

Structural Permit Requirements for the Replacement of Rooftop Mechanical Equipment

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Code reference

2025 Oregon Structural Specialty Code (OSSC)—Chapter 34

Dates

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Questions

Is a structural [building] permit required when replacing existing rooftop mechanical equipment with comparable equipment?

Answers

A structural [building] permit is not required to replace rooftop mechanical equipment if all of the following conditions are met and documented on the mechanical permit application:

1. The replacement unit weighs no more than 10 percent or 100 pounds greater than the existing unit, whichever is greater.
2. The replacement unit does not vary any dimension from the existing unit by more than 10 percent or 6 inches, whichever is greater.
3. The manufacturer's specifications for the existing and the replacement units are provided.
4. No modification to the existing, supporting structural elements is performed, including re-framing of existing openings.
5. The replacement unit is located in the same location as the previous unit.
6. The replacement unit is mounted to the existing curb (the use of a curb adapter or replacement curb of different size requires a structural [building] permit).
7. Connection details or installation instructions for attachment of the replacement unit to the existing curb are provided.

Where any of the conditions above cannot be met, a structural [building] permit outlining compliance with Section 102.6.1 of the OSSC is applicable.

Analysis

Regulation of structural requirements for the replacement of rooftop mechanical equipment only applies when the installation of the equipment has a direct impact on the structural integrity of a regulated building, or when the structural load path from the unit to the existing roof (e.g. curb adapter or new curb) is altered. Like-for-like replacement of rooftop mechanical equipment with equipment of comparable size, weight, location and same attachments does not constitute an alteration to the structure. This type of replacement does not make the existing building less compliant than it was prior to the alteration.

When the replacement unit requires the use of a curb adapter or new curb of different size, those curbs and their attachments are considered new structural members and connections subject to Section 3403.2.4.1, which requires they comply with the new construction provisions of the code. Where the replacement unit is heavier than or varies in size from the existing unit (beyond the thresholds in the “Answer” section above), per Section 3403.1.3, the structural effects from the replacement equipment shall be evaluated as an alteration using either the “Prescriptive Compliance Method” (Section 3405.3) or the “Work Area Method” (Level 1 Alteration as scoped and applied in Sections 3406.2 and 3407.1.1, respectively).

No other permitting requirements are considered within this interpretation.

Contact

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