

# E112-24

IBC: 1028.2; IFC: [BE] 1028.2

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## 2024 International Building Code

Revise as follows:

### 1028.2 Exit discharge.

*Exits* shall discharge directly to the exterior of the *building*. The *exit discharge* shall be at grade or shall provide a direct path of egress travel to grade. The *exit discharge* shall not reenter a *building*. The combined use of Exceptions 1 and 2 shall not exceed 50 percent of the number and minimum width or required capacity of the required *exits*.

#### Exceptions:

1. Not more than 50 percent of the number and minimum width or required capacity of *interior exit stairways* and *ramps* is permitted to egress through areas, including *atriums*, on the level of discharge provided that all of the following conditions are met:
  - 1.1. Discharge of *interior exit stairways* and *ramps* shall be provided with a free and unobstructed path of travel to an exterior *exit* door and such *exit* is readily visible and identifiable from the point of termination of the enclosure.
  - 1.2. The entire area of the *level of exit discharge* is separated from areas below by construction conforming to the *fire-resistance rating* for the enclosure.
  - 1.3. The egress path from the *interior exit stairway* and *ramp* on the *level of exit discharge* is protected throughout by an *approved automatic sprinkler system*. Portions of the *level of exit discharge* with access to the egress path shall be either equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of *interior exit stairways* or *ramps*.
  - 1.4. Where a required *interior exit stairway* or *ramp* and an *exit access stairway* or *ramp* serve the same floor level and terminate at the same *level of exit discharge*, the termination of the *exit access stairway* or *ramp* and the *exit discharge* door of the *interior exit stairway* or *ramp* shall be separated by a distance of not less than 30 feet (9144 mm) or not less than one-fourth the length of the maximum overall diagonal dimension of the *building*, whichever is less. The distance shall be measured in a straight line between the *exit discharge* door from the *interior exit stairway* or *ramp* and the last tread of the *exit access stairway* or termination of slope of the *exit access ramp*.
2. Not more than 50 percent of the number and minimum width or required capacity of the *interior exit stairways* and *ramps* is permitted to egress through a vestibule provided that all of the following conditions are met:
  - 2.1. The entire area of the vestibule is separated from areas below by construction conforming to the *fire-resistance rating* of the *interior exit stairway* or *ramp enclosure*.
  - 2.2. The depth from the exterior of the *building* is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).
  - 2.3. The area is separated from the remainder of the *level of exit discharge* by a *fire partition* constructed in accordance with Section 708.

**Exception:** The maximum transmitted temperature rise is not required.
  - 2.4. The area is used only for *means of egress* and *exits* directly to the outside.
3. *Horizontal exits* complying with Section 1026 shall not be required to discharge directly to the exterior of the *building*.

4. Exit discharge onto the roof of the same building or onto a horizontal building separation per Section 510.2 is permitted when all of the following criteria are met:
- 4.1. The exit discharge shall be provided with a free and unobstructed path of travel that is readily visible and identifiable, that does not include re-entering the building or utilizing an interior exit stairway or ramp or exterior exit stairway or ramp.
- 4.2. The roof assembly, for the structural bays that support the required exit discharge path, shall have no unprotected openings, and not less than a one-hour fire resistance rating, and not less than the fire resistance rating required for the exit enclosure that discharges onto the roof.

## 2024 International Fire Code

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#### [BE] 1028.2 Exit discharge.

*Exits* shall discharge directly to the exterior of the building. The *exit discharge* shall be at grade or shall provide a direct path of egress travel to grade. The *exit discharge* shall not reenter a building. The combined use of Exceptions 1 and 2 shall not exceed 50 percent of the number and minimum width or required capacity of the required *exits*.

#### Exceptions:

1. Not more than 50 percent of the number and minimum width or required capacity of *interior exit stairways* and *ramps* is permitted to egress through areas, including *atriums*, on the level of discharge provided that all of the following conditions are met:
  - 1.1. Discharge of *interior exit stairways* and *ramps* shall be provided with a free and unobstructed path of travel to an exterior *exit* door and such *exit* is readily visible and identifiable from the point of termination of the enclosure.
  - 1.2. The entire area of the *level of exit discharge* is separated from areas below by construction conforming to the *fire-resistance rating* for the enclosure.
  - 1.3. The egress path from the *interior exit stairway* and *ramp* on the *level of exit discharge* is protected throughout by an *approved automatic sprinkler system*. Portions of the *level of exit discharge* with access to the egress path shall be either equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of *interior exit stairways* or *ramps*.
  - 1.4. Where a required *interior exit stairway* or *ramp* and an *exit access stairway* or *ramp* serve the same floor level and terminate at the same *level of exit discharge*, the termination of the *exit access stairway* or *ramp* and the *exit discharge* door of the *interior exit stairway* or *ramp* shall be separated by a distance of not less than 30 feet (9144 mm) or not less than one-fourth the length of the maximum overall diagonal dimension of the *building*, whichever is less. The distance shall be measured in a straight line between the *exit discharge* door from the *interior exit stairway* or *ramp* and the last tread of the *exit access stairway* or termination of slope of the *exit access ramp*.
2. Not more than 50 percent of the number and minimum width or required capacity of the *interior exit stairways* and *ramps* is permitted to egress through a vestibule provided that all of the following conditions are met:
  - 2.1. The entire area of the vestibule is separated from areas below by construction conforming to the *fire-resistance rating* of the *interior exit stairway* or *ramp enclosure*.
  - 2.2. The depth from the exterior of the *building* is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).
  - 2.3. The area is separated from the remainder of the *level of exit discharge* by a *fire partition* constructed in accordance with Section 708.

**Exception:** The maximum transmitted temperature rise is not required.
  - 2.4. The area is used only for *means of egress* and *exits* directly to the outside.
3. *Horizontal exits* complying with Section 1026 shall not be required to discharge directly to the exterior of the *building*.

4. Exit discharge onto the roof of the same building or onto a horizontal building separation per Section 510.2 is permitted when all of the following criteria are met:
- 4.1. The exit discharge shall be provided with a free and unobstructed path of travel that is readily visible and identifiable, that does not include re-entering the building or utilizing an interior exit stairway or ramp or exterior exit stairway or ramp.
- 4.2. The roof assembly, for the structural bays that support the required exit discharge path, shall have no unprotected openings, and not less than a one-hour fire resistance rating, and not less than the fire resistance rating required for the exit enclosure that discharges onto the roof.

**Reason:** This code change proposal is intended to extend the concept of exit discharge through interior areas on the level of exit discharge, as provided in Exception 1, to exterior areas that happen to be located above other building areas. This is a typical condition in urban areas where the footprint of lower levels, such as a below-grade parking garage, is larger than the footprint of upper levels. It is understood that this condition is not permitted by Section 1028.2, because the roof of the below-grade areas would not be considered “grade”. The intent is to provide an equivalent level of safety as is provided for interior discharge configurations, by providing a fire resistance rating for the roof area in close proximity to the exit discharge path, without unprotected openings.

Item 4.1 makes clear that this provision is not intended to allow an occupant to leave an exit stair at an upper story of a building, travel across a roof, and enter another exit. Any vertical changes in elevation along the exit discharge path across the roof would be limited to less than one full story, as otherwise the stairway or ramp would be considered an exterior exit stairway or ramp.

Item 4.2 ensures that a minimum level of fire resistance be provided from below-grade interior spaces, and that roof assemblies in the vicinity of the exit discharge path do not have unprotected openings, which are otherwise permitted in roof assemblies. As part of the exit discharge path, the requirements for egress courts in IBC 1028.4 would still be applicable, if the configuration of the roof surface included an egress court condition. Note that NFPA 101 Life Safety Code has a similar provision in Section 7.7.6, which states the following:

**7.7.6 Discharge to Roofs.** Where approved by the authority having jurisdiction, exits shall be permitted to discharge to roofs or other sections of the building or an adjoining building where all of the following criteria are met:

- (1) The roof/ceiling assembly construction has a fire resistance rating not less than that required for the exit enclosure.
- (2) A continuous and safe means of egress from the roof is available.

**Bibliography:** NFPA 101 Life Safety Code

**Cost Impact:** The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

**Justification for no cost impact:**

This code change proposal is considered to have no cost impact because the exterior surface that occupants will utilize for exit discharge will likely either be a horizontal building separation / Type IA roof assembly, which requires a fire resistance rating, or the roof of a below-grade portion of the building (such as an underground parking garage), which are typically constructed of concrete.

E112-24