

ASHSC Policy Recommendation 2010-2

Allocation of funds for seismic risk mitigation of schools

The Commission recommends that all future school design, construction, and major renovations project funding include monies allotted for seismic risk mitigation tasks to include:

- Seismic design by a structural engineer proficient in the design and detailing required for earthquake engineering tasks.
- An independent peer review of seismic design calculations and detailing by a qualified structural engineer.
- On-site observation of as-constructed earthquake engineering details during construction by a qualified inspector to ensure they are constructed in accordance with the contract documents.

Provided in the 2010 Annual
Report to the Governor and
State Legislature

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SEISMIC RISK MITIGATION OF FUTURE DESIGN, CONSTRUCTION, AND MAJOR RENOVATION OF SCHOOLS

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California's Field Act which sets the seismic safety standards for public and private schools has been a central element of the state's earthquake preparedness policy for decades. Following the 1933 Long Beach Earthquake in which 300 schools experienced minor damage, 120 major damage, and 70 were destroyed the state Legislature took action and approved the Field Act within a month of the earthquake. Since its inception Field Act-compliant schools have withstood subsequent earthquakes with negligible damage. For example, there were 636 Field Act-compliant schools sites within a 25-mile radius of the 1971 damaging M 6.8 San Fernando Earthquake epicenter, comprising 8,600 buildings with a value of over one billion dollars that suffered less than 2.7 million dollars (three-tenths of one percent) in damage. In the 1983 Coalinga and 1984 Morgan Hill, California earthquakes schools suffered very little damage. During the 1989 Loma Prieta Earthquake five schools suffered major damage but three of those were constructed prior to the Field Act and one was damaged by a freeway collapse. In the 1994 Northridge Earthquake only 24 buildings in a total of 127 schools suffered appreciable damage. The Field Act has been deemed a success by the majority of concerned citizens.

Provisions such as those proposed in PR 2010-2 provide additional safety to the students, additional costs are relatively low, and money is saved in the long run from not having major reconstruction costs after a damaging earthquake.