Elementary School B2682A Calgary

Report run on: April 4, 2013 9:20 AM

Facility Details		Evaluation Details		
•	James Short Memorial Elem 6333 - 5 Avenue S. E.	Evaluation Company: Williams Engineering Canada Inc. WEC		
Location:	Calgary	Evaluation Date:	November 28 2012	
Building Id:	B2682A	Evaluator Name:	WEC - Jennifer Lavier Ja	ankovic
Gross Area (sq. m):	3,631.80			
Replacement Cost:	\$10,664,000			
Construction Year:	1972			\$2,188,212 20.52%

General Summary:

The area listed on the AVS file is 3,631 sqm. The area listed on the CBE plans is 3,523.9 sqm. This report is based on the latter numbers provided by the CBE. One portable was on site at the time of review. The portable is reviewed in a separate file, the link structure to the portable in this file. James Short Memorial is a single storey school built in 1972 with a capacity of 625 students.

Structural Summary:

School foundation consist of cast in place concrete foundations, and reinforced concrete slab on grade. Roof is metal deck on timber beams and columns. Various cement masonry units are loadbearing.

Overall, the structure is in acceptable condition.

Envelope Summary:

The building envelope is a combination of brick, and aggregate stucco. Roofing is SBS membrane on the school, and BUR on the link. Doors are painted metal, windows are aluminum.

Overall, the envelope is in acceptable condition.

Interior Summary:

Flooring is an assortment of tile, maple sports floor, carpet, painted concrete, vinyl tile, and vinyl sheet flooring. Walls are painted masonry units, and demountable partitions. Aside from the gymnasium, and mechanical room the ceilings are generally suspended T-bar. Interior doors are a combination of solid core painted wood, and painted metal in painted pressed steel frame.

Overall, the interiors are in acceptable condition.

Mechanical Summary:

The heating is provided by two Bryan - Flexible Tube hot water boilers with perimeter radiation to all areas except the gymnasium.

A Trane air handling unit in the fan room provides the ventilation and humidification to the school.

A Carrier rooftop condensing unit provides the air conditioning.

Domestic hot water is provided by a Rheem hot water heater.

One Olsen fuel fired unit heater provides heat to the corridor adjacent to the portable.

2" incoming natural gas service with a GAS Micro meter. 4" domestic water service with a 2" water meter.

Fire sprinklers are limited to the stage area.

Standpipes and fire hose cabinets are distributed throughout the school.

The sprinkler/standpipe system is equipped with 2.5" backflow preventers.

ABC-type dry chemical fire extinguishers are provided in hallways and mechanical/utility rooms.

The mechanical systems are in acceptable overall condition.

Electrical Summary:

The main electrical service is a Westinghouse 800 amp, 120/208 volt, 3 phase, 4 wire panel. There are 8 sub-panels installed in the mechanical room and corridors to provide power for lighting and equipment. The interior of the building is lit with a combination of T12 fluorescent and incandescent fixtures. The exterior is lit with wall mounted High Pressure Sodium fixtures. The building has 7 emergency battery packs, 36 remote heads and 18 exit signs. The building has a GE EST fire alarm control panel and heat detectors, smoke detectors, pull-stations and horn/strobes

throughout. The building is equipped with a Silent Knight intrusion, supernet, clock and telephone systems.

Overall, the electrical systems are 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*

Cast in place concrete foundations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

A1030 Slab on Grade*

Reinforced concrete slab on grade.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

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

Combination of cement masonry unit walls and timber columns.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

B1020.01 Roof Structural Frame*

Primarily timber beams on columns.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

S2 ENVELOPE

Brick cladding over concrete masonry. Rating Installed Design Life Updated 4 - Acceptable 1972 0 APR-13 B2010.01.06.04 Wood Siding** Painted wood siding panels below window. Total 40 m2. Rating Installed Design Life Updated 3 - Marginal Installed Design Life Updated APR-13
4 - Acceptable 1972 0 APR-13 B2010.01.06.04 Wood Siding** Painted wood siding panels below window. Total 40 m2. Rating 3 - Marginal Installed Design Life Updated 40 3 - Marginal 1972 40 Event: Replace warped / damaged wood panels (40 sqm) Concern: Various panels are warped / damaged. Recommendation: Replace warped / damaged portions. Consequences of Deferral: Wood paneling will continue to deteriorate affecting integrity of
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Type Failure ReplacementYear 2012Cost \$1,344Priority HighUpdated:APR-13
B2010.01.08 Cement Plaster (Stucco): Ext. Wall*
Exterior walls at window locations have an aggregate stucco finish.
RatingInstalledDesign LifeUpdated4 - Acceptable19720APR-13

Control joints in brick c/w elastomeric sealant.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1995	0	APR-13

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

Sealant around windows, and at transition between stucco and brick.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1995	20	APR-13

Event: Replace caulking (105 meters)

Concern: Sealant has lost integrity - Dried, cracked and split open in many locations. Recommendation: Replace with new. Consequences of Deferral: Building envelope is compromised.

Туре	Year	<u>Cost</u>	Priority
Failure Replacement	2012	\$3,208	High

Updated: APR-13

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

Wood siding panels below window are painted

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1972	15	APR-13

Event: Repaint wood siding panels (40 sqm)

Concern: Paint is peeling off of wood siding panels below windows. **Recommendation:** Repaint wood siding panels below windows.

Туре	<u>Year</u>	Cost	Priority
Failure Replacement	2013	\$1,000	Unassigned

Updated: APR-13

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

Cement masonry units behind brick veneer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	APR-13

B2010.02.99 Other Exterior Wall Construction* - Non Loadbearing metal studs

Metal studs on exterior wall at window locations.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

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

Cannot observe. No issues reported therefore assumed acceptable.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

B2010.06 Exterior Louvers, Grilles, and Screens*

Various exterior louvers located in aggregate stucco finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

B2010.09 Exterior Soffits*

Exposed aggregate stucco soffits above recessed entries.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

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

Aluminum frame, double glazed fixed windows with integral Venetian blinds.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	40	APR-13

Event: Replace Aluminum Windows (22)

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$22,176	Unassigned

Updated: APR-13

B2030.01.02 Steel-Framed Storefronts: Doors**

East and west entries are steel framed storefront.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	30	APR-13

Event: Replace Steel-Framed Storefront doors (4)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$10,080	Unassigned

The one exit door from the	gymnasium is wood
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Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1972	30	APR-13

Event: Replace wood door (1)

Concern: Wood door is damaged and delaminating. Overall condition is

poor. Recommendation: Install new door.

Consequences of Deferral:

Functional use will continue to deteriorate.

Туре	Year	<u>Cost</u>	Priority
Failure Replacement	2012	\$1,856	Medium

Updated: APR-13

B2030.01.11 Metal Entrance Door**

Remaining exterior doors are painted metal entrance doors.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

Event: Replace metal entrance doors (7)

Туре	Year	Cost	<u>Priority</u>
Lifecycle Replacement	2016	\$6,203	Unassigned

Updated: APR-13

B3010.01 Deck Vapour Retarder and Insulation*

Re-roofed in 1999. Unknown if replaced at that time. Cannot observe. No issues reported therefore assumed acceptable.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

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

The link structure is fitted with BUR.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
3 - Marginal	1972	25	APR-13

Event: Replace link roof with SBS roofing (25 sqm)

Concern: Blister in roof. Overall the condition is poor. Recommendation: Replace with SBS Consequences of Deferral: Integrity of building envelope is compromised.

Туре	Year	Cost	Priority
Failure Replacement	2012	\$4,594	High

Updated: APR-13

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

2-ply modified bitumen roofing (aka SBS) with granular surfaced capsheet and flashing throughout. Installed in 1999.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1999	25	APR-13

Event: Replace SBS Roofing (3,524 sqm)

Туре	Year	Cost	Priority
Lifecycle Replacement	2024	\$647,535	Unassigned

Updated: APR-13

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

Single roof hatch

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

S3 INTERIOR

C1010.01 Interior Fixe			
Concrete masonry inter	rior walls are loca	ated throughou	ut the facility.
Rating 4 - Acceptable	Installed 1972	Design Life 0	Updated APR-13
C1010.02 Interior Dem	nountable Partit	ions*	
A combination of painte	ed and vinyl cove	ered demounta	ble wall partitions.
Rating 4 - Acceptable	Installed 1972	Design Life 0	Updated APR-13
C1010.03 Interior Ope	rable Folding P	anel Partition	NS**
Interior folding partition	s in various class	srooms, and g	ymnasium.
Rating 4 - Acceptable	Installed 1972	Design Life 30	Updated APR-13
	olding partition Yea		Priority
Type Lifecycle Repla Updated: AP	<u>Yea</u> cement 201 R-13	ar <u>Cost</u>	<u>Priority</u> Unassigned
Type Lifecycle Repla	cement 201 R-13 dows*	ar <u>Cost</u> 6 \$239,820	Unassigned
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<u>Type</u> Lifecycle Repla Updated: AP <u>C1010.05 Interior Win</u> Metal frame and glass <u>Rating</u>	cement 201 R-13 dows* present in the Lik <u>Installed</u> 1972	ar <u>Cost</u> 6 \$239,820 Drary office / W <u>Design Life</u> 0	Unassigned Vorkroom. <u>Updated</u>
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C1020.03 Interior Fire Doors*

Hollow metal swing-type fire-doors with magnetic door hold open and closing devices activated by central fire alarm system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

C1030.01 Visual Display Boards**

Display boards generally consist of whiteboards and tackboards. Few chalkboards present.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	20	APR-13

Event: Replace Visual Display Boards (50)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2016	\$34,388	Unassigned

Updated: APR-13

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C1030.02 Fabricated Compartments (Toilets/Showers)**
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Prefinished metal toilet partitions.

Rating		Installed	Design Life	Updated
4 - Accer	otable	1972	30	APR-13
Event:	Replace Metal Toil	et Partitio	ns (16)	
	Туре	Yea	<u>ar Cost</u>	<u>Priority</u>
	Lifecycle Replacemer	nt 201	6 \$19,656	Unassigned

Updated: APR-13

C1030.08 Interior Identifying Devices*

Engraved plastic classroom numbers and name plates; wall mounted emergency egress plans; etc.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	FEB-08

C1030.12 Storage Shelving*

Clear finish and painted wood shelving units located in classrooms, storage rooms and hallways.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

C1030.14 Toilet, Bath, and Laundry Accessories*

Mirrors, liquid soap dispensers, waste baskets and paper towel and toilet paper dispensers.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	0	FEB-08

C2010 Stair Construction*

Stairs to stage are concrete construction. Stairs in link structure are wood construction.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

C2020.05 Resilient Stair Finishes**

Stairs leading to stage area, and stairs in link structure fitted with resilient flooring.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1987	20	APR-13

Event: Replace resilient stair finish (5 sqm)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$1,000	Unassigned

Updated: APR-13

C2020.08 Stair Railings and Balustrades*

Wall mounted wooden handrails on stairs leading to stage area, and in link structure.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

C3010.06 Tile Wall Finishes**

Ceramic wall tile finishes are limited to baseboards in student washrooms and on urinal back-splash in boys washrooms.

Rating	Installed	<u>Design Life</u>	Updated
3 - Marginal	1972	40	APR-13

Event: Replace tile wall finishes (5 sqm)

Concern:

Tile has broken off in various locations. Cracking in others. **Recommendation:** Replace with new tile. **Consequences of Deferral:** Sharp edges, cleaning issues.

Туре	Year	Cost	Priority
Failure Replacement	2012	\$1,297	High

Updated: APR-13

C3010.09 Acoustical Wall Treatment**

Acoustic treatment in gymnasium is typical 1220 x 1220 panels.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1972	20	APR-13

Event: Replace acoustic wall treatment (45 sqm)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2016	\$10,631	Unassigned

Updated: APR-13

C3010.11 Interior Wall Painting*

Painted concrete masonry walls. Various demountable wall partitions are also painted.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	2006	0	APR-13

C3010.12 Wall Coverings*

Vinyl wall coverings on demountable partitions in various locations.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

C3020.01.02 Painted Concrete Floor Finishes*

Painted concrete floor finishes in mechanical and boiler room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

C3020.02 Tile Floor Finishes**

Ceramic floor tiles in student washrooms and at the east and west entrance areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	50	APR-13

Event: Replace tile floors (200 sqm)

Туре	Year	Cost	Priority
Lifecycle Replacement	2022	\$35,070	Unassigned

Updated: APR-13

C3020.04 Wood Flooring**

Gymnasium and stage flooring is maple sports floor. Refinished 2012.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	2012	30	APR-13

Event: Completed 2012 - Resand Gym Floor

Concern:

Gym floor are becoming old, worn out, and have uneven saurface.

Recommendation:

Resand gym floor would be the most cost effective solution.

Consequences of Deferral:

tripping hazard, poor aesthetics, poor functionality.

Туре	Year	Cost	Priority
Failure Replacement	2012	\$13,371	Medium

Updated: NOV-12

Event: <u>Replace maple sports floor (400 sqm)</u>

Туре	Year	Cost	Priority
Lifecycle Replacement	2032	\$107,100	Unassigned

C3020.07 Resilient Flooring** - VCT 1972

The northern portion of the school is still equipped with original VCT (one classroom, the corridors, and various portions of the admin / office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	20	APR-13

Event: Replace VCT (500 sqm)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$26,733	Unassigned

Updated: APR-13

C3020.07 Resilient Flooring** - VCT 2005

VCT replaced in south portion of school (all classrooms, and corridors).

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	2005	20	APR-13

Event: Replace VCT (1,950 sqm)

Туре	<u>Year</u>	Cost	<u>Priority</u>
Lifecycle Replacement	2025	\$104,259	Unassigned

Updated: APR-13

C3020.07 Resilient Flooring** - Vinyl Sheet

Portion of the link structure fitted with vinyl sheet flooring.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	20	APR-13

Event: Replace vinyl sheet flooring (25 sqm)

TypeYearCostLifecycle Replacement2016\$2,10

<u>Lost</u> \$2,100 Priority Unassigned

C3020.08 Carpet Flooring**

Carpet in library, portion of stage, and in administration offices.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1995	15	APR-13

Event: Replace carpet flooring (300 sqm)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$22,913	Unassigned

Updated: APR-13

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

Aside from the gymnasium, and mechanical room the ceilings are generally suspended T-bar.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	25	APR-13

Event: Replace acoustical tile, dropped ceiling, existing grid left in place (2,850)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$139,301	Unassigned

S4 MECHANICAL

D2010.04 Sinks**

16 stainless steel sinks located in various classrooms, stage, staff room and offices. Some of the stainless steel sinks located in the classrooms are improved with drinking fountain spigots. 1 service sink.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	30	APR-13

Event: Replace Sinks (17)

Туре	Year	Cost	<u>Priority</u>
Lifecycle Replacement	2016	\$27,300	Unassigned

Updated: APR-13

D2010.08 Drinking Fountains/Coolers**

8 wall hung, non-refrigerated vitreous china drinking fountains throughout school, replaced in approximately 1999.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1999	35	APR-13

Event: Replace Drinking Fountains (3)

Туре	Year	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2034	\$13,200	Unassigned

Updated: APR-13

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

The toilets and urinals are vitreous china. The lavatories are iron enamel. The toilets are manual flush and the urinals have a timer controlled flush.

<u>Rating</u>	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1972	35	APR-13

Event: Replace Washroom Fixtures (19 WC, 14 LAVS, 8 URNL)

Туре	<u>Year</u>	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$68,000	Unassigned

Updated: APR-13

D2020.01.01 Pipes and Tubes: Domestic Water*

Piping is copper with the majority being original. New piping has been added as required.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

D2020.01.02 Valves: Domestic Water**

School is equipped with ball, gate, check valves on domestic lines.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	40	APR-13

Event: Replace Valves (40)

TypeYearCostPriorityLifecycle Replacement2016\$7,000Unassigned

Updated: APR-13

D2020.01.03 Piping Specialties (Backflow Preventers)** - Heating Systems

Three 3" backflow preventers on recirculation heating system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	20	APR-13

Event: Replace Backflow Preventers (3)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$5,800	Unassigned

Updated: APR-13

D2020.01.03 Piping Specialties (Backflow Preventers)**- Domestic and Irrigation System

Three 2" backflow preventors, 2 on domestic water lines, and 1 on irrigation equipped with cross connection control devices. 2.5" backflow preventor on fire suppression system. All were installed in 1996 and last tested in 2011.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	20	APR-13

Event: Replace Backflow Preventers (5)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$15,500	Unassigned

D2020.02.02 Plumbing Pumps: Domestic Water**

Grundfos recirculation pump on the domestic hot water heater system. Installed in 2011.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	2011	20	APR-13

Event: Replace Recirculation Pump (1)

TypeYearCostPriorityLifecycle Replacement2031\$1,300Unassigned

Updated: APR-13

D2020.02.04 Domestic Water Conditioning Equipment**

Westrol water softener system located in the fan room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	20	APR-13

Event: Replace Water Softener System (1)

Туре	Year	Cost	Priority
Lifecycle Replacement	2019	\$2,816	Unassigned

Updated: APR-13

D2020.02.06 Domestic Water Heaters**

One Rheem Gaurdian domestic hot water heater located in main mechanical room.

Model #: PRO40-40FV1 Type: Natural gas Input: 40,000 btu/hr Capacity: 151 L/ 40 USG

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	20	APR-13
	Capacity	Size Capac	ity Unit

180

litre

Event: Replace Domestic Water Heater (1)

TypeYearCostPriorityLifecycle Replacement2016\$2,816Unassigned

Updated: APR-13

D2020.03 Water Supply Insulation: Domestic*

The majority of domestic hot, cold and recirculation piping is insulated. Possibility of asbestos-containing insulation on pipe elbows and joints throughout the school.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

D2030.01 Waste and Vent Piping*

Vent piping is ABS plastic with spun aluminum flashing at the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

D2030.02.04 Floor Drains*

Typical cast iron drains located in various locations around the building c/w strainers.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

D2040.01 Rain Water Drainage Piping Systems*

Piping system is cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	FEB-08

D2040.02.04 Roof Drains*

Roof drains are equipped with ballast guards throughout the school. Overflow scuppers along interior parapets. All were replaced during roofing replacement in 1999.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	0	APR-13

D3010.02 Gas Supply Systems*

2" incoming natural gas supply line with a Galvanic Applied Sciences Incorporated - GAS Micro gas meter, located in meter room. It has been upgraded to digital service in 2001. Gas distribution piping to heating boilers, domestic hot water heater, fuel fired unit heater, air handling unit and make up air unit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

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

Boiler #1: Bryan - Flexible Tube Model #: L-48 Serial #: 38281 Type: Natural Gas Input: 3,520,000 BTU/hr

Boiler #2: Bryan - Flexible Tube Model #: L-48 Serial #: 38275 Type: Natural Gas Input: 3,520,000 BTU/hr

Rating 4 - Acceptable	Installed Design Life Updated 1972 35 APR-13
	Capacity SizeCapacity Unit1032kW
Event: Replace Heatin Boilers)	g Boilers and Accessories (2
Type Lifecycle Replace	ment 2016 \$170,000 Priority Unassigned
Updated: APR-	13
D3020.02.02 Chimneys	(& Comb. Air): H.W. Boiler**
	ndividual insulated and metal clad chimney routed straight up through the roof. Size unknown insulation and metal cladding.
Rating 4 - Acceptable	Installed Design Life Updated 1993 35 APR-13
Event: Replace H.W. E	Boiler Chimneys (20m)
<u>Type</u> Lifecycle Replace	ment 2028 Cost Priority Unassigned
Updated: APR-	13
D3020.02.03 Water Trea	tment: H. W. Boiler*
Manual closed loop desc	aling chemical pot feeder.
Rating 4 - Acceptable	InstalledDesign LifeUpdated19720FEB-08

D3020.04.03 Fuel-Fired Unit Heaters**

One Olsen fuel fired unit heater located in corridor adjacent the portable classroom.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1975	30	APR-13

Event: Replace Fuel-Fired Unit Heater (1)

TypeYearCostPriorityLifecycle Replacement2016\$4,507Unassigned

Updated: APR-13

D3020.04.04 Chimney (& Comb. Air): Fuel-Fired Heater*

The fuel fired unit heater has an individual insulated and metal clad chimney. Size unknown due to concealment from insulation and metal cladding.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1975	0	FEB-08

D3030.06.02 Refrigerant Condensing Units**

One Carrier condensing unit located on rooftop. The unit has two 50 ton condensers with 60 watt motors each.

Carrier - Built in April 1972 Model #: 38AB06440 Serial #: D298447

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1972	25	APR-13

Event: Replace Refrigerant Condensing Unit (1)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$38,000	Unassigned

D3040.01.01 Air Handling Units: Air Distribution**

Trane air handling unit located in fan room serving the building. Unit complete with heating/cooling coils, filters, and supply/return fans.

Trane - Spray Coil CL-CH Unit #: 63 H THD Serial #: 568857

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	30	APR-13

Event: Replace Air Handling Unit (1)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$233,800	Unassigned

Updated: APR-13

D3040.01.04 Ducts: Air Distribution*

Branched sheet metal ducting throughout school. The branched ducting contains reheat coils with motorized control valves that are linked to thermostats.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	FEB-08

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Square ceiling air supply diffusers in classrooms, offices and corridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

D3040.03.01 Hot Water Distribution Systems**

Insulated supply and return heating hot water distribution to perimeter finned tube radiators throughout school, and insulated lines running to the heating coil in the AHU. Type and size unconfirmed due to concealment. The system has 3 circulation pumps, 2 Premium Efficiency motors, each 3 HP and original, the other pump is a Grundfos circulation pump, capable of 2050W, installed around 2006.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	40	APR-13

Event: Replace Hot Water Distribution Systems (3,524 sqm gfa)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2016	\$345,000	Unassigned

D3040.04.01 Fans: Exhaust**

Rooftop centifugal bell exhaust fans.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	30	APR-13

Event: Replace Exhaust Fans (8)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$15,400	Unassigned

Updated: APR-13

D3040.04.03 Ducts: Exhaust*

Low velocity exhaust air ductwork to vent air outlets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	FEB-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate exhaust air grilles on ceiling and walls in classrooms, offices and corridors. Gymnasium exhausted through vents on walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	FEB-08

D3050.02 Air Coils**

Several duct mounted reheat coils located around the build. All controlled by thermostats and motorized valves.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	30	APR-13

Event: Replace Air Coils (10)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$69,200	Unassigned

D3050.03 Humidifiers**

Humidification system is	provided as a com	ponent of the Trane AHU.	Currently not is use.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	25	APR-13

Event: Replace Humidifier (1)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$11,900	Unassigned

Updated: APR-13

D3050.05.02 Fan Coil Units**

Wall mounted fan coil units located at school entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	30	APR-13

Event: Replace Fan Coil Units (4)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$10,000	Unassigned

Updated: APR-13

D3050.05.03 Finned Tube Radiation**

Finned tube radiation along periphery of all areas except the gymnasium.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	40	APR-13

Event: Replace Finned Tube Radiation (3,524 sqm gfa)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$149,800	Unassigned

D3060.02.02 Pneumatic Controls**

Honeywell controls with a Champion air compressor/ tank and complete with wall mounted air drier located in main mechanical room. Pneumatic and electric thermostats for individual room control. Ventilation distribution system controlled by pneumatics.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	40	APR-13

Event: Replace Pneumatic Controls (3,524 sqm gfa)

Туре	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2016	\$53,100	Unassigned

Updated: APR-13

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

HVAC systems were upgrade with building automation consisting of a DCC data system located in the boiler room with overall control of the HVAC system provided by the Calgary Board of Education from the Highfield Building. System is a Honeywell unit.

Rating	Installed	Design Life	Updated
5 - Good	2005	20	APR-13

Event: Replace Building Automation Systems (3,524 sqm gfa)

Туре	Year	Cost	Priority
Lifecycle Replacement	2025	\$95,600	Unassigned

Updated: APR-13

D4010 Sprinklers: Fire Protection*

Stage area is sprinklered.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

D4020 Standpipes*

School is equipped with standpipes with attached fire hoses in fire extinguisher cabinets throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	FEB-08

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Wall mounted ABC-type dry chemical fire extinguishers throughout school. Fire extinguishers, fire hoses and standpipe connections are located in various cabinets throughout school.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

S5 EL

Calgary - James Short Memorial Elementary School (B2682A)
S5 ELECTRICAL
D5010.01.02 Main Electrical Transformers (Utility Owned)*
There is a transformer feeding the school located at the east of the building.
RatingInstalledDesign LifeUpdated4 - Acceptable19720APR-13
D5010.03 Main Electrical Switchboards (Main Distribution)**
The main electrical service is a Westinghouse 800 amp, 120/208 volt, 3 phase, 4 wire panel in the boiler room.
RatingInstalledDesign LifeUpdated4 - Acceptable197240APR-13
Capacity SizeCapacity Unit800amps
Event: Replace Main Distribution Panel (1)
TypeYearCostPriorityLifecycle Replacement2016\$35,000Unassigned
Updated: APR-13
D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1972
There are 7 Westinghouse and Square D 225A, 120/208V, 42 circuit sub-panels installed in the mechanical room and corridors to provide power for lighting and equipment.
RatingInstalledDesign LifeUpdated4 - Acceptable197230APR-13
Event: Replace original electrical sub-panels (7)
TypeYearCostPriorityLifecycle Replacement2016\$35,000Unassigned
Updated: APR-13
D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1999
One Cutler Hammer 30 circuit panelboard installed in 1999 for use in the computer room.
RatingInstalledDesign LifeUpdated4 - Acceptable199930APR-13
Event: Replace electrical sub-panel (1)
TypeYearCostPriorityLifecycle Replacement2029\$5,000Unassigned
Updated: APR-13

D5010.07.02 Motor Starters and Accessories**

9 motor starters are in mechanical and boiler rooms, they are Westinghouse & Allen Bradley.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	30	APR-13

Event: Replace Motor Starters (9)

TypeYearCostPriorityLifecycle Replacement2016\$13,500Unassigned

Updated: APR-13

D5020.01 Electrical Branch Wiring*

The electrical wiring in the building is standard copper in conduit. Flexible conduit and cabling is provided to most of the motors and other mechanical equipment.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

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

Lighting controls are toggle switches throughout the school.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

D5020.02.02.01 Interior Incandescent Fixtures*

Bare incandescent 150W bulbs found in mechanical and boiler rooms.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

Event: Relace incandescent bulbs (12)

Concern:

Incandescent fixtures though out the school still use incandescent bulbs. Incandescent bulbs are inefficient and costly to maintain. **Recommendation:**

Replace bulbs with compact fluorescent lamps.

Туре	<u>Year</u>	Cost	<u>Priority</u>
Energy Efficiency Upgrade	2013	\$600	Low

D5020.02.02.02 Interior Fluorescent Fixtures**

Recess and surface mounted fluorescent fixtures are installed in corridors, offices, classrooms and storage rooms, all using original T-12 lamps and magnetic ballast technology.

<u>Rating</u> 4 - Accep	otable	Installe 1972	ed D	esign Life 30	Updated APR-13
Event:	Replace Interior F	loresce	nt Fix	tures (830)	!
	Type Lifecycle Replacemer	-	Year 2016	<u>Cost</u> \$249,000	<u>Priority</u> Unassigned
	Updated: APR-13				
Event:	Replace Interior F (830)	luoresce	ent la	mps and ba	allasts

Concern:

T12 lamps are no longer be produced after 2011. Lamp burnouts and ballast failures may be more frequent. **Recommendation:**

Recommendation:

Keep existing fixtures and replace with new T8 lamps, ballasts and high efficiency reflectors to reduce energy consumption maintenance.

Туре	Year	Cost	<u>Priority</u>
Energy Efficiency Upgrade	2013	\$83,000	Medium

Updated: APR-13

D5020.02.02.05 Other Interior Fixtures*- Mercury Vapour

There are 18 suspended mercury vapour lighting fixtures located in the Gymnasium.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

D5020.02.03.02 Emergency Lighting Battery Packs**

The building has 7 emergency battery packs and 36 remote heads. Battery packs have been upgraded in 2001.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	2001	20	APR-13

Event: Replace Emergency Lighting Battery Packs (7)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2021	\$8,500	Unassigned

D5020.02.03.03 Exit Signs*

Exit signs are incandescent fixtures and are located at exits and egress corridors.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Various HID fixtures located at main entrance and on periphery of school.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

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

Exterior lighting is controlled via photocell.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

D5030.01 Detection and Fire Alarm**

The building has a GE EST fire alarm control panel and heat detectors, smoke detectors, pull-stations and horn/strobes throughout. The whole system was upgraded in 2010.

Rating	Installed	Design Life	Updated
5 - Good	2010	25	APR-13

Event: Replace one fire alarm system (Based on GFA 3,524 sqm)

Туре	Year	Cost	Priority
Lifecycle Replacement	2035	\$70,000	Unassigned

Updated: APR-13

D5030.02.02 Intrusion Detection**

Regency / Silent Knight integrated intrusion system with remote motion sensors in hallways and offices.

Rating	Installed	<u>Design Life</u>	<u>Updated</u>
5 - Good	2005	25	APR-13

Event: Replace Intrusion Detection system (1)

Туре	Year	Cost	Priority
Lifecycle Replacement	2030	\$35,000	Unassigned

D5030.03 Clock and Program Systems*

Simplex Program/timer in the general office, for class change and select clocks.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

D5030.04.01 Telephone Systems*

The school is equipped with a new (2004) Meridian central telephony provided by Northern. Telecom and is located in the main mechanical room.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
5 - Good	2004	0	APR-13

D5030.04.05 Local Area Network Systems*

SuperNet and wireless internet system with a Cat 5 LAN system were installed in approximately 2005 as part of a school board-wide initiative.

<u>Rating</u>	Installed	Design Life	Updated
5 - Good	2005	0	APR-13

D5030.05 Public Address and Music Systems**

Original Bogen Communications public address (PA) system is located in the administrative office and has terminal devices in classrooms with speakers in corridors, gymnasium and exterior. The gymnasium and stage are equipped with an EV speaker system.

<u>Rating</u>	Installed	Design Life	Updated
4 - Acceptable	1972	20	APR-13

Event: Replace Public Address System (1)

Туре	<u>Year</u>	Cost	Priority
Lifecycle Replacement	2016	\$18,000	Unassigned

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.04 Residential Equipment*

Residential style appliances in acceptable condition.

<u>Rating</u>	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Athletic and recreation equipment in acceptable condition. Climbing equipment in gymnasium.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

E2010.02 Fixed Casework**

Millwork in reception, library, and staff room. Vanities c/w sinks in various classrooms. The washrooms are equipped with millwork counters complete with plastic laminate finish

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	35	APR-13

Event: Replace Fixed Casework (90 meters)

Туре	Year	Cost	Priority
Lifecycle Replacement	2016	\$45,000	Unassigned

Updated: APR-13

E2010.03.01 Blinds**

Present in classrooms and administrative areas. Some blinds are integrated into exterior windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	30	APR-13

Event: Replace Blinds (20 sqm)

Туре	<u>Year</u>	Cost	<u>Priority</u>
Lifecycle Replacement	2016	\$2,289	Unassigned

E2010.03.06 Curtains and Drapes**

Manual fire curtain at former stage area.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	30	APR-13

Event: Replace Stage Fire Curtain (60 sqm)

Туре	Year	<u>Cost</u>	Priority
Lifecycle Replacement	2016	\$15,000	Unassigned

Updated: APR-13

E2020.03 Moveable Rugs and Mats*

Rugs and foam mats present in Kindergarten classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	2004	0	APR-13

S8 SPECIAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

No designated barrier free stall. No ramp up to sidewalk.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

Event: Provide barrier free stall c/w requirements (1)

Concern:

No designated barrier free stall. No ramp up to sidewalk. **Recommendation:**

Provide a ramp up to sidewalk. Designate nearest stall as barrier free c/w signage and markings.

Consequences of Deferral:

No designated parking for those in wheelchairs. Difficulty navigating to entry.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2012	\$5,000	Low

Updated: APR-13

K4010.02 Barrier Free Entrances*

No power operators at entry doors.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

Event: Install Power Door Operators (1)

Concern: Difficult for those in a wheelchair to access entry. Recommendation: Install power operators. Consequences of Deferral: Entrance is not barrier free.

Туре	Year	Cost	Priority
Barrier Free Access Upgrade	2013	\$5,000	Low

K4010.03 Barrier Free Interior Circulation*

No access to stage area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

Event: Install interior lift (1)

Concern: No access to stage area. Recommendation: Provide barrier free lift. Consequences of Deferral: Those in wheelchairs cannot access stage area.

Туре	<u>Year</u>	Cost	Priority
Barrier Free Access Upgrade	2012	\$40,000	Low

Updated: APR-13

K4010.04 Barrier Free Washrooms*

Barrier free washroom provided in the infirmary.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	1972	0	APR-13

K4030.01 Asbestos*

Asbestos report was provided at time of inspection. Asbstos is present, however undisturbed. No concerns.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

K4030.04 Mould*

No mould known or reported.

<u>Rating</u>	Installed	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1972	0	APR-13

K4030.09 Other Hazardous Materials*

No other hazardous materials were identified during the review.

Rating	Installed	Design Life	Updated
4 - Acceptable	1972	0	APR-13

K5010.01 Site Documentation*

Site plan attached.

Site review conducted: November 28, 2012 Prime Consultant: Williams Engineering Canada Inc.

Rating	Installed	Design Life	Updated
4 - Acceptable	2012	0	APR-13



James Short Site Plan.JPG

K5010.02 Building Documentation*

Floor plan attached.

Site review conducted: November 28, 2012 Prime Consultant: Williams Engineering Canada Inc.

Rating	Installed	<u>Design Life</u>	Updated
4 - Acceptable	2012	0	APR-13



James Short Floor plan.JPG