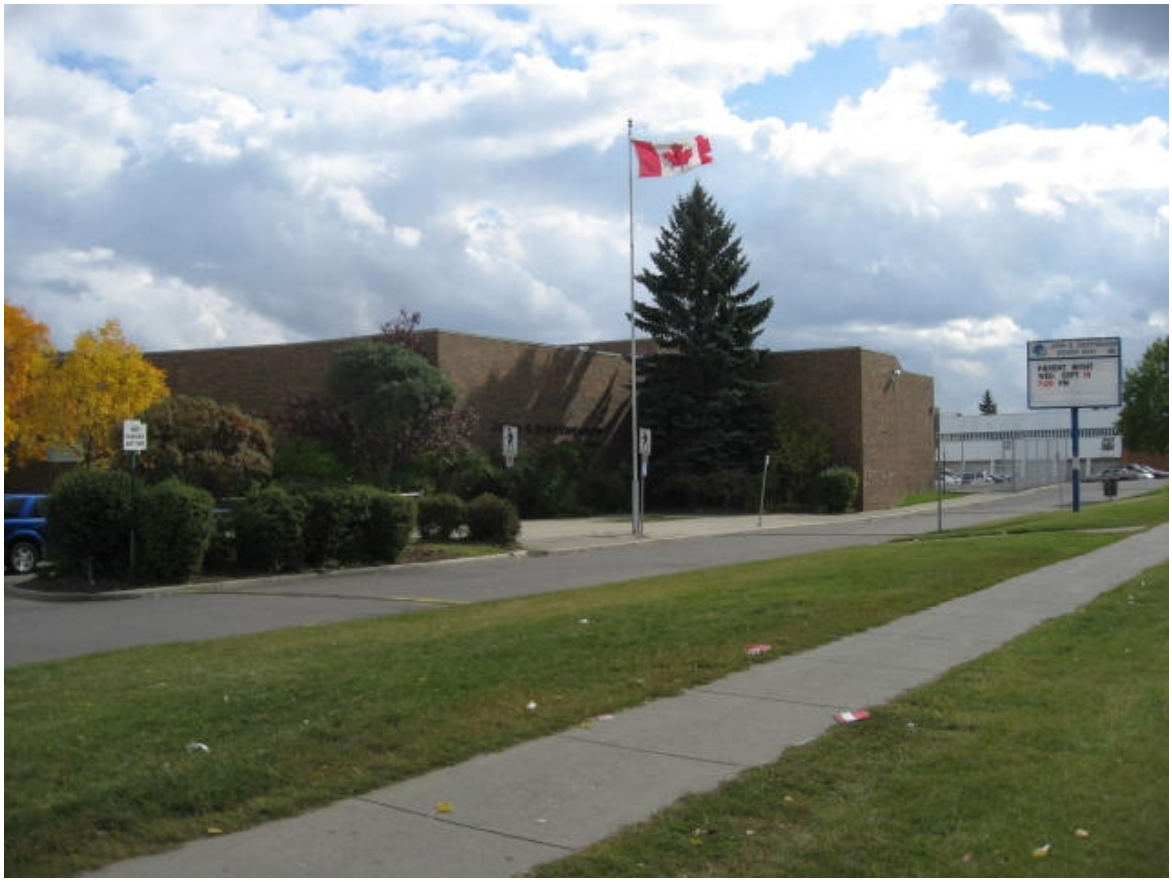
RECAPP Facility Evaluation Report

Calgary School District #19



John G Diefenbaker High School

B2686A

Calgary

Report run on: January 10, 2008 9:31 AM

Facility Details

Building Name: John G Diefenbaker High Sc
Address: 6620 - 4 Street N. W.
Location: Calgary

Building Id: B2686A
Gross Area (sq. m): 13,876.47
Replacement Cost: $33,274,959
Construction Year: 1971

Evaluation Details

Evaluation Company: Asset Evolution Inc.
Evaluation Date: September 18 2007
Evaluator Name: Mario Plastina

Total Maintenance Events Next 5 years: **$4,903,500**
5 year Facility Condition Index (FCI): **14.74%**

General Summary:

John G. Diefenbaker High School is 13876.47m2 in size. The original school is a two storey structure with a partial lower level and a mechanical penthouse. It was constructed in 1971 with an approximate area of 11038 m2. In 1990 a one-storey addition with a partial lower level was added with an approximate area of 2484.40 m2. The school has several classrooms, science labs, a library, computer rooms, music room, industrial art shops, two gymnasium, an auxiliary gym, a cafeteria/auditorium and several administrative areas. The majority of the school has been modernized since the 1990 addition. There are 4 portables on site.

The current student enrollment has approximately 1390 students.

Structural Summary:

1971 & 1990 Section

The foundations consist of cast-in-place concrete grade beams and spread footings. The original building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement. The roof comprises of a metal roof deck with steel structure supported by exterior & interior concrete walls. The structural walls and columns are concrete block walls or poured in place concrete.

Overall the structural elements appeared to be in acceptable condition.

Envelope Summary:

1971 Section

The exterior cladding consists primarily of a brick, ribbed block & a stucco assembly. A portion of the exterior wall on the north, east and west elevation is currently being recladded. The windows are aluminum frame double glazed fixed type panels. Windows appear to be acceptable condition, however need ongoing repairs and maintenance service. The majority of the roof has a bituminous built-up roof assembly (BUR) replaced in 1988. Several of the main entrances have of painted steel doors with a glazed transoms & sidelights. The majority of the exit doors have a painted steel door & frame assembly with GWG panels.

1990 Section

The exterior cladding consists primarily of brick with ribbed block horizontal bands. A stucco finish is located above the entrances. The windows are aluminum frame double glazed fixed type panels. The roof has a modified bituminous membrane roof assembly (SBS). A large ridge skylight is located above the main entrance corridor. Several of the main entrances have of painted steel doors with a glazed transoms & sidelights. The majority of the exit doors have a painted steel door & frame assembly with GWG panels.

Overall, the building envelope appears to be in acceptable condition.

Interior Summary:

Sheet Vinyl & Vinyl floor tiles are located throughout the majority of the classrooms, library & labs. The music room and administration area have a carpet floor finish.The gymnasiums & drama stage area have a hardwood floor finish. The change rooms/washrooms in the 1990 addition have a ceramic tile floor finish. A non-slip floor finish is located in the original main floor washroom. The majority of the utility areas and mechanical rooms have a seal or paint finish on the concrete slab. Original VAT is located in several classrooms and cafeteria area.

The majority of the interior walls are painted masonry block walls with some painted gypsum board walls . The second floor has new demountable partitions throughout.

The interior swing doors generally consist of solid core doors with a stained and/or paint finish in painted steel frames. Painted steel fire doors are located throughout the corridors & stairwells. The majority of the doors are rated and labeled.

The school has a suspended 2'x4' acoustical tile ceiling in most classrooms, labs and corridors. The structure is exposed in the gymnasiums.
The millwork throughout the science labs was replaced in 2006/2007.

Overall, the interior finishes are in good condition.

Mechanical Summary:

Building heating for the 1971 original building is provided by four hot water boilers located in the penthouse mechanical room. Hot water is supplied to two hot glycol heat exchangers (to supply hot glycol to the air handling unit heating coils), and to the various building hydronic terminal units including convectors, finned tube radiation cabinets, reheat coils, fan coils, induction units and unit heaters. Building heating for the 1990 building addition is provided by one hot water boiler located on the mechanical mezzanine in the building addition. Hot water is supplied to two hot glycol heat exchangers (to supply hot glycol to the air handling unit heating coils), and to the various building hydronic terminal units including convectors, finned tube radiation cabinets, reheat coils, and unit heaters.

A chilled glycol system provides cooling for most of the building (both the 1971 original building and the 1990 building addition) via chilled glycol cooling coils in some of the air handling units (the 1971 original building main air handling unit, the 1990 building addition main air handling unit AHU1, and the 1990 building addition basement air handling unit AHU3). The chilled glycol system includes a packaged air cooled chiller located on the roof of the building (installed in 2007).

Ventilation in the 1971 original building is provided by a main air handling unit located in the mechanical penthouse. Other air handling units in the 1971 original building include a combustion air supply unit for the boiler room (mechanical penthouse), a make-up air unit for the basement industrial arts area, a rooftop air conditioning unit for the basement Art Room, and five rooftop ventilation units equipped with swamp coolers. Ventilation in the 1990 building addition is provided by a main air handling unit and a gymnasium air handling unit located on the mechanical mezzanine, and a basement air handling unit located in the basement mechanical room. Numerous local and general exhaust systems provide exhaust air to balance the fresh air supply provided by the air handling units. Building HVAC controls and actuators are pneumatic.

The building domestic water supply provides water for use in the fixtures in the washroom and locker facilities in the building, as well as for use in the fixtures in the various classroom, lab and shop areas. Domestic hot water is provided by natural gas fired domestic hot water heaters (two in the 1971 original building mechanical penthouse and two on the 1990 building addition mechanical mezzanine).

Fire protection consists of a standpipe system feeding standard fire hose cabinets in the 1971 original building, and cabinet mounted fire extinguishers in the 1990 building addition. Fire extinguishers are also located in the fire hose cabinets and in other areas throughout the 1971 original building, and an automatic fire suppression system protects the servery cooking hood.

There are some space temperature control problems in the building, largely on the second floor where the original open concept design was converted to individual classrooms without allowance for an adequate number of control zones. Generally, the mechanical systems in the 1990 building addition are in acceptable to good condition, and the mechanical systems in the 1971 original building are in acceptable condition, although the age of the original building is such that there is likely to be significant deterioration of the original mechanical systems over the next five to ten years, as most of the major systems reach and surpass their normal life spans.

Electrical Summary:

The incoming hydro service to John G. Diefenbaker School is being converted to a 347/600V, 3-phase, 4-wire service from a new ENMAX padmounted transformer. A new 1600A, 347/600V switchboard is being provided that will refeed the existing 277/480V distribution system and feed the new chiller. An MCC and individual motor starters provide power for the mechanical equipment.

The wiring in the building is typically standard wiring in conduit.

The interior fluorescent lighting fixtures typically have T-8 lamps and electronic ballasts. The exit lighting in the building

consists of metal units with LED lamps. The emergency lighting is fed from emergency lighting battery packs. The emergency lighting battery packs in the 1990 addition are aged wet cell units. The exterior lighting consists of wall mounted H.I.D wallpack fixtures and incandescent fixtures in the building canopies.

The building is equipped with a Simplex 4100 fire alarm system. Detection and end devices include, smoke and heat detectors, bells and pull stations.
The various communications and security systems within the school include; a Silent Knight security system that monitors motion detectors, a custom P.A. system and a Nortel/Norstar telephone system. Exterior and interior video surveillance cameras and data network systems are installed within the school.

It is recommended, as routine maintenance, that a program for annual examination of major electrical components be instituted. Maintenance should include thermographic scans for hot spots and power shut down to allow examination of interior components for accumulated debris and signs of corrosion.

The main concerns for the school are the emergency lighting in the 1990 addition and the exterior lighting.

Overall the electrical components for John G. Diefenbaker School 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* - 1971 Section

The foundations consist of cast-in-place concrete grade beams and spread footings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

A1010 Standard Foundations* - 1990 Section

The foundations consist of cast-in-place concrete grade beams and spread footings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

A1030 Slab on Grade* - 1971 Section

The building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	0	JAN-08

Event: Study & monitor the structural movement in the central corridor adjacent to the home economics room.

Concern:

In was indicated and observed that structural movement has occurred in the central corridor opposite the home economics room. Structural repairs have been made, however the area will require monitoring.

Recommendation:

Study & monitor if structural movement continuous to occur in the central corridor adjacent to the home economics room.

Type	Year	Cost	Priority
Study	2007	$10,000	Medium

Updated: JAN-08

A1030 Slab on Grade* - 1990 Section

The building has cast-in-place concrete slabs-on-grade with conventional steel reinforcement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

A2020 Basement Walls (& Crawl Space)* - 1971 Section

A portion of the lower level is in the basement area. The basement walls are a combination of poured in place and masonry block walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

A2020 Basement Walls (& Crawl Space)* - 1990 Section

A portion of the lower level is in the basement area. The basement walls are a combination of poured in place and masonry block walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B1010.01 Floor Structural Frame (Building Frame)* - 1971 Section

Concrete slab on grade floors supported by structural reinforced concrete block walls, poured in place concrete beams and columns. The upper floors have a combination of a wood and steel frame assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B1010.01 Floor Structural Frame (Building Frame)* - 1990 Section

Concrete slab on grade floors supported by structural reinforced concrete block walls, poured in place concrete beams and columns. The upper floors have a combination of a steel and lightweight concrete frame assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1971 Section

Structural reinforced concrete and/or concrete block walls, column & beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1990 Section

Structural reinforced concrete and/or concrete block walls, column & beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B1010.05 Mezzanine Construction* - 1971 Section

A steel/wood mezzanine structure is located above the ancillary drama area. The dressing rooms are located on the mezzanine level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B1010.05 Mezzanine Construction* - 1990 Section

A mezzanines is located above the ladies change room. The mezzanine has a poured in place concrete slab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B1010.06 Ramps: Exterior* - 1971 Section

A poured in place concrete ramp is located at the main north-west entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

B1010.07 Exterior Stairs* - 1971 Section

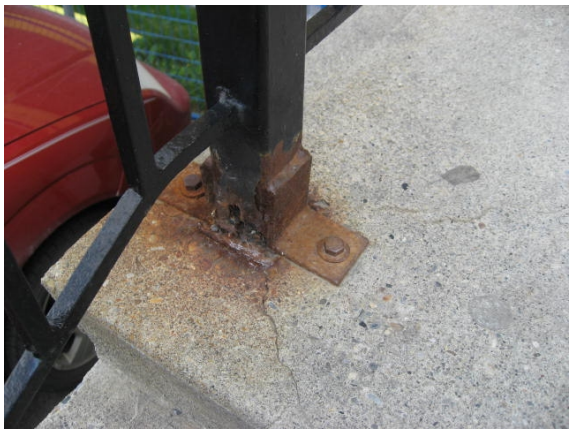
Several poured in place concrete stairs are located throughout the original 1971 building. The handrails are painted steel.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	40	JAN-08

Event: **Repair and/or replace corroded sections of the handrail.**

Concern:
The handrails on the north stair are corroded in several isolated sections.

Recommendation:
Repair and/or replace corroded sections of the handrail & pickets.



Type	Year	Cost	Priority
Repair	2007	$10,000	Low

Updated: JAN-08

B1010.07 Exterior Stairs* - 1990 Section

A poured in place concrete stair is located outside the south exit of the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	JAN-08

B1010.09 Floor Construction Fireproofing* - 1971 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B1010.09 Floor Construction Fireproofing* - 1990 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B1010.10 Floor Construction Firestopping* - 1971 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B1010.10 Floor Construction Firestopping* - 1990 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B1020.01 Roof Structural Frame* - 1971 Section

The roof structure has OWSJ's with a metal deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B1020.01 Roof Structural Frame* - 1990 Section

The roof structure has OWSJ's with a metal deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B1020.06 Roof Construction Fireproofing* - 1971 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B1020.06 Roof Construction Fireproofing* - 1990 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1971 Section

The majority of the exterior walls have a brick assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	75	JAN-08

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1990 Section

The majority of the exterior walls have a brick assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	75	JAN-08

B2010.01.02.02 Concrete Block: Ext. Wall Skin* - 1971 Section

Ribbed concrete block walls are located around the north & west wall elevations. The exterior walls at these locations are currently being recladded.(Fall 2007)

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	75	JAN-08

B2010.01.02.02 Concrete Block: Ext. Wall Skin* - 1990 Section

Ribbed concrete block bands are located around the exterior wall elevations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	75	JAN-08

B2010.01.05 Exterior Insulation and Finish Systems (EIFS)* - 1971 Section

The stair towers along the east elevation have a prefinished textured stucco finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	75	JAN-08

B2010.01.05 Exterior Insulation and Finish Systems (EIFS)* - 1990 Section

The entrance & the upper portion of the exterior gym wall have of prefinished textured stucco finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	75	JAN-08

B2010.01.06.03 Metal Siding**- 1971 Section

Prefinished vertical metal siding is located on the mechanical penthouse wall assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace Metal Siding - Mechanical Penthouse

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$140,000	Unassigned

Updated: JAN-08

B2010.01.09 Expansion Control: Exterior Wall Skin* - 1971 Section

Expansion/control joints are located throughout the cladding assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B2010.01.09 Expansion Control: Exterior Wall Skin* - 1990 Section

Expansion/control joints are located throughout the cladding assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1971 Section

Sealant is located around all window, door and exterior cladding assemblies.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	20	JAN-08

Event: Replace building sealant throughout the exterior walls

Type	Year	Cost	Priority
Repair	2011	$80,000	Unassigned

Updated: JAN-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1990 Section

Sealant is located around all window, door and exterior cladding assemblies.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	JAN-08

Event: Replace building sealant throughout the exterior walls

Type	Year	Cost	Priority
Repair	2011	$25,000	Unassigned

Updated: JAN-08

B2010.02.03 Masonry Units: Ext. Wall Const.* - 1971 Section

The interior face of the exterior precast walls has a concrete block wall assembly.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

B2010.02.03 Masonry Units: Ext. Wall Const.* - 1990 Section

The interior face of the exterior precast walls has a concrete block wall assembly.

Rating	Installed	Design Life	Updated
5 - Good	1990	0	JAN-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation* - 1971 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation* - 1990 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B2010.06 Exterior Louvers, Grilles, and Screens* - 1971 Section

Exterior louvres are located on the upper portion of the exterior walls in the mechanical rooms..

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

B2010.06 Exterior Louvers, Grilles, and Screens* - 1990 Section

Exterior louvres are located on the lower portion of the exterior walls in the mechanical room.

Rating	Installed	Design Life	Updated
5 - Good	1990	0	JAN-08

B2010.09 Exterior Soffits* - 1971 Section

The exterior soffits have an exterior gypsum board with a textured finish. Some of the entrances have a metal screen for security.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B2010.09 Exterior Soffits* - 1990 Section

The exterior soffits have an exterior gypsum board with a textured finish. Some of the entrances have a metal screen for security.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1971 Section

The windows are aluminum frame double glazed fixed units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace exterior windows (Approx. 30 Units)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$100,000	Unassigned

Updated: JAN-08

B2020.01.01.02 Aluminum Windows (Glass & Frame)** -1990 Section

The windows are aluminum frame double glazed fixed units.

Rating	Installed	Design Life	Updated
5 - Good	1990	40	JAN-08

Event: Replace exterior windows - 1990 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$70,000	Unassigned

Updated: JAN-08

B2030.01.02 Steel-Framed Storefronts: Doors** - 1990 Section

Entrance Doors - Painted steel doors & frames with glazed insert panels. (6 doors)

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace Exterior Entrance Doors - 1990 Section - 6 doors

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$24,000	Unassigned

Updated: JAN-08

B2030.01.02 Steel-Framed Storefronts: Doors** -1971 Section

Entrance Doors - Painted steel doors & frames with glazed insert panels. (12 Doors)

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace Exterior Entrance Doors - 1971 Section -12 doors

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$48,000	Unassigned

Updated: JAN-08

B2030.02 Exterior Utility Doors** - 1971 Section

The majority of the entrance utility doors are painted metal doors in a painted steel frame. (14 doors)

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace Exterior Utility Doors - 1971 Section - 14 doors

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$56,000	Unassigned

Updated: JAN-08

B2030.02 Exterior Utility Doors** - 1990 Section

The majority of the entrance utility doors are painted metal doors in a painted steel frame. (6 doors)

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	JAN-08

Event: Replace Exterior Utility Doors - 1990 Section - 6 doors

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$24,000	Unassigned

Updated: JAN-08

B3010.01 Deck Vapor Retarder and Insulation* - 1971 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

B3010.01 Deck Vapor Retarder and Insulation* - 1990 Section

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)** - 1971 Section

The entire original 1971 roof has a built-up bituminous roofing assembly.

Rating	Installed	Design Life	Updated
5 - Good	1988	25	JAN-08

Event: Replace BUR assembly - 1971 Section - Area - 6500SM

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$1,200,000	Unassigned

Updated: JAN-08

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** -1990 Section

The entire 1990 Section has an SBS roofing assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	25	JAN-08

Event: Replace SBS Roof- 1990 Section - Area 2200SM

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$350,000	Unassigned

Updated: JAN-08

B3020.01 Skylights** - 1971 Section

Two large 4'x4' Acrylic skylights are located above the second floor computer area.

Rating	Installed	Design Life	Updated
5 - Good	1990	25	JAN-08

Event: Replace two Skylights - 1971 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: JAN-08

B3020.01 Skylights** - 1990 Section

A large steel frame ridge skylight is located above the main corridor of the 1990 addition.

Rating	Installed	Design Life	Updated
5 - Good	1990	25	JAN-08

Event: Replace Skylights - 1990 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$120,000	Unassigned

Updated: JAN-08

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies: Partitions* -

Interior partitions typically consist of painted masonry block walls in several corridors, washrooms, classrooms, industrial shop areas and gymnasiums.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

C1010.01.07 Framed Partitions (Stud)* -

Interior partitions typically consist of gypsum board metal partitions throughout the new library and corridors.

Rating	Installed	Design Life	Updated
5 - Good	2006	0	JAN-08

C1010.02 Interior Demountable Partitions* -

Interior demountable partitions typically consist of gypsum board metal partitions with a vinyl wall covering and are located throughout the renovated areas on the second floor and office areas.

Rating	Installed	Design Life	Updated
5 - Good	2006	0	JAN-08

C1010.03 Interior Operable Folding Panel Partitions** -

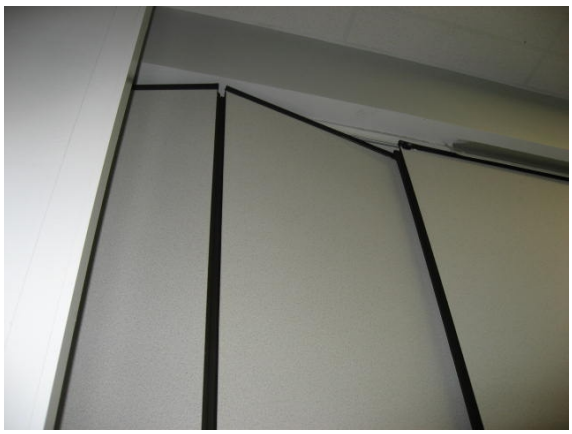
A full height folding door partition is located in the cafeteria/study area. A folding accordion door is located in the cafeteria servery.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	30	JAN-08

Event: Replace Interior Operable Folding Panel Partitions in the cafeteria/study area

Concern:
The track system on the folding door is no longer reliable. The door panels are no longer structurally stable.

Recommendation:
Replace the interior operable folding panel partitions in the cafeteria/study area



Type	Year	Cost	Priority
Failure Replacement	2008	$120,000	Medium

Updated: JAN-08

C1010.05 Interior Windows* -

Interior glazed windows are located in the science lab area library, main gymnasium and in the administrative area.

Rating	Installed	Design Life	Updated
5 - Good	1990	0	JAN-08

C1010.06 Interior Glazed Partitions and Storefronts* -

Interior glazed partitions are located in the fitness centre stage area.

Rating	Installed	Design Life	Updated
5 - Good	2006	0	JAN-08

C1010.07 Interior Partition Firestopping* -

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

C1020.01 Interior Swinging Doors (& Hardware)* -

The interior swing doors generally consist of solid core doors with a sealed or paint finish in a painted steel frames. Several of the original doors & frames do not have a fire rated label.

Rating	Installed	Design Life	Updated
5 - Good	1971	40	JAN-08

C1020.03 Interior Fire Doors* -

Painted steel fire doors are located in the corridors, stairs and in the industrial arts areas. The majority of the doors are rated and labeled.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

C1030.01 Visual Display Boards** -

Tackboards,chalkboards and whiteboards are located in most classrooms, industrial shops and labs.

Rating	Installed	Design Life	Updated
5 - Good	2000	20	JAN-08

Event: Replace Visual Display Boards

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$180,000	Unassigned

Updated: JAN-08

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

Prefinished metal washroom partitions are located in all men's & women's washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace Toilets/Showers partitions

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$80,000	Unassigned

Updated: JAN-08

C1030.08 Interior Identifying Devices* -

Signage panels with room number or room name are located above & on the interior doors

Rating	Installed	Design Life	Updated
5 - Good	1990	0	JAN-08

C1030.10 Lockers** -

Prefinished metal lockers are located throughout the corridors and boy's & girl's change rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace Lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$250,000	Unassigned

Updated: JAN-08

C1030.14 Toilet, Bath, and Laundry Accessories* -

The washrooms are equipped with typical washroom accessories: Paper towel dispensers, toilet paper dispensers, hand-soap dispensers, waste bins and mirrors.

Rating	Installed	Design Life	Updated
5 - Good	2000	0	JAN-08

C2010 Stair Construction* -

The stairwells have a poured in place concrete assembly. The stairs to the gym fitness area have a steel stair assembly.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

C2020.05 Resilient Stair Finishes** - Rubber

The stairs typically have a vinyl floor tile finish on the landings and a rubber finish on the stair treads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	20	JAN-08

Event: Replace Resilient Stair Finishes - Rubber & VAT

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$50,000	Unassigned

Updated: JAN-08

C2020.08 Stair Railings and Balustrades* -

The interior stairwells have a rubber and/or paint finish on the steel handrails with painted steel pickets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

C3010.02 Wall Paneling** -

Stained wood wall panels are located in the music room

Rating	Installed	Design Life	Updated
5 - Good	1971	30	JAN-08

Event: Replace wood panels in the music room

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$40,000	Unassigned

Updated: JAN-08

C3010.06 Tile Wall Finishes** - Ceramic

Ceramic wall tile is located in the 1990 addition washrooms, change rooms and on the back side of the boy's washroom urinals.

Rating	Installed	Design Life	Updated
5 - Good	1990	40	JAN-08

Event: Replace Ceramic Wall Tile

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$60,000	Unassigned

Updated: JAN-08

C3010.09 Acoustical Wall Treatment** -

Acoustical wall panels are located in the music room and in the main corridor of the 1990 Addition.

Rating	Installed	Design Life	Updated
5 - Good	1990	20	JAN-08

Event: Replace Acoustical Wall Panels

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$80,000	Unassigned

Updated: JAN-08

C3010.11 Interior Wall Painting* -

The interior gypsum wall board and concrete block wall partitions throughout the school have a paint finish.

Rating	Installed	Design Life	Updated
5 - Good	2006	10	JAN-08

C3010.12 Wall Coverings* -

Several walls in the administrative areas have gypsum board walls with a vinyl and/or fabric wall covering.

Rating	Installed	Design Life	Updated
5 - Good	2000	15	JAN-08

C3020.01.02 Paint Concrete Floor Finishes* -

Painted/sealed concrete floors are located in the mechanical room and utility rooms.

Rating	Installed	Design Life	Updated
5 - Good	1990	10	JAN-08

C3020.02 Tile Floor Finishes** - Ceramic tile

Ceramic tile floors are located throughout several washrooms and in the change rooms/showers.

Rating	Installed	Design Life	Updated
5 - Good	1990	50	JAN-08

Event: Replace ceramic floor tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2040	$90,000	Unassigned

Updated: JAN-08

C3020.04 Wood Flooring** -

Hardwood flooring is located in the two gymnasiums, auxiliary gym and in the ancillary drama room. The floors in the gym areas were refinished in 2007

Rating	Installed	Design Life	Updated
5 - Good	1990	30	JAN-08

Event: Replace all hardwood flooring (15% floor area)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$200,000	Unassigned

Updated: JAN-08

C3020.07 Resilient Flooring** - Sheet Vinyl

Sheet vinyl is located throughout the original second floor area, main floor science labs and corridors

Rating	Installed	Design Life	Updated
5 - Good	2007	20	JAN-08

Event: Replace Resilient Flooring - Sheet Vinyl -20% floor area

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$250,000	Unassigned

Updated: JAN-08

C3020.07 Resilient Flooring** - VAT

Original vinyl asbestos tiles (VAT) are located throughout several classrooms and cafeteria in the original 1971 building. (The cost reflects the environmental impact for the removal of the VAT).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	20	JAN-08

Event: Replace VAT flooring - 15% floor area

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$300,000	Unassigned

Updated: JAN-08

C3020.07 Resilient Flooring** - VCT

Vinyl tile is located throughout the majority of the classrooms, library and corridors.

Rating	Installed	Design Life	Updated
5 - Good	2007	20	JAN-08

Event: Replace Resilient Flooring - VCT - 40% floor area**

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$350,000	Unassigned

Updated: JAN-08

C3020.07 Resilient Flooring** Non-slip

A non-slip floor finish is located in the original main floor washroom area.

Rating	Installed	Design Life	Updated
5 - Good	2000	20	JAN-08

Event: Replace Resilient Flooring- Non-slip in washrooms

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$20,000	Unassigned

Updated: JAN-08

C3020.08 Carpet Flooring** -

Carpeting is located in the music room, conference room and administrative office areas.

Rating	Installed	Design Life	Updated
5 - Good	1999	15	JAN-08

Event: Replace Carpet Flooring (5% floor area)

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$75,000	Unassigned

Updated: JAN-08

C3030.04 Gypsum Board Ceiling Finishes* -

Painted gypsum board ceilings are located throughout most of the washrooms & change rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	60	JAN-08

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

The majority of the ceilings in the classroom areas have a 2'-0"x4'x0" suspended acoustical tile assembly. Suspended acoustical panels are located in the music rooms.

Rating	Installed	Design Life	Updated
5 - Good	2000	25	JAN-08

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

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$400,000	Unassigned

Updated: JAN-08

C3030.07 Interior Ceiling Painting* -

All the interior gypsum board ceilings and exposed steel structures have a paint finish

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	20	JAN-08

D1010.01.02 Hydraulic Passenger Elevators** -

The elevator is a Montgomery hydraulic elevator, installed in 1991, 3 stops with a capacity of 12 persons/2,000 lbs.

Rating	Installed	Design Life	Updated
3 - Marginal	1991	30	JAN-08

Event: Replace hydraulic elevator

Type	Year	Cost	Priority
Lifecycle Replacement	2021	$108,000	Unassigned

Updated: JAN-08

Event: Replace the hydraulic cylinder, overhaul elevator hydraulic power pack and upgrade controls

Concern:
Excessive maintenance on the hydraulic cylinder and repair requirements.
Recommendation:
Replace the hydraulic cylinder, overhaul elevator hydraulic power pack and upgrade controls

Type	Year	Cost	Priority
Code Upgrade	2008	$65,000	Medium

Updated: JAN-08

S4 MECHANICAL

D2010.04 Sinks** - 1971 Original

There are 42 sinks in the 1971 original building. Typical sinks include single and double bowl stainless steel general purpose sinks, laundry tubs, classroom lavatories, and janitor sinks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the sinks in the 1971 original building (42 total)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$55,000	Unassigned

Updated: JAN-08

D2010.04 Sinks** - 1990 Addition

There are nine sinks in the 1990 building addition. Typical sinks include stainless steel general purpose sinks, and janitor sinks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace the sinks in the 1990 building addition (9 total)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$12,000	Unassigned

Updated: JAN-08

D2010.05 Showers** - 1971 Original

Showers in the 1971 original building include two individual shower stalls for the physical education instructors, three shower stalls in the girl's locker room, and a group shower in the boy's locker room. The group shower consists of a large shower room equipped with 11 shower heads and related controls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the showers in the 1971 original building (5 individual stalls and one group shower with 11 heads)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$19,000	Unassigned

Updated: JAN-08

D2010.05 Showers** - 1990 Addition

Showers in the 1990 building addition include three shower stalls in the women's team room, and a group shower in the men's team room. The group shower consists of a large shower room equipped with six shower heads and related controls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace the showers in the 1990 building addition (3 individual stalls and one group shower with 6 heads)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$11,000	Unassigned

Updated: JAN-08

D2010.08 Drinking Fountains / Coolers** - 1971 Original

In the 1971 original building, there are ten drinking fountains. Drinking fountains are located in the corridors, typically near the fire hose cabinets. The drinking fountains are wall mounted vitreous china units with no coolers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	35	JAN-08

Event: Replace the drinking fountains in the 1971 original building (10)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$12,000	Unassigned

Updated: JAN-08

D2010.08 Drinking Fountains / Coolers** - 1990 Addition

In the 1990 building addition, there are two drinking fountains. The drinking fountains are located in the entrance corridor to the gymnasium. The drinking fountains are wall mounted stainless steel units with no coolers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	35	JAN-08

Event: Replace the drinking fountains in the 1990 building addition (2)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$3,000	Unassigned

Updated: JAN-08

D2010.09 Other Plumbing Fixtures* - 1990 Addition

In the Visual Communications lab in the basement of the 1990 building addition, there is a terrazzo half Bradley type wash fountain.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1971 Original

Washroom plumbing fixtures in the 1971 original building include 30 lavatories, 32 toilets, and 12 urinals. Lavatories include 13 counter mounted enameled steel units, two counter mounted vitreous china units, and 15 wall mounted vitreous china units. Toilets include 31 floor mounted flush valve type units and one floor mounted tank type unit. Urinals include 11 floor mounted tank type units and one wall mounted flush valve type unit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Install a unisex washroom in the basement of the building

Concern:
There are no washrooms in the basement of the building.

Recommendation:
Install a washroom in the basement of the building to eliminate the need for students to travel to the main floor to access washroom facilities.

Consequences of Deferral:
Continued inconvenience.

Type	Year	Cost	Priority
Program Functional Upgrade	2008	$48,000	Low

Updated: JAN-08

Event: Replace the washroom plumbing fixtures in the original building (30 lavatories, 32 toilets and 12 urinals)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$125,000	Unassigned

Updated: JAN-08

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1990 Addition (Lavatories)

Washroom plumbing fixtures in the 1990 building addition covered under this element include four lavatories. The lavatories are counter mounted enameled steel units.

Rating	Installed	Design Life	Updated
3 - Marginal	1990	35	JAN-08

Event: Replace the washroom lavatories in the 1990 building addition (4)

Concern:
The enameled steel lavatories in the 1990 building addition are extensively chipped.

Recommendation:
Replace the four enameled steel lavatories with stainless steel lavatories.

Consequences of Deferral:
Poor appearance and accelerated corrosion.

Type	Year	Cost	Priority
Failure Replacement	2009	$6,500	Low

Updated: JAN-08

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1990 Addition (Toilets and Urinals)

Washroom plumbing fixtures in the 1990 building addition covered under this element include four toilets and three urinals. The toilets are floor mounted flush valve type units and the urinals are wall mounted flush valve type units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	35	JAN-08

Event: Replace the toilets (4) and urinals (3) in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$12,000	Unassigned

Updated: JAN-08

D2020.01.01 Pipes and Tubes: Domestic Water* -

There is one domestic water supply to the building located in the basement meter room at the northwest corner of the building. The water supply feeds the fire protection equipment (standpipe system) through a backflow prevention device, feeds the lawn irrigation system pump through a water meter and a backflow prevention device, and feeds the building domestic water system through a water meter and duplex backflow prevention devices. Water piping is generally steel in larger diameters and copper in smaller diameters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D2020.01.02 Valves: Domestic Water** - 1971 Original

Domestic water system valves include zone isolating valves and fixture isolating valves. Some domestic water system valves have been replaced in the original building, but most are original.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace the domestic water distribution system valves in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$90,000	Unassigned

Updated: JAN-08

D2020.01.02 Valves: Domestic Water** - 1990 Addition

Domestic water system valves include zone isolating valves and fixture isolating valves. The domestic water system valves in the building addition are generally original.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	JAN-08

Event: Replace the domestic water distribution system valves in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$21,000	Unassigned

Updated: JAN-08

D2020.01.03 Piping Specialties (Backflow Preventors)** -

There are duplex backflow prevention devices on the domestic water supply to the building, a backflow prevention device on the fire protection water supply (which is fed from the single domestic water supply to the building), a backflow prevention device on the water supply to the irrigation system, and backflow prevention devices for the boiler make-up water supplies. There does not appear to be any backflow prevention on the water supply to the science room sink faucets.

Rating	Installed	Design Life	Updated
3 - Marginal	1990	20	JAN-08

Event: Provide an isolated non-potable water supply to the science room sink faucets

Concern:

There could be contamination of the building potable water supply caused by backflow from the science room sink faucets.

Recommendation:

Provide a non-potable water supply for the science room sink faucets, isolated from the building potable water system by a backflow prevention device.

Consequences of Deferral:

Potential contamination of the building potable water system.

Type	Year	Cost	Priority
Code Upgrade	2008	$50,000	Low

Updated: JAN-08

Event: Replace the backflow prevention devices for the domestic water system, the standpipe system, the irrigation system and the boiler make-up water supplies

Type	Year	Cost	Priority
Lifecycle Replacement	2010	$46,000	Unassigned

Updated: JAN-08

D2020.02.02 Plumbing Pumps: Domestic Water** -

There are domestic hot water circulation pumps for the 1971 original building and the 1990 building addition. In addition, there is a booster pump for the lawn irrigation system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	JAN-08

Event: Replace the two domestic hot water circulation pumps and the lawn irrigation system pump

Type	Year	Cost	Priority
Lifecycle Replacement	2010	$5,500	Unassigned

Updated: JAN-08

D2020.02.06 Domestic Water Heaters** -

There are two natural gas fired domestic hot water heaters for the 1971 original building (A. O. Smith model BTRC199-110, 52.5 kW input, 283.9 L), and two natural gas fired domestic hot water heaters for the 1990 building addition (john Wood model JW502NA, 12.3 kW input, 189 L).

Rating	Installed	Design Life	Updated
5 - Good	2004	20	JAN-08

Event: Replace the domestic hot water heaters (4)

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$10,000	Unassigned

Updated: JAN-08

D2020.03 Water Supply Insulation: Domestic* -

The domestic hot water lines are insulated to prevent heat loss and the domestic cold water lines are insulated to prevent condensation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D2030.01 Waste and Vent Piping* -

Waste and vent piping in the building is generally cast iron in larger diameters and copper in smaller diameters. The waste and vent piping is generally original (1971 for the original building and 1990 for the building addition).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D2030.03 Waste Piping Equipment* -

There is a sanitary sump in the 1990 building addition basement meter room equipped with two submersible sanitary sump pumps (P8 and P9).

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-08

D2040.01 Rain Water Drainage Piping Systems* - 1971 Original

The 1971 original building flat roof areas are drained by standard roof drains which discharge to the municipal storm sewer system via internal storm drainage piping. The storm drainage piping is cast iron and transite. The storm drainage piping is generally original.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D2040.01 Rain Water Drainage Piping Systems* - 1990 Addition

The 1990 building addition flat roof areas are drained by standard roof drains which discharge to the municipal storm sewer system via internal storm drainage piping. The storm drainage piping is generally cast iron. The storm drainage piping is original. There is a storm sump in the 1990 building addition basement meter room equipped with two submersible sanitary sump pumps (P6 and P7).

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	50	JAN-08

D2040.02.04 Roof Drains* -

The flat roof areas of the building are equipped with roof drains for storm water drainage. The roof drains have metal strainers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

D3010.02 Gas Supply Systems* -

Natural gas is the primary energy source for building heating and domestic hot water heating. The natural gas piping is steel. The gas main enters the original building on the north side and the the gas meter and pressure reducing station are located in the original meter room at the northwest corner of the basement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	60	JAN-08

D3020.02.01 Heating Boilers and Accessories: H.W.** - 1971 Original

In the mechanical penthouse of the 1971 original building, there are four natural gas fired Cleaver Brooks packaged hot water boilers (model 3, Series 635, Catalog No. WTW-4000, 3,600,000 Btu/h or 984.8 kW input each).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	35	JAN-08

Event: Replace the packaged hot water boilers in the 1971 original building mechanical penthouse (4)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$260,000	Unassigned

Updated: JAN-08

D3020.02.01 Heating Boilers and Accessories: H.W.** - 1990 Addition

In the mechanical penthouse of the 1990 building addition, there is one natural gas fired Bryan packaged hot water boiler (model CL210-W-GI, 1,890,000 Btu/h or 554.0 kW input).

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	35	JAN-08

Event: Replace the packaged hot water boiler in the 1990 building addition mechanical mezzanine

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$55,000	Unassigned

Updated: JAN-08

D3020.02.02 Chimneys (&Comb. Air): H.W. Boiler** - 1971 Original

The four hot water boilers in the 1971 original building mechanical penthouse have independent discharge stacks for combustion gases. The stacks are original.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the hot water boiler discharge stacks for the 1971 original building hot water boilers (B1, B2, B3 and B4)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$48,000	Unassigned

Updated: JAN-08

D3020.02.02 Chimneys (&Comb. Air): H.W. Boiler** - 1990 Addition

The hot water boiler in the 1990 building addition mechanical mezzanine has a discharge stack for combustion gases. The stack is original.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	35	JAN-08

Event: Replace the hot water boiler discharge stack for the 1990 building addition hot water boiler

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$12,000	Unassigned

Updated: JAN-08

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

Water treatment for the hot water boilers consists of chemical addition to the closed loop hot water systems via pot feeders.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D3030.04 Rotary-Screw Water Chillers** -

The original 1971 chiller is being replaced with a new packaged air cooled rotary screw type chiller which is being installed on the roof adjacent to the 1971 original building mechanical penthouse.

Rating	Installed	Design Life	Updated
6 - Excellent	2007	25	JAN-08

Event: Replace the packaged air cooled rotary screw type chiller (CH1)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$225,000	Unassigned

Updated: JAN-08

D3040.01.01 Air Handling Units: Air Distribution** - 1971 Original

There is one main central station air handling unit for the 1971 original building, located in the original building penthouse mechanical room (fan room). The air handling unit is equipped with glycol heating coils, chilled glycol cooling coils, and a spray type humidification system (including a spray circulation pump and a water softener). The glycol heating coils for this unit were replaced in 2006. In the original building penthouse mechanical room (boiler room), there is a combustion air supply unit which is equipped with glycol heating coils. In the C.T.S. shop in the basement of the 1971 original building, there is a make-up air unit which is equipped with glycol heating coils.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the 1971 original building central air handling station, combustion air supply unit, and shop make-up air unit

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$275,000	Unassigned

Updated: JAN-08

D3040.01.01 Air Handling Units: Air Distribution** - 1990 Addition - Basement

There are three air handling units serving the 1990 building addition, including two units on the mechanical mezzanine and one unit in the basement mechanical room. This element covers the air handling unit in the basement mechanical room. AHU3 (Engineered Air model LM-8-C at 7,000 cfm) in the basement mechanical room serves the basement of the building addition, and is equipped with glycol heating coils, chilled glycol cooling coils, and a spray type humidification system.

Rating	Installed	Design Life	Updated
5 - Good	1995	30	JAN-08

Event: Replace air handling unit AHU3 in the basement mechanical room in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$45,000	Unassigned

Updated: JAN-08

D3040.01.01 Air Handling Units: Air Distribution** - 1990 Addition - Mezzanine

There are three air handling units serving the 1990 building addition, including two units on the mechanical mezzanine and one unit in the basement mechanical room. This element covers the two air handling units on the mechanical mezzanine. AHU1 (Engineered Air model LM-13-C at 14,500 cfm) on the mezzanine is the main air handling unit for the building addition, and is equipped with glycol heating coils, chilled glycol cooling coils, and a spray type humidification system. AHU2 (Engineered Air model LM-4-C at 6,000 cfm) on the mezzanine serves the addition gymnasium, and is equipped with glycol heating coils and a spray type humidification system (the humidification system is currently not used).

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace air handling units AHU1 and AHU2 on the mechanical mezzanine in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$120,000	Unassigned

Updated: JAN-08

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

Air distribution fans remote from air handling units include the return air fan associated with the central station air handling unit serving the 1971 original building. The return air fan is located in the 1971 original building mechanical penthouse (fan room).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D3040.01.03 Air Cleaning Devices:Air Distribution* - Dust Collection System

In the C.T.S. shop in the basement of the 1971 original building, there is a dust collection system which consists of a duct system for dust collection from the woodworking machines and an exterior dust collector.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D3040.01.04 Ducts: Air Distribution* -

Air distribution ducts include the fresh air, supply air and return air duct systems (as applicable) for the six air handling units (the 1971 original building main air handling unit, combustion air supply unit and shop make-up air unit, as well as the 1990 building addition main air handling unit, gymnasium air handling unit and basement air handling unit). There are also duct systems associated with the packaged rooftop HVAC units for the 1971 original building. In addition to the air distribution ducts, the duct systems include components not specifically listed elsewhere, including duct insulation, turning vanes, dampers, etc., as applicable. The supply and return air duct systems in the 1971 original building and 1990 building addition are original.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D3040.01.07 Air Outlets & Inlets:Air Distribution* -

Air outlets and inlets include air distribution system supply air diffusers and return air grilles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D3040.03.01 Hot Water Distribution Systems** - 1971 Original

There is a hot water heating loop in the 1971 original building which supplies hot water from the hot water boilers to the glycol heat exchangers and to the various hydronic terminal units (force flow convectors, fan coils, unit heaters, etc.). The closed loop hot water heating system includes the hot water piping, insulation, valves, piping specialties, expansion tank, and circulation pumps (five total, all located in the mechanical penthouse).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace the hot water distribution loop in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$950,000	Unassigned

Updated: JAN-08

D3040.03.01 Hot Water Distribution Systems** - 1990 Addition

There is a hot water heating loop in the 1990 building addition which supplies hot water from the hot water boiler to the glycol heat exchanger and to the various hydronic terminal units (force flow convectors, finned tube radiation cabinets, unit heaters, etc.). The closed loop hot water heating system includes the hot water piping, insulation, valves, piping specialties, expansion tank, and circulation pumps (three total including two on the mezzanine and one in the basement meter room).

Rating	Installed	Design Life	Updated
5 - Good	1990	40	JAN-08

Event: Replace the hot water distribution loop in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$235,000	Unassigned

Updated: JAN-08

D3040.03.01 Hot Water Distribution Systems** - Hot Glycol - 1990 Addition - Basement

There are two hot glycol heating loops in the 1990 building addition which supply hot glycol to the air handling unit heating coils. This element covers the glycol heating loop in the 1990 building addition basement meter room which supplies hot glycol to the heating coils of AHU3 which serves the basement of the 1990 building addition. The closed loop hot glycol heating system includes the hot glycol piping, insulation, valves, piping specialties, expansion tank, circulation pump (one total) , and glycol fill system.

Rating	Installed	Design Life	Updated
5 - Good	1995	40	JAN-08

Event: Replace the hot glycol distribution loop in the 1990 building addition basement (for AHU3)

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$60,000	Unassigned

Updated: JAN-08

D3040.03.01 Hot Water Distribution Systems** - Hot Glycol - 1990 Addition - Mezzanine

There are two hot glycol heating loops in the 1990 building addition which supply hot glycol to the air handling unit heating coils. This element covers the glycol heating loop on the 1990 building addition mechanical mezzanine which supplies hot glycol to the heating coils of AHU1 and AHU2 (the main air handling unit for the 1990 building addition and the air handling unit for the 1990 building addition gymnasium, respectively). The closed loop hot glycol heating system includes the hot glycol piping, insulation, valves, piping specialties, expansion tank, circulation pumps (two total) , and glycol fill system.

Rating	Installed	Design Life	Updated
5 - Good	1990	40	JAN-08

Event: Replace the hot glycol distribution loop on the 1990 building addition mechanical mezzanine (for AHU1 and AHU2)

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$75,000	Unassigned

Updated: JAN-08

D3040.03.01 Hot Water Distribution Systems** - Hot Glycol 1971 Original

There is a hot glycol heating loop in the 1971 original building which supplies hot glycol to the air handling unit heating coils (main central station air handling unit, combustion air supply unit and shop make-up air unit). The closed loop hot glycol heating system includes the hot glycol piping, insulation, valves, piping specialties, expansion tank, circulation pumps (four total) , and glycol fill system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace the hot glycol distribution loop in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$215,000	Unassigned

Updated: JAN-08

D3040.03.02 Chilled Water Distribution Systems** - Chilled Glycol - 1971 Original

The building cooling system was originally a chilled water system. With the replacement of the original chiller and cooling tower with a packaged air cooled chiller in 2007, the original chilled water system was converted to a chilled glycol system. Chilled glycol provides building cooling for the 1971 original building via the main air handling unit cooling coils. The closed loop chilled glycol cooling system includes the chilled glycol piping, insulation, valves, piping specialties, expansion tank, circulation pumps (four total), and glycol fill system. The chilled glycol distribution system piping is original, but the circulation pumps, expansion tank and glycol fill system were installed new in 2007 when the the new chiller was installed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace the chilled glycol distribution system in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$175,000	Unassigned

Updated: JAN-08

D3040.03.02 Chilled Water Distribution Systems** - Chilled Glycol - 1990 Addition

The cooling system for the 1971 original building was a chilled water system. When the 1990 building addition was constructed, the original building chilled water system was extended to the addition. With the replacement of the original chiller and cooling tower with a packaged air cooled chiller in 2007, the original chilled water system was converted to a chilled glycol system. Chilled glycol provides cooling for the 1990 building addition via the cooling coils in the addition main air handling unit (AHU1) and the addition basement air handling unit (AHU3). The chilled glycol cooling system for the 1990 building addition includes the chilled glycol piping, insulation, valves, and piping specialties associated with the chilled glycol distribution to the 1990 building addition. The chilled glycol distribution system piping is original (1990 for most of the distribution system and 1995 for the piping to air handling unit AHU3 in the basement).

Rating	Installed	Design Life	Updated
5 - Good	1990	40	JAN-08

Event: Replace the chilled glycol distribution system in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$155,000	Unassigned

Updated: JAN-08

D3040.04.01 Fans: Exhaust** - 1971 Original

Exhaust fans for the 1971 original building include sanitary exhaust fans, a servery exhaust fan, a fume hood exhaust fan, a welding exhaust fan, a paint booth exhaust fan, and a graphics area exhaust fan.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the exhaust fans for the 1971 original building (7)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$27,000	Unassigned

Updated: JAN-08

D3040.04.01 Fans: Exhaust** - 1990 Addition

Exhaust fans for the 1990 building addition include a sanitary exhaust fan, a darkroom exhaust fan, a silkscreen room exhaust fan, a print room exhaust fan, and a storage room exhaust fan.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace the exhaust fans for the 1990 building addition (5)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$17,000	Unassigned

Updated: JAN-08

D3040.04.03 Ducts: Exhaust* -

Most of the building exhaust fans have associated duct systems for the collection of air from single or multiple source locations. The exhaust duct systems include related components not specified elsewhere, including duct insulation and dampers, as applicable. The exhaust fan duct systems are generally original (1971 and 1990).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D3040.04.05 Air Outlets and Inlets: Exhaust* -

Exhaust outlets and inlets include collection grilles and diffusers (including hoods), as well as stacks, discharge ducts and/or exhaust louvres where applicable. The exhaust outlets and inlets are generally original (1971 and 1990).

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

D3040.05 Heat Exchangers** - 1971 Original

There are two shell and tube type heat exchangers providing hot glycol from hot water for use in the air handling unit heating coils. The heat exchangers are located in the 1971 original building mechanical penthouse (boiler room) and use hot water from the hot water boilers for heating.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the two 1971 original building glycol heat exchangers

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$40,000	Unassigned

Updated: JAN-08

D3040.05 Heat Exchangers** - 1990 Addition - Basement

There is one shell and tube type heat exchanger providing hot glycol from hot water for use in the 1990 building addition basement air handling unit (AHU3) heating coils. The heat exchanger is located in the 1990 building addition basement meter room and uses hot water from the 1990 building addition hot water boiler for heating.

Rating	Installed	Design Life	Updated
5 - Good	1995	30	JAN-08

Event: Replace the 1990 building addition basement glycol heat exchanger (for AHU3)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$17,000	Unassigned

Updated: JAN-08

D3040.05 Heat Exchangers** - 1990 Addition - Mezzanine

There is one shell and tube type heat exchanger providing hot glycol from hot water for use in the 1990 building addition main air handling unit (AHU1) heating coils. The heat exchanger is located on the 1990 building addition mechanical mezzanine and uses hot water from the 1990 building addition hot water boiler for heating.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace the 1990 building addition mezzanine glycol heat exchanger (for AHU1)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$18,000	Unassigned

Updated: JAN-08

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

There are five rooftop ventilation units which provide cooling using swamp coolers (evaporative coolers) on the fresh air intakes. The ventilation units serve the 1971 original building (two of the units serve the main gymnasium, one of the units serves the auxiliary gymnasium, one of the units serves the cafeteria/study hall, and one of the units serves the music room).

Rating	Installed	Design Life	Updated
3 - Marginal	1971	30	JAN-08

Event: Replace the five ventilation units equipped with swamp coolers with packaged rooftop air conditioning units

Concern:

The existing rooftop air conditioning units are worn and are corroding and deteriorating. The operation of the swamp coolers adds humidity to the building which will decrease the effectiveness of the building chilled glycol air conditioning system.

Recommendation:

Replace the five rooftop air conditioning units with packaged direct expansion type air conditioning units (or with chilled glycol air conditioning units if the chilled glycol system has the required capacity).

Consequences of Deferral:

Increased maintenance and repair requirements for the rooftop air conditioning units.

Type	Year	Cost	Priority
Failure Replacement	2010	$70,000	Low

Updated: JAN-08

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

There is a packaged rooftop air conditioning unit serving the basement Art Room in the 1971 original building. The rooftop unit provides direct expansion type cooling.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	30	JAN-08

Event: Replace the Art Room packaged rooftop air conditioning unit

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$10,000	Unassigned

Updated: JAN-08

D3050.02 Air Coils** - 1971 Original

Hot water reheat coils are used in the 1971 original building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the reheat coils in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$180,000	Unassigned

Updated: JAN-08

D3050.02 Air Coils** - 1990 Addition

Hot water reheat coils are used in the 1990 building addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace the reheat coils in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$30,000	Unassigned

Updated: JAN-08

D3050.03 Humidifiers** - 1971 Original

The main air handling unit for the 1971 original building is equipped with a spray type humidification system. The system includes a domestic water supply, a water softening system, and a spray pump.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	25	JAN-08

Event: Replace the humidification system for the main air handling unit for the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$18,000	Unassigned

Updated: JAN-08

D3050.03 Humidifiers** - 1990 Addition - Basement

The basement air handling unit (AHU3) for the 1990 building addition is equipped with a spray type humidification system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	25	JAN-08

Event: Replace the humidification system for air handling unit AHU3 in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$3,000	Unassigned

Updated: JAN-08

D3050.03 Humidifiers** - 1990 Addition - Mezzanine

The main air handling unit (AHU1) and the gymnasium air handling unit (AHU2) for the 1990 building addition are equipped with spray type humidification systems (the gymnasium unit humidification system is not currently used).

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	25	JAN-08

Event: Replace the humidification systems for air handling units AHU1 and AHU2 in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$5,500	Unassigned

Updated: JAN-08

D3050.05.01 Convectors** - 1971 Original

Hydronic terminal units in the 1971 original building include force cabinets or convectors, typically located at high heat load areas such as entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace the convectors in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$24,000	Unassigned

Updated: JAN-08

D3050.05.01 Convectors** - 1990 Addition

Hydronic terminal units in the 1990 building addition include force cabinets or convectors, typically located at high heat load areas such as entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	JAN-08

Event: Replace the convectors in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$9,000	Unassigned

Updated: JAN-08

D3050.05.02 Fan Coil Units** - 1971 Original

Hydronic terminal units in the 1971 original building include fan coil units mounted in the ceiling space.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the ceiling fan coil units in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$60,000	Unassigned

Updated: JAN-08

D3050.05.03 Finned Tube Radiation** - 1971 Original

Hydronic terminal units in the 1971 original building include finned tube radiation cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace the finned tube radiation cabinets in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$50,000	Unassigned

Updated: JAN-08

D3050.05.03 Finned Tube Radiation** - 1990 Addition

Hydronic terminal units in the 1990 building addition include finned tube radiation cabinets.

Rating	Installed	Design Life	Updated
5 - Good	1990	40	JAN-08

Event: Replace the finned tube radiation cabinets in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$90,000	Unassigned

Updated: JAN-08

D3050.05.04 Induction Units** - 1971 Original

Hydronic terminal units in the 1971 original building include induction units. The induction units are supplied with air from the main air handling unit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the induction units in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$180,000	Unassigned

Updated: JAN-08

D3050.05.06 Unit Heaters** - 1971 Original

Hydronic terminal units in the 1971 original building include unit heaters which are used for heating in some areas including mechanical rooms and utility rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace the unit heaters in the 1971 original building

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$20,000	Unassigned

Updated: JAN-08

D3050.05.06 Unit Heaters** - 1990 Addition

Hydronic terminal units in the 1990 building addition include unit heaters which are used for heating in some areas including mechanical rooms and utility rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace the unit heaters in the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$6,000	Unassigned

Updated: JAN-08

D3060.02.02 Pneumatic Controls** - 1971 Original

The 1971 original building HVAC equipment controls are pneumatic, including pneumatic thermostats for space temperature control and pneumatic actuation for control valve and damper operation. There is a control air compressor and air dryer located in the mechanical penthouse (fan room). The control air compressor and dryer are relatively new (c.2004). This element includes the pneumatic distribution lines and related components.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	40	JAN-08

Event: Correct the space temperature control problem in the drama room (1971 original building)

Concern:
Problems with space temperature control in the drama room have been reported, due to poor positioning of the room thermostat.

Recommendation:
Investigate the temperature control problem and relocate the room thermostat to provide better temperature control.

Consequences of Deferral:
Poor room space temperature control.

Type	Year	Cost	Priority
Repair	2008	$2,500	Low

Updated: JAN-08

Event: Provide independent temperature control for all second floor classrooms

Concern:
Space temperature control in the second floor classrooms is poor, since the second floor was originally an open concept area which was subsequently subdivided without the provision for an adequate number of temperature control zones.

Recommendation:
Install additional reheat coils and/or induction units to provide independent temperature control for each second floor classroom.

Consequences of Deferral:
Poor second floor classroom temperature control.

Type	Year	Cost	Priority
Repair	2008	$75,000	Medium

Updated: JAN-08

Event: Replace the 1971 original building pneumatic control valves

Concern:
The 1971 original building pneumatic control valves are not reliable and require excessive maintenance.

Recommendation:
Replace the pneumatic control valves.

Consequences of Deferral:
Increased maintenance and repair requirements and

deteriorating control of HVAC equipment.

Type	Year	Cost	Priority
Failure Replacement	2008	$80,000	Medium

Updated: JAN-08

Event: Replace the 1971 original building pneumatic controls (excluding control valves)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$140,000	Unassigned

Updated: JAN-08

D3060.02.02 Pneumatic Controls** - 1990 Addition

The 1990 building addition HVAC equipment controls are pneumatic, including pneumatic thermostats for space temperature control and pneumatic actuation for control valve and damper operation. There is a control air compressor and air dryer located on the mechanical mezzanine. This element includes the pneumatic distribution lines and related components.

Rating	Installed	Design Life	Updated
5 - Good	1990	40	JAN-08

Event: Replace the 1990 building addition pneumatic controls

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$60,000	Unassigned

Updated: JAN-08

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

A Honeywell digital control system provides rudimentary control and monitoring of the HVAC equipment in the basement of the 1990 building addition (AHU3 and related equipment).

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	20	JAN-08

Event: Install a BMCS to provide monitoring and control of all building HVAC equipment

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2009	$190,000	Unassigned

Updated: JAN-08

Event: Replace the digital control system for the HVAC equipment in the basement of the 1990 building addition

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: JAN-08

D4020 Standpipes* -

The 1971 original building is served by a standpipe system feeding fire hose cabinets. There are no fire hose cabinets located in the 1990 building addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	60	JAN-08

D4030.01 Fire Extinguisher, Cabinets and Accessories* -

Fire extinguishers are located in the fire hose cabinets and at other locations throughout the 1971 original building. In the 1990 building addition, fire extinguishers are typically located in wall mounted cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

D4090.04 Dry Chemical Fire Extinguishing Systems (Kitchen Hood)**

There is an automatic fire extinguishing system for the servery cooking hood. The system uses a wet chemical extinguishing agent.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace the servery cooking hood automatic fire extinguishing system

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$18,000	Unassigned

Updated: JAN-08

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior)** - 1990

A 75kVA, 480-120/208V Hammond transformer is located in the mechanical mezzanine of the 1990 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	JAN-08

Event: Replace 75kVA Transformer

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$8,000	Unassigned

Updated: JAN-08

D5010.02 Secondary Electrical Transformers (Interior)** - 2007

The existing ENMAX padmounted transformer with a 277/480V secondary is being replaced with a new transformer with a 347/600V secondary. The electrical distribution changes are being made to accommodate the new chiller for the school. A new 300kVA, 600V-277/480V transformer is being provided to refeed the existing main switchboard and a 300kVA, 600V-120/208V transformer is being provided to replace the existing 300kVA, 480V-120/208V transformer feeding the main 120/208V distribution panel. The new 300kVA transformers are to be located in the main electrical room (Lower Level). A 75kVA, 480-120/208V Hammond transformer (2001) is located in the main electrical room to feed a new Cutler Hammer distribution panel.

Rating	Installed	Design Life	Updated
5 - Good	2007	40	JAN-08

Event: Replace Secondary Transformers

Type	Year	Cost	Priority
Lifecycle Replacement	2047	$52,000	Unassigned

Updated: JAN-08

D5010.03 Main Electrical Switchboards (Main Distribution)** - 277/480V

The main distribution switchboard is a 1200A, 277/480V, FPE switchboard that feeds seven panels, the elevator, supply fan and the sub-distribution in the 1990 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	40	JAN-08

Event: Replace 277/480V Switchboard

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$15,000	Unassigned

Updated: JAN-08

D5010.03 Main Electrical Switchboards (Main Distribution)** - 347/600V

The incoming hydro service to John G. Diefenbaker School is being converted to a 347/600V, 3-phase, 4-wire service from an ENMAX padmounted transformer, located on the school grounds. The ENMAX meter is located in the main electrical room (Lower Level). A new 1600A, 347/600V main switch is to replace the existing 1000A, 277/480V switch. The new 347/600V main electrical switchboard is to be a 1600A, 3-phase, 4-wire switchboard that will feed two new 300kVA transformers, the new chiller and a new panel for chiller system pumps.

Rating	Installed	Design Life	Updated
5 - Good	2007	40	JAN-08

Event: Replace 347/600V Main Switchboard

Type	Year	Cost	Priority
Lifecycle Replacement	2047	$40,000	Unassigned

Updated: JAN-08

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1971

The majority of the electrical branch circuit panelboards are FPE panels that appear to have been installed when the building was originally constructed. There are six 277/480V panels that are fed from the main distribution switchboard. Eighteen 120/208V panelboards are fed from the 120/208V distribution panelboard in the main electrical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace 1971 Branch Circuit Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$90,000	Unassigned

Updated: JAN-08

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1990

There are three 120/208V panels and one 277/480V panel in the 1990 addition. The panels are FPE panels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace 1990 Branch Circuit Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$15,000	Unassigned

Updated: JAN-08

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 2001

There are four newer Cutler Hammer panels that were added in 2001 for computer loads.

Rating	Installed	Design Life	Updated
5 - Good	2001	30	JAN-08

Event: Replace 2001 Branch Circuit Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$14,000	Unassigned

Updated: JAN-08

D5010.07 Motor Control Centers (Motor Control)**

A Westinghouse MCC with seven starter units is located in the mechanical mezzanine of the 1990 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace MCC

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$7,500	Unassigned

Updated: JAN-08

D5010.07.02 Motor Starters and Accessories**

There are individual motor starters (Allen Bradley and Square D) and motor rated starter switches within the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace Motor Starters and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$18,000	Unassigned

Updated: JAN-08

D5020.01 Electrical Branch Wiring*

The majority of the cabling is standard building wire in EMT conduit. Armoured cable has been provided, in selected locations, for final connections to mechanical and miscellaneous equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	50	JAN-08

D5020.02.01 Lighting Accessories (Lighting Controls)*

The lighting controls within the building are typically line voltage switches.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace Interior Lighting Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$20,000	Unassigned

Updated: JAN-08

D5020.02.02.02 Interior Florescent Fixtures**

The typical lighting within the school consists of wrap-around, single lamp fluorescent fixtures, surface mounted on the ceiling or recessed 2 ft. x 4 ft. fluorescent fixtures. The majority of the fluorescent lighting fixtures throughout the school have T8 lamps and electronic ballasts. Some areas such as storage rooms and mechanical and electrical rooms have fluorescent fixtures with T12 lamps.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	JAN-08

Event: Replace Interior Florescent Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$700,000	Unassigned

Updated: JAN-08

D5020.02.02.03 Interior Metal Halide Fixture*

Suspended Metal Halide fixtures have been provided in the 1990 gymnasium and recessed MH downlights were recently upgraded in both the main and auxiliary gymnasiums. The are custom metal halide fixtures in the entrance corridor. The metal halide fixtures have remote ballasts that are located in a room adjacent to the main gym.

Rating	Installed	Design Life	Updated
5 - Good	2007	30	JAN-08

D5020.02.03.02 Emergency Lighting Battery Packs** - 1971 School

There are newer 6V emergency lighting battery units and remote lighting heads in the original 1971 school.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	20	JAN-08

Event: Replace 1971 School Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$40,000	Unassigned

Updated: JAN-08

D5020.02.03.02 Emergency Lighting Battery Packs** - 1990 Addition

The emergency lighting battery units in the 1990 addition are older units with wet cell batteries.

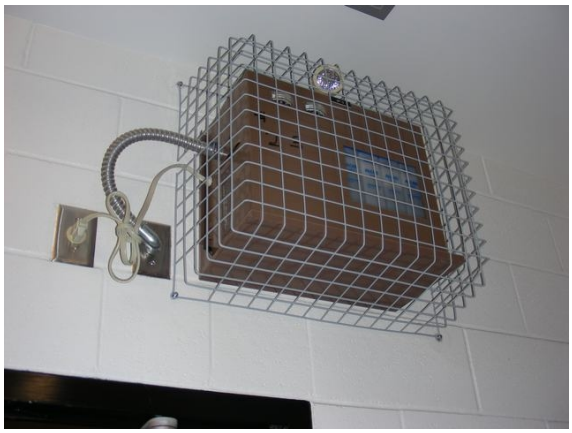
Rating	Installed	Design Life	Updated
3 - Marginal	1990	20	JAN-08

Event: Replace 1990 Addition Emergency Lighting Battery Packs

Concern:
The battery packs in the 1990 are aged wet cell type units.

Recommendation:
Replace the emergency lighting battery units with new units (dry cell type).

Consequences of Deferral:
Life safety concern.



Type	Year	Cost	Priority
Failure Replacement	2007	$10,000	High

Updated: JAN-08

D5020.02.03.03 Exit Signs*

Exit signs are generally located to indicate building exits and egress routes to exits. The majority of the exit signs have been retrofitted with LED lamps.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	JAN-08

D5020.02.05 Special Purpose Lighting*

New theatrical fixtures have been provided in the auditorium and stage areas. There is a new Stand dimmer panel located in the stage area for control of the theatrical lighting.

Rating	Installed	Design Life	Updated
5 - Good	2006	30	JAN-08

D5020.03.01.01 Exterior Incandescent Fixtures*

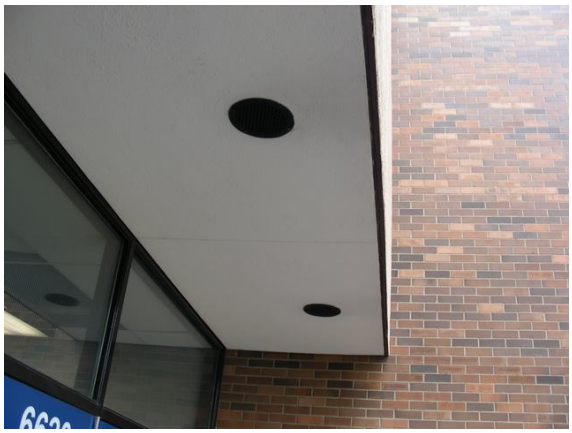
Recessed incandescent fixtures have been provided in the canopies at the building entrances.

Rating	Installed	Design Life	Updated
2 - Poor	1971	30	JAN-08

Event: Replace Incandescent Exterior Lighting

Concern:
The incandescent exterior lighting is not energy efficient and requires additional maintenance due to the short lamp life.

Recommendation:
Replace the existing recessed incandescent fixtures with new H.I.D. lighting fixtures.



Type	Year	Cost	Priority
Failure Replacement	2008	$3,000	Low

Updated: JAN-08

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

H.P.S. wallpack and floodlighting fixtures have been provided on the exterior walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	30	JAN-08

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

The exterior lighting is timer controlled through a contactor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	30	JAN-08

Event: Replace Exterior Lighting Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$5,000	Unassigned

Updated: JAN-08

D5030.01 Detection and Fire Alarm**

The fire alarm system control panel is a Simplex 4100 panel with 30 alarm zones and 4 supervisory zones. The control panel is located at the main entrance. The audible devices within the school are bells. Strobes have not been installed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	25	JAN-08

Event: Replace Fire Alarm System

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$225,000	Unassigned

Updated: JAN-08

D5030.02.02 Intrusion Detection**

The security system is a Silent Knight Regency system. A security system keypad has been provided at the main entrance. PIR motion detectors have been provided throughout the school. The security system panels are located in the student services room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	25	JAN-08

Event: Replace Intrusion Detection System

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$60,000	Unassigned

Updated: JAN-08

D5030.02.04 Video Surveillance**

Surveillance cameras have been provided within the school and on the building exterior. The surveillance camera monitor and Pelco controller are located in the staff room. There are twelve cameras - eight interior cameras and four exterior cameras. There are surveillance system monitors (2) in the main corridor of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	25	JAN-08

Event: Replace Video Surveillance System

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$25,000	Unassigned

Updated: JAN-08

Event: Upgrade Video Surveillance System

Concern:
The Video Surveillance System requires upgrading for additional coverage and system functionality.
Recommendation:
Provide software upgrade and one additional camera. Upgrade two existing camera units.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2008	$15,000	Unassigned

Updated: JAN-08

D5030.03 Clock and Program Systems*

There are system clocks as well as plug-in and battery operated clocks within the school. A Simplex 6400 Time Control Center was installed in 2006.

Rating	Installed	Design Life	Updated
5 - Good	2006	25	JAN-08

D5030.04.01 Telephone Systems*

The telephone system is a Nortel Norstar Meridian system that ties into the P.A. system for zone paging. The telephone equipment is located in the telephone/communications room (lower level). There is an incoming fibre line from Telus.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	25	JAN-08

D5030.04.04 Data Systems*

Data system servers are located in the telephone/communications room (Lower Level). The school has wireless network coverage throughout the school.

Rating	Installed	Design Life	Updated
5 - Good	2005	25	JAN-08

D5030.05 Public Address and Music Systems**

The public address system is a custom CBE system consisting of zone switches and Altec amplifiers. Speakers are typically square, recessed or surface wall mounted units. The console unit is located in the General Office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	JAN-08

Event: Replace Public AddressSystem

Type	Year	Cost	Priority
Lifecycle Replacement	2010	$55,000	Unassigned

Updated: JAN-08

D5030.06 Television Systems*

There are cable TV outlets in the library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	20	JAN-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

The library has entrance and exit bars for security.

Rating	Installed	Design Life	Updated
5 - Good	2007	25	JAN-08

E1020.03 Theater and Stage Equipment* -

Curtains & lighting equipment are located in the ancillary drama stage area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

E1090.03 Food Service Equipment* -

The cafeteria has a complete kitchen facility with a servery area, wood & stainless steel tables, built in ovens, refrigerators, deep fryers, fume-hoods and several smaller appliances. The kitchen facility is leased and maintained by an independent caterer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

E1090.04 Residential Equipment* -

The home economics lab is equipped with refrigerator, stoves, microwaves and several small kitchen appliances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

E1090.07 Athletic, Recreational, and Therapeutic Equipment* -

Electronic scoreboard, movable basketball hoops are located in the gymnasiums. Exercise equipment is located in the ancillary gymnasium. A folding curtain is located in the main gym.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	JAN-08

E2010.02 Fixed Casework** -

Most classrooms are equipped with custom wood open faced and/or painted cabinet units. Each science laboratory is equipped with upper wood cabinets, lower cupboards c/w counter-top, open fixed shelving. Most of the other labs, such as; food and music all have fixed storage wood cabinets throughout the room. The library has fixed and moveable wood shelving casework. Glass display cabinets are located in the corridors & entrance area. The change rooms & washrooms have fixed vanities.

Rating	Installed	Design Life	Updated
5 - Good	2006	35	JAN-08

Event: Replace Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2041	$1,100,000	Unassigned

Updated: JAN-08

E2010.03.01 Blinds** -

Horizontal & vertical blinds are located on most windows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	JAN-08

Event: Replace all window coverings

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$100,000	Unassigned

Updated: JAN-08

E2010.05 Fixed Multiple Seating** -

Fixed seating in located in the 1990 entrance addition

Rating	Installed	Design Life	Updated
5 - Good	1990	35	JAN-08

Event: Replace Fixed Seating -1990 Addition

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$75,000	Unassigned

Updated: JAN-08

F1010.02.04 Portable and Mobile Buildings* - Unit 36 and 85

Portables (located on site in 1999 and renovated)
-Unit 36 - Built in 1966
-Unit 85 - Built in 1970

Structure:
- Wood frame construction with concrete piles bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior skin has a painted metal and wood siding finish with wood framing construction.
- Windows - The exterior windows are aluminum frame single hung type windows with exterior metal security screens
- Roof Covering - The roof has a SBS roof assembly.
- Exterior Stairs - Wood frame with metal grate.

Interior:
- Flooring - Sheet Vinyl flooring
- Ceiling - 12"x12" Acoustical ceiling tiles with the exposed wood structure.
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - Fire-rated steel door & frame assembly
- Equipment - Blackboards, tackboards, open wood shelving, wall mounted coat hooks & curtains.
- Blinds - Horizontal metal blinds

Architectural elements within the portables were found to be in acceptable condition.

Mechanical:

Portable heating is provided by natural gas fired forced air furnaces which provide a mixture of fresh air and return air to the conditioned spaces via supply air duct systems which typically run down one side of each classroom. Temperature control is independent and is provided by digital electric thermostats. The classroom portables do not have any plumbing. The portables are equipped with fire extinguishers for fire protection. Exterior storm drainage for the portables consists of gutters and downspouts which discharge to grade.

Mechanical elements within the portables were found to be in acceptable condition.

Electrical:

The interior lighting consists of suspended, louvered T12 fluorescent fixtures. The interior fixtures are in marginal condition and should be replaced with new T8 fluorescent fixtures.
Each portable is connected into the building fire alarm system and is equipped with a fire alarm bell/stobe unit and a heat detector.
The portables have a telephone and P.A. speaker connected into the school system for paging.
Each portable has a Westinghouse branch circuit panelboard. The panelboards are aged and have exceeded their theoretical life expectancy.
Battery clocks are provided in each of the portables.
Newer H.I.D. wallpack units have been provided on the exterior of the portables.

The electrical elements within the portables were found to be in acceptable condition.

Rating	Installed	Design Life	Updated
3 - Marginal	1999	30	JAN-08

Event: Replace the lighting, panelboard and P.A. speaker - Unit 36 and 85

Concern:
The lighting, panelboard and P.A. speaker have exceeded their

useful life
Recommendation:
Replace the lighting, panelboard and P.A. speaker

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$16,000	Unassigned

Updated: JAN-08

Event: Replace the portable natural gas fired furnaces - 2units

Concern:
Deteriorating components including heat exchangers
Recommendation:
Replace the portable natural gas fired furnaces

Type	Year	Cost	Priority
Failure Replacement	2009	$5,000	Low

Updated: JAN-08

F1010.02.04 Portable and Mobile Buildings* - Unit 5 and 49

Portables (located on site in 1999 and renovated)
-Unit 5 - Built in 1962
-Unit 49 - Built in 1966

Structure:
- Wood frame construction with concrete piles bearing on undisturbed soil.

Envelope:
- Cladding - A painted plywood sheathing skirt with vents is located at the base of the elevation. The exterior skin has a painted metal and wood siding finish with wood framing construction.
- Windows - The exterior windows are aluminum frame slider type windows with exterior metal security screens
- Roof Covering - The roof has a BUR roof assembly.
- Exterior Stairs - Wood frame with metal grate.

Interior:
- Flooring - Sheet Vinyl flooring
- Ceiling - 12"x12" Acoustical ceiling tiles with the exposed wood structure.
- Walls - Painted and /or vinyl covered gypsum board walls with either metal or wood wall construction.
- Doors - Fire-rated steel door & frame assembly
- Equipment - Blackboards, tackboards, open wood shelving, wall mounted coat hooks & curtains.
- Blinds - Horizontal metal blinds

Architectural elements within the portables were found to be in acceptable condition.

Mechanical:

Portable heating is provided by natural gas fired forced air furnaces which provide a mixture of fresh air and return air to the conditioned spaces via supply air duct systems which typically run down one side of each classroom. Temperature control is independent and is provided by digital electric thermostats. The classroom portables do not have any plumbing. The portables are equipped with fire extinguishers for fire protection. Exterior storm drainage for the portables consists of gutters and downspouts which discharge to grade.

Mechanical elements within the portables were found to be in acceptable condition.

Electrical:

The interior lighting consists of suspended, louvered T12 fluorescent fixtures. The interior fixtures are in marginal condition and should be replaced with new T8 fluorescent fixtures.
Each portable is connected into the building fire alarm system and is equipped with a fire alarm bell/stobe unit and a heat detector.
The portables have a telephone and P.A. speaker connected into the school system for paging.
Each portable has a Westinghouse branch circuit panelboard. The panelboards are aged and have exceeded their theoretical life expectancy.
Battery clocks are provided in each of the portables.
Newer H.I.D. wallpack units have been provided on the exterior of the portables.

The electrical elements within the portables were found to be in acceptable condition.

Rating	Installed	Design Life	Updated
3 - Marginal	1999	30	JAN-08

Event: Replace the lighting, panelboard and P.A. speaker - Unit 5 and 49]

Concern:
The lighting, panelboard and P.A. speaker have exceeded their

useful life
Recommendation:
Replace the lighting, panelboard and P.A. speaker

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$16,000	Unassigned

Updated: JAN-08

Event: Replace the portable natural gas fired furnaces - 2units

Concern:
Deteriorating components including heat exchangers
Recommendation:
Replace the portable natural gas fired furnaces

Type	Year	Cost	Priority
Failure Replacement	2009	$5,000	Low

Updated: JAN-08

F1010.02.05 Grandstands and Bleachers** -

Bleachers on re-tractable metal frames are located in the gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	2006	40	JAN-08

Event: Replace Grandstands and Bleachers - Main Gym

Type	Year	Cost	Priority
Lifecycle Replacement	2046	$200,000	Unassigned

Updated: JAN-08

F2020.01 Asbestos* -

Suspected asbestos-containing materials observed in the original building include vinyl tile flooring in the some of the classrooms, gymnasium wallboard and piping insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

F2020.04 Mould* -

No mould known or reported

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

F2020.09 Other Hazardous Materials* -

No hazardous material known or reported

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

S8 FUNCTIONAL ASSESSMENT

K3020 Indoor Environment

Install air conditioning in the three basement computer rooms, split direct expansion type systems

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	JAN-08

Event: Install air conditioning in the three basement computer rooms - 3 units

Concern:
There is currently no air conditioning in the three basement computer rooms

Recommendation:
Install air conditioning in the three basement computer rooms, split direct expansion type systems

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2008	$18,000	Low

Updated: JAN-08

K4010.01 Barrier Free Route: Parking to Entrance* -

A barrier free drop off area is located at the main building entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

K4010.02 Barrier Free Entrances* -

No automatic door entrances are provided. A exterior concrete ramp is provided at the north-west entrance.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	0	JAN-08

Event: Provided power operators for barrier free access at the north-east entrance of the building.

Concern:
The north-west entrance of the building do not have power assist.

Recommendation:
Provided power operators for barrier free access at the main entrance of the building.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2007	$4,000	Low

Updated: JAN-08

K4010.03 Barrier Free Interior Circulation* -

Barrier free access is provided to most areas, excluding the auditorium stage area and several ancillary areas

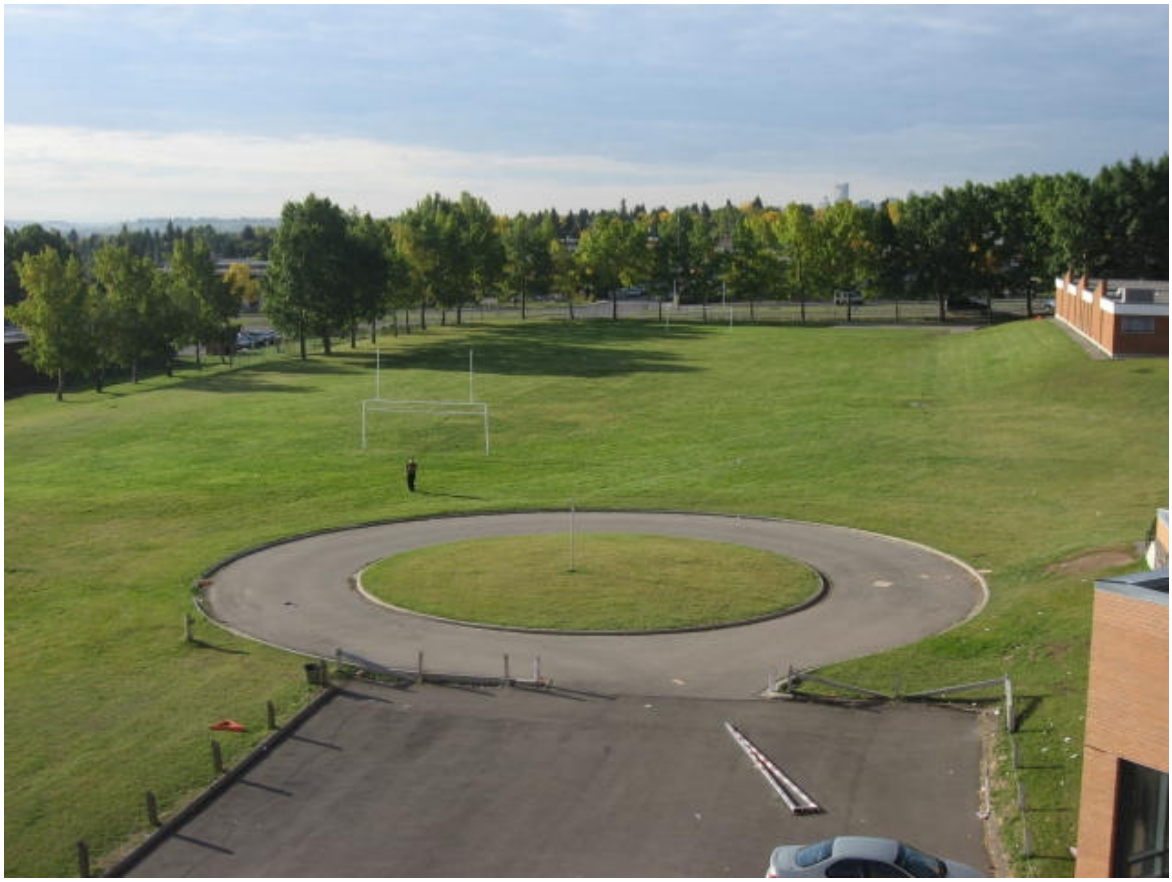
Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

K4010.04 Barrier Free Washrooms* -

A designated barrier free washroom is provided adjacent to the north entrance.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	JAN-08

RECAPP Facility Evaluation Report



John G Diefenbaker High School

S2686

Calgary

Report run on: January 10, 2008 9:51 AM

Facility Details

Building Name: John G Diefenbaker High Sc
Address:
Location: Calgary

Building Id: S2686
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Asset Evolution Inc.
Evaluation Date: September 18 2007
Evaluator Name: Mario Plastina

Total Maintenance Events Next 5 years: **$162,000**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The site of John G. Diefenbaker High School includes asphalt paved roadways & parking areas accessible from the west at two locations off 4th Street. An entrance from the north end of the site has a barrier which controls access. Grass, shrubs and trees are located primarily at the north-west property. A free standing school signage is located along the west end of the site. Pedestrian concrete walkways are located at the main entrances and extend along the perimeter of the school.

Overall the site is in acceptable condition

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

Rating Guide

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

S7 SITE

G2010.02.02 Flexible Pavement Roadway (Asphalt)** -

Rating	Installed	Design Life	Updated
5 - Good	2006	25	JAN-08

Event: Replace asphalt paved roadway

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$100,000	Unassigned

Updated: JAN-08

G2010.05 Roadway Curbs and Gutters* -

Poured in place concrete curbs are located along the roadway areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G2020.02.02 Flexible Paving Parking Lots(Asphalt)** -

A large asphalt paved parking area is located at the north end of the property.

Rating	Installed	Design Life	Updated
5 - Good	2006	25	JAN-08

Event: Replace asphalt paved parking area

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$260,000	Unassigned

Updated: JAN-08

G2020.05 Parking Lot Curbs and Gutters* -

Poured in place concrete curbs & precast curbs are located along the asphalt paved parking areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G2020.06.01 Traffic Barriers* -

A control barrier is located at the north parking entrance.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

G2020.06.02 Parking Bumpers* -

Painted wood parking bumpers are located at most parking stall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G2030.04 Rigid Pedestrian Pavement (Concrete)** -

The majority of the walkways are poured in place concrete and lead to the main school entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	25	JAN-08

Event: Replace poured concrete walkways

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$150,000	Unassigned

Updated: JAN-08

G2040.02.01 Chain Link Fences and Gates*

A chain-link fence is located at the exterior storage area for the shop areas and the parking area for the school bus.

Rating	Installed	Design Life	Updated
5 - Good	2006	30	JAN-08

G2040.03 Athletic and Recreational Surfaces** -

A sodded football / soccer field with goal posts is located at the south-east end of the property.

Rating	Installed	Design Life	Updated
5 - Good	2005	25	JAN-08

Event: Replace sodded playing field

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$120,000	Unassigned

Updated: JAN-08

G2040.05 Site and Street Furnishings* -

Bicycle racks are located in several locations along the school. Outdoor tables & park benches are located at the main entrance.

Rating	Installed	Design Life	Updated
5 - Good	2006	0	JAN-08

G2040.06 Exterior Signs* -

Exterior wall-mounted signage is provided on several locations throughout the elevations of the buildings. A free-standing signage display panels are located at the west end of the site.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G2040.08 Flagpoles* -

A flagpole is located on the west elevation of the property adjacent to the main entrance.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

G2050.01 Irrigation Systems* -

The building has a lawn irrigation system for the grassed areas around the building. The water supply to the lawn irrigation system includes a booster pump and a backflow protection device located in the meter room at the northwest corner of the basement.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	0	JAN-08

G2050.04 Lawns and Grasses* -

Grassed areas are located in along the north-west end of the site.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

G2050.05 Trees, Plants and Ground Covers* -

Mature trees, plants and shrubs are located along the west end of the site.

Rating	Installed	Design Life	Updated
5 - Good	1971	0	JAN-08

G3010.02 Site Domestic Water Distribution* -

There is one domestic water supply to the building. The domestic water supply line enters the building on the north side. The building water meter and backflow prevention devices are located in the basement meter room at the northwest corner of the building. The water supply feeds the fire protection equipment (standpipe system) through a backflow prevention device, feeds the lawn irrigation system pump through a water meter and a backflow prevention device, and feeds the building domestic water system through a water meter and duplex backflow prevention devices. Water for fire protection uses in the building is supplied from the domestic water supply and there is no separate fire protection water supply.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G3010.03 Site Fire Protection Water Distribution*

There are two fire hydrants located on the site, including one near the southeast corner of the building and one near the northeast corner of the building near the portables.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	50	JAN-08

G3020.01 Sanitary Sewage Collection* -

There is one sanitary sewer discharge line serving the building. The sanitary sewer line exits the building on the north side and runs east to exit the site on the east side.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G3030.01 Storm Water Collection* -

There is a storm sewer line which originates at a catch basin on the south side of the building and runs west, then runs north on the west side of the building, and then runs east on the north side of the building. On the north side of the building, the storm sewer discharge from the building ties into the storm sewer line which then continues east and turns north to exit the site on the north side. The storm sewer discharges to the municipal storm sewer on Huntsville Crescent NW. There are ten catch basins on the site.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G3060.01 Gas Distribution* -

Natural gas is supplied to the site from a gas line which enters the site on the east side at the north end, and travels west along the north side of the building to the meter room at the northwest corner of the basement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	0	JAN-08

G4010.03 Electrical Power Distribution Equipment* -

A new padmounted transformer is to be installed in 2007 as part of the chiller project. The new transformer will have a 347/600V secondary voltage .

Rating	Installed	Design Life	Updated
5 - Good	2007	0	JAN-08

G4010.04 Car Plugs-ins* -

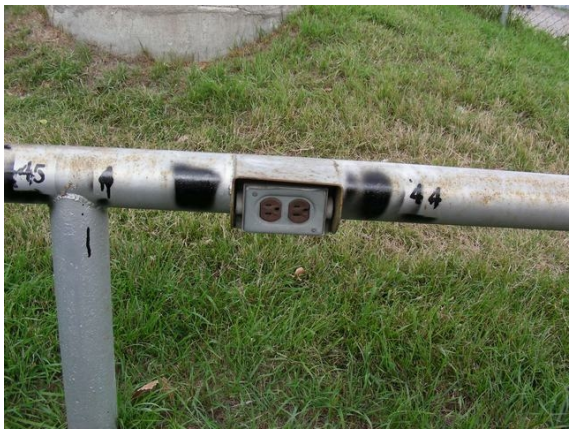
There are 28 car plug-ins that are mounted on wooden railings and 9 car plug-ins mounted on steel railings.

Rating	Installed	Design Life	Updated
3 - Marginal	1971	0	JAN-08

Event: Replace car plug-ins

Concern:
Many of the car plug-ins have aged devices that are beginning to deteriorate. Several of the covers for the car plug-ins are damaged or missing.

Recommendation:
Replace car plug-ins.



Type	Year	Cost	Priority
Failure Replacement	2009	$12,000	Low

Updated: JAN-08

G4020.01 Area Lighting*

There are three pole mounted H.I.D. Fixtures illuminating the parking areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1971	25	JAN-08