



HOME // CLASSIFIEDS // NWSOURCE // FORUMS // MONEY // WEATHER // HOME DELIVERY

- NORTHWEST
 - Transportation
 - Joel Connelly
 - Robert L. Jamieson
 - Susan Paynter
 - Special Reports
 - Photo Journal
 - Obituaries
 - Sci-Tech
 - Historic Photos
 - P-I Town Hall
- SPORTS
- BUSINESS
- NATION/WORLD
- ART & LIFE
- COMICS & GAMES
- OPINION
- COLUMNISTS
- GETAWAYS
- NEIGHBORS

Northwest



Sponsor

TO



Print this

HEAD

Retrofitting buildings seems to have helped

Seismic upgrades limited damage

Thursday, March 1, 2001

By **MIKE LEWIS AND HEATH FOSTER**
SEATTLE POST-INTELLIGENCER REPORTERS

Seattle and King County buildings and bridges held up surprisingly well in yesterday's 6.8 magnitude earthquake, and those retrofitted to meet modern earthquake standards in recent years appeared to suffer less overall damage, building inspectors said.

Tens of millions of dollars have been spent on upgrading older schools, public buildings, bridges and highways to protect against earthquakes. Usually the seismic retrofit involves reinforcing foundations, load-bearing pillars and walls to make sure they can withstand a fierce shaking.

King County's two biggest concerns, the downtown 1910 County Courthouse and Harborview Medical Center, were shaken badly enough to sustain cracked plaster, shattered windows, damaged elevators and a few major gaps in walls, but no devastating structural damage.

The Courthouse, the County Administration Building and Yesler Building will remain closed until Monday.

In the meantime, a limited number of criminal cases will be transferred to a courtroom and the Regional Justice Center in Kent.

Minor structural damage to Harborview forced a daylong closure of the South Clinic and Harborview Hall, but the hospital continued normal operations. Both are expected to reopen today.

Charles Roeder, a University of Washington professor of civil engineering who helped write the Federal Emergency Management Agency's earthquake guidelines, said the city's older, unretrofitted

[Literally, sl from a wor trouble](#)

[System ex: death of in](#)

[Infirmary c 1999 by st remains sh](#)

[Lawyer kno funky dres: talker](#)

[Surveillanc for Pioneer](#)

[Murder cha stripper](#)

[A highway mourned](#)

['Kid-level v reality' em school surv](#)

[Boy, 4, die hits him in](#)

[Judge uph for Garrett](#)

[18-year-ol pleads guil stabbing d](#)

[Tax revolt area threat system](#)

[Nursing ho employee f speaking S the job](#)

[Ex-boyfrier charged wi](#)

[Governmen local cente](#)

SEARCH

SEARCH **FIN**

Sort: date rank

[Query Help](#)
[Browse by date](#)



AFFILIATES



P-I SERVICES



- [Quake photos](#)
- [Aftermath photos](#)
- [Seattle damage](#)
- [See the newspaper](#)
- [Share your stories](#)
- [More coverage](#)

PImail

Any news of interest straight to your inbox

PItoGo

Top local, business and sports news on your PDA

PImobile

Latest headlines on your phone

PIdesktop

Get the latest headlines on your desktop

Login

Create or edit your seattlepi.com account

P-I AWARDS

Society of Professional Journalists regional competition 2002

Best Overall:

1. Seattlepi.com

Web Site Design:

2. Seattlepi.com

Reg. News Feature:

1. 4 p.m.
2. M's Q&A
3. Transportation HM. Hot Spots

Spot News Report:

1. Earthquake

Special Report:

- HM. Africa

Sports Reporting:

1. All Star

A&E Reporting:

1. Morocco
2. Video Games
3. Pop

Business Rep.:

- HM. Nordstrom

[Complete list of awards](#)

buildings would likely have fared much worse if the quake had been a 7.0 magnitude or higher.

Because older buildings are stiff, once their strength is overcome they tend to "fail in a rather brittle way. Garbage gets thrown around, and people get hurt."

But he said "this quake was not big enough to get over that initial threshold. Though it seemed to shake a lot, the consequences were really small potatoes."

With the help of the Federal Emergency Management Agency, the city of Seattle has spent \$50 million since 1994 retrofitting public buildings, fire stations and bridges. By coincidence, the quake struck on the day President Bush proposed to kill a federal program designed to help communities protect themselves against the effects of natural disasters.

Bush's proposed federal budget recommends saving \$25 million by ending the Project Impact disaster preparedness program administered by Roeder's old agency. The program "has not proven effective," Bush's budget book states.

Seattle itself was one of the nation's first "Project Impact" communities. In February 1998, FEMA designated Seattle a "disaster-resistant community" for its efforts to reduce the potential costs and consequences from natural disasters.

Other participants in Washington state are King, Pierce, Walla Walla, Kitsap and Clark counties.

FEMA spokeswoman Mary Margaret Walker said the project's main thrust is less about federal dollars and more about "encouragement for local level initiatives to be taken. It may be that that will continue" without Project Impact.

On the city waterways, it appeared that a six-year, \$25 million program to retrofit 23 Seattle historic bridges paid off. Liz Rankin of Seattle Transportation said the newly fortified Fremont, University, Ballard, and Jose Rizal bridges and the Spokane Street Viaduct were undamaged.

"These are beautiful old bridges and they are all functioning perfectly," she said. "This is the precise circumstance we worked to be ready for, and it paid off today in spades."

Meanwhile, some bridges that have not been seismically upgraded -- including the Magnolia Bridge and the Alaska Way Viaduct-- were closed yesterday. The viaduct, at least, was damaged by the quake.

Seattle Mayor Paul Schell said it would take time to assess damage to city buildings, but said it seems clear that seismic remodeling was worth

[passenger](#)

[Head of an firm charge having unr warheads](#)

[Fire crews up in East Washington](#)

[Police want liquor licen](#)

[Serial burg after comp systems](#)

[Dive in pov may boost](#)

[Flight diver Sea-Tac fo emergency](#)

[Man with g down doct](#)

[King Count](#)

the cost. "We have no catastrophic damage," Schell said.

County and private building inspectors worked late into the night scrutinizing county buildings and came away saying that structures that had been retrofitted suffered more severe cosmetic damage, but appeared to have fared nearly as well as those already reinforced for quakes.

They cautioned, however, against reading too much into the fact that Courthouse damage wasn't as bad as had been predicted. Structural engineers have repeatedly warned county politicians that in a major quake the courthouse could collapse, taking many lives.

"We were lucky," said Karen Heidergott, a program manager in the county's building inspection department. "The fact is we don't know yet the full extent of the damage but I'm surprised it wasn't worse."

The courthouse is scheduled for retrofitting but the \$63 million project is only in the design stages.

"It's moving right along," said Councilman Rob McKenna. "It was planned to be done over two to three years but we might want to look at accelerating that plan after we see the damage reports."

The Harborview Medical Center buildings closed yesterday are some of the hospital's oldest, the 1950s-era South Clinic and Tower, and the 1930s-era nurses residence, Harborview Hall. Hospital CEO Johnese Spisso said that the clinic sustained serious damage to some elevators, as well as cracked walls and ceilings.

Harborview Hall, which is office space for researchers, had structural damage that is still being assessed. The worst damage, Spisso said, was a foot-wide gap along a seismic joint between the hospital's South and Center Towers.

King County voters last fall approved a \$193.1 million bond sale for major seismic improvements at the hospital, additional patient beds and offices. The project will include demolition and reconstruction of South Clinic and Harborview Hall. Spisso said the damage brings home the importance of that work.

P-I reporter Heath Foster can be reached at 206-448-8337 or heathfoster@seattle-pi.com



[Printer-friendly version](#)



[E-mail this story](#)



[Subscribe to the Post-Intelligencer](#)



[Get news via e-mail with Pmail](#)

WhyNotOwn.com



Refinance Now! Interest