

2012 International Building Code

Errata

(Portions of text and tables not shown are unaffected by the errata)

ELEVENTH PRINTING (Updated April 6, 2017)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

Note: *Italicize term*

714.4.1.2 Through-penetration firestop system. *Through penetrations* shall be protected by an *approved through-penetration firestop system* installed and tested in accordance with ASTM E 814 or UL 1479, with a minimum positive pressure differential of 0.01 inch of water (2.49 Pa). The system shall have an F rating/T rating of not less than 1 hour but not less than the required rating of the floor penetrated.

Exceptions:

1. Floor penetrations contained and located within the cavity of a wall above the floor or below the floor do not require a T rating.
2. Floor penetrations by floor drains, tubdrains or shower drains contained and located within the concealed space of a *horizontal assembly* do not require a T rating.

716.6.7.1 Where 3/4-hour fire protection window assemblies permitted. Fire-protection-rated glazing requiring 45-minute opening protection in accordance with Table 716.6 shall be limited to *fire partitions* designed in accordance with Section 708 and *fire barriers* utilized in the applications set forth in Sections ~~707.3.6~~ 707.3.7 and ~~707.3.8~~ 707.3.9 where the *fire-resistance rating* does not exceed 1 hour. Fire-resistance-rated glazing assemblies tested in accordance with ASTM E 119 or UL 263 shall not be subject to the limitations of this section.

Note for 722.5.1.2: Move 0.75 from inside to outside the brackets.

722.5.1.2 Gypsum wallboard protection. The *fire resistance* of structural steel columns with weight-to-heated- perimeter ratios (W/D) less than or equal to 3.65 and that are protected with Type X gypsum wallboard shall be permitted to be determined from the following expression:

$$R = 130 [h (W' / D)^{0.75} / 2]^{0.75} \quad (\text{Equation 7-12})$$

where:

R = Fire resistance (minutes).

h = Total thickness of gypsum wallboard (inches).

D = Heated perimeter of the structural steel column (inches).

W' = Total weight of the structural steel column and gypsum wallboard protection (pounds per linear foot).

$W' = W + 50hD/144$.

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TENTH PRINTING (Updated Oct. 20, 2015)

CHAPTER 7

FIRE AND SMOKE PROTECTION FEATURES

716.6.7.1 Where 3/4-hour fire protection window assemblies permitted. Fire-protection-rated glazing requiring 45-minute opening protection in accordance with Table 716.6 shall be limited to *fire partitions* designed in accordance with Section 708 and *fire barriers* utilized in the applications set forth in Sections ~~707.3.6~~ 707.3.7 and ~~707.3.8~~ 707.3.9 where the *fire-resistance rating* does not exceed 1 hour. Fire-resistance-rated glazing assemblies tested in accordance with ASTM E 119 or UL 263 shall not be subject to the limitations of this section.

Note for 722.5.1.2: Move 0.75 from inside to outside the brackets.

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where:

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D = Heated perimeter of the structural steel column (inches).

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$W' = W + 50hD/144$.

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EIGHTH PRINTING (Updated April 13, 2015)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

706.1.1 Party walls. Any wall located on a *lot line* between adjacent buildings, which is used or adapted for joint service between the two buildings, shall be constructed as a *fire wall* in accordance with Section 706. Party walls shall be constructed without openings and shall create separate buildings.

Exception: Openings in a party wall separating an *anchor building* and a mall shall be in accordance with Section ~~402.7.3.1~~ 402.4.2.2.1.

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FOURTH PRINTING (Updated September 13, 2013)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

714.4.1 Fire-resistance-rated assemblies. Penetrations of the fire-resistance-rated floor, floor/ceiling assembly or the ceiling membrane of a roof/ceiling assembly shall comply with Sections 714.4.1.1 through ~~714.4.1.4~~ 714.4.1.3. Penetrations in horizontal *smoke barriers* shall also comply with 714.5.

(No change to figure or text)

FIGURE ~~721.5.1(5)~~ 722.5.1(5)

**WIDE FLANGE STRUCTURE STEEL COLUMNS WITH
SPRAYED FIRE-RESISTANT MATERIALS**

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THIRD PRINTING (Updated June 20, 2013)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

707.6 Openings. Openings in a *fire barrier* shall be protected in accordance with Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not exceed 156 square feet (15 m²). Openings in enclosures for exit access stairways and ramps, interior exit stairways and ramps and exit passageways shall also comply with Sections ~~1022.3~~ 1022.4 and 1023.5, respectively.

Exceptions:

1. Openings shall not be limited to 156 square feet (15 m²) where adjoining floor areas are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Openings shall not be limited to 156 square feet (15 m²) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door serving enclosures for exit access stairways, *exit access* ramps, interior exit stairways and interior *exit* ramps.
3. Openings shall not be limited to 156 square feet (15 m²) or an aggregate width of 25 percent of the length of the wall where the opening protective has been tested in accordance with ASTM E 119 or UL 263 and has a minimum *fire-resistance rating* not less than the *fire-resistance rating* of the wall.
4. Fire window assemblies permitted in atrium separation walls shall not be limited to a maximum aggregate width of 25 percent of the length of the wall.
5. Openings shall not be limited to 156 square feet (15 m²) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door assembly in a *fire barrier* separating an enclosures for *exit access* stairways, *exit access* ramps, interior exit stairways and interior exit ramps from an exit passageway in accordance with Section ~~1022.2.4~~ 1022.3.1.

709.4 Continuity. *Smoke barriers* shall form an effective membrane continuous from outside wall to outside wall and from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces, such as those found above suspended ceilings, and interstitial structural and mechanical spaces. The supporting construction shall be protected to afford the required *fire-resistance rating* of the wall or floor supported in buildings of other than Type IIB, IIIB or VB construction.

Exceptions:

1. Smoke-barrier walls are not required in interstitial spaces where such spaces are designed and constructed with ceilings that provide resistance to the passage of fire and smoke equivalent to that provided by the smoke-barrier walls.
2. *Smoke barriers* used for elevator lobbies in accordance with Section 405.4.3, ~~3007.4.2~~ 3007.7.2 or ~~3008.11.2~~ 3008.7.2 are not required to extend from outside wall to outside wall.
3. *Smoke barriers* used for areas of refuge in accordance with Section 1007.6.2 are not required to extend from outside wall to outside wall.

717.5.2 Fire barriers. Ducts and air transfer openings of *fire barriers* shall be protected with *approved fire dampers* installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for stairways, ramps and exit passageways except as permitted by Sections ~~1022.4~~ 1022.5 and 1023.6, respectively.

Exception: *Fire dampers* are not required at penetrations of *fire barriers* where any of the following apply:

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1. Penetrations are tested in accordance with ASTM E 119 or UL 263 as part of the fire-resistance-rated assembly.
2. Ducts are used as part of an *approved* smoke control system in accordance with Section 909 and where the use of a *fire damper* would interfere with the operation of a smoke control system.
3. Such walls are penetrated by ducted HVAC systems, have a required *fire-resistance rating* of 1 hour or less, are in areas of other than Group H and are in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

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SECOND PRINTING (Updated February 7, 2013)

CHAPTER 7

FIRE AND SMOKE PROTECTION FEATURES

716.2 Fire-resistance-rated glazing. Fire-resistance-rated glazing tested as part of a fire-resistance-rated wall assembly in accordance with ASTM E 119 or UL 263 and labeled in accordance with Section ~~703.5~~ 703.6 shall be permitted in *fire doors* and *fire window assemblies* where tested and installed in accordance with their listings and shall not otherwise be required to comply with this section.

Table 716.5

OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

(No change to table or footnotes not shown)

b. For testing requirements, see Section ~~716.6.3~~ 716.5.3.