RECAPP Facility Evaluation Report

Edmonton School District No. 7

L. Y. Cairns School

B3186A

Edmonton

Report run on: October 28, 2008 12:57 PM

Facility Details

Building Name: L. Y. Cairns School
Address: 10510 - 45 Avenue
Location: Edmonton

Building Id: B3186A
Gross Area (sq. m): 10,204.30
Replacement Cost: $23,304,106
Construction Year: 1968

Evaluation Details

Evaluation Company: A&E Architectural and Engineering Group Inc.
Evaluation Date: October 24 2007
Evaluator Name: Vic Maybroda

Total Maintenance Events Next 5 years: **$3,612,863**
5 year Facility Condition Index (FCI): **15.50%**

General Summary:

This senior two story high school occupies a total area of 10,135.4 square metres. It is composed of 10,081.1 square metres constructed in 1968 and a 54.3 square metre addition constructed in 1970. The school has received major upgrading and renovations to a number of components and systems in 2003.
The school contains 23 classrooms, a library, 2 science rooms, 2 computer rooms, an art room, a gymnasium, numerous vocational spaces including daily living, millinery, home economics, animal husbandry, horticulture including two green houses, vehicle repair area, wood and metal working areas, food services laboratory, and cafeteria/study space with raised stage. The school also contains an internal landscaped courtyard and administration and ancillary support spaces.

At the time of the site visit there were 488 enrolled students.

Structural Summary:

The school consists of concrete foundation walls on concrete spread footings. The main floor and basement mechanical room floor consists of concrete slab on grade. The second floor consists of concrete slab supported by concrete block bearings walls metal beams and columns. The roof is composed of metal deck and steel joists.
The vocational teaching spaces of the second floor consists of concrete foundation walls on spread footings with concrete slab on grade floors with metal deck roofing and metal joists supported by concrete block walls.
The 1970 horticulture addition consists of metal greenhouse framing on concrete foundations.

With the exception of isolated settlement issues, the structure appears to be in acceptable condition.

Envelope Summary:

The school is finished with face brick cladding and textured stucco horizontal bands housing prefinished aluminum framed sealed and opening glazing units, painted metal and wood doors and frames with sealed glazing units, painted textured soffits, painted wood overhead doors and glazed green houses.
At the time of the site visit a large section of the original built-up asphalt roof was being replaced with a two ply SBS membrane assembly.

Overall, with exception to wood doors and built-up roofing section, the envelope appears to be in acceptable condition.

Interior Summary:

Flooring consists of paver units at main entry vestibule and stairway with rubber tile flooring and vinyl composite tile (VCT) located in corridors and classrooms. Carpeting is located in classrooms and administration spaces with epoxy flooring located in wash/change rooms, food services laboratory, entry vestibules and service spaces. Wood strip flooring is located in the gymnasium and parquet flooring in large wood working area. Mechanical, electrical rooms, horticulture areas, pet training and shop areas have painted or unpainted concrete floors.
Majority of walls are painted concrete block with stained wood strip accent walls located in the music room and cafeteria/study area. Washroom walls consist of glazed ceramic tile. Glazed painted metal partitions are located in various areas. Ceilings are composed of acoustical tile and spray textured finished gypsum wallboard.
Majority of millwork is painted wood with plastic laminate counters. Lockers and toilet partitions are prefinished painted metal. Classrooms contain tack boards and a combination of green and white boards.
Window covering consist of vertical fabric finished louvred blinds.

With exception of isolated settlement cracks, worn flooring materials and millwork, interior finishes appear to be in acceptable condition.

Mechanical Summary:

The school is serviced by from the North side by a municipal domestic cold water (DCW) line, gas line, and sanitary line. Schools storm water is serviced by a municipal storm line on the North side of the the school.

The school's ventilation is provided by two Make Up Air Units (MUA) and four Air Handling Units (AHU) through overhead ductwork. The MUA units service the schools Food Services Lab and the second floor Workshops. The AHU service the Gymnasium, Cafeteria, first floor, and second floor. The Laundry Room has an industrial washer and dryer, and does not have a MUA, a MUA should be installed in this area to meet codes and regulations. The school's ventilation system is of poor air quality and quantity, particles and styrofoam from current roof construction has been observed coming in from the ventilation system in the Food Services Lab during the inspection, a thorough cleaning of the entire ventilation system is recommended including supply, return and exhaust air ducts. The quantity and outdoor air into the Gymnasium is insufficient and as a result there is poor air quantity and quality in the Gymnasium. The office areas in the school are poorly ventilated as well as many of the classrooms, a thorough inspection of the air quantity, outdoor air quantity, and air changes per hour is recommended.

The school has four Computer Classrooms, two Server Rooms, and an Electrical Room on the second floor, all of which are hot as a result of heat generation. It is recommended to install Split System A/C units in order to cover this heat gain.

The school contains exhaust fans that serve the Food Services Lab, Workshop areas, Vocational Activities Classroom, Animal and Science Care, locker rooms, and storage rooms. There are many storage rooms that do not have exhaust fans and fans should be installed to meet Alberta Infrastructure Mechanical System Design Parameters. The Gymnasium, Cafeteria, Beauty Culture Classroom, Domestic & Institutional Training Classroom, Faculty Dining Room and Aerobics Classroom also lack exhaust fans and these should be added to meet Code. The school has several classrooms equipped with electric ranges (Domestic & Institutional Training, and two Foods & Homemaking Classrooms), none of which come equipped with a range exhaust fan, as a result the hallways throughout the school smell of food being prepared in the classrooms, and smell lingers around for over one day, range exhaust fans are to be installed over all of the range ovens in order to meet Code.

Heating to the school is provided by three boilers, which serve, radiant panels, coils, force flow heaters and the heat exchanger. There are two gas fired unit heaters (UH) that serve the greenhouse space.

Domestic hot water (DHW) system serving the school is provided by two gas fired domestic water heaters (DWH) coupled to a storage tank in the mechanical room, the DHW is circulated throughout the school via circulating pumps.

DCW, DHW and heating water piping is insulated and complete with anti-sweat jackets throughout the school.

Standard plumbing fixtures are located throughout the school, the fixtures in the Boy's and Girl's Washrooms have been updated in 2003. The Beauty Culture Classroom has old Belvedere sinks that need failure replacement. A mop sink is broken in the Custodial Room on the second floor as a result of which water discharging from the washer overflows and drains into a sump pit.

Although the Essential Modernization Project in 2003 has replaced the old mechanical system, it is recommended that the school's ventilation distribution system should be studied in order to make the changes needed in order to meet sufficient occupancy levels as described by the Code. Also exhaust fans should be added in all the areas that require negative pressurization and that have electric ranges, in order to meet Code. As a result of the ventilation not meeting Alberta Infrastructure Mechanical System Design Parameters and the Building Code the school's ventilation is in marginal condition. The heating, plumbing and fire protection systems are in good condition.

Electrical Summary:

The school was initially built in 1968 and major modernization was taken place in 2003. The electrical systems are well maintained and in good condition. The electrical power distribution system meets current school requirements and can be easily expanded to meet future expansion.

The lighting systems are adequate and meet accepted standards for lighting levels. The energy efficiency upgrading has been implemented during last five years. New fire alarm was installed in 1997.

The electrical systems are well maintained and in good 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 - 1968 Section*

Concrete footings and foundation walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

A1010 Standard Foundations - 1970 Section*

Concrete footings and foundation walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	0	MAR-08

A1030 Slab on Grade - 1968 Section*

Floor settlement has resulted in isolated wall cracks. Requires monitoring to verify movement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

Settlement crack in southwest corner of Room 28 on main floor.

A1030 Slab on Grade - 1970 Section*

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	0	MAR-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1968 Section*

Concrete Block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1970 Section*

Green house framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	0	MAR-08

B1010.03 Floor Decks, Slabs, and Toppings - 1968 Section*

Second floor concrete slab with isolated settlement wall cracks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

Settlement crack in Corridor C-5 on second floor between Auto Repair and Metal Working Shop.

B1020.01 Roof Structural Frame - 1968 Section*

Metal deck supported by metal joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1968 Section*

Face Brick.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	75	MAR-08

B2010.01.08 Cement Plaster (Stucco): Ext. Wall - 1968 Section*

Horizontal textured stucco fascia bands.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	75	MAR-08

B2010.01.09 Expansion Control: Exterior Wall Skin - 1968 Section*

Vertical control joints in face brick and stucco fascia.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1968 Section**

Sealants around exterior wall openings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	20	MAR-08

Event: Repair Sealants - 1968 Section**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$68,818	Unassigned

Updated: APR-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1970 Section**

Greenhouse glazing sealants.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	20	MAR-08

Event: Repair Sealants: Ext. Wall - 1970 Section**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$2,893	Unassigned

Updated: APR-08

B2010.02.03 Masonry Units: Ext. Wall Const. - 1968 Section*

Concrete block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1968 Section*

No condensation effervescence or viewed or reported at time of site visit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens - 1968 Section*

Paint finish louvres to mechanical spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens - 1970 Section*

Paint finish louvres/screen to green house.

Rating	Installed	Design Life	Updated
4 - Acceptable	1970	0	MAR-08

B2010.09 Exterior Soffits - 1968 Section*

Textured stucco.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

Prefinished aluminum framed sealed and opening window units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-08

Event: Replace 90 Exterior Aluminum Framed Windows

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$154,440	Unassigned

Updated: APR-08

B2030.01 Exterior Entrance Doors - 1968 Section

4 painted insulated metal doors and frames complete with sealed glazing units at main entry.
10 painted wood doors in metal frames complete with sealed glazing units at secondary exits.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Event: Replace 14 Exterior Entrance Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$48,048	Unassigned

Updated: APR-08

B2030.02 Exterior Utility Doors - 1968 Section**

9 painted wood doors in painted metal fames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-08

Event: Replace 9 Exterior Utility Doors**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$20,592	Unassigned

Updated: APR-08

B2030.03 Large Exterior Special Doors (Overhead)*

Painted wood overhead doors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Event: Replace with 4-Prefinished Insulated Metal Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$9,152	Unassigned

Updated: MAY-08

B3010.01 Deck Vapor Retarder and Insulation - 1968 Section*

No visible roof leaks or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

An area of approximately 2,750 remains as a built-up roof assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1984	25	MAR-08

View of built-up roof assembly.

Event: Replace 2,750 Sq. M of Built-up Roofing.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$204,490	Unassigned

Updated: APR-08

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

Approximately 4,000 sq. M of SBS membrane roofing replaced during site visit.

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

View of SBS assembly being installed.

Event: Replace 4,000 sq. M of SBS Roofing.

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$486,200	Unassigned

Updated: APR-08

B3020.02 Other Roofing Openings (Hatch,Vent, etc) - 1968 Section*

Roof hatch, roof drains, plumbing vents and exhaust fans.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies: Partitions -

Painted concrete block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

C1010.03 Interior Operable Folding Panel Partitions - **

Located in Cafeteria/Study and Gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Event: Replace 2 Interior Operable Folding Panel Partitions**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$23,755	Unassigned

Updated: APR-08

C1010.06 Interior Glazed Partitions and Storefronts - *

Single glazed units in painted metal frames as part of partition assembly separating teaching spaces from adjacent offices in computer room, library, millenary/food preparation space, shop and horticultural spaces and administration area.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

C1010.08 Other Partitions - *

Miscellaneous wood framed partitions in shop areas, computer room and library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

Stained and painted wood doors with glazing units in painted metal frames equipped with round knob handles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-08

C1020.03 Interior Fire Doors - *

Painted metal doors with glazing units in painted metal frames.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

Fire doors complete with magnetic door holders and glazing units.

C1030.01 Visual Display Boards - **

Teaching spaces contain both green and white boards (replaced in 2003) plus traditional fabric covered tack boards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	20	MAR-08

Classroom with green boards.

Event: **Replace approximately 20-1200 x 2400mm Green Boards**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$17,160	Unassigned

Updated: APR-08

Event: **Replace approximately 30-1200 x 2400 White Boards**

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$25,740	Unassigned

Updated: APR-08

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

Prefinished metal toilet partitions.

Rating	Installed	Design Life	Updated
5 - Good	1968	30	MAR-08

Event: Replace 23 Fabricated Toilet Partions.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$31,574	Unassigned

Updated: APR-08

C1030.06 Handrails - *

Stained wood handrail to main entry stair way and painted metal handrails to secondary stairs and ramps.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

C1030.08 Interior Identifying Devices - *

Room names and numbers on teaching room doors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

C1030.10 Lockers - **

Prefinished full height lockers located in corridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

View of corridor lockers.

Event: Replace 365 Lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$275,590	Unassigned

Updated: APR-08

C1030.12 Storage Shelving - *

Painted wood.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

Toilet paper dispensers, waste containers, mirrors and similar accessories.

Rating	Installed	Design Life	Updated
5 - Good	2003	0	MAR-08

C2010 Stair Construction - *

Steel stairs between main and second floor.
Concrete stairs in mechanical room.
Wood framed stair to stage and wood framed seating area in music room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

C2020.01 Tile Stair Finishes - *

Paver stair finish to main entry stair.

Rating	Installed	Design Life	Updated
5 - Good	1968	60	MAR-08

C2020.05 Resilient Stair Finishes - **

Rubber floor finish to secondary stairs between main and second floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	20	MAR-08

Event: Replace Resilient Flooring to 4 Stairways

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$4,576	Unassigned

Updated: APR-08

C2020.08 Stair Railings and Balustrades - *

Stained wood hand rail to main entry stair with painted metal balustrades.
Painted metal handrails and balustrades to 4 secondary stairways.
Painted metal handrails to mechanical room stairs.
Wood stained handrail to stage area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

C2030.01 Ramp Construction*

Wood framed ramp to stage area from cafeteria/study area.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-08

C2030.02 Ramp Finishes*

Carpet.

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

C3010.02 Wall Paneling - **

Stained wood paneling located in isolated teaching spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Stained wood acoustical paneling.

Event: Refinish 60 sq. M Wood Paneling

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$1,373	Unassigned

Updated: APR-08

C3010.06 Tile Wall Finishes - **

Glazed tile in wash rooms approximately 1500mm high.
Full height glazed tile in shower rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-08

Event: Replace 300 sq. M. Glazed Wall Tile

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$80,652	Unassigned

Updated: APR-08

C3010.09 Acoustical Wall Treatment - **

Rigid fibreglass insulation panels located behind stained wood paneling in music room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	20	MAR-08

Event: Replace 30 sq. M Acoustical Wall Paneling.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$1,716	Unassigned

Updated: APR-08

C3010.11 Interior Wall Painting - *

Painted concrete block, gypsum wall board, door and glazed partition framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	10	MAR-08

C3020.01.01 Epoxy Concrete Floor Finishes - *

Located in wash rooms, food services area, secondary entry vestibules and service areas.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	0	MAR-08

Event: Replace 320 sq. M Epoxy Flooring.

Concern:
Settlement cracks to epoxy flooring in wash rooms and related spaces.
Recommendation:
Replace epoxy flooring.

Type	Year	Cost	Priority
Failure Replacement	2008	$54,912	Medium

Updated: MAY-08

C3020.01.02 Paint Concrete Floor Finishes - *

Paint finish worn leaving areas unprotected in service, vocational shop areas and mechanical room spaces.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	10	MAR-08

Event: Refinish 1180 sq. M Exposed Concrete Floors

Concern:
Worn finishes in vocational teaching areas leaving floor areas unprotected.

Recommendation:
Repair and refinish concrete flooring.

Type	Year	Cost	Priority
Preventative Maintenance	2009	$74,360	Medium

Updated: MAY-08

C3020.02.03 Paver Tile

Paver tiles located in main entry vestibule, main entry stairway.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

C3020.04 Wood Flooring - **

Located in gymnasium, stage and vocational education.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Event: Replace 690 sq.M of Wood Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$217,074	Unassigned

Updated: APR-08

C3020.07 Resilient Flooring - **

Original VCT flooring in corridor and class room spaces

Rating	Installed	Design Life	Updated
3 - Marginal	1968	20	MAR-08

Event: Replace 670 sq M Resilient Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$34,434	Unassigned

Updated: APR-08

C3020.07 Resilient Flooring**

Installed in corridors and classroom spaces.

Rating	Installed	Design Life	Updated
5 - Good	2003	20	MAR-08

Event: Replace 2,780 sq. M Resilient Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$143,114	Unassigned

Updated: APR-08

C3020.08 Carpet Flooring - **

Located in classrooms and administration spaces.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	15	MAR-08

Event: Replace 670 sq. M Carpet Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$65,208	Unassigned

Updated: APR-08

C3020.08 Carpet Flooring**

Located in classrooms, administration and ancillary spaces.

Rating	Installed	Design Life	Updated
5 - Good	2003	15	MAR-08

Event: Replace 1505 sq. M Carpet Flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$137,852	Unassigned

Updated: APR-08

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

Located in corridors and administration spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	25	MAR-08

Event: Replace 1,020 sq. M Suspended Acoustical Ceilings

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$52,395	Unassigned

Updated: APR-08

C3030.07 Interior Ceiling Painting - *

Located in classrooms and ancillary spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	20	MAR-08

D1010.01.02 Hydraulic Passenger Elevators - **

Passenger elevator between main and second floor.

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

Event: Replace 2 Stop Hydraulic Passenger Elevator

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$85,800	Unassigned

Updated: APR-08

S4 MECHANICAL

D2010.04 Sinks - **

Thirty (30) Kindred Steel Queen QL-2 single bowl, ledge back, stainless steel sink complete with faucet to meter and mix hot and cold water and 6" swing spout serving classrooms. Seven (7) Kindred Steel Queen QL-2 single bowl, ledge back, stainless steel sink complete with faucet to meter and mix hot and cold water 8" swing spout and needle tip serving Science Classroom. Three (3) Mop sink are a floor mounted 24"x24"x10" Molded Stone MSB-2424, complete with a 830AA valve breaker located in Janitor Rooms and Custodial Room, one (1) 24"x48" mop sink is located in Animal Science & Care room. There are two (2) Kindred commercial under-mount 12"x12" stainless steel sinks complete with 8" wallform swing spout located in the Animal Science & Care room. The Beauty Culture Classroom has four (4) old Belvedere "Flow Temp" sinks that need failure replacement as it is leaking. Semi circular group wash fountains, 36" in diameter serve the schools Workshops, four (4) in total, all are in working order and acceptable condition.

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

Event: Repair Piping on One (1) Sink

Concern:
A mop sink is broken in the Custodial Room on the second floor as a result of which water discharging from the washer overflows and drains into a sump pit.
Recommendation:
Repair the piping serving the mop sink.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,144	High

Updated: APR-08

Water overflowing from mop sink as washer discharges water into broken sink.
Location: Custodial.

Event: Replace Fifty (50) Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$55,041	Unassigned

Updated: APR-08

Event: Replace One (1) Sink

Concern:
Sink is leaking
Recommendation:
Replace sink, or sink component that is causing the water to leak.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,144	High

Updated: APR-08

Belvedere Sink1.jpg

D2010.05 Showers - **

Shower heads are ordinary institutional type shower heads, pressure and temperature of shower heads is controlled by a single Symmons temcontroller valve model 5400, typical of the Girl's and Boy's Showers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Event: Replace Fourteen (14) Showers

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$18,899	Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers - **

School is equipped with ten (10) vitreous china, wall mounted water fountains.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	35	MAR-08

Event: Replace Ten (10) Drinking Fountains

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$13,431	Unassigned

Updated: APR-08

D2010.09 Other Plumbing Fixtures - *

Ten (10) Non-Freeze Hose Bibs located around the permimeter of the school complete with backflow preventors, provide access to domestic cold water to garden hoses.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

The school's Boy's and Girl's Washrooms are serviced by twenty-six (26) Kindred stainless steel lavatories series N. The lavatories are serviced by Teck push valve faucets complete with mixing valve. Twenty-four (24) American Standard Madera flush valve 6Lpf elongated vitreous china, water closets complete with elongated open front seats serve the school's Washrooms. The Boy's Washrooms are serviced by ten (10) American Standard 3.8Lpf wall hung, top inlet, flush valve urinals. Locker Room lavatories are vitreous china wall hung single lavatories complete with faucet and DCW/DHW valves.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-08

Event: Replace Sixty-Eight (68) Washroom Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$65,002	Unassigned

Updated: APR-08

D2020.01.01 Pipes and Tubes: Domestic Water - *

Domestic water runs in copper pipes.

Rating	Installed	Design Life	Updated
5 - Good	2003	0	MAR-08

D2020.01.02 Valves: Domestic Water - **

All plumbing fixtures isolated individually.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	40	MAR-08

Event: Domestic Water Valves

Type	Year	Cost	Priority
Lifecycle Replacement	2034	$45,760	Unassigned

Updated: APR-08

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

Ameys 164, 3" backflow prevention valve located between double check valve serves 3" DCW line, located in Mechanical Room near DCW entry line.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	20	MAR-08

Event: Backflow Preventors

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$17,160	Unassigned

Updated: APR-08

D2020.02.02 Plumbing Pumps: Domestic Water - **

Three (3) pumps serve the school's DHW, two (2) recirculation pumps serve the DHW line between the DWH and the holding tank, these are Bell & Gossett model NBF 22, and one (1) recirculation pump serves the school's Domestic Hot Water Return (DHWR) line, Bell & Gossett model M74799 1/4 HP.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	20	MAR-08

Event: Replace Three (3) Domestic Hot Water Recirculating Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2014	$4,576	Unassigned

Updated: APR-08

D2020.02.06 Domestic Water Heaters - **

The school is equipped with two (2) 75.0 Gal (284L), A.O. Smith DWHs, model BT 365-Y00-N600-L10, with an input capacity of 328,000 BTU and a 276 GPH (1045 L/H) heat recovery @ 150 Pa working pressure. 3.3m3 (3,300L) Hot water vessel (built in 1968) stores DHW in the school.

Rating	Installed	Design Life	Updated
5 - Good	1999	20	MAR-08

Event: Replace One (1) Hot Water Vessel

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$17,160	Unassigned

Updated: MAR-08

Event: Replace Two (2) Domestic Water Heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$15,330	Unassigned

Updated: APR-08

D2020.03 Water Supply Insulation: Domestic - *

6" municipal DCW supply serves the school & the sprinkler tree, 3" line DCW line supplies water to the school. All the pipes (DCW and DHW) are insulated and are complete with anti sweat jackets.

Rating	Installed	Design Life	Updated
5 - Good	1994	0	MAR-08

D2030.01 Waste and Vent Piping - *

PVC and ABS piping system throughout the school. Each fixture vented to atmosphere. Traps are provided where necessary. Sanitary drainage effluent is collected into common 6" sanitary main. Flows by gravity @ 1% slope, leaving the building at the northeast. A mop sink is broken in the Custodial Room on the second floor as a result of which water discharging from the washer overflows and drains into a sump pit.

Rating	Installed	Design Life	Updated
5 - Good	1994	0	MAR-08

D2040.01 Rain Water Drainage Piping Systems - *

Roof drains are connected to the 6" storm line providing the school's storm drainage. There is one catch basin in the East side of the school connecting to the 6" storm line. The storm line connects to the municipal storm main on the North side of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

D2040.02.04 Roof Drains - *

4" Zurn Z-121 roof drains on gravel roof, and new 4" Zurn ZCF-121 roof drains on section of roof under construction. All drains are connected to the storm system.

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

D3010.02 Gas Supply Systems - *

6" buried gas line enters the Lower Mechanical Room from the North side of the school. The gas line enters the property from the gas main on 45 avenue. Gas meter is located inside the Lower Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	60	MAR-08

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

The school is serviced by three (3) copper coil water heating boilers. The boilers are Raypak model H2-3001-N-2P, 2,700,000 BTUH input, 2,214,000 BTUH output, complete with relief valve, high/low limit, fire, alarm, enable switches, low water cut off detector, heating supply detector, Expanflex ALT 200 expansion tank, Honeywell controller and a WEG 184JM boiler circulating pump, one of the pumps is badly corroded, noisy and vibrates. Heating Water Supply (HWS), is pumped through the system via four (4) Bell & Gossett circulating pumps. Two (2) pumps are 103 GPM, 1.5 HP each, one (1) pump is a 65 GPM, 1.5 HP, one (1) pump is a 174 GPM, 7.5 HP, each pump is connected to a 208V, 3 phase, 60 Hz power supply. The boiler units also supply hot water to the Alfa Laval plate glycol heat exchanger which serves the AHUs, UHs, Force Flow Heaters (FF). Glycol system consists of a Armstrong circulating pump that has a pump rate of 105GPM, expansion tank, glycol fill pump, glycol fill tank, fluid filter and chemical pot feeder.

Rating	Installed	Design Life	Updated
5 - Good	2003	35	MAR-08

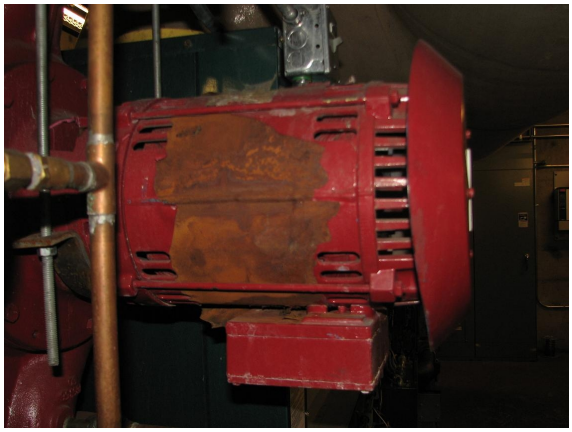
Event: Replace One (1) Boiler Circulating Pump

Concern:
One of the Boiler Circulating pumps is corroded, vibrates, and is noisy.

Recommendation:
Replace the Circulating Pump with a new one.

Type	Year	Cost	Priority
Failure Replacement	2008	$2,860	High

Updated: APR-08



Circulating Pump serving Boiler.

Event: Replace Three (3) Copper Coil Heating Boilers and Accessories

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$143,887	Unassigned

Updated: APR-08

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

Galvanized steel common vent complete with power vent through roof serving three (3) boilers and two (2) DWHs. Power vent is a Dunham & Bush Quickdraft model C-361.
Combustion air is 34"x30" is of adequate size, and is complete with a unit heater and damper.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-08

Event: Replace One (1) Chimneys & One (1) Comb. Air Duct

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$59,229	Unassigned

Updated: APR-08

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

Chemical pot feeder and R-Can FSS-34 stainless steel water filters serving hot water system.

Rating	Installed	Design Life	Updated
5 - Good	2003	0	MAR-08

D3020.04.03 Fuel-Fired Unit Heaters - **

There are three (3) gas fired unit heaters serving the school's Greenhouses. The Unit heaters are Reznor Model UDAP 175 with a input capacity of 175 MBH and an output of 145 MBH, the unit heaters have an air capacity of 2242, they are in good condition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-08

Event: Replace Three (3) Fuel-Fired Unit Heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$20,592	Unassigned

Updated: APR-08

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

Type B vent up through roof serving each unit heater, adequate supply of combustion air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	0	MAR-08

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

The school's ventilation is provided by two (2) Make Up Air Units (MUA) serving the Food Services Lab and the second floor Workshop areas, and four (4) Air Handling Units (AHU) serving the Gymnasium, Cafeteria, first and second floors.
The MAU serving the Workshops is located on the roof of the school in the East Wing and it is a Powermatic Direct gas fired model: RHAD 80 with an input capacity of 800 MBH and an air capacity of 8,000 CFM of air at a static pressure of 0.75 inches, it is connected to a 575V. 3 phase, 60 Hz power supply. The MAU serving the Food Services Lab is located on the second floor of the Mechanical Room, this unit is a EngA direct gas fired model: HE 171 input capacity of 2,057 MBH and an air capacity of 17,000 CFM of air at a static pressure of 1.25 inches, it is connected to a 575V. 3 phase, 60 Hz power supply.
The AHUs serving the school are all Scott Springfield units complete with heating coils, evaporative humidifiers, supply fans, dampers, filter access, low temperature alarms and air duct smoke detectors by PYR-A-LARM model DIA-6. The glycol servicing the units is pumped via a Grundfos Type UP-26-64F circulating pump near the heating coils, this is typical of all the units.
The AHU serving the Cafeteria is model HQ-125-AHU-10400-H-M with a 10 HP @ 1,505 RPM DIDW-AF supply fan that has an air capacity of 10,400 CFM @ 3.04 inches of static pressure. The AHU serving the Gymnasium is model HQ-80-AHU-7000-H-M with a 7.5 HP @ 2,406 RPM DIDW-AF supply fan that has an air capacity of 7,000 CFM @ 3.06 inches of static pressure. Both the units serving the Cafeteria and Gymnasium have a Type 5MQ1001C single row heating coil and are located on the second floor of the Mechanical Room.
The AHU serving the first floor is model HQ-230-AHU-23000-H-M with a 50 HP @ 1,374 RPM SISW-PLN supply fan that has an air capacity of 23,000 CFM @ 7.00 inches of static pressure. The AHU serving the Second floor is model HQ-280-AHU-26600-H-M with a 60 HP @ 1,451 RPM SISW-PLN supply fan that has an air capacity of 26,625 CFM @ 7.00 inches of static pressure. Both the units serving the first and second floors have two Type 5MQ0601B single row heating coils and are located on the first floor of the Mechanical Room.
The Laundry Room has an industrial washer and dryer, and does not have a MUA, a MUA should be installed and interlocked with the commercial dryer to meet the Building Code.

Rating	Installed	Design Life	Updated
3 - Marginal	2003	30	MAR-08

Event: Add One (1) Make-Up Air Unit for Laundry Room

Concern:
The Laundry Room has an industrial drying machine, there is no make-up air provided to the room.
Recommendation:
Install a MUA to provide make up air to the Laundry Room, this MUA is to be interlocked with the industrial dryer.

Type	Year	Cost	Priority
Code Upgrade	2008	$14,872	Medium

Updated: MAR-08

Event: Replace Four (4) Air Handling & Two (2) Make-Up Air Units

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$879,551	Unassigned

Updated: APR-08

D3040.01.03 Air Cleaning Devices:Air Distribution - *

Replaceable filter mediums are installed on all the Air Distribution units, due to the poor air quality in the Food Services Lab it is recommended that a more stringent schedule is implemented on the frequency of filter changes.

Rating	Installed	Design Life	Updated
3 - Marginal	2003	0	MAR-08

D3040.01.04 Ducts: Air Distribution - *

The school is equipped with galvanized steel ductwork that provides air supply, return and exhaust throughout the school. Even though the school has received new mechanical system in the modernization of 2003 the school's ventilation system is of poor air quality and quantity. During the inspection particles of debris and styrofoam from current roof construction have been observed coming in from the ventilation system in the Food Services Lab during, a thorough cleaning of the entire ventilation system is recommended including supply, return and exhaust air ducts. The quantity of outdoor air into the Gymnasium is insufficient and as a result there is poor air quantity and quality in the Gymnasium. The office areas in the school are poorly ventilated as well as many of the classrooms, a rebalancing of the air distribution and quantity is recommended.

Rating	Installed	Design Life	Updated
2 - Poor	2003	0	MAR-08

Event: Air Distribution, Balancing

Concern:
The office areas in the school are poorly ventilated as well as many of the classrooms, while some classrooms have plenty of air supply.

Recommendation:
Re-balancing of air distribution is recommended in Classrooms and office areas.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2008	$5,720	Medium

Updated: MAR-08

Event: Air Duct Cleaning

Concern:
During the inspection particles of debris and styrofoam from current roof construction have been observed coming in from the ventilation system in the Food Services Lab during.

Recommendation:
It is recommended that a thorough cleaning of the entire ventilation system including the supply, return and exhaust air ducts.

Type	Year	Cost	Priority
Preventative Maintenance	2008	$28,600	High

Updated: MAR-08

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

Diffusers are ceiling mounted, stamped 8" x 8" and 24" x 24"square diffusers, double deflection grilles with adjustable blades, drum louver high capacity diffusers, linear bar grilles and registers and linear slot diffusers. Registers are complete with steel or aluminum damper serving return air and supply air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

D3040.03.01 Hot Water Distribution Systems - **

Insulated copper piping distribution to perimeter radiation (classrooms, storage and gymnasiums), force flow heaters, glycol heat exchangers, reheat coils radiant panels and combustion air unit heater.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-08

Event: Hot Water Distribution Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$914,537	Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust - 2003 Modernization**

The school is equipped with a Greenheck CUBE-480-75-G exhaust fan serving the Food Services Lab that has an exhaust air capacity of 23,674 CFM at a static pressure of 1 inch, it is connected to a 575V, 3 phase, 60 Hz power supply. A Joy fan model B2450GP 4T-SW serves the school's Welding and Woodworking Shops. A century fiberglass Labratory Fume cabinet model CFH -351 serves the Science Room. The fans are in good working condition.
The school lacks exhaust fans in the following areas, and exhaust fans should be installed in order to meet the building code and to improve the indoor air quality:
First Floor:
- Faculty Dining Room
- Storage Room serving the Food Services Lab
- Aerobics Room
- Two (2) Foods & Homemaking classrooms need ten (10) range hood fans for the ranges as smell of the cooked food remains in the hallways for one to two days
- Storage Rooms under three (3) stairwells do not have a exhaust fans
- The Gym and Cafeteria
Second Floor:
- Beauty Culture Room
- Domestic & Institutional Training has six (6) range ovens that have no range hood fans, smell of food remains in hallways for one to two days
- There are two (2) Storage Rooms near Stairwell number 2 and 3

Rating	Installed	Design Life	Updated
2 - Poor	2003	30	MAR-08

Event: Exhaust Fan Installation

Concern:

The school lacks exhaust fans in the following areas:
First Floor:
- Faculty Dining Room
- Storage Room serving the Food Services Lab
- Aerobics Room
- Two (2) Foods & Homemaking classrooms need ten (10) range hood fans for the ranges as smell of the cooked food remains in the hallways for one to two days
- Storage Rooms under three (3) stairwells do not have a exhaust fans
- The Gym and Cafeteria
Second Floor:
- Beauty Culture Room
- Domestic & Institutional Training has six (6) range ovens that have no range hood fans, smell of food remains in hallways for one to two days
- There are two (2) Storage Rooms near Stairwell number 2 and 3

Recommendation:

Exhaust fans are to be be installed in order to meet the building code and to improve the indoor air quality

Type	Year	Cost	Priority
Code Upgrade	2008	$22,880	Medium

Updated: MAR-08

Event: Replace Three (3) Exhaust Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$38,174	Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust - Original**

Seven (7) Loren-Cook model CTB 15E01B 115V, single phase, 60 Hz power supply fans serve the school's change rooms and janitorial rooms. A Candian Blower Size 175D BUS provides exhaust air to the Workshop areas. Loren Cook CH 18 exhaust fan serves the school's Animal Science and Care.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Event: Replace Nine (9) Exhaust Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$15,444	Unassigned

Updated: MAR-08

D3040.04.03 Ducts: Exhaust - *

Exhaust air ductwork to roof and ceiling mounted fans. All ducts insulated with 1" thermal insulation. Backdraft dampers are provided. Some exhaust ducts show plenty of dirt & debris, cleaning of ductwork is recommended cleaning costs have been included in D3040.01.04 Ducts: Air Distribution.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	0	MAR-08

D3040.04.05 Air Outlets and Inlets: Exhaust - *

Standard egg crate grilles are provided to exhaust air ducts, grilles are in acceptable condition. The exhaust air in the Food Services Lab is connected to industrial range canopies complete with a fire suppression system.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	0	MAR-08

D3050.01 Unitary Air Conditioning Equipment -

The school has five (5) computer rooms that have heat generation and need split-system air conditioning units installed. There is also a Printing Office on the second floor with a server that overheats and needs a split-system A/C unit. A Electrical Room/Work Room on the first floor has a server that generates heat, a split-system A/C unit is recommended to install.

Rating	Installed	Design Life	Updated
1 - Critical	1968	30	MAR-08

Event: Split System A/C Units

Concern:
Five (5) computer rooms, second floor Printing Office, and Electrical/Work Room have a build up of heat generation.

Recommendation:
Install Split System Air Conditioning Units.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2008	$24,024	Medium

Updated: MAR-08

D3050.05.02 Fan Coil Units - **

Ductwork in the school has fan coils to allow for zoning control.

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

Event: Fan Coil Units

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$154,917	Unassigned

Updated: APR-08

D3050.05.03 Finned Tube Radiation - **

Single and double slope perimeter radiation installed throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	40	MAR-08

Event: Finned Tube Radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2043	$310,950	Unassigned

Updated: APR-08

D3050.07 Other Terminal and Packaged Units - *

The school has variable air volume (VAV) controllers by Price model SPV8000 size 7 with an air capacity of 0-307 L/s or 0-650 CFM. No problems have been found and the VAV units appear to be in working condition.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	0	MAR-08

D3060.02 HVAC Instrumentation and Controls -

Pneumatic control pressure controls the AHUs and the MUAs in the school. The compressed air is generated by two (2) Newman Motors 213/DD1852BB compressors that are coupled to a CRN # C7494-57084 storage tank. The air is dehumidified by a Hankison compressed air dryer model HPR5-10 with a rated capacity of 10 SCFM @ 100 PSIG. The compressed air tank and the Newman motor pumps have been installed in 1968 and have exceeded their lifetime.

Rating	Installed	Design Life	Updated
4 - Acceptable	2004	30	MAR-08

Event: Compressed Air Storage Tank and Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$9,152	Unassigned

Updated: MAR-08

Event: HVAC Instrumentation and Controls

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$572,000	Unassigned

Updated: APR-08

D4010 Sprinklers: Fire Protection - *

The school is equipped with a sprinkler tree, that services the school's sprinkler system throughout the school. The sprinkler heads are in acceptable condition.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	60	MAR-08

D4020 Standpipes - *

The school is equipped with standpipes serving the school's Fire Hoses.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	60	MAR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories - *

Fire Hoses are stored inside Fire Cabinets along side 5lbs ABC Fire Extinguishers, and are complete with a 2-1/2" Fire Department hookeup. 5lbs ABC fire extinguishers are provided throughout the school and are within an acceptable distance of eachother.

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

D4090.02 Carbon Dioxide Fire Extinguishing Systems - **

20 lbs CO2 fire extinguisher is provided in the Lower Mechanical Room.

Rating	Installed	Design Life	Updated
5 - Good	2003	50	MAR-08

Event: Carbon Dioxide Fire Extinguishing Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2058	$13,204	Unassigned

Updated: APR-08

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

The Food Services Lab is provided with a dry chemical Pro Chem PCL 165, fire suppression system in the kitchen canopies.

Rating	Installed	Design Life	Updated
5 - Good	2003	40	MAR-08

Event: Dry Chemical Fire Extinguishing Systems (Kitchen Hood)

Type	Year	Cost	Priority
Lifecycle Replacement	2043	$18,304	Unassigned

Updated: MAR-08

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior)**

The transformers were installed with original building.

Rating	Installed	Design Life	Updated
5 - Good	1968	40	MAR-08

Event: Replace Secondary Electrical Transformers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$51,480	Low

Updated: APR-08

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

347/600V, 3 phase, 4 wire, 1200A main switchboard was installed with original building in 1968. The distribution system have sufficient capacity for any future expansion.

Rating	Installed	Design Life	Updated
5 - Good	1968	40	MAR-08

Event: Replace Main Electrical Switchboards

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$160,160	Low

Updated: APR-08

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

Panels were installed with original building and don't have much spaces for future usage.

Rating	Installed	Design Life	Updated
5 - Good	1968	30	MAR-08

Event: Replace 22 Electrical Branch Circuit Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$108,680	Unassigned

Updated: APR-08

D5010.07.01 Switchboards, Panelboards, and Motor Control Centers**

The MCC was installed during essential modernization project and mainly serves for major mechanical equipment.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	APR-08

Event: Replace Motor Control Centers

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$45,760	Unassigned

Updated: MAR-08

D5020.01 Electrical Branch Wiring - *

Most wiring are still original installed in 1968.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

D5020.02.01 Lighting Accessories (Lighting Controls) - *

The low voltage are used for entire school lighting control. The hallway lighting was central controlled by the switches located in janitor room.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

D5020.02.02.02 Interior Florescent Fixtures - **

Fixtures were replaced with T-8 type fixtures during 2003 modernization project. The fixtures are mostly located in the school hallways.

Rating	Installed	Design Life	Updated
6 - Excellent	2003	30	MAR-08

Event: Replace 220 Florescent Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$30,202	Unassigned

Updated: APR-08

D5020.02.02.02 Interior Florescent Fixtures**

T-12 fluorescent light fixtures are installed in most of classroom, office and storage rooms.

Rating	Installed	Design Life	Updated
5 - Good	1968	30	MAR-08

Event: Replace 1780 Florescent Fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$244,358	Low

Updated: MAR-08

D5020.02.03.02 Emergency Lighting Battery Packs - **

The emergency packs were replaced during fire alarm upgrading in 1997

Rating	Installed	Design Life	Updated
5 - Good	1997	20	MAR-08

Event: Replace 50 Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$20,020	Unassigned

Updated: APR-08

D5020.02.03.03 Exit Signs - *

The Exit signs were retrofit to LED type lamps.

Rating	Installed	Design Life	Updated
5 - Good	2002	0	MAR-08

D5020.03.01.04 Exterior H.P. Sodium Fixtures - *

Fixtures were installed during 2003 modernization project.

Rating	Installed	Design Life	Updated
5 - Good	2003	0	MAR-08

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

The outdoor lighting are controlled by photocell.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

D5030.01 Detection and Fire Alarm - **

Edwards 50-2980 hard wired fire alarm system installed in 1997 fire alarm upgrading.

Rating	Installed	Design Life	Updated
5 - Good	1997	25	MAR-08

Event: Replace Fire Alarm system

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$109,824	Unassigned

Updated: APR-08

D5030.02.02 Intrusion Detection - **

DSC MAXSYS PC 4020 is used for security system. The motion sensors were installed through entire school hallways.

Rating	Installed	Design Life	Updated
5 - Good	2003	25	MAR-08

Event: Replace Intrusion System

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$22,880	Unassigned

Updated: APR-08

D5030.03 Clock and Program Systems - *

The Simplex system was installed for school clock and program system and connected to school PA system.

Rating	Installed	Design Life	Updated
5 - Good	2003	25	MAR-08

D5030.04.01 Telephone Systems - *

Nortel Network system was used for school telephone system

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

D5030.04.05 Local Area Network Systems - *

The computer outlets are installed through entire school classrooms and office.

Rating	Installed	Design Life	Updated
5 - Good	2003	0	MAR-08

D5030.05 Public Address and Music Systems - **

The Nitsuko system is installed to perform PA and music, paging and call system functions.

Rating	Installed	Design Life	Updated
5 - Good	2006	20	MAR-08

Event: Replace Public Address and Music Systems

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$51,480	Unassigned

Updated: APR-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment - *

Stained and painted wood shelving units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

E1030.01 Vehicle Service Equipment - *

Vocational automobile repair facility Including tire changers, vehicle ramps and mobile cranes.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

E1090.03 Food Service Equipment - *

Vocational food preparation area containing commercial style ranges, ovens, dish washers and similar items.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

Basketball hoops, badminton equipment and floor mats.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

E2010.02 Fixed Casework - **

Items include paint and stained cupboards and shelving units with plastic laminated counter tops.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	35	MAR-08

Event: Replace Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$667,327	Unassigned

Updated: APR-08

E2010.03.01 Blinds - **

Vertical louvred blinds over exterior windows.

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

Event: Replace Louvered Blinds over 91 Windowss

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$52,052	Unassigned

Updated: APR-08

F1020.02 Special Purpose Rooms

Weight training and exercise room and student games room equipped with pool tables.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

Weight training and exercise room.

F1020.02.04 Cold Storage Rooms - *

Located in food services preparation area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

F1020.02.13 Paint Booths - *

Small area located adjacent wood working room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

F1040.06 Other Special Facilities - *

Vocational training facilities in horticulture, animal husbandry,millinery and metal and wood working.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

F2020.01 Asbestos - *

Report prepared in 2001 identifying asbestos containing materials.recommending action which appears to have been undertaken.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

F2020.04 Mould - *

No mould seen or reported.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

S8 FUNCTIONAL ASSESSMENT

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

Concrete surfaced walkway from vehicle drop-off area to main entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

K4010.02 Barrier Free Entrances - *

Main entry not equipped for BFA.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

Event: Install Power Activated Door Hardware

Concern:
Main entry doors not equipped for BFA.
Recommendation:
Install power equipped hardware to main entry doors to meet BFA requirements.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$8,580	Low

Updated: APR-08

K4010.03 Barrier Free Interior Circulation - *

Doors equipped with round door knobs only.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

Event: Replace Door Knobs to 91 Doors.

Concern:
Doors to teaching and administration spaces not equipped with BFA hardware.
Recommendation:
Replace round door knobs with lever handles meeting BFA requirements.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2009	$10,296	Medium

Updated: APR-08

K4010.04 Barrier Free Washrooms - *

Toilet partitions and lavatory u;nits suitable for BFA.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	0	MAR-08

RECAPP Facility Evaluation Report

L. Y. Cairns School

S3186

Edmonton

Report run on: May 5, 2008 3:44 PM

Facility Details

Building Name: L. Y. Cairns School
Address:
Location: Edmonton

Building Id: S3186
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: A&E Architectural & Engineering Group Inc.
Evaluation Date: October 24 2007
Evaluator Name: Vic Maybroda

Total Maintenance Events Next 5 years: **$177,489**
5 year Facility Condition Index (FCI): **0%**

General Summary:

This two story school is constructed so that the second floor industrial arts/vocational studies area is built into the side of a hill bordering the east side of the school.
The school is accessed from a paved municipal roadway to a paved drop-off area and visitors parking area at the front of the school. Pedestrian concrete surfaced walkways access the main entry from the drop-off/parking area and provide access to school west side entries. An asphalt surfaced staff parking area is located on the north side of the school with an asphalt paved road accessing the second floor vocational area.
Mature trees and shrubbery are located along the south and west perimeters of the school. Mature landscaping is also located on the upper vocational teaching area including two green houses. A large asphalt paved play area is located on the north side of the school with soccer and baseball fields located on the west side of the school. Chain link fencing is located around the site perimeter.

Other than slope of the site at the main entry, the overall site conditions appear to be acceptable.

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) - **

Combination double laned driveway and drop-off area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	25	MAR-08

Event: Replace 55 sq. M Asphalt Paved Driveway

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$3,775	Unassigned

Updated: APR-08

G2010.05 Roadway Curbs and Gutters - *

Concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

Asphalt surfaced visitor parking area in front of school. Similar element exists for rear staff parking area and upper asphalt parking area adjacent to vocational areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	25	MAR-08

Event: Replace 1275 sq M Asphalt Parking Areas

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$96,494	Unassigned

Updated: APR-08

G2020.05 Parking Lot Curbs and Gutters - *

Concrete.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G2020.06.03 Parking Lot Signs - *

Signs designating Barrier Free Access parking, staff and visitor parking.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G2020.06.04 Pavement Markings - *

Painted lines worn with use and age.
Cost for replacement included with Item G2020.02.02.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

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

Main entry concrete paved area
Walkway along west and south sides of school.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	25	MAR-08

Event: **Replace 180 sq. M Rigid Pedestrian Pavement (Concrete)** -]**

Concern:

Main entry concrete area slopes back to entry doors.
Walkway along west side of school cracked and worn presenting tripping hazard.

Recommendation:

Replace concrete entry area and deteriorated sidewalk areas.

Type	Year	Cost	Priority
Failure Replacement	2009	$25,168	High

Updated: MAY-08

G2040.02 Fences and Gates -

Chain link fencing surrounding school site.
Painted pipe railing separating visitor parking from concrete walkways.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-08

Event: Replace 400 Lin. M Chain Link Fencing

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$36,608	Unassigned

Updated: APR-08

G2040.03 Athletic and Recreational Surfaces - **

Asphalt surfaced basketball area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	25	MAR-08

Event: Replace 220 sq. M Asphalt Paved Recreational Surfaces**

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$15,444	Unassigned

Updated: APR-08

G2040.05 Site and Street Furnishings - *

Wood surfaced seating area adjacent main entry and asphalt surfaced play area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G2040.06 Exterior Signs - *

School identification sign mounted on building facade.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G2040.08 Flagpoles - *

Single metal flagpole.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G2040.11 Retaining Walls - *

Two reinforced concrete walls separating main entry from upper level green houses.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G2050.04 Lawns and Grasses - *

Grassed area adjacent to south and west side of school building, grassed playing fields and at upper level between parking area and property line.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G2050.05 Trees, Plants and Ground Covers - *

Large mature trees and shrubbery adjacent to south and west side of school.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

G2050.07 Planting Accessories - *

Green houses.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

G3010.02 Site Domestic Water Distribution - *

Underground municipal service.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G3010.03 Site Fire Protection Water Distribution - *

Fire hydrant on municipal streets adjacent school site.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G3020.01 Sanitary Sewage Collection - *

Underground municipal service.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G3030.01 Storm Water Collection - *

Underground line from upper kevel parking level catch basin and from school building roof storm water drains to municipal street.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

G3060.01 Gas Distribution - *

U:underground line from municipal street to mechanical room.

Rating	Installed	Design Life	Updated
5 - Good	1968	0	MAR-08

G3060.05 Fuel Dispensing Equipment - *

Two station gasoline pumps located to Auto Shop Entry on upper level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G4010.01 Electrical Substations - *

Pedestal mounted transformer adjacent to property line and visitor parking area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G4010.02 Electrical Power Distribution Lines - *

Underground to school from transformer pedestal.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G4010.04 Car Plugs-ins - *

Mounted on painted metal railing in staff parking area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08

G4020.01 Area Lighting - *

Pole lighting at visitor parking area.
Wall mounted fixtures on perimeter of school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-08