RECAPP Facility Evaluation Report

Edmonton School District No. 7

J. Percy Page Composite High School

B3167A
Edmonton

Report run on: October 16, 2007 10:07 AM

Facility Details

Building Name: J. Percy Page Composite H
Address: 2707 Millwoods Road N. W.
Location: Edmonton

Building Id: B3167A
Gross Area (sq. m): 14,277.83
Replacement Cost: $32,607,045
Construction Year: 0

Evaluation Details

Evaluation Company: Asset Evolution Incorporated (AEI)
Evaluation Date: November 1 2006
Evaluator Name: Mario Plastina

Total Maintenance Events Next 5 years: **$3,568,600**
5 year Facility Condition Index (FCI): **10.94%**

General Summary:

J. Percy Page Composite High School is 14,227.14 m2 in size. The original school is a two storey structure constructed in 1983 with an approximate area of 12921.7 SM. In 2003 a two-storey addition with an approximate area of 1305.44 SM was added at the south end of the school. The school has several classrooms, science labs, a library, computer rooms, music room, drama rooms, industrial shops, two gymnasium, a cafeteria and several administrative areas.

The current student enrollment is approximately 1000.

A permanent storage building is located at the west end of the site.

Structural Summary:

The foundations consist of cast-in-place concrete grade beams and spread footings. The lower level has a cast-in-place concrete slab-on-grade with conventional steel reinforcement. The main floor has a steel floor deck with reinforced concrete flat slab supported by steel joists spanning between steel beams, column and masonry walls. The roof has a steel joist assembly with metal deck and steel framing.

Overall the structural elements appeared to be in good condition.

Envelope Summary:

The exterior cladding consists of prefinished metal panels and stucco assembly. Several portions of the exterior walls have a curtain glazed wall assembly.

The windows have fixed panels in aluminum frame double glazed units.

The original 1983 building has an EPDM roof assembly and the 2003 addition has a modified bituminous membrane roof assembly (SBS). A large glazed atrium is located through the central spine of the school.

The entrances have painted steel doors & frames with glazed transoms and sidelights. The majority of the exit doors have a painted steel door & frame assembly. The stairwell exit doors are prefinished steel doors & frame. Painted wood overhead doors are located in the shop areas and receiving area.

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

Interior Summary:

Ceramic tile flooring is located throughout the corridors, cafeteria, kitchen, change rooms & washrooms. Quarry tile is located in the central gathering student area. Vinyl tiles & Rubber tiles are located in science rooms, in the cooking lab & graphics room and ancillary area. Carpet flooring is found throughout most of the classrooms, computer rooms, staff room, administration offices, library and music room. The gymnasiums have a hardwood floor finish. The majority of the utility areas, shops drama and mechanical rooms have a sealed and/or paint finish on the concrete slab.

The majority of the interior walls are gypsum board or masonry block walls.

A 2'x4' suspended ceiling tile assembly is located throughout the administration area, science rooms, in the cooking lab & graphics room and ancillary area.
Gypsum board ceiling are located throughout portions of the corridors, music room, library, washrooms and change rooms.
The painted structure is exposed and located throughout most of the classrooms and portions of the corridors, staff

room, cafeteria, gymnasiums and shop areas.

The interior swing doors generally consist of painted metal doors with an interior glazed assembly. The hardware typically is single cylinder with a stainless steel finish.

Overall, the interior finishes are in good condition.

Mechanical Summary:

Mechanical Summary (November 2006)

Building heating is provided by a hot water heating system utilizing two gas fired boilers. The hot water heating loop supplies air handling unit heating coils as well as various hydronic heating terminal units including fin tube radiation cabinets, unit heaters, fan coil units, and radiant panels. A chilled water system is used to provide cooling for most of the original c.1982 building via air handling unit cooling coils. The chilled water system includes a single centrifugal type chiller and a roof mounted cooling tower. In the c.2003 building addition, a rooftop compressor/condenser unit provides direct expansion type cooling via an evaporator coil in the addition air handling unit (AHU-1). Additional cooling for some areas is provided by fan coil cooling units and a split direct expansion type cooling system. Ventilation in the c.1982 original building is provided by a total of seven air handling units (AS1 through AS7) and one make-up air unit for the kitchen. Ventilation for the c.2003 addition is provided by gas fired air handling unit AHU-1. A steam boiler provides humidification for the c.1982 original building air handling units and AHU-1 for the c.2003 addition has an independent steam type humidifier. Numerous local and general exhaust systems provide exhaust to balance the fresh air supply provided by the air handling units. Building HVAC controls and actuators are pneumatic.

The building municipal 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 lab and shop areas. Domestic hot water is provided by two gas fired domestic water heaters and a DHW storage tank. Fire protection consists of automatic sprinklers in all building areas. Fire extinguishers are located in wall cabinets and in other areas throughout the building, and automatic fire suppression systems protect the kitchen cooking hoods.

The building mechanical equipment is generally in acceptable to good condition, and most of the work currently required is relatively minor. The building would benefit from having a central building automation system.

Electrical Summary:

J. Percy Page Secondary School is fed from an EPCOR padmounted transformer located on the school grounds. The main switchboard is rated at 1600A, 347/600V. Two MCC's and individual motor starters provide power for the major mechanical equipment. A 200kW diesel emergency generator is located in generator room 80.

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

The interior fluorescent lighting fixtures typically have T-12 lamps and magnetic ballasts. The exit lighting in the building consists of metal units with LED lamps. The emergency lighting is fed from standard fluorescent fixtures fed from 347V emergency panels. The exterior lighting consists of wall mounted H.I.D wallpack fixtures and pole mounted fixtures.

The building is equipped with a Simplex 4100U 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 DSC Maxsys PC4020 security system that monitors motion detectors, a TOA P.A. system and a Norstar/Meridian 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 P.A. System, noisy lighting ballasts (Metal Halide fixtures) and the fire alarm remote annuciator (temporarily disconnected). Consideration should be given to upgrading the T12 fluorescent lamps and ballasts to energy efficient T8 lamps and electronic ballasts.

Overall the electrical components for J. Percy Page Secondary 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*

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

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-07

A1030 Slab on Grade*

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

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-07

B1010.01 Floor Structural Frame (Building Frame)*

Lower floor - cast-in-place concrete slabs-on-grade with conventional steel reinforcement.
Main floor - Steel floor deck with reinforced concrete flat slab supported by steel joists spanning between steel beams, column and masonry walls.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-07

B1010.02 Structural Interior Walls Supporting Floors*

Structural reinforced concrete block walls and columns.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-07

B1010.06 Ramps: Exterior*

A pedestrian ramp is located at the south-west entrance. The handrails are constructed of steel with a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-07

B1010.07 Exterior Stairs*

Cast in place concrete stairs are located at most of the schools entrances. Secondary entrances have painted steel stairs. A pedestrian ramp is located at the south-west entrance. The handrails steel with a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-07

Event: Replace all deteriorated concrete stairs and curbs.

Concern:
Several of the cast-in-place concrete stairs are cracked and damaged.

Recommendation:
Replace all deteriorated concrete stairs and curbs.

Type	Year	Cost	Priority
Failure Replacement	2007	$184,500	High

Updated: OCT-07

B1010.09 Floor Construction Fireproofing*

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-07

B1010.10 Floor Construction Firestopping*

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-07

B1020.01 Roof Structural Frame*

Steel joist roof assembly with metal deck and steel framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	OCT-07

B1020.04 Canopies - 2003 Addition*

(2003 Addition) - Exterior wall hung steel canopies are located above the entrance areas.

Rating	Installed	Design Life	Updated
5 - Good	0	50	MAR-07

B1020.06 Roof Construction Fireproofing*

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-07

S2 ENVELOPE

B2010.01.06.03 Metal Siding**

(1983 Original Building) - Prefinished metal panel assembly.
(2003 Addition) - Prefinished horizontal metal panel assembly.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	OCT-07

Event: Replace damaged original metal panels

Concern:
Several of the panels show signs of surface corrosion.
Recommendation:
Replace all corroded metal panels and replace corroded fasteners behind panels if applicable.

Type	Year	Cost	Priority
Failure Replacement	2007	$36,900	Low

Updated: OCT-07

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

(2003 Addition) - The exterior cladding has a stucco wall assembly

Rating	Installed	Design Life	Updated
5 - Good	0	75	MAR-07

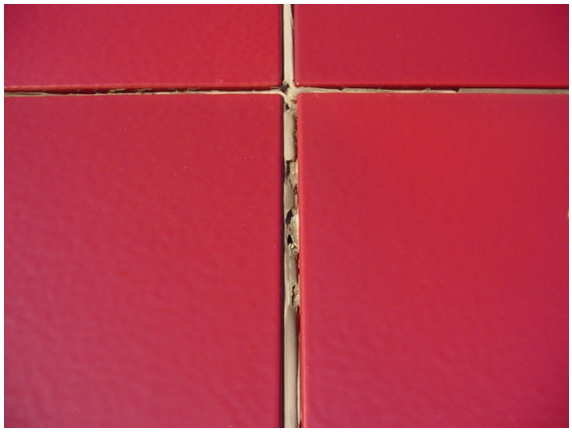
B2010.01.11 Joint Sealers (caulking): Ext. Wall**

Sealant is located around all window, doors, stucco and metal panel assemblies.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	20	MAR-07

Event: Replace sealant on exterior cladding

Concern:
The sealant between the panels is brittle and missing is several areas.
Recommendation:
Remove and replace building sealant between exterior panels.



Type	Year	Cost	Priority
Failure Replacement	2007	$92,250	Low

Updated: MAR-07

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

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

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-07

B2010.06 Exterior Louvers, Grilles, and Screens*

Exterior louvres are located on the roof level and on the upper portion of the exterior walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	OCT-07

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

(1983 Original Building & 2003 Addition) - The exterior window units are double glazed aluminum frame with fixed glazed panels. Sloped glazing is located throughout the original building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-07

B2020.03 Glazed Curtain Wall**

The gable ends of the atrium area have a curtain wall assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-07

B2030.01.02 Steel-Framed Storefronts**

(1983 Original Building & 2003 Addition) -The painted steel doors & frames have full glazed panels with glazed transoms and sidelights.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

B2030.03 Large Exterior Special Doors (Overhead)*

3 Sectional overhead doors are located primarily in the automotive, building construction shops & receiving area.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	OCT-07

Event: Repair & repaint overhead doors

Concern:
The paint finish on the overhead doors has faded and deteriorated.

Recommendation:
Repair and repaint 3 overhead doors.

Type	Year	Cost	Priority
Repair	2007	$3,690	Low

Updated: MAR-07

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

(2003 Addition) The roof has a modified bituminous membrane roof assembly (SBS)

Rating	Installed	Design Life	Updated
5 - Good	2003	25	MAR-07

B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)**

(1983 original building) The roof has a single ply membrane with a gravel-ballasted assembly (EPDM).

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-07

Event: Replace EPDM roof assembly.

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$738,000	Unassigned

Updated: MAR-07

B3020.01 Skylights**

A large open atrium is located through the centre of the school. The atrium has a combination of sloped glazed and metal panels.

Rating	Installed	Design Life	Updated
2 - Poor	1983	25	MAR-07

Event: Determine the extent of damage from the entrie atrium assembly.

Concern:

Water is entering the school is several location throughout the atrium, however more apparent at the east end of the atrium. Water appears to be entering where the glazed panels intersect the metal panel frame. The sealant appears deteriorated from the outside face of the glazed panels. The rubber joints between the sloped glazing is also deteriorated, this was observed from the roof level. Water is also behind the metal flashing at the intersection of the roof and parapet assembly.

Recommendation:

Conduct a study to determine the extent of the scope of work and cost of replacement.

Type	Year	Cost	Priority
Study	2007	$12,300	High

Updated: APR-07

Event: Replace sloped roof assembly

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$922,500	Unassigned

Updated: OCT-07

S3 INTERIOR

C1010.06 Interior Glazed Partitions and Storefronts*

Interior glazed partition windows are located throughout the atrium area.

Rating	Installed	Design Life	Updated
5 - Good	0	80	MAR-07

C1010.07 Interior Partition Firestopping*

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-07

C1020.01 Interior Swinging Doors*

The interior swing doors generally consist of solid core varnished wood doors in painted steel frames.

Rating	Installed	Design Life	Updated
5 - Good	1982	40	MAR-07

C1020.03 Interior Fire Doors*

Painted steel fire doors are located in the common area corridors between the original building, addition and in the stairwells. The majority of the doors are rated and labeled. Metal gates are located in the corridor to control access only to the gym area during off school hour.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-07

C1030.01 Visual Display Boards**

Tackboards, chalkboards and white boards are located in each teaching area.

Rating	Installed	Design Life	Updated
5 - Good	2003	20	MAR-07

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

Washroom Compartments - Individual painted metal doors partitions in all men's & women's washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

Event: Replace fabricated compartments.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$492,000	Unassigned

Updated: MAR-07

C1030.08 Interior Identifying Devices*

Signage panels are located above each house and the room number located above & on the interior doors

Rating	Installed	Design Life	Updated
5 - Good	0	20	MAR-07

C1030.10 Lockers - 1982 Section - ART**

Prefinished metal lockers are located in a designated corridors, shop area and in the boy's & girl's change rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	OCT-07

Event: Replace Lockers - 1982 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$455,055	Unassigned

Updated: MAR-07

C1030.10 Lockers - 2003 Section - ART**

Prefinished metal lockers are located in a designated corridors, shop area and in the boy's & girl's change rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	30	OCT-07

Event: Replace Lockers - 2003 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$47,751	Unassigned

Updated: MAR-07

C1030.12 Storage Shelving*

Painted & clear finish plywood storage shelving throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-07

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
3 - Marginal	1983	20	MAR-07

Event: Replace all original washroom accessories

Concern:
Overall, the washroom accessories are damaged, worn and in some cases non-functional.

Recommendation:
Replace all damaged and missing washroom accessories.

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$30,750	Low

Updated: MAR-07

C2010 Stair Construction*

The majority of the stairwells & landings are typically constructed of steel.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-07

C2020.01 Tile Stair Finishes*

The stairs and landings throughout the school, typical have a ceramic tile finish.

Rating	Installed	Design Life	Updated
5 - Good	0	60	MAR-07

C2020.08 Stair Railings and Balustrades*

All stairs and landing areas have painted steel tubular handrails.

Rating	Installed	Design Life	Updated
5 - Good	0	40	MAR-07

C2020.11 Other Stair Finishes*

The stairwells in the utility areas and shops with mezzanines have painted steel stairs & railings.

Rating	Installed	Design Life	Updated
5 - Good	0	0	MAR-07

C2030.02 Ramp Finishes*

A ramp is located at the south end of the atrium and into the central gathering area. The ramps have a ceramic tile finish.

Rating	Installed	Design Life	Updated
5 - Good	0	30	MAR-07

C3010.04 Gypsum Board Wall Finishes*

The majority of the non-load bearing wall partitions consist of a gypsum board finish. Many of the interior rooms, office walls and corridor walls have gypsum board partitions.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	MAR-07

C3010.06.01 Ceramic Tile

Ceramic tile wall finish is located throughout the cafeteria kitchen, washroom walls, change rooms and in the shower areas.

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-07

C3010.09 Acoustical Wall Treatment**

Acoustical wall panels are located throughout the music rooms and in the music practice rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-07

Event: Replace acoustical panels in music rooms

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$30,750	Unassigned

Updated: MAR-07

C3010.11 Interior Wall Painting*

The interior partitions throughout the school have a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	15	MAR-07

Event: Repaint interior walls.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$8,635	Unassigned

Updated: MAR-07

C3020.01.02 Paint Concrete Floor Finishes*

Painted/sealed concrete floors are located in the shop areas, drama/arts room, mechanical room and custodial rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	10	MAR-07

C3020.02.01 Ceramic Tile

Ceramic tile floors are located throughout the corridors, cafeteria, washrooms, change room and showers.

Rating	Installed	Design Life	Updated
5 - Good	2004	0	MAR-07

C3020.02.02 Quarry Tile

Quarry floor tile is located in the central gathering student area (Pit).

Rating	Installed	Design Life	Updated
5 - Good	1983	0	MAR-07

C3020.04 Wood Flooring - 1982 Section**

Hardwood flooring is located in the two gymnasiums.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	30	MAR-07

Event: Repair & refinish the single gym

Concern:
The hardwood floor in the single gym has several warped strips and the finish is deteriorated.
Recommendation:
Replace warped flooring strips and refinish floor.

Type	Year	Cost	Priority
Repair	2007	$18,450	Low

Updated: OCT-07

Event: Replace wood flooring.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$525,316	Unassigned

Updated: MAR-07

C3020.07 Resilient Flooring - Rubber**

A Rubber floor is located throughout the fitness exercise room.

Rating	Installed	Design Life	Updated
5 - Good	2005	20	MAR-07

C3020.07 Resilient Flooring VCT**

VCT is located in the home economics room, beauty salon and ancillary rooms.

Rating	Installed	Design Life	Updated
5 - Good	1983	20	MAR-07

Event: Replace vinyl tile

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$30,750	Unassigned

Updated: MAR-07

C3020.07.01 Resilient Tile Flooring - Rubber

RCT (rubber tile) is located throughout science rooms and food lab.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-07

Event: Replace rubber tile flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$92,250	Unassigned

Updated: MAR-07

C3020.08 Carpet Flooring - 1983 Original building**

(Original 1983 Building) - Carpeting is located throughout most classrooms, library, music room and administrative areas. The carpeting in the classrooms was replaced in 2005.

Rating	Installed	Design Life	Updated
3 - Marginal	0	15	MAR-07

Event: Replace carpeting in library and music room

Concern:
The original carpet in the library and music room is worn, damaged and stained.

Recommendation:
Replace carpeting in the music room and library.

Type	Year	Cost	Priority
Failure Replacement	2007	$36,900	Low

Updated: MAR-07

C3020.08 Carpet Flooring - 2003 Addition**

(2003 Addition) - Carpeting is located in the lower level corridor and in most of the computer rooms.

Rating	Installed	Design Life	Updated
5 - Good	2003	15	MAR-07

Event: Replace Carpet Flooring - 2003 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$40,857	Unassigned

Updated: MAR-07

C3030.04 Gypsum Board Ceiling Finishes*

Painted gypsum board ceilings are located throughout the corridors, washrooms & change rooms.

Rating	Installed	Design Life	Updated
5 - Good	0	60	MAR-07

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

The majority of the ceilings in the science rooms, library, ancillary areas have a 2'-0"x4'-0"suspended acoustical tile assembly.

Rating	Installed	Design Life	Updated
5 - Good	1983	25	MAR-07

Event: Replace suspended acoustical tile ceiling

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$184,500	Unassigned

Updated: MAR-07

C3030.07 Interior Ceiling Painting*

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

Rating	Installed	Design Life	Updated
5 - Good	1983	20	MAR-07

Event: Repaint ceilings

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$147,600	Unassigned

Updated: MAR-07

C3030.09 Other Ceiling Finishes*

A suspended painted decorative metal screen is located in the main corridors and gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	0	0	MAR-07

D1010.01.02 Hydraulic Passenger Elevators**

The building contains one elevator which travels between the main floor and the lower level. The elevator is an Otis hydraulic passenger elevator and the elevator hydraulics are located in room 55.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

S4 MECHANICAL

D2010.01 Water Closets

There are approximately 57 toilets in the original c.1982 building and one toilet in the c.2003 addition. The toilets are generally floor mounted vitreous china flush valve type toilets in the main student washrooms and floor mounted vitreous china tank type toilets in the individual washrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	MAR-07

Event: Replace water closet.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$240,857	Unassigned

Updated: MAR-07

D2010.03 Lavatories

There are approximately 47 lavatories in the original c.1982 building and one lavatory in the c.2003 addition. The lavatories are generally counter mounted stainless steel fixtures, although there are some counter mounted enameled steel fixtures as well.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	MAR-07

Event: Replace six lavatories in poor condition (rooms 8, 68, 166, 182, 183 and 210)

Concern:
Poor aesthetics due to chipped finish on enameled steel fixtures, and accelerated deterioration and corrosion.

Recommendation:
Replace six lavatories in poor condition in rooms 8, 68, 166, 182, 183 and 210.

Consequences of Deferral:
Accelerated deterioration and increased maintenance expense.

Type	Year	Cost	Priority
Failure Replacement	2007	$9,225	Low

Updated: MAR-07

D2010.04 Sinks**

Sinks in the building include general purpose stainless steel sinks (in classrooms, labs and service areas), molded plastic mop sinks, hair washing sinks in rooms 207 and 209, and a stainless steel half Bradley type wash fountain in room 167. There are approximately 97 sinks in the c.1982 original building and no sinks in the c.2003 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

Event: Replace hair washing sinks in rooms 207 and 209 (9 fixtures)

Concern:

Some of the composite material sinks are damaged (cracked and split) and the integral water mixing valves do not operate properly.

Recommendation:

Replace the nine hair washing sinks and associated trim in rooms 207 and 209.

Consequences of Deferral:

Accelerated deterioration, poor water temperature control and increased maintenance expense.

Type	Year	Cost	Priority
Failure Replacement	2007	$24,600	Low

Updated: MAR-07

D2010.05 Showers**

Showers in the building include three individual showers (rooms 166, 182 and 183), as well as two communal showers (11 stations each) in the student change rooms (rooms 177 and 179).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

D2010.08 Drinking Fountains / Coolers**

There are approximately 13 drinking fountains in the c.1982 original building and no drinking fountains in the c.2003 addition. The drinking fountains are generally wall mounted vitreous china fixtures.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	MAR-07

Event: Replace Drinking Fountains / Coolers.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$80,286	Unassigned

Updated: MAR-07

D2020.01.01 Pipes and Tubes: Domestic Water*

There are two water supply lines entering the building. The domestic water supply enters in room 184 and supplies the building water meter located in room 79 (sprinkler room). The second water supply enters in room 187 and supplies the sprinkler valve header located in room 79 (sprinkler room) through a backflow preventer. Water piping is generally steel or galvanized steel in larger diameters and copper in smaller diameters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

D2020.01.02 Valves: Domestic Water**

Domestic water system valves include zone isolating valves and fixture isolating valves. The domestic water system valves are generally original (c.1982).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

Event: Replace Valves: Domestic Water.

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$260,595	Unassigned

Updated: MAR-07

D2020.01.03 Piping Specialties (Backflow Preventors)**

The fire protection water supply is protected with a backflow preventer located in room 79. The building lawn irrigation system water supply is also protected with a backflow preventer located in room 79.

Rating	Installed	Design Life	Updated
5 - Good	2003	20	MAR-07

Event: Replace Piping Specialties (Backflow Preventors).

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$260,595	Unassigned

Updated: APR-07

D2020.02.02 Plumbing Pumps: Domestic Water**

Plumbing pumps include a domestic hot water circulation pump (P7) located in room 77 and two storm water sump pumps (P8 and P9) located in room 173.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	20	MAR-07

Event: Replace the DHW cirulation pump (P7) and the sump pumps (P8 and P9)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$8,610	Unassigned

Updated: MAR-07

D2020.02.06 Domestic Water Heaters - 1982 Section - ART**

The domestic hot water (DHW) supply system consists of two gas fired domestic hot water heaters (A.O. Smith model BRTC120) and a DHW storage tank located in room 77. The storage tank is original (c.1982)

Rating	Installed	Design Life	Updated
5 - Good	1982	20	MAR-07

Event: Replace Domestic Water Heaters - 1982 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$49,795	Unassigned

Updated: APR-07

D2020.02.06 Domestic Water Heaters - 2003 Section - ART**

The domestic hot water (DHW) supply system consists of two gas fired domestic hot water heaters (A.O. Smith model BRTC120) and a DHW storage tank located in room 77. The DHW heaters are relatively new (c.2005).

Rating	Installed	Design Life	Updated
5 - Good	2003	20	MAR-07

Event: Replace Domestic Water Heaters - 2003 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$6,642	Unassigned

Updated: MAR-07

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	1982	40	MAR-07

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 original (c.1982). The building is connected to the municipal sanitary sewer system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

Event: Investigate and correct the sanitary drainage problem in the staff washrooms (rooms 160 and 161)

Concern:
Building maintenance staff report a problem with the sanitary drainage from the staff washrooms (rooms 160 and 161).

Recommendation:
Investigate and correct the reported sanitary drainage problem. The cost shown is an allowance.

Consequences of Deferral:
Ongoing inconvenience from the toilet being backed up and high maintenance and repair costs.

Type	Year	Cost	Priority
Repair	2007	$14,760	Low

Updated: MAR-07

D2040.01 Rain Water Drainage Piping Systems*

The 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 generally cast iron.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

D2040.02.04 Roof Drains*

The flat roof areas of the building are drained by standard flow control roof drains equipped with strainers. The roof drains are original (c.1982 and c.2003).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

Event: Replace roof drains.

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$39,836	Unassigned

Updated: MAR-07

D2090.01 Compressed Air Systems (Non Controls)**

There is a shop compressed air supply system for the automotive shop located on the mezzanine in room 188. The system consists of an air compressor mounted on and air receiver tank and a separate refrigerated air dryer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

D3010.01 Oil Supply Systems (Fuel, Diesel)*

There is a fuel oil supply system for the standby diesel generator. The system includes an underground fuel storage tank at the southwest corner of the building, a fuel day tank in the generator room (room 80) and a fuel transfer pump (P10) in room 187.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	60	MAR-07

D3010.02 Gas Supply Systems*

Natural gas is the primary energy source for space heating (hot water heating boilers, steam boiler, make-up air unit, etc.) and domestic hot water heating. The natural gas piping is steel. The natural gas meter is located in room 79.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	60	MAR-07

D3020.01.01 Heating Boilers & Accessories: Steam**

There is one steam boiler located in room 77 which provides low pressure steam for humidification. The boiler is a Weil-McLain model AMGB-9 with an input heating capacity of 136,000 Btu/h. The boiler was not in operation at the time of the building review (November 2006).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	MAR-07

D3020.01.03 Chimneys (&Comb. Air) : Steam Boilers**

The steam boiler has a discharge stack for combustion gases.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	MAR-07

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

There are two hot water boilers for building heating located in room 77. The boilers are Raypak model 3990-NTD (4,000,000 Btu/h input heating capacity each).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	MAR-07

Event: Replace Heating Boilers and Accessories: H.W.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$639,553	Unassigned

Updated: MAR-07

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

The two hot water boilers have a common discharge stack for combustion gases.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	35	MAR-07

Event: Replace Chimneys (&Comb. Air): H.W. Boiler.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$45,685	Unassigned

Updated: MAR-07

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

A chemical pot feeder is used for providing water treatment for the closed hot water heating loop.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

D3030.02 Centrifugal Water Chillers**

The building classroom and office areas are centrally air conditioned. The open areas of the building, the large gymnasium, the small gymnasium and the shop areas are not air conditioned. A Trane Centravac centrifugal chiller (model CVHE-020J-AC) provides chilled water for building cooling via air handling unit coils.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	MAR-07

Event: Replace centrifugal chiller in room 77

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$282,900	Unassigned

Updated: MAR-07

D3030.05 Cooling Towers**

The chilled water system includes a cooling tower located on the roof (Baltimore Air Coil model EXT-160).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	MAR-07

Event: Replace the cooling tower

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$111,930	Unassigned

Updated: MAR-07

D3030.06.01 Refrigeration Compressors - Kitchen cooler**

There is an air cooled refrigeration compressor for the kitchen cooler (room 46).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	25	MAR-07

Event: Replace the refrigeration compressor for the kitchen cooler (room 46)

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$5,535	Unassigned

Updated: MAR-07

D3030.06.02 Refrigerant Condensing Units - 2003 addition**

A roof mounted compressor/condenser unit (carrier model 38AH-034) provides direct expansion cooling for the c.2003 building addition air handling unit (AHU-1).

Rating	Installed	Design Life	Updated
5 - Good	2003	25	MAR-07

D3040.01.01 Air Handling Units: Air Distribution - 1982 original building**

Air handling units AS1 in room 29, AS2 in room 15, and AS3 in room 74 serve the first and second floors of Wapiti House, Sunwapta House and Cascade House, respectively. Air handling unit AS4 in room 31 serves the first and second floors of the central area of the building. Air handling unit AS5 in room 56 serves the woodworking shop (room 167). Air handling unit AS6 in room 77 serves the gymnasia, and air handling unit AS7 in room 77 serves the automotive shop (room188). Air handling units AS1 through AS4 are mixed air variable air volume systems (utilizing adjustable fan inlet blades), and are equipped with hot water heating coils, chilled water cooling coils and steam humidification. Air handling units AS5, AS6 and AS7 are mixed air constant volume systems and are equipped with hot water heating coils and steam humidification.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

Event: Install higher efficiency air filters for the woodworking shop air handling unit (AS5)

Concern:

It is reported that the standard efficiency air filters in the woodworking shop air handling unit (AS5) are not adequate to remove all dust from the air stream.

Recommendation:

Install higher efficiency air filters for the woodworking shop air handling unit (AS5).

Consequences of Deferral:

Poor air quality and potential health issues related to excessive particulate matter in the air.

Type	Year	Cost	Priority
Repair	2007	$11,070	Medium

Updated: MAR-07

D3040.01.01 Air Handling Units: Air Distribution - 2003 addition**

There is an air handling unit (AHU-1) located in room 57 for the the c.2003 building addition. The unit is an Engineered Air model DJ-100-C (11,150 cfm maximum) providing indirect gas fired heating (650,000 Btu/h input heating capacity) and direct expansion cooling (the associated compressor/condenser unit is located on the roof). The air handling unit is a mixed air variable air volume system utilizing a variable frequency drive).

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-07

D3040.01.01 Air Handling Units: Air Distribution - Kitchen make-up air unit**

A direct gas fired make-up air unit (MAU-1) in room 56 provides 100% fresh air to the kitchen to balance the kitchen cooking hood exhaust flows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

D3040.01.02 Fans: Air Distribution - 2003 addition*

There is a return air fan (RF1) for the c.2003 building addition air handling unit (AHU-1). The fan is equipped with a VFD drive for variable flow.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-07

D3040.01.04 Ducts: Air Distribution*

Air distribution ducts include the supply air and return air duct systems and related components (excluding air outlets and inlets and VAV boxes).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

D3040.01.06 Air Terminal Units: Air Distribution (VAV Box)**

VAV boxes provide variable flow to the building control zones for space temperature control.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

Event: Replace Air Terminal Units.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$2,788,553	Unassigned

Updated: MAR-07

D3040.01.07 Air Outlets & Inlets: Air Distribution*

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

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

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

Steam is distributed to air handling units AS1 through AS7 for humidification purposes from the steam boiler in room 77. Condensate pumping systems return steam condensate to room 77 for reuse in the steam boiler. There are five condensate return systems, a single pump packaged return system located in each of rooms 15, 29, 31 and 74, and a dual pump packaged return system located in room 77.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

D3040.03.01 Hot Water Distribution Systems**

Primary building heating is provided by a hot water heating system supplying the air handling unit heating coils and various hydronic terminal units including fan coil units, fin tube radiation cabinets, radiant heating panels, and unit heaters. There are two main hot water circulation pumps for the heating system located in room 77 (P1 and P2).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

Event: Replace Hot Water Distribution Systems.

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$2,810,003	Unassigned

Updated: MAR-07

D3040.03.02 Chilled Water Distribution Systems**

There is a chilled water distribution system and a condenser water system associated with the chiller and cooling tower which provide building air conditioning. Chilled water is circulated from the chiller to the air handling unit cooling coils (for air handling units AS1 through AS4) by chilled water pump P3. Condenser water is circulated from the chiller to the cooling tower by condenser water pump P4. Pumps P3 and P4 are located in room 77.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

D3040.04.01 Fans: Exhaust**

There are numerous exhaust fans providing ventilation for all areas of the building. There are approximately 36 exhaust fans in the building including approximately 18 roof mounted exhaust fans. There are five rooftop exhaust fans in poor or deteriorating condition which should be replaced over the next five years.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

Event: Install an exhaust system for the receiving area storage room (room 175)

Concern:
The receiving area storage room (room 175) is reportedly used for chemical storage but does not have a ventilation system.

Recommendation:
Install an exhaust system for the receiving area storage room (room 175).

Consequences of Deferral:
Poor air quality in the building and the potential presence of harmful chemicals.

Type	Year	Cost	Priority
Repair	2007	$6,150	Medium

Updated: MAR-07

Event: Provide increased ventilation for the chemical storage cabinets in room 125

Concern:
The chemical storage cabinets in the chemical storage room for the science labs (room 125) reportedly do not have adequate ventilation.

Recommendation:
Provide increased ventilation for the chemical storage cabinets in room 125.

Consequences of Deferral:
Poor air quality in the building and the potential presence of harmful chemicals.

Type	Year	Cost	Priority
Repair	2007	$3,690	Low

Updated: MAR-07

Event: Provide increased ventilation in the copier room (room 201)

Concern:
The copier room (room 201) reportedly gets very warm due to a lack of ventilation, and the problem is expected to get worse with the installation of a new photocopier.

Recommendation:
Provide increased ventilation in the copier room (room 201).

Consequences of Deferral:
Excessively high temperatures in the copier room.

Type	Year	Cost	Priority
Repair	2007	$2,460	Low

Updated: MAR-07

Event: Provide increased ventilation in the woodworking shop (room 167) paint storage area

Concern:
The ventilation in the woodworking shop (room 167) paint storage area is reportedly not adequate.
Recommendation:
Provide increased ventilation in the woodworking shop (room 167) paint storage area.
Consequences of Deferral:
Poor air quality in the building and the potential presence of harmful chemicals.

Type	Year	Cost	Priority
Repair	2007	$5,535	Low

Updated: MAR-07

Event: Provide low level exhaust outlets in the automotive shop (room 188)

Concern:
There are no low level outlets to the exhaust system in the automotive shop (room 188) which could result in the build-up of contaminants at floor level.
Recommendation:
Provide low level exhaust outlets in the automotive shop (room 188).
Consequences of Deferral:
The potential build-up of contaminants at floor level.

Type	Year	Cost	Priority
Repair	2007	$4,920	Low

Updated: MAR-07

Event: Replace five rooftop exhaust fans in deteriorating condition

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$24,600	Unassigned

Updated: MAR-07

D3040.04.02 Air Cleaning Devices: Exhaust - Dust collector (room 169)

The woodworking shop is equipped with a dust collection system including a dust collector and a dust collection duct system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	0	MAR-07

Event: Investigate and correct the reported problem with the dust collector bags not staying properly attached to the dust collector

Concern:

It is reported that the dust collector filter bags do not stay properly attached to the dust collector, resulting in dust leakage back into the woodworking shop.

Recommendation:

Investigate and correct the reported problem with the dust collector bags. The cost shown is an allowance.

Consequences of Deferral:

Higher cleaning costs and poor air quality, with potential health issues arising from the level of particulate matter in the air.

Type	Year	Cost	Priority
Repair	2007	$6,150	Low

Updated: MAR-07

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.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

D3040.04.05 Air Outlets and Inlets: Exhaust*

Exhaust outlets and inlets include collection grilles and diffusers (including hoods), as well as stacks or discharge ducts where applicable.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

D3050.01.01 Computer Room Air Conditioning Units - 2003 addition**

There is a split ductless type direct expansion cooling system for room 150 in the c.2003 building addition. The compressor/condenser unit for this system is on the roof.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-07

D3050.03 Humidifiers - 2003 addition**

There is a Nortec self contained steam type humidifier (HD-1) for air handling unit AHU-1 serving the building addition. The humidifier is located in room 57.

Rating	Installed	Design Life	Updated
5 - Good	2003	25	MAR-07

D3050.05.02 Fan Coil Units**

Fan coil units are used to provide hot water heating in the building stairwells, entrance vestibules and corridors. There are approximately 15 fan coils in the c.1982 original building and two in the c.2003 addition. There are also a small number of water cooled fan coil units used for local cooling (such as in room 58).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

D3050.05.03 Finned Tube Radiation**

Hot water heating system terminal units include hydronic fin tube radiation cabinets in the c.1982 original building (approximately 750 linear metres total).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

D3050.05.06 Unit Heaters**

Hot water heating system terminal units include hydronic unit heaters which are used in mechanical rooms, in the gymnasia and in the shop areas. There are approximately 25 unit heaters total.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

Event: Replace Unit Heaters.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$476,401	Unassigned

Updated: MAR-07

D3050.05.08 Radiant Heating (Ceiling & Floor)**

Hot water heating system terminal units include hydronic radiant panels in the c.2003 building addition. There is approximately 80 linear metres total of ceiling radiant panels.

Rating	Installed	Design Life	Updated
5 - Good	2003	35	MAR-07

Event: Replace Radiant Heating (Ceiling & Floor).

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$50,046	Unassigned

Updated: MAR-07

D3060.02.02 Pneumatic Controls**

The original building (c.1982) HVAC equipment controls are pneumatic, including pneumatic thermostats for space temperature control and pneumatic actuation for control valve and damper operation. A control air supply system in room 77 consists of two air compressors mounted on an air receiver with an air dryer. Electric controls are used for some of the HVAC equipment , such as the unit heaters. In the c.2003 building addition, electric controls are used.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

Event: Install a timer for the DHW circulation pump

Concern:
The operation of the domestic hot water loop circulation pump when the building is not occupied is inefficient.
Recommendation:
Install a timer for the domestic hot water circulation pump so that it operates only when the building is occupied.
Consequences of Deferral:
Inefficient operation.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2007	$1,845	Low

Updated: MAR-07

Event: Investigate and correct the winter temperature control problem in room 139

Concern:
Room 139 is reported to be excessively hot during the winter months.
Recommendation:
Investigate and correct the winter temperature control problem in room 139. The cost shown is an allowance.
Consequences of Deferral:
Inefficient operation and uncomfortable environmental conditions.

Type	Year	Cost	Priority
Repair	2007	$4,920	Low

Updated: MAR-07

Event: Replace Pneumatic Controls- 1982 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$429,007	Unassigned

Updated: MAR-07

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

The building is not equipped with a central building automation system (BAS) for HVAC equipment monitoring and control.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	OCT-07

Event: Install a building automation system for HVAC equipment monitoring and control (14,278 SM GFA)

Concern:
The building HVAC controls are local, and the building does not benefit from the efficiency gains which could be realized if a central building management system was used to monitor and control the building HVAC equipment.

Recommendation:
Install a commercial building automation system for HVAC equipment monitoring and control.

Consequences of Deferral:
Inefficient HVAC equipment operation.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2008	$289,050	Low

Updated: MAR-07

D4010 Sprinklers: Fire Protection*

The building is equipped with an automatic sprinkler system for fire protection.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	60	MAR-07

Event: Provide sprinkler protection on both sides of glass fire separations

Concern:
Glass fire separations protected by sprinklers reportedly only have protection on one side of the glass separations.

Recommendation:
Provide sprinkler protection on both sides of glass fire separations.

Consequences of Deferral:
Potentially compromised fire separations.

Type	Year	Cost	Priority
Code Upgrade	2007	$30,750	Low

Updated: MAR-07

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Manual pump type fire extinguishers are located in wall cabinets and ABC type fire extinguishers are located in the mechanical rooms. The fire extinguishers appear to be original.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	30	MAR-07

Event: Replace Fire Extinguisher, Cabinets and Accessories.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,230	Unassigned

Updated: MAR-07

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

The kitchen cooking hoods are protected by an automatic chemical fire suppression system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	40	MAR-07

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior) - 1983 Transformers**

There are several distribution transformers located throughout the building. The main 600-120/208V transformers in the 1983 original building are a 300kVA Westinghouse transformer feeding Distribution Centre 2D1 (T1, located in electrical room 76), a 300kVA Westinghouse transformer feeding Distribution Centre 2D2 (T2, located in electrical room 32) and a 150kVA (kitchen) and 75kVA (Parking panels) Westinghouse transformers fed from panel 6D2.
There are two 30kVA, 600V-120/280V Westinghouse transformers for the emergency distribution system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-07

Event: Replace Secondary Electrical Transformers (Interior)- 1982 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$286,005	Unassigned

Updated: MAR-07

D5010.02 Secondary Electrical Transformers (Interior) - 2003 Transformers**

The 600-120/208V transformer in the 2003 addition is a 75kVA Siemens transformer (located in mechanical room 57).

Rating	Installed	Design Life	Updated
5 - Good	2003	40	MAR-07

Event: Replace Secondary Electrical Transformers (Interior) - 2003 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2043	$30,012	Unassigned

Updated: MAR-07

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

The main electrical switchboard is located in electrical room 80. The main switchboard is a Westinghouse 1600A, 347/600V switchboard with draw-out air circuit breakers. Panel 6D2 is attached to the main switchboard and fed from a moulded case breaker within the switchboard. The 600V breakers and loads within the main switchboard are as follows:
1600A - Main breaker (Westinghouse DSL416)
300A - Future Auditorium (Westinghouse DSL416)
300A - Chiller (Westinghouse DSL416)
600A - Distribution Centre 6D3 (Westinghouse DSL416)
400A - Transformer T2 (Westinghouse DSL416)
300A - MCC #1 (Westinghouse DSL416)
400A - Transformer T1 (Westinghouse DSL416)

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	40	MAR-07

Event: Replace Main Electrical Switchboards .

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$106,230	Unassigned

Updated: MAR-07

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 1983 Panels**

The majority of the electrical branch circuit panelboards within the school are original Westinghouse panels. The main 347/600V distribution panels are distribution panels 6D2 and 6D3 which feed approximately 6 - 347/600V branch circuit panelboards and MCC #2. The main 120/208V distribution panels are 2D1, 2D2 and 2D3 which feed the approximately 40 - 120/208V branch circuit panelboards in the school. The main emergency panel is Distribution Centre 6ED1 which feeds emergency MCC's E1 and E2, the elevator and panels 6EA and 6EB. The 120/208V emergency panels 2EA and 2EB are fed from panels 6EA and 6EB respectively.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

Event: Replace Electrical Branch Circuit Panelboards.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$39,836	Unassigned

Updated: MAR-07

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution) - 2003 Panels**

Approximately four 120/208V branch circuit panelboards and two 347/600V panels were installed in the 2003 addition (Rooms 57 and 150). The 2003 panels are Siemens panels with spare capacity for future loads.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-07

Event: Replace Electrical Branch Circuit Panelboards .

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$16,241	Unassigned

Updated: MAR-07

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

There are two Motor Control Centres within the school that were installed during the original 1983 construction. The MCC's are Westinghouse Five Star Motor Control Centres. The MCC's each have emergency and normal power sections. MCC-1/MCC-E1 is located in the mechanical room adjacent to the main electrical room and MCC-2/MCC-E2 is located in Mechanical room 31.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

D5010.07.02 Motor Starters and Accessories**

There are some original individual, combination type motor starters (Westinghouse) within the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

D5010.07.03 Variable Frequency Drives**

There are two Hitachi VFD's installed in the main level mechanical room in the 2003 addition of the school. One unit is a J100 unit and the other is a J300 unit. The VFD units control Supply and Return fans.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-07

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	1983	50	MAR-07

D5020.02.01 Lighting Accessories (Lighting Controls)*

There are low voltage switches within the school used for lighting control. The low voltage relay cabinets are located adjacent to the 347/600V lighting panels. There are two central stations for lighting control, one in the custodian's room and the second in the general office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent lighting fixtures have been installed in areas such as the drama room, cafeteria, staff room and some corridors (recessed downlights).

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

Event: Replace Interior Incandescent Fixtures.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$112,538	Unassigned

Updated: MAR-07

D5020.02.02.02 Interior Florescent Fixtures**

The typical classroom lighting fixture used throughout the lower level of the school is a 2 ft. x 4 ft. recessed, fluorescent fixture with T12 lamps and magnetic ballast. On the main level of the school the typical classroom lighting fixture is an indirect T12 fluorescent fixture. Strip fluorescent fixtures with wire guards are used in the service rooms. The majority of the fluorescent lighting fixtures throughout the school have T12 lamps and magnetic ballasts. The fluorescent lighting fixtures in the 2003 addition have T8 lamps and electronic ballasts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

Event: Replace Interior Florescent Fixtures.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$1,012,842	Unassigned

Updated: MAR-07

Event: Upgrade T12 fluorescent lighting (Est. 1 fixture per 64 sq. ft.)

Concern:
The T12 lamps and ballasts are not energy efficient. T12 lamp production could be discontinued in the future.
Recommendation:
Replace existing T12 lamps and ballasts with energy efficient T8 lamps and electronic ballasts.
Consequences of Deferral:
Increased energy costs.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2008	$319,800	Low

Updated: MAR-07

D5020.02.02.03 Interior Metal Halide Fixtures*

The gymnasium lighting consists of suspended high bay fixtures with metal halide lamps. There are metal halide downlights used in the corridors of some classroom areas. Metal halide lighting fixtures with glass reflectors are utilized in the atrium area of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	3	30	MAR-07

Event: Repair Metal Halide ballasts

Concern:
Many of the metal halide ballasts have a high level of ballast noise that is loud enough to disturb classes.
Recommendation:
Replace defective ballasts. Consideration should be given to remote ballasts that could be located in service rooms.
Consequences of Deferral:
Continuous high noise levels.

Type	Year	Cost	Priority
Repair	2007	$24,600	Medium

Updated: MAR-07

D5020.02.03.01 Emergency Lighting Built-in*

Existing building fluorescent lighting fixtures, fed from emergency panels, are utilized for emergency lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-07

D5020.02.03.02 Emergency Lighting Battery Packs**

The majority of the emergency lighting is fed from the emergency distribution system. The emergency battery unit in the generator room is not operating.

Rating	Installed	Design Life	Updated
2 - Poor	1983	20	MAR-07

Event: Replace emergency lighting unit

Concern:
The emergency lighting unit in the generator room is not operating.
Recommendation:
Replace emergency lighting battery unit.
Consequences of Deferral:
Potential problems should the emergency generator fail to start.

Type	Year	Cost	Priority
Failure Replacement	2007	$1,230	High

Updated: APR-07

D5020.02.03.03 Exit Signs*

The exit signs within the school have energy efficient LED lamps.

Rating	Installed	Design Life	Updated
5 - Good	2001	30	MAR-07

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

The building mounted exterior lighting for the school consists typically of H.P.S wallpack fixtures.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

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

Timers, contactors and photocells have been provided for exterior lighting control.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

D5030.01 Detection and Fire Alarm**

The fire alarm system is a Simplex 4100U system. The main fire alarm control panel is located in the main electrical room. There is a remote annunciator at the main entrance. Fire alarm bells are located throughout the school. Strobes have been provided in the 2003 addition area. Duct mounted smoke detection has been provided for air handling systems.
The remote annunciator has been causing nuisance alarms and has been temporarily disconnected.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	25	MAR-07

Event: Repair fire alarm system remote annunciator

Concern:
The remote annunciator is used by fire fighters to locate area in alarm. The annunciator must be operational.
Recommendation:
Repair the remote annunciator immediately.
Consequences of Deferral:
Life safety concern.

Type	Year	Cost	Priority
Repair	2007	$6,150	High

Updated: APR-07

D5030.02.02 Intrusion Detection**

The security system is a DSC Maxsys PC4020 system with the main panel located in telephone room 58. Security system keypads have been provided. PIR motion detectors have been provided throughout the school. Dedicated termination boxes and conduit systems have been provided for the security system wiring.

Rating	Installed	Design Life	Updated
5 - Good	2003	25	MAR-07

Event: Replace Intrusion Detection.

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$50,613	Unassigned

Updated: MAR-07

D5030.02.04 Video Surveillance**

4 exterior cameras with weatherproof housings have been installed and there are interior cameras installed within the school. The cameras are monitored in the general office area and the police office. There are two 16-channel sequencers associated with the surveillance system. The security cameras were installed in 2001 and 2004.

Rating	Installed	Design Life	Updated
5 - Good	2001	25	MAR-07

D5030.03 Clock and Program Systems*

The clocks within the school are battery powered clocks. A Simplex 2350 Master Time System is used to control the class change signals. The Simplex 2350 is located in the general office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-07

Event: Replace Clock and Program Systems.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$149,385	Unassigned

Updated: MAR-07

D5030.04.01 Telephone Systems*

The telephone system is a Nortel Meridian system. Meridian telephone handsets are located in the classrooms and selected areas such as the general office. The main telephone equipment is located in room 58. Dedicated termination boxes and conduit systems have been provided for the telephone system wiring.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	25	MAR-07

Event: Replace Telephone Systems.

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$47,590	Unassigned

Updated: MAR-07

D5030.04.04 Data Systems*

Data system servers are located throughout the school. Cat. 5 cables are used for the network wiring within the school. Supernet has been installed in the school.

Rating	Installed	Design Life	Updated
5 - Good	2000	25	MAR-07

D5030.05 Public Address and Music Systems**

The P.A. system components (TOA) are located in room 7 adjacent to the general office. Announcements within the classrooms are heard through the telephone handsets. The P.A. system was reported to have poor sound distribution in areas such as the music room.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	20	MAR-07

Event: Upgrade P.A. System

Concern:
Inaudible announcements.
Recommendation:
Upgrade existing P.A. System and add additional speakers where announcements can not be heard.
Consequences of Deferral:
Poor communications within school.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2007	$12,300	Low

Updated: MAR-07

D5030.06 Television Systems*

Coaxial cable was installed in 2001. Cable TV outlets are located in selected rooms.

Rating	Installed	Design Life	Updated
5 - Good	2001	20	MAR-07

D5090.02 Packaged Engine Generator Systems (Emergency Power System)**

A diesel powered BBC emergency generator is located in room 80. The generator is rated 200kW, 250kVA at 347/600V. The 400A Schmidtec transfer switch (Model TSC-700) is located in the main electrical room (Rm. 76)

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	35	MAR-07

Event: Provide containment dam for diesel fuel

Concern:
A leak in the diesel fuel tank would not be contained within the diesel generator room.

Recommendation:
Provide a concrete dam around the diesel fuel tank.

Consequences of Deferral:
Potential diesel spill contaminating several areas of the school.

Type	Year	Cost	Priority
Code Upgrade	2007	$2,460	Low

Updated: APR-07

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

The library has entrance and exit bars for security.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-07

E1020.03 Theater and Stage Equipment*

Curtains & lighting equipment are located in the drama room and in the open ancillary area opposite the library.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-07

E1030.03 Loading Dock Equipment*

A raise concret loading dock area is located at the south end of the building.

Rating	Installed	Design Life	Updated
5 - Good	0	25	MAR-07

E1090.02 Solid Waste Handling Equipment*

Waste bins are located along the south loading dock area.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-07

E1090.03 Food Service Equipment*

The cafeteria has a complete kitchen facility with 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
5 - Good	0	25	MAR-07

E1090.04 Residential Equipment*

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

Rating	Installed	Design Life	Updated
5 - Good	0	10	MAR-07

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Electronic scoreboard, movable basketball hoops are located in the gymnasiums. Exercise equipment is located in the weight room.

Rating	Installed	Design Life	Updated
5 - Good	0	15	MAR-07

E2010.02 Fixed Casework**

Each classroom is 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; art, shop 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
4 - Acceptable	1983	35	MAR-07

Event: Replace Fixed Casework - 1982 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$850,996	Unassigned

Updated: MAR-07

E2010.03.01 Blinds**

Several interior & exterior classroom windows have vertical & horizontal blinds.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	30	MAR-07

Event: Replace Blinds - 1982 Section

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$538,504	Unassigned

Updated: MAR-07

E2020 Moveable Furnishings

Desks with plastic laminate tops are located throughout the classrooms. Labs & shops have metal base stools.

Rating	Installed	Design Life	Updated
5 - Good	0	0	MAR-07

F1010.02.04 Portable and Mobile Buildings*

A 3-bay maintenance storage for on-site maintenance vehicles is located along the west end of the site.

Structure:
- Wood frame construction with slab on grade bearing on undisturbed soil.

Envelope:
- Cladding - The exterior skin has a stucco finish with wood framing construction.
- Roof Covering - The roof has a SBS roof assembly.

Interior:
- Flooring - Exposed concrete
- Ceiling - Exposed wood structure
- Walls - Exposed wood framing.
- Doors - One non-insulated overhead doors & 2 metal entry doors

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-07

F1010.02.05 Grandstands and Bleachers**

Bleachers on retractable metal frames are located in the gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	1998	30	MAR-07

F2020.01 Asbestos*

No Suspected asbestos-containing materials observed in the building include vinyl tile flooring in the school corridors, classrooms, texture coated ceilings, gymnasium wallboard and piping insulation. An asbestos report was conducted in Feb, 2000 and provided by EDSB.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-07

F2020.02 PCBs*

No suspected PCB's in lighting ballasts

Rating	Installed	Design Life	Updated
5 - Good	0	0	OCT-07

F2020.04 Mould*

No mould known or reported

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-07

F2020.09 Other Hazardous Materials*

No hazardous material known or reported

Rating	Installed	Design Life	Updated
5 - Good	0	0	OCT-07

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Barrier free access from the south parking area to the south building entrance is available. A ramp is located at the south entrance. Signage for a designated handicap parking space is provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-07

K4010.02 Barrier Free Entrances*

No automatic door entrances are provided.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-07

Event: Provided power operators for barrier free access at the south entrance.

Concern:
No automatic access is currently provided from any exterior entrance doors.

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

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2007	$4,920	Low

Updated: APR-07

K4010.03 Barrier Free Interior Circulation*

Barrier free access is provided to most areas on the main floor of the school, excluding the mezzanine areas, the stage areas and shop areas. An elevator are provided in the school see D1010.01.02.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-07

K4010.04 Barrier Free Washrooms*

Barrier free washrooms are provided on both floor levels.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-07

RECAPP Facility Evaluation Report

J. Percy Page Composite High School

S3167

Edmonton

Report run on: October 16, 2007 9:45 AM

Facility Details

Building Name: J. Percy Page Composite H
Address:
Location: Edmonton

Building Id: S3167
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Asset Evolution Incorporated (AEI)
Evaluation Date: November 1 2006
Evaluator Name: Mario Plastina

Total Maintenance Events Next 5 years: **$965,550**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The site of J. Percy Page Composite High School includes asphalt paved roadways & parking areas accessible from the west end at three locations off Millwoods Road N.W. A service road is located along the south end of the site which leads to the loading area. Grass, shrubs and trees are located throughout the property. Concrete planters are located around the perimeter of the building. The building is elevated, therefore concrete & steel stairs are located at each building entrance. A free standing school signage panel is located at the north-west corner of the site. Pedestrian concrete walkways and concrete paver walkways are located at the main entrances and extend along the perimeter of the school.

There is one permanent storage building on site.

Overall the site are 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)**

An asphalt paved roadway to the three main parking areas is located and accessible from Millwoods Road N.W. along the west end of the site. An internal roadway extends along the west elevation to the south end of the schools loading area and shop area. The school shares access with the community center at the north end of the site.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-07

Event: Lifecycle Replacement

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$307,500	Unassigned

Updated: MAR-07

G2010.05 Roadway Curbs and Gutters*

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

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-07

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

Three asphalt paved parking areas are located on the property. The north parking area is designated as staff & visitor parking. Parking areas are located at the south and south-west end of the site.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-07

Event: Replace asphalt paved parking lot

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$184,500	Unassigned

Updated: MAR-07

G2020.05 Parking Lot Curbs and Gutters*

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

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-07

G2020.06.02 Parking Bumpers*

Painted steel bumpers are located along the asphalt paved parking areas. Parking numbers are indicating on assigned parking spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-07

G2030.03 Pedestrian Unit Pavers**

Pedestrian unit pavers are located at the main north-west entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	20	MAR-07

Event: Lifecycle Replacement

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$49,200	Unassigned

Updated: MAR-07

G2030.04 Rigid Pedestrian Pavement (Concrete)**

Poured in place concrete walkways are located around the perimeter of the school and lead to all the school entrances. The lifecycle should be 40 years for concrete surfaces.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	25	MAR-07

Event: Replace all cracked concrete walkways.

Concern:
Several portions of the concrete walkways have settled and cracked.

Recommendation:
Replace all concrete walkways that pose a potential tripping hazard.

Type	Year	Cost	Priority
Failure Replacement	2007	$30,750	Medium

Updated: MAR-07

G2030.06 Exterior Steps and Ramps*

Cast in place concrete stairs are located at most of the schools entrances. Secondary entrances have painted steel stairs. A pedestrian ramp is located at the south-west entrance. The handrails steel with a paint finish.

Rating	Installed	Design Life	Updated
3 - Marginal	1983	15	MAR-07

Event: Replace all damage concrete stairs

Concern:
Several of the cast in place concrete stairs are cracked and damaged.

Recommendation:
Replace all deteriorated concrete stairs and curbs.

Type	Year	Cost	Priority
Failure Replacement	2007	$184,500	High

Updated: MAR-07

G2040.05 Site and Street Furnishings*

Bicycle racks are located at several entrances. Painted concrete bollards are located at the exterior overhead door entrances and concrete planters.

Rating	Installed	Design Life	Updated
5 - Good	0	15	MAR-07

G2040.06 Exterior Signs*

Exterior signage is provided on a canvas canopy at the main entrance. Free-standing signage display panels are located at the north-west corner of the site.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-07

G2040.08 Flagpoles*

Flagpole is located on the north-west end of the property adjacent to the main entrance.

Rating	Installed	Design Life	Updated
5 - Good	0	30	MAR-07

G2040.11 Retaining Walls*

A poured in place concrete retaining wall is located along the east edge of the loading area roadway. Concrete retaining walls are located throughout the site at the building entrances and for planters boxes.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	MAR-07

G2040.11 Retaining Walls*

A poured in place concrete retaining wall is located along the east edge of the loading area roadway. Concrete retaining walls are located throughout the site at the building entrances and for planters boxes.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	MAR-07

Event: Replace damage retaining wall at the pedestrian ramp

Concern:
Overall, the retaining walls appear to be in good condition, however at the pedestrian ramp, the wall is damaged and the rebar is exposed.

Recommendation:
Repair damaged retaining wall at the ramp area.

Type	Year	Cost	Priority
Failure Replacement	2007	$12,300	Medium

Updated: MAR-07

G2050.01 Irrigation Systems*

The building is equipped with a lawn irrigation system (Toro 11 zone controller model 126-06-11). The water supply to the irrigation system is equipped with a backflow preventer installed in c.2003.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	10	MAR-07

G2050.04 Lawns and Grasses*

Sloped grassed areas are located in several locations around the perimeter of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	MAR-07

G2050.05 Trees, Plants and Ground Covers*

Mature trees and shrubs are located along the west & south sides of the site.

Rating	Installed	Design Life	Updated
5 - Good	0	10	MAR-07

G3010.02 Site Domestic Water Distribution*

The building is supplied with municipal water for domestic and fire protection use.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

G3010.03 Site Fire Protection Water Distribution*

There are five fire hydrants located around the building. There is a fire department Siamese connection to the sprinkler system located at the front entrance (west of the main door).

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

G3020.01 Sanitary Sewage Collection*

The building is connected to the municipal sanitary sewer system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

G3030.01 Storm Water Collection*

Catch basins are located in the paved parking and driveway areas. Surface drainage appears to be adequate.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

G3060.01 Gas Distribution*

Natural gas is supplied to the building from the west side. The gas meter is located in room 79.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

G3060.04 Fuel Storage Tanks*

An underground fuel storage tank is located at the southwest corner of the building to store fuel oil for the standby generator.

Rating	Installed	Design Life	Updated
4 - Acceptable	1982	50	MAR-07

G4010.03 Electrical Power Distribution Equipment*

The primary transformer is an exterior padmounted transformer located in the Southeast parking area. The padmounted transformer is fed from an adjacent EPCOR switching cubicle. The incoming 347/600V feeders to the school are run underground from the padmounted transformer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	50	MAR-07

G4010.04 Car Plugs-ins*

Car Plug-ins are provided in the Northwest (8) and the Southeast (35) parking areas. The car plug-ins are rail mounted duplex receptacles. Distribution panels for the Southeast car plug-ins are located in a weatherproof enclosure c/w a 75kVA transformer, 3 panels c/w contactors and a timer. The panel for the Northwest car plug-ins is a 120/208V panel c/w contactor and timer in a weatherproof enclosure.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-07

Event: Replace Car Plug-ins.

Concern:
The Car Plug-ins have reached their theoretical life expectancy.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$24,600	Unassigned

Updated: MAR-07

G4020.01 Area Lighting*

There are approximately 28 pole mounted fixtures around the perimeter of the school. The lighting fixtures are shoebox style fixtures with HID lamps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1983	25	MAR-07

Event: Lifecycle Replacement

Concern:
The site lighting fixtures have reached their theoretical life expectancy.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$172,200	Unassigned

Updated: MAR-07