# 2009 International Building Code Errata

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

**TWELFTH PRINTING (Updated December 6, 2016)**

## CHAPTER 7
## FIRE AND SMOKE PROTECTION FEATURES

Note for 706.5.1: This is an erratum in the 8th, 9th, 10th and 11th printing only. The reference is correct in other editions.

**706.5.1 Exterior walls.** Where the *fire wall* intersects *exterior walls*, the *fire-resistance rating* and opening protection of the *exterior walls* shall comply with one of the following:

1. The *exterior walls* on both sides of the *fire wall* shall have a 1-hour *fire-resistance rating* with 3/4-hour protection where opening protection is required by Section 705.8 ~~706.8~~. The *fire-resistance rating* of the *exterior wall* shall extend a minimum of 4 feet (1220 mm) on each side of the intersection of the *fire wall* to *exterior wall*. *Exterior wall* intersections at *fire walls* that form an angle equal to or greater than 180 degrees (3.14 rad) do not need *exterior wall* protection.
2. Buildings or spaces on both sides of the intersecting *fire wall* shall assume to have an imaginary *lot line* at the *fire wall* and extending beyond the exterior of the *fire wall*. The location of the assumed line in relation to the *exterior walls* and the *fire wall* shall be such that the *exterior wall* and opening protection meet the requirements set forth in Sections 705.5 and 705.8. Such protection is not required for *exterior walls* terminating at *fire walls* that form an angle equal to or greater than 180 degrees (3.14 rad).

# 2009 International Building Code Errata

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

**THIRD PRINTING (Updated March 22, 2010)**

## CHAPTER 7
## FIRE AND SMOKE PROTECTION FEATURES

**716.3.1 Damper testing.** Dampers shall be listed and bear the label of an approved testing agency indicating compliance with the standards in this section. Fire dampers shall comply with the requirements of UL 555. Only fire dampers labeled for use in dynamic systems shall be installed in heating, ventilation and air-conditioning systems designed to operate with fans on during a fire. Smoke dampers shall comply with the requirements of UL 555S. Combination fire/smoke dampers shall comply with the requirements of both UL 555 and UL 555S. Ceiling radiation dampers shall comply with the requirements of UL 555C or shall be tested as part of a fire-resistance rated floor/ceiling or roof/ceiling assembly in accordance with ATSTM E119 or UL 263.

**716.6.2.1 Ceiling radiation dampers.** Ceiling radiation dampers shall be tested ~~as part of a fire-resistance-rated floor/ceiling or roof/ceiling assembly in accordance with ASTM E 119 or UL 263~~ in accordance with Section 716.3.1. Ceiling radiation dampers shall be installed in accordance with the details listed in the fire-resistance-rated assembly and the manufacturer's installation instructions and the listing. Ceiling radiation dampers are not required where either of the following applies:

1. Tests in accordance with ASTM E 119 or UL 263 have shown that ceiling radiation dampers are not necessary in order to maintain the fire-resistance rating of the assembly.

2. Where exhaust duct penetrations are protected in accordance with Section 713.4.1.2, are located within the cavity of a wall and do not pass through another dwelling unit or tenant space.

# 2009 International Building Code Errata

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

**SECOND PRINTING (Updated March 22, 2010)**

## CHAPTER 7
## FIRE AND SMOKE PROTECTION FEATURES

**708.11 Enclosure at the bottom.** Shafts that do not extend to the bottom of the building or structure shall comply with one of
the following:

1. They shall be enclosed at the lowest level with construction of the same *fire-resistance rating* as the lowest floor through which the shaft passes, but not less than the rating required for the shaft enclosure.
2. They shall terminate in a room having a use related to the purpose of the shaft. The room shall be separated from the remainder of the building by *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 712, or both. The *fire-resistance rating* and opening protectives shall be at least equal to the protection required for the shaft enclosure.
3. They shall be protected by *approved fire dampers* installed in accordance with their listing at the lowest floor level within the shaft enclosure.

**Exceptions:**

1. The fire-resistance-rated room separation is not required, provided there are no openings in or penetrations of the shaft enclosure to the interior of the building except at the bottom. The bottom of the shaft shall be closed off around the penetrating items with materials permitted by Section 717.3.1 for draftstopping, or the room shall be provided with an *approved* automatic fire suppression system.
2. A shaft enclosure containing a refuse chute or laundry chute shall not be used for any other purpose and shall terminate in a room protected in accordance with Section 708.13.4.
3. The fire-resistance-rated room separation and the protection at the bottom of the shaft are not required provided there are no combustibles in the shaft and there are no openings or other penetrations through the shaft enclosure to the interior of the building.

***(Note: There is no change to the text. The exceptions in Section 708.11 should not be indented under Item 3. The exceptions are to the entire section.)***

**712.4 Continuity.** Assemblies shall be continuous without openings, penetrations or joints except as permitted by this section and Sections 708.2, 713.4, 714 and 1022.1. Skylights and other penetrations through a fire-resistance-rated roof deck or slab are permitted to be unprotected, provided that the structural integrity of the fire-resistance-rated roof assembly is maintained. Unprotected skylights shall not be permitted in roof assemblies required to be fire-resistance
rated in accordance with Section ~~704.10~~ 705.8.6. The supporting construction shall be protected to afford the required *fire-resistance rating* of the *horizontal assembly* supported.

**Exception:** In buildings of Type IIB, IIIB or VB construction, the construction supporting the *horizontal assembly* is not required to be fire-resistance-rated at the following:

1. Horizontal assemblies at the separations of incidental uses as specified by Table 508.2.5, provided the required *fire-resistance rating* does not exceed 1 hour.
2. Horizontal assemblies at the separations of *dwelling units* and *sleeping units* as required by Section 420.3.
3. Horizontal assemblies at *smoke barriers* constructed in accordance with Section 710.

**716.5.3 Shaft enclosures.** Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with *approved* fire and smoke *dampers* installed in accordance with their listing.

**Exceptions:**

1. *(no change)*

1.1 through 1.4 *(no change)*

2. In Group B and R occupancies, equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, *smoke dampers* are not required at penetrations of shafts where:
   2.1. Kitchen, clothes dryer, bathroom and toilet room exhaust openings are installed with steel exhaust subducts, having a minimum wall thickness of 0.0187 ~~0.187~~ inch (0.4712 mm) (No. 26 gage).
   2.2 & 2.3 *(no change)*

3 through 5 *(no change)*

**716.6.1 Through penetrations.** In occupancies other thanGroups I-2 and I-3, a duct constructed of *approved* materials in accordance with the *International Mechanical Code* that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two *stories* is permitted withoutshaft enclosure protection, provided a *listed fire damper* is installed at the floor line or the duct is protected in accordance with Section 713.4. For air transfer openings, see Exception 7 to Section 708.2.

**Exception:** A duct is permitted to penetrate three floors or less without a *fire damper* at each floor, provided it meets all of the following requirements:

1. The duct shall be contained and located within the cavity of a wall and shall be constructed of steel having a minimum wall thickness of 0.0187 ~~0.187~~ inches (0.4712 mm) (No. 26 gage).
2. through 5. *(No change)*

**Table 720.1(3)**
**Minimum Protection for Floor and Roof Systems**

| **FLOOR OF ROOF CONSTRUCTION** |
|---|
| 23. Wood I-joist (minimum joist depth 9-1/4” with a minimum flange depth of ~~15/16“~~ 1- 5/16” and a minimum flange cross sectional area of 2.3 square inches) at 24″o.c. spacing with 1 inch by 4 inch (nominal) wood furring strip spacer applied parallel to and covering the bottom of the bottom flange of each member, tacked in place. 2” mineral wool insulation, 3.5 pcf (nominal) installed adjacent to the bottom flange of the I-joist and supported by the 1” x 4” furring strip spacer. |
| 27. Wood I-joist (minimum joist depth 9-1/2” with a minimum flange depth of ~~1 15/16“~~ 1- 5/16” and a minimum flange cross sectional area of 1.95 square inches; minimum web thickness of 3/8”) @ 24″ o.c. |

*(Portions of table not shown remain unchanged)*

**FIRST PRINTING (Updated April 20, 2009)**

**CHAPTER 7**
**FIRE AND SMOKE PROTECTION FEATURES**

**FIGURE 721.5.1(4)**
**FIRE RESISTANCE OF STRUCTURAL STEEL COLUMNS PROTECTED WITH VARIOUS THICKNESSES OF TYPE X GYPSUM WALLBOARD**

a. The *W/D* ratios for typical wide flange columns are listed in Table 721.5.1(1). For other column shapes, the *W/D* ratios shall be determined in accordance with Section ~~720.5.1.1~~ 721.5.1.1.

*(No change to figure)*

**FIGURE 721.5.1(6)**
**CONCRETE PROTECTED STRUCTURAL STEEL COLUMNS[a,b]**

a. When the inside perimeter of the concrete protection is not square, $L$ shall be taken as the average of $L_1$and $L_2$. When the thickness of concrete cover is not constant, $h$ shall be taken as the average of $h_1$ and $h_2$.

b. Joints shall be protected with a minimum 1 inch thickness of ceramic fiber blanket but in no case less than one-half the thickness of the column cover (see Section ~~720.2.1.3~~ 721.2.1.3).

*(No change to figure)*