School Facility Evaluation Project

Part III - Space Adequacy

School Name: St. Dominic Catholic School
Location: 5804 144 Avenue
Edmonton, Alberta
Region: Central
Jurisdiction: Edmonton Catholic Regional School
Division No. 40

Grades: K to 6

School Code: 8020
Facility Code: 1964

Superintendent: Dr. Dale W. Ripley
Contact Person: Mr. Garnet McKee
Telephone: 1-780-453-4500 (Garnet)

School Capacity: 500

Building Section	Year of Compl	No. of Floors	Gross Bldg Area (Sq.M.)	Type of Construction (i.e., structure, roof, cladding)	Description of Mechanical Systems (incl. major upgrades)	Comments/Notes
Original Building	1968	One	1923.5	Steel rib sheets and load-bearing concrete block on cast-in-place concrete structure. Exterior walls are concrete block finished on interior surfaces with paint and on exterior surfaces with acrylic stucco on board insulation. Roofing to this section is built-up asphalt and gravel. Ceilings in this section are suspended tee-bar grid with lay-in acoustic tiles.	Heating is provided by four modular Natural Gas fired hot water boilers (4 @ 165 kW) operated in sequence. System has sufficient capacity. Duplex Hydronic pumps in parallel are in good condition. Three boilers are less than 6 yrs old. There is no air conditioning.	The last boiler should be replaced. Original copper piping should be replaced. Humidification systems are operating poorly and require replacement.
Additions/ Expansions	1972	One	1439.2	Tongue & groove wood deck on wood beams and load-bearing concrete block on cast-in-place concrete foundations except gymnasium and stage which is pre-cast concrete tees and load-bearing concrete block on cast-in-place concrete foundations. Ceilings in the wood frame section are suspended tee-bar grid with lay-in acoustic tiles. Ceilings in the pre-cast concrete section are 12" x 12" ship-lap edge acoustic tiles.	See above.	See above.

Evaluator's Name: Merv Weiss and James Dykes
& Company: **Kasian Kennedy**

Building Section	Year of Compl	No. of Floors	Gross Bldg Area (Sq.M.)	Type of Construction (i.e., structure, roof, cladding)	Description of Mechanical Systems (incl. major upgrades)	Comments/Notes
Upgrading/ Modernization (identify whether minor or major)						
	1992			Administration Area upgraded and shower stall added.		Major Upgrading
	1994			Hallway extended from corridor to Classrooms 12 and 13.		Minor Upgrading
	1994			Library enclosed c/w windows and access door.		Major Upgrading
	1996			Upper acoustic wall panels added in gymnasium.		Minor Upgrading
	1996			Stage converted to Computer Classroom.		Minor Upgrading
	1997			Gymnasium storage upgraded.		Minor Upgrading
	1999			Security safe installed		Minor Upgrading
Portable Struct. (identify whether attached/perman. or free-standing/ relocatable)			334	There are four Portables at this school. The Division identifies these as Portable Nos. 16, 23, 155, and 253. These are located west of the south end of the school building. They are arranged in a pod with a common corridor which is connected to the permanent building.	The portables are served by a dedicated Natural Gas fired furnace. Heating and ventilation is provided through ducted supply air running along the length of the class and discharging at floor level. Return air is through a sidewall at the rear of the class.	No serious problems to report.
Total Area - Sq.M			**3696.7**			

List of Reports/
Supplementary Information

Leased out area = 0 Sq.M.
Gross Capacity = 500 - 45 for leased and other exemptions = 455 net capacity
Current enrolment = 515 or113.18% of net capacity

	Evaluation Components	Summary Assessment	Estimated Cost
1	**Site Conditions**	The school building and portables are situated at a lower elevation than the remainder of the site. This results in some surface drainage concerns which are described later in the report. There is a great deal of congestion and vehicle / pedestrian conflicts at the main entry to the building, which is accessible only from the on-site parking lot. Sidewalks at the south east corner of the building are in very poor condition.	$90,500
2	**Building Exterior**	A lot of the stucco finish to the exterior of the building is damaged at its base. The original wall is core filled concrete block, which is a very poor choice for this climate. New insulation and stucco should be applied over the concrete block to improve the building envelope, with a brick or block base of at least 1.2 m.	$106,300
3	**Building Interior**	The school was, at some point in the past, converted from an open floor design to a more traditional design with individual classrooms. Nearly all of the sub-division of the floor was done with demountable partitions. These are in reasonably good condition but have resulted in some unorthodox details within the building interior. Finishes on the floors and walls need attention in some ares and many of the acoustic ceiling tiles are in poor condition.	$38,600
4	**Mechanical Systems**	A major portion of the mechanical systems are approaching the end of their lifecycle and should be replaced in the near future. These systems include portions of the heating and ventilation systems (boiler, humidification and exhaust fans), the existing domestic water piping (due to probable high lead content) ,and a significant portion of the plumbing fixtures. In addition the current problems with site drainage should be addressed. There is no air conditioning.	$224,500
5	**Electrical Systems**	Site lighting levels are low. Main power service is underground fed 600A main switch 120/208V 3 phase 3 wire CEC distribution. Fire and smoke alarm systems are adequate. Boiler room and the interior classroom with no windows, have no emergency lighting. Original school has some incandescent exit signage which does not conform to code. Fluorescent T-12 surface mounted luminaries used throughout school. Ballasts are magnetic core and coil type in throughout. Luminaries are in good condition. Local line voltage switching is provided throughout the school. Computer room on stage has been upgraded to T-8 lamps complete with electronic ballast.	$8,000
6	**Portable Buildings**	Provide handicapped access to no. 16. Replace doors throughout to suitable size (min 3'-0")	$10,000

	Evaluation Components	Summary Assessment	Estimated Cost
7	**Space Adequacy:**	This school has a deficit of 286 sq. m. and has an enrolment of over 113% of net capacity.	
	7.1 Classrooms	(+) 254.5	
	7.2 Science Rooms/Labs	(-) 103.5	
	7.3 Ancillary Areas	(-) 262.2	
	7.4 Gymnasium	(+) 36.4	
	7.5 Library/Resource Areas	(-) 24.7	
	7.6 Administration/Staff Areas	(+) 50	
	7.7 CTS Areas	N/A	
	7.8 Other Non-Instructional Areas (incl. gross-up)	(-) 236.8	
	Overall Space Adequacy Assessment	**(-) 286.3**	
	Overall School Conditions & Estimated Costs		**$477,900**

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.1	**General Site Conditions**			**$19,000**
1.1.1	Overall site size.	4	The site is large enough for a school of this size.	
1.1.2	Outdoor athletic areas.	4	There are soccer fields, baseball diamonds and a football field on the site which is shared by three schools. All are in good condition.	
1.1.3	Outdoor playground areas, including condition of equipment and base.	4	There is an outdoor playground area with a sand base and a climbing apparatus to the west of the portable pod attached to the building. It is in good condition.	
1.1.4	Site landscaping.	4	Site landscaping is in good condition.	
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	4	The entire shared schoolyard is fenced around its perimeter with chain link fencing. The south side of the on-site parking lot is fenced with steel post and rail fencing. All are in good condition.	
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	3	The north and west sides of the building have a surface drainage problem which can be improved with some re-contouring of the swales in these locations. Currently, the intent is to have water run-off northward to a swale which slopes down to the west. The intent is also to have water run-off westward to a swale which slopes down to the south and eventually to 144 Avenue and the field west of the building. The portable pod was constructed over the north / south swale and has impacted the drainage on both the north and west sides of the building in a detrimental manner.	$17,500
1.1.7	Evidence of sub-soil problems.	4	There is no evidence of sub-soil problems near the building or anywhere else on the site.	
1.1.8	Safety and security concerns due to site conditions.	2	The primary entry to the school is at the north west corner of the on-site parking lot. This parking lot is accessible from 144 Avenue at the end of 58 Street. The approach to the parking lot is quite steep. There is a pedestrian crosswalk with flashing lights at the west curb of 58 Street in order to assist pedestrians in crossing the busy (144th) avenue. These conditions combined with the fact that bussed students are dropped off on the north curb of 144 Avenue result in an unacceptable amount of congestion in the area. This congestion is dangerous to both drivers and pedestrians. Relocating the approach to the parking lot eastward would improve but not resolve this situation.	$1,500
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.2	**Access/Drop-Off Areas/Roadways/Bus Lanes**			**$1,500**
1.2.1	Vehicular and pedestrian access points (i.e., size, number, visibility, safety).	4	The only on-site vehicular and pedestrian access point is the staff and visitors parking lot. The main entry is accessible at the north west corner of the lot. The parking lot is a source of vehicular congestion because it is difficult to access from 144 Avenue at the end of 58 Street.	
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	4	The on-site staff and visitors parking lot has a gravel surface with an internal catch basin.	
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	4	There are no on-site bus lanes or bus loading / unloading areas. The north curb of 144 Avenue is used for this purpose. This contributes to the unacceptable level of congestion in the area.	
1.2.4	Fire vehicle access.	3	Fire vehicles can gain access to the east and north elevations of the building only by driving through the on-site parking lot and then onto the grassed fields on these sides of the building. It would be very difficult to get a large vehicle through this parking lot. Fire vehicles can gain access to the south elevation of the building from 144 Avenue. The west elevation of the building is not accessible to emergency vehicles at all.	$1,500
1.2.5	Signage.	4	There is identification at the primary entrance of the building which is visible from 144 Avenue.	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.3	**Parking Lots and Sidewalks**			**$70,000**
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	4	There is an on-site parking lot for 32 cars. There is a drop-off zone for disabled persons at the north west corner of the lot but, there are no parking stalls for disabled persons.	
1.3.2	Layout and safety of parking lots.	2	The parking lot is difficult to access from 144 Avenue as its approach is situated at the end of 58 Street. The approach to the parking lot is quite steep which causes some difficulty for vehicles to exit the lot onto 144 Avenue. The lot should be constructed to better grades	$35,000
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	4	The on site parking lot has a gravel surface. The only drainage concern is that the steep approach to the lot from 144 Avenue ices up.	
1.3.4	Layout and safety of sidewalks.	4	The sidewalk leading to the primary entrance to the building is directly adjacent to the congested approach to the parking lot and leads to the building from a busy intersection. Some improvement to this condition could be achieved by relocating the approach to the parking lot to the east.	
1.3.5	Surfacing and drainage of sidewalks (note type of material).	2	Sidewalks at the south (north of the parking lot) and east sides of the building are badly spalled and need to be re-constructed. The sidewalk north of the building has heaved at its outer edge and slopes down toward the building. This area should be re-graded and the sidewalk re-constructed. The internal courtyard of the building has an asphalt surface which is broken and cracked. The entire courtyard should be re-surfaced.	$25,000
1.3.6	Curb cuts and ramps for barrier free access.	3	Curb cuts in the City Of Edmonton sidewalks surrounding the site are a long way from the building. The sidewalk leading to the primary building entrance has stairs in it and as such is not barrier free accessible. Barrier free access to the building is however available if disabled persons are dropped off at the north west corner of the on-site parking lot. All entrances to the school are grade level entrances and would permit wheelchair access. At least one ramp to the entrance from144 Avenue, should be provided.	$10,000
Other				
	Overall Site Conditions & Estimated Costs		There is a great deal of congestion and vehicle / pedestrian conflicts at the main entry to the building, which is accessible only from the on-site parking lot. Sidewalks at the south east corner of the building are in very poor condition.	**$90,500**

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated Cost
2.1	**Overall Structure**		**Building Section**	**Description/Condition**	**$0**
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).	4		No deficiencies to report.	
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	4		No deficiencies to report.	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	4		No deficiencies to report.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated Cost
2.2	**Roofing and Skylights** ***Identify the availability of an up-to-date inspection report or roofing program. Note if roof sections are of different ages and/or in varying states of repair.***		**Building Section or Roof Section**	**Description/Condition/Age**	**$0**
2.2.1	Based on the inspection report (and to the extent possible, direct observation), assess and rate roof conditions and estimate costs for required improvements (i.e., covering materials, membrane, insulation, other components).	4		The 1968 and 1972 (gymnasium) portions of the building were re-roofed in1983 and again in 1990. There are no roof deficiencies to report at the present time. All roofs, with the exception of a section directly north of the gymnasium are built-up asphalt and gravel systems. The section north of the gymnasium is an SBS / MBM system.	
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	4		No deficiencies to report	
2.2.3	Control of ice and snow falling from roof.	4		No problems to report.	
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).				
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated Cost
2.3	**Exterior Walls/Building Envelope**		**Building Section**	**Description/Condition**	**$104,800**
2.3.1	Exterior wall finishes (i.e., signs of deterioration, cracks, brick spalling, efflorescence, water stains).	3		The base of most stucco finishes on the exterior of the building is deteriorating due to abuse. Stucco extending to grade is not a suitable finish for a school, as it presents a serious maintenance problem. A 1.2 m. high dado (brick, conc. block, concrete or similar hard surface material) should be applied to the exterior wall.	$10,000
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	4		No problems to report.	
2.3.3	Building envelope (i.e., evidence of air infiltration/ exfiltration through the exterior wall or ice build up on wall, eaves, canopy).	3		The original wall is core filled concrete block, which is a very poor choice for this climate. New insulation and stucco should be applied over the concrete block to improve the building envelope, with a brick or block base of at least 1.2 m.	$94,800
2.3.4	Interface of roof drainage and ground drainage systems.	4		All drainage is internal. There are not problems to report.	
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4		No problems to report.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated Cost
2.4	**Exterior Doors and Windows**		**Building Section**	**Description/Condition**	**$1,500**
2.4.1	Doors (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	4		No problems to report.	
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4		No problems to report.	
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4		No problems to report.	
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	4		No problems to report.	
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	3		Latching devices at all operable windows need to be adjusted. Some may need to be replaced.	$1,500
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4		No problems to report.	
Other					
	Overall Building Exterior Condition & Estimated Costs			A lot of the stucco finish to the exterior of the building is damaged at its base. The original wall is core filled concrete block, which is a very poor choice for this climate.	**$106,300**

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns	
3.1	**Interior Structure**		**Building Section**	**Description/Condition**
3.1.1	Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	4		Nearly all of the sub-division of the floor was done with demountable partitions. These are in reasonably good condition but some details are unorthodox.
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	4		No problems to report.
Other				

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns	
3.2	**Materials and Finishes**		**Building Section**	**Description/Condition**
3.2.1	Floor materials and finishes.	3	1968	The washrooms by the gymnasium as well as the gym storage have a 9" x 9" vinyl asbestos tile floor finish. This tile should be replaced.
			1972	The carpet floor finish in the library is bubbled but is in very good condition. The carpet in this area should be tightened (stretched).
			1968	The wood floor of the stage (now a computer room) requires re-finishing.
3.2.2	Wall materials and finishes.	3	1972	Wall finishes are in good condition throughout except in the classrooms against the north wall of the school. Here a duct shaft has been constructed at the top of the wall between the classrooms and the corridor out of tee-bar and acoustic tile. This bulkhead is falling apart and should be re-constructed.
3.2.3	Ceiling materials and finishes.	3	All	Lay-in acoustic tiles to most ceilings in this school are in poor condition. It is estimated that 35 per cent of the acoustic tiles in the building should be replaced.
3.2.4	Interior doors and hardware.	4		No problems to report.
3.2.5	Millwork	4		No problems to report.
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	4		No problems to report.
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4		No problems to report.
3.2.8	Washroom materials and finishes.	4		No problems to report.
Other				

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns	
3.3	**Health and Safety Concerns --- *Intent is to identify renovations considered necessary to meet applicable codes, primarily due to safety concerns. Basis of evaluation should be an up-to-date inspection report from the authority having jurisdiction together with direct observations as appropriate. Evaluator should note if in his opinion a comprehensive code evaluation is required.***		**Building Section**	**Description/Condition**
3.3.1	Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.	4		The 1968 section of the building is of non-combustible construction. It is not sprinklered.
		4		The 1972 portion of the building is of both combustible (roof assembly) and non-combustible construction. It is not sprinklered.
3.3.2	Fire separations (i.e., between buildings, wings, zones if non-sprinklered).	3	All	Each section (construction phase) of the building is separated from adjacent sections by a glazed fire separation which bears no fire-resistance rating. These assemblies have wired glass sidelites and transoms. These assemblies have solid core wood doors with closers. These assemblies are framed with pressed steel frames. Doors and frames should be labeled.
3.3.3	Fire resistance rating of materials (i.e., corridor walls and doors).	3	All	Classrooms and ancillary rooms are not separated from corridors by fire-separations. The walls surrounding these rooms extend to the underside of the roof structure for acoustical control but, doors and frames within them bear no fire-resistance label and, are not fitted with closers. Storage Rooms and Janitorial Supply Rooms have doors with closers but these doors do not bear a fire-resistance label.
3.3.4	Exiting distances and access to exits.	4		Travel distances to exits appears to conform to code.

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns	
3.3	**Health and Safety Concerns --- *Intent is to identify renovations considered necessary to meet applicable codes, primarily due to safety concerns. Basis of evaluation should be an up-to-date inspection report from the authority having jurisdiction together with direct observations as appropriate. Evaluator should note if in his opinion a comprehensive code evaluation is required.***		**Building Section**	**Description/Condition**
3.3.5	Barrier-free access.	4		All entrances to the building are grade level entrances. Access to all of these grade level entrances from the exterior is difficult due to the condition of the surrounding sidewalks. As stated earlier, the primary entrance is barrier free accessible from the parking lot but not from the surrounding City Of Edmonton sidewalks.
3.3.6	Availability of hazardous materials audit (i.e., evidence of safety concerns with respect to asbestos, PCB's, chemicals).	4		There were no hazardous materials audits available at the time of the inspection. The old 9"x9" floor tile used in the gymnasium storage and in the washrooms adjacent to the gymnasium is vinyl asbestos tile. This tile should be removed.
3.3.7	Other health and safety concerns (i.e., evidence of excessive noise conditions, air quality problems)	N/A		
Other				
	Overall Building Interior Condition & Estimated Costs			

Estimated Cost
$0

Estimated Cost
$31,100
$1,300
$1,800
$500
$10,000
$17,500

Estimated Cost
$7,500
$2,500
$5,000

Estimated Cost
$0
$38,600

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.1	**Mechanical Site Services**		**Building Section**	**Description/Condition**	**$77,500**
4.1.1	Site drainage systems (i.e., surface and underground systems, catch basins).	2	All	Site grading is such that storm water accumulates on North and East sides of the building, causing occasional flooding. There are no catch basins at those locations.	$75,000
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	3	All	Hose bibs at regular intervals around building perimeter. No vacuum breakers provided on certain hosebibs.	$2,500
4.1.3	Outside storage tanks.	N/A	All	There are no outside storage tanks.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.2	**Fire Suppression Systems**		**Building Section**	**Description/Condition**	**$0**
4.2.1	Fire hydrants and Siamese connections.	N/A	All	No Hydrant or Siamese connection	
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	N/A	All	No fire suppression systems provided.	
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	4	All	Combination of manual pump type and dry chemical type extinguishers located throughout the building.	
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	N/A	All		
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.3	**Water Supply and Plumbing Systems**		**Building Section**	**Description/Condition**	**$65,000**
4.3.1	Domestic water supply (i.e., pressure, volume, quality - note whether municipal or well supply).	4	All	Water main from city supply to boiler room. System complete with water meter and by-pass, isolation valves. Pressure noted to be 70 psi. No problems with quality or availability reported.	
4.3.2	Water treatment system(s).	N/A	All	No Water Treatment in place.	
4.3.3	Pumps and valves (including backflow prevention valves).	4	All	No Domestic water Booster Pumps. Valves and Water meter c/w bypass in good working order. Adequate Backflow Protection in place on boiler system make-up.	
4.3.4	Piping and fittings.	3	All	Copper Piping is original and may contain lead at fittings and calcium build-up on pipe walls. No breaks, leaks or problems reported. Piping should be replaced in conjunction with change out of fixtures.	$50,000
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	3	All	Fixtures showing signs of wear and are mismatched in certain locations. Should be replaced.. No Handicapped facilities provided.	$15,000
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	4	All	An adequate supply of domestic hot water is supplied by a Natural Gas fired domestic hot water heater. DHW recirculation is provided on all systems. Controls and safety valves are in good condition.	
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4	All	Sanitary drainage piping is Cast Iron, no problems or leaks reported. Storm drainage piping from roof drains is Cast Iron c/w external wrap insulation in good condition. No weeping tile or sump according to onsite staff.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.4	**Heating Systems**		**Building Section**	**Description/Condition**	**$40,000**
4.4.1	Heating capacity and reliability (including backup capacity).	3	All	Heating is provided by four modular Natural Gas fired hot water boilers (4 @ 165 kW) operated in sequence. System has sufficient capacity. Duplex Hydronic pumps in parallel are in good condition. Three boilers are less than 6 yrs old. The last boiler should be replaced.	$20,000
4.4.2	Heating controls (including use of current energy management technology.	4	All	Heating controls upgraded in recent past in conjunction with installation of an Andover BMS for remote monitoring and building control.	
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4	All	Combustion Air Provided to all mechanical rooms, Insulation in good condition. Flues and Stacks appear to be in good condition.	
4.4.4	Treatment of water used in heating systems.	4	All	Boiler system water treatment is done manually. Chemical pot feeder observed on system.	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating)	4	All	All boilers equipment with pressure relief valves and Low water cut-offs, controls were serviced at time of Andover BMS installation.	
4.4.6	Heating air filtration systems and filters.			Refer to Section 4.5.8	
4.4.7	Heating humidification systems and components.			Refer to Section 4.5.9	
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components (i.e., diffusers, radiators).	4	All	System piping in good condition, no reports of leaks or breaks. Occasional freezing problem in small perimeter rooms due to poor air circulation.	
4.4.9	Heating piping, valve and/or duct insulation.	4	All	Piping and Duct Insulation visible in mechanical rooms and ceiling space appears to be in good condition.	
4.4.10	Heat exchangers.	4	All	Hydronic heating coils in Air handling units in good condition, no known problems. Ceiling mounted hydronic reheat coils in good condition, no problems reported.	
4.4.11	Heating mixing boxes, dampers and linkages	4	All	Mixed air dampers and linkages are serviced and repaired regularly.	
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	3	All	Reports of concern in certain areas due to restricted air flow following the installation of full height demountable partitions.	$20,000
4.4.13	Zone/unit heaters and controls.	4	All	Hydronic unit heaters and cabinet unit heaters in generally good condition	

Section 4	Mechanical Systems	Rating	Comments/Concerns	Estimated Cost
Other				

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.5	**Ventilation Systems**		**Building Section**	**Description/Condition**	**$42,000**
4.5.1	Air handling units capacity and condition.	4	All	Ventilation provided throughout by two central constant volume air handling systems. Design airflows of 16000 cfm S/A for 1968 section, 9710 cfm S/A for 1972 section.	
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	4	All	Units appear to have 100% Outdoor capacity for free cooling, assume 10% Outdoor Air Minimum.	
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	4	All	Total supply air averages approx 5 to 6 ACH based on 9ft ceiling.	
4.5.4	Exhaust systems capacity and condition.	3	All	General Exhaust to washrooms, change rooms, janitor closets, etc provided by multiple roof mounted exhaust fans. Systems generally in good condition. Poor draw in certain areas due to poor air balance, exhaust system balance should be performed.	$12,000
4.5.5	Separation of out flow from air intakes.	4	All	No problems or concerns reported or observed.	
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas)	N/A		No special systems provided.	
Other					
	Note: Only complete the following items if there are separate ventilation and heating systems.				
4.5.7	Ventilation controls (including use of current energy management technology).	4	All	Ventilation controls upgraded in recent past in conjunction with installation of an Andover BMS for remote monitoring and building control	
4.5.8	Air filtration systems and filters.	4	All	Central air handlers provided with pleated media filters. Filters changed on a regular maintenance schedule.	
4.5.9	Humidification system and components.	3	All	Humidification provided on both central air handling systems. Systems are operating poorly and require replacement.	$30,000
4.5.10	Heat exchangers.		All	Refer to section 4.4.10.	
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	4	All	Ductwork, air terminals, etc in generally good condition throughout.	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
Other		FI	All	Certain areas are reported to have poor air circulation due to the installation of full height partitions. Recommend further investigation.	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.6	**Cooling Systems**		**Building Section**	**Description/Condition**	**$0**
4.6.1	Cooling system capacity and condition (i.e., chillers, cooling towers, condensers).	N/A	All	No mechanical cooling is provided.	
4.6.2	Cooling distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages)	N/A	All	No mechanical cooling is provided.	
4.6.3	Cooling system controls (including use of current energy management technology).	N/A	All	No mechanical cooling is provided.	
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).	N/A	-	There are no special cooling systems	
Other					

4.7	**Building Control Systems**		**Building Section**	**Description/Condition**	**$0**
4.7.1	Building wide/system wide control systems and/or energy management systems.	4	All	The overall building is controlled and monitored remotely by a recently installed Andover building management system. Control accessories such as sensors and thermostats appear to be in good condition. Main building controls are pneumatic. Pneumatic system air compressor and accessories in good condition.	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
	Overall Mechanical Systems Condition & Estimated Costs			A major portion of the mechanical systems are approaching the end of their lifecycle and should be replaced in the near future. These systems include portions of the heating and ventilation systems (boiler, humidification and exhaust fans), the existing domestic water piping (due to probable high lead content) ,and a significant portion of the plumbing fixtures. In addition the current problems with site drainage should be addressed.	**$224,500**

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.1	**Site Services**		**Building Section**	**Description/Condition**	**$1,000**
5.1.1	Primary service capacity and reliability (i.e., access, location, components, installation, bus sizes - note whether overhead or underground).	FI		Underground fed 600A main switch 120/208V 3 phase 3 wire CEC distribution. Located in main electrical boiler room. Note existing transformer should be looked at by TransAlta. Transformer is leaning to one side. Internal connections should be investigated.	
5.1.2	Site and building exterior lighting (i.e., safety concerns).	3		Concerns with site lighting on north west side exit. Existing incandescent fixtures operated by pe cell around perimeter of school. Lighting level low.	$1,000
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	4		28 energized stalls. Receptacles mounted on wood rail.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.2	**Life Safety Systems**		**Building Section**	**Description/Condition**	**$5,000**
5.2.1	Fire and smoke alarm systems (i.e., safety concerns, up-to-date technology, regularly tested).	4	All	Simplex 4002 panel 12 zones used. Installed in 1988. Heat detectors provided in all storage rooms and mechanical rooms. Smoke detectors are installed in corridors where coat and boot racks are located. There are adequate fire bells. No visual strobe devices are provided. Corridor doors are provided with door hold open devices. Fan shutdown is provided for air systems.	
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	3	All	12 Volt battery packs are provided throughout the corridors and washrooms. Some units are old but are tested frequently. Boiler room and the interior classroom with no windows, have no emergency lighting.	$2,500
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	3	1968	Original school has some incandescent exit signage which does not conform to code. New exit signage has connection to emergency battery packs.	$2,500
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.3	**Power Supply and Distribution**		**Building Section**	**Description/Condition**	**$2,000**
5.3.1	Power service surge protection.	3		There is no surge protection This should be provided.	$2,000
5.3.2	Panels and wireways capacity and condition.	4		Panels are manufactured by Square D. 2-4% spare breaker capacity in panels. Panels are in good condition.	
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	N/A		none provided.	
5.3.4	General wiring devices and methods.	4		Wiring method is EMT conduit and wire. Wiring and devices appear in good condition.	
5.3.5	Motor controls.	4		Motor starters are provided where required with good access. Starters appear to be in good condition. Single phase motors are provided with manual motor switches.	

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.4	**Lighting Systems**		**Building Section**	**Description/Condition**	**$0**
5.4.1	Interior lighting systems and components (i.e., illumination levels, conditions, controls).	4		Fluorescent T-12 surface mounted luminaries used throughout school. Ballasts are magnetic core and coil type in throughout. Luminaries are in good condition. Local line voltage switching is provided throughout the school. Computer room on stage has been upgraded to T-8 lamps complete with electronic ballast. Lighting levels: Gymnasium: 700lux, classrooms: 650-1000lux, corridors:250-350lux, library: 700lux, office: 600lux,	
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	4		No concerns.	
5.4.3	Implementation of energy efficiency measures and recommendations.	N/A		none provided.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.5	**Network and Communication Systems**		**Building Section**	**Description/Condition**	**$0**
5.5.1	Telephone system and components (i.e., capacity, reliability, condition).	5		Telephone system is adequate for school with 8 incoming lines available.	
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	4		Public address / intercom system manufactured is Ducane switchable system c/w tuner and tape player. Some school classrooms are wired for cablevision.	
5.5.3	Network cabling (if available, should be category 5 or better).	5		Category 5 structured cabling system installed.	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	4		Installed in conduit and some surface mounted.	
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	4		Telecommunications room is shared with storage area. Room is not adequate to the standards.	
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	5		Computers are connected to local panel with no dedicated circuits.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.6	**Miscellaneous Systems**		**Building Section**	**Description/Condition**	**$0**
5.6.1	Site and building surveillance system (if applicable).	N/A		none provided	
5.6.2	Intrusion alarms (if applicable).	4		Motion detectors are provided throughout the school and door contacts installed on exterior doors. System is centrally monitored.	
5.6.3	Master clock system (if applicable).	N/A		No master clock system.	
Other					
5.7	**Elevators/Disabled Lifts (If applicable)**		**Building Section**	**Description/Condition**	**$0**
5.7.1	Elevator/lift size, access and operating features (i.e., sensing devices, buttons, phones, detectors).	N/A			
5.7.2	Condition of elevators/lifts.	N/A			
5.7.3	Lighting and ventilation of elevators/lifts.	N/A			
Other					
	Overall Electrical Systems Condition & Estimated Costs	4		Electrical systems are overall in good condition	**$8,000**

Section 6	Portable Buildings	Rating	Comments/Concerns	Estimated Cost
	Note: Separate sheets can be completed, if necessary, for portable buildings of different ages and/or conditions.			
6.1.1	Foundation and structure (i.e., signs of bending, cracking, settlement, rust, voids, stains).	4	No problems to report.	
6.1.2	Roof materials and components (i.e., signs of deterioration, leaks, ice build-up).	4	No problems to report.	
6.1.3	Exterior wall finishes (i.e., signs of deterioration, cracks, water stains).	4	No problems to report.	
6.1.4	Doors and windows (i.e., signs of deterioration, rusting hardware, glass cracks, peeling paint, damaged seals).	4	Doors are too narrow. They should be replaced with minimum 900 mm doors.	$9,000.00
6.1.5	Interior finishes (i.e., floors, walls, ceiling).	4	No problems to report.	
6.1.6	Millwork (i.e., counters, shelving, vanities, cabinets).	4	No problems to report.	
6.1.7	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs)	4	No problems to report.	
6.1.8	Heating system.	4	Each Classroom is served by a dedicated Natural Gas fired furnace. Heating and ventilation is provided through ducted supply air running along the length of the class and discharging at floor level. Return air is through a sidewall at the rear of the class.	
6.1.9	Ventilation system.	4	Each furnace provides ventilation air to the classes. No information was available on ventilation rates. Furnaces can typically provide between 10 and 20% Outdoor air.	
6.1.10	Electrical, communication and data network systems.	4	No problems to report.	
6.1.11	Health and safety concerns (i.e., fire and smoke alarms, fire protection systems, exiting, fire resistance rating of materials).	4	No problems to report.	
6.1.12	Barrier-free access.	3	Portable No. 16 is not barrier free accessible from the internal corridor. There is a 6" step up to this unit. Interior doors to all portables are 800mm wide doors making barrier free access to all classrooms tight. There is no direct barrier free access to any of the portables from the exterior.	$1,000.00

Section 6	Portable Buildings	Rating	Comments/Concerns	Estimated Cost
	Overall Portable Buildings Condition & Estimated Costs			**$10,000.00**

Section 7	Space Adequacy	This Facility			Equiv. New Facility			Surplus/ Deficiency	Comments/Concerns
		No.	Size	Total Area	No.	Size	Total Area		
7.1	Classrooms			1374.50			1120	254.50	
		2	73.70						
		2	64.20						
		5	72.70						
		2	72.60						
		2	81.60						
		2	63.90						
	Portables	2	72.50						
	Portables	2	77.00						
7.2	Science Rooms/Labs	1	86.50	86.50			190	-103.50	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	1	74.20	137.80			400	-262.20	
		1	63.60						
7.4	Gymnasium (incl. gym storage)	1	509.40	509.40			473	36.40	
7.5	Library/Resource Areas	1	131.70	195.30			220	-24.70	
		1	63.60						
7.6	Administration/Staff, Physical Education, Storage Areas			561.00			511	50.00	
7.7	CTS Areas	N/A							
	7.7.1 Business Education								
	7.7.2 Home Economics								
	7.7.3 Industrial Arts								
	7.7.4 Other CTS Programs								
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)			832.20			1069	-236.80	
	Overall Space Adequacy Assessment			3696.70			3983	-286.30	This school has a deficit of 286 sq. m. and has an enrolment of over 113% of net capacity.

Evaluation Component/ Sub-Component	Additional Notes and Comments
	N/A