

**CHAPTER 24.85 - SEISMIC DESIGN
REQUIREMENTS FOR EXISTING
BUILDINGS**

a. Section 24.85.010, Scope, is amended as follows:

24.85.010 Scope.

- A.** The provisions of this chapter prescribe the seismic design requirements for existing buildings undergoing changes of occupancy, additions, alterations, catastrophic damage, fire, or earthquake repair, or mandatory or voluntary seismic strengthening. Except for the provisions related to seismic strengthening of unreinforced masonry bearing wall buildings in Section 24.85.065, the requirements of this chapter only apply to buildings for which a building permit has been applied for to change the occupancy classification, add square footage to the building, alter or repair the building.
- B.** [No change]

b. Section 24.85.020, Seismic Related Definitions, is amended as follows:

24.85.020 Seismic Related Definitions.

[A.-P. No change]

- ~~**Q.** Fire and Life safety for Existing Buildings (FLEEx) Guide means a code guide published by the Bureau of Development Services, outlining alternative materials and methods of construction that are allowed for existing buildings in Portland.~~
- RQ.** FM 41 Agreement means a joint agreement between Portland Fire & Rescue, the Bureau of Development Services and a building owner to schedule improvements to the building following a determination of the fire and life safety hazards posed by the existing condition of the building as provided under Oregon law.
- SR.** Live/Work Space means a combination working space and dwelling unit. A live/work space includes a room or suite of rooms on one or more floors designed for and occupied by not more than one family and including adequate working space reserved for the resident's occupancy. A live/work space is individually equipped with an enclosed bathroom containing a lavatory, water closet, shower/and or bathtub and appropriate venting.
- ~~**TS.** Net Floor Area means the entire area of a structurally independent building, including an occupied basement, measured from the inside of the~~

permanent outer building walls, excluding any major vertical penetrations of the floor, such as elevator and mechanical shafts.

- T.** Non-profit building means a building owned by an organization registered as a non-profit entity with the Oregon Secretary of State.
- U.** Occupant Load means the number of persons for which the means of egress of a building or portion thereof is designed. The occupant load shall be calculated based on occupant load factors in the table assigned to each space in the Oregon Structural Specialty Code (OSSC).
- V.** Oregon Structural Specialty Code (OSSC) means the provisions of the State of Oregon Structural Specialty Code as adopted by Section 24.10.040 A.
- W.** Publicly-owned building means a building owned by a government agency, including a federal, state, or local government, or a special district.
- WX.** Reinforced Masonry means masonry having both vertical and horizontal reinforcement as follows:
- 1.-4. [No change]**
- XY.** Risk Category: A categorization of a building for determination of earthquake performance based on Oregon Structural Specialty Code (OSSC).
- YZ.** Roof Covering Repair or Replacement means the installation of a new roof covering following the removal of an area of the building's roof covering exceeding 50 percent or more of the total roof area within the previous ~~five~~15 year period.
- ZAA.** Unreinforced Masonry (URM) means adobe, burned clay, concrete or sand-lime brick, hollow clay or concrete block, hollow clay tile, rubble and cut stone and unburned clay masonry that does not satisfy the definition of reinforced masonry as defined herein. Plain unreinforced concrete shall not be considered unreinforced masonry for the purpose of this Chapter.
- AABB.** Unreinforced Masonry Bearing Wall means a URM wall that provides vertical support for a floor or roof for which the total superimposed vertical load exceeds 100 pounds per lineal foot of wall.
- BBCC.** Unreinforced Masonry Bearing Wall Building means a building that contains at least one URM bearing wall.

- c. Section 24.85.040, Change of Occupancy or Use, Subsection C. is amended as follows:

C. Occupancy Change to Live Work Space. Any building occupancy classified as relative hazard category 1, 2, or 3 may undergo a change of occupancy to live/work space provided that:

1. **[No change]**
2. The building meets the fire and life safety standards of ~~either the FLEx Guide or the current OSSC.~~
3. **[No change]**

d. Section 24.85.065, Seismic Strengthening of Unreinforced Masonry Bearing Wall Buildings, is amended as follows:

24.85.065 Seismic Strengthening of Unreinforced Masonry Bearing Wall Buildings.

When any building alterations or repairs occur at an Unreinforced Masonry Bearing Wall Building, all seismic hazards shall be mitigated as set forth in Subsections 24.85.065 A. and B. A previously permitted seismic strengthening scheme designed in accordance with FEMA 178/310/ASCE 31 may be submitted for consideration by the Bureau Director as equivalent to the ASCE 41 improvement standard.:

A. **[No change]**

B. Additional Triggers.

1. Building alterations or repair. When the cost of alteration or repair work which requires a building permit ~~in a 2-year period~~ exceeds the following criteria, then the building shall be improved to resist seismic forces such that the entire building conforms to the ASCE 41-BPOE improvement standard.

Building Description	Cost of Alteration or Repair <u>in a 5-Year Period</u>	Cost of Alteration or Repair <u>in a 15-Year Period (including the first 5 years)</u>
Single Story Building	\$4060 per square foot	\$120 per square foot
Buildings Two Stories or Greater	\$3045 per square foot	\$90 per square foot
<u>Special building hazard: buildings in a relative hazard category 5 or with</u>	<u>\$45</u> per square foot	<u>\$90</u> per square foot

EXHIBIT A

vertical or plan irregularities		
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2. Special building hazards. Where an Unreinforced Masonry Building of any size contains any of the following hazards, the building shall be seismically improved if the cost of alteration or repair exceeds \$~~3045~~ per square foot:

a. and b. [No change]

3-4. [No change]

5. Automatic cost increase. The dollar amounts listed in Subsections 24.85.065 B.1. and 2. shall be modified each year after ~~2004~~2018 by the percent change in the R.S. Means of Construction Cost Index for Portland, Oregon. The revised dollar amounts will be made available at the Development Services Center.

C. Placard requirement for unreinforced masonry buildings.

On or before the dates set forth in the timetable below, all unreinforced masonry buildings that have not been retrofitted to the standard specified in Subsection 24.85.065 F. below must be posted with a placard in a conspicuous place on the exterior at the main entrance of the building. The criteria for the placard are as follows:

1. Font. The font must be at least 50-point bold type, legible sans serif.
2. Size. The placard must be at least 8 inches by 10 inches.
3. Material. The placard must be constructed of a durable material that can withstand the elements and must be maintained to ensure that it is not defaced, removed, damaged, or degraded to the point where the placard is no longer legible.
4. Content. The placard must contain the following language: "THIS IS AN UNREINFORCED MASONRY BUILDING. UNREINFORCED MASONRY BUILDINGS MAY BE UNSAFE IN THE EVENT OF A MAJOR EARTHQUAKE."
5. Duration. The placard must remain in place until the building is either: retrofitted and the Bureau of Development Services confirms that the retrofit specified in Subsection 24.85.065 F. has been completed and approved by BDS; or the building is demolished.
6. Timeline. Placards must be posted according to the following timeline:

- a. Publicly-owned buildings. Publicly-owned URM buildings must post the required placard on or before January 1, 2019.
- b. Non-profit buildings. Non-profit URM buildings must post the required placard on or before November 1, 2020.
- c. All other buildings. All other URM buildings that do not fall into a. or b. above must post the required placard on or before March 1, 2019.

D. Tenant notification for unreinforced masonry buildings.

1. Existing leases and rental agreements. The owner of a building subject to Subsection 24.85.065 C. must notify existing tenants that the building is an unreinforced masonry building, and unreinforced masonry buildings may be unsafe in the event of a major earthquake.
2. Leases and rental agreements entered into or renewed after the timeline for placarding. Every lease or rental agreement entered into or renewed on or after the relevant timeline for posting the required placards as outlined in Subsection 24.85.065.C 6., involving a building subject to the requirements of Subsection 24.85.065 C., must contain a statement that: the building is an unreinforced masonry building, and unreinforced masonry buildings may be unsafe in the event of a major earthquake.

E. Documentation of compliance to be recorded.

The owner of a building subject to Subsections 24.85.065 C. and D. must execute and record an agreement not to remove the placard required in Subsection 24.85.065 C. and an acknowledgement of compliance with the tenant notification requirements outlined in Subsection 24.85.065 D. on a form provided by the Bureau of Development Services. The building owner must provide a copy of the recorded document to the Bureau.

F. Evidence that a building is exempt from placard requirements.

The following are evidence that an unreinforced masonry building meets the required retrofit standards and will exempt the building owner from complying with Subsections 24.85.065 C., D., and E.

1. Buildings that have been fully retrofitted to or shown to meet or exceed the following standards:

The Basic Performance Objective for Existing Buildings (BPOE) or better as defined in ASCE 41-17 or ASCE 41-13 for collapse prevention structural performance level under BSE-2E seismic hazard or life safety structural performance level under BSE-1E seismic hazard; and URM parapets, cornices and chimneys for life safety non-structural performance level under BSE-1E seismic hazard. The seismic hazards BSE-1 and BSE-2 are as previously defined in Section 24.85.020; or

2. Buildings that have previously been fully retrofitted prior to January 1, 2018 to one of the following standards:
 - (a) Life Safety performance level or better using FEMA-178, FEMA 310, or ASCE 31, including bracing of parapets, cornices and chimneys; or
 - (b) Oregon Structural Specialty Code, 1993 edition or later.

G. Enforcement.

1. Fire Marshal Inspections. As part of Portland Fire & Rescue's periodic inspections program outlined in Chapter 31.50, the Portland Fire Marshal is granted authority to inspect unreinforced masonry buildings for compliance with the provisions of Subsection 24.85.065 C. If the Fire Marshal determines there is a violation of Subsection 24.85.065 C., the Fire Marshal will issue a notice of violation to the owner of the building. The building owner will have 40 calendar days from the date of the notice of violation to comply with the requirements of Subsection 24.85.065 C., and the Fire Marshal will re-inspect the building for compliance. If the violation still exists at the time of the re-inspection, the Fire Marshal will charge a re-inspection fee and turn the case over to the Bureau of Development Services for further enforcement.
2. Bureau of Development Services' enforcement. BDS will use its existing enforcement authority as outlined in Section 3.30.040 to enforce the provisions of Subsections 24.85.065 C., D., and E.

H. Appeals.

1. Appeals of determination that building is unreinforced masonry or whether the building has been retrofitted: if the building owner disagrees with the determination that the building is an unreinforced masonry building or that the building was retrofitted to the standards outlined in Subsection 24.85.065 F., the building owner may appeal that determination as provided in Section 24.85.095.

2. If a building owner appeals the determination that the building is an unreinforced masonry building or that it has been retrofitted to the standards outlined in Subsection 24.85.065 F., and the Director upholds the URM determination, then the building owner has until the relevant date set forth in the timetable in Subsection 24.85.065 C.6., or two months from the written determination, whichever is later, to install the placard in accordance with Subsection 24.85.065 C and complete the tenant notification outlined in Subsection 24.85.065 D.
3. Appeals related to BDS enforcement actions under Section 3.30.040 that do not fall under Subsection 24.85.065 H.1-2 will follow the procedures laid out in that Chapter.

I. Future-discovered unreinforced masonry buildings.

If the Bureau of Development Services discovers that a building is an unreinforced masonry building that has not been retrofitted to the standards outlined in Subsection 24.85.065 F. after the relevant date set forth in the timetable in Subsection 24.85.065 C.6., the Bureau will provide written notice to the building owner that the building must comply with the provisions of Subsections 24.85.065 C., D., E, and F. The building owner will have three months from the Bureau's written determination and notice to property owner to either comply or file an appeal as described in Subsection 24.85.065 H.

- e. Section 24.85.095, Appeals, is amended as follows:

24.85.095 Appeals.

Because unanticipated circumstances may arise in the enforcement of these requirements for existing buildings, consideration as to the reasonable application of this Chapter may be addressed through the Board of Appeals as provided in Section 24.10.080. Except as otherwise provided in this Chapter 24.85, a property owner or the property owner's agent may appeal application of this Chapter 24.85 as outlined in Section 24.10.075.