HB278 Public School Seismic Study

February 13, 2013

Recommendation for School Building Earthquake Surveys

HB 278 - Public School Seismic Study (Rep. Froerer, G.) would require school districts seeking general obligation bonds to conduct seismic safety evaluations of each facility constructed before 1975 using the industry standard - FEMA 154 "Rapid Visual Screening of Buildings for Potential Seismic Hazards: A Handbook, 2nd Edition"

Vulnerability of Schools

For the 2012-13 school year there are 43 school districts (1005+ schools) plus 82+ charter schools. More than 80% of the 600,985 Utah students attend school in a corridor of high potential seismic activity.

Many of these public school structures were built before seismic design requirements were introduced into the building codes.

The Utah Seismic Safety Commission and the Structural Engineers Association jointly recommend this procedure as the first step in understanding the vulnerability of all Utah schools.

Estimated Costs

The cost to provide RVS is anticipated to be between $250 and $500 per building. Many school districts have already surveyed their older buildings and could readily comply with the reporting requirements.

What HB278 Does:

HB278 would move forward a seismic inventory of Utah schools that includes:

- Survey Utah school buildings in a district seeking bond for capital improvements. Money to perform needed surveys comes from Capital Outlay/ Operations & Maintenance.
- Help reduce and minimize the liability of state owned facilities. (Risk Management indicates 27 billion in assets, 1 billion in coverage)
- Rapid Visual Screening will provide a cost-effective quick and simple means to identify collapse prone school buildings. Oregon established their school prioritization using RVS

Utah school children and employees deserve to be in safe schools.

"Most of us agree, it's not a question of if, it's a question of when we see that earthquake. If we can save one child in this state in the event of an earthquake, we've done our job." - Rep. G. Froerer

Uses of Rapid Visual Screening

RVS was used in Oregon to satisfy the requirements of SB2 (2005) to perform a state wide assessment of schools and emergency response facilities. The information provided a means for determining eligibility for seismic improvement grants (SB3, 2005). See http://www.oregongeology.org/sub/projects/rvs/default.htm for additional information.

The Utah Seismic Safety Commission used an electronic version of FEMA 154 RVS to create a pilot study of 128 Utah schools in support of Utah HB 279, 2012. The information was published in the report Utah Students at Risk (http://ussc.utah.gov/students_at_risk.html).

The state of Missouri is presently investigating the use of Rapid Visual Screening to help assess the vulnerability of their state schools.

Additional Considerations

"We already know that older schools are dangerous, why do we need to spend money on a survey"

- Do YOU know which buildings are considered dangerous?
- Do YOU know which buildings have been retrofitted?
- Do YOU know how many children are at risk?

The assumption is that "someone" knows this information and is responsible for acting accordingly. The reality is that every school district approaches seismic risks to buildings in a different way. There is an uneven emphasis on this important issue and parents and students are left to their own resourcefulness in determining whether buildings are safe.

"Results of Studies don't find out any additional information about schools"

- Oregon state used RVS to establish a priority list for seismic upgrades to there schools and essential facilities.
- RVS is admitted a first step but it is a significant one. It is not a guess, it is better information to help make informed decisions.

"Have any Utah school districts used this method of evaluating their schools?"

- Most of the larger districts have used some form of RVS in assessing school buildings. Examples include Jordan, Canyons, Salt Lake City, Alpine, Granite and others.