

## REPORT HIGHLIGHTS

December 4, 2008

### Planning for School Seismic Safety

#### ***Introduction***

Southwestern British Columbia is in an earthquake environment similar to that of the coasts of Japan, Alaska, and Central and South America. Since the late 1980s, British Columbia governments have recognized the need for ensuring that schools are seismically safe and have developed various programs to improve seismic safety.

The current Seismic Mitigation Program administered by the Ministry of Education covers both structural and non-structural mitigation of public schools in British Columbia. The original estimate of the cost of the structural component is \$1.5 billion and the program goals called for the remediation of over 700 schools in the zones of highest seismic risk in the province. In addition, the ministry currently provides \$5 million annually for non-structural seismic mitigation to the boards of education located in the high-risk seismic zones.

Our review focused on how well the Ministry of Education has developed processes for managing the Seismic Mitigation Program.

#### ***What we concluded***

Overall, we concluded that the Ministry and its partners have done much good work in developing methodologies for seismic retrofitting and in training design engineers in their application, and that work started by the ministry and Boards of Education to develop more comprehensive long-term planning frameworks should encourage effective use of funds. However, significant increases in construction costs have undermined the real purchasing power of the original budget. We understand that these cost pressures will be considered as part of the government's annual budget process. As well, the ministry has not yet finalized a program delivery model, nor has it integrated the ministry's risk management activities for the program into a comprehensive plan covering both internal and external risks.

We made seven recommendations to assist the ministry in addressing these issues.

#### ***Key findings***

##### **The ministry's policy framework supports the Seismic Mitigation Program in some areas but not in others**

The ministry has, in the absence of a legislated requirement, taken the view that establishing a Seismic Mitigation Program for schools is good public policy. It has also set levels of seismic strength that retrofitting is intended to achieve. We found that the ministry has done well working with its partners to develop the technical methodologies and industry capacity to support the Seismic Mitigation Program. In three other areas, however, we found ministry support for the program to be weak:

- The original 2004 Seismic Mitigation Program is significant in terms of budget (\$1.5 billion), delivery period (15 years) and scope (more than 700 public schools assessed at the medium risk or higher). However, since the program was approved, costs of construction material and labour have escalated significantly and it is generally acknowledged that the cost of achieving the original program objectives will be much higher. We understand that these cost pressures will be considered as part of the government's annual budget process.

- As referred to below, the ministry has not yet found a fully satisfactory delivery model for the program and, until one is implemented, it will not be able to finalise the human resources it needs for the program.
- The ministry has not assembled its internal and external risk management activities for the program into a comprehensive risk management framework. This limits its ability to identify and proactively manage potential risks.

**The ministry has processes for setting program priorities, but has not decided on a program delivery model and has not yet integrated the seismic program with other capital funding decisions**

The Seismic Mitigation Program is a significant, multi-year program. Success requires clear planning processes, a suitable delivery model and clearly defined roles and responsibilities.

We found that the ministry has set required standards of safety for schools in the medium and higher risk categories, and has carried out seismic assessments to determine the vulnerability of schools in the high hazard seismic zones of the province. As well, the ministry has adopted processes for recognizing boards of education priorities in the scheduling of projects. However, the ministry has not yet finalized a model to use for delivering the program that provides boards of education with ready access to capacity they need for successfully planning and managing seismic projects. It is, however, exploring a model designed to provide additional oversight while providing funding and resources to boards of education to help them build capacity to effectively manage their seismic projects.

The ministry and the boards of education are working together on facility planning that will enable long-term capital plans to be prepared. These plans should make it easier for decisions on seismic priorities to reflect government’s long-term objectives for education and other policy areas.

**The ministry has processes for monitoring and evaluating the performance of structural remediation projects but not for non-structural projects**

The ministry requires performance reports from the boards of education to demonstrate appropriate use of structural funding and progress on structural projects. The ministry also receives the results of due diligence reviews for high-value and high-risk projects, and has recently started to carry out post-implementation reviews.

The monitoring of, and accountability for, non-structural funding are not as well documented. The ministry does not set any targets for non-structural remediation nor does it gather information that would tell it how much has been accomplished system-wide.

**The ministry has not established the basis for an effective accountability relationship with stakeholders and the public.**

Effective public participation plays a key role in helping governments develop policies and programs that best reflect the public interest. It builds public confidence in the soundness of government decision-making, and in the transparency and openness of how those decisions are implemented.

We found that, while the ministry provides information to the public and other stakeholders regarding the status of the Seismic Mitigation Program, it does not have a strategy for informing the public about the factors that influence decisions about priorities and project scope. As well, the ministry does not offer any forums to enable a direct dialogue between it and the public on these and other issues.

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