

Council Communication

March 3, 2014, Study Session

Seismic Structural Improvements to Existing Buildings

FROM:

Michael Grubbs, Building Official, Community Development Department,
michael.grubbs@ashland.or.us

SUMMARY

Community Development staff is interested in developing an amendment to our local building code for City Council's consideration regarding the protection of one of the community's greatest resources, its buildings. Specifically, this would entail amendments to the Ashland Municipal Code, Buildings and Construction section, requiring seismic improvements when buildings undergo remodel or reconstruction. Many buildings within the City of Ashland are vulnerable to the destructive effects of an earthquake. Extreme damage or collapse will result, all due to their age and construction type. If an ordinance is in place, the survival rate of these buildings and the persons who occupy them will greatly be improved.

BACKGROUND AND POLICY IMPLICATIONS:

The major earthquake projected to take place in Oregon sometime in the not so distant future would have a devastating effect on older existing non-code-compliant buildings within the City of Ashland. To preserve Ashland's building stock and provide a safer environment for all, the Building Division proposes consideration of an ordinance which would require structural improvements to existing buildings when a planned alteration or remodel takes place. Such an ordinance reduces the likelihood of severe damage to Ashland's distinctive buildings. Currently, the cities of Medford and Portland have similar ordinances enacted and enforced.

Stakeholder outreach would target local building owners, construction specialists, and interested parties through our local media, Ashland web page, mailings, open public meetings, and email messaging - all designed to inform and allow public input into the crafting of this ordinance.

Facts:

- Scientific studies have identified the Cascadia Subduction zone off the coast as the source of a long history of earthquakes and tsunamis that have affected the State of Oregon.
- Building codes prior to 1976 did not contain adequate provisions for seismic structural safety for structures.
- Older structures in Ashland, including its downtown core are constructed mainly of unreinforced masonry or concrete, which makes them very vulnerable to damage or collapse during an earthquake. Please note: Newer buildings and those currently under construction have been designed with appropriate seismic safeguards in place.



- The current Oregon Structural Specialty Code does not require seismic improvements when a building is remodeled unless a more hazardous use is proposed; seismic upgrades are only voluntary.
- This type of ordinance is endorsed by the State of Oregon Building Codes Division, Ashland Fire Department, the City of Medford and the City of Portland

This new code could include the following triggers for seismic improvement requirements:

- When renovation costs exceed \$100,000 or \$15.00 per square foot.
- When re-roofing is planned, parapet walls need to be braced.
- Change of Occupancy, for example a change from a retail outlet (M-Mercantile) to a restaurant or lounge (A-Assembly).
- T-bar ceiling seismic upgrades required when any work is planned.
- Tilt-up concrete buildings constructed prior to 1998 require the roof system to be evaluated for connection to the walls.
- If interior ceiling materials are removed in single story buildings (thereby exposing the roof wood framing system), the roof system could be required to be evaluated for connection to the walls.
- If interior ceiling materials are removed in multi-story buildings, upper floor systems and roof diaphragm systems required to be evaluated for connection to the walls.
- Most single family homes would be exempt.

Affected buildings that have undergone seismic improvements would provide a higher degree of safety for occupants through added structural strength, thereby greatly improving personal survival. The cities of Portland and Medford have such ordinances in place. In Portland, it is estimated that 20% of all remodeled commercial building stock have been seismically improved.

FISCAL IMPLICATIONS:

There would be minimal fiscal impact to the City of Ashland. Building/business owners would realize a increase in the cost of construction, depending on size and scope of work or size of the building when an alteration or renovation is planned. City of Ashland incentives will be explored and possibly offered to permit applicants.

STAFF RECOMMENDATION AND REQUESTED ACTION:

Instruct staff to continue to research and draft an ordinance for Council consideration.

SUGGESTED MOTION:

N/A

ATTACHMENTS:

Link to the City of Medford Seismic Ordinance: www.ci.medford.or.us/Code.asp?CodeID=3643

Link to the City of Portland Seismic Ordinance: www.portlandonline.com/auditor/index.cfm?c=28673

