



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

May 2018
Log No. _____

1. State Building Code to be Amended:

- | | |
|---|---|
| <input checked="" type="checkbox"/> International Building Code | <input type="checkbox"/> International Mechanical Code |
| <input type="checkbox"/> ICC ANSI A117.1 Accessibility Code | <input type="checkbox"/> International Fuel Gas Code |
| <input type="checkbox"/> International Existing Building Code | <input type="checkbox"/> NFPA 54 National Fuel Gas Code |
| <input type="checkbox"/> International Residential Code | <input type="checkbox"/> NFPA 58 Liquefied Petroleum Gas Code |
| <input type="checkbox"/> International Fire Code | <input type="checkbox"/> Wildland Urban Interface Code |
| <input type="checkbox"/> Uniform Plumbing Code | |

For the Washington State Energy Code, please see specialized [energy code forms](#)

Section(s):

503.1.4.2, 1015.2

Title:

Guards for occupied roofs

2. Proponent Name (Specific local government, organization or individual):

Proponent: Lee J. Kranz representing the City of Bellevue Washington

Title: Plan Review Supervisor

Date: May 28, 2021

3. Designated Contact Person:

Name: Lee J. Kranz

Title: Plan Review Supervisor

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4. Proposed Code Amendment. Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code additional pages may be attached. (Examples on the SBCC [website](#))

Code(s) IBC **Section(s)** 503.1.4.2 and 1015.2

Enforceable code language must be used; see an example [by clicking here](#).
Amend section to read as follows:

503.1.4.2 Guards. Occupied roofs shall have *guards* in accordance with Section 1015.2.

1015.2 Where required.

Guards shall be located along open-sided walking surfaces, including *mezzanines, equipment platforms, aisles, stairs, ramps* and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. *Guards shall be provided at the perimeter of the occupied portions of an occupied roof.* *Guards* shall be adequate in strength and attachment in accordance with [Section 1607.8](#).

Exception: *Guards* are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of *stages* and raised *platforms*, including *stairs* leading up to the *stage* and raised *platforms*.
3. On raised *stage* and *platform* floor areas, such as runways, *ramps* and side *stages* used for entertainment or presentations.
4. At vertical openings in the performance area of *stages* and *platforms*.
5. At elevated walking surfaces appurtenant to *stages* and *platforms* for access to and utilization of special lighting or equipment.
6. Along vehicle service pits not accessible to the public.
7. In assembly seating areas at cross aisles in accordance with [Section 1029.17.2](#).
8. On the loading side of station platforms on fixed guideway transit or passenger rail stations
9. Portions of an occupied roof located less than 30 inches measured vertically to adjacent unoccupied roof areas when approved guards are present at the perimeter of the roof.
10. At an occupied portion of an occupied roof where a barrier approved by the building official is provided.

5. Briefly explain your proposed amendment, including the purpose, benefits and problems addressed. Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

There are many cases where the design of an occupied roof includes only a portion of the entire roof area. The occupied portions of the roof are typically elevated 18" or less above the adjacent unoccupied areas of the roof, therefore, no *guard* is currently required for these areas per Section 1015.2. This issue is regularly debated on building official chat lines and other forums due to the lack of regulatory authority to require the guard in this design scenario.

A similar proposal was submitted by WABO TCD but this one adds exceptions 9 and 10. Exception 9 allows for no *guards* where the occupied roof adjoins the unoccupied roof if the entire roof perimeter is provided with a guard. Exception 10 allows the building official to approve the use of a barrier when the need for a full Chapter 16 *guard* is not warranted. In these cases, an approved barrier may be provided instead of a *guard*.

Occupied roofs are relatively new in the IBC and we're discovering issues related to their design on a regular basis. This code change will eliminate or drastically reduce the potential for kids, or even adults who may be inebriated, from falling over the edge of a roof which even if the occupied portion of the roof is some distance away from the roof edge.

6. Specify what criteria this proposal meets. You may select more than one.

- The amendment is needed to address a critical life/safety need.
- The amendment clarifies the intent or application of the code.

- The amendment is needed to address a specific state policy or statute.
- The amendment is needed for consistency with state or federal regulations.
- The amendment is needed to address a unique character of the state.
- The amendment corrects errors and omissions.

7. **Is there an economic impact:** Yes No

Explain:

If there is an economic impact, use the tool below to estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. If preferred, you may submit an alternate cost benefit analysis.

Provide your best estimate of the construction cost (or cost savings) of your code change proposal? (See OFM Life Cycle Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). **Webinars on the tool can be found [Here](#) and [Here](#)**)

\$[Click here to enter text.](#)/square foot (For residential projects, also provide \$[Click here to enter text.](#)/dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

There will be an increase in cost because more guards will need to be installed for occupied roofs where only a portion of the roof area is occupied. I estimate the cost to be approximately \$1/SF of the occupied area of the roof.

List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

Please send your completed proposal to: sbcc@des.wa.gov

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.