

EXECUTIVE SUMMARY

In November 1999, March 2000 and April 2000, Alberta Infrastructure engaged KOLIGER SCHMIDT architect•engineer to evaluate the conditions of several schools using a facilities conditions form. The form was developed by Alberta Infrastructure and supplied by the regional coordinator for our usage. The Vimy Ridge Academy was evaluated on April 6, 2000.

This school was originally built in 1958 and has had several additions. The first addition was completed in 1959, with subsequent additions in 1970 and again in 1990.

Our on-site survey noted needs for a structural investigation as subsoil problems are evident. Sidewalks and asphalt paving is sinking masonry stress cracks are visible in veneer as well no weep holes in masonry exterior walls were visible. The interior with numerous masonry mortar joint cracking throughout has recently been painted. Asbestos is found in the crawlspace, mechanical piping, wall finishes, ceiling finishes, and flooring, as well in some millwork items. New doors and hardware for various locations and the total replacement of the exterior windows is required.

The mechanical heating system consists of 3 central steam boiler providing heat throughout the entire school. The heat is distributed to univents in the classrooms, fin radiation cabinets in the corridors, steam heating coils in both gym air handling units and the steam heating coil in the air handling unit for the 1970 portion of the building. Ventilation for the school is provided by the univents in the classrooms of the 1958 and 1959 portion of the school and built up air handling units provide ventilation for the gyms and the 1970 portion of the building. The problems observed in the building include:

- the domestic water piping is rusting in several locations
- the plumbing fixtures and trim are old and need to be replaced
- the hot water tanks cannot be isolated from the steam system due to bad isolation valves
- the storm piping within the building is rusting in many locations
- Isolation valves for the steam system within the boiler room do not hold
- All boiler accessories need to be replaced
- A critical item includes the water level at the condensate receiver tank that overflows and sprays hot water into the air during certain conditions
- The insulation on all the piping needs to be replaced in the 1958/1959 building section
- Poor air circulation through corridors due to outdated ventilation philosophy
- Extreme temperature swings in corridors and classrooms due to poor control.

We are recommending a complete retrofit of the mechanical systems.

The electrical system is generally in good condition with some changes required:

- Areas have mixture of WW and CW lamps - all should be CW.
- Energy Efficiency Program should be implemented.
- F.A. System - numerous bells and strobes are painted white and should be red.
- Numerous outlets require coverplates.

Summary of Observations and Recommendations

Evaluation Ratings 3 or Less

The estimated construction cost for the remedial work identified in the attached evaluation forms has been based on Costing Unit Rate Chart developed by Alberta Infrastructure. Items of unit costs not identified in the rate chart or individual items which were deemed more appropriate to estimate individually (i.e. hardware corrections, stucco repairs etc.) have been based on unit costs. All estimates are based on Edmonton costs.

1.	Site related work	\$146,000.00
2.	Building exterior	\$473,500.00
3.	Building interior (no costs included for asbestos removal)	\$250,800.00
4.	Mechanical	\$3,870,500.00
5.	Electrical	\$460,000.00
6.	Portables	\$N/A
	Total Estimated Cost	\$5,200,800.00
7.	Space Adequacy Assessment	
	The existing area according to the <i>School Building Area Guidelines and Supplement – Maximum Gross Area of School Building Projects</i> , is surplus.	
	Existing Total Area (m ²)	17,040.8
	Projected Required Area (m ²)	14,439.8
	Surplus (m²)	2,601.0

Further Investigation

There is asbestos throughout the school. This situation requires further investigation.

School Data Plan Information

The plan information for this building need to be updated.