# **RECAPP Facility Evaluation Report**

**Rocky View Sch Div #41** 



Bearspaw Elementary Middle School
B4730A
Bearspaw

# Bearspaw - Bearspaw Elementary Middle School (B4730A)

**Facility Details** 

Building Name: Bearspaw Elementary Middle

Address:

Location: Bearspaw

Building Id: B4730A

Gross Area (sq. m): 6,363.00

Replacement Cost: \$15,254,782

Construction Year: 2002

#### **Evaluation Details**

Evaluation Company: Quinn Young Architects Ltd.

Evaluation Date: January 15 2009

Evaluator Name: Erik Heck

Total Maintenance Events Next 5 years: \$13,000 5 year Facility Condition Index (FCI): 0.09%

#### **General Summary:**

Bearspaw School is located in the unincorporated community of Bearspaw, Alberta. The student capacity is 625. The 6363 m2 single storey school was constructed in 2002.

Site contains asphalt staff and visitor parking, as well as a bus loop. Playing fields and playground are located SE of the school.

Overall facility condition is good.

# **Structural Summary:**

The 2002 school has a below-grade concrete foundation, wood frame and load-bearing block construction.

Structure appears to be in good condition, with some localized settling noted.

# **Envelope Summary:**

The exterior walls are clad with smooth and split-face concrete block and vertical metal siding. Standing seam metal roofing is present over all areas except the gymnasium, viewing area, and second floor mechanical room, which are a low-slope SBS system. Prefinished metal flashings and soffits are present throughout.

All windows are aluminum c/w sealed unit glazing, prefinished metal flashings, and aluminum and concrete block sills on the main floor. Exterior doors are hollow metal in pressed steel frames.

The building envelope is in good condition.

#### **Interior Summary:**

The interior walls are painted block and gypsum board with some smooth-face and colored split-face concrete block in the Commons. Acoustic concrete block in computer labs, music and gymn. Ceramic tiles are installed behind urinals and water fountains, and in showers.

Exposed painted wood structure is typical for classroom ceilings. Unpainted structural glulams, pine and OSB decking are found in the Commons. Unpainted pine trusses and OSB decking are found in the wing gathering spaces. Gypsum board ceilings in vestibules, washrooms, storage,

Patterned, stained concrete floors are typical in the corridors and Commons. Painted concrete, in storage, CTS, custodial, mechanical. Rubber tread and nosing on stairs to gym viewing area. VCT in food service, most classrooms, staff washrooms, workroom, kitchen, infirmary, storage. Carpet is found in computer labs, music, admin, some classrooms. Floating maple wood floor in gym. Quarry tiles in gym changerooms and shower.

The interior finishes are in good condition.

#### **Mechanical Summary:**

The school mechanical system consists of 2 Well McLeain boilers rated at 2,317,000 Btu's each. These supply heating for the heat pumps, entrance fan coils and a small amount of baseboard radiation. A dry cooler supplies cooling for the school through the heat pumps. Domestic hot water for the school is from two Universal, 72Gal. HWT. There is municipal under ground gas. Water, sanitary sewer, and storm sewer are provided through a private system. The school is fully sprinkled for fire protection.

The mechanical systems are 7 years old and in good serviceable condition.

# Bearspaw - Bearspaw Elementary Middle School (B4730A)

# **Electrical Summary:**

The electric systems are in general wired independently in wings of the facility with interconnections between wings. There is an emergency generator for the emergency lighting and the fire pump.

Energy efficient lighting is in place.
The overall condition of the electrical systems is Good.

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\*

Concrete foundation and partial basement containing 3 water reservoirs and mechanical and electrical services.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### A1030 Slab on Grade\*

Concrete slab on grade.

RatingInstalledDesign LifeUpdated3 - Marginal20020MAR-09

**Event: Repair Slab on Grade** 

Concern:

Repair slab settling condition based on results of 2009 study.

TypeYearCostPriorityRepair2010\$5,000Unassigned

Updated: MAR-09

**Event: Study Slab on Grade** 

Concern:

Concrete slab settling at east wall of 1021 Construction Technology. Rainwater is also infiltrating under wall near this location during storm events, flooding adjacent storage room 1021C.

**Recommendation:** 

Review by structural engineer.

**Consequences of Deferral:** 

Possible continued slab movement and eventual cracking / deterioration.

 Type
 Year
 Cost
 Priority

 Study
 2009
 \$2,000
 Low

**Updated:** MAR-09

# A2020 Basement Walls (& Crawl Space)\*

Concrete basement walls.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# B1010.02 Structural Interior Walls Supporting Floors (or Roof)\*

Concrete walls in basement area. Load-bearing concrete block supporting mezzanine and gym roof.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# Bearspaw - Bearspaw Elementary Middle School (B4730A)

#### B1010.05 Mezzanine Construction\*

Gym viewing area and mechanical room mezzanine. Concrete topping on metal deck on structural steel on load-bearing concrete block.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# B1020.01 Roof Structural Frame\*

Engineered wood trusses and OSB decking. Glulam joists, beams and columns and wood decking. Metal deck and OWSJ in gym.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# B1020.04 Canopies\*

Glulam trusses & wood purlins. Standing seam metal roofing.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# **S2 ENVELOPE**

#### B2010.01.02.02 Concrete Block: Ext. Wall Skin\*

Coloured smooth-face and split-face concrete block. Coloured, chamfered, smooth-face concrete block sill below main floor windows.

RatingInstalledDesign LifeUpdated5 - Good200275MAR-09

#### B2010.01.06.03 Metal Siding\*\*

Vertical metal siding above concrete block.

RatingInstalledDesign LifeUpdated5 - Good200240MAR-09

**Event: Replace Metal Siding (Approx 1250m2)** 

TypeYearCostPriorityLifecycle Replacement2042\$180,000Unassigned

Updated: MAR-09

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

Caulked control joints at concrete block.

Rating Installed Design Life Updated 5 - Good 2002 0 MAR-09

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

Caulked masonry control joints, window & door frames.

RatingInstalledDesign LifeUpdated4 - Acceptable200220MAR-09

**Event: Replace Joint Sealers** 

TypeYearCostPriorityLifecycle Replacement2022\$55,000Unassigned

**Updated: MAR-09** 

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

Stain on glulam truses and purlins over main entrance canopy. Painted West, South and East-facing hollow metal doors and pressed steel frames have faded.

RatingInstalledDesign LifeUpdated4 - Acceptable200215MAR-09

**Event: Replace stain at entrance** 

TypeYearCostPriorityLifecycle Replacement2011\$3,000Unassigned

**Updated:** MAR-09

# B2010.02.01 Cast-in-place Concrete:Ext.Wall Const\*

Basement generator vent pit wall.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

Load-bearing concrete block at gym & mezzanine.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# B2010.02.05 Wood Framing: Ext. Wall Const.\*

38 x 140 wood studs @ 400 o.c.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

85mm Spray foam insulation & air/vapour barrier.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### B2010.09 Exterior Soffits\*

Prefinished vented metal soffits throughout.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

Aluminum frames, sealed unit glazing, aluminum & concrete block sill. Upper awning vents throughout main floor.

RatingInstalledDesign LifeUpdated5 - Good200240MAR-09

**Event:** Replace Aluminum Windows (63)

TypeYearCostPriorityLifecycle Replacement2042\$200,000Unassigned

Updated: MAR-09

# B2030.01.02 Steel-Framed Storefronts: Doors\*\*

Hollow metal doors in pressed steel frames throughout. Top and bottom sealed unit vision panels at main entrance c/w transom and side lites. Half panel sealed unit vision glazing at secondary exits.

RatingInstalledDesign LifeUpdated3 - Marginal200230MAR-09

# **Event: Repaint Steel Doors & Frames (10 doors)**

Concern:

Painted West, South, and East-facing hollow metal doors and pressed steel frames have faded.

**Recommendation:** 

Repaint doors and frames. **Consequences of Deferral:** 

Poor appearance and possibility of corrosion.

TypeYearCostPriorityPreventative Maintenance2012\$5,000Low

**Updated: MAR-09** 

**Event: Replace Exterior Steel Entrance Doors (12)** 

TypeYearCostPriorityLifecycle Replacement2032\$26,000Unassigned

**Updated: MAR-09** 

#### B2030.02 Exterior Utility Doors\*\*

Hollow metal doors in pressed steel frames throughout.

RatingInstalledDesign LifeUpdated5 - Good200240MAR-09

**Event: Replace Exterior Utility Doors (6 Doors)** 

TypeYearCostPriorityLifecycle Replacement2042\$10,000Unassigned

Updated: MAR-09

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

Air/vapour barrier membrane on gypsum board (gym & mezzanine), on plywood (typical). 100mm rigid insulation.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

2-ply SBS roofing on fibreboard at gym.

RatingInstalledDesign LifeUpdated5 - Good200225MAR-09

**Event: Replace SBS Membrane Roofing (Approx 910 m2)** 

TypeYearCostPriorityLifecycle Replacement2027\$18,000Unassigned

Updated: MAR-09

#### B3010.07 Sheet Metal Roofing\*\*

Standing seam metal roofing throughout sloped roof areas.

RatingInstalledDesign LifeUpdated5 - Good200240MAR-09

**Event:** Replace Sheet Metal Roofing\*\* (Approx 5500 m2)

TypeYearCostPriorityLifecycle Replacement2042\$780,000Unassigned

**Updated: MAR-09** 

# Bearspaw - Bearspaw Elementary Middle School (B4730A)

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

Metal eavestroughing and downspouts.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

**Event: Replace Metal Gutters and Downspouts** 

TypeYearCostPriorityLifecycle Replacement2032\$18,000Unassigned

**Updated: MAR-09** 

# B3020.02 Other Roofing Openings (Hatch, Vent, etc)\*

Roof access hatch, ridge vents, rooftop mechanical cooling unit.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### S3 INTERIOR

#### C1010.01 Interior Fixed Partitions\*

Walls of basement reservoirs are cast-in-place concrete.

Concrete block partitions at washrooms, change rooms, firewalls and gymnasium. Acoustic concrete block in computer and music rooms, gymnasium.

Steel stud & gypsum board partitions between rooms. Wood stud and gypsum board partitions at corridors.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

Painted steel tube handrails and guardrails c/w glass inserts.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# C1010.05 Interior Windows\*

Single glazing in pressed steel frames.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

Firestopping at top of firewalls and at wall penetrations.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### C1020.01 Interior Swinging Doors (& Hardware)\*

Hollow metal and solid core wood doors set in pressed metal frames throughout. Lever design locksets.

RatingInstalledDesign LifeUpdated5 - Good200240MAR-09

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

Rated hollow metal doors set in pressed steel frames.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### C1020.05.01 Coiling Doors and Grilles

Coiling security shutter.

RatingInstalledDesign LifeUpdated5 - Good00MAR-09

# C1030.01 Visual Display Boards\*\*

Various white, tack and chalk boards throughout.

RatingInstalledDesign LifeUpdated5 - Good200220MAR-09

**Event: Replace Visual Display Boards (Approx 25** 

m2/classroom)

TypeYearCostPriorityLifecycle Replacement2022\$125,000Unassigned

Updated: MAR-09

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

Floor-mounted metal partitions throughout.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

**Event:** Replace Fabricated Compartments

(Toilets/Showers) (Approx 26)

TypeYearCostPriorityLifecycle Replacement2032\$18,000Unassigned

Updated: MAR-09

#### C1030.08 Interior Identifying Devices\*

Metal-framed, plastic cover insert room identification plates. Brushed stainless steel washrooms signs. Carved wooden signs in Commons.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### C1030.10 Lockers\*\*

Single tier metal lockers.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

**Event:** Replace Lockers (Approx. 200)

TypeYearCostPriorityLifecycle Replacement2032\$45,000Unassigned

Updated: MAR-09

### C1030.12 Storage Shelving\*

Clear finish birch plywood storage shelving throughout. Folding boot racks at 3 building wing exterior exits.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

Paper towel, soap and toilet paper dispensers. Stainless steel framed mirrors.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### C2010 Stair Construction\*

Metal stair construction.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# C2020.05 Resilient Stair Finishes\*\*

Rubber tread and nosing to staircases.

RatingInstalledDesign LifeUpdated5 - Good200220MAR-09

### **Event:** Replace Resilient Stair Finishes (Approx 36)

TypeYearCostPriorityLifecycle Replacement2022\$3,600Unassigned

Updated: MAR-09

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

Painted steel tube handrails.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

Ceramic wall tiles behind drinking fountains, urinals, janitor sinks and in showers.

Rating Installed Design Life Updated 5 - Good 2002 40 MAR-09

#### **Event:** Replace Tile Wall Finishes (Approx. 75 m2)

TypeYearCostPriorityLifecycle Replacement2042\$10,300Unassigned

Updated: MAR-09

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

No acoustic panels present in music room.

RatingInstalledDesign LifeUpdated3 - Marginal200920MAR-09

#### Event: Add Acoustical Wall Treatment (Approx 60 m2)

#### Concern:

Acoustic control within music room is insufficient. Music room space is very noisy and difficult to teach in. Sound from music room is clearly audible in adjacent computer lab.

#### Recommendation:

Provide acoustic panels in music room. Seal entire perimeter (walls and ceiling) of shared walls between music and computer rooms.

#### **Consequences of Deferral:**

Continued poor acoustic control.

TypeYearCostPriorityProgram Functional Upgrade2009\$4,000High

Updated: MAR-09

### C3010.11 Interior Wall Painting\*

Painted gypsum board and concrete block throughout. Painted concrete walls in basement.

RatingInstalledDesign LifeUpdated5 - Good200210MAR-09

#### C3010.14 Other Wall Finishes\*

Unpainted acoustic concrete block in computer and music rooms, gym. Unpainted smooth-face and coloured split-face column cladding in Commons.

RatingInstalledDesign LifeUpdated5 - Good00MAR-09

#### C3020.01 Concrete Floor Finishes

Stained concrete flooring in vestibules, corridors, student washrooms and Commons.

Rating Installed Design Life Updated 0 0 MAR-09

# C3020.01.02 Paint Concrete Floor Finishes\*

Painted concrete floors in storage rooms, CTS, mechanical rooms. Many locations are showing wear.

RatingInstalledDesign LifeUpdated4 - Acceptable200210MAR-09

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

Quarry tile floors in gym washrooms. Ceramic tile floors in showers.

RatingInstalledDesign LifeUpdated5 - Good200250MAR-09

**Event:** Replace Tile Floor Finishes (Approx. 85 m2)

TypeYearCostPriorityLifecycle Replacement2052\$15,000Unassigned

**Updated: MAR-09** 

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

Floating maple gym floor.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

Event: Replace Wood Flooring (Approx 600 m2)

TypeYearCostPriorityLifecycle Replacement2032\$78,000Unassigned

**Updated:** MAR-09

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

VCT in many classrooms, storage, mezzanine.

RatingInstalledDesign LifeUpdated4 - Acceptable200220MAR-09

**Event:** Replace Resilient Flooring (Approx. 2225 m2)

TypeYearCostPriorityLifecycle Replacement2022\$64,000Unassigned

Updated: MAR-09

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

Carpet in some classrooms (incl. computer, music rooms), library and administration.

RatingInstalledDesign LifeUpdated4 - Acceptable200215MAR-09

**Event:** Replace Carpet Flooring (Approx. 960 m2)

TypeYearCostPriorityLifecycle Replacement2017\$56,500Unassigned

**Updated: MAR-09** 

#### C3030.02 Ceiling Paneling (Wood)\*

Exposed, unpainted wood decking in Commons. Exposed, unpainted OSB decking in Commons and wing gathering spaces.

RatingInstalledDesign LifeUpdated5 - Good200260MAR-09

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

Suspended acoustic tile ceilings in corridors, offices, administration.

RatingInstalledDesign LifeUpdated5 - Good200225MAR-09

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

(Approx. 1320 m2)

TypeYearCostPriorityLifecycle Replacement2027\$41,000Unassigned

**Updated: MAR-09** 

# C3030.07 Interior Ceiling Painting\*

Painted gypsum board bulkheads and ceilings in vestibules, storage rooms, washrooms. Painted wood trusses and OSB decking in classrooms throughout.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	2002	20	MAR-09

#### **S4 MECHANICAL**

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

There are a variety of sinks in the school, including 4 mop sinks that are porcelain on cast, 9 class room stainless steel sinks, 1 in the drama room, and art room, 4 doubles in the food services, 4 in the resource room, 1 triple in the cafeteria, and 20 science room lab sinks. The shop also has a stainless steel sink.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event: Replace Forty Three Sinks** 

TypeYearCostPriorityLifecycle Replacement2032\$34,400Unassigned

Updated: MAR-09

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

The girls and boys Gym shower rooms have 3 shower stalls each. There one separate teachers shower.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event:** Replace Seven Showers

TypeYearCostPriorityLifecycle Replacement2032\$14,300Unassigned

**Updated: MAR-09** 

# D2010.08 Drinking Fountains / Coolers \*\*

There are Four Oasis drinking fountains in the school.

RatingInstalledDesign LifeUpdated4 - Acceptable200235MAR-09

**Event:** Replace Four Drinking Fountains / Coolers

TypeYearCostPriorityLifecycle Replacement2037\$16,700Unassigned

Updated: MAR-09

# D2010.09 Other Plumbing Fixtures \*

There is a washing machine in the food services room.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

There is a men's and a woman's staff washroom, the toilets have flush valves, counter type basins, and a photo cell urinal in the men's. There are 2 main washrooms for the pupils, the urinals are wall mounted with photo cell flush valves. The toilets have flush valves. There are molded counter basins in each wash room. There is also two pre-school washrooms with mini toilets.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event: Replace Approximately Thirty Four Washroom** 

Fixtures (WC, Lav, Urnl)

TypeYearCostPriorityLifecycle Replacement2032\$36,900Unassigned

**Updated:** MAR-09

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

There is two pressure tanks with pumps drawing from an under ground storage tank for the domestic water. The irrigation and fire protection system also each have under ground storage tanks. These tanks are about 8000 gallons each.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

#### D2020.01.02 Valves: Domestic Water \*\*

There are valves of all shapes, sizes, and manufactures used in the schools water system.

RatingInstalledDesign LifeUpdated4 - Acceptable200240MAR-09

Event: Replace Valves: Domestic Water

TypeYearCostPriorityLifecycle Replacement2042\$42,200Unassigned

**Updated: MAR-09** 

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

There is a circulation pump for the domestic hot water. And two domestic water pressure pumps.

RatingInstalledDesign LifeUpdated4 - Acceptable200220MAR-09

**Event: Replace Three Plumbing Pumps: Domestic Water** 

TypeYearCostPriorityLifecycle Replacement2022\$3,600Unassigned

**Updated:** MAR-09

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

The school has Two Universal 200,000 BTU, 72 Gal. Hot water tanks for domestic hot water.

RatingInstalledDesign LifeUpdated4 - Acceptable200220MAR-09

**Event: Replace Two Domestic Water Heaters** 

TypeYearCostPriorityLifecycle Replacement2022\$50,200Unassigned

Updated: MAR-09

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

The water lines have fiberglass insulation with canvas covering in exposed areas.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

The under ground sewer is plastic, above ground cast, plastic and copper piping is used.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

#### D2030.03 Waste Piping Equipment \*

There is a septic waste tank with two pumps. The sewage is pumped to the Calgary sewer system for treatment and discharge.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

The rain water pipe is cast and plastic above ground. There are eves-troughs draining along the suface of the school site.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

# D2040.02.04 Roof Drains \*

The roof drains are cast iron body's with domes and eves-trough.

RatingInstalledDesign LifeUpdated4 - Acceptable200240MAR-09

### D3010.02 Gas Supply Systems \*

The school is serviced with an under ground natural gas line. This provides heat for the building.

RatingInstalledDesign LifeUpdated4 - Acceptable200260MAR-09

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

There are 2 Well McLeain boilers, rated at 2,317,000 BTU's each. There are two 15 Hp. Armstrong Pumps that provide the circulation, the balance is provided with two horizontal expansion tanks.

RatingInstalledDesign LifeUpdated4 - Acceptable200235MAR-09

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

TypeYearCostPriorityLifecycle Replacement2037\$188,800Unassigned

Updated: MAR-09

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

The chimney is metal with insulation and aluminum covering.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

#### Event: Replace One Chimney (&Comb. Air): H.W. Boiler

TypeYearCostPriorityLifecycle Replacement2032\$40,500Unassigned

**Updated: MAR-09** 

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

There is a chemical treatment program in effect. The chemical is introduced into the system with a pot feeder. It is checked with a site glass and side stream filter. There is also a glycol tank and pump.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

#### D3030.05.04 Liquid Coolers and Evaporative Condensers

There is a Ref-Pluss, 12 fan Dry Air cooler on the roof to cool the glycol for the heat pumps.

RatingInstalledDesign LifeUpdated4 - Acceptable200225MAR-09

#### D3030.07 Heat Pumps\*\*

The school has 59 Carrier heat pumps, 4 of these serve the Gym. Heat pump circulation is provided with Two 20 Hp. Armstrong pumps. The chemical treatment is monitored with a sight glass and side stream filter. The treatment is introduced through a pot feeder.

RatingInstalledDesign LifeUpdated4 - Acceptable200215MAR-09

**Event: Replace Fifty Nine Heat Pumps** 

TypeYearCostPriorityLifecycle Replacement2017\$295,000Unassigned

**Updated:** MAR-09

# D3040.01.01 Air Handling Units: Air Distribution \*\*

There is one Make Up Air MU-1 with a heating coil. It provides 15,350 CFM of ventilation.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event:** Replace One Air Handling Unit: Air Distribution

TypeYearCostPriorityLifecycle Replacement2032\$325,000Unassigned

Updated: MAR-09

# D3040.01.04 Ducts: Air Distribution \*

Air distribution is provided through galvanized duct work through out the school.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

There are rectangle wall diffusers in the front entrance, the offices and class rooms have square ceiling diffusers. All the rooms have louver type return grills.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

Threaded and welded schedule 40 piping is used for the hot water heating and glycol for the heat pumps.

RatingInstalledDesign LifeUpdated4 - Acceptable200240MAR-09

**Event:** Replace Hot Water Distribution Systems

TypeYearCostPriorityLifecycle Replacement2042\$626,500Unassigned

Updated: MAR-09

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

There are exhaust fans for all the washrooms, change / shower rooms, storage, computer, and janitor rooms. The home economics has general exhaust inlets over the cooking areas. The shop has a spray booth exhaust. There is a power kiln exhaust. The green house has two exhaust fans.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event: Replace Approximately Twelve Fans: Exhaust** 

TypeYearCostPriorityLifecycle Replacement2032\$26,200Unassigned

Updated: MAR-09

# D3040.04.03 Ducts: Exhaust \*

Exhaust air is moved through galvanized duct work to the roof exhaust fans.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

Egg create grills are used for exhaust inlets.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

#### D3050.03 Humidifiers \*\*

The school has one Engineered Air gas fired Humidifier H-1. It has a capacity of 325,000 Btu's and produces 300 Lbs per Hr. A water softener treats the water for humidifier use.

RatingInstalledDesign LifeUpdated4 - Acceptable200225MAR-09

**Event: Replace The Humidifier** 

TypeYearCostPriorityLifecycle Replacement2027\$22,100Unassigned

Updated: MAR-09

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

There are six force flow heaters for the entrances.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event:** Replace Six Fan Coil Units

TypeYearCostPriorityLifecycle Replacement2032\$7,800Unassigned

Updated: MAR-09

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

There is a small amount of baseboard radiation in the shop, basement entrance and a stair well.

RatingInstalledDesign LifeUpdated4 - Acceptable200240MAR-09

**Event:** Replace Finned Tube Radiation

TypeYearCostPriorityLifecycle Replacement2042\$2,400Unassigned

Updated: MAR-09

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

There are two unit heaters in the water room and one in the boiler room.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

Event: Replace Unit Heaters

TypeYearCostPriorityLifecycle Replacement2032\$3,200Unassigned

Updated: MAR-09

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

The school mechanical equipment is controlled with 24 volt and 110 volt controls.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event:** Replace Electric and Electronic Controls

TypeYearCostPriorityLifecycle Replacement2032\$125,000Unassigned

**Updated:** MAR-09

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

The school has a CSI building management system with remote capability.

RatingInstalledDesign LifeUpdated4 - Acceptable200220MAR-09

**Event: Replace Building Systems Controls (BMCS, EMCS)** 

TypeYearCostPriorityLifecycle Replacement2022\$50,000Unassigned

**Updated:** MAR-09

#### D4010 Sprinklers: Fire Protection \*

The school is protected with a sprinkler system. A storage tank and pumps provide water for the sprinklers.

RatingInstalledDesign LifeUpdated4 - Acceptable200260MAR-09

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

There are ABC Fire Extinguisher located through out the school.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	2002	30	MAR-09

# S5 ELECTRICAL

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

Dry type transformers provide 208 volt distribution. There is one 300 KVA, one 112.5 KVA, one 45 KVA and two 75 KVA units.

RatingInstalledDesign LifeUpdated5 - Good200140MAR-09

**Event: Replace Secondary Electrical Transformers (5** 

transformers)

TypeYearCostPriorityLifecycle Replacement2041\$40,000Unassigned

**Updated:** MAR-09

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

The main service is 1200 amp 600 volt 3 phase 4 wire fed underground from a pad mount transformer. It is manufactured by FPE and contains molded case circuit breakers.

RatingInstalledDesign LifeUpdated5 - Good200240MAR-09

**Event: Replace Main Electrical Switchboard (1)** 

TypeYearCostPriorityLifecycle Replacement2042\$228,400Unassigned

**Updated: MAR-09** 

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

Panels are located and dedicated to various wings of the school. Manufactured by FPE. Most have 30% spare capacity.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

**Event: Replace Branch Circuit Panelboards (15)** 

TypeYearCostPriorityLifecycle Replacement2032\$100,000Unassigned

**Updated:** MAR-09

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

MCC 1 and MCC 2 are each single section manufactured by square D. They are 600 volt 3 phase. There is a starter for the lift station by Moeller Electric.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

**Event: Replace Motor Starters and Accessories (3** 

starters)

TypeYearCostPriorityLifecycle Replacement2032\$30,000Unassigned

Updated: MAR-09

#### D5020.01 Electrical Branch Wiring\*

Conduit and wire methods have been maintained.

Rating 5 - Good 2002 Design Life Updated MAR-09

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

Contactors control corridor lighting by switches located at staff entrance locations.

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

Pot lights are located in conference rooms.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

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

Recessed pot lights are used in washrooms.

Recessed 1x4 fixtures with lenses and T-8 lamps are used in the corridors.

Recessed 2x4 fixtures with deep cell louvers and T-8 lamps are used in the office area.

The class rooms have suspended indirect fluorescent fixtures with three T-8 lamps.

RatingInstalledDesign LifeUpdated5 - Good200230MAR-09

**Event: Replace Interior Florescent Fixtures** 

TypeYearCostPriorityLifecycle Replacement2032\$410,000Unassigned

**Updated: MAR-09** 

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

Enclosed glass fixtures are used in the gymnasium and the main foyer.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# D5020.02.03.02 Emergency Lighting Battery Packs\*\*

Battery packs are located in the main electrical room and the generator room.

Other emergency light is fed from the emergency generator and the building fluorescent light fixtures.

RatingInstalledDesign LifeUpdated5 - Good200220MAR-09

**Event:** Replace Emergency Lighting Battery Packs (6)

TypeYearCostPriorityLifecycle Replacement2022\$2,000Unassigned

**Updated: MAR-09** 

#### D5020.02.03.03 Exit Signs\*

Exit sign use LEDF lamps.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# D5020.03.01.03 Exterior Metal Halide Fixtures\*

Wall mounted fixtures are placed around the perimeter.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

Contactors are in place that control the lighting via the building management system and or photo-cell.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

The fire alarm system is an Edwards EST addressable. Bell/strobe devices are in place.

RatingInstalledDesign LifeUpdated5 - Good200225MAR-09

**Event:** Replace Detection and Fire Alarm

TypeYearCostPriorityLifecycle Replacement2027\$127,000Unassigned

**Updated:** MAR-09

# D5030.02.02 Intrusion Detection\*\*

A Magnum Alert security system is in place complete with motion sensors.

RatingInstalledDesign LifeUpdated5 - Good200225MAR-09

**Event:** Replace Intrusion Detection

TypeYearCostPriorityLifecycle Replacement2027\$75,200Unassigned

Updated: MAR-09

# D5030.04.01 Telephone Systems\*

IP MYTEL handsets are in each class room and in the office.

RatingInstalledDesign LifeUpdated5 - Good200225MAR-09

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

Each wing has a data closet with cat 5 wiring in place to each class room. Fiber optic cable links each closet.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

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

The RAULAND amplifier system interfaces with the phone system.

Rating Installed Design Life Updated 5 - Good 2002 20 MAR-09

**Event: Replace Public Address and Music Systems** 

**Priority** Type Year Cost Lifecycle Replacement Unassigned 2022 \$31,000

**Updated: MAR-09** 

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

The generator is a KOHLER 200 KW with an ASCO transfer switch.

Rating Installed Design Life Updated 5 - Good MAR-09 2002 35

**Replace Packaged Engine Generator Systems Event:** 

> Cost **Priority** Type Year Lifecycle Replacement 2037 \$60,000 Unassigned

**Updated: MAR-09** 

# **S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**

#### E1010.07 Vending Equipment\*

Vending machines at Commons.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

Stage curtains.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

#### E1020.07 Laboratory Equipment\*

Water distribution, chemical storage with prep room exhaust.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

### E1020.08 Medical Equipment\*

Infirmary patient curtain and track.

RatingInstalledDesign LifeUpdated5 - Good200225MAR-09

### E1090 Other Equipment

Ceramic firing kiln c/w exhaust ventilation. Woodworking shop: variety of power wood working equipment complete with portable dust collector.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

# E1090.03 Food Service Equipment\*

2 Coolers.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### E1090.04 Residential Equipment\*

Refrigerator, electric range, dishwasher, microwaves in staff room. Microwave, dishwasher in science preparation. Electric range and dishwasher in servery. Electric ranges, dishwashers, microwaves, and stacking clothes washer/dryer in foods.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	2002	0	MAR-09

# Bearspaw - Bearspaw Elementary Middle School (B4730A)

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

4 wall-mounted swing-away basketball nets. 2 ceiling-mounted swing-up basketball nets. 1 scoreboard. Fabric gymnasium divider.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

#### E2010.01.01 Murals

Mural in gym.

Rating 5 - Good 0 Design Life Updated MAR-09

# E2010.02 Fixed Casework\*\*

Clear finish birch plywood casework with plastic laminate countertops throughout the school.

RatingInstalledDesign LifeUpdated5 - Good200235MAR-09

**Event:** Replace Fixed Casework (Approx 500 m)

TypeYearCostPriorityLifecycle Replacement2037\$600,000Unassigned

**Updated: MAR-09** 

# E2010.03.01 Blinds\*\*

Horizontal venetial blinds in classrooms and offices.

RatingInstalledDesign LifeUpdated4 - Acceptable200230MAR-09

**Event: Replace Blinds (Approx 65)** 

TypeYearCostPriorityLifecycle Replacement2032\$25,000Unassigned

Updated: MAR-09

# F1020.02.13 Paint Booths\*

Spray paint booth in CTS.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

# Bearspaw - Bearspaw Elementary Middle School (B4730A)

#### F2020.01 Asbestos\*

No hazardous materials were evident or reported on the premises.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-09

# F2020.04 Mould\*

No hazardous materials were evident or reported on the premises.

# F2020.09 Other Hazardous Materials\*

No hazardous materials were evident or reported on the premises.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	MAR-09

# **S8 FUNCTIONAL ASSESSMENT**

#### **K3020 Indoor Environment**

Insufficient acoustic control in Music room.

Refer to C3010.09 - Acoustical Wall Treatment - Program Functional Upgrade.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

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

Access provided from barrier-free parking and public sidewalk to main entrance.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

#### K4010.02 Barrier Free Entrances\*

Main entrance doors equipped with power assisted door operator.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09

# K4010.03 Barrier Free Interior Circulation\*

Good access to most areas of building. No access to gym viewing area mezzanine. Lowered countertop section in administration reception.

RatingInstalledDesign LifeUpdated4 - Acceptable20020MAR-09

# K4010.04 Barrier Free Washrooms\*

Barrier free washroom stalls provided in each wing and in administration. Barrier-free lavatory cabinets and Bradley sinks throughout.

RatingInstalledDesign LifeUpdated5 - Good20020MAR-09