RECAPP Facility Evaluation Report

Livingstone Range Sch Div #68

Matthew Halton Community School

B3874A

Pincher Creek

Report run on: March 15, 2010 9:57 PM

Facility Details

Building Name:	Matthew Halton Community
Address:	645 Davidson Avenue
Location:	Pincher Creek
Building Id:	B3874A
Gross Area (sq. m):	6,340.09
Replacement Cost:	$21,477,716
Construction Year:	1957

Evaluation Details

Evaluation Company:	Jacques Whitford Stantec AXYS Limited
Evaluation Date:	June 3 2009
Evaluator Name:	Mike Plomske

Total Maintenance Events Next 5 years:	**$859,024**
5 year Facility Condition Index (FCI):	**4.00%**

General Summary:

The Matthew Halton Community School is a wood-frame and masonry block structure which includes no basement levels or crawl space areas. The original, single-storey portion of the building was constructed in 1957 and had an unknown floor area. Additions were later added to the school, which included single-storey in-fill storage rooms and classrooms on the east and west sides of the building in 1963, along with the mezzanine level in the Industrial Arts classroom. A larger two-storey addition was later added onto the northeast corner of the school in 1966, which was approximately 1,700 square metres in area. A minor renovation took place in 1997 followed by a major modernization that was completed in 2002. That modernization led to the demolition of a substantial portion of the school's old north-west wing and a small addition of an exit stairwell at the northwest corner of the 1966 addition that addressed building code requirements. The combined total floor area of the facility is reported to be 6,150 square metres.

A small garage structure approximately 225 square metres in area is situated at the building's southeast corner, and is used for storage purposes. The garage was reported to have been built in 2006.

Structural Summary:

Standard foundations for the building are understood to be comprised of cast-in-place and reinforced concrete frost walls supported by concrete strip footings. The main floor of the building is constructed at-grade and has concrete slab-on-grade floors. The structural framing of the building is comprised of a combination of wood joists, beams and stud framing, or load-bearing masonry block walls. The roof framing of the building is comprised of wood decking supported by wood joists and beams. Glu-lam beams and wood joists support the gymnasium roof deck.

The garage structure situated southeast of the building is constructed on a concrete slab-on-grade floor. The garage structure includes steel moment-resisting frames which appear to be secured by horizontal steel z-girts. The roof structural frame includes steel purlins spanning between moment-resisting frames. Roof decking is comprised of metal panels secured to the structural frame.

No structural repair work is recommended for the building or garage.

Structural components were observed to be in acceptable condition overall.

Envelope Summary:

The exterior walls of the building include a combination of pre-finished metal siding and painted concrete or masonry block walls on the original building, and a clay brick veneer on the 1966 addition. Exterior glazing on the building perimeter is generally comprised of fixed and operable windows with insulating glazing units set in aluminum sashes and frames. Several original windows remain on the 1966 addition, which include double-pane glazing set in metal sashes and frames. Exterior entry and utility doors consist of insulated metal pivot units, several with glazed inserts, set in metal frames. Entrances at the south, east and west sides of the original building include fully glazed and hinged entrance doors set in aluminum frames with matching sidelights and transoms. The garage at the building's southeast corner is clad with pre-finished metal siding on all elevations, and includes an insulated metal utility door and two sectional metal overhead doors.

The low-slope roofs on the school are a covered with a combination of built-up and modified bituminous membrane assemblies. Low-slope roofs over the building's west end, and the Industrial Arts classrooms, are covered with a single-ply, polyvinyl chloride membrane. The gymnasium and garage roofs are comprised of pitched assemblies with standing seam metal roofing.

Recommended work includes the following:

- Repair of incomplete or poor detailing on pre-finished metal cladding terminations
- Replacement of deficient sealant in construction joints
- Replacement of paint finishes on exterior masonry block wall surfaces

- Repair of loose sections of masonry on a back-up wall
- Replacement of original aluminum windows on the 1966 addition
- Installation of an insulating glazing unit in place of temporary plywood sheathing
- Replacement of the original curtain wall assembly on the 1966 addition northeast stairwell
- Replacement of the built-up roof membrane assembly on the 1966 addition
- Conduct a review of all roof surfaces and repair deficient roofing accessories

Building envelope components were observed to be in acceptable condition, overall.

Interior Summary:

The building includes classrooms, connecting corridors and supporting educational rooms, a staff room and office/administrative area, a gymnasium, washrooms and janitorial rooms. Interior finishes are a combination of resilient tile and sheet flooring, ceramic floor tile and carpeting. The gymnasium is finished with maple hardwood strip flooring, while wood parquet flooring covers a portion of the Industrial Arts area. Wall finishes generally include ceramic tile or gypsum board and masonry block with painted finishes, while painted gypsum board or suspended T-bar grid with inlaid acoustic panel ceilings are provided throughout the building. Interior swinging doors are a combination of varnished solid core wood or painted hollow metal pivot units set in painted metal or wood frames.

Recommended work includes the following:

- Refinishing of interior swinging wood doors
- Replacement of damaged clothing hooks in classrooms
- Replacement of resilient flooring on stair treads within the south stairwell of the 1966 addition
- Repainting of metal pipe handrails in stairwells
- Repainting of deficient wall surfaces throughout the building
- Repainting of concrete floor finishes in mechanical rooms and the Industrial Arts area
- Replacement of deficient quarry tile flooring in south entrance vestibule
- Refinishing of wood parquet flooring in the Industrial Arts area
- Replacement of damaged or stained vinyl tile flooring
- Replacement of worn carpet flooring in corridors throughout the 1966 addition
- Repair of loose or damaged laminate counter top surfaces and deficient casework in classrooms
- Replacement of deficient vertical blind window coverings

Interior finishes were observed to be in acceptable condition overall.

Mechanical Summary:

Domestic water and sanitary sewer services are provided by the town of Pincher Creek. There is a backflow prevention device (BFP) on the domestic water main, irrigation and hot water heating system make-up.. Domestic hot water is provided by two natural gas fired water heaters. Heating is provided by two natural gas-fired boilers supplying hot water to radiant panels, perimeter radiation fin entrance way unit heaters and air handling unit (AHU) glycol coils. Ventilation for the building is provided by five AHU's, located throughout the building Other ventilation is provided by washroom exhaust fans. A combination of a DDC and pneumatic system provides control of mechanical equipment. The building is protected by a standpipe. Fire extinguishers are located in cabinets throughout the building.

The following replacements are recommended in the next five years:
- Install a single point to energize dust collection and make-up air unit.
- Extend rain water leaders to grade.

Overall the mechanical systems in the building are in good condition.

Electrical Summary:

Electrical supply into the building is by a utility supplied pad mounted transformer, located to the east of the building. The main electrical switchboard is rated at 600A, 347/600V, 4 wire, 3 phase. The electrical sub-panels and motor control centers were replaced in the 1997 and 2002 modernizations, Surge suppression equipment are installed on the 347/600V and 120/208V bus. Wiring was generally observed to be copper and installed in conduit. Interior lighting is mostly provided by T8 fluorescent technology with both magnetic and electronic ballasts. Exterior lighting is provided by metal halide wall packs around the building. Emergency lighting in the building is powered by battery pack emergency lighting packs. Exit lighting in the building is provided by LED fixtures. The building is protected by an addressable fire alarm control panel which controls fire alarm end devices throughout the building. The building is equipped with an externally monitored security system, a private branch exchange telephone system, an integrated public address system class room communication system, a supernet fiber optic internet service, and a hardwired Local Area Network.

There following are recommended electrical system actions for the next five years:
- Add missing end devices to Fire alarm detection system.

Overall the electrical systems in the building are in acceptable condition.

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

S1 STRUCTURAL

A1010 Standard Foundations*

The building's standard foundations are understood to be comprised of cast-in-place concrete strip footings and frost walls, reinforced with conventional steel. The Garage located southwest of the school is also understood to include perimeter concrete frost walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

A1030 Slab on Grade*

Cast-in-place concrete slab-on-grade floors are provided throughout the building's main level (i.e., no basement is present). The Garage southwest of the school also incorporates a concrete slab-on-grade floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

B1010.01 Floor Structural Frame (Building Frame)*

The floor structural frame supporting the second level of the 1966 addition on the building's north end is comprised of wood joists, beams and wood stud framework. The Garage includes three steel moment-resisting frames which appear to be secured by horizontal steel z-girts.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

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

Interior walls supporting the second floor structure of the 1966 addition and the roof structure of the building's remaining areas include a combination of cast-in-place concrete, concrete masonry units and wood stud framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

B1010.03 Floor Decks, Slabs, and Toppings*

The suspended second level floor deck of the building's 1966 addition is understood to be comprised of a plywood sub-floor supported by wood joists and beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

B1010.05 Mezzanine Construction*

The Industrial Arts classroom on the building's east end includes a storage mezzanine constructed as part of a 1963 addition. The mezzanine is understood to be constructed of wood decking and concrete topping, which is supported by a combination of glu-lam beams/steel posts and load-bearing masonry block walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

B1010.10 Floor Construction Firestopping*

Penetrations through floor decks are generally sealed with a firestopping material where voids or separations exist.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

B1020.01 Roof Structural Frame*

The majority of the building's roof structural framework includes wood joists and beams. Tongue and grove wood decking is located in the Gymnasium and Industrial Arts classrooms, which is supported by glu-lam beams. The roof structural frame of the Garage includes steel purlins spanning between moment-resisting frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

B1020.03 Roof Decks, Slabs, and Sheathing*

The majority of the building's roof structure includes wood decking (plywood, tongue and groove decking, etc.). The Garage roof deck includes pre-finished metal roof panels secured to the steel purlin roof structure.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

B1020.04 Canopies*

The main entry canopy on the building's west end was constructed as part of 1963 additions and is understood to be wood-framed, and presumably supported by steel posts which are concealed by brick veneer.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Exposed elevations of the 1966 addition on the building's north end are clad with a brick face veneer.

General graffiti was observed on the east elevation of the 1966 addition, although no other major deficiencies were noted.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	MAR-10

B2010.01.02.02 Concrete Block: Ext. Wall Skin*

The south and east elevations of the Industrial Arts classrooms on the building's east end are clad with concrete masonry units that include a paint finish. The north exposed wall of the 2002 addition on the building's north end, and the adjoining north wall of the ancillary classroom north of the kitchen, are clad in a consistent manner.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	MAR-10

B2010.01.06.03 Metal Siding** - Garage

All elevations of the Garage are clad with pre-finished metal siding.

Rating	Installed	Design Life	Updated
5 - Good	2006	40	MAR-10

Event: Replace Garage Metal Siding (approx. 310 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2046	$52,000	Unassigned

Updated: MAR-10

B2010.01.06.03 Metal Siding** - School

The south, east and west elevations of the original school building are predominantly clad with pre-finished metal siding, which is understood to have been installed as a retrofit during 1997 renovation activities.

Rating	Installed	Design Life	Updated
3 - Marginal	1997	40	MAR-10

Event: Repair Exterior Metal Siding

Concern:
Exterior metal siding on the school appeared to be incomplete or poorly detailed in various locations, and does not extend fully to adjoining siding at cladding terminations (refer to attached photo).

Recommendation:
Review and repair exterior metal siding panels as necessary.

Consequences of Deferral:
Deferral of event may lead to potential moisture ingress into the building envelope.

Type	Year	Cost	Priority
Repair	2010	$5,000	Medium

Updated: MAR-10

Voids between exterior metal siding and section of brick veneer.

Event: Replace Metal Siding on School (approx. 820 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$136,000	Unassigned

Updated: MAR-10

B2010.01.09 Expansion Control: Exterior Wall Skin*

Control joints are installed at periodic intervals within brick veneer cladding and masonry block walls for thermal expansion purposes.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	MAR-10

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1966

Sealant is applied in construction joints and around exterior windows and doors on the perimeter of the 1966 addition.

Rating	Installed	Design Life	Updated
2 - Poor	1966	20	MAR-10

Event: Replace 1966 Addition Deficient Sealant (approx. 750 m)

Concern:

Sealant at construction joints and around exterior window units and doors on the 1966 addition perimeter appeared to be brittle and cracked.

Recommendation:

Replace cracked and brittle sealant as necessary on the 1966 addition perimeter.

Consequences of Deferral:

Deferral of event may lead to potential moisture infiltration into the building envelope.

Type	Year	Cost	Priority
Failure Replacement	2010	$29,000	High

Updated: MAR-10

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1997

Sealant is applied in construction joints and around exterior windows and doors on the perimeter of the original school building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	20	MAR-10

Event: Replace 1997 Sealant (approx. 675 m)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$26,000	Unassigned

Updated: MAR-10

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 2002

Sealant is applied in construction joints and around exterior windows and doors on the exterior wall of the 2002 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-10

Event: Replace 2002 Sealant

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$2,000	Unassigned

Updated: MAR-10

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

Concrete masonry units and cast-in-place concrete walls on the building perimeter include a paint finish.

Rating	Installed	Design Life	Updated
3 - Marginal	2002	15	MAR-10

Event: Repaint Masonry Block and Concrete Walls (approx. 550 sq. m.)

Concern:

Painted masonry block walls on the building perimeter were exhibiting no significant deficiencies, although general wearing of finishes and graffiti was noted near the Industrial Arts classrooms on the building's east end.

Recommendation:

Based on observations made during the assessment, repainting of masonry block and concrete wall surfaces is recommended during the later stages of the tactical planning window.

Consequences of Deferral:

Deferral of event will result in a loss of aesthetic appeal.

Type	Year	Cost	Priority
Failure Replacement	2012	$15,000	Low

Updated: MAR-10

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

Cast-in-place concrete walls form the lower portion of exterior walls on the original building perimeter, typically at hexagonal classroom clusters.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

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

Concrete masonry unit back-up walls are understood to be provided on the 1966 addition perimeter.

Rating	Installed	Design Life	Updated
3 - Marginal	0	100	MAR-10

Event: Repair Loose Masonry Block

Concern:

A loose section of masonry block was observed above the exterior entrance door on the east side of the 1966 addition. The back-up wall was exposed to plain view due to recent repairs to correct leakage in the area.

Recommendation:

Secure the loose section of masonry block on the load-bearing back-up wall.

Consequences of Deferral:

The loose section of block may lead to a potential falling hazard or future complications with the exterior cladding assembly.

Type	Year	Cost	Priority
Repair	2010	$1,000	High

Updated: MAR-10

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

The majority of exterior walls on the building perimeter are understood to include a wood frame substrate.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

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

Based on construction drawings reviewed during the assessment, the majority of exterior wall assemblies are understood to include vapour retarders and insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

B2010.05 Parapets*

Parapet walls on the perimeter of low-slope roof sections are constructed of wood framing or concrete masonry units, and sheathed or clad in a consistent manner with adjoining exterior wall surfaces. The parapets are typically capped with a pre-finished metal coping.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

B2010.06 Exterior Louvers, Grilles, and Screens*

Pre-finished metal louvers are incorporated into exterior wall assemblies on the building perimeter for air flow and ventilation purposes.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

B2010.09 Exterior Soffits*

Soffits at the main entrance canopy and at recessed building entrances are typically comprised of prefinished perforated metal.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

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

The 1996 addition at the building's north end includes fixed and operable (hopper type) aluminum-framed exterior windows with a combination of insulating glazing units or dual panes of glazing with integral venetian blinds.

Rating	Installed	Design Life	Updated
3 - Marginal	1966	40	MAR-10

Event: Replace 1966 Exterior Windows (approx. 80 sq. m.)

Concern:

Aluminum windows on the 1966 addition exterior have surpassed their theoretical design life and exhibited a generally worn appearance, including deterioration of glazing tape.

Recommendation:

Replace the original exterior windows on the 1966 addition.

Consequences of Deferral:

Deferral of replacement will result in ongoing deterioration and a loss of aesthetic appeal, loss of functionality, and loss of energy efficiency.

Type	Year	Cost	Priority
Failure Replacement	2012	$123,000	Medium

Updated: MAR-10

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1997

The south, east and west elevations of the original building include exterior windows with insulating glazing units, set in fixed aluminum frames and operable aluminum sashes.

Rating	Installed	Design Life	Updated
3 - Marginal	1997	40	MAR-10

Event: Replace 1997 Exterior Windows (approx. 120 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$185,000	Unassigned

Updated: MAR-10

Event: Replace Missing Glazing Unit

Concern:
A plywood board was observed in place of an insulating glazing unit in the gymnasium storage room.
Recommendation:
Re-insert an insulating glazing unit in place of the plywood board in the gymnasium storage room.
Consequences of Deferral:
The plywood board detracts from the building's overall aesthetic appeal.

Type	Year	Cost	Priority
Repair	2010	$1,000	Medium

Updated: MAR-10

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 2002

The west elevation of the 1966 addition includes exterior windows with insulating glazing units, set in fixed aluminum frames and operable aluminum sashes.

Rating	Installed	Design Life	Updated
5 - Good	2002	40	MAR-10

Event: Replace Exterior Windows in 2002 Addition

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$3,000	Unassigned

Updated: MAR-10

B2020.03 Glazed Curtain Wall** - 1966

The northeast stairwell includes a curtain wall assembly which spans between the first and second floors on its north face. The assembly is constructed with a painted steel grid which is in-filled with fixed aluminum frames incorporating insulating glazing units.

Rating	Installed	Design Life	Updated
3 - Marginal	1966	40	MAR-10

Event: Replace Northeast Curtain Wall (approx. 34 sq. m.)

Concern:

The northeast stairwell curtain wall has surpassed its theoretical design life and was exhibiting general deterioration of in-fill panels at its base, and deteriorating glazing tape on frame perimeters.

Recommendation:

Replace the curtain wall assembly at the northeast stairwell to match the newly installed curtain wall at the northwest stairwell.

Consequences of Deferral:

Deferral of replacement will result in ongoing deterioration and potential air and/or moisture infiltration.

Type	Year	Cost	Priority
Failure Replacement	2011	$66,000	Medium

Updated: MAR-10

B2020.03 Glazed Curtain Wall** - 2002

The northwest stairwell includes a curtain wall assembly which spans between the first and second floors on its north face. The assembly is constructed with aluminum framework incorporating insulating glazing units.

Rating	Installed	Design Life	Updated
5 - Good	2002	40	MAR-10

Event: Replace Northwest Curtain Wall (approx. 25 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$49,000	Unassigned

Updated: MAR-10

B2030.01.01 Aluminum-Framed Storefronts: Doors**

Entry doors on the south, east and west elevations of the original school building include dual, hinged aluminum doors with integral sealed glazing units and matching sidelights/transoms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-10

Event: Replace Exterior Aluminum Doors (3 Double Doors)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$38,000	Unassigned

Updated: MAR-10

B2030.01.02 Steel-Framed Storefronts: Doors**

Double steel entry doors set in steel frames are positioned on the north end of the original school building and the 1966 addition perimeter. The door assemblies typically include steel-framed sidelights and transoms with insulating glazing units.

Rating	Installed	Design Life	Updated
5 - Good	2002	30	MAR-10

Event: Replace Exterior Steel Doors (6 Entry Doors)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$20,000	Unassigned

Updated: MAR-10

B2030.02 Exterior Utility Doors** - Garage

A single exterior utility door is located on the north end of the Garage. The door is understood to be comprised of a galvanized and hinged steel unit set in a steel frame.

Rating	Installed	Design Life	Updated
5 - Good	2006	40	MAR-10

Event: Replace Exterior Garage Utility Door

Type	Year	Cost	Priority
Lifecycle Replacement	2046	$2,000	Unassigned

Updated: MAR-10

B2030.02 Exterior Utility Doors** - School

Exterior doors on the building perimeter are comprised of insulated metal hinged units set in painted and pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1963	40	MAR-10

Event: Replace Exterior Utility Doors

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,000	Unassigned

Updated: MAR-10

B2030.03 Large Exterior Special Doors (Overhead)*

A sectional metal overhead door with a painted exterior is located on the east side of the building and services the Industrial Arts classrooms. The Garage located southeast of the school includes two sectional metal overhead doors on its south elevation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1963	30	MAR-10

B3010.01 Deck Vapor Retarder and Insulation*

Based on construction drawings reviewed during the assessment, roofing assemblies for the school and Garage are understood to include a vapour retarder and insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-10

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

The low-slope roof over the 1966 addition is covered with a built-up bituminous roofing assembly.

Rating	Installed	Design Life	Updated
2 - Poor	1966	25	MAR-10

Event: Replace Built-Up Roofing Assembly (approx. 960 sq. m.)

Concern:

The built-up roofing assembly over the 1966 addition has long surpassed its theoretical design life. Site personnel reported frequent roof leaks and a visual review of the roof surface revealed general exposure of roofing felt.

Recommendation:

Replace the roofing assembly over the 1966 addition.

Consequences of Deferral:

Deferral of replacement will result in an increase in maintenance and repair costs, and disruptions due to recurring leaks.

Type	Year	Cost	Priority
Failure Replacement	2010	$236,000	High

Updated: MAR-10

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 1998

The low-slope roofs over the southeast wing of the original school and the canopy over the building's main entrance are covered with a modified bitumenous membrane assembly.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	25	MAR-10

Event: Replace 1998 MBM Roofing Assembly (approx. 600 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$142,000	Unassigned

Updated: MAR-10

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** - 2002

The low-slope roofs over the gymnasium storage room, music room and northwest stairwell are covered with a modified bitumen membrane assembly.

Rating	Installed	Design Life	Updated
3 - Marginal	2002	25	MAR-10

Event: Repair MBM Roofing Assemblies

Concern:
A visual review of the modified bituminous roofing assemblies north of the gymnasium revealed several deficiencies which require repair or addressing. These include an accumulation of dirt or debris in localized areas, poorly installed roofing penetrations and supports for cabling or electrical conduit, damaged or abandoned roof accessories (e.g., satellite dishes), and missing curbing along roofing transition joints.

Recommendation:
Conduct a thorough roofing review to address deficiencies related to roof-mounted accessories, conduit penetrations, supports and roofing transitions and repair as required.

Consequences of Deferral:
If left unattended, the deficiencies observed may lead to accelerated deterioration of the roofing membrane or may result in roofing damage or moisture ingress.

Type	Year	Cost	Priority
Repair	2010	$9,000	Medium

Updated: MAR-10

Event: Replace MBM Roofing Assemblies (approx. 680 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$161,000	Unassigned

Updated: MAR-10

B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)**

A single-ply, poly-vinyl chloride roofing membrane is applied over low-slope roof sections which cover the northwest and southwest classrooms of the original building, and the common student area north of the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	2004	25	MAR-10

Event: Replace PVC Roofing Assemblies (approx. 2,100 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$551,000	Unassigned

Updated: MAR-10

B3010.07 Sheet Metal Roofing** - Garage

The Garage has a pitched roof which is covered with a metal roofing assembly with a ribbed profile.

Rating	Installed	Design Life	Updated
5 - Good	2006	40	MAR-10

Event: Replace Garage Metal Roof (approx. 250 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2046	$77,000	Unassigned

Updated: MAR-10

B3010.07 Sheet Metal Roofing** - Gymnasium

The gymnasium has a pitched roof which is covered with overlapping pre-finished metal panels that include a ribbed profile.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	40	MAR-10

Event: Replace Gymnasium Metal Roof (approx. 770 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$236,000	Unassigned

Updated: MAR-10

B3010.08.02 Metal Gutters and Downspouts** - 1966

Metal downspouts are positioned along the 1966 addition perimeter to provide storm water drainage. The downspouts discharge directly onto asphalt-paved surfaces at ground level.

The addition of splash pads at the point of discharge below the downspouts is recommended as part of routine maintenance to divert storm water away from building foundations, and to preserve the condition of underlying asphalt pavement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-10

Event: Replace 1966 Metal Downspouts

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$1,000	Unassigned

Updated: MAR-10

B3010.08.02 Metal Gutters and Downspouts** - 1990

Pre-finished metal eavestroughs are positioned along the edges of pitched roof surfaces that cover the gymnasium. Storm water collected in the eavestroughs is drained onto low-slope roof surfaces via metal downspouts and extensions.

Various downspout extensions on the gymnasium perimeter have sustained physical damage and require replacement as part of routine maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	MAR-10

Event: Replace Gymnasium Metal Gutters and Downspouts

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$3,000	Unassigned

Updated: MAR-10

B3010.08.02 Metal Gutters and Downspouts** - 1998

Low-slope roofs over the southeast wing of the original school and the canopy over the building's main entrance are drained via metal downspouts positioned along the roof perimeter. The downspouts extend partially or fully along the building face and discharge storm water onto landscaped surfaces at ground level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	30	MAR-10

Event: Replace 1998 Metal Downspouts

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$1,000	Unassigned

Updated: MAR-10

B3010.08.02 Metal Gutters and Downspouts** - 2003

Low-slope roof sections to the east and west of the gymnasium are drained via metal downspouts positioned along the roof perimeters. The downspouts extend partially or fully along the building face and discharge storm water onto landscaped surfaces at ground level.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	30	MAR-10

Event: Replace 2002 Metal Downspouts

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$1,000	Unassigned

Updated: MAR-10

B3020.01 Skylights**

Four vaulted skylights are distributed above the student common area north of the gymnasium. The skylights include insulating glazing units set in fixed aluminum framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	25	MAR-10

Event: Replace Skylights (approx. 43 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$136,000	Unassigned

Updated: MAR-10

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

Roof access is provided through a metal hatchway situated west of the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-10

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior fixed partitions throughout the school are a combination of painted concrete masonry units and painted gypsum board over wood or metal stud framing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

C1010.02 Interior Demountable Partitions*

Fabric de-mountable partitions on ceiling-mounted tracks are situated in the infirmary at the office. A track-mounted fabric divider is also provided in the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

C1010.03 Interior Operable Folding Panel Partitions**

Metal-framed and fabric-covered folding panel partitions separate the student common area from the northerly-adjacent music room.

Rating	Installed	Design Life	Updated
5 - Good	2002	30	MAR-10

Event: Replace Folding Panel Partitions (approx. 28 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$49,000	Unassigned

Updated: MAR-10

C1010.05 Interior Windows*

Two steel roll-up pass-through windows are located on the south and west ends of the kitchen.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	80	MAR-10

C1010.06 Interior Glazed Partitions and Storefronts*

Glazed partitions with tempered or wire-reinforced glass set in painted metal frames serve as partitions throughout the office area at the school's northwest corner.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	80	MAR-10

C1010.07 Interior Partition Firestopping*

Penetrations through fire separations are generally sealed with a firestopping material where voids or separations exist.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

C1020.01 Interior Swinging Doors (& Hardware)*

Interior doors throughout the building are a combination of solid core wood or hollow metal set in painted metal or wood frames.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	MAR-10

Event: Repair & Repaint Interior Swinging Doors and Frames

Concern:

Deteriorated paint finishes or damaged, scuffed or scratched surfaces were observed on interior doors and frames throughout the school, most noticeably on original doors in the southeast and southwest classroom clusters which were not replaced during previous renovations.

Recommendation:

Repair and refinish interior swinging doors as necessary.

Consequences of Deferral:

Deferral of event may lead to ongoing deterioration and eventual loss in aesthetic appeal and functionality.

Type	Year	Cost	Priority
Repair	2011	$5,000	Low

Updated: MAR-10

C1020.03 Interior Fire Doors*

Interior fire doors are painted solid core wood units with wire-reinforced glazing, set in painted steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

C1030.01 Visual Display Boards**

Visual display boards used throughout the building are typically wall-mounted magnetic white boards and tack boards.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-10

Event: Replace Visual Display Boards (approx. 50 White Boards and 40 Tack Boards)

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$117,000	Unassigned

Updated: MAR-10

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

Stall partitions in multi-user washrooms are typically floor-mounted and comprised of pre-finished metal.

Stained surfaces were observed on several partitions, which should be addressed during future re-painting activities. Dented surfaces were also noted in gymnasium changerooms, although the extent of damage observed is not anticipated to affect functionality.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

Event: Replace Washroom Stall Partitions (approx. 21 Stalls)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$37,000	Unassigned

Updated: MAR-10

C1030.05 Wall and Corner Guards*

Stainless steel corner guards were observed throughout the office area at the building's northwest corner.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	MAR-10

C1030.08 Interior Identifying Devices*

Interior wall or door-mounted signage used throughout the building is a combination of metal and laminate plastic.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	MAR-10

C1030.10 Lockers**

Student lockers in corridors are generally comprised of pre-finished metal.

Rating	Installed	Design Life	Updated
5 - Good	2002	30	MAR-10

Event: Replace Metal Lockers (approx. 485 Metal Lockers)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$380,000	Unassigned

Updated: MAR-10

C1030.12 Storage Shelving*

Storage shelving used in custodial closets or administrative storage rooms are a combination of wall and floor-mounted wood and metal units.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-10

C1030.14 Toilet, Bath, and Laundry Accessories*

Washroom accessories generally include wall-mounted mirrors, hand soap, paper towel and tissue dispensers. Grab bars are also provided where barrier-free washrooms are present.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	MAR-10

C1030.16 Wardrobe and Closet Specialties*

Wood benches and wall-mounted clothing hooks are provided in gymnasium change rooms. Clothing hooks are also situated in several laboratories in the southeast and southwest classrooms.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-10

Event: Repair Clothing Hooks

Concern:
Several damaged or missing coat hooks were observed in laboratories in the southeast and southwest classroom clusters.

Recommendation:
Repair or replace clothing hooks and racks in these classrooms as necessary.

Consequences of Deferral:
Deferral of event will result in a loss of functionality and an inconvenience to students and teaching staff.

Type	Year	Cost	Priority
Repair	2011	$2,000	Low

Updated: MAR-10

C2010 Stair Construction*

Interior stair construction in the school is a combination of steel pans to access the second level of the 1966 addition, or cast-in-place concrete to access the boiler room floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

C2020.05 Resilient Stair Finishes** - Northeast & Northwest Stairwells

Resilient stair finishes are applied to the treads and risers of staircases within the northeast and northwest stairwells.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-10

Event: Replace Northeast & Northwest Stairwell Resilient Stair Finishes

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$7,000	Unassigned

Updated: MAR-10

C2020.05 Resilient Stair Finishes** - South Stairwell

Resilient stair finishes are applied to the treads and risers of the staircase within the south stairwell. Site personnel reported that the resilient finishes are scheduled for replacement in 2009.

Rating	Installed	Design Life	Updated
3 - Marginal	1966	20	MAR-10

Event: Replace South Stairwell Resilient Stair Finishes

Concern:
Resilient stair finishes on the south stairwell were noted to be loose with torn or deteriorated surfaces. Site personnel revealed that these finishes are scheduled for replacement in 2009.

Recommendation:
Replace the resilient stair finishes according to the replacement schedule as reported by site personnel.

Consequences of Deferral:
The loose flooring may represent a potential tripping hazard to school occupants.

Type	Year	Cost	Priority
Failure Replacement	2009	$4,000	Medium

Updated: MAR-10

C2020.08 Stair Railings and Balustrades*

Interior stairs include floor or wall-mounted metal or steel pipe handrails placed on either side of the stairs.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	MAR-10

Event: Repaint Handrails

Concern:
Peeling paint finishes were observed on most stair handrails and balustrades during the assessment.

Recommendation:
Prepare and repaint stair handrails and balustrades as needed.

Consequences of Deferral:
Deferral of event will result in a loss of aesthetic appeal and exposure of metal surfaces.

Type	Year	Cost	Priority
Repair	2010	$6,000	Low

Updated: MAR-10

C2020.10 Stair Painting*

Concrete surfaces on the staircase leading to the boiler room include a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

C2030.01 Ramp Construction*

A cast-in-place concrete ramp provides access to the boiler room floor, which is set at a lower level than adjoining rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-10

C2030.02 Ramp Finishes*

Concrete surfaces on the ramp leading to the boiler room floor include a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-10

C2030.03 Ramp Railings*

Base-mounted steel pipe handrails are placed on either side of the boiler room ramp.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

Wood and steel stud framing used throughout the building is sheathed with gypsum board.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	MAR-10

C3010.06 Tile Wall Finishes**

Ceramic tile finishes are applied to the walls of gymnasium change rooms and the kitchen.

Rating	Installed	Design Life	Updated
5 - Good	2002	40	MAR-10

Event: Replace Ceramic Tile Wall Finishes (approx. 465 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$163,000	Unassigned

Updated: MAR-10

C3010.09 Acoustical Wall Treatment**

Fabric-covered acoustical panels are mounted to the walls of the gymnasium and music room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-10

Event: Replace Acoustical Wall Panels (approx. 216 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$63,000	Unassigned

Updated: MAR-10

C3010.11 Interior Wall Painting*

A paint finish is generally applied to most gypsum board and concrete masonry unit surfaces throughout the building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	MAR-10

Event: Replace Deficient Finishes on Interior Walls (approx. 600 sq. m.)

Concern:

Painted gypsum board surfaces were observed to be scuffed and stained in localized areas, most noticeably in corridors and high traffic areas.

Recommendation:

Repaint gypsum board wall surfaces where deficient throughout the school interior.

Consequences of Deferral:

Deferral of event will result of a loss of aesthetic appeal and a poor working environment for students and teaching staff.

Type	Year	Cost	Priority
Repair	2011	$20,000	Low

Updated: MAR-10

C3020.01.02 Paint Concrete Floor Finishes*

The boiler room floor and a portion of the Industrial Arts classroom floors and mezzanine include a paint finish on concrete surfaces.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	MAR-10

Event: Replace Paint Concrete Floor Finishes (approx. 235 sq. m.)

Concern:

Painted concrete floor surfaces in mechanical and utility rooms were observed to be stained, worn and peeling in localized areas.

Recommendation:

Based on observations made during the assessment, repainting of concrete floor surfaces is recommended where deficiencies exist.

Consequences of Deferral:

Deferral of event will result in continued deterioration and exposure of concrete floor finishes.

Type	Year	Cost	Priority
Failure Replacement	2011	$13,000	Low

Updated: MAR-10

C3020.02 Tile Floor Finishes** - Ceramic Tile

Ceramic tile finishes are applied to the floors of change rooms and the kitchen area.

Rating	Installed	Design Life	Updated
5 - Good	2002	50	MAR-10

Event: Replace Ceramic Tile Floor Finishes (approx. 310 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2052	$71,000	Unassigned

Updated: MAR-10

C3020.02 Tile Floor Finishes** - Quarry Tile

Quarry tile flooring is provided in the south entrance vestibule of the original school building.

Rating	Installed	Design Life	Updated
3 - Marginal	1957	50	MAR-10

Event: Replace Quarry Tile Floor Finishes

Concern:
Quarry tile flooring in the entrance vestibule was noted to be loose or dislodged in localized areas. The flooring has also surpassed its theoretical design life.

Recommendation:
Replace quarry tile flooring in the entrance vestibule to match existing finishes.

Consequences of Deferral:
Deferral of event may result in potential tripping hazards to students and teaching staff.

Type	Year	Cost	Priority
Failure Replacement	2010	$5,000	Medium

Updated: MAR-10

C3020.04 Wood Flooring** - Parquet Flooring

A portion of the Industrial Arts classroom floor is finished with wood parquet flooring.

Rating	Installed	Design Life	Updated
3 - Marginal	1957	30	MAR-10

Event: Refinish Parquet Flooring

Concern:
Widespread scuffing, scratching and general wearing of the wood parquet flooring was observed in the Industrial Arts classroom during the assessment.

Recommendation:
Prepare and re-finish the wood parquet flooring in the Industrial Arts classroom.

Consequences of Deferral:
The deficient flooring will result in a loss of aesthetic appeal, and deferral of re-finishing will result in loss of protective finish and may aggravate existing minor flooring defects.

Type	Year	Cost	Priority
Repair	2011	$6,000	Low

Updated: MAR-10

Event: Replace Parquet Flooring (approx. 110 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$30,000	Unassigned

Updated: MAR-10

C3020.04 Wood Flooring** - Strip Flooring

Maple strip flooring is used throughout the floor surface of the gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	2002	30	MAR-10

Event: Replace Maple Strip Flooring (approx. 700 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$239,000	Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring** - 1957

Vinyl asbestos tile flooring remains in a storage room south of the school's main west entrance. Lifecycle replacement includes cost for asbestos abatement.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	20	MAR-10

Event: Replace Vinyl Asbestos Floor Tile

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$3,000	Unassigned

Updated: MAR-10

C3020.07 Resilient Flooring** - 2002

Resilient flooring used throughout the school is a combination of vinyl and composite tile and sheet vinyl flooring.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-10

Event: Replace Deficient Vinyl Floor Tile

Concern:

Excessively stained vinyl tile floors were observed in Science and Industrial Arts classrooms in the school during the assessment. No evidence of lifting, chipped or loose vinyl floor tiles were noted during our review.

Recommendation:

Clean or replace excessively stained vinyl floor tiles in the areas noted, as necessary.

Consequences of Deferral:

The deficient flooring detracts from the building's interior aesthetic appeal, resulting in a poor working environment for students and teaching staff.

Type	Year	Cost	Priority
Repair	2010	$9,000	Medium

Updated: MAR-10

Event: Replace Resilient Flooring (approx. 1,510 sq. m. Vinyl Tile and 1,365 Sheet Vinyl)

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$260,000	Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring** - 1966 Addition

Carpet flooring is provided in several classrooms and corridors in the 1966 addition.

Rating	Installed	Design Life	Updated
3 - Marginal	2002	15	MAR-10

Event: Replace 1966 Addition Carpet Flooring (approx. 340 sq. m.)

Concern:

Carpet flooring in corridors throughout the 1966 addition has sustained general wearing of surfaces exposed to high levels of pedestrian traffic.

Recommendation:

Eventual replacement of the carpet flooring is expected as these surfaces are exposed to repeated wearing from pedestrian traffic. The installation of a more durable product in these areas should also be considered to avoid frequent flooring replacement. Costs provided assume that carpet flooring will continue to be used in the 1966 addition corridors.

Consequences of Deferral:

The carpet flooring in corridors will continue to receive high levels of pedestrian traffic, resulting in increased wear and seam separation, creating potentially hazardous walking surfaces.

Type	Year	Cost	Priority
Repair	2011	$30,000	Medium

Updated: MAR-10

Event: Replace Classroom Carpet Flooring (approx. 760 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$67,000	Unassigned

Updated: MAR-10

C3020.08 Carpet Flooring** - Office / Music Room / Library

Carpet flooring is provided in the office area, music room and library.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	15	MAR-10

Event: Replace Office / Music Room / Library Carpet Flooring (approx. 600 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$53,000	Unassigned

Updated: MAR-10

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

Gypsum board ceilings are typically provided in washrooms and change rooms throughout the school interior.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	MAR-10

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

The majority of the ceilings throughout the school are comprised of a suspended T-bar grid assembly with in-laid acoustic panels.

Several stained ceiling panels were observed throughout the building as a result of previous roof or plumbing leaks. The stained panels require replacement as part of ongoing routine maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	25	MAR-10

Event: Replace Suspended T-Bar Ceilings (approx. 4,000 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$489,000	Unassigned

Updated: MAR-10

C3030.07 Interior Ceiling Painting*

The exposed tongue and grove wood deck in the Industrial Arts classroom area includes a paint finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	MAR-10

C3030.09 Other Ceiling Finishes* - Acoustic Ceiling Tile

Mechanically-fastened or glue-on acoustic ceiling tiles are present in the gymnasium.

Several ceiling tiles were observed to be stained as a result of past roof or plumbing leakage and are recommended for replacement as part of ongoing routine maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

D1010.02 Lifts**

A hydraulic wheelchair lift services the 1966 addition and provides access between the main floor and second level. The lift, located in the northeast stairwell, was manufactured by Concord and has a carrying capacity of 340 kg.

Rating	Installed	Design Life	Updated
5 - Good	2002	30	MAR-10

Event: Refurbish Hydraulic Passenger Elevator

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$33,000	Unassigned

Updated: MAR-10

S4 MECHANICAL

D2010.04 Sinks**

There are approximately 3 enamel sinks in custodial rooms , 12 single bowl stainless steel sinks and 6 double or large single bowl specialty stainless steel sinks located throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

Event: Replace aproximately 21 sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$41,000	Unassigned

Updated: MAR-10

D2010.05 Showers**

There are 4 metered showers located in the gymnasium girls and boys change rooms, and one handicapped shower stall in the gym. teacher's office..

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

Event: Replace approximately 4 metered showers and a handicapped shower.

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$10,000	Unassigned

Updated: MAR-10

D2010.08 Drinking Fountains / Coolers** - 2002 Modernization

There are approximately 2 stainless steel bubbler type fountains located in the north wing of the school and 3 refrigerated drinking fountains in the southern portion of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	35	MAR-10

Event: Replace 3 drinking fountains and 2 refrigerated drinking fountains

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$16,000	Unassigned

Updated: MAR-10

D2010.08 Drinking Fountains / Coolers** - 1966

There are approximately 2 stainless steel bubbler type fountains located in the north wing of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	35	MAR-10

Event: Replace 2 drinking fountains

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$4,500	Unassigned

Updated: MAR-10

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

There are approximately 27 vitreous china tank type water closets, 7 wall mounted vitreous flush valve equipped urinals and 26 vitreous china lavatories in washrooms throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	35	MAR-10

Event: Replace 27 water closets, 7 urinals and 26 lavatories.

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$116,000	Unassigned

Updated: MAR-10

D2020.01.01 Pipes and Tubes: Domestic Water*

Domestic water piping is mainly copper and ranges in size from 75 mm down to 15 mm. Piping from the 60's is routed through pipe chases and horizontal runs through the building. 1997 and 2002 modernizations included piping from run outs to the fixtures or groups of fixtures.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	40	MAR-10

D2020.01.02 Valves: Domestic Water** - 1963 and 1966 Additions

There are isolation valves installed on the domestic cold and hot water systems throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1965	40	MAR-10

Event: Replace 50% domestic water valves serving 6,340 square meters.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$24,000	Unassigned

Updated: MAR-10

D2020.01.02 Valves: Domestic Water** - 1997 and 2002 Modernization

There are isolation valves installed on the domestic cold and hot water systems throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	40	MAR-10

Event: Replace 50% domestic water valves serving 6,340 square meters.

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$24,000	Unassigned

Updated: MAR-10

D2020.01.03 Piping Specialties (Backflow Preventors)**

Backflow prevention devices installed on domestic water mains, irrigation and hot water heating system makeup water.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	20	MAR-10

Event: Replace two 75mm and two 20mm backflow preventors.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$22,000	Unassigned

Updated: MAR-10

D2020.02.02 Plumbing Pumps: Domestic Water**

The building has circulation and recirculation pumps for domestic hot water.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	20	MAR-10

Event: Replace two domestic hot water recirculation pumps.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$2,500	Unassigned

Updated: MAR-10

D2020.02.06 Domestic Water Heaters**

There is a gas fired domestic hot water heater and a storage tank located in the south mechanical room. The heater has an input of 14 kW and storage capacity of 193 L and the storage tank has a storage capacity of 193L. There is a gas fired domestic water heater located in the North Mechanical room. The heater has an input capacity of 14 Kw and a storage capacity of 193 L.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	20	MAR-10

Event: Replace 2 domestic hot water heaters each with a capacity of 14 kW and storage capacity of 193 L and one 193 L storage tank.

Type	Year	Cost	Priority
Lifecycle Replacement	2017	$34,000	Unassigned

Updated: MAR-10

D2020.03 Water Supply Insulation: Domestic*

Domestic water piping is insulated and jacketed and marked with identification labels.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	40	MAR-10

D2030.01 Waste and Vent Piping*

A combination of cast iron and copper piping is reportedly used for gravity sanitary waste and vent piping underneath the slab. Installations occurred in 1963, 1965, 1997 and 2002.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-10

D2030.03 Waste Piping Equipment*

A sump with a submersible pump is located in the north mechanical room, and a solids (clay) interceptor is used in the arts room sink.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-10

D2040.01 Rain Water Drainage Piping Systems*

Rain water runs to roof edge drains, which connect to external rain water leaders that discharge to grade. Upper roof elevations drain to lower roof elevations with roof edge drains which connect to internal and external leaders that discharge to grade. Most rain water leader do not extend to grade level to deter students from using them to climb the building. Internal rain water leaders discharge into drywell located in the north side of the property.

Rating	Installed	Design Life	Updated
3 - Marginal	2002	50	MAR-10

Event: Extend rain water leaders to grade.

Concern:
Rain water leaders not extended to grade, allowing rain water to pool adjacent to the buidling foundation, and eroding the soil.

Recommendation:
Extend rain water leaders to grade.

Consequences of Deferral:
There is the potential for settlement of the foundation and interior slab and for soil erosion around the perimeter of school.

Type	Year	Cost	Priority
Repair	2010	$8,000	Low

Updated: MAR-10

D3010.02 Gas Supply Systems*

The natural gas piping feeds the heating boilers, domestic hot water heaters, gas fired air handling equipment and science lab. Installations occurred in 1997 and 2002.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	60	MAR-10

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

There are two natural gas fired, copper tube, hot water heating boilers each with a input capacity of 629 kw (2,147MBH) that supply the building's hydronic heating system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	35	MAR-10

Event: Replace 2 hot water heating boilers each with a capacity of 629 kw (2,147MBH)

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$119,000	Unassigned

Updated: MAR-10

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

A clay brick chimney serving the hot water boilers and domestic water heater extends through the roof of the second floor from the north mechanical room. Combustion air is being drawn from the roof level through a gooseneck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	30	MAR-10

Event: Replace 20m of Steel boiler flue, and combustion air duct.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$17,000	Unassigned

Updated: MAR-10

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

A chemical pot feeder, make-up water system and a side stream micron filters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-10

D3030.08 Other Refrigeration Systems*

There is refrigeration equipment (compressor and condensing unit) for the kitchen walk-in food storage and freezer located in a room adjacent to the kitchen.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	0	MAR-10

D3040.01.01 Air Handling Units: Air Distribution** - 1997 Modernization

There are custom built-up, roof mounted air handling units (AHU-1, 2 and 3) providing ventilation to the building. They are equipped with a evaporative media humidification system, glycol heating coil, filter section, mixing box, supply air fan and return air fan.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-10

Event: Replace 3 built-up air handling units, which vary from 6000 l/s to 11,000 l/s.

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$297,000	Unassigned

Updated: MAR-10

D3040.01.01 Air Handling Units: Air Distribution** - 2002 Modernization

There is a custom built-up, roof mounted, gas fired air handling unit providing ventilation to the building. It (AHU-4) is equipped with a indirect gas fired heating section, evaporative media humidification system,, filter section, mixing box, supply air fan and return air fan. The roof mounted, kitchen make-up air unit (MAU-1) is a direct fired air handling unit equipped with a burner and filter sections.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

Event: Replace 2 built-up air handling units, one at 3,000 l/s and one at 7,000 l/s.

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$218,429	Unassigned

Updated: MAR-10

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

There is a custom built-up, indoor mounted air handling unit (AHU-5) providing ventilation to the shop area. It is equipped with a glycol heating coil, filter section, mixing box, supply air fan.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-10

Event: Replace built-up air handling unis at 3,000 l/s.

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$29,000	Unassigned

Updated: MAR-10

D3040.01.02 Fans: Air Distribution (Remote from AHU)* - Ceiling mounted circulation fans

There are 4 ceiling mounted circulation fans located in the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

D3040.01.04 Ducts: Air Distribution*

The 1997 and 2002 Modernizations provided new duct distribution systems consisting of sheet metal insulated supply air ducts, reheat coils, ceiling return air plenums and sheet metal return air ducts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	50	MAR-10

D3040.01.05 Duct Accessories: Air Distribution*

The 1997 and 2002 modernizations replaced system dampers, access doors and accessories on the ducted distribution

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	0	MAR-10

D3040.01.07 Air Outlets & Inlets:Air Distribution*

The 1997 and 2002 Modernizations provided for linear grilles and square diffusers that are used for supply and return air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

D3040.03.01 Hot Water Distribution Systems**

Work completed in the 1997 and 2002 modernization included the replacement of the heating hot water distribution system. It includes the distributed of hot water to finned tube radiation, radiant panels, unit heaters, reheat coils and glycol heat exchanger. Several circulation pumps are located in the north mechanical room and include the primary heating hot water pumps, heat exchanger loop pumps, radiation/reheating coils pump, shop air handling unit and glycol coils pumps. All piping is insulated and labeled.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	40	MAR-10

Event: Replace hot water distribution serving 6340 sq m

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$707,000	Unassigned

Updated: MAR-10

D3040.04.01 Fans: Exhaust** - 2002 Modernization

There are approximately 13 rooftop mounted and 5 indoor mounted exhaust fans of varying sizes serving various areas of the building, serving as washroom and general exhaust, kitchen greasehood canopy exhaust, CTS Home economics lab.cooking stations exhaust.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

Event: Replace 18 exhaust fans

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$122,000	Unassigned

Updated: MAR-10

D3040.04.01 Fans: Exhaust** - Shop Addition

There are approximately 2 rooftop mounted and 4 indoor mounted exhaust fans of varying sizes serving the CTS shop areas of the building, serving as general exhaust, welding, and paint spray booth exhaust.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-10

Event: Replace 6 exhaust fans

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$22,000	Unassigned

Updated: MAR-10

D3040.04.02 Air Cleaning Devices: Exhaust* Dust collection system

An outdoor mounted hopper type dust collection system is used for collect wood dust from the CTS shop wood working equipment.

Rating	Installed	Design Life	Updated
3 - Marginal	1988	0	MAR-10

Event: Install a single point of energizing dust collection and make-up air unit.

Concern:
The dust collection system and the make-up air unit (AHU-5) are energized separately. These two pieces of equipment must operate together to prevent the school or CTS area from either being over or under pressurized when one pieces of equipment is working while the other is not working working.

Recommendation:
Install a single control to energize dust collection fan and make-up air unit.

Consequences of Deferral:
Potential to affect school pressure and temperature control.

Type	Year	Cost	Priority
Repair	2010	$3,000	Medium

Updated: MAR-10

D3040.04.03 Ducts: Exhaust*

Sheet metal, uninsulated ductwork connects the floor level exhaust grills to various exhaust fans throughout the building. Years of installation were 1988, 1997 and 2002.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	50	MAR-10

D3040.04.05 Air Outlets and Inlets: Exhaust*

Ceiling and wall mounted metal exhaust grills are connected to the exhaust ductwork. Installations occurred in 1988, 1997 and 2002.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-10

D3040.05 Heat Exchangers**

A shell and tube hot water to hot glycol heat exchanger is located in the north mechanical room. It provides heating glycol to the air handling units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-10

Event: Replace a shell and tube heat exchanger.

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$17,000	Unassigned

Updated: MAR-10

D3050.02 Air Coils** Reheat coils

Installed in 1997 and 2002 are reheat coils that provide supply air temperature control to individual zones.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

Event: Replace approximately 38 reheat coils, which vary in size from 150l l/s to 1100 l/s

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$55,000	Unassigned

Updated: MAR-10

D3050.05.03 Finned Tube Radiation**

There are finned tube radiation cabinets located in various locations throughout the school including the gymnasium, stairwells, music & fabrics rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	40	MAR-10

Event: Replace approximatly 180 linear meter of finned tube radiation heating.

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$55,000	Unassigned

Updated: MAR-10

D3050.05.06 Unit Heaters**

Installed in 1997 and 2002, are hot water heated suspended unit heaters located in the mechanical room and CTS shop area. Cabinet heaters are located in the entrance vestibules of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

Event: Replace approximately 8 unit heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$45,000	Unassigned

Updated: MAR-10

D3050.05.08 Radiant Heating (Ceiling & Floor)**

Installed in 1997 and 2002, are hot water perimeter radiant ceiling panels located throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	35	MAR-10

Event: Replace 225 linear meter radiant panel heating.

Type	Year	Cost	Priority
Lifecycle Replacement	2034	$354,000	Unassigned

Updated: MAR-10

D3060.02.01 Electric and Electronic Controls**

Standalone controls provided for kitchen makeup air unit MUA-1, and greasehood exhaust system..

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

Event: Replace kitchen make-up air unit controller

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$5,000	Unassigned

Updated: MAR-10

D3060.02.02 Pneumatic Controls**

Installed in 1997 and 2002, the pneumatic control system includes some hot water heating control valves, room thermostats, finned tube radiation and reheat coil control valves.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	40	MAR-10

Event: Replace Pnuematic control end devices.

Type	Year	Cost	Priority
Lifecycle Replacement	2039	$40,000	Unassigned

Updated: MAR-10

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

Installed in 1997 and 2002, the DDC automation system controls the major HVAC pieces of equipment and lighting systems throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	25	MAR-10

Event: Replace approximately 115 points of DDC controls

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$136,000	Unassigned

Updated: MAR-10

D4020 Standpipes*

The building has a standpipe system supplying water to all areas of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1957	60	MAR-10

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire extinguishers cabinets installed throughout the school in accordance with NFPA 10.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	30	MAR-10

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

The exhaust hood located in the kitchen is equipped with a dry chemical fire suppression system.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	40	MAR-10

Event: Replace greasehood fire extiguishing system.

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$17,000	Unassigned

Updated: MAR-10

S5 ELECTRICAL

D5010.02 Secondary Electrical Transformers (Interior)**

There is a dry type secondary transformer located within in the main electrical room, with a capacity of 225 kVA the transformer steps power down from 600 V to 120/208 V.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	40	MAR-10

Event: Replace one -225 KVa secondary electrical transformer.

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$28,000	Unassigned

Updated: MAR-10

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

The main switchgear is rated at 1800 A at 347/600V equipped with a 600A main breaker. A 347/600V CDP rated at 800 A provides electrical distribution to panels, transformer and motor control centers which are located throughout the building. A 120/208 CDP rated at 1000 A provides distribution to electrical distribution panels. A surge suppression device is provided for each CDP.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	40	MAR-10

Event: Replace 600A 347-600V Main distribution panel, 347-600V CDP, 120-208V CDP, and two surge supression devices

Type	Year	Cost	Priority
Lifecycle Replacement	2042	$65,000	Unassigned

Updated: MAR-10

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

Installed in 1997 and 2002, are 120/208V and 347/600V electric panelboards serving mechanical equipment, lighting and plug-in circuits located throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

Event: Replace approximately 21 panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$131,000	Unassigned

Updated: MAR-10

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

Installed in 1997 and 2002, are 600V motor control panels that serve various HVAC components in the facility.. MCC-1, installed in 1997, is rated at 300A, and MCC-2, installed in 2002, is rated at 225A.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

Event: Replace two motor control centers (ranging in size from 5 to 6 sections).

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$94,000	Unassigned

Updated: MAR-10

D5010.07.02 Motor Starters and Accessories**

Installed in 1997 and 2002, there are several motor starters are provided for individual pumps and fans in the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

Event: Replace approximately 12 misc.wall mounted starters.

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$7,000	Unassigned

Updated: MAR-10

D5020.01 Electrical Branch Wiring*

Installed in 1997 and 2002, the electrical branch wiring is observed to be copper throughout and is either run in EMT conduit or is BX armored cable.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	50	MAR-10

D5020.02.01 Lighting Accessories (Lighting Controls)*

(1997 & 2002) Lights are controlled by local switches

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

D5020.02.02.01 Interior Incandescent Fixtures*

Surface mounted low voltage track lighting is installed in display cases through the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	0	MAR-10

D5020.02.02.02 Interior Florescent Fixtures**

Installed in 1997 and 2002, are Fluorescent strip fixtures using T-8 technology, which illuminate 80% of the building. Compact Fluorescents are installed recessed potlight fixtures throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

Event: Replace T-8 light fixtures (1200 pieces)

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$649,000	Unassigned

Updated: MAR-10

D5020.02.02.02 Interior Florescent Fixtures** 1988

Fluorescent strip fixtures using T-12 technology, illuminate 5% of the building, and are mostly located in the CTS shop area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	30	MAR-10

Event: Replace fluorescent fixtures in Woodworking and Shop areas (65 pieces)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$34,000	Unassigned

Updated: MAR-10

D5020.02.03.02 Emergency Lighting Battery Packs**

Emergency lighting is provided by battery packs located throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	20	MAR-10

Event: Replace Battery Operated Emergency Light Fixtures.

Type	Year	Cost	Priority
Lifecycle Replacement	2019	$50,000	Unassigned

Updated: MAR-10

D5020.02.03.03 Exit Signs*

Installed in 1997 and 2002 are Illuminated exit signs using LED technology indicate the paths of egress throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	30	MAR-10

D5020.03.01.03 Exterior Metal Halide Fixtures*

Wall-mounted fixtures are provided along the perimeter of the building, The fixtures likely use metal halide bulbs.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	30	MAR-10

D5030.01 Detection and Fire Alarm**

Fire alarm detection system is a addressable system and includes smoke (located in rooms and ductwork), heat detectors, bells, and pull stations. Repairs identified in previous report (code repair 2009) was projected to be completed by the summer of 2009.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	25	MAR-10

Event: Fire Alarm Bells in Girls and Boys Gym change rooms.

Concern:
After post occupancy staff indicate sound is inaudible.

Recommendation:
Add Bell/strobes to the system as per the School board Maintenance and operations recommendations.

Consequences of Deferral:
Personal and/or property damage may result from not having proper detection or annunciation devices placed in appropriate locations throughout the building.

Type	Year	Cost	Priority
Code Repair	2009	$6,524	Low

Updated: MAR-10

Event: Replace 19 Zone Fire Alarm Panel and End Devices.

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$230,000	Unassigned

Updated: MAR-10

D5030.02.02 Intrusion Detection**

Installed in 1997 and 2002 is a security alarm system with motion sensors located throughout the building. The system is monitored externally by a third party monitoring company.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	25	MAR-10

Event: Replace Intrusion Alarm Panel and End Devices.

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$84,000	Unassigned

Updated: MAR-10

D5030.04.01 Telephone Systems*

A private branch exchange telephone system serves the administration and staff areas of the building. Termination board located in cabinet in the school main office.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	25	MAR-10

D5030.04.05 Local Area Network Systems*

The building is equipped with a Local Area Network Using Cat 5 wiring which is served from patch panels and a server which include internet access The Supernet is terminated at the building communication panel..

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	15	MAR-10

D5030.05 Public Address and Music Systems**

An integrated communication system provides classroom, speaker system for audio and voice announcements, interclass room communication with handsets as well as a classroom bell function. The band room and gymnasium are equipped with a separate PA systems.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	25	MAR-10

Event: Replace Public Address System for 25 Classrooms

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$81,000	Unassigned

Updated: MAR-10

D5030.06 Television Systems*

Cable TV is wired to the communications termination board. Coaxial cable is installed to all classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1999	20	MAR-10

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

Library equipment includes an administrators desk with book return slots and anti-theft, walk-through security check-out screening.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-10

E1090.03 Food Service Equipment*

Commercial equipment is provided in the kitchen area, and includes stainless steel preparation tables, dish washer and wash basins. Additional equipment and features include mixers, display cases, stoves, and walk-in cooler and freezer manufactured by Foster.

Rating	Installed	Design Life	Updated
5 - Good	2002	25	MAR-10

E1090.04 Residential Equipment*

Residential equipment in teachers lounges and office areas include refrigerators, stoves, dishwashers and microwave ovens.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	10	MAR-10

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Athletic equipment is provided in the gymnasium, which includes a wall-mounted electronic scoreboard, and manually-operated, wall-mounted basketball backstops.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	MAR-10

E2010.02 Fixed Casework** - 1966

Fixed casework original to the 1966 addition is located in a second floor classroom and is comprised of painted wood cabinetry and plastic laminate counter top surfaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1966	35	MAR-10

Event: Replace 1966 Fixed Casework

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$5,000	Unassigned

Updated: MAR-10

E2010.02 Fixed Casework** - 2002

Fixed casework used throughout the school is typically comprised of wood-framed cabinetry and plastic laminate counter top surfaces.

Rating	Installed	Design Life	Updated
3 - Marginal	2002	35	MAR-10

Event: Repair 2002 Fixed Casework (approx. 30 m)

Concern:

Laminate counter top surfaces have de-bonded or are excessively stained in several classrooms. Stained, damaged and missing cabinetry components were also noted in localized areas, predominantly in the Industrial Arts classroom.

Recommendation:

Re-surface or repair counter top laminate surfaces and replace cabinet componentry as needed in classrooms throughout the school.

Consequences of Deferral:

The loose and stained laminate surfaces detract from the building's aesthetic appeal, and expose students and teaching staff to potentially hazardous surfaces. Missing components also contribute to a loss in functionality.

Type	Year	Cost	Priority
Repair	2010	$45,000	Medium

Updated: MAR-10

Event: Replace 2002 Fixed Casework (approx. 280 m)

Type	Year	Cost	Priority
Lifecycle Replacement	2037	$400,000	Unassigned

Updated: MAR-10

E2010.03.01 Blinds**

The majority of exterior windows include vinyl vertical blinds mounted on interior wall surfaces.

Rating	Installed	Design Life	Updated
3 - Marginal	1997	30	MAR-10

Event: Replace Damaged Exterior Blinds

Concern:
Several horizontal window blinds have become frayed or damaged along their edges, most noticeably in Science classrooms at the southeast and southwest corners of the school.

Recommendation:
Replace deficient window coverings where present in classrooms throughout the school.

Consequences of Deferral:
Deferral of event will result in a loss of aesthetic appeal and an eventual loss in window covering functionality.

Type	Year	Cost	Priority
Repair	2011	$3,000	Low

Updated: MAR-10

Event: Replace Exterior Blinds (approx. 200 sq. m.)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$30,000	Unassigned

Updated: MAR-10

E2020.02 Furniture and Accessories*

Moveable classroom desks, chairs and tables were generally observed to be in acceptable condition overall.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

E2020.04 Moveable Multiple Seating*

Nine sections of steel-framed, moveable bleacher seating with individual plastic seating is provided in the gymnasium. The bleachers are manufactured by Kodiak Industries Ltd. Each section includes approximately 21 plastic seats spread over three tiers.

Rating	Installed	Design Life	Updated
5 - Good	0	0	MAR-10

F2020.01 Asbestos*

Building materials which are suspected to contain asbestos include vinyl tile flooring in a storage room south of the main west entrance, acoustic ceiling tiles in the gymnasium, and joint compound in gypsum board walls which were not replaced during past renovation activities.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

F2020.04 Mould*

No visible microbial growth was observed on surfaces reviewed during the assessment. Apart from staining noted on suspended ceiling panels, no other evidence of moisture ingress was reported or observed.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

F2020.09 Other Hazardous Materials*

Chemical storage practices observed during the assessment appeared to be acceptable.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

Curbside parking designated for handicapped use is provided along Davidson Avenue, facing the building's main west entrance. The parking area includes painted road and curb markings and a curb cut-out integrated within municipal concrete sidewalks.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

K4010.02 Barrier Free Entrances*

The main west entrance of the school includes automated door openers on exterior and vestibule doors, which are operated via push-button controls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

K4010.03 Barrier Free Interior Circulation*

Most floor surfaces throughout the building's main floor are at a consistent level. Barrier-free access to the second floor of the 1966 addition is permitted via hydraulic wheelchair lift located in the northeast stairwell.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10

K4010.04 Barrier Free Washrooms*

Multi-user washrooms include an enlarged washroom stall equipped with a grab bar, while sinks generally include levered controls. A barrier-free shower room and washroom is also located on the building's east side, directly north of the gymnasium storage room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-10