

**Oregon**  
**Local Amendment Ruling No. 95-25**  
**CITY OF PORTLAND**

**Requested By:** VERA KATZ, MAYOR, CITY OF PORTLAND

**QUESTION**

As provided in ORS 455.040, may the City of Portland enact a local ordinance to amend the Oregon Structural Specialty Code to allow five stories of Type V-1 Hour construction?

**APPLICABLE CODE SECTIONS**

1993 Oregon Structural Specialty Code (OSSC), Chapter 5, Section 507, and 1996 OSSC, Chapter 5, Section 506, which regulate "maximum height of buildings and increases."

**BACKGROUND**

On September 22, 1995, Vera Katz, Mayor of the City of Portland, wrote to the Administrator requesting a local amendment. On October 4, 1995, the Administrator requested a recommendation from the Building Codes Structures Board concerning this proposal. The board chose to forward the question to two of its committees. On November 3, 1995, the Building Codes Structures Board's Structural Engineering and Lateral Force Committee and its Structural/Mechanical Committee held a joint meeting. Both committees recommended to the Building Codes Structures Board that the proposal be forwarded to the Administrator for approval. The Building Codes Structures Board at its December 6, 1995, meeting recommended approval of this local amendment to the Administrator.

**REQUESTED LOCAL AMENDMENT**

The local amendment would increase the maximum number of stories allowed by 1993 OSSC Section 507 and 1996 OSSC Section 506 in Type V-1 Hour buildings, as provided in a new chapter to Portland City Code, Title 24, as follows:

**24.90 SPECIAL DESIGN STANDARDS FOR FIVE STORY APARTMENT BUILDINGS**

**24.90.010 General.** The provisions of this chapter may be used to design and construct apartment buildings in addition to complying with the Oregon Structural Specialty Code as adopted in Section 24.10.040. Buildings designed and constructed under this chapter shall comply with all provisions of this chapter. Where a provision in this chapter is in conflict with the Structural Specialty Code, the provision of this chapter shall take precedence, as authorized by the Director of the Department of Consumer and Business Services pursuant to Oregon Revised Statute 455.040.

**24.90.020 Construction.** A. Single Construction. Buildings complying with this chapter may be five stories of Type V-1 Hour construction.

B. Mixed Construction. Six story buildings complying with this chapter may be designed and constructed where the basement and/or first story is constructed of Type I construction and the top 5 stories are of Type V-1 Hour construction. The Type I construction shall be separated from the Type V-1 Hour construction above with a three-hour fire-resistive occupancy separation.

C. Construction Types. Type I and Type V-1 Hour construction shall be as specified in the Structural Specialty Code.

**24.90.030 Occupancy.** The occupancy of the top four stories of buildings shall be limited to Group R, Division 1 apartment occupancies. Occupancies located on other stories shall be limited to:

- Group A, Division 3 and Group B drinking and dining establishments and assembly areas for the common use of residents;

- Group B offices;
- Group M retail stores;
- Group E, Division 3 day-cares;
- Group S, Division 3 parking garages; and
- Group R, Division 1 apartment houses.

Occupancies shall be as defined in the 1994 Uniform Building Code as may be further modified in the Structural Specialty Code.

In mixed construction buildings, Group S, Division 3 parking garage occupancies shall be limited to the portion of the building constructed to Type I standards.

**24.90.040 Sprinkler Protection.** The building shall be protected throughout by an automatic sprinkler system complying with U.B.C. Standard No. 9-1 (NFPA 13) as contained in the 1994 *Uniform Building Code* as may be further modified in the Structural Specialty Code. The automatic sprinkler system shall not substitute for the one-hour fire-resistive construction.

**24.90.050 Height.** The maximum height of each section of either a single or mixed construction building shall be 65 feet. The height shall be measured from the apparatus set-up point to the highest point of coping of a flat roof, the deck of a mansard roof; or the average height of the highest gable of a pitched or hipped roof associated with the building facade. The height of building sections with no fire apparatus access shall not exceed the height of adjacent sections.

**24.90.060 Fire Fighting Access.** Access to the building for fire fighting and related purposes shall be provided as follows:

- A. Subject to the approval of the Bureau of Buildings and the Fire Bureau, a minimum of two of the exterior facades of the building shall be accessible by a ladder truck, according to the following standards:
  1. The design shall minimize the number of apparatus set up points and shall maximize the number of apartments within the ladder reach;
  2. For each accessible facade of the building, one apparatus set up point shall be provided for each 200 feet of building facade, or fraction thereof;
  3. At least 50 percent of all living units which have windows on the exterior facades of the building must be within ladder reach of apparatus located at approved set points. Living units which only have windows on exterior courtyards are not included in this determination;
  4. Set-up points shall be on an access road which may be either a public street or an area of the property set aside for access road purposes. The access road shall be paved and support the weight of the apparatus. The access road shall comply with Fire Bureau standards and shall be of sufficient width to provide access to, and around apparatus set-up points;
  5. Each accessible building facade shall be within 21 feet of the closest edge or curb of the access road;
  6. Any trees planted between the edge of an access road and an accessible building facade shall be subject to the approval of the Fire and Building Bureaus and shall not obstruct or otherwise adversely interfere with fire fighting access; and
  7. The location of overhead wires along accessible building facades shall be subject to the approval of the Fire Bureau and shall not adversely interfere with fire fighting access.
- B. Interior courtyards shall be not less than 30 feet in any interior dimension.
- C. Unless the roof has a slope greater than 4 vertical in 12 horizontal, all stairways shall extend to the roof surface.

D. Each stairway shall include a Class I or III standpipe complying with the Structural Specialty Code.

**24.90.070 Permit Application** Permit applications submitted pursuant to this chapter shall include the plans and specifications as specified by the Bureau of Buildings and the Bureau of Fire. Prior to application, the applicant shall have a pre-application design conference with the Bureaus.

**24.90.080 Construction and Inspection.** In addition to inspections and special inspections specified in the Structural Specialty Code and Chapter 24.20 of this code, the Bureau of Buildings shall require the following for buildings constructed pursuant to this chapter:

A. Structural Observation: Structural observation shall be provided by the engineer or architect of record.

B. Either a Focused Inspection or a Special Inspection as follows:

1. Focused Inspection: Inspection provided by the inspection staff of the Bureau which enhances attention on the key elements of the lateral force resisting systems of the building, including, but not limited to, the following:

1.1 The grade of structural wood panel used in the vertical and horizontal diaphragms;

1.2 The nail size and pattern of the diaphragms;

1.3 The location and length of all shear walls;

1.4 The hold down installations at all shear wall locations;

1.5 The diaphragm chord, drag strut and related details;

1.6 The base plate bolting; and

1.7 The blocking to top plate nailing.

2. Special Inspection: Special inspection which focuses on the lateral force resisting systems, including, but not limited to, the items listed in B.1 above, provided by a special inspector employed by the owner, or the engineer or architect of record acting as the owner's agent.

## **FINDINGS**

ORS 455.040 authorizes the Administrator to approve local amendments to the OSSC.

The Administrator finds that the City of Portland's proposed local amendment shall be adopted as a local ordinance and not as a statewide code change. This local amendment addresses the concerns for:

1. Fire hazards, specifically fire suppression and fire fighting access; and
2. Engineering and construction adequacy.

Additionally, the Administrator acknowledges the City of Portland's capability to adequately protect from fire, the structures in their jurisdiction, and to adequately respond to fire emergencies. This finding is based on Portland's capability to adequately:

1. Maintain a building's fire and life safety systems through various inspection programs; and
2. Respond to fire emergencies with adequate personnel, adequate water supply, and adequate fire fighting apparatus.

This capability is indicated by Portland's ISO Commercial Risk Services, Incorporated public protection classification rating of 2.

## **DISCUSSION & CONCLUSION**

The Administrator approves a local amendment to 1993 OSSC Section 507 and future OSSC Section 506 to allow five stories of Type V-1 Hour construction in the City of Portland, subject to the following conditions:

1. The City's local ordinance is as shown in this ruling; and
2. The City maintains a minimum ISO Commercial Risk Services, Incorporated public protection classification rating of 2.

These conditions are intended to ensure that the City maintains an adequate capability to protect from fire, the structures in their jurisdiction, and to adequately respond to fire emergencies. This approval is revoked if the two conditions listed above are not met.

Authorization by the Administrator to amend 1993 OSSC Section 507 and future OSSC Section 506 within the City of Portland's jurisdiction shall not be considered an amendment to the OSSC under ORS 455.030.

The recommendation of the Building Codes Structures Board is accepted and this local amendment is approved.

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(signed December 21, 1995)

Michele J. Patterson, Acting Administrator  
Building Codes Division

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Date