


Promoting Seismic Safety in Oregon's Schools & Emergency Facilities

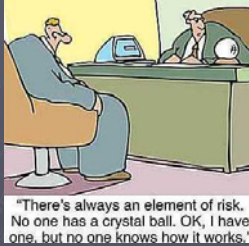
CASE HISTORY ON THE OREGON GO BOND TASK FORCE

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Oregon Department of Geology and Mineral Industries



Problem Statement

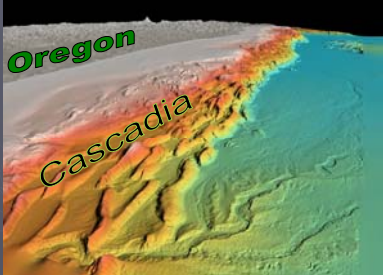
Hazard + Exposure = Risk



- Oregon Requires Students to be in Unsafe Buildings
- Oregon Education System Suffers Economic Hardship
- Opportunity for Partnership Project

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The Hazard

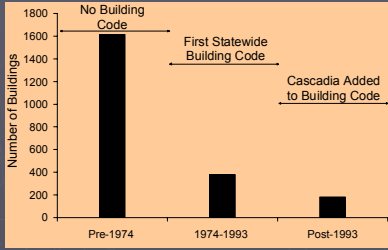


- New knowledge on Cascadia & local faults
- Oregon: Big increase on USGS seismic maps

(Patson and Hasby, 1997)

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Exposure: Vulnerable Buildings



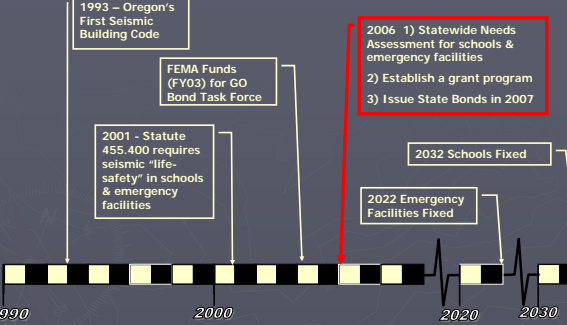
- 1974 First Statewide Building Code Adopted
- 1993 First Seismic Building Code in Western Oregon
- Code Regulates New not Existing Buildings

Pilot Project: Clackamas County, Oregon
¾ of Schools Were Built before 1974

ODE Database, 2002

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Timeline



1990 2000 2020 2030

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Time is Running Out !

- Oregon Revised Statute 455.400:
 1. seismic surveys are to be completed by 2007
 2. seismic rehabilitations to emergency facilities completed before 2022 and schools completed before 2032.
- In 2004 funding from FEMA's Pre Disaster Mitigation Grant Program to Department of Geology & Mineral Industries (DOGAMI). Funding supported a temporary GO Bond Task Force (Fall 2004 at State Capitol)



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2005-06 GO Bond Task Force

Oregon Senate President Peter Courtney & staff
Oregon Legislative Fiscal
Oregon Legislative Counsel
Oregon Seismic Safety Policy Advisory Commission
Oregon Department of Geology and Mineral Industries
Oregon Emergency Management
Local Emergency Management departments
American Red Cross
Oregon Department of Education
Division of Health Services
Representatives from Individual Oregon Fire Districts
Representatives from Structural Engineering
Association of Oregon Hospitals
City of Berkeley, California (invited speaker)
United States Geological Survey (invited speaker)
California Division of the State Architect (invited speaker)
Oregon University System
Oregon School Boards Association
Department of Community Colleges & Workforce
Federal Emergency Management Association
Oregon Sheriff's Association

Oregon Community Colleges Association:
Representatives from Individual Oregon Community Colleges
Oregon Fire Chiefs Association
Oregon State Fire Fighters Council
Oregon Department of Administrative Services
Oregon Natural Hazards Workshop
Engineering Faculty from Portland State University
Various other stakeholders, Businesses and Public at Large
Oregon Emergency Management
League of Oregon Cities
City of Portland
City of Salem
City of Mt. Angel
Associated General Contractors Oregon
Oregon Department of Transportation
Portland Metro Association of Buildings
Portland Public Schools
Oregon Association of Hospitals and Health Systems
Oregon Association Chiefs of Police

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GO Bond Task Force Meetings

- Concise meetings: three 2-hr meetings at Capitol with objectives
- Informed guest speakers & round table discussion
- Meeting summaries & action items shaped next meeting's agenda

Craig Weaver: USGS technical background

Arietta Chakos: Berkeley's grass-roots campaign

Dennis Bellef: CA State Architects rebuild/retrofit school program

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FEMA Funded Schools Project

Promoting Seismic Safety in Oregon's Public Schools and Emergency Facilities Building Partners to Protect Students and Communities

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Champion: "Q9 The Earthquake Kid" Oregon Senate President: Peter Courtney

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Legislative Concepts

- 1) Statewide Needs Assessment:** determine high risk schools and emergency buildings with a preliminary findings report completed by Jan. 2007 (ORS 455.400 deadline) for \$1.3 million
- 2) Grant Program:** Appropriate GO Bond funds for earthquake rehabilitation in schools and emergency facilities for \$200,000
- 3) Authorize & Appropriate GO Bonds in 2005-07 Session:** Provide stable, long term state funds to help meet ORS 455.400. Dept. of Administrative Services to determine the allowable state debt capacity & repayment terms. Dept. of Treasury would issue \$1.2 B in bonds

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Continued Support

Safe Communities and Schools Preparing for Earthquakes

Oregon Bills 3, 4 and 5: recently made considerable progress in the Oregon Legislature. Several Oregon construction and public safety bills are expected to be signed into law by the Governor. Construction, public safety, and emergency management bills are expected to be signed into law by the Governor. The bills are expected to be signed into law by the Governor. The bills are expected to be signed into law by the Governor.

How to help:
Telephone visits to meet your state legislators TODAY and ask them to sign the bills. If you can't meet them, you can ask them to sign the bills. If you can't meet them, you can ask them to sign the bills.

How to contact your legislator

BE PREPARED: Know the names of your legislators. Know the names of your legislators. Know the names of your legislators.

BE BOLD: Don't be afraid to ask for help. Don't be afraid to ask for help. Don't be afraid to ask for help.

BE PERSISTENT: Don't give up. Don't give up. Don't give up.

- Public support briefing sheet
- How to testify before a legislative committee information
- Written testimony examples

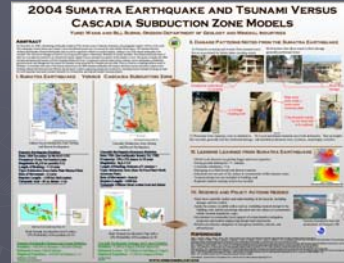
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Top Ten Reasons to Fix Vulnerable Schools

- 1) Life Safety of Students and Staff
- 2) Keeping Schools Functional
- 3) Ensuring that Every Day Life Can Go On
- 4) Cheaper to Fix before Damage
- 5) Reduce Liability
- 6) Safer Communities
- 7) Schools Sometimes Serve as Shelters
- 8) Loss of Valuable Research and Projects
- 9) Peace of Mind
- 10) Education and Awareness

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Disaster Strikes in Asia (Sumatra 2004 Earthquake/Tsunami)



- Sumatra quake demonstrated the Oregon's need for pre-disaster mitigation!
- OSSPAC repeats recommendations to Senate President Peter Courtney for Legislation, iterating similarities between Sumatra and Cascadia scenarios

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Senate Committee on General Government Public Hearing – Oral & Written Testimony Supporting Bills

March 11, 2008

TO: Senate General Government Committee

FROM: Jim Doane, PE, OSSPAC Chair
Oregon Seismic Safety Policy Advisory Commission

SUBJECT: Senate Bills 2, 3, 4, and 5 – Earthquake Mitigation

Dear Senator and General Committee Chair Shields and members of the committee,

I am the chair of the Oregon Seismic Safety Policy Advisory Commission (OSSPAC) and a civil engineer. This letter of TESTIMONY IN SUPPORT of Senate Bills 2, 3, 4, and 5 is in support of the bills and the testimony given at the public hearing on the bills on March 11, 2008.

The purpose of this testimony is to provide information to the committee concerning the importance of the bills and the testimony given at the public hearing on the bills on March 11, 2008.

Since OSSPAC's creation in 1999, we have been improving the public understanding of earthquake hazards and risks, and through mitigation of the possible effects of potential damaging earthquakes. In 2007, OSSPAC and the Department of Geology and Mineral Industries (DOGAMI) joined with a group of stakeholders (OSU, the State Bar Association, the Oregon School Boards Association, and the Oregon State Bar) to establish the Oregon Seismic Safety Policy Advisory Commission (OSSPAC) and a civil engineer. This letter of TESTIMONY IN SUPPORT of Senate Bills 2, 3, 4, and 5 is in support of the bills and the testimony given at the public hearing on the bills on March 11, 2008.

As the name of OSSPAC provides the conceptual plan, we also provided an enhanced work to prepare the needs assessment (SB 2, 3, 4, 5) and to develop grant programs (SB 3, 4, 5). This funding is necessary to carry out the conceptual plan defined in these bills, and must be allocated. Although state resources are limited, increasing these funds will result in the construction and grant programs to improve long-term economic development, strong communities, and safe children.

Again, these Senate Bills identified the problem and solutions that will mitigate the damaging effects of earthquakes on Oregon's school and emergency facilities. The enactment of these bills has been the first step of legislation that will make the state's Oregon School System (ESS) and begin the long journey to satisfying the mission of OSSPAC and increasing public safety.

Respectfully Submitted,

Jim Doane, PE

TO: Senate General Government Committee

FROM: Jim Doane, PE, OSSPAC Chair
Oregon Seismic Safety Policy Advisory Commission

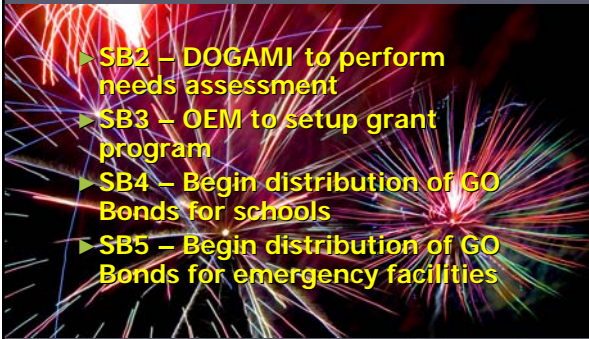
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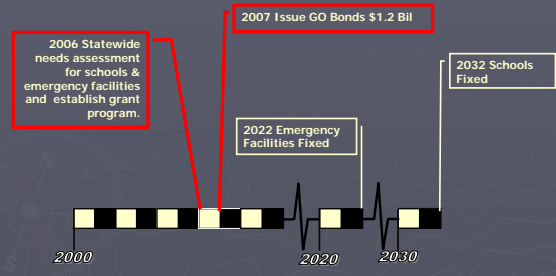
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Bills Passed !



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Current Timeline



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Equation for Success

$$PP \approx \left[\ln(A + B) + C \sum \left(\frac{E + F + G + H}{D} \right) \right] \int_0^{\infty} \int J \times I^{K \times L}$$

- A = Define Problem
- B = Define Solution
- C = Smart Timing and Location
- D = Involve Diverse Stakeholders
- E = Make Easy for People to Help
- F = Encourage Ownership
- G = Target the Information
- H = Repeat message
- I = Embrace Window of Opportunities
- J = Persistence
- K = Champions
- L = LUCK

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Conclusions

- Scientists & policy makers worked together to provide a long term solution for achieving better seismic safety in communities
- New laws for Oregon's schools & emergency facilities are a leap from pre-disaster planning/policy-making phase to actual mitigation
- Even if Bills failed, the effort in promoting seismic safety was very successful-- awareness & public policies ready when time ripe
- Developed "Equation For Success" --can be used in Communities & States
- Questions

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