

# **RECAPP Facility Evaluation Report**

## **Calgary School District #19**



### **Ernest Manning High School**

B2625A

Calgary

**Facility Details**

**Building Name:** Ernest Manning High School  
**Address:** 3600 - 16 Avenue S. W.  
**Location:** Calgary

**Building Id:** B2625A  
**Gross Area (sq. m):** 0.00  
**Replacement Cost:** \$31,308,870  
**Construction Year:** 0

**Evaluation Details**

**Evaluation Company:** BCMP Architects Inc.  
**Evaluation Date:** June 2 2005  
**Evaluator Name:** Mr. Don Stewart

**Total Maintenance Events Next 5 years:** **\$1,144,900**  
**5 year Facility Condition Index (FCI):** **3.66%**

**General Summary:**

This school was built in 1964 with an addition constructed in 1967. A major renovation was completed in 2003. The facility is a combination of one and two storey high wings, of precast concrete construction with a projecting precast concrete t-beam roof structure. On the north and west sides of the school, the concrete framed basement is open at grade. The building has aged, with considerable deterioration. Major work is required to stabilize the exterior precast concrete envelope. Considerable upgrading is required to comply with fire regulations and barrier free requirements. Overall this facility is in marginal condition.

**Structural Summary:**

Reinforced concrete structure, with precast concrete columns and beams, and a precast concrete tee roof structure, has aged but still appears to be structurally sound. The structure is in acceptable condition .

**Envelope Summary:**

This school building has suffered considerable deterioration since the last audit in 1999, and work is required to the exterior to prevent further decay. The roof has had most areas upgraded to single ply SBS recently, but the precast concrete, the painting, the exterior metal doors and aluminum windows all require upgrading. A study is urgently recommended to determine the cause of movement in the exposed aggregate precast concrete wall panels. Overall the building envelope is in poor condition.

**Interior Summary:**

Interior concrete block and gypsum board walls and partitions are sound, but showing wear and tear. Work is required to prevent collapse of a masonry wall in the Gymnasium. Some acoustic tile ceilings are due for upgrading, as well as many of the older steel lockers. Resilient flooring is well maintained, although due for replacement; as is some of the ceramic tile flooring and wall finishes. Overall the building interior is in marginal condition.

**Mechanical Summary:**

The building heating system consists of two hot water heating boilers serving convectors, fan coil units, perimeter radiation, reheat coils, and unit heaters. One hot water heating boiler has been recently refurbished with a new burner installed, making both boilers now reliable. A glycol heating system provides heat for 18 of the 25 air handling units in the building. Ventilation is provided by 25 air handling units. A packaged rooftop unit provides air conditioning to the National Sports School. Water cooled condensing units provide cooling for computer rooms in the S.E. Wing and an air cooled condensing unit provides cooling for a computer room in N.W. Wing .

The following upgrades are recommended; - Replace showers, replace domestic hot water recirc. line, replace one domestic water heater, provide new dampers and damper motors for 22 air handling units, provide glycol heating coils for 7 air handling units, replace isolation valves on hot water and glycol heating systems, provide exhaust fans for Auto Shop, Chem Storage & Woodworking Shop, provide a new fan coil unit for the S.W. Stairwell, replace wall fin radiation in gymnasium and provide new DDC controls for HVAC systems.

The overall rating for this school is poor in that a number of upgrades that indicated above are required.

**Electrical Summary:**

The main electrical service is 2000 amp 277/480 volts - this is new and in good condition.

Lighting fixtures use T12 lamps - efficiency upgrades are recommended.

The telephone, PA and data systems are up to date.

The overall rating for the electrical systems is acceptable.

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\*

Building has reinforced concrete foundation walls, on spread footings. Some movement of reinforced concrete structure is noted, but appears to be a long time condition which has stabilized.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

### A1030 Slab on Grade\*

A number of small cracks in slab that have existed for many years. Concrete floor slabs at the entrance to south east wing on main floor, are uneven, although they do not present a tripping hazard. This appears to be a long term condition, and no further movement is apparent. No upgrading is required.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

### A2020 Basement Walls (& Crawl Space)\*

Reinforced concrete basement walls throughout. These walls become exposed walls at the north and west sides of this school building, where the grade is lowered.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

### B1010.01 Floor Structural Frame\*(Building Frame)

Precast concrete columns supporting precast concrete floor panels. Floor structure is covered with 40 to 60 mm of concrete topping, with no major cracking or movement noted. Some areas of the building structure are load bearing concrete block masonry (see B1010.02 below).

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

### B1010.02 Structural Interior Walls Supporting Floors\*

In some areas of the building, especially the north and west wings, the precast concrete floor panels are supported on load bearing concrete block masonry walls. This floor structure is also covered with 40 to 60 mm of concrete topping.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

### B1010.05 Mezzanine Construction\*

In the shops areas to the west and north wings, the mezzanines are metal decking and concrete topping, supported by steel columns, beams, and open web steel joists.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

**B1010.10 Floor Construction Firestopping\***

Where visible, service penetrations have been sealed.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	100	JUN-05

**B1020.01 Roof Structural Frame\***

The roof structure in most areas of the building is precast concrete tees supported on precast concrete columns and beams. In the west and north wings, some areas of the concrete tee roof structure are supported by load bearing concrete block masonry walls.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	100	JUN-05

**B1020.04 Canopies\***

Precast concrete tees overhang, at south elevation / front entrance.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	100	JUN-05

## S2 ENVELOPE

### B2010.01.01 Precast Concrete: Exterior Wall Skin\*

Exterior is precast concrete wall panels with exposed aggregate.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
1 - Critical	0	75	JUN-05

**Event:** Movement of precast concrete panels should be studied.

**Concern:**

Movement of precast concrete panels up to 50 mm is noted. This indicates potential failure of anchors.

**Recommendation:**

Study problem of precast panel movement, and provide recommendations for remediation.



<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Study	2006	\$10,700	High

*Updated: February 8 2006*

### B2010.01.01 Precast Concrete: Exterior Wall Skin\* - Window frames

Precast concrete window sills.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	75	JUN-05

**Event:** Repair precast concrete window sills.

**Concern:**

Some precast concrete elements have cracked, especially in the courtyard, exposing the rebar.

**Recommendation:**

Clean, patch and repair damaged precast sections (approximately 5 in total). Inspect to ensure no structural damage has occurred to the rebar.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2006	\$6,420	Medium

*Updated: February 8 2006*

**B2010.01.02.01 Brick Masonry: Ext. Wall Skin\***

Brick masonry appears sound with only minimal step cracking.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	75	JUN-05

**B2010.01.09 Expansion Control: Exterior Wall Skin\***

Building expansion joints.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

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

Some joints recently recaulked. After remedial study to precast concrete panels, those joints will also require recaulking.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	15	JUN-05

**Event:** Recaulk failed joints around entire building.

**Concern:**

Some window joints have been recaulked, but most are still to be done. Water penetration is evident. Caulking in expansion joints has failed.

**Recommendation:**

Clean and recaulk all building joints, including joints between exterior panels and expansion joints.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$8,560	High

*Updated: February 8 2006*

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

Painted concrete exterior is peeling.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	15	JUN-05

**Event:** Paint concrete exterior.

**Concern:**

Painted precast concrete columns and beams are peeling.

**Recommendation:**

Scrape painted surfaces to bare concrete, prime and repaint.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$11,770	Low

*Updated: February 8 2006*

### B2010.01.99 Other Exterior Wall Skin\*

Ceramic mosaic tiles installed above window line, below precast concrete tees.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

### B2010.02.02 Precast Concrete: Ext. Wall Const.\*

Exposed aggregate precast concrete panels, columns, beams and sills used extensively on building exterior.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

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

Concrete block infill panels are used as the exterior skin, where not as highly visible as the precast concrete panel skin.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

### B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation\*

Parts of the area along the west wall of the west wing is undergoing interior repairs by Facility Maintenance staff, to correct moisture infiltration problems. The backup is visible - semi-rigid batt insulation and poly vapour barrier on a wood framed interior wall system, finished with gypsum board.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	20	JUN-05

### B2010.06 Exterior Louvers, Grilles, and Screens\*

Prefinished metal.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	20	JUN-05

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

Sealed double glazed aluminum framed unit windows, with some operable awnings. Hardware does not operate correctly, and a number of sealed glazing units have failed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	35	JUN-05

**Event:** Replace glazing units; repair hardware.

**Concern:**

Window hardware poor condition and a number of failed sealed glazing units.

**Recommendation:**

Replace failed sealed glazing units. Repair or replace broken operable hardware.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$12,840	Low

*Updated: February 8 2006*

### B2030.01.01 Aluminum-Framed Storefronts\*\*

Glazed aluminum frames with some solid infill panels.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

### B2030.01.06 Automatic Entrance Doors\*\*

One automatic operator at front entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

### B2030.01.10 Wood Entrance Door\*\*

All exterior doors aged but serviceable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	20	JUN-05

**B2030.02.01 Metal Doors and Frames**

All exterior doors aged but serviceable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

**B2030.03 Large Exterior Special Doors\***

Variety of ages of overhead doors into shop areas, including metal and wood panels. All appear to be maintained and are serviceable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

**B3010.01 Deck Vapor Retarder and Insulation\***

Drawings indicate sloped rigid insulation and no vapour retarder. No problems reported by facility staff.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	50	JUN-05

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

Roofing report dated October 2001 indicates only two areas of built-up roofing left, the west wing and the north-east wing; which are scheduled to be upgraded to SBS in 2006.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

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

Roofing report dated October 2001 indicates that all SBS roofing has been installed since 2000, with the last two areas to be redone in 2006.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

**B3010.08.02 Metal Gutters and Downspouts\*\***

No problems noted, or reported.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

**B3020.01 Skylights\*\***

Double-skin acrylic dome skylights. Considerable leakage of skylight seals previously - have been repaired by maintenance staff.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	20	JUN-05

## S3 INTERIOR

### C1010.01 Interior Fixed Partitions\*

Gypsum board partitions throughout. Concrete block partitions exhibit minimal step cracking, which has been repaired.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	50	JUN-05

### C1010.01.03 Unit Masonry Assemblies

Modular brick interior walls throughout; no cracking or movement noted, except for settlement problem at main floor east wing stair. (minor repair, less than \$1000)

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

### C1010.01.03 Unit Masonry Assemblies - Gymnasium Wall

Gymnasium curtain is pulling on brick wall support.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	JUN-05

**Event:** Repair masonry support wall.

**Concern:**

Gymnasium curtain is pulling on masonry wall support, and brick is moving. Some remedial work has been done, but it appears to be ineffective.

**Recommendation:**

Remove portion of supporting masonry wall and rebuild with sufficient structure to support the loading imposed by the accordion curtain.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Repair	2006	\$21,400	High

*Updated: February 8 2006*

### C1010.02 Interior Demountable Partitions\*

Very few demountables, but some are used in office areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

### C1010.03.01 Accordion Folding Partitions

Gymnasium curtain is to separate seating area. See masonry support wall item C1010.01.03 above.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

#### C1010.04 Interior Balustrades and Screens, Interior Railings\*

Steel pipe railings on mezzanines in CTS areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	40	JUN-05

#### C1010.05 Interior Windows\*

Some older windows wood framed. Newer windows are in steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	40	JUN-05

#### C1010.07 Interior Partition Firestopping\*

Where visible, penetrations are properly sealed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	50	JUN-05

#### C1020.01 Interior Swinging Doors\*\*

A variety of ages of wood doors in wood frames; from fir to birch doors. Some newer wood doors are in steel frames.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	50	JUN-05

#### C1020.03 Interior Fire Doors\*

Flush steel doors in steel frames, labels are visible; hardware is aged but serviceable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	50	JUN-05

#### C1030.01 Visual Display Boards\*\*

Some older black boards, most are newer whiteboards in aluminum trim frames. Considerable number of vinyl covered tackboards.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	10	JUN-05

#### C1030.02 Fabricated Compartments(Toilets>Showers)\*\*

Steel doors and panels throughout washrooms; all are showing wear and tear but are serviceable.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	20	JUN-05

### C1030.08 Interior Identifying Devices\*

Signage is not consistent throughout, due to different ages of installations.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	10	JUN-05

### C1030.10 Lockers\*\*

Steel lockers are showing considerable wear and tear.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	30	JUN-05

**Event:** Replace failed steel lockers.

**Concern:**

Steel lockers in corridors throughout the building are showing considerable wear and tear; locks and hardware are not fully functional.

**Recommendation:**

Replace approximately 50% of all existing metal lockers, with new flush steel lockers.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2007	\$26,750	Low

*Updated: February 8 2006*

### C1030.12 Storage Shelving\*

Plywood shelving in classrooms and offices, steel shelving in storage and maintenance rooms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	20	JUN-05

### C1030.14 Toilet, Bath, and Laundry Accessories\*

Standard accessories in student and staff washrooms, showing normal wear and tear.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	20	JUN-05

### C2010 Stair Construction\*

Steel frame stairs, concrete filled pan treads.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	100	JUN-05

**C2020.01 Tile Stair Finishes\***

Some chipping of quarry tile nosings, otherwise sound.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	30	JUN-05

**C2020.08 Stair Railings and Balustrades\***

Welded steel pipe, some older threaded steel pipe.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	50	JUN-05

**C3010.04 Gypsum Board Wall Finishes\***

Gypsum board partitions throughout the building, showing normal wear and tear.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	40	JUN-05

**C3010.06 Tile Wall Finishes\*\***

Ceramic tile walls to student washrooms and shower rooms are generally sound; some minor chipping and broken tile should be a maintenance item.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	50	JUN-05

**C3010.09 Acoustical Wall Treatment\*\***

A great variety of acoustic treatments throughout the building; acoustic tile, fabric panels, perforated concrete block.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	20	JUN-05

**C3010.11 Interior Wall Painting\*\***

Good maintenance of building finishes; this work is ongoing.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	5	JUN-05

**C3010.12 Wall Coverings\*\***

Some renovated areas of offices and staff rooms have vinyl wallcoverings.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	10	JUN-05

**C3020.01 Concrete Floor Finishes (Paint)\***

Painted finishes in CTS areas and some storage rooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	75	JUN-05

**C3020.02 Tile Floor Finishes\*\***

Ceramic tile student washrooms and shower rooms are generally sound; some minor chipping and broken tile should be a maintenance item.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	30	JUN-05

**C3020.04 Wood Flooring\*\***

Wood Gymnasium flooring is sound, with painted lines still visible. Main Gymnasium floor recently repaired and refinished.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**C3020.07 Resilient Flooring\*\***

Vinyl composition tile in most public areas and classrooms; no asbestos tile noted or reported.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	20	JUN-05

**C3020.08 Carpet Flooring\*\***

Level loop carpet in some office areas.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	10	JUN-05

**C3030.04 Gypsum Board Ceiling Finishes\***

Gypsum board ceilings in storage rooms.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	50	JUN-05

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

(2003) T-bar ceilings, in office areas, are part of recent renovations.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**C3030.06 Acoustic Ceiling Treatment (Tile)\*\***

Original ceiling tile in classrooms and work rooms is due for replacement.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	15	JUN-05

**Event:** Replace original ceiling tile.

**Concern:**

Original ceiling tile in classrooms and work rooms is cracked, stained and broken, and is due for replacement. There is an obvious difference in visual condition between original tile and that which has been replaced in the 2003 renovations.

**Recommendation:**

Replace the original acoustic ceiling tile throughout the school, approximately 50% of total area.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2007	\$64,200	Low

*Updated: February 8 2006*

**C3030.07 Interior Ceiling Painting\*\***

Normal wear and tear in CTS and Gymnasium areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	10	JUN-05

**D1010.01.02 Hydraulic Passenger Elevators\*\***

One elevator was added to east wing, providing access to all three floors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

**S4 MECHANICAL****D2010.01 Water Closets\*\***

Floor mount, manual flush valve with open front.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	30	JUN-05

**D2010.02 Urinals\*\***

Wall mount with manual flush valve.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	30	JUN-05

**D2010.03 Lavatories\*\***

Vanity type with hot and cold faucets.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	30	JUN-05

**D2010.04 Sinks\*\***

Miscellaneous sinks in counter with swing spout, hot and cold faucets.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	30	JUN-05

**D2010.05 Showers\*\***

Boys and girls showers need to be replaced due to frequent repairs and unavailability of parts.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	0	30	JUN-05

**Event:** **Replace existing lower level showers adjacent to the Gymnasiums.**

**Concern:**

Excessive maintenance costs due to frequent breakdowns and non-availability of parts.

**Recommendation:**

Replace all existing showers with new units.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Failure Replacement	2006	\$90,950	Low

*Updated: February 8 2006*

**D2010.08 Drinking Fountains\*\***

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	30	JUN-05

**D2020.01.01 Pipes and Tubes: Domestic Water\***

Hot and cold copper piping systems with hot water recirc.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	40	JUN-05

**Event:** **Provide new domestic hot water recirc piping.**

**Concern:**

Domestic hot water recirc. piping requires frequent repairs for leaks.

**Recommendation:**

Replace domestic hot water piping.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$21,400	High

*Updated: February 8 2006*

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

Reduced pressure backflow preventers on fire protection system water supply, domestic water supply, irrigation water supply and water make-up to hot water heating system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	30	JUN-05

**D2020.02.02 Plumbing Pumps: Domestic Water\*\***

In-line domestic hot water recirc.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	20	JUN-05

**D2020.02.06 Domestic Water Heaters\*\***

One RHEEM RF-76-200CH and one STATE SBT-80.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	20	JUN-05

**Event:** **Life Cycle replacement of one domestic water heater.**

**Concern:**

State SBT-80 domestic water heater failure.

**Recommendation:**

Replace with new unit when failure occurs.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2009	\$5,350	High

*Updated: February 8 2006*

**D2020.03 Water Supply Insulation\*: Domestic**

Domestic cold, hot and recirc. insulated.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	0	30	JUN-05

**D2030.01 Waste and Vent Piping\***

Waste and vent piping consists of cast iron and copper.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	50	JUN-05

**D2040.01 Rain Water Drainage Piping Systems\***

The roof drainage piping systems consists of interior cast iron piping connected to the City of Calgary municipal storm drainage system.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	50	JUN-05

**D2040.02.04 Roof Drains\*\***

Full flow roof roof drains with cast iron dome covers.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	40	JUN-05

**D3010.02 Gas Supply Systems\***

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	0	50	JUN-05

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

Two Volcano packaged fire tube boilers, 15,000 MBH input each. New burner provided for the previously unreliable boiler.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	0	30	JUN-05

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

Forced draft boiler venting provided with insulated single wall vent connectors connected to a common vent. Ducted combustion air with glycol heating coil and axial fan supply.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	0	30	JUN-05

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

Chemical pot feeder connected in line with heating system complete with micron filter.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	0	30	JUN-05

**D3040.01.01 Air Handling Units: Air Distribution\*\* (Damper Sections)**

There are 25 air handling units located throughout the school provide heat and ventilation for the areas served. Of the 25 units 22 require new dampers and damper motors. 3 units have recently had new dampers and damper motors replaced.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	30	JUN-05

**Event:** **Replace 22 air handling unit damper sections.**

**Concern:**

Air handling systems are not providing adequate ventilation due improper damper operation.

**Recommendation:**

Replace existing dampers and damper motors.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$117,700	Medium

*Updated: February 8 2006*

**D3040.01.01 Air Handling Units: Air Distribution\*\* (Existing Heating Coils)**

There are 25 air handling units located throughout the school, providing heat and ventilation for the areas served. 18 units are complete with glycol heating coils. 3 Classroom units and 4 Shop units do not have heating coils.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	30	JUN-05

**Event:** **Replace 18 air handling unit glycol heating coils.**

**Concern:**

Coils are failing.

**Recommendation:**

Replace all existing air handling unit coils.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$288,900	Medium

*Updated: February 8 2006*

**D3040.01.01 Air Handling Units: Air Distribution\*\* (New Heating Coils)**

Three Classroom units and 4 Shop air handling units do not have heating coils.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	30	JUN-05

**Event:** **Provide 7 new glycol heating coils to 7 existing air handling units.**

**Concern:**

Air handling systems are not capable of providing adequate heat for outdoor ventilation air, resulting in unacceptable indoor comfort conditions.

**Recommendation:**

Add 7 new glycol heating coils.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Indoor Air Quality Upgrade	2006	\$149,800	Medium

*Updated: February 8 2006*

**D3040.01.03 Air Cleaning Devices:Air Distribution\***

50 mm throw away media for all air handling units.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	30	JUN-05

**D3040.01.04 Ducts: Air Distribution\***

Sheet metal supply and return ductwork.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	50	JUN-05

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

Air supply outlets include baseboard diffusers, ceiling diffusers and wall grilles. Inlets are generally wall return grilles.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	30	JUN-05

**D3040.03.01 Hot Water Distribution Systems\*\***

Steel piping system..

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	40	JUN-05

**Event:** **Provide new isolation valves for hot water and glycol systems.**

**Concern:**

Valves not providing adequate isolation. Excessive maintenance costs.

**Recommendation:**

Provide new valves.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$107,000	Low

*Updated: February 8 2006*

**D3040.04.01 Fans: Exhaust\*\***

Exhaust fans provided for Washrooms and most Shop Areas.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	30	JUN-05

**Event:** **Provide exhaust for the Auto Shop flammable cabinet and spray paint area, the Woodworking Shop and the Science chemical storage area.**

**Concern:**

Areas requiring exhaust are a flammable storage cabinet and paint spray area in the Auto Shop, Chemical Storage Room in the Science Area and general exhaust in the Woodworking Shop.

**Recommendation:**

Provide exhaust systems for the areas indicated.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Indoor Air Quality Upgrade	2006	\$80,250	High

*Updated: February 8 2006*

**D3040.04.02 Air Cleaning Devices: Exhaust**

Woodworking saw dust collection system non recirculating type.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	0	JUN-05

**D3040.04.03 Ducts: Exhaust\***

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	0	JUN-05

#### D3040.04.05 Air Outlets and Inlets: Exhaust\*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	0	JUN-05

#### D3040.05 Heat Exchangers\*\*

Shell and tube hot water to glycol heat exchanger.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	30	JUN-05

#### D3050.01.01 Computer Room Air Conditioning Units\*\*

Water cooled condensing units serve Computer Rooms in the South East Wing. Air cooled condensing units serve Computer Room in North West Wing.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
6 - Excellent	0	30	JUN-05

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

(2002) An Eng Air RWB-354/DJ A/C unit serves the National Sports School Area of the school.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
6 - Excellent	0	15	JUN-05

#### D3050.02 Air Coils\*\*

Duct mounted heating coils temper the supply air to maintain room comfort conditions.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

#### D3050.05.01 Convectors\*\*

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

#### D3050.05.02 Fan Coil Units\*\*

Provided for entrances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	30	JUN-05

**Event:** Provide new fan coil unit for Southwest Stairwell.

**Concern:**

Inadequate heat.

**Recommendation:**

Install new fan coil unit.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Operating Efficiency Upgrade	2006	\$10,700	Medium

*Updated: February 8 2006*

**D3050.05.03 Finned Tube Radiation\*\***

Wall fin radiation in Gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	35	JUN-05

**Event:** **Provide new enclosure.**

**Concern:**

Damaged enclosure.

**Recommendation:**

Replace existing radiation enclosure.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$5,350	Medium

*Updated: February 8 2006*

**D3050.05.06 Unit Heaters\*\***

Provided in some shops.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

**D3060.02.01 Electric and Electronic Controls\*\***

(2001) Controls added for starting and stopping air handling units from a central location utilizing timer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
6 - Excellent	0	30	JUN-05

**D3060.02.02 Pneumatic Controls\*\***

All HVAC controls with the exception of the air handling unit start/stop functions are original pneumatic.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	40	JUN-05

**Event:** **Provide new DDC controls system.**

**Concern:**

Approaching life expectancy.

**Recommendation:**

Provide complete new HVAC controls system.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2010	\$267,500	Unassigned

*Updated: February 8 2006*

**D4020 Standpipes\***

Standpipe system complete with cabinet, hose and fire extinguishers provided throughout.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	50	JUN-05

**Event:** **Provide standpipe siamese connection for fire department use.**

**Concern:**

Safety of occupants and building.

**Recommendation:**

Provide standpipe siamese.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2006	\$16,050	Low

*Updated: February 8 2006*

**D4030.01 Fire Extinguisher, Cabinets and Accessories\*\***

Dry chemical type fire extinguishers installed throughout. Extinguishers in Corridors and some finished areas installed in cabinets, with all others being mounted on wall brackets.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	30	JUN-05

**D4090.02 Carbon Dioxide Fire Extinguishing Systems\*\***

Provided for Kitchen exhaust hood.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	50	JUN-05

## S5 ELECTRICAL

### D5010.01 Main Electrical Transformers\*\*

Utility owned padmount transformer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	40	JUN-05

### D5010.02 Secondary Electrical Transformers (Interior)\*\*

Transformers that feed power loads located in each wing of the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	40	JUN-05

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

The main service consists of a 2000 amp, 277/480 volt standalone main breaker. that feeds a 2000 amp CDP in the same electrical room. Cuttler Hammer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	40	JUN-05

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

2000 Most of the branch circuit panels have been upgraded to meet the current needs. cuttler Hammer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

### D5010.07.02 Motor Starters and Accessories\*\*

Magnetic starters to control fans and pumps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

### D5020.01 Electrical Branch Wiring\*

Conduit and wire with BX for drops.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	50	JUN-05

### D5020.02.01 Lighting Accessories (Lighting Controls)\*

Local switching throughout. Low voltage relay switching in the gym.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

**D5020.02.02.01 Interior Incandescent Fixtures\***

Pot lights at the entrance and on the stage.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

**Event: Upgrade lighting at the entrance and on stage****Concern:**

Inefficient lighting source used.

**Recommendation:**

Replace incandescent fixtures with fluorescent fixtures.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2010	\$5,350	Low

*Updated: February 8 2006*

**D5020.02.02.02 Interior Fluorescent Fixtures\*\***

Assortment of recessed fixtures with k12 lenses, surface wrap fixtures and suspended louvered type fixtures in the classrooms. Approximately 20% of the lighting is upgraded with T8 lamps and electronic ballasts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	30	JUN-05

**Event: Upgrade lighting to a more efficient source.****Concern:**

Fixtures use T12 lamps and magnetic ballasts. Most fixtures are due for replacement.

**Recommendation:**

Replace fixtures with T-8 lamps and electronic ballasts.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2009	\$379,850	Medium

*Updated: February 8 2006*

#### D5020.02.02.03 Interior Metal Halide Fixture\*

Gymnasium #1 fixtures are metal halide with remote ballasts.  
Shops fixtures are mercury vapour with remote ballasts.  
Gymnasium #2 fixtures are mercury vapour with remote ballasts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	30	JUN-05

**Event:** Shop and gymnasium lighting upgrade to a more efficient lighting source.

**Concern:**

Fixtures are past life expectancy.

**Recommendation:**

Install fluorescent wire guard fixtures in the gyms.  
Install fluorescent industrial fixtures in the shop

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Energy Efficiency Upgrade	2010	\$42,800	Low

*Updated: February 8 2006*

#### D5020.02.03 Emergency Lighting\*

Numerous battery packs with remote heads. Exit signs use incandescent lamps.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	0	JUN-05

**Event:** Replace emergency lighting system.

**Concern:**

Many of the battery packs are past their expected life.  
Exit signs use inefficient incandescent lamps.

**Recommendation:**

retrofit/replace exit signs.  
Replace emergency lighting where old battery packs exist..

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2010	\$32,100	Low

*Updated: February 8 2006*

#### D5020.02.05 Special Purpose Lighting\*

Drama room has theatrical lighting and dimming.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	30	JUN-05

**D5020.03.01.03 Exterior Metal Halide Fixtures\***

Various models and styles used to illuminate portions of the perimeter and exits.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

**Event:** Replace exterior lighting fixtures.

**Concern:**

Fixtures are past life expectancy

**Recommendation:**

Replace and review exterior lighting requirements.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Lifecycle Replacement	2010	\$5,350	Low

*Updated: February 8 2006*

**D5020.03.02 Lighting Accessories (Lighting Controls)\***

Some of the lighting is controlled by photocell others are controlled by photocell and time clock.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

**D5030.01 Detection and Fire Alarm\*\***

Symplex 4100 system installed in 1990.

The system is zoned and has no visual appliances.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

**D5030.02.01 Door Answering\***

Door bell tied into the PA system.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

**D5030.02.02 Intrusion Detection\*\***

Silent Knight systems with motion detectors and door contacts.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

**D5030.03 Clock and Program Systems\*\***

Symplex 2350 digital programmer.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	JUN-05

**D5030.04.01 Telephone Systems\*\***

Nortel system installed in administration area and throughout in each classroom.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
5 - Good	0	25	JUN-05

**D5030.04.02 Paging Systems\***

Individual calls switches on intercom module to page individual class rooms.  
Separate amplifier in the gymnasium.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**D5030.04.04 Data Systems\*\***

Cat 5 in conduit with 3 data closets serving different wings.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**D5030.04.05 Local Area Network Systems\***

Wireless LAN system installed throughout.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
5 - Good	0	25	JUN-05

**D5030.05 Public Address and Music Systems\*\***

The paging system has a 250 watt Dukane amplifier.  
A portable amplifier is used in the gym.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	20	JUN-05

**D5030.06 Television Systems\***

Cable distribution system is in place.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	20	JUN-05

**S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION****E1020.02 Library Equipment\***

Minimal book security equipment; exit door scanner.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**E1020.03 Theater and Stage Equipment\***

Extensive stage equipment, most in well-used condition.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**E1020.07 Laboratory Equipment\***

Recently renovated labs, in north wing, have new fume hoods and fire cabinets.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**E1030.01 Vehicle Service Equipment\***

CTS automotive shops seem well equipped, with floor lifts, mobile lifts and jacks, welders, testing equipment, grinders, power tools, hand tools, etc.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

**E1090.03 Food Service Equipment\***

Kitchen is not new, but food service equipment appears to be serviceable; including commercial kitchen equipment, stainless steel counters and cabinets, stoves, cooktops, fryers, steamers, dispensers, refrigeration, diskwashing, etc.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	25	JUN-05

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

Most athletic and recreational equipment is quite new, including weight training, aerobics training, bicycles, rowers, climbing wall, physio tables, etc.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	15	JUN-05

### E1090.07.05 Gymnasium Equipment

Four plywood backstops and two glass backstops in main gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	JUN-05

**Event:** Rebuild Gymnasium backstop supports.

**Concern:**

Supports for glass backstops in main Gymnasium are coming loose from the precast concrete tee roof structure. Some areas of precast concrete are spalling, even though previous repairs were attempted.

**Recommendation:**

Rebuild steel support brackets, and secure to precast concrete roof structure.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$8,560	High

*Updated: February 8 2006*

### E2010.02.05 Educational Facility Casework\*

Cabinets and counters of fir construction and birch construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	35	JUN-05

### E2010.02.07 Kitchen Casework\*

Cabinets and counters of fir construction and birch construction.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	35	JUN-05

### E2010.02.08 Laboratory Casework\*

Cabinets of both fir construction and birch construction. Older counters are asbestos board.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	35	JUN-05

**Event:** Replace asbestos board counters.

**Concern:**

Older laboratory counters are asbestos board, which has decayed, has been covered with fibreboard, and should be replaced.

**Recommendation:**

Remove asbestos board counter tops and coverings from site, then replace existing counter tops with modern chemical resistant surfaces.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Hazardous Material Management Upgrade	2006	\$42,800	High

*Updated: February 8 2006*

### E2010.02.09 Library Casework\*

Library shelving is mostly newer birch plywood construction, with adjustable shelves.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	35	JUN-05

### E2010.03.01 Blinds\*\*

Mixture of horizontal and vertical metal louvre blinds.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	35	JUN-05

### E2010.05 Fixed Multiple Seating\*\*

Standard fold-up bleachers in main gymnasium.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	35	JUN-05

### E2020 Moveable Furnishings\*

Great variety of ages and styles of furnishings; including students desks, tables, stacking chairs, teachers desks and chairs.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

#### F2020.01 Asbestos\*

Major asbestos removal programme has just been completed, under floor slabs along the north side of the building. Asbestos is also to be removed from laboratory counter tops - refer to article 2010.02.08 above.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

#### F2020.04 Mould\*

No conditions were identified which would support or promote growth of mould. Lower level lockers and showers have a musty smell - this should be monitored by maintenance staff.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

## S8 FUNCTIONAL ASSESSMENT

### K3020 Indoor Environment

Acoustic environment has been improved with absorptive wall materials in main Gymnasium and in two small Gyms.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

### K40 Current Code Issues - Construction

Numerous combustible partitions have been constructed by school staff.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	JUN-05

**Event:** Remove combustible partitions.

**Concern:**

Numerous combustible partitions have been constructed by school staff, which the School Division was not aware of; all are exposed combustible construction, polyethylene covers, no fire doors or frames.

**Recommendation:**

Demolish and reconstruct illegal partitions to building code requirements. Install labelled doors and frames.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Repair	2006	\$42,800	Medium

*Updated: February 8 2006*

**K40 Current Code Issues - Fire Separations**

Fire separations missing throughout the building.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	JUN-05

**Event:** Install required fire separations throughout the building.

**Concern:**

Fire separations missing throughout the building. Partitions are not full height. Doors and frames are not fire labeled.

**Recommendation:**

Upgrade required fire separations to comply with current Building Code.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Code Upgrade	2006	\$58,850	Medium

*Updated: February 8 2006*

**K40 Current Code Issues - Storage**

Considerable storage of combustibles and flammables; excessive storage of combustible materials in corridors. Blocked doors and access to exit. This will be corrected by maintenance personnel and school staff. Estimate is less than \$1000 therefore no event is listed.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
1 - Critical	0	0	JUN-05

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

The parking lot is at the extreme south end of the site, and access to the front entrance is along city sidewalks.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

**K4010.02 Barrier Free Entrances**

One operable entry door at main entrance.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	JUN-05

**K4010.03 Barrier Free Interior Circulation**

This is a multi level building, and circulation is difficult, with numerous partial height stairs.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
3 - Marginal	0	0	JUN-05

**Event:** **Install an additional elevator in this multi level building.**

**Concern:**

This is a multi level building, and circulation is difficult, with numerous partial height stairs. Only one elevator is installed, which does not access the upper floor of the west wing.

**Recommendation:**

Install an additional elevator to access all floor areas of the building.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Barrier Free Access Upgrade	2006	\$165,850	Medium

*Updated: February 8 2006*

**K4010.04 Barrier Free Washrooms**

One set of barrier free washrooms are available on the main floor.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
4 - Acceptable	0	0	JUN-05

# RECAPP Facility Evaluation Report



## Ernest Manning High School

S2625  
Calgary

**Facility Details**

**Building Name:** Ernest Manning High School  
**Address:**  
**Location:** Calgary  
  
**Building Id:** S2625  
**Gross Area (sq. m):** 0.00  
**Replacement Cost:** \$0  
**Construction Year:** 0

**Evaluation Details**

**Evaluation Company:**  
  
**Evaluation Date:**  
  
**Evaluator Name:**

**Total Maintenance Events Next 5 years:** **\$189,390**  
**5 year Facility Condition Index (FCI):** **0%**

**General Summary:**

This school site is constricted, with the 'L-shaped' building filling the entire western portion of the property. The site slopes down to the shops area at the north west corner of the site, and the roadway and parking area do not slope to drain. Upgrading is required to asphalt paving, parking lots and exterior lighting. Overall, this school site is in rather poor condition.

**Structural Summary:**

**Envelope Summary:**

**Interior Summary:**

**Mechanical Summary:**

**Electrical Summary:**

**Rating Guide**

<b>Condition Rating</b>	<b>Performance</b>
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)\*\***

Asphalt parking and roadways at north side of site.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	

**Event:** **Repair parking and roadways at north side of site.**

**Concern:**

Parking and roadways at north side of site in poor condition; water is not draining; area should be resloped and repaved.

**Recommendation:**

Regrade and repave entire north asphalt area, to slope to drains.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$149,800	Low

*Updated: February 13 2006*

**G2010.05 Roadway Curbs and Gutters\***

Existing concrete curbs; replace curbs and gutters included in 2010.02 above.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	

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

Staff asphalt parking lot, at south end of site.

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

**G2020.05 Parking Lot Curbs and Gutters\***

Concrete curbs and gutters surrounding asphalt..

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

**G2020.06.03 Parking Lot Signs\***

Signage to control parking located around entire north end of site.

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

#### G2020.06.04 Pavement Markings\*

Painted markings faint but visible in staff parking lot.

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

#### G2030.04 Rigid Pedestrian Pavement (Concrete)\*\*

Concrete sidewalks, around entire site.

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

#### G2030.06 Exterior Steps and Ramps\*

Exterior concrete stairs at exits.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	

**Event:** Construct new exterior concrete stairs.

**Concern:**

Exterior concrete stairs, at north and east side of building, are mostly broken and not fit for use.

**Recommendation:**

Demolish existing and construct new reinforced concrete steps.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$26,750	Medium

*Updated: February 13 2006*

#### G2040.02 Fences and Gates\*\*

Chain link fencing located around playing field and along retaining walls.

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

#### G2040.03 Athletic and Recreational Surfaces\*\*

Grassed soccer and playing field to east of school building.

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

#### G2040.05 Site and Street Furnishings\*

This site contains a couple of benches and bike racks.

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

#### G2040.06 Exterior Signs\*

School sign, mounted on a rock, is not prominent.

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

#### G2040.08 Flagpoles\*

One aluminum flagpole.

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

#### G2040.11 Retaining Walls\*

Four meter high reinforced concrete retaining wall along west property line.

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

#### G2050.04 Lawns and Grasses\*

Lawn around east and south sides of building only.

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

#### G2050.05 Trees, Plants and Ground Covers\*

Mostly mature shrubs and trees, on south and east sides of building.

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

#### G3010.02 Site Domestic Water Distribution\*

100 mm water supply connected to municipal supply.

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

#### G3010.03 Site Fire Protection Water Distribution\*

Fire hydrants adjacent to site.

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

**G3020.01 Sanitary Sewage Collection\***

Sanitary service connection to municipal service.

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

**G3030.01 Storm Water Collection\***

Site catch basins and roof storm drainage connected to municipal storm service. Problem with ice build-up during winter months in north parking lot due to Shopping Centre piling snow adjacent to the school parking lot. Snow melt from Shopping Centre lot runs onto the school lot creating an icing problem.

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

**G3060.01 Gas Distribution\***

Natural gas service connected to municipal service.

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

**G4010.04 Car Plugs-ins\***

Car plugs installed on wood rail.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
2 - Poor	0	0	

**Event:** Replace existing car plugs.

**Concern:**

Car plugs are installed on a wood rail and are in disrepair.

**Recommendation:**

Replace car plugs with manufactured pedestal type.

<u>Type</u>	<u>Year</u>	<u>Cost</u>	<u>Priority</u>
Failure Replacement	2006	\$12,840	Low

*Updated: February 13 2006*

**G4020.01 Area Lighting\***

Parking lot is not illuminated.

<b><u>Rating</u></b>	<b><u>Installed</u></b>	<b><u>Design Life</u></b>	<b><u>Updated</u></b>
2 - Poor	0	0	

**Event:** Install lighting to illuminate the Parking Area.

**Concern:**

There is not appropriate lighting for the parking area.

**Recommendation:**

Install two pole mounted light fixtures.

<b><u>Type</u></b>	<b><u>Year</u></b>	<b><u>Cost</u></b>	<b><u>Priority</u></b>
Program Functional Upgrade	2006	\$10,700	Low

*Updated: February 13 2006*