RECAPP Facility Evaluation Report

Black Gold Regional Div #18



Leduc Composite High School
B3653A
Leduc

Leduc - Leduc Composite High School (B3653A)

Facility Details

Building Name: Leduc Composite High Scho

Address: 4308 - 50 Street

Location: Leduc

Building Id: B3653A Gross Area (sq. m): 12,407.37 Replacement Cost: \$29,185,436

Construction Year: 1962

Evaluation Details

Evaluation Company: John Murray Architectural Associates

Evaluation Date: August 15 2007

Evaluator Name: John Murray

Total Maintenance Events Next 5 years: \$244,816 5 year Facility Condition Index (FCI): 0.84%

General Summary:

Leduc Composite has a student capacity of 900 students with a current enrollment of 890 students. Originally constructed in 1962 as a 2-storey building (4136m2) this school has received additions in 1966 (1480m2), 1984 (6698m2) and 2005 (434m2) which includes an auditorium that is shared with the City. In 1984 the 1966 building was renovated. In 2004 and 2005 extensive renovations took place throughout the school. It has an area of 12,748 m2 plus one portable classroom.

Structural Summary:

The original 1962 and 1966 building consists of concrete strip foundations supporting a concrete block and pre-cast concrete floor and wall structure. Subsequent additions have the same foundation system, but include masonry and steel superstructure of Open Web Steel Joists and metal deck. The structure of the building is in good condition. There are no visible structural problems except for minor cracks to shop slabs on grade.

Envelope Summary:

Exterior wall finishes consist of pre-cast concrete panels, brick, and split faced block to an air space, rigid insulation and vapour barrier to solid masonry backing and wall envelope. Windows are anodized aluminum, double glazed units. The 1962 and 1966 section have an inverted roof assembly, and in some areas the membrane is poorly applied causing water penetration into the school and needs repair. The 1984 roof is 50% a built-up roof assembly, 50% SBS roof. The 2005 roof is modified bitumen membrane roofing system. The building envelope is in good condition but 1962 and 1966 section needs roofing review.

Interior Summary:

Floors within the school have varied finishes, including sheet vinyl and linoleum to teaching and corridor areas, with some VC tile to teaching areas, carpet flooring to the library, administration areas and auditorium. Terrazzo finishes to the 1962 building and new quarry tile to the 1984 and 2005 main entries and southern link, with mozaic tile to the kitchens. Gymnasium floors are sprung wood with masonite sheet flooring to stage and music/drama areas. Walls are generally masonry including brick and concrete block with some Gypsum Wall Board. Ceilings are mainly lay in acoustic tile, Gypsum Wall Board to service areas, and wood strip to student congregation circulation areas. The interior finishes to this school are generally in good condition due to recent upgrades.

Mechanical Summary:

Ventilation and air conditioning system to entire building is provided by combination of indoor and outdoor mounted air handling units complete with glycol coil. Some of the units are complete with DX cooling coils served by outdoor, roof mounted chiller. Computers classrooms are conditioned via seven duct free systems complete with roof mounted condensers.

Heating is provided by two gas fired boilers serving three glycol heat exchangers, perimeter radiation, unit heaters and reheat coils.

Conventional plumbing fixtures throughout the school complete with hot water recirculation system. Domestic hot water provided by one gas fired boiler and one tank type domestic water heater.

Fire protection system consist of hand held fire extinguishers, automatic sprinkler system and standpipe system.

Storm system via roof drains to Town's mains.

Sewer and water system from Town's mains.

Overall mechanical system is acceptable. Major modernization of central core of the school was done in 2005. Other areas were renovated in 1984.

Ventilation system serving Welding area should be upgraded due to over pressurization of space.

Additional air conditioning unit serving Art Room should be provided to cover heat gains from the exterior window.

Electrical Summary:

This school was originally built in 1963 with additions in 1967,1984 and 2005.

There were modernizations during the 1984 addition with further modernizing in 1994 and 2004.

The school has been retrofitted with energy efficient florescent T-8 Lamping and electronic ballasts in 2003 with the gyms being retrofitted in 2005 to florescent T-5 lamping and electronic ballasts. The life safety devices are all in good condition

Including the Emerson Fire Pump back-up to the sprinkler system and the Emergency White Westinghouse Generator.

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 - 1962 Section*

Re-inforced concrete strip footing and foundation wall.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

A1010 Standard Foundations - 1966 Section*

Re-inforced concrete strip footing and foundation wall.

RatingInstalledDesign LifeUpdated4 - Acceptable19660NOV-07

A1010 Standard Foundations - 1984 + 2005 Section*

Re-inforced concrete strip footing and foundation wall.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

A1030 Slab on Grade - 1962 Section*

Re-inforced concrete slab on grade.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

A1030 Slab on Grade - 1966 Section*

Re-inforced concrete slab on grade settlement apparent in VED room # 141.

RatingInstalledDesign LifeUpdated4 - Acceptable19660NOV-07

A1030 Slab on Grade - 1984 + 2005 Section*

Re-inforced concrete slab on grade.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

B1010.01 Floor Structural Frame (Building Frame) - 1962 Section*

Precast concrete.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

B1010.01 Floor Structural Frame (Building Frame) - 1966 Section*

Precast concrete.

RatingInstalledDesign LifeUpdated4 - Acceptable19660NOV-07

B1010.01 Floor Structural Frame (Building Frame) - 1984 Section/2005 Section*

Open web steel joists, metal deck, and concrete topping.

RatingInstalledDesign LifeUpdated4 - Acceptable19840MAY-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1962 Section*

Masonry concrete block.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 1962
 0
 NOV-07

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1966 Section*

Masonry concrete block.

RatingInstalledDesign LifeUpdated5 - Good19660NOV-07

B1010.02 Structural Interior Walls Supporting Floors (or Roof) - 1984 Section/2005 Section*

Masonry concrete block, acoustic block to gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

B1010.03 Floor Decks, Slabs, and Toppings - 1962 Section*

Pre-cast concrete T's to second floor.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

B1010.03 Floor Decks, Slabs, and Toppings - 1966 Section*

Open Web Steel Joists, metal deck and concrete topping.

RatingInstalledDesign LifeUpdated4 - Acceptable19660MAY-08

B1010.03 Floor Decks, Slabs, and Toppings - 1984 Section*

Open Web Steel Joists metal deck and concrete topping.

RatingInstalledDesign LifeUpdated4 - Acceptable19840MAY-08

B1010.05.02 Precast Concrete: Mezzanine - 1984 Section

Pre-cast concrete T's.

RatingInstalledDesign LifeUpdated4 - Acceptable19660NOV-07

B1020.01 Roof Structural Frame - 1962 Section*

Pre-cast concrete T's

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

B1020.01 Roof Structural Frame - 1966 Section*

Steel deck on steel joists, except for shop which is pre-cast concrete

RatingInstalledDesign LifeUpdated4 - Acceptable19660NOV-07

B1020.01 Roof Structural Frame - 1984 Section/2005 Section*

Steel deck on steel joists, acoustic deck to gymnasium and to auditorium. Shop is pre-cast concrete

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

S2 ENVELOPE

B2010.01.01 Precast Concrete: Exterior Wall Skin - 1962 Section*

Pre-cast exposed aggregate and some concrete painted, some mosaic tile at entries.

RatingInstalledDesign LifeUpdated3 - Marginal196275MAY-08

Event: Re-paint precast concrete in 1962 section

Concern:

Paint peeling and ceramic tile missing.

Recommendation:

Repaint 1962 section and replace missing ceramic tile.

TypeYearCostPriorityRepair2009\$5,720Low

Updated: NOV-07

B2010.01.01 Precast Concrete: Exterior Wall Skin - 1966 Section*

Pre-cast concrete painted.

RatingInstalledDesign LifeUpdated3 - Marginal196675NOV-07

Event: Re-paint precast concrete in 1966 section

Concern:
Paint peeling.

Recommendation:

Repaint 1966 section. Lower levels to above 2400 have been

painted.

TypeYearCostPriorityRepair2009\$5,720Low

Updated: NOV-07

B2010.01.02.01 Brick Masonry: Ext. Wall Skin - 1984 Section*

Standard brick veneer smooth faced, red.

RatingInstalledDesign LifeUpdated5 - Good198475NOV-07

B2010.01.02.02 Concrete Block: Ext. Wall Skin - 2005 Section*

Split faced red concrete block.

RatingInstalledDesign LifeUpdated5 - Good198475NOV-07

B2010.01.08 Cement Plaster (Stucco): Ext. Wall - 1966 Section*

Stone dash has been painted at lower level.

RatingInstalledDesign LifeUpdated3 - Marginal196675NOV-07

Event: Re-paint stucco in 1966 section

Concern:

Paint is peeling. **Recommendation:**

Re-paint.

TypeYearCostPriorityRepair2009\$9,152Low

Updated: NOV-07

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 1962 Section/1966 Section/1984 Section**

Exterior caulking.

RatingInstalledDesign LifeUpdated4 - Acceptable198420NOV-07

Event: Replace caulking 1962 & 1966 Sections

TypeYearCostPriorityLifecycle Replacement2012\$37,752Unassigned

Updated: NOV-07

B2010.01.11 Joint Sealers (caulking): Ext. Wall - 2005 Section**

Caulking to joints.

RatingInstalledDesign LifeUpdated5 - Good200520NOV-07

Event: Replace caulking

TypeYearCostPriorityLifecycle Replacement2025\$5,720Unassigned

Updated: NOV-07

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B2010.02.02 Precast Concrete: Ext. Wall Const. - 1962 Section*

Pre-cast concrete panels, 200mm air space, 50mm rigid insulation, vapour barrier, z-fasteners at 406mm on load bearing concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

B2010.02.02 Precast Concrete: Ext. Wall Const. - 1966 Section*

Pre-cast concrete panels, 200mm air space, 50mm rigid insulation, vapour barrier, z-fasteners at 406mm on load bearing concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19660NOV-07

B2010.02.02 Precast Concrete: Ext. Wall Const. - 1984 Section*

Pre-cast concrete panels, 200mm air space, 50mm rigid insulation, vapour barrier, z-fasteners at 406mm on load bearing concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

B2010.02.03 Masonry Units: Ext. Wall Const. - 1984 + 2005 Section*

Masonry veneer, 20mm airspace, 50mm rigid insulation, vapour barrier and interior load bearing concrete block masonry.

RatingInstalledDesign LifeUpdated5 - Good19840NOV-07

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1962 Section*

Vapour barrier adhesive product.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1966 Section*

Vapour barrier adhesive product.

RatingInstalledDesign LifeUpdated4 - Acceptable19660NOV-07

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation - 1984 + 2005 Section*

Insulated masonry walls with airspace insulation and vapour barrier membrane to concrete block.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

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B2010.09 Exterior Soffits - 1984 Section*

Wood soffit to west entry.

RatingInstalledDesign LifeUpdated3 - Marginal19840NOV-07

Event: Re-stain west entry soffit

Concern: Stain lifting.

Recommendation:

Scrape down and re-stain wood soffit.

TypeYearCostPriorityRepair2008\$1,716Low

Updated: NOV-07

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1962 Section**

Aluminum medium bronze fixed lights and hoppers to main public entry and to art room.

RatingInstalledDesign LifeUpdated3 - Marginal198440NOV-07

Event: Replace sealed glass units.

Concern:

Seals broken causing heat build up to art room.

Recommendation:

Replace sealed units (10 panels @ \$800 to main entry). Replace sealed units and provide reflective glass to art room (28 units @ \$800)

TypeYearCostPriorityFailure Replacement2009\$34,778High

Updated: JAN-08

Event: Replace windows (70)

TypeYearCostPriorityLifecycle Replacement2024\$160,160Unassigned

Updated: NOV-07

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B2020.01.01.02 Aluminum Windows (Glass & Frame) - 1966 Section/1984 Section**

Aluminum bronze fixed frames and hoppers.

RatingInstalledDesign LifeUpdated4 - Acceptable200440NOV-07

Event: Replace windows 1966/1984 sections (26)

TypeYearCostPriorityLifecycle Replacement2044\$59,488Unassigned

Updated: NOV-07

B2020.01.01.02 Aluminum Windows (Glass & Frame) - 2005 Section**

Fixed natural aluminum to 2005 addition with bronze caps.

RatingInstalledDesign LifeUpdated4 - Acceptable200440NOV-07

Event: Replace windows (15)

TypeYearCostPriorityLifecycle Replacement2044\$34,320Unassigned

Updated: NOV-07

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Aluminum medium bronze, glazed to beauty culture.

RatingInstalledDesign LifeUpdated5 - Good200430NOV-07

Event: Replace aluminum framed store-fronts

TypeYearCostPriorityLifecycle Replacement2034\$6,864Unassigned

Updated: NOV-07

B2030.01.02 Steel-Framed Storefronts: Doors - 1962 Section/1966 Section**

Steel frame and door - glazed.

 Rating
 Installed
 Design Life
 Updated

 4 - Acceptable
 2004
 30
 NOV-07

Event: Replace entrance doors 1962 & 1966 Entrances

TypeYearCostPriorityLifecycle Replacement2034\$18,304Unassigned

Updated: NOV-07

B2030.01.02 Steel-Framed Storefronts: Doors - 1984 Section**

Steel frame and door - glazed. Double glazed but not sealed.

RatingInstalledDesign LifeUpdated4 - Acceptable198430NOV-07

Event: Replace entrance doors

TypeYearCostPriorityLifecycle Replacement2014\$18,304Unassigned

Updated: NOV-07

B2030.02 Exterior Utility Doors - 1962 Section/1966 Section**

Steel doors + frames.

RatingInstalledDesign LifeUpdated4 - Acceptable200440NOV-07

Event: Replace exterior utility doors + hardware (9 doors)

TypeYearCostPriorityLifecycle Replacement2044\$20,592Unassigned

Updated: NOV-07

B2030.03 Large Exterior Special Doors (Overhead) - 1963 + 1984 Section*

Steel Richards Wilcox insulated overhead doors with vision panels to one leaf.

RatingInstalledDesign LifeUpdated4 - Acceptable200430NOV-07

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel) - 1984 Section**

Asphalt and gravel, 4-ply roof on 25mm fibre board on 50mm polystyrene on 25mm fibre board on vapour barrier.

RatingInstalledDesign LifeUpdated4 - Acceptable199725NOV-07

Event: Replace roof (3500m2)

TypeYearCostPriorityLifecycle Replacement2022\$400,400Unassigned

Updated: NOV-07

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B3010.04.04 Modified Bituminous Membrane Roofing (SBS) - 1984 Section**

Modified bitumen 2-ply membrane on 25mm fibre board, slope insulation 100mm on vapour barrier.

RatingInstalledDesign LifeUpdated5 - Good200325NOV-07

Event: Replace 3300m2

TypeYearCostPriorityLifecycle Replacement2028\$434,148Unassigned

Updated: NOV-07

B3010.04.04 Modified Bituminous Membrane Roofing (SBS) - 2005 Section**

Modified bitumen 2-ply membrane on 25mm fibre board on 100mm insulation on vapour barrier.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 2005
 25
 NOV-07

Event: Replace roof (430)

TypeYearCostPriorityLifecycle Replacement2030\$56,571Unassigned

Updated: NOV-07

B3010.04.08 Membrane Roofing (Inverted/ Protected) - 1962 + 1966 Section**

Gravel on insulation on what appears to be a "sarnafil" membrane

RatingInstalledDesign LifeUpdated2 - Poor200430NOV-07

Event: Replace entire roof (5700m2)

TypeYearCostPriorityLifecycle Replacement2034\$782,496Unassigned

Updated: NOV-07

Event: Review and repair roof (170m2)

Concern:

Water entering school. **Recommendation:**

Remove ballast and check perimeter areas and repair.

TypeYearCostPriorityRepair2008\$22,880High

Updated: NOV-07

B3010.08.02 Metal Gutters and Downspouts - 1962 Section**

Pre-finished metal cap flashings, rain water leaders internal except east entry - which is damaged (see B3010.08.02 1984 section)

RatingInstalledDesign LifeUpdated4 - Acceptable198430NOV-07

Event: Replace RWL

TypeYearCostPriorityLifecycle Replacement2014\$13,156Unassigned

Updated: NOV-07

B3010.08.02 Metal Gutters and Downspouts - 1966 Section**

Pre-finished metal cap flashings, rain water leaders internal.

RatingInstalledDesign LifeUpdated4 - Acceptable200030NOV-07

Event: Replace RWL

TypeYearCostPriorityLifecycle Replacement2030\$4,576Unassigned

Updated: NOV-07

B3010.08.02 Metal Gutters and Downspouts - 1984 Section**

Pre-finished metal cap flashings, rain water leaders internal, except 2 overflow scuppers to gymnasium which have fallen off. Replace damaged RWL to east entry of 1962 section.

RatingInstalledDesign LifeUpdated3 - Marginal198430NOV-07

Event: Repair 2 RWL

Concern:

Leaking and staining wall. **Recommendation:**

Replace 2 RWL (2 x \$500 / RWL plus repair 1962)

TypeYearCostPriorityRepair2009\$1,716High

Updated: NOV-07

Event: Replace RWL

TypeYearCostPriorityLifecycle Replacement2014\$21,164Unassigned

Updated: NOV-07

B3020.01 Skylights 2005 Section**

Sloped aluminum skylight with sealed glazed units, single slope fixed to link.

RatingInstalledDesign LifeUpdated4 - Acceptable200525NOV-07

Event: Replace 1 skylight @ \$2500/m (10m)

TypeYearCostPriorityLifecycle Replacement2030\$28,600Unassigned

Updated: NOV-07

B3020.01 Skylights Beauty Culture**

Domed skylight, 3 PVC lights above beauty culture, double skin.

RatingInstalledDesign LifeUpdated4 - Acceptable198425NOV-07

Event: Replace 3 skylightst

TypeYearCostPriorityLifecycle Replacement2009\$5,148Unassigned

Updated: NOV-07

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B3020.01 Skylights Library**

Pyramid unit PVC skylight over library, double skin.

RatingInstalledDesign LifeUpdated4 - Acceptable198425NOV-07

Event: Replace 1 skylight

TypeYearCostPriorityLifecycle Replacement2009\$1,716Unassigned

Updated: NOV-07

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies: Partitions - 1962, 1966, 1984, 2005

Concrete block painted, brick to some common assembly corridor spaces.

RatingInstalledDesign LifeUpdated5 - Good00NOV-07

C1010.04 Interior Balustrades and Screens, Interior Railings*

Steel and glass metal railing

RatingInstalledDesign LifeUpdated4 - Acceptable198440NOV-07

C1010.05 Interior Windows - 1962, 1967, 1984, 2005*

Steel frames painted. Georgian wired where rated.

RatingInstalledDesign LifeUpdated4 - Acceptable00NOV-07

C1010.06 Interior Glazed Partitions and Storefronts - 1962, 1967, 1984, 2005*

Steel frame with glazing, rated where required. Frames painted.

RatingInstalledDesign LifeUpdated4 - Acceptable00NOV-07

C1020.01 Interior Swinging Doors (& Hardware) - 1963 + 1967 Section*

Painted wood doors in wood and steel frames, rated as required. Hardware "Best".

RatingInstalledDesign LifeUpdated4 - Acceptable040NOV-07

C1020.01 Interior Swinging Doors (& Hardware) - 1984 + 2005*

Metal doors and frames painted and rated as required. Hardware "Best".

RatingInstalledDesign LifeUpdated4 - Acceptable040NOV-07

C1030.01 Visual Display Boards**

White boards in aluminum frames and vinyl faced fiberboard tack in aluminum frames.

RatingInstalledDesign LifeUpdated4 - Acceptable200420NOV-07

Event: Replace marker boards + tack boards

TypeYearCostPriorityLifecycle Replacement2024\$45,760Unassigned

Updated: NOV-07

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

Pre-finished steel toilet partitions.

RatingInstalledDesign LifeUpdated4 - Acceptable200430NOV-07

Event: Replace 24 toilet partions @ \$1200 each

TypeYearCostPriorityLifecycle Replacement2034\$32,947Unassigned

Updated: NOV-07

C1030.06 Handrails - 1962, 1967, 1984, 2005*

Steel handrails painted. Mipolam grip to 1963 and 1967.

RatingInstalledDesign LifeUpdated4 - Acceptable00NOV-07

C1030.08 Interior Identifying Devices*

Back silk screen on PVC

RatingInstalledDesign LifeUpdated4 - Acceptable20040NOV-07

C1030.10 Lockers - **

Pre-finished metal.

RatingInstalledDesign LifeUpdated4 - Acceptable200430NOV-07

Event: Replace 800 lockers

TypeYearCostPriorityLifecycle Replacement2034\$607,693Unassigned

Updated: NOV-07

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

Soap dispensers, stainless steel grab bars, toilet roll holders, and mirrors.

RatingInstalledDesign LifeUpdated4 - Acceptable20040NOV-07

C2020.05 Resilient Stair Finishes - **

Rubber treads and risers.

RatingInstalledDesign LifeUpdated4 - Acceptable200420NOV-07

Event: Replace resilient stair finishes

TypeYearCostPriorityLifecycle Replacement2024\$137,280Unassigned

Updated: NOV-07

C3010.06 Tile Wall Finishes - **

Ceramic wall tile to washrooms and locker rooms to gymnasium.

RatingInstalledDesign LifeUpdated3 - Marginal200440NOV-07

Event: Repair tile

Concern:

Some tile damaged to 2nd floor locker rooms. Tile damage to

boys urinal room # 111 **Recommendation:**Replace and repair tile.

TypeYearCostPriorityRepair2009\$1,144Low

Updated: NOV-07

Event: Replace tile wall finishes inwashrooms and locker

rooms.

TypeYearCostPriorityLifecycle Replacement2044\$188,760Unassigned

Updated: NOV-07

C3010.09 Acoustical Wall Treatment - **

Fabric panels to auditorium and main gymnasium, ancillary room needs acoustic treatment.

RatingInstalledDesign LifeUpdated3 - Marginal200420NOV-07

Event: Add acoustic treatment to music room

Concern:

Poor acoustics for music, dance and drama.

Recommendation:

Provide fabric acoustic coverings to walls.

Type Year Cost Priority
Operating Efficiency Upgrade 2009 \$22,880 Low

Updated: NOV-07

Event: Replace acoustic wall treatment

TypeYearCostPriorityLifecycle Replacement2024\$62,920Unassigned

Updated: NOV-07

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C3010.11 Interior Wall Painting - *

Glazed finish to corridor and heavy traffic areas. Block walls are painted. Gypsum wallboard painted.

RatingInstalledDesign LifeUpdated4 - Acceptable200410NOV-07

C3020.01.02 Paint Concrete Floor Finishes*

Concrete floor to vehicle repair bay.

RatingInstalledDesign LifeUpdated3 - Marginal198410NOV-07

Event: Re-paint and re-stain floors.

Concern:

Concrete floor to vehicle repair shop needs re-staining and 2nd floor mezzanine needs re-painting.

Recommendation:

Re-stain and re-paint areas.

TypeYearCostPriorityRepair2009\$17,160Medium

Updated: NOV-07

C3020.02 Tile Floor Finishes - 1984, 2005**

Red quarry tile to west entry. Ceramic tile to 2005 addition and link. Mosaic tile to kitchen.

RatingInstalledDesign LifeUpdated3 - Marginal200450NOV-07

Event: Replace ceramic tile in link re: 2005 addition at

window seat location

Concern:

Tile lifting and broken. **Recommendation:**

Replace tile at window seat location.

TypeYearCostPriorityRepair2009\$2,288Low

Updated: NOV-07

Event: Replace tile floor in 1984 and 2005 sections

TypeYearCostPriorityLifecycle Replacement2054\$57,200Unassigned

Updated: NOV-07

C3020.03 Terrazzo Floor Finishes - *

Terrazzo floor to entrance areas.

RatingInstalledDesign LifeUpdated4 - Acceptable196275NOV-07

C3020.04 Wood Flooring Ancilliary Classroom and Stage**

Masonite wood floor to ancillary classroom and auditorium stage.

RatingInstalledDesign LifeUpdated2 - Poor200430NOV-07

Event: Replace floor to ancilliary classroom and stage

Concern:

Floor is buckled and uneven.

Recommendation:

Replace floor (300m2 @ \$60m2) **Consequences of Deferral:**Staff and student tripping hazard.

TypeYearCostPriorityFailure Replacement2008\$20,592High

Updated: NOV-07

C3020.04 Wood Flooring Gym **

Sprung wood floor to main and secondary gymnasium, maple with ventilated base, good line painting.

RatingInstalledDesign LifeUpdated5 - Good200430NOV-07

Event: Replace wood floor (1000m2)

TypeYearCostPriorityLifecycle Replacement2034\$343,200Unassigned

Updated: NOV-07

C3020.07.01 Resilient Tile Flooring

300 x 300 VC tile and rubber base.

RatingInstalledDesign LifeUpdated4 - Acceptable200420NOV-07

Event: Replace flooring (3000m2)

TypeYearCostPriorityLifecycle Replacement2024\$171,600Unassigned

Updated: NOV-07

C3020.07.02 Resilient Sheet Flooring

Sheet vinyl flooring and linoleum and rubber base.

RatingInstalledDesign LifeUpdated4 - Acceptable20040NOV-07

Event: Replace (6000m2)

TypeYearCostPriorityLifecycle Replacement2024\$686,400Unassigned

Updated: NOV-07

C3020.08 Carpet Flooring - **

Carpet to library, administration, staff room and auditorium.

RatingInstalledDesign LifeUpdated4 - Acceptable200415NOV-07

Event: Replace carpet flooring (700m2)

TypeYearCostPriorityLifecycle Replacement2019\$72,072Unassigned

Updated: APR-08

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

2'x4' tile in exposed 'T' white - stains to BSE, corridor by room 153, 118 and library office.

RatingInstalledDesign LifeUpdated3 - Marginal200425NOV-07

Event: Replace acoustic ceiling tile (8000m2)

TypeYearCostPriorityLifecycle Replacement2029\$457,600Unassigned

Updated: NOV-07

Event: Replace damaged tile.

Concern: Leaking roof. Recommendation:

Replace tile and check for cause of leak.

TypeYearCostPriorityRepair2008\$2,288Medium

Updated: APR-08

C3030.07 Interior Ceiling Painting - *

Painted ceilings

RatingInstalledDesign LifeUpdated4 - Acceptable200420NOV-07

C3030.09 Other Ceiling Finishes*

Acoustic fabric panels to auditorium.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 2004
 0
 NOV-07

C3030.09 Other Ceiling Finishes*

Wood paneling to corridor congregation areas - stained.

RatingInstalledDesign LifeUpdated5 - Good198460NOV-07

D1010.01.02 Hydraulic Passenger Elevators**

Montgomery elevator to second floor.

RatingInstalledDesign LifeUpdated4 - Acceptable198430NOV-07

Event: Refurbish elevator in life cycle year.

TypeYearCostPriorityLifecycle Replacement2014\$68,640Unassigned

Updated: NOV-07

S4 MECHANICAL

D2010.01 Water Closets

Floor mounted, vitreous china, elongated bowl water closets with open seats equal to Crane.

RatingInstalledDesign LifeUpdated4 - Acceptable198435NOV-07

Event: Replace WC

TypeYearCostPriorityLifecycle Replacement2019\$68,640Unassigned

Updated: APR-08

D2010.02 Urinals

- 1) Floor mounted Crane urinals complete with Presto flush valves. Vitreous china, slope front, stall urinals with integral flushing rim.
- 2) Wall mounted Crane urinals, vitreous china, flush valve.
- 3) Floor mounted Crane urinals complete with flush tank.

RatingInstalledDesign LifeUpdated3 - Marginal198435NOV-07

Event: Replace 14 UR

TypeYearCostPriorityLifecycle Replacement2019\$19,448Unassigned

Updated: APR-08

Event: Urinals Replacement

Concern:

Some stall urinals are cracked and stained.

Flush tank urinals are inefficient and waste water when school is not occupied.

Recommendation:

Replace approximately eight urinals at various locations with

flush valve models.

TypeYearCostPriorityFailure Replacement2009\$12,126Medium

Updated: APR-08



Flush tank urinals.

D2010.03 Lavatories

Stainless steel, counter top vanity basins equal to Aristaline complete with lever handles. Wall hung, vitreous china lavatories complete with lever handles.

RatingInstalledDesign LifeUpdated4 - Acceptable198435NOV-07

Event: Replace approx. 40 Lavs

TypeYearCostPriorityLifecycle Replacement2019\$62,920Unassigned

Updated: APR-08

D2010.04 Sinks**

Stainless steel, countertop sinks, single and double compartment complete with lever faucets. Sinks equal to Steel Queen.

RatingInstalledDesign LifeUpdated4 - Acceptable198430JAN-08

Event: Replace 18 Sinks

TypeYearCostPriorityLifecycle Replacement2014\$30,888Unassigned

Updated: APR-08

D2010.05 Showers**

Built-up showers complete with Powers 480 shower head with integral wall bracket, self closing mixing valve and push button faucet.

Handicap shower stalls, acrylic enclosure with chrome grab bars and folding seat. Thermostatic mixing valve, pressure balanced.

RatingInstalledDesign LifeUpdated4 - Acceptable198430NOV-07

Event: Replace SH

TypeYearCostPriorityLifecycle Replacement2014\$20,592Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers**

Vitreous china, semi-recessed drinking fountains with elevated bubbler base. Stainless steel refrigerated, wall hung drinking fountains.

RatingInstalledDesign LifeUpdated4 - Acceptable198435NOV-07

Event: Replace 18 DF

TypeYearCostPriorityLifecycle Replacement2019\$34,320Unassigned

Updated: NOV-07

D2010.09 Other Plumbing Fixtures*

Shampoo sink.

Darkroom sink Nurac FWV24.

Plate sink equal to Nurac PS36.

Semi circular wash fountains equal to Bradley CFC-0, precast terrazzo 54" diameter.

Circular wash fountain Bradley AFC, 54" diameter.

Molded stone mop sink in Janitor Rooms throughout. Fiat MSB 24"x24" and 36"x24".

Emergency shower Haws 8347 complete with stainless steel bowl.

Stainless steel sink in Art Room, Aristaline ART 36/316.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

D2020.01.01 Pipes and Tubes: Domestic Water*

8" diameter domestic cold water main provided to the building, entering the south east corner. The main is connected to a water meter and shut off valve at this point. Copper type L domestic cold water service provided for boiler water make-up, cold water supply to plumbing fixtures and domestic hot water make-up.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

D2020.01.02 Valves: Domestic Water**

Majority of plumbing fixtures isolated individually. Powers packaged water mixing valves 80 gpm@45 psi.

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RatingInstalledDesign LifeUpdated4 - Acceptable198440NOV-07

Event: Replace Valves

TypeYearCostPriorityLifecycle Replacement2024\$108,680Unassigned

Updated: APR-08

D2020.01.03 Pipsing Specialties (Backflow Preventors)**

Backflow prevention installed on main service and boiler make-up water. Vacuum breakers on N.F.H.B. and mop sinks.

RatingInstalledDesign LifeUpdated4 - Acceptable198420NOV-07

Event: Replace Backflow Preventors

TypeYearCostPriorityLifecycle Replacement2012\$22,880Unassigned

Updated: APR-08

D2020.02.02 Plumbing Pumps: Domestic Water**

Two in-line hot water recirculation pumps equal to Bell & Gosset model: SLC-25B.

RatingInstalledDesign LifeUpdated4 - Acceptable200520JAN-08

Event: Replace 2 Pumps

TypeYearCostPriorityLifecycle Replacement2025\$3,432Unassigned

Updated: APR-08

D2020.02.06 Domestic Water Heaters**

Domestic hot water is provided by one gas fired domestic water boiler B-3, domestic hot water holding tank and gas fired domestic water heater DWH-1.

B-1 is Rheem model CW736CA, 660 MBH heating output complete with two in-line pumps equal to Bell & Gosset RS2AB. DWH-1 is A.O.Smith 500 MBH heating capacity, 100 gal storage capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable200520NOV-07

Event: Replace B-3 and DWH

TypeYearCostPriorityLifecycle Replacement2025\$40,040Unassigned

Updated: APR-08

D2020.03 Water Supply Insulation: Domestic*

Majority of domestic water lines insulated.

RatingInstalledDesign LifeUpdated3 - Marginal19840NOV-07

Event: Insulate Water Lines

Concern:

Insulation is separated from piping in some areas like

Mechanical Romms. **Recommendation:**

Reseal insulation as required.

TypeYearCostPriorityRepair2008\$5,148Low

Updated: APR-08

D2030.01 Waste and Vent Piping*

Drainage piping is cast iron and PVC. Vent piping is cast iron, copper and PVC.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

D2040.01 Rain Water Drainage Piping Systems*

Cast iron and PVC rain water leaders from the roof to storm main.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

D2040.02.04 Roof Drains*

Cast iron dome, sump roof drains with flashing flange and integral gravel stop.

RatingInstalledDesign LifeUpdated4 - Acceptable198440NOV-07

D3010.02 Gas Supply Systems*

Medium pressure, natural gas service. Building shut-off valve located before gas meter and pressure reducing station. A shut-off valve, pressure regulator valve and pilot valve are located at each gas fired unit.

RatingInstalledDesign LifeUpdated4 - Acceptable198460NOV-07

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

Two water tube boilers provide heated hot water to the perimeter radiation, reheat coils, unit heaters, force flow heaters and hot water to glycol heat exchanger.

Heated water is circulated by two primary circulation pumps.

Boilers B-1&2: Unilux 700W, 6550 MBH.

Primary Circulating Pumps P-1&2: Armstrong SG55, 750 gpm, 125' head, base mounted.

Glycol Circulating Pumps P-3&4: Armstrong 4380, 200gpm @ 61' head, in-line centrifugal.

Glycol Circulating Pumps P-5&6: Armstrong 4380, 105gpm @ 37' head, in-line centrifugal.

Glycol circulation pump P-7: Bell &gossett model: 80-S, 175gpm @ 45', in-line centrifugal.

Each boiler is complete with low water cut-off device and remote alarm system.

RatingInstalledDesign LifeUpdated4 - Acceptable198435JAN-08

Event: Replace Heating Boilers Along With All Associated

Equipment

TypeYearCostPriorityLifecycle Replacement2019\$354,640Unassigned

Updated: APR-08

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

Insulated combustion air duct from the goosenecks or wall louvers, down to 18" above the floor.

Galvanized steel vents up through the roof.

Adequate separation vents from air intakes to the building.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1984	30	JAN-08

Event: Replace Chimneys and C/A

TypeYearCostPriorityLifecycle Replacement2014\$18,304Unassigned

Updated: APR-08

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

Chemical pot feeder complete with funnel, petcock and two valves.

Tri-sodium phosphate, sodium carbonate and low foaming detergent to degrease hot water heating system.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1984	0	NOV-07

D3040.01.01 Air Handling Units: Air Distribution**

Ventilation system consist of thirteen packaged indoor air handling units located in mechanical rooms throughout. AS-1 to 10 were installed in 1984, As-11-13 were installed in 2005.

AS-1 Gymnasium - Engineered Air model IM-10-W, 9000 cfm S/A, 8100 cfm R/A

AS-2 South Core and Classrooms - Engineered Air model IM-15-w, 11500 cfm S/A, 10100 cfm R/A

As-3 Performance Arts - Engineered Air model IM-10-W, 10500 cfm S/A, 9300 cfm R/A

AS-4 Classrooms - Engineered Air model IM-18-W, 21400 cfm S/A, 19100 cfm R/A

AS-5 Gymnasium - Engineered Air model IM-8-W, 8300 cfm S/A, 7200 cfm R/A

AS-6 South Core - Engineered Air model IM-18-W, 20000 cfm S/A, 18100 cfm R/A

AS-7 Building Construction - Engineered Air model LM-4-N, 5000 cfm S/A, 4100 cfm R/A

AS-8 Welding Area (variable volume) - Engineered Air model IM-8-W, 7500 cfm S/A

AS-9 Automotives - Engineered Air model IM-8-W, 7500 cfm S/A

AS-10 Performance Arts Foyer - Engineered Air model LM-21-W, 2400 cfm S/A 1850 cfm R/A

AS-11 Classrooms - Silent Aire SA-480AF, 15600 cfm S/A, 12565 cfm R/A

AS-12 Classrooms and Stuff Room - Silent Aire SA-300AF, 3900 cfm S/A, 2700 cfm R/A (outdoor)

AS-13 Kitchen - Engineered Air model HE-20, 2000 cfm S/A direct fired make-up air unit. (outdoor)

RatingInstalledDesign LifeUpdated4 - Acceptable198430JAN-08

Event: Replace 10 AHU from 1984

TypeYearCostPriorityLifecycle Replacement2014\$1,487,200Unassigned

Updated: APR-08

Event: Replace 3 AHU from 2005

TypeYearCostPriorityLifecycle Replacement2035\$406,120Unassigned

Updated: APR-08

D3040.01.03 Air Cleaning Devices:Air Distribution*

Throwaway or replaceable media filters serving air handling units.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

D3040.01.04 Ducts: Air Distribution*

Single duct constant volume and variable volume air distribution system to all area. All ducts are up to SMACNA standards.

RatingInstalledDesign LifeUpdated4 - Acceptable19840JAN-08

Event: Ductwork Cleaning

Concern:

Dust and debris build-ups noted in several ducts.

Recommendation:

Complete thorough cleaning of air distribution system in 1984

section.

TypeYearCostPriorityPreventative Maintenance2008\$24,024Low

Updated: APR-08

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Combination of wall mounted grilles and ceiling square diffusers for supply air application. Egg crate type grilles for return, transfer and exhaust air.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

D3040.03.01 Hot Water Distribution Systems**

Reverse return copper type L and steel distribution to perimeter radiation, unit heaters and re-heat coils.

RatingInstalledDesign LifeUpdated4 - Acceptable198440NOV-07

Event: Replace HW Heating Piping System

TypeYearCostPriorityLifecycle Replacement2024\$520,520Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust - Dust Collection**

Dust collection system served by EF-57 (Murphy) collects saw dust by way of ductwork which ties into equipment through flexible connections. Dust collection system consists of main exhaust fan, hopper complete with access openings, support stand, slide gate & shaker motor.

RatingInstalledDesign LifeUpdated4 - Acceptable198430JAN-08

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D3040.04.01 Fans: Exhaust - General**

A variety of fans provided throughout the building to exhaust air washrooms, service rooms or heat producing equipment. Total of 63 exhaust fans located on roof, ceiling space or exposed. Exhaust fans 21, 31 & 38 interlock with AS-9, exhaust fans 33,34,35,52 & 63 interlock with AS-8, exhaust fans 36,57&58 interlock with AS-6, exhaust fan 53 interlock with MAU-1. See section D3040.04.01 for more details.

RatingInstalledDesign LifeUpdated4 - Acceptable198430JAN-08

Event: Replace approx. 58 Exhaust Fans

TypeYearCostPriorityLifecycle Replacement2014\$211,640Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust - Portable**

One roof mounted exhaust fan interlock with a portable furnace for free cooling operation.

RatingInstalledDesign LifeUpdated4 - Acceptable199730NOV-07

Event: Replace One Exhaust Fan

TypeYearCostPriorityLifecycle Replacement2027\$1,373Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust - Welding exhaust**

1) Welding exhaust system provided for the removal of welding by-products. System consists of eight welding stations and six flexible extraction arms connected to central roof mounted fans 33,34,35,52 &63. Exhaust fan equal to Lau A20-20K belt driven blower interlock with variable volume air handling unit AS-8.

RatingInstalledDesign LifeUpdated4 - Acceptable19840JAN-08

Event: Welding Exhaust Upgrade

Concern:

Welding area is over pressurized which can lead to contamination of surrounding spaces with airborne pollutants.

Recommendation:

Replace five exhaust fans serving Welding area with new roof mounted units. New fans should be capable to exhaust minimum 15.000 cfm of air.

Replace existing air handling unit serving Welding area with new one. New unit should provide min. 14,000 cfm of fresh air. Replace main supply and return air ducts to accommodate new air volume.



Flexible Extraction Arms in the Welding Area.

TypeYearCostPriorityIndoor Air Quality Upgrade2008\$96,668Medium

Updated: APR-08

D3040.04.03 Ducts: Exhaust*

Low velocity exhaust air ductwork to roof and ceiling mounted fans.

Medium and high velocity steel ducts serving welding, building construction and automotive areas. All ducts insulated as per code.

RatingInstalledDesign LifeUpdated4 - Acceptable19840JAN-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Egg crate and louver face return grilles.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1984	0	NOV-07

D3040.05 Heat Exchangers**

Shell tube glycol heat exchangers located in Mechanical Rooms above Gymnasiums Armstrong model W-186-410-1. Plate heat exchanger equal to Bell & Gosset GXP-14-38 installed in 2005. Each heat exchanger is served by in-line glycol circulation pumps.

RatingInstalledDesign LifeUpdated4 - Acceptable200530NOV-07

Event: Replace 2 HE

TypeYearCostPriorityLifecycle Replacement2035\$125,840Unassigned

Updated: APR-08

D3050.01.04 Unit Air Conditioners**

One air cooled condensing unit, McQuay ACZ039A provides refrigerant flow to the cooling coils in AS-3 & AS-10.

RatingInstalledDesign LifeUpdated5 - Good200530JAN-08

D3050.02 Air Coils**

Approximately 81hot water re-heat coils at various locations throughout the building installed in 1984 and 2005. Coils are manufactured by Engineered Air and Rosemex.

RatingInstalledDesign LifeUpdated4 - Acceptable198430NOV-07

Event: Replace 11 Re-heat coils

TypeYearCostPriorityLifecycle Replacement2035\$22,880Unassigned

Updated: APR-08

Event: Replace Approx. 70 Reheat Coils

TypeYearCostPriorityLifecycle Replacement2014\$120,120Unassigned

Updated: APR-08

D3050.03 Humidifiers**

Steam humdifiers equal to Sarco model: PMD-T2 complete with temp. switch. All units disconnected, not required by owner

Steam boiler and distributors disconnected.

RatingInstalledDesign LifeUpdated4 - Acceptable198425JAN-08

Event: Humidification Upgrade

Concern:

Disconnected humidification system may cause low wintertime humidity levels.

Recommendation:

Install new steam boiler serving humidification system. Re-use all duct distributors.

TypeYearCostPriorityIndoor Air Quality Upgrade2010\$51,480Low

Updated: APR-08

D3050.05.03 Finned Tube Radiation**

Single and double slope perimeter radiation located throughout. Radiation manufactured by Rosemex and Dunham Bush.

RatingInstalledDesign LifeUpdated4 - Acceptable198440JAN-08

Event: Replace Radiation

TypeYearCostPriorityLifecycle Replacement2024\$480,480Unassigned

Updated: APR-08

D3050.07 Other Terminal and Packaged Units*

Dunham-Bush cabinet and vertical discharge hot water unit heaters located in mechanical rooms, automotive, welding and building construction areas.

Dunham-Bush hot water vertical cabinet and ceiling recessed forced flow heaters serving vestibules.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

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D3060.02.02 Pneumatic Controls**

Siemens pneumatic and electric controls installed throughout. Duplex pneumatic control air compressors equal to Powers and Devilbiss. Refrigerated after cooler.

RatingInstalledDesign LifeUpdated4 - Acceptable198430JAN-08

Event: Replace Control System

TypeYearCostPriorityLifecycle Replacement2014\$400,400Unassigned

Updated: APR-08

D3090 Other Special HVAC Systems and Equipment*

Carrier Gemini split air 38ARZ007-024 complete with air cooled condensing unit and indoor fan coil serving Computer Classrooms. Typical of 7.

RatingInstalledDesign LifeUpdated3 - Marginal20050NOV-07

Event: Air Conditioning system for Art Room.

Concern:

Art Room getting overheated.

Recommendation:

Install one 5 ton wall mounted, split air conditioning system complete with outdoor condenser and indoor fan coil unit.

TypeYearCostPriorityIndoor Air Quality Upgrade2008\$6,292Medium

Updated: APR-08

D4010 Sprinklers: Fire Protection*

Automatic sprinkler system consists of wet pipes and deluge.

Fire pump package complete with jockey pump, excess pressure pump and controllers. Fire pump equal to Armstrong model: 43PF 500gpm @ 117' head. Jockey pump Astral 4.6gpm @ 173'. Sprinkler siamese connection and test connection.

RatingInstalledDesign LifeUpdated4 - Acceptable198460JAN-08

D4020 Standpipes*

Wet standpipe connected to the city water system, ahead of the water meter. Fire hose cabinets complete with racks, valves, nozzles, hoses and pipes throughout.

Standpipe siamese connection.

RatingInstalledDesign LifeUpdated4 - Acceptable198460NOV-07

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers provided throughout:

- carbon dioxide, multi-purpose dry chemical, water pump, halon.

Fire extinguishers inspected yearly.

RatingInstalledDesign LifeUpdated4 - Acceptable198430JAN-08

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

Fire suppression system serving commercial Kitchen equal to ANSUL R-102.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	2005	0	JAN-08

S5 ELECTRICAL

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

The Main Distribution is a1600 Amp 600/347 Volt Federal Pioneer Panel with an integral Square "D" surge protector added on.

RatingInstalledDesign LifeUpdated5 - Good198540JAN-08

Event: Replace [D5010.03 Main Electrical Switchboards

(Main Distribution)** -]

TypeYearCostPriorityLifecycle Replacement2025\$40,817Unassigned

Updated: APR-08

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

The Electrical branch circuit panels are mostly FPE panels and are located around the school.

RatingInstalledDesign LifeUpdated5 - Good198530JAN-08

Event: Replace [D5010.05 Electrical Branch Circuit

Panelboards (Secondary Distribution)** -]

TypeYearCostPriorityLifecycle Replacement2015\$80,080Unassigned

Updated: APR-08

D5010.07.02 Motor Starters and Accessories - 1985**

The Motor starters are enclosed in a Klockner-Moeller Series 200 Motor control center.

RatingInstalledDesign LifeUpdated5 - Good198530JAN-08

Event: Replace [D5010.07.02 Motor Starters and

Accessories** -]

TypeYearCostPriorityLifecycle Replacement2015\$90,042Unassigned

Updated: APR-08

D5010.07.02 Motor Starters and Accessories - 2005**

The motor starters in the 2005 addition are in a Klockner-Moeller Series SR -27 motor control center.

RatingInstalledDesign LifeUpdated5 - Good200530NOV-07

Event: Replace Motor Starters and Accessories

TypeYearCostPriorityLifecycle Replacement2035\$60,028Unassigned

Updated: MAY-08

D5020.01 Electrical Branch Wiring - *

Branch wiring consists of EMT piping complete with wire, BX armored cable and tech cable.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 1985
 0
 JAN-08

D5020.02.01 Lighting Accessories (Lighting Controls) - *

Lighting controls consist of both Line voltage switching and Douglas low voltage switching.

RatingInstalledDesign LifeUpdated5 - Good20050JAN-08

D5020.02.02.01 Interior Incandescent Fixtures - *

The interior incandescent lamping has been changed out to energy efficient PL lamping in2005

RatingInstalledDesign LifeUpdated5 - Good200530JAN-08

D5020.02.02.02 Interior Florescent Fixtures - 2003**

The interior florescent fixtures have been retrofitted to energy efficient T-8 lamps and electronic ballasts.

RatingInstalledDesign LifeUpdated5 - Good200330JAN-08

Event: Replace [D5020.02.02.02 Interior Florescent

Fixtures** -]

TypeYearCostPriorityLifecycle Replacement2033\$331,254Unassigned

Updated: APR-08

D5020.02.02.02 Interior Florescent Fixtures - 2004**

Both gyms were modernized in 2004 with T-5 lamping and electronic ballasts.

RatingInstalledDesign LifeUpdated5 - Good200430NOV-07

Event: Replace interior florescent fixtures.

TypeYearCostPriorityLifecycle Replacement2034\$22,880Unassigned

Updated: JAN-08

D5020.02.03.01 Emergency Lighting Built-in*

The emergency lighting was modernized in 2003 and 2004 when the interior florescent lighting was done.

RatingInstalledDesign LifeUpdated5 - Good035NOV-07

D5020.02.03.02 Emergency Lighting Battery Packs - **

The emergency lighting battery packs are installed in the McLab Fine Arts Theatre.

The cost to replace the battery packs is less than a thousand dollars and will be covered under maintenance costs.

RatingInstalledDesign LifeUpdated5 - Good198420JAN-08

D5020.02.03.03 Exit Signs - *

Exit lighting is by Lumicell and is located at hallway intersections and points of egress in the building.

RatingInstalledDesign LifeUpdated5 - Good19840JAN-08

D5020.02.05 Special Purpose Lighting - *

There is special purpose lighting installed in the McLAB Fine Arts Centre these include spot lights and low level lighting for the sound booth.

RatingInstalledDesign LifeUpdated5 - Good19840JAN-08

D5020.03.01.01 Exterior Incandescent Fixtures - *

The incandescent fixtures are on the new 2005 section. Some of these lights are accent lighting only , while some light up points of egress.

RatingInstalledDesign LifeUpdated5 - Good20050NOV-07

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D5020.03.01.03 Exterior Metal Halide Fixtures - *

The exterior lighting is sufficient to illuminate the building and the parking areas. These are both wall mounted and soffit mounted and vary in size from 75 Watts to 250 watts.

RatingInstalledDesign LifeUpdated5 - Good19840NOV-07

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

Lighting controls is through Photocells located on the roof.

RatingInstalledDesign LifeUpdated5 - Good19840JAN-08

D5030.01 Detection and Fire Alarm - **

The fire alarm system is a Simplex 4100 U panel with a remote annunciator at the main door.

There is a passive graphic map at the main door.

There is a sprinkler system installed in the school with a Emerson 25 H.P.575 Volt motor complete with a Commander motor Starter, This is tied into the Emergency Genset.

RatingInstalledDesign LifeUpdated5 - Good200425NOV-07

Event: Replace [D5030.01 Detection and Fire Alarm** -]

TypeYearCostPriorityLifecycle Replacement2029\$93,808Unassigned

Updated: APR-08

D5030.02.02 Intrusion Detection - **

There are a number of motion sensors located through out the school including each exit.

There is also a passive graphic security zone map at the main entrance

RatingInstalledDesign LifeUpdated5 - Good200425NOV-07

Event: Replace [D5030.02.02 Intrusion Detection** -]

TypeYearCostPriorityLifecycle Replacement2029\$19,219Unassigned

Updated: APR-08

D5030.02.04 Video Surveillance - **

There are a number of surveillance cameras located on the exterior and interior parts of the school.

RatingInstalledDesign LifeUpdated5 - Good200425NOV-07

Event: Replace [D5030.02.04 Video Surveillance** -]

TypeYearCostPriorityLifecycle Replacement2029\$66,352Unassigned

Updated: APR-08

D5030.03 Clock and Program Systems - *

The clocks are 120 volt clocks and are not tied into the bell system.

RatingInstalledDesign LifeUpdated5 - Good198425JAN-08

D5030.04.01 Telephone Systems - *

The telephone system is a Panasonic D154 located in the main Server room.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 1984
 25
 NOV-07

D5030.04.05 Local Area Network Systems - *

The network system is Alberta Supernet By Bell.

RatingInstalledDesign LifeUpdated5 - Good19840NOV-07

D5030.05 Public Address and Music Systems - **

The Public Address System is a KXT7433 Panasonic Hybrid System.

RatingInstalledDesign LifeUpdated5 - Good198420NOV-07

Event: Replace [D5030.05 Public Address and Music

Systems** -]

TypeYearCostPriorityLifecycle Replacement2012\$5,834Unassigned

Updated: APR-08

D5030.06 Television Systems - *

The television signal is supplied by Bell Express Vue Satellite Dishes located on the roof.

RatingInstalledDesign LifeUpdated5 - Good20040JAN-08

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

The emergency generator is a White-Westinghouse 150 KW genset.

RatingInstalledDesign LifeUpdated5 - Good198535JAN-08

Event: Replace [D5090.02 Packaged Engine Generator

Systems (Emergency Power System)** -]

TypeYearCostPriorityLifecycle Replacement2020\$45,726Unassigned

Updated: APR-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

Wood shelving fully adjustable, metal frame.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 2005
 0
 NOV-07

E1020.03 Theater and Stage Equipment*

Curtains to auditorium stage area.

RatingInstalledDesign LifeUpdated4 - Acceptable20050NOV-07

E1020.05.01 Projection Screens

Pull down projection screens to classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

E1090.03 Food Service Equipment - *

Central kitchen fully equipped but no hand wash sink in cooking and prep area.

RatingInstalledDesign LifeUpdated3 - Marginal20040NOV-07

Event: Install hand sink

Concern:

Hygiene due lack of sink. **Recommendation:**

Install hand sink by food preparation area.

TypeYearCostPriorityCode Upgrade2008\$2,860High

Updated: NOV-07

E1090.04 Residential Equipment - *

Stoves, fridges, microwaves, dishwashers to staff and home economics.

RatingInstalledDesign LifeUpdated4 - Acceptable20040NOV-07

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

Kodiak bleachers. Score clock, power and manual basketball backstops.

RatingInstalledDesign LifeUpdated4 - Acceptable20040NOV-07

E2010.02 Fixed Casework**

Plastic laminate tops, some painted plywood shelving, some birch.

RatingInstalledDesign LifeUpdated4 - Acceptable200435NOV-07

Event: Replace (300 LM)

TypeYearCostPriorityLifecycle Replacement2039\$686,400Unassigned

Updated: NOV-07

E2010.03.01 Blinds - **

Majority of blinds set between glass, vertical blinds to administration and science labs.

RatingInstalledDesign LifeUpdated4 - Acceptable200430NOV-07

Event: Replace blinds

TypeYearCostPriorityLifecycle Replacement2034\$45,760Unassigned

Updated: JAN-08

E2010.05 Fixed Multiple Seating - **

Theater seating upholstered, concrete seating to assembly by library.

RatingInstalledDesign LifeUpdated5 - Good200435NOV-07

Event: Replace seating (250 seats)

TypeYearCostPriorityLifecycle Replacement2039\$114,400Unassigned

Updated: NOV-07

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E2010.06 Fixed Interior Landscaping*

Combination wood and concrete interior planters

RatingInstalledDesign LifeUpdated4 - Acceptable19840NOV-07

F1010.02.04 Portable and Mobile Buildings - *

Portable classroom, wood frame, metal clad, aluminum windows vertical slide, ceiling t-bar, floor VC tile and sheet goods, walls vinyl drywall.

Heating provided by one gas fired furnace c/w overhead ductwork distribution, 759 l/s of supply air, 38 KW heating capacity. Medium pressure gas connection from the main school building.

Power supplied from MDP in main electrical room. Panel is Federal Pioneer. Fire alarm devices wired to main fire alarm panel. Interior lighting retrofitted with T-8 lamps and electronic ballasts. Computer and telephone connected from main server room. Single incandescent fixture over exterior egress door.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	1962	0	NOV-07

Event: Replace 4 vertical sliding sashes.

Concern:

Windows hard to open, poor natural ventilation.

Recommendation:

Replace 4 windows @ \$600 / slider.

<u>Type</u>	<u>Year</u>	<u>Cos</u> t	<u>Priority</u>
Failure Replacement	2009	\$2,746	Medium

Updated: JAN-08

F1020.02.13 Paint Booths - *

Steel rated doors and frames, ceiling not rated, sprinklered but needs review. Has exhaust and hood.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
3 - Marginal	1967	0	NOV-07

Event: Drywall ceiling.

Concern:

Ceiling not rated.

Recommendation:

Drywall the ceiling.

TypeYearCostPriorityCode Repair2009\$2,288Medium

Updated: NOV-07

F2020.01 Asbestos*

Vinyl asbestos tile to some room areas in 1963 + 1967. All asbestos currently encapsulated.

RatingInstalledDesign LifeUpdated4 - Acceptable00NOV-07

F2020.04 Mould*

No signs of mould visible.

RatingInstalledDesign LifeUpdated4 - Acceptable00NOV-07

S8 FUNCTIONAL ASSESSMENT

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

Direct access for wheelchairs to main student entrance with curb cuts.

RatingInstalledDesign LifeUpdated5 - Good20040NOV-07

K4010.02 Barrier Free Entrances - *

Barrier free entrance to south entry.

RatingInstalledDesign LifeUpdated5 - Good20040NOV-07

K4010.03 Barrier Free Interior Circulation - *

Montgomery elevator available to second floor.

RatingInstalledDesign LifeUpdated5 - Good20040NOV-07

K4010.04 Barrier Free Washrooms - *

Wheelchair accessible washrooms available, more would be accessible if W/C door opened out in rooms 173 and 174.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

RECAPP Facility Evaluation Report



Leduc Composite High School S3653 Leduc

Leduc - Leduc Composite High School (S3653)

Facility Details

Building Name: Leduc Composite High Scho

Address:

Location: Leduc

Building Id: \$3653
Gross Area (sq. m): 0.00
Replacement Cost: \$0
Construction Year: 0

Evaluation Details

Evaluation Company: John Murray Architectural Associates

Evaluation Date: August 15 2007

Evaluator Name: John Murray

Total Maintenance Events Next 5 years: \$103,532 5 year Facility Condition Index (FCI): 0%

General Summary:

Leduc Composite High school is on a limited site with playing fields to the west jointly maintained with the City. The school is located on the corner of 50th street and Corinthia Drive. There is bus drop off situated to the west of the school and parking areas directly off Corinthia Drive. The parking lots are mainly accessible off Corinthia Drive with a narrow secondary access to the main entry of the school off 50th street. Public access to the school to central administration is confusing. The site has mature trees and lawns, with playing fields and large asphalt parking fully paved and lined marked for students and staff to the south and west of the school. Asphalt parking for visitors is minimal on east side. Chain link fencing to the west side and the school between parking and play fields and to perimeter of shop storage. Overall the site is in good condition.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

Rating Guide		
Condition Rating	Performance	
1 - Critical	Unsafe, high risk of injury or critical system failure.	
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.	
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.	
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.	
5 - Good	Meets all present requirements. No deficiencies.	
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.	

S7 SITE

G2010.02.02 Flexible Pavement Roadway (Asphalt) - **

Asphalt road access, east access narrow.

RatingInstalledDesign LifeUpdated4 - Acceptable200525NOV-07

Event: Replace 10000 m2

TypeYearCostPriorityLifecycle Replacement2030\$343,200Unassigned

Updated: NOV-07

G2010.05 Roadway Curbs and Gutters*

Poured concrete curbs with wheelchair cuts, some cubs low due to asphalt re-surfacing over the years.

RatingInstalledDesign LifeUpdated4 - Acceptable198425NOV-07

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

Asphalt parking lots re-surfaced, speed bumps and adequate drainage. 5 stalls

RatingInstalledDesign LifeUpdated4 - Acceptable200525NOV-07

Event: Add 10 stalls of visitor parking,

Concern:

Not enough visitor parking at main entry.

Recommendation:

Install 10 new parking stalls. (10 stalls x 2000 / stall).

TypeYearCostPriorityProgram Functional Upgrade2008\$32,032Low

Updated: APR-08

Event: Replace parking lot surfaces and roadways.

TypeYearCostPriorityLifecycle Replacement2030\$80,080Unassigned

Updated: NOV-07

G2020.05 Parking Lot Curbs and Gutters*

Concrete curbs and gutters.

RatingInstalledDesign LifeUpdated3 - Marginal198425NOV-07

Event: Replace 10 concrete curb stops

Concern:

Concrete is degrading. **Recommendation:**

10 concrete curbs, spalled and broken, needs replacement with

new.

TypeYearCostPriorityFailure Replacement2009\$2,860Medium

Updated: NOV-07

G2020.06.03 Parking Lot Signs - *

Steel signs and posts.

RatingInstalledDesign LifeUpdated3 - Marginal19620NOV-07

Event: Install 4 new signs

Concern:

No signage in visitor parking. Visitor Access confusing.

Recommendation:

Provide new signage. (4 signs @ \$500 / sign)

Type Year Cost Priority
Operating Efficiency Upgrade 2008 \$2,288 Low

Updated: NOV-07

G2020.06.04 Pavement Markings*

Fully marked parking arrangements.

RatingInstalledDesign LifeUpdated4 - Acceptable200525NOV-07

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G2030.04 Rigid Pedestrian Pavement (Concrete)**

Stamped concrete coloured to south entry, plain concrete to art centre.

RatingInstalledDesign LifeUpdated4 - Acceptable200525NOV-07

Event: Replace concrete surface (100 m2)

TypeYearCostPriorityLifecycle Replacement2020\$19,448Unassigned

Updated: NOV-07

G2040.02.01 Chain Link Fences and Gates*

1500 high chain link plus barbed wire to shop area, 1200 high chain link west side of school at playing fields.

RatingInstalledDesign LifeUpdated4 - Acceptable198430NOV-07

G2040.03 Athletic and Recreational Surfaces**

Track running surface rubber asphalt.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 2005
 25
 NOV-07

Event: Replace running track (3400m2)

TypeYearCostPriorityLifecycle Replacement2030\$350,064Unassigned

Updated: APR-08

G2040.04.01 Play-Field Equipment and Structures

Steel football, soccer post, baseball diamonds including protection (chain link).

RatingInstalledDesign LifeUpdated4 - Acceptable200010NOV-07

G2040.05 Site and Street Furnishings - *

Steel bike racks for 24 bikes, 4 precast concrete garbage containers, rock seats.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

G2040.06 Exterior Signs - *

Applied aluminum letters main school sign.

RatingInstalledDesign LifeUpdated3 - Marginal19620NOV-07

Event: Install 2 new signs

Concern:

Poor exposure. **Recommendation:**

Replace letters on new background, identifying school in 2

locations. (2 signs @ \$4000 / sign)

TypeYearCostPriorityFailure Replacement2009\$9,152Unassigned

Updated: JAN-08

G2040.08 Flagpoles - *

1 aluminum flagpole.

RatingInstalledDesign LifeUpdated4 - Acceptable19620NOV-07

G2050.05 Trees, Plants and Ground Covers - *

Mature trees and shrubs, generally acceptable except at main entry.

RatingInstalledDesign LifeUpdated3 - Marginal19620NOV-07

Event: Re-landscape main entry

Concern:

Main entry is obscure. **Recommendation:**

Replace main entry landscaping.

TypeYearCostPriorityRepair2009\$91,520Medium

Updated: NOV-07

G3010.02 Site Domestic Water Distribution - *

200mm diameter water line from the main located on 50th Street. 200 water line enter the building in Meter Room located at the E.S.

200mm diameter second water line to fire hydrant enter property from Corinthia Drive.

Both services are complete with c.c. Valves at property line and tunneled under drive way.

20mm diameter N.F.H.B. located around the building. Approximately 12.

RatingInstalledDesign LifeUpdated5 - Good19840NOV-07

G3010.03 Site Fire Protection Water Distribution - *

Two fire hydrants located on the south parking lot.

Standpipe & sprinkler system siamese connection and fire dept. Test connection located on E.S. wall of the building, adjacent to Meter Room.

RatingInstalledDesign LifeUpdated5 - Good19840NOV-07

G3020.01 Sanitary Sewage Collection - *

150mm diameter sanitary line leaves building at the N.E. corner to sanitary manhole on parking lot. Second 150mm diameter sanitary line leaves building at the E.S. side of the building to manhole located on parking lot. Both sanitary services are connected to sanitary manholes (total of three for entire site) and discharge via 200mm line to sanitary main on the 50th Street.

RatingInstalledDesign LifeUpdated5 - Good19880NOV-07

G3030.01 Storm Water Collection - *

525mm diameter storm line discharge to storm main on Corinthia Drive. Secondary 300mm diameter storm line to storm main on 50th Street.

375mm storm line serving building to storm manhole on N.W. Parking lot.

Parking lot drainage via five storm catch basins.

RatingInstalledDesign LifeUpdated4 - Acceptable19880NOV-07

G3060.01 Gas Distribution - *

100mm diameter medium pressure gas line to gas meter located at the north side of school.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 1984
 0
 NOV-07

G4010.01 Electrical Substations - *

There is a padmount transformer located at the north east corner of the building.

RatingInstalledDesign LifeUpdated5 - Good19620NOV-07

G4010.02 Electrical Power Distribution Lines - *

In 1985 the main power lines were put underground to go from the padmount transformer to the Main Distribution Panel

RatingInstalledDesign LifeUpdated5 - Good19850NOV-07

G4010.04 Car Plugs-ins - *

During the 1984 addition car receptacles were added to the exterior of the building on the north end, plus Stand Alone Pedestals in the north parking lot. 68 plug - ins on west side on steel posts.

RatingInstalledDesign LifeUpdated5 - Good19840NOV-07

G4020.01 Area Lighting - *

Site Lighting in the south parking lot is adequate to cover student parking and community parking during Concerts and theatre productions.

RatingInstalledDesign LifeUpdated5 - Good19840NOV-07