RECAPP Facility Evaluation Report

Fort McMurray Composite High School

B3427A

Fort McMurray

Report run on: January 30, 2006 10:47 AM

Facility Details

Building Name: Fort McMurray Composite H
Address: 9803 King Street
Location: Fort McMurray

Building Id: B3427A
Gross Area (sq. m): 0.00
Replacement Cost: $21,940,691
Construction Year: 0

Evaluation Details

Evaluation Company: Denzil Lobo Architect
Evaluation Date: December 1 2004
Evaluator Name: Mr. Denzil Lobo

Total Maintenance Events Next 5 years: **$2,023,920**
5 year Facility Condition Index (FCI): **9.22%**

General Summary:

The original school was built in 1976 and was later added to in 1979. Since 1979 Four renovation projects were carried out including two minor modernization projects in 1999 and 2001. The Original school is a two storey building with a single storey administrative and staff area. The latter addition is a single storey building that was linked to the Keyano college and Theatre complex just to the east of the school. The school is a High school and is the oldest school in the district with a capacity for an unknown number of students. It's systems and finishes are old and in need of urgent replacement and attention. Some areas like the Home Ec area, The Food Services area, and the Beauty Culture area have been "modernized" and pleasantly contrasts with the rest of the aging building, where maintenance and upkeep issues are immense and growing. The average condition of the building is poor

Structural Summary:

The building has a Concrete pile and Grade beam foundation system with a slab on grade and no basement. The Floor structure is steel framing with metal Q-deck and concrete, over masonry load bearing walls. The roof Structure is steel framing and a steel deck, over masonry bearing walls. The 1979 addition has experienced a lot of soil movement and cracking of its floors, interior walls and exterior envelope. This needs to be studied and a solution identified. The Structural condition of the building is acceptable.

Envelope Summary:

The exterior envelope is Brick facing over Concrete block walls or painted concrete block on the outside. A masonry band finished in plaster runs continuously above the window line. Some cracking in masonry parapets along South and west walls. The roof is flat & in 1998 the whole building was re-roofed with a new SBS roofing membrane. Windows are original Aluminum vertical sliders. The exterior doors and frames are steel. Building requires caulking. Exterior block walls require painting. The overall condition of the building envelope is generally acceptable.

Interior Summary:

Interior layout is a split level building on 3 levels. Interior finishes are old and in need of replacement or upgrading. Corridor epoxy flooring needs to be redone or covered over. Carpets are generally original and wearing out and in need of replacement. The Acoustic ceiling grid and tile extensively damaged. Interior walls are mainly concrete block painted with some painted Gypsum walls in office areas . Significant cracking of concrete block and ceiling surfaces in the 1979 addition. The building has one hydraulic elevator and a stair lift for the handicapped Overall interior condition is poor.

Mechanical Summary:

Plumbing fixtures are old, very inefficient, and in poor condition. Replacement of fixtures and domestic water distribution is recommended. Domestic water heaters use single walled heat exchangers and are beginning to fail.
Steam for heating and chilled water for cooling is purchased from Keyano College. Mechanical systems have, in general, reached the end of their normal life expectancy and are breaking down. Heat exchangers are beginning to fail. Many components are obsolete and parts are not available. Coils, valves, dampers, pumps, and motors require significant ongoing maintenance. Air system cabinets are showing signs of fatigue.
Energy costs are high and an assessement of the existing purchase agreement for steam and chilled water should be undertaken with consideration given to providing on-site, high efficiency generation of heating and chilled water.

Electrical Summary:

The school has been provided with a 1200 Amp, 347/600V, 3 phase, 4 wire main service, and is obtained from an on-site pad mounted transformer located on the west side of the school. Distribution within the school is via a 1200 Amp, 600V, main distribution centre which is complete with a 1200 man breaker. A 225 kVA dry type step down transformer has been provided for 120/208 Volts. A 1000 Amp central distribution panel (CDP) has been provided to distribute 120/208 Volt power. Branch circuit breaker panel boards have been located throughout the school. Lighting is primarily of the fluorescent type utilizing T8 technology with some areas still utilizing T12 technology. Incandescent exit lights are located throughout the school. Emergency power for selected light fixtures is obtained from an engine/generator set located at Keyano College with a transfer switch located in the school. An Edwards 6500 hard wired fire alarm system has been provided. Motor control is provided by motor control centres located in the various mechanical rooms. Paging is provided by a TOA amplifier interfaced with the telephone system. Cat 5e date cabling has been installed throughout the school. Electrical systems, although still operational, are well past their life cycle expectancies and are showing their age. The Electrical systems are gnerally in a Poor to Marginal 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*

(1976) Concrete Pile and Grade Beams
(1979) Concrete pile and Grade Beams and Strip footings under tunnel link to Keyano College.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

A1030 Slab on Grade (1976 Original Building)*

(1976) Concrete slab on grade in a split level configuration.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

A1030 Slab on Grade (1979 Addition)*

(1979) Concrete slab on grade throughout. Building is located in the flood planes in town. In 2003 slab under art room on lower floor was mudjacked.

Rating	Installed	Design Life	Updated
2 - Poor	0	100	DEC-04

Event: Repour concrete slabs at numerous locations.

Concern:
Extensive cracking of concrete slab noted throughout the school, specially noted in corridors with epoxy floor finish.. Also seen in large workshops on lower floor.

Recommendation:
Cut out concrete at cracked locations in over 20 locations. Compact subsurface and repour slabs with control joints. Refinish floor to match or complement adjacent areas. Approx 1000 sq.m to be repoured

Type	Year	Cost	Priority
Failure Replacement	2007	$108,000	Medium

Updated: March 4 2005

A2020 Basement Walls*

(1979) Only basement walls are in Mechanical tunnel link to Keyano College steam plant.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B1010.01 Floor Structural Frame*(Building Frame)

(1976) (1979) 65mm Concrete deck over steel Q.Deck with reinforcing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B1010.02 Structural Interior Walls Supporting Floors*

Combination of Steel posts and steel beams with Load bearing concrete block walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B1010.03 Floor Decks, Slabs, and Toppings*

(1976) (1979) Extensive exposed concrete floor surfaces on lower level. Epoxy floors in corridors and some rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B1010.05 Mezzanine Construction*

65mm concrete over Steel Q-Deck with reinforcing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B1010.09 Floor Construction Fireproofing*

(1976) (1979) Sprayed fireproofing over steel joists and floor deck

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

B1010.09 Floor Construction Fireproofing* (Mechanical room & mezzanine)

Sprayed fireproofing over steel joists and deck in mechanical rooms and Mechanical mezzanine levels.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

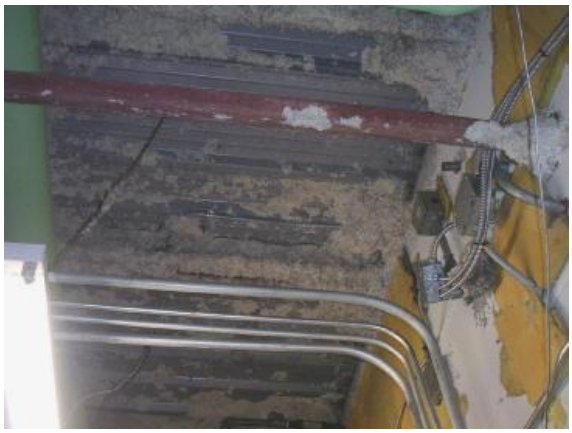
Event: Re spray fireproofing of deck in exposed areas.

Concern:
Spray Fireproofing is falling off in Mechanical rooms and service spaces where used.. Constant dropping and dusting in these rooms.

Recommendation:
Respray new fireproofing material in mechanical room after removal of any existing loose material.

Type	Year	Cost	Priority
Failure Replacement	2006	$16,200	High

Updated: March 4 2005



B1010.10 Floor Construction Firestopping*

Gypsum board to u/s of steel deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

B1020.01 Roof Structural Frame*

(1976) (1979) Open web steel joists with Steel Q-Deck over.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B1020.04 Canopies*

(1976) Steel framed canopy at main entrance only.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B1020.06 Roof Construction Fireproofing*

Sprayed Fireproofing over steel deck and structure.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

(1976) (1979) Dark brown exterior face brick over concrete block walls used on North, East and West faces of the building.

Rating	Installed	Design Life	Updated
5 - Good	0	75	DEC-04

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

(1979) Concrete Block painted on the South side and the west sides of the building .

Rating	Installed	Design Life	Updated
3 - Marginal	0	75	DEC-04

Event: Carry out a structural Stability study of the 1979 Addition.

Concern:

The block walls on the south walls have a lot of cracks in the walls and along the parapets. It appears that there is a lot of movement of the walls in this area. The cracks do not pose any structural safety concerns.

Recommendation:

The causes and remedies for this cracking of the blockwork needs further study. The cracks appear on the inside of the walls and floors in this South wing and are not solved by patching or covering up the conditions. A soil investigation in the area along with a Structural stability study of this area is recommended.

Type	Year	Cost	Priority
Study	2006	$8,100	Low

Updated: March 4 2005

B2010.01.08 Portland Cement Plaster: Ext. Wall*

(1976) (1979) White cement plaster band on exterior above brick face.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	DEC-04

B2010.01.09 Expansion Control: Exterior Wall Skin*

Metal expansion joints in Brick and Plaster band.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

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

Caulking on exterior is old

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Re-caulk building in most areas.

Concern:
Caulking is old and brittle. Cracked in various locations and at jamb locations.

Recommendation:
Entire caulking needs to be redone.

Type	Year	Cost	Priority
Repair	2007	$10,800	Low

Updated: March 4 2005

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

Exterior concrete block walls painted.

Rating	Installed	Design Life	Updated
3 - Marginal	0	15	DEC-04

Event: Repaint exterior of building

Concern:
Painting on south face concrete block wall, white Plaster and Block banding, doors and frames need to be repainted. Paint is peeling off and wall is drawn on in many locations on the West and South sides of the school.

Recommendation:
A repainting of the exterior paintable surfaces should be done.

Type	Year	Cost	Priority
Preventative Maintenance	2007	$32,400	Low

Updated: March 4 2005

B2010.06 Exterior Louvers, Grilles, and Screens*

(1979) Metal screens on windows on South wall facing the playfields.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

B2010.09 Exterior Soffits*

(1976) Metal soffit at front entrance canopy only

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

B2020.01.01.02 Aluminum Windows*

(1976) (1979) Aluminum vertical sliders with sealed doble glazed units. 2 Clearstorey windows and frames on North side (1 over main entrance and 1 over Teacher's entrance) were replaced in 2004

Rating	Installed	Design Life	Updated
4 - Acceptable	0	35	DEC-04

B2030.01.10 Wood Entrance Door*

(1976) Original wood doors at main entrance only.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

B2030.02 Exterior Utility Doors*

Hollow Metal doors in Pressed steel frames

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

B2030.03 Large Exterior Special Doors*

(1976) Seven Exterior Overhead doors : 4 in Automotives, 1 in Welding, 1 in Woodworking, & 1 in Drama room. All Overhead doors are on the West side of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

B2030.05 Other Exterior Doors*

Double H.M. Doors in P.S. Frames leading from Gymnasium areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)*

(2001) Entire roof replaced with new SBS roof

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

B3010.07 Sheet Metal Roofing*

(2001) Metal cap flashings were replaced at time of re-roofing

Rating	Installed	Design Life	Updated
5 - Good	0	40	DEC-04

B3010.08.02 Metal Gutters and Downspouts*

(2001) Downspouts were replaced along with the re-roofing.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

B3020.01 Skylights*

(1979) One long skylight in Art Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

(1976) (1979) Concrete block walls in corridors and classrooms. Some gypsum board partitions in smaller office and storage rooms in workshop areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

C1010.02 Interior Demountable Partitions*

(1976) Demountable Vinyl clad partitions in administration office area.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

C1010.03 Interior Operable Folding Panel Partitions*

(1999) Aluminum folding grill in the cafetaria to close of food servery area from home economics instruction space .

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

C1010.04 Interior Balustrades and Screens, Interior Railings*

(1976) Original Stair railings and balusters at stair locations.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	DEC-04

Event: Replace wood stair handrails

Concern:
Wood Stair railings are dented, worn and damaged.

Recommendation:
Wood Stair Handrails should be replaced in all stairwells and main school foyer location (approx 60 m. of handrail)

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$3,240	Medium

Updated: March 4 2005

C1010.05 Interior Windows*

(1976) Interior Windows are Pressed Steel frames with Wired Glass panels.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

C1010.07 Interior Partition Firestopping*

Concrete Block walls to underside of floor/ roof deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

C1020.01 Interior Swinging Doors*

Generally solid core wood doors painted, in Pressed steel frames. Hollow Metal doors at storage rooms

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

C1020.02 Interior Entrance Doors*

Solid Core wood doors in pressed steel frames.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	DEC-04

Event: Replace worn out doors to classrooms.

Concern:
Solid Core wood doors to classrooms are original and worn out, dented & damaged edges. Requires excessive maintenance

Recommendation:
Classroom doors should be replaced with new solid core wood doors (approx 28 doors)

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$16,200	Medium

Updated: March 4 2005

C1020.03 Interior Fire Doors*

Fire rated steel doors in corridors and stairwells.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

C1020.05 Interior Large Doors*

(1999) Three overhead rolling shutter doors in Cafetaria / Dining area that underwent an extensive Minor Modernization upgrade. Doors are used to open up Dining area to corridor and for easy student access.

Rating	Installed	Design Life	Updated
6 - Excellent	0	40	DEC-04

C1030.01 Visual Display Boards*

Standard Green chalk boards and Vinyl tack boards in classrooms

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

C1030.02 Fabricated Compartments(Toilets/Showers)*

(1976) Original metal toilet partitions are wornout in student washrooms

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace washroom partitions with new.

Concern:
Washroom partitions in student washrooms are old and damaged. Requires excessive maintenance.

Recommendation:
Replace washroom partitions with new stalls (approx 12 units)

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$12,960	Low

Updated: March 4 2005

C1030.10 Lockers*

(1979) Metal Lockers are original

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Replace metal lockers

Concern:
Metal Lockers in corridors and Gym change roos are Old and falling apart. The lockers have coroded and deformed frames and require constant maintenance. Wood bottoms are being constructed to prolong the life of some of the lockers.

Recommendation:
Replace and re-organize groups of lockers with new single tier metal lockers (anticipated 150 lockers)

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$32,400	High

Updated: March 4 2005

C1030.12 Storage Shelving*

Painted plywood shelving

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

C1030.14 Toilet, Bath, and Laundry Accessories*

(1999) New laundry equipment in Beauty Culture room: 6 sinks for hair washing, 1 washer & 1 dryer unit.

Rating	Installed	Design Life	Updated
6 - Excellent	0	20	DEC-04

C2010 Stair Construction*

(1976) Concrete topping in metal pans

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

C2020.01 Tile Stair Finishes* (2 exit stairs)

(1979) Stairs connecting with original 1976 building have tile floors and threads.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace floor finishes on 2 sets of stairs and landings

Concern:
Stair treads and landings have old discoloured, cracked, stained and damaged epoxy coating .

Recommendation:
Replace floor finish on 2 sets of stairs and landings with new non slip quarry tile.

Type	Year	Cost	Priority
Repair	2007	$10,800	Medium

Updated: March 4 2005

C2020.05 Resilient Stair Finishes*

(1976) Epoxy finish on main entry steps, landings and entry foyer

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	DEC-04

Event: Replace floor finish on Main Entry steps

Concern:
Original Epoxy finish on main entrance steps is cracked, worn and damaged. It is difficult to keep clean. Steps have no visual strips.

Recommendation:
Replace floor finish on main entry steps, landings and foyer floor (Approx 70 sq.m) with new non slip quarry tile.

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$21,600	Low

Updated: March 4 2005

C3010.02 Wall Paneling*

(1976) Wood panelling in Principal's office and Staffroom.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

C3010.04 Gypsum Board Wall Finishes*

Painted Gypsum board

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

C3010.06 Tile Wall Finishes*

(1976) Some washroom walls have 100 x 100 tiles.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	DEC-04

Event: Replace wall tile in student washrooms

Concern:
Tile in washrooms are old, cracked and sometimes fallen out or patched. The washrooms look dirty because of the age and condition of the tile.

Recommendation:
Replace 4 Student washrooms with new wall tile (approx 270 sq.m)

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$17,280	Low

Updated: March 4 2005

C3010.11 Interior Wall Painting*

Concrete block walls painted. Doors and Frames painted.

Rating	Installed	Design Life	Updated
3 - Marginal	0	5	DEC-04

Event: Re-paint interior doors and frames.

Concern:
Paint on door & window frames are peeling, chipped and generally in need of repainting.

Recommendation:
Repaint interior doors and frames (Approx 40 units)

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$8,640	Low

Updated: March 4 2005

C3020.01 Concrete Floor Finishes*

Workshop floors and Mechanical room floors are exposed or painted concrete.

Rating	Installed	Design Life	Updated
3 - Marginal	0	75	DEC-04

Event: Re seal all exposed concrete floor surfaces.

Concern:
Old concrete floor finishes in workshops and mechanical floor areas are worn off and create dust .

Recommendation:
Reseal all concrete floors with a sealer (approx 1200 sq.m)

Type	Year	Cost	Priority
Preventative Maintenance	2007	$32,400	Low

Updated: March 4 2005

C3020.04 Wood Flooring*

(1976) Floating wood gym floor in Large Gymnasium was resurfaced in 2003

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

C3020.07 Resilient Flooring*

(1979) Resilient Parquet style vinyl flooring over concrete slab in small gymnasium in 1979 addition.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	DEC-04

Event: Replace floor in small gymnasium

Concern:
Floor covering is worn and torn around entry doors and active gymnasium areas. Gymnasium markings are worn out and not visible in some areas. Floor is patched in some areas. Makes room look gloomy, drab and uninviting.

Recommendation:
Replace floor in small gymnasium with new surfacing material. (approx 335 sq.m). Provide new gymnasium floor markings.

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$25,920	Medium

Updated: March 4 2005

C3020.08 Carpet Flooring*

Carpets in classrooms, Administration office areas, library and associated areas.

Rating	Installed	Design Life	Updated
2 - Poor	0	10	DEC-04

Event: Replace carpet in building

Concern:
Carpeting is generally old, worn, torn, patched, stained, and exceeded its lifecycle expectations.

Recommendation:
Carpeted areas require new floor coverings. (approx 2700 sq.m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2007	$129,600	Low

Updated: March 4 2005

C3020.14 Other Floor Finishes* (Epoxy Floors)

(1976) (1979) Epoxy floor finish in corridors, washrooms, shower areas and some storage areas.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Replace epoxy floors .

Concern:
The epoxy floors are cracked, stained, discoloured, and dirty looking. Cracked floors create a tripping hazzard.

Recommendation:
Consideration should be given to replacing or re-covering epoxy floors in this school with new resilient and tile floor coverings. (Approx 2000 sq.m)

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$108,000	Medium

Updated: March 4 2005

C3030.04 Gypsum Board Ceiling Finishes*

Gypsum board ceiling in storage rooms & washrooms, painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

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

(1976) (1979) Acoustic T-Bar ceilings in all Classrooms, Administration office areas, Corridors, Library, Cafetaria, Beauty Culture room, Staff room, Handball court on lower floor, and partial areas of workshops..

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	DEC-04

Event: Allow for partial replacement of T-Bar and Acoustic tile.

Concern:
T-bar and Tile is in poor condition in about 40% of the areas. T-bar grid is broken, dirty, uneven, damaged and tile stained.

Recommendation:
Allow for replacement of T-bar Grid in 40% of T-Bar Ceiling Areas. (approx 2000 sq.m)
Replace ceiling tile in 70% of areas (approx 3,500 sq.m)

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$145,800	Low

Updated: March 4 2005

C3030.07 Interior Ceiling Painting*

(1979) Painted gypsum board ceiling in boy's locker room and shower room of Small gymnasium.

Rating	Installed	Design Life	Updated
2 - Poor	0	10	DEC-04

Event: Repair ceiling in shower / locker rooms of Small Gymand repaint.

Concern:
Cracks in walls and structural movement in 1979 addition has caused gypsum ceiling in boy's shower and locker room to break away from walls, and crack.

Recommendation:
Suspend Gypsum board ceilings in room and keep independent from walls to allow for movement (approx 70 sq.m) Repaint ceilings

Type	Year	Cost	Priority
Failure Replacement	2007	$5,400	Low

Updated: March 4 2005

C3030.09 Other Ceiling Finishes*

Steel deck and Open web joists in workshop areas, Art room CTS labs, Gymnasiums and partial Modernized Cafetaria area.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D1010.01.02 Hydraulic Passenger Elevators*

(1976) Single hydraulic passenger elevator serving two floors in original building. The elevator serves the two academic floors in the original schhol building. The school has a service contract with Otis Elevarors to keep the elevator in good working condition.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D1010.02 Lifts*

(1999) Chair lift on stair near teacher's entrance and staffroom installed. Lift serves the administration office level and connects to the two academic floors of the school.

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

S4 MECHANICAL

D2010.01 Water Closets*

(1976) Flush tank water closets, 5 gallon flush. Variety of seating configurations including round and elongated bowls, open and closed fronts. There are a number of cracked fixtures and many running toilets.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace water closets.

Concern:

Toilets are not efficient, they are old and there are a number that are cracked. Maintenance requirements are considerable. Most have round bowls with closed front seats which do not meet current codes.

Recommendation:

Replace approximately 35 toilets with ULF toilets with elongated bowls and open front seats

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2006	$16,200	Low

Updated: February 28 2005

D2010.02 Urinals*

(1976) Floor mounted and wall hung urinals with syphon tank flush. Flush interval time is approximately 90 seconds and occurs around the clock.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Provide flushometers.

Concern:
High water consumption. Fixtures and flush systems are old and in poor condition.

Recommendation:
Replace flush systems with approximately 18 electronic flush valves. Replace selected cracked urinals.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2006	$12,960	Low

Updated: February 28 2005

D2010.03 Lavatories*

(1976) Vanity mounted lavatories. Most are pocelain enamel steel with ribbed handle faucets. Many lav's are chipped.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Replace lavatories.

Concern:
Many lavatories are chipped and faucets require continuous maintenance.

Recommendation:
Replace 20 lavatories and faucets throughout.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$19,440	Low

Updated: February 28 2005

D2010.04 Sinks*

(1976) Single and double compartment stainless steel sinks for staff rooms, CTS, and in some classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D2010.05 Showers*

(1976) Gang showers in main gymnasium change rooms. ADA shower added in small gym change room.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Upgrade main gymnasium showers.

Concern:
Shower drains do not meet the health requirements of the code.

Recommendation:
Revise shower layouts and drainage to code standards.

Type	Year	Cost	Priority
Code Upgrade	2006	$8,640	Low

Updated: February 28 2005

D2010.08 Drinking Fountains / Coolers*

(1976) Vitreous china, wall hung water fountains.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace water fountains

Concern:
Fountains are the target for ongoing vandalism and require continuous repair.

Recommendation:
Replace 6 with vandal resistant model

Type	Year	Cost	Priority
Repair	2006	$7,560	Low

Updated: February 28 2005

D2010.09 Other Plumbing Fixtures*

(1976) Beauty culture hair wash sinks

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

Event: Add hair traps

Concern:
No hair traps have been provided.

Recommendation:
Provide hair traps on 6 hair wash sinks.

Type	Year	Cost	Priority
Program Functional Upgrade	2006	$1,944	Low

Updated: February 28 2005

D2020.01.01 Pipes and Tubes: Domestic Water*

(1976/1979) Copper piping throughout.

Rating	Installed	Design Life	Updated
2 - Poor	0	40	DEC-04

Event: Replace domestic water piping for 11,400 sq.m.

Concern:
Some failures have occurred. Where piping has been repaired, existing piping was found to be worn with pin holes and stringing developing at joints and fittings.

Recommendation:
Test and replace domestic water water piping.

Type	Year	Cost	Priority
Preventative Maintenance	2006	$151,200	Medium

Updated: February 28 2005

D2020.01.02 Valves: Domestic Water

(1976/1979) Globe valves used for isolation, stops on each plumbing fixture.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace isolation valves and stops

Concern:
Many islation valves and fixture stops are corroded and will not hold

Recommendation:
Replace 60 valves and stops

Type	Year	Cost	Priority
Failure Replacement	2006	$12,960	Low

Updated: February 28 2005

D2020.01.03 Piping Specialties (Backflow Preventors)*

(1976) Backflow preventors have been added to the chemical feed systems. There is not backflow prevention device on the science lab domestic water system and a number of hose bibbs require vacuum breakers.

Rating	Installed	Design Life	Updated
N/A	0	0	DEC-04

Event: Install backflow prevention devices

Concern:
Backflow prevention is missing or inadequate and requires upgrades.

Recommendation:
Provide approved backflow prevention devices on science lab distribution. Provide vacuum breakers for all hose bibbs and service sinks.

Type	Year	Cost	Priority
Code Repair	2006	$4,320	Medium

Updated: February 28 2005

D2020.02.02 Plumbing Pumps: Domestic Water*

(1976) Inline circulators are used for domestic hot water recirculation.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	DEC-04

Event: Replace domestic water recirculating pumps.

Concern:
Some of the existing circulating pumps are large, causing failures to occure in the domestic water recirculating piping. These pumps fail frequently, requiring on-going maintenance.

Recommendation:
Replace three pumps with lower capacity pumps. Provide aquastat and timer control.

Type	Year	Cost	Priority
Preventative Maintenance	2006	$4,320	Low

Updated: February 28 2005

D2020.02.06 Domestic Water Heaters*

(1976) Immersion steam-to-water heat exchangers in ASTM storage tanks.
(2003) One immersion steam-to-water heat exchanger and tank has been recently replaced at a cost of $40,000.

Rating	Installed	Design Life	Updated
2 - Poor	0	20	DEC-04

Event: Replace domestic water heaters.

Concern:
Existing domestic water heaters use single walled immersion-type steam-to-water heat exchangers. These can be subject to cross-contamination if a tube failure occurs. The existing cost of steam is also very high (purchased from Keyano College) and much more efficient water heaters are available.

Recommendation:
Replace three water heaters with higher efficiency gas-fired tank-type or semi-instantaneous systems that protect against cross-contamination of the domestic water.

Type	Year	Cost	Priority
Code Repair	2006	$64,800	Medium

Updated: February 28 2005

D2020.03 Water Supply Insulation*: Domestic

(1976) 1" thick firbregalss insulation on domestic hot and cold water lines.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

Event: Repair insulation.

Concern:
Insulation has been removed or damaged in places where repairs have been made to the piping.

Recommendation:
Repair insulation. Replace approximately 60' of piping insulation and repair at valves, fittings,and heat exchangers.

Type	Year	Cost	Priority
Repair	2006	$3,240	Low

Updated: February 28 2005

D2030.01 Waste and Vent Piping*

(1976/1979) Cast iron and copper DWV. Some plastic piping used for repairs and recent revisions.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

Event: Repair sewer in Drama Room.

Concern:
Sewer gas smell is noticable in drama room. The floor has been covered over due to a change in the space function. Floor drains may have been covered over.

Recommendation:
Investigate sewer piping in Drama Room. Locate and seal floor drains. Provide trap primers on drains in adjacent mechanical space.

Type	Year	Cost	Priority
Repair	2006	$4,320	Medium

Updated: February 28 2005

D2030.02 Waste Piping Specialties* (Plaster Trap)

(1976) A concrete sump in the art room floor is used as an inline plaster trap.

Rating	Installed	Design Life	Updated
2 - Poor	0	50	DEC-04

Event: Replace plaster trap in art room.

Concern:
Plaster trap in art room cannot be properly sealed. Sewer gases are entering the room.

Recommendation:
Replace trap with properly sealed and vented system.

Type	Year	Cost	Priority
Failure Replacement	2006	$4,320	Medium

Updated: February 28 2005

D2040.01 Rain Water Drainage Piping Systems*

(1976/1979) Cast iron piping throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D2040.02.04 Roof Drains*

(1976/1979) Open flow roof drains with aluminum grates

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

D3020.06 Other Heat Generation Systems*

(1976) Heat for the facility is provided by Keyano College through piping in a service tunnel. Utility costs appear to high.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3030.08 Other Refrigeration Systems*

(1976) Chilled water is supplied by Keyano College. Utility costs appear to be quite high. Chilled water supply temperatures are reported to be unrealiable and unsatisfactory.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Provide chilled water supply.

Concern:
Purchased chilled water is expensive and temperatures are unreliable.

Recommendation:
Provide new 300 ton chilled water system and districution pumps. Tie into existing distribution piping.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2006	$226,800	Low

Updated: February 28 2005

D3040.01.01 Air Handling Units: Air Distribution* (1976)

(1976) There are a total of eight Trane Climatechanger air handling units serving the original building. Classroom air systems SF-3 and SF-4 are medium pressure units that deliver conditioned air to constant volume distribution boxes. The rest of the units are low pressure and are generally single zone units. Modifications have been made to some of the units to accomodate changes in the function of the spaces that they serve.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace classroom air-handling units

Concern:
Units casings are showing signs of fatigue and have been repaired. Outside air capacities do not appear to be adequate to meet the code requirements. There is evidence that repairs have been made to the coils on a number of occassions.

Recommendation:
Provide eight new classroom air handling units.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$237,600	Low

Updated: February 28 2005

D3040.01.01 Air Handling Units: Air Distribution* (1979)

(1979) There are four constant volume are handling units that serve he 1979 addition. The small gymnasium unit is a Trane Climatechanger. The remaining units are MarkHot products. Steam humidifiers have been disconnected.
The main classroom ventilation unit includes a heating coil, a cooling coil, a filter section, and a mixing section. One bank of the cooling coil has failed and has been disconnected.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Upgrade classroom air system's outside air.

Concern:
The heating capacity and mixing dampers do not seem adequate for the outside air quantities required to maintain acceptable indoor air quality. The building was designed during a time when significantly lower outside air volumes were thought to be acceptable.

Recommendation:
Revise damper control on four ventilation units and add preheat coil to system.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2006	$21,600	Medium

Updated: February 28 2005

D3040.01.02.01 Centrifugal Fans: Air Distribution

(1979) An Engineered Air cabinet return fan is used on the small gymnasium return air system.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.01.02.02 Axial Fans: Air Distribution

(1976) Vane axial return fans have been provided for the classroom ventilation systems.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.01.03 Air Cleaning Devices:Air Distribution*

(1976/1979) 2", 30% flters provided in all air handling units.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.01.04 Ducts: Air Distribution*

(1976) Medium and low pressure distribution ductwork is run in the ceiling space.
(1979) Low pressure distribution ductwork is run in the ceiling space.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

Event: Clean and re-seal air ducts.

Concern:
Some ductwork is dirty. Leaks are evident.

Recommendation:
Clean and reseal air ducts throughout

Type	Year	Cost	Priority
Preventative Maintenance	2006	$8,640	Low

Updated: February 28 2005

D3040.01.05 Duct Accessories: Air Distribution*

(1976/1979) Balancing dampers are appropriatly located. Fire dampers have been provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.01.06 Air Terminal Units: Air Distribution*

(1976) Constant volume mechanical terminal boxes in classroom distribution systems.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace terminal boxes

Concern:
Constant volume terminal boxes are worn and no longer effectivley maintain set air volumes. Air is delivered to each space regardless of space occupancy. New boxes and controllers are able to precisly control air volume and can be fully closed when the space is not occupied, allowing the air system supply volume to be reduced.

Recommendation:
Replace 30 existing terminal boxes with electronically controlled devices.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2006	$64,800	Low

Updated: February 28 2005

D3040.01.07 Air Outlets & Inlets:Air Distribution*

(1976) Ceiling diffusers and wall grilles used in finished spaces. Louvered drum diffusers in gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D3040.02 Steam Distribution Systems: Piping/Pumps*

(1976) Steam is distributed to heat exchangers and humidifiers in four mechanical rooms. Receivers collect condensate and pump it back to Keyano College.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D3040.02.01 Steam and Condensate Piping

(1976) Steel steam and condensate piping thourghout. Evidence of repairs to the condensate piping. Many valves are corroded and are difficult to operate.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Inspect Steam & Condensate Piping

Concern:
Condition of the steam and condensate piping is not know. There is some evidence that the system may be in advance stages of corrosion.

Recommendation:
Provide detailed assessment of the steam and condensate piping throughout.

Type	Year	Cost	Priority
Study	2006	$6,480	Low

Updated: February 28 2005

D3040.02.02 Steam Condensate Pumps

(1976) Condensate pumps in two locations. One receiver and pumps has been recently replaced (2004). The other appears to be from the original construction.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace condensate receiver and pumps.

Concern:
Receiver and pumps are worn out and require replacement to ensure reliable operation.

Recommendation:
Replace receiver and pumps in main floor mechanical room 101.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$12,960	Low

Updated: February 28 2005

D3040.03.01 Hot Water Distribution Systems*

(1976) Hot water from steam-to-water heat exchangers is circulated through steel piping to perimeter wall fin radiation, vestibule force flow units and unit heaters. Heated glycol from steam-to-glycol heat exchangers is circulated through steel piping to heating coils in the air handling units. Pumps were manufactured by Ebera and Duro and parts are no longer available.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	DEC-04

Event: Replace heating pumps.

Concern:
A number of pumps have failed and parts are difficult to obtain. Pumps that have been repaired have required new impellers, seals and motors due to excessive wear.

Recommendation:
Replace 12 heating distribution pumps and fittings.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$64,800	Low

Updated: February 28 2005

D3040.04 Special Exhaust Systems - Welding

(2001) A welding exhaust system has been installed that includes 10 Oskar retractable welding exhaust arms.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D3040.04.01 Fans*: Exhaust

(1976) In-line and roof mounted centrifugal exhaust fans for washroom and general exhaust applications. Seperation between exhaust and intake grilles appears to be adequate.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D3040.04.03 Ducts*: Exhaust

(1976) Low velocity exhaust air ducts from exhaust grilles to fans.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.04.05 Air Outlets and Inlets*: Exhaust

(1976) Egg crate and louvered exhaust grilles.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.05 Heat Exchangers*

(1976) Shell and tube heat exchangers are used to produce heated water and heated glycol for distribution to the building mechanical systems. Low pressure steam is provided from Keyano College.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Replace steam heating heat exchangers

Concern:
Heat exchangers are old and there is no sign that any have been serviced within the last 5 to 10 years. Maintenance staff reports that at least one is leaking and will be replace this spring. Steam heating costs seem high and more economical options may be available.

Recommendation:
Examine options for replacement of the steam heat exchangers (new heat exchangers vs. gas fired boilers). Replace all eight heating water and glycol heat exchangers with new gas-fired boilers and/or heat exchangers.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$302,400	Low

Updated: February 28 2005

D3050.02 Air Coils*

(1976) Glycol heating coils are used in all air handling units. Chilled water cooling coils have been provided in the units serving the classrooms and adminstion areas.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace coils in Classroom AHU's

Concern:
Coils are old and in poor condition. Some have been disconnected. A number of repairs have been made.

Recommendation:
Replace coils in four air-handling units serving classrooms and administration areas.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$43,200	Low

Updated: February 28 2005

D3050.03 Humidifiers*

(1976) Steam humidifcation wands are located in the main air systems. These have all been disconnected.

Rating	Installed	Design Life	Updated
2 - Poor	0	25	DEC-04

Event: Provide humidification

Concern:
No humidification is being provided to for the building. Winter conditions do not meet ASHRAE requirements there are issues with paper handling in photocopiers and printers.

Recommendation:
Provide eight new packaged gas-fired humidifiers.

Type	Year	Cost	Priority
Code Repair	2006	$81,000	Low

Updated: February 28 2005

D3050.05.02 Fan Coil Units*

(1976/1979) Wall and ceiling mounted fan coil units located at entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3050.05.03 Finned Tube Radiation*

(1976/1979) Perimeter heating provided by wall mounted radiation cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3060.02.01 Electric and Electronic Controls*

(1976/1979) Line voltage thermostats used on entrance heaters.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D3060.02.02 Pneumatic Controls*

(1976) Control actuators throughout are pneumatic.
(1976/1979) Zone control is provide by proportional pneumatic thermostats and normally open heating valves.

Rating	Installed	Design Life	Updated
2 - Poor	0	40	DEC-04

Event: Replace valves and actuators

Concern:
Valves and actuators are in poor condition, require significant repairs, and do not provided consistant control.

Recommendation:
Replace 40 valves and actuators. Tie into existing BMCS.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$25,920	Low

Updated: February 28 2005

Event: Replace zone controls

Concern:
Frequent temperature complaints and maintenance required.

Recommendation:
Provide integrated electronic terminal equipment controllers with PID capabilities and unoccupied setback.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$64,800	Low

Updated: February 28 2005

D3060.02.04 Self-Powered Controls*

(1976) Thermostatic temperature mixing valves have been provided for washroom fixtures.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

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

(2004) Johnson Controls Metasys BMCS has been installed. Existing pneumatic actuators have been retained on valves and dampers. Provides basic monitoring and control of building systems. Energy management capabilities are limited because of the limitations of the existing mechanical systems.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D4020 Standpipes*

(1976) Fire hose cabinets have been provided. Incoming water pressure is about 100 psi. No fire pump has been provided. Incoming water main shut-off valve is not locked or monitored. A fire hydrant located outside the small gymnasium is fed from the standpipe system. There is no fire department connection to the system.

Rating	Installed	Design Life	Updated
1 - Critical	0	50	DEC-04

Event: Upgrade the fire protection systems.

Concern:
The standpipe system configuation and available water pressure does not appear to conform with present or past codes. Adequate monitoring has not been provided.

Recommendation:
Review system requirements and upgrade. Add sprinklers and/or fire pump as required. Upgrade monitoring.

Type	Year	Cost	Priority
Code Upgrade	2006	$324,000	High

Updated: February 28 2005

D4030.01 Fire Extinguisher, Cabinets and Accessories*

(1976) Fire extiguishers appropriately located in fire hose cabinets and service spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D4090 Other Fire Protection Systems*

(1985) Fire blankets in science labs

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

S5 ELECTRICAL

D5010.01 Main Electrical Transformers*

(1976): Main transformer is pad mounted on site and located on the west side of the school. Primary service is underground from Atco's system. Secondary conduits and feeders are routed underground to the main electrical room, where they terminate in the main breaker of the main distribution centre. 1200 Amp, 3 phase, 4 wire, service has been provided at 600 volts. Transformer installation is satisfactory.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

D5010.02 Secondary Electrical Transformers (Interior)*

(1976): A step down dry type transformer has been provided to step the voltage down to 120/208 Volts, 3 phase, 4 wire. The transformer is rated at 225 kVA and feeds a 1000 Amp, 120/208 Volt CDP. The transformer, although appears to work fine, is noisy, which can be attributed to the de-lamination of the core due to age. The transformer was installed at the time the school was built. With the demands and requirements for new dedicated circuits, it is only a matter of time before the transformer will be overloaded.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	DEC-04

Event: Replace transformer with smaller units

Concern:

The transformer, although working satisfactorily at present, is at the end of it's life cycle. With an ongoing need for new dedicated circuits, it is only a matter of time before it starts to overload. Judging from the noise, it already appears to be de-laminating.

Recommendation:

Replace the transformer with smaller transformers, say with 45 or 75 kVA units and locate them strategically throughout the school. This will alleviate voltage drop problems and will better utilize the capacity available in the main service.

Type	Year	Cost	Priority
Program Functional Upgrade	2006	$27,000	Low

Updated: March 2 2005

D5010.03 Main Electrical Switchboards (Main Distribution)*

(1976): The main switchboard is rated at 1200 Amps, 600 Volts, 3 phase, 4 wire. It consists of 2 sections: 1 section for the service entrance which has the main breaker and the metering transformers and the other is a distribution section with feeder breakers feeding panels located at various locations in the school. The distribution section is full to capacity with no room for future addition of breakers. The switchboard, although in good condition, is at the end of its life cycle.

Rating	Installed	Design Life	Updated
2 - Poor	0	40	DEC-04

Event: Replace existing switchboard

Concern:

Main switchboard is at the end of it's life cycle and parts are no longer available and there is no room for addition of more breakers. No surge suppresion provided. No ground fault protection provided as required by code.

Recommendation:

Replace exisitng switchboard with new and larger switchboard. Main breaker to be equipped with surge suppression system and ground fault protection.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$59,400	Medium

Updated: March 2 2005

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

(1976): 600 volt, 3 phase 4 wire panels have been provided throughout the school to serve lighting loads in the respective area. In the CTS areas, these panels are also used to provide power to the various pieces of equipment.
208 Volt Panels: A 1000 Amp 120/208 V, 3 phase 4 wire central distribution panel (CDP) has been provided. This CDP feeds power to the various branch breaker panels located throughout the school serving 120/208 Volts in the respective area.
120/208V breaker panels are located throughout the school. Most of the panels are 30 circuit and are full to capacity .There is an ongoing need for new circuits and receptacles. In light of this need, panels have been added by sub feeding from the nearest panel, which is not a good practice as records of the new panel additions are not kept which leads to troubleshooting in the future.

Rating	Installed	Design Life	Updated
2 - Poor	0	25	DEC-04

Event: Provide new branch circuit panelboards.

Concern:
The 208V CDP is full to capacity and yet there continues to be a demand for new circuits and receptacles. Breakers panels distributed within the school also have no spare breaker capacity. The only way more circuits have been provided for, is by sub feeding new panels from the nearest available panel. This has been a common practice for the last few years. The problem is that sub panels end up being installed in various areas, with no proper records as to what the panels are feeding which outlets, which leads to problems when trying to trouble shoot circuits that do not work. Also, by installing sub panels, one is limited to the amount of power that can be drawn from the system. The limitation is the size of the panel that feeds the panel.

Recommendation:
Install smaller transformers at various locations and install new and larger breaker panels that will provide spare breaker capacity for the future.

Type	Year	Cost	Priority
Program Functional Upgrade	2006	$27,000	Medium

Updated: March 2 2005

D5010.07 Motor Control Centers (Motor Control)* 1979 Addition

(1979):Motor control centre in the 1979 addition is the product of Westinghouse. It is complete with motor starters, selector switches, pilot lights. The MCC is still supported by the manufacturer. There is ample space in the MCC for the addition of future moor starters.

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

D5010.07 Motor Control Centers (Motor Control)*1976 Building

(1976): Motor control centres have been provided in each of the two mechanical rooms and on the mezzanine of the auto shop. All the 3 MCC's are the product of Westinghouse. MCC's are complete with motor starters, pilot lights, selector switches.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace the motor control centre

Concern:
Motor control centres have exceeded their life cycle expectations. MCC"s are full to capacity. Starter modules are no longer available for this MCC as it no longer manufactured or supported by the manufacturer.

Recommendation:
Replace existing motor control centres.

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$21,600	Low

Updated: March 2 2005

D5020.01 Electrical Branch Wiring*

(1976): All branch wiring throughout the building, including the 1979 addition, is in conduit.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D5020.01.03 Wiring Devices*

(1976/1979): Receptacles have been provided throughout the school. Receptacles in the classrooms and administration areas have been added on an ongoing basis as the needs dictated due to the installation of computer systems. All receptacles have suitable cover plates. Dedicated circuits have been provided where required.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D5020.02.01 Lighting Accessories (Lighting Controls)*

(1976): All interior lighting is controlled by line voltage switches. Switches are complete with coverplates.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D5020.02.02.01 Interior Incandescent Fixtures*

(1979): Incandescent light fixtures have been provided in the food services dining area. Fixtures are of the suspended type, cylindrical design and are more for effect. Fixtures are complete PAR 38 lamps.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D5020.02.02.02 Interior Florescent Fixtures* (Computer Room)

Computer room has T8 flourescent fixtures surface mounted.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Provide lighting fixtures in computer labs with deep cell parabolic fixtures

Concern:
In the computer labs, the flourescent fixtures, although operational, have been turned off due to the glare caused by the prismatic lenses on the computer monitors.

Recommendation:
Replace the present fixtures with new fixtures utilizing deep cell parabolic louvres

Type	Year	Cost	Priority
Program Functional Upgrade	2007	$7,560	Low

Updated: March 2 2005

D5020.02.02.02 Interior Fluorescent Fixtures* (1976/1979 Fixtures)

(1976/1979): Interior fluorescent fixtures are primarily of the 1' x 4' surface mounted type with lay in lenses. Some areas are fitted with recessed mounted fixtures. In 2004, all fixtures, with the exception of those in the gymnasium, were retrofitted with T8 lamps and electronic ballasts. . Illumination levels in all areas are satisfactory. Several fixtures are not operational, while several others have lenses missing.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace broken lenses; provide lamps in fixtures missing lamps.

Concern:
Several fixtures either have lamps missing and/or broken lenses.

Recommendation:
Provide lamps and replace broken lenses.

Type	Year	Cost	Priority
Repair	2006	$3,240	Low

Updated: March 2 2005

D5020.02.02.05 Other Interior Fixtures*

(1976/1979): Fixtures in both the gymnasiums are of the fluoresescent type, 8' strips, with wireguards, and T12 lamps and magnetic ballasts. In addition, the large gymnasium has also been provided with suspended mercury vapour fixtures.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace gmnasium fixtures with energy efficient fixtures.

Concern:
Fixtures in the gymnasiums are not energy efficient and thereby not consistent with the rest of the energy efficiency upgrade program. The large gymnasium has also been provided with suspended, 400 Watt mercury vapour fixtures.

Recommendation:
Replace the fixtures in both the gymnasiums with new fixtures utilizing energy efficient T5 lamps.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2006	$8,640	Low

Updated: March 2 2005

D5020.02.03 Emergency Lighting*

(1976/1979): Selected fixtures throughout the school are supplied with emergency power. Emergency power is provided by a diesel fired engine-generator set located in Keyano College.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D5020.02.03.03 Exit Signs*

(1976/1979): Exit lights have been provided at all required locations. Exit lights are connected to the emergency distribution system. Exit lights are of the incandescent type. Several exit lights are not operational, possibly due to burnt out lamps.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace the existing exit lights with LED type exit lights.

Concern:
Exit lights are of the old incandescent type, which are not energy efficient, and a high maintenance item.

Recommendation:
Replace the old exit lights (approx 16 units) with new energy efficient exit lights utilizing LED technology. This will also cut down on the maintenance.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2006	$7,560	Low

Updated: March 2 2005

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

(1976/1979): Exterior wall mounted fixtures have been provided around the perimeter of the building. All entrances are well illuminated.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D5020.03.02 Lighting Accessories (Lighting Controls)*

(1976/1979): Exterior lighting is controlled by photo cell with a manual override controlled by a lighting contactor.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.01 Detection and Alarm Fire Alarm*

(1976): The fire alarm system is an Edwards, Model 6500. . The fire alarm system is of the hard wired type and is complete with detection devices, manual pull stations, bells, and end of line resistors. The system is monitored and tested annually. The main control panel is located in the entrance foyer.

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	DEC-04

Event: Replace exisitng fire alarm system.

Concern:
Edwards 6500 systems are obsolete and no longer supported by the manufacturer. Parts are no longer available from the manufacturer, and are kept in operation only by scavenging parts from similar systems when they are replaced with new ones.

Recommendation:
Replace existing system with a new addressable system with compatible devices.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$48,600	High

Updated: March 2 2005

D5030.02.02 Intrusion Detection*

(1996): An intrusion alarm system has been provided. It is the product of DSC and is complete with motion sensors, and door contacts. The keypad is located in the general office and is used to arm and disarm the system.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.02.04 Video Surveillance*

(2002): Approximately 22 video cameras have been provided and located throughout the school at strategic locations. Cameras are used for security surveillance purposes. The cameras are the product of Pelco and are of the monochrome type. Cameras are connected to a computer located in the telecom room. Recording is carried out by the computer. System meets the present needs of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.04.01 Telephone Systems*

(1976): The main telephone service is underground and terminates on the main terminal backboard located in the main telecom room. Telephone system is the product of Nortel, model Meridian, installed in 1998. All offices have been provided with telephone outlets as have all the classrooms. Telephone sets have been provided in all offices and classrooms. System meets the present needs of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.04.02 Paging Systems*

(1998): Paging is accomplished via an amplifier that is interfaced with the telephone system. Speakers have been provided throughout the school, including the classrooms, corridors, administration area, etc. The amplifier is the product of TOA, model 900. A hand held microphone has been provided that is used to make the announcements. The system meets the present needs of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.04.03 Call Systems*

(1998): Classroom calling is accomplished by providing telephone sets in each classroom. The classroom telephones work as extensions off the telephone system. Local calls only are permitted from the classroom telephone. System meets the present needs of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D5030.04.04 Data Systems*

(2000): Cat 5 data cabling has been provided in all the classrooms and the administration areas. All cabling is neatly installed in surface mounted raceways. Installation is neat. Data outlets have been provided in all classrooms and the administration areas. Service poles have been provided in the computer labs to route the data cabling to the respective locations. Cable management is good.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D5030.04.05 Local Area Network Systems*

(2000): All data cabling is routed to dedicated server rooms located in various locations. All server rooms are interconnected with Cat 5 cable. Server rooms are provided with patch panels mounted on data racks.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D5030.05 Public Address and Music Systems*

(1998): Music is provided through a music centre, consisting of a CD player, and a radio. The music centre is connected to the amplifier that is interfaced with the telephone system.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D5030.06 Television Systems*

(1996): Television service is underground and terminates on the main backboard located in the main telecom room. Television outlets have been provided in selected areas of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D5090.01 Uninterruptible Power Supply Systems*

(2000): Stand alone UPS systems have been provided for the servers. Systems are the product of APC.

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

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

(1996): Emergency power, in the event of utility power failure, is provided by a diesel fired engine-generator set located in Keyano College. A 70 Amp. transfer switch has been provided in the school which starts the engine-generator upon sensing failure of utility power. Emergency power is supplied to selected lights, exit lights, fire alarm system, and selected mechanical systems equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	35	DEC-04

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

(1976) Library tables, Chairs, portable book racks, Book & Magazine shelves on Library floor, Shelves and Audio visual aids in Resources section of library.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E1020.07 Laboratory Equipment*

Normal laboratory aparatus provided for a High school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E1030.01 Vehicle Service Equipment*

(1976) Air Pressure lines, Hoists, Automotive jacks and Automotive testing and diagnostic equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E1090.03 Food Service Equipment*

(1998) Food service area combined with Home Ec Classroom. Self serve Stainless Steel buffet lineup & Food Service tables.
Microwaves, Coffee making Equipment, Pop and Juice dispensers installed as part of Modernization upgrade.

Rating	Installed	Design Life	Updated
6 - Excellent	0	0	DEC-04

E1090.04 Residential Equipment*

(1998) Home Ec Classroom has 10 Residential style stoves , 6 Microwave ovens, 2 Convection Ovens, 1 Built-in walk-in Freezer and 1 Built-in walk-in cooler.

Rating	Installed	Design Life	Updated
6 - Excellent	0	0	DEC-04

E1090.07 Athletic, Recreational, and Therapeutic Equipment* Large Gym.

Large gym has 4 retractable wall / ceiling mounted basketball hoops, Floor sockets for Volleyball & nets, Electric Score Board, various exercise aparatus in storeroom. Activities involve extensive running.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Provide padded mats around gymnasium walls

Concern:
The walls have no padding on them and are dangerous if a student should be pushed against the wall.

Recommendation:
Provide padded mats around gymnasium for protection.

Type	Year	Cost	Priority
Program Functional Upgrade	2005	$8,640	High

Updated: March 4 2005

E1090.07 Athletic, Recreational, and Therapeutic Equipment* Small Gym.

Has 2 Basketball hoops only.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	DEC-04

E2010.02.05 Educational Facility Casework*

Classrooms have built iin storage shelves

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E2010.02.07 Kitchen Casework*

(1998) Plastic laminated counters , cabinets and work islands built as 10 separate work stations for students in Home Ec program

Rating	Installed	Design Life	Updated
6 - Excellent	0	0	DEC-04

E2010.02.08 Laboratory Casework*

Standard Laboratory work stations with laminated cabinets and wall units, and Laboratory countertops.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E2010.02.09 Library Casework*

(1976) Librarian's desk is original

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace Librarian's Station with new millwork.

Concern:
Librarian's desk is old and not suitable for today's computer systems. The desk laminate is peeling and cabinet work showing signs of wear and breakage.

Recommendation:
A new librarian's control station should be provided to meet current needs of Librarian and todays technology.

Type	Year	Cost	Priority
Program Functional Upgrade	2008	$12,960	Low

Updated: March 4 2005

E2010.02.99 Other Casework* (Beauty Culture Room)

(2001) Beauty Culture room modernized and provided with new work stations, central counter area with sinks, Reception desk and waiting area display shelves.

Rating	Installed	Design Life	Updated
6 - Excellent	0	0	DEC-04

E2010.03.01 Blinds* Vertical

(1999) Vertical blinds provided in modernized areas.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E2010.03.01 Blinds* Venetian

(1992) Horizontal Venetian blinds in classrooms

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	DEC-04

Event: Replace Horizontal venetian blinds.

Concern:
Horizontal venetian blinds are breaking apart, hard to maintain, difficult to use and sagging.

Recommendation:
Replace Venetian blinds with Vertical blinds .(approx 20 window locations)

Type	Year	Cost	Priority
Failure Replacement	2007	$8,640	Low

Updated: March 4 2005

F1010.02.05 Grandstands and Bleachers*

(1976) Retractable Bleachers in large gymnasium

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Provide new bank of bleachers in Gymnasium

Concern:
Retractable bleachers in large Gymnasium is falling appart and cannot be used.

Recommendation:
Provide new bank of retractable bleachers in Gymnasium (6 Tier approx 8 m long)

Type	Year	Cost	Priority
Failure Replacement	2006	$27,000	Medium

Updated: March 4 2005

F1020.02.04 Cold Storage Rooms*

(1999) 1 walk-in freezer and 1 walk-in Cooler provided in new Home Ec Classroom.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

F1020.02.13 Paint Booths*

(1976) Painting Booth connected to Automotives Shop.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

F1040.06 Other Special Facilities*

Art Room has a Kiln located in kiln room attached to pottery area.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

F2020.01 Asbestos*

No asbestos found in school

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

Facility Details

Building Name: Fort McMurray Composite H
Address:
Location: Fort McMurray

Building Id: S3427
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Denzil Lobo Architect
Evaluation Date: December 1 2004
Evaluator Name: Mr. Denzil Lobo

Total Maintenance Events Next 5 years: **$64,800**
5 year Facility Condition Index (FCI): **0%**

General Summary:

Site size is sufficient and is alongside the Keyano College and Theatre complex in the centre of town. It is flat and level with a drop along the west side property line. It has its own paved parking lot with sufficient energized stalls to meet the requirements of the teachers. It has Concrete sidewalks and dedicated handicapped stalls with curb cuts for barrier free access to the building. Has lawns and minimal number of trees. Site lighting is considered adequate. On the South side is a community recreation field with a running track and soccer field that is used by the school . Access to the shops area is on the west side and is cordoned off with a chain link fence around the shop's yard. Overall condition of the site is good.

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

G2010.05 Roadway Curbs and Gutters*

Access to the school is from King Street on the North side of the property.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2020.02.02 Flexible Paving Parking Lots(Asphalt)*

Parking lot is asphalt paved

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2020.05 Parking Lot Curbs and Gutters*

Ashalt slopes to Grassed area on edges.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2020.06.02 Parking Bumpers*

Precast concrete wheelstops in parking lot stalls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2020.06.03 Parking Lot Signs*

Standard directional and reserved signs in parking lot.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2030.03 Pedestrian Unit Pavers*

Unit pavers at east entrance beside tunnel link to Keyano College & Theatre complex.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2030.04 Rigid Pedestrian Pavement (Concrete)*

Concrete sidewalks at front east side and South side of building. None installed on West side by the shops.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2040.02 Fences and Gates*

Chain Link fence around west side of building encloses yard space outside the workshops.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2040.03 Athletic and Recreational Surfaces*

Running track and Soccer field on the south side is part of the Town community land, and used by the students of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2040.06 Exterior Signs*

The building name is placed with individual letters on the brick wall beside the main entrance door on the North side. Other exterior signs are metal signs on metal signposts for access and direction around the site.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G2040.08 Flagpoles*

1 flagpole on the front yard of the school with 3 flags.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G2050.04 Lawns and Grasses*

Lawn and grass on the North, South and East sides of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2050.05 Trees, Plants and Ground Covers*

Ornamental Evergreen trees and Deciduous bushes arranged neatly in the front and East side of the building.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G3010.02 Site Domestic Water Distribution*

150mm combined water service to mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G3010.03 Site Fire Protection Water Distribution*

Fire hydrant in north parking lot. Additional fire hydrant by gymnasium connected downstream of sprinkler tree. No fire department connection to standpipe system.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Upgrade fire service.

Concern:
No fire department connection to fire hose cabinets. Municipal pressure is not adequate for standpipe. Hydrant by gymnasium is not acceptable.

Recommendation:
Review site water service and upgrade to meet code.

Type	Year	Cost	Priority
Code Repair	2006	$64,800	Medium

Updated: February 25 2005

G3020.01 Sanitary Sewage Collection*

All portions of the building are connected to the Municipal sanitary collection service.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G3030.01 Storm Water Collection*

All portions of the building are connected to the Municipal storm water collection service.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G4010.04 Car Plugs-ins*

(1976): Approximately 55 energized stalls have been provided for the staff. The receptacles are mountd on steel pedestals.The receptacles are time and temperature controlled. System operation is satisfactory and the meets the needs of the staff.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G4020.01 Area Lighting*

(1976): Area lighting is provided by 2 pole mounted fixtures located in the parking lot. Fixtures are of the high pressure sodium type and mounted on 30 ft poles. Operation is satisfactory and coverage for the site is adequate as it is supplemented by the street lights along King St. Site fixtures are controlled by photo cell.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance

Paved area available between workshops area on West side into building and Elevator shaft.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

K4010.02 Barrier Free Entrances

Entrance available for handicapped on West side of school .

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Install Auto opener and Pushpad for handicapped access.

Concern:

Entrance does not have an automatic door opener and pushpad for Handicapped access.

Recommendation:

Install 2 Automatic door openers and 2 pushpads at access door and vestibule on west side.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2006	$10,800	Medium

Updated: March 4 2005

K4010.03 Barrier Free Interior Circulation

Elevator and Chair lift at stairs provides access to all levels in the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

K4010.04 Barrier Free Washrooms

Barrier free washrooms provided on lower floor of school.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04