

School Facility Evaluation Project
Part I - Facility Profile and Summary

School Name: LOUIS RIEL ELEMENTARY/JR. HIGH
Location: 9632 OAKFIELD DR. S.W.

School Code: 9625
Facility Code: 1609

Region: CALGARY SOUTH
Jurisdiction: CALGARY SCHOOL DISTRICT #19

Superintendent: DR. DONNA MICHAELS
Contact Person: LEANNE SOLIGO
Telephone: (403) 214-1123

Grades: K-6

School Capacity: 865

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	1971	2	4477.80	Masonry, Flat Roof, Metal Siding, Stucco	Perimeter hot water heating with central low velocity ventilation (JR High)	
Additions/ Expansions	1976	1	2703.00	Masonry, Flat Roof, Metal Siding	See portables	
	1993	1	450.00	Masonry, Flat Roof, Stucco.		
Sub-Total:			7630.80			

Evaluator's Name: NORMAN DOBELL
& Company: NORMAN DOBELL & ASSOC. ARCH.

Upgrading/ Modernization (identify whether minor or major)	N/A					
Portable Struct. (identify whether attached/perman. or free-standing/ relocatable)	1979	1	416.20	Portables, Wood, Stucco and SBS Roof.	Standalone Furance systems.	Attached/Permanent
Total:			8047.00			

List of Reports/ Supplementary Information	Facility Asbestos Report.
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	Evaluation Components	Summary Assessment	Estim. Cost
1	Site Conditions	Site conditions appear satisfactory.	\$0
2	Building Exterior	Exterior building conditions appear satisfactory	\$10,000
3	Building Interior	Provide elevator and washrooms for barrier free access.	\$145,400
4	Mechanical Systems	While systems are generally in good working order, base equipment is 25 years old and past life expectancy.	\$403,500
5	Electrical Systems	Install surge protection on the electrical system. Retrofit lighting throughout to improve colour rendition and efficiency. Ventilation required for the computer equipment room. Door contacts need to be installed on all exterior doors.	\$250,000
6	Portable Buildings	Replace 30 year old furnaces, air conditioning coils and condensing units .	\$60,500
7	Space Adequacy:		
	7.1 Classrooms	Surplus 360	
	7.2 Science Rooms/Labs	Deficient -28	
	7.3 Ancillary Areas	Surplus 147	
	7.4 Gymnasium	Surplus 106	
	7.5 Library/Resource Areas	Surplus 84	
	7.6 Administration/Staff Areas	Deficient -74	
	7.7 CTS Areas	Deficient -303	
	7.8 Other Non-Instructional Areas (incl. gross-up)	Surplus 114	
	Overall School Conditions & Estim. Costs	Surplus 406	\$869,400

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.1	General Site Conditions			
1.1.1	Overall site size.	4	Adequate	
1.1.2	Outdoor athletic areas.	4	Adequate	
1.1.3	Outdoor playground areas, including condition of equipment and base.	4	In good repair	
1.1.4	Site landscaping.	4	Mature	
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	4	Adequate	
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	4	No problems noted	
1.1.7	Evidence of sub-soil problems.	4	None	
1.1.8	Safety and security concerns due to site conditions.	4	None	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.2	Access/Drop-Off Areas/Roadways/Bus Lanes			
1.2.1	Vehicular and pedestrian access points (i.e., size, number, visibility, safety).	4	Appears adequate	
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	4	Asphalt	
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	48	Off-site - street	
1.2.4	Fire vehicle access.	4	From the street	
1.2.5	Signage.	4	Signage at front	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.3	Parking Lots and Sidewalks			
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	4	Two lots appear adequate for staff and disabled	
1.3.2	Layout and safety of parking lots.	4	Good	
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	4	Lots drain to catch basins	
1.3.4	Layout and safety of sidewalks.	4	Appears adequate	
1.3.5	Surfacing and drainage of sidewalks (note type of material).	4	Concrete - good drainage	
1.3.6	Curb cuts and ramps for barrier free access.	4	Access to building	
Other				
	Overall Site Conditions & Estimated Costs			\$0

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.1	Overall Structure		Bldg. Section	Description/Condition	
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).	4		No problems noted	
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	4		No problems noted	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	4		No problems noted	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.2	Roofing and Skylights <i>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</i>		Bldg. Section or Roof Section	Description/Condition/Age	
	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).	FI		Further investigation required - flat roof	
	2.2.2 Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	4		Appear to be in good repair	
	2.2.3 Control of ice and snow falling from roof.	4		None noted	
	2.2.4 Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).	NA			
	Other				

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.3	Exterior Walls/Building Envelope		Bldg. Section	Description/Condition	
2.3.1	Exterior wall finishes (i.e., signs of deterioration, cracks, brick spalling, effluorescence, water stains).	4		Masonry - good repair; metal siding - good condition	
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	4		Good repair	
2.3.3	Building envelope (i.e., evidence of air infiltration/ exfiltration through the exterior wall or ice build up on wall, eaves, canopy).	4		No damage evident	
2.3.4	Interface of roof drainage and ground drainage systems.	4		Internal roof drain to municipal system	
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4		No evidence of problems	
Other		3		Allowance for renovations required for mechanical systems upgrade.	\$10,000

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.4	Exterior Doors and Windows		Bldg. Section	Description/Condition	
2.4.1	Doors (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	4		Good repair	
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4		Older style but in good repair	
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4		Older style but in good repair	
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	4		Appear adequate	
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4		See 2.4.4	
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4		None noted	
Other					
	Overall Bldg Exterior Condition & Estim Costs				\$10,000

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.1	Interior Structure		Bldg. Section	Description/Condition	
	3.1.1 Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	4		No apparent problems	
	3.1.2 Floors (i.e., signs of cracks, heaving, settlement).	4		No apparent problems	
	Other				
3.2	Materials and Finishes		Bldg. Section	Description/Condition	
	3.2.1 Floor materials and finishes.	4		VCT and carpet to classrooms; wood flooring in gymnasium; quarry tile at main entry	
	3.2.2 Wall materials and finishes.	4		Concrete block and drywall painted	
	3.2.3 Ceiling materials and finishes.	4		Acoustic tile panels	

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.2	Materials and Finishes (cont'd)		Bldg. Section	Description/Condition	
3.2.4	Interior doors and hardware.	4		Adequate condition	
3.2.5	Millwork	4		Cabinets and shelving - adequate	
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	4		Tackboards, Blackboards replace with whiteboards.	\$50,400
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4		Equipment in good repair	
3.2.8	Washroom materials and finishes.	4		Flooring - ceramic tile; walls - painted block, ceramic tile at urinals; ceiling - acoustic tile panels	
Other					

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.3	Health and Safety Concerns --- <i>Intent is to identify renovations considered necessary to</i>		Bldg. Section	Description/Condition	
		4		Non-combustible, non-sprinklered	
		4		Appear compliant	
		4		Appear compliant	
		4		Appear compliant	
		3		Provide elevator and two handicap washrooms	\$95,000
		FI		See Owner's Report	
		4		None apparent	
Other					
Overall Bldg Interior Condition & Estim Costs					\$145,400

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.1	Mechanical Site Services				
4.1.1	Site drainage systems (i.e., surface and underground systems, catch basins).	4		Catch basins plus surface drainage.	
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	4		Non-freeze hose bibs around the complex	
4.1.3	Outside storage tanks.	N/A		Not applicable.	
Other					
4.2	Fire Suppression Systems		Bldg. Section	Description/Condition	
4.2.1	Fire hydrants and siamese connections.	4		Fire hydrant in front. Siamese in front.	
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	4		Fire hose cabinets in corridor.	
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	3		Water hand extinguishers should be replaced with ABC type.	\$2,500
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	4		Gym stage only has sprinkler coverage..	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.3	Water Supply and Plumbing Systems		Bldg. Section	Description/Condition	
4.3.1	Domestic water supply (i.e., pressure, volume, quality note whether municipal or well supply).	4		4" Water service. 3" bldg. Service. 3" to sprinkler system.	
4.3.2	Water treatment system(s).	4		Not applicable.	
4.3.3	Pumps and valves (including backflow prevention valves).	4		Backflow devices on sprinkler stand pipe and bldg. service.	
4.3.4	Piping and fittings.	4		Copper in good condition.	
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	3		Water closets flushometers. Urinals have flush tanks.	\$20,000
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	3		Three Rudd hot water heater 324,000 BTU 62 gal. c/w recirc. pumps. These units have reached their life cycles.	\$6,000
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4		Sanitary and storm drain to City system.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	Heating Systems		Bldg. Section	Description/Condition	
4.4.1	Heating capacity and reliability (including backup capacity).	3		Two Bryan hot water boilers 1,800,000 BTU each. Three base mounted circulating pumps. Although this system is functioning well they have reached their life cycles.	\$125,000
4.4.2	Heating controls (including use of current energy management technology.	3		Pneumatic controls. No energy management, see controls item 4.7.1.	
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4		Combustion and relief air are good. Chimneys are good.	
4.4.4	Treatment of water used in heating systems.	4		Pot feeder Dearborn chemical treatment.	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating).	4		Boilers have low water cut-off and other necessary safety devices.	
4.4.6	Heating air filtration systems and filters.	4		See 4.5	
4.4.7	Heating humidification systems and components.	4		See 4.5	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	Heating Systems (cont'd)		<u>Bldg. Section</u>	<u>Description/Condition</u>	
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components	4		Convection cabinets on perimeter.	
4.4.9	Heating piping, valve and/or duct insulation.	4		Piping and insulation are good.	
4.4.10	Heat exchangers.	N/A		Not applicable.	
4.4.11	Heating mixing boxes, dampers and linkages.	4		Heating coil in main air handling unit.	
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	4		Gym has convection around perimeter.	
4.4.13	Zone/unit heaters and controls.	4		Forced flow units in entrances. Some zone reheat coils in main air handling unit.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	Ventilation Systems		Bldg. Section	Description/Condition	
4.5.1	Air handling units capacity and condition.	3		There is a Trane air handling system c/w return air, outside air and relief. This unit has heating coil and dry expansion air conditioning coils.	\$135,000
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	4		Appears to be sufficient. No known problem.	
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	4		Appears to be sufficient.	
4.5.4	Exhaust systems capacity and condition.	4		All exhaust systems are in good conditions.	
4.5.5	Separation of out flow from air intakes	4		No problems. Separation is good.	
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	N/A		Not applicable.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	Ventilation Systems (cont'd)		Bldg. Section	Description/Condition	
	<i>Note: Only complete the following items if there are separate ventilation and heating systems.</i>				
4.5.7	Ventilation controls (including use of current energy management technology).	3		Pneumatic controls. See controls item 4.7.1	
4.5.8	Air filtration systems and filters.	4		Filters glass are low efficiency fibers.	
4.5.9	Humidification system and components.	3		Main air handling unit has water spray humidification. See ventilation item 4.5.1.	
4.5.10	Heat exchangers.	N/A		Not applicable.	
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	4		No known problems.	
Other					

Section 4 Mechanical Systems		Rating	Comments/Concerns		Estim. Cost
4.6	Cooling Systems		Bldg. Section	Description/Condition	
4.6.1	Cooling system capacity and condition (i.e., chillers, cooling towers, condensers).	3		Trane air cooled condensing unit on roof. Past life expectancy.	\$30,000
4.6.2	Cooling distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages)	4		Ductwork and dampers in acceptable condition.	
4.6.3	Cooling system controls (including use of current energy management technology).	3		Pneumatic controls, no energy management. See controls item 4.7.1.	
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).	N/A		Not applicable.	
Other					
4.7	Building Control Systems		Bldg. Section	Description/Condition	
4.7.1	Building wide/system wide control systems and/or energy management systems.	3		Control system is pneumatic. Single air compressor c/w air dryer. DDC upgrade. Controls upgrade required.	\$85,000
Overall Mech Systems Condition & Estim. Costs					\$403,500

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.1	Site Services				
5.1.1	Primary service capacity and reliability (i.e., access, location, components, installation, bus sizes - note whether overhead or underground).	4		There are two existing electrical services. The reason for this is there used to be two schools which became one. South building -underground, 800 A, 120/208 V, 3-phase, 4-wire - in good condition. North building - underground, 800 A, 120/208 V, 3-phase, 4-wire - in good condition.	
5.1.2	Site and building exterior lighting (i.e., safety concerns).	4		Site lighting is in good condition and no concerns by on-site personnel	
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	3		There are 51 staff stalls with power plug-ins; some of the W.P. plates are in need of repair	\$500
	Other				
5.2	Life Safety Systems		Bldg. Section	Description/Condition	
5.2.1	Fire and smoke alarm systems (i.e., safety concerns, up-to-date technology, regularly tested).	2		Existing F.A. system is in good condition. Upgrades need to be done to meet 1997 ABC. More strobes are needed and some storage rooms do not have heat detectors.	\$15,000
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	2		Existing emergency lighting requires upgrades. System is old in some areas and does not meet code. Recommend emergency lighting in ECS room.	\$10,000
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	1		Existing exit lighting is in fair condition but requires more lighting in many different areas. Some exit doors do not have exit lighting. South wing 9upper floor) many blind areas with no visual.	\$10,000
	Other				

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.3	Power Supply and Distribution		Bldg. Section	Description/Condition	
5.3.1	Power service surge protection.	1		None present but installation recommended.	\$1,500
5.3.2	Panels and wireways capacity and condition.	4		Existing panels are in good condition. Space availability is approximately 105.	
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	NA			
5.3.4	General wiring devices and methods.	4		General wiring devices are in good condition.	
5.3.5	Motor controls.	4		Existing loose starters are in fair to good condition.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.4	Lighting Systems		Bldg. Section	Description/Condition	
5.4.1	Interior lighting systems and components (i.e., illumination levels, conditions, controls).	4		Existing lighting is very inconsistent. There are many fixtures with burnt out lamps throughout. Levels are as follows: classrooms 17-80, gyms 19-35, corridors 12-34, administration 28-83. Much needed maintenance might bring some of their levels to acceptance. No physical protection on life saving devices in south gym.	
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	4		Ballasts are replaced as required.	
5.4.3	Implementation of energy efficiency measures and recommendations.	3		All lighting should be retrofitted with T8 lamp technology.	\$210,000
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.5	Network and Communication Systems		Bldg. Section	Description/Condition	
5.5.1	Telephone system and components (i.e., capacity, reliability, condition).	4		Existing phone system is in good condition.	
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	4		Existing P.A. system is in good condition.	
5.5.3	Network cabling (if available, should be category 5 or better).	4		Network cabling is done with category 5 cable.	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	4		All cabling is done in conduit.	
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	3		Equipment is located in copier room and tends to get warm. More ventilation required.	\$1,000
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	4		Equipment is supplied with dedicated circuits.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.6	Miscellaneous Systems		Bldg. Section	Description/Condition	
5.6.1	Site and building surveillance system (if applicable).	NA			
5.6.2	Intrusion alarms (if applicable).	3		Existing system is in good condition but requires door door contacts to be installed on exterior doors.	\$2,000
5.6.3	Master clock system (if applicable).	4		Existing system is in good condition.	
Other					
5.7	Elevators/Disabled Lifts (If applicable)				
5.7.1	Elevator/lift size, access and operating features (i.e., sensing devices, buttons, phones, detectors).	NA			
5.7.2	Condition of elevators/lifts.	NA			
5.7.3	Lighting and ventilation of elevators/lifts.	NA			
Other					
	Overall Elect. Systems Condition & Estim Costs				\$250,000

Section 6	Portable Buildings	Rating		Comments/Concerns	Estim. Cost
	<i>Note: Separate sheets can be completed, if necessary, for portable buildings of different ages and/or conditions.</i>				
6.1.1	Foundation and structure (i.e., signs of bending, cracking, settlement, rust, voids, stains).	4		None noted	
6.1.2	Roof materials and components (i.e., signs of deterioration, leaks, ice build-up).	4		None noted	
6.1.3	Exterior wall finishes (i.e., signs of deterioration, cracks, water stains).	4		Appear adequate	
6.1.4	Doors and windows (i.e., signs of deterioration, rusting hardware, glass cracks, peeling paint, damaged seals).	4		Appear adequate	
6.1.5	Interior finishes (i.e., floors, walls, ceiling).	4		No apparent problems	
6.1.6	Millwork (i.e., counters, shelving, vanities, cabinets).	4		Adequate	
6.1.7	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs)	4		Blackboards	
6.1.8	Heating system.	3		The four portable units have their own standalone furnaces; one unit has an air conditioning coil and condensing unit on the roof -- units are 30 years old	\$60,000
6.1.9	Ventilation system.	3		Furnaces c/w outside air. See item 6.1.8	
6.1.10	Electrical, communication and data network systems.	4		Existing systems similar to main school conditions	
6.1.11	Health and safety concerns (i.e., fire and smoke alarms, fire protection systems, exiting, fire resistance rating of materials).	3		Exit lighting required for exterior doors	\$500
6.1.12	Barrier-free access.	4		Ramp provided	
	Overall Portable Bldgs Condition & Estim Costs				\$60,500

Section 7	Space Adequacy	This Facility			Equiv. New Facility			Surplus/ Deficiency	Comments/Concerns
		No.	Size	Total Area	No.	Size	Total Area		
7.1	Classrooms	31	var.	2200	23	80	1840	360	
7.2	Science Rooms/Labs					var.	455	-28	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	8	var.	857	7	var.	710	147	
7.4	Gymnasium (incl. gym storage)	2	553 483	1036	2	655 275	930	106	
7.5	Library/Resource Areas	2	278 216	494	2	140 270	410	84	
7.6	Administration/Staff, Physical Education, Storage Areas			726			800	-74	
7.7	CTS Areas								
	7.7.1 Business Education	0			2	115	230	-230	
	7.7.2 Home Economics	1		129	1		160	-31	
	7.7.3 Industrial Arts	1		258	1		300	-42	
	7.7.4 Other CTS Programs	0			0				
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)			1950			1836	114	
	Overall Space Adequacy Assessment	48		8077	42		7671	406	