

**EDITORIAL AND NON-SUBSTANTIVE CHANGES – CHAPTER 7
2010 OSSC**

“Projections and Openings”

Strikethrough denotes deletion

Bold/underline denotes addition

Blue text = Code change justification

704.8.6 Vertical exposure. Opening protectives of buildings shall comply with this section.

704.8.6.1 Vertical exposure for buildings on the same lot. For buildings on the same lot, opening protectives having a fire protection rating of not less than 3/4 hour shall be provided in every opening that is less than 15 feet (4572 mm) vertically above the roof of an adjacent building or structure based on assuming an imaginary line between them. The opening protectives are required where the ~~fire separation~~ distance between the ~~imaginary line and the adjacent~~ buildings or structures is less than 15 feet (4572 mm).

Exceptions:

1. Opening protectives are not required where the **lower** roof construction of the adjacent building or structure has a fire-resistance rating of not less than 1 hour for a minimum distance of 10 feet (3048 mm) from the exterior wall facing the imaginary line and the entire length and span of the supporting elements for the fire-resistance-rated roof assembly has a fire-resistance rating of not less than 1 hour.
2. Buildings on the same lot and considered as portions of one building in accordance with Section 704.3 are not required to comply with Section 704.8.6.

704.8.6.2 Vertical exposure for buildings on separate lots. When a new building is to be erected adjacent to an existing building, all openings in the exterior wall of the new building are required to be not less than 3/4 hour when these openings are less than 15 feet (4572 mm) vertically above the roof of existing building or structure. The opening protections are required where the distance between the buildings or structures is less than 15 (4572 mm) feet. When the roof of the new building is at lower elevation from the existing building, the roof construction of the new building shall have fire-resistance rating of not less than 1 hour for a minimum distance of 10 feet (3048 mm) from the exterior wall facing the new building and the entire length and span of the supporting elements for the fire-resistance-rated roof assembly shall have a fire-resistance rating of not less than 1 hour. The roof protections are required where the distance between the buildings or structures is less than 15 feet (4572 mm).

Reason: I was the original proponent in Palm Springs of a similar proposal that was approved by the Fire Safety Committee. The Committee agreed that buildings with a real property line should be treated the same as two buildings on the same lot in regards to vertical fire exposure. In Minneapolis there was a Public Comment submitted pointing out some flaws in the code change. Rather than attempt to keep it in the code I opted to ask ICC staff to simply withdraw it

and I would work with the author of the Public Comment and come back with a new proposal in Baltimore.

The purpose of this submittal is clean up inconsistent provisions between buildings on the same lot with an imaginary line for fire separation distance and the lack of the same provision for buildings on adjacent lots with real property lines. The purpose of assuming an imaginary line between buildings on the same lot is to mirror the fire separation distance of those buildings with actual property lines and determining opening and wall protection. Currently, the provisions of buildings on the same lot with an imaginary line have more restrictive requirements than those buildings with a real line.

If one is concerned about fire spread from one building to another, should the provisions be the same for a real lot line as opposed to an imaginary one? Yes, we believe so. The probability of a fire spreading from one building to another via openings and fire separation distance to other buildings is the same regardless of real or imaginary lines. Based on the current code language, we can only assume that a recorded property line somehow adds an additional level of protection over and above an imaginary one.

We have divided this Section into three parts now. We are proposing to delete the language “imaginary line and the adjacent” in the Section 704.8.6.1 because it only addresses the fire separation for one building and ignores the other. There are many reasons to have fire separation from an imaginary line at different place and one building may have less than 15 feet of fire separation distance and the other may have 20. In this case the lower roof would be required to have a 1 hour roof assembly, which doesn’t make sense. The reference to “fire separation” is being deleted because we believe the crucial distance is the true distance between the buildings, which clears up the confusion over where the measurement is taken. We have also added the word “lower” in the first exception to make it clear that it is the lower roof that is required to be of 1 hour fire-resistive construction. Lastly, we have created a new Subsection 704.8.6.2 to address buildings and structures with real property lines.

SECTION 705

EXTERIOR WALLS

705.1 General. Exterior walls shall comply with this section.

705.2. Projections. Cornices, eave overhangs, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of this section and Section 1406. Exterior egress balconies and exterior exit stairways shall also comply with Sections 1019 and 1026, respectively. Projections shall not extend beyond the distance determined by the following ~~three~~ **two** methods, whichever results in the lesser projection:

1. A point one-third the distance ~~from the exterior face of the wall~~ to the lot line where ~~protected openings or~~ a combination of protected and unprotected openings are required in the exterior wall **from an assumed vertical plane in accordance with Table 705.2.**
2. ~~A point one-half the distance from the exterior face of the wall to the lot line where all openings in the exterior wall are permitted to be unprotected or the building is equipped throughout with an automatic sprinkler system installed under the provisions of Section 705.8.2.~~
- 2.3. More than 12 inches (305 mm) into areas where openings are prohibited.

For the purposes of determining allowable projections from buildings, the assumed vertical plane shall be measured at right angles from the lot line or, for buildings on the same lot, an imaginary line in accordance with Section 704.3. Buildings on the same lot and considered as portions of one building in accordance with Section 704.3 are not required to comply with this Section. The assumed vertical plane shall be parallel with the lot line or imaginary line.

Add new table as follows: (bold underline not shown for clarity):

TABLE 705.2
ASSUMED VERTICAL PLANE (feet)

GROUP	TYPE I, II ^a	TYPE III, IV, V ^a
A, B, E, F-2, I, R, S-2, U	3	5 ^b
M, S-1, F-1	5	10
H	15	20 ^c

a. Based on type of construction in Chapter 6

b. I-2 occupancies are not permitted in Type VB construction

c. H-1 occupancies are not permitted in Type VB construction

Reason: This code change is necessary to clarify how far projections from a building can extend into the fire separation distance. The purpose is to completely disassociate this section from Table 705.8. The proposal returns this section to its original intent to regulate projections based on occupancy and construction type that was a provision of a legacy code. This is recognizing that different occupancies of differing construction types present different levels of hazards. For instance, projections from an H-2 occupancy present a higher risk than projections from an S-1 occupancy and should be regulated as such. This section has been widely interpreted and misapplied.

The provision for projections in Section 705.2 is language from a legacy code that had definite measurements for when openings were required to be protected and when they were prohibited based on occupancy and construction type. With Section 705.8 and Table 705.8, the absolute measurement that was used in the previous legacy code is no longer present. This makes it very difficult to apply and has created inconsistency in application. There is different terminology

between the IBC and the legacy code that does not allow the user to adequately apply this section.

The legacy code also stated that the assumed vertical plane for protection of openings was when they were “first” required to be protected. IBC Table 704.8 does not have a provision where you can definitely apply this assumed vertical plane. Utilizing the provisions of Equation 7-2 in Section 704.8.4 for a non-sprinklered M occupancy of IIIB construction 7 feet from the lot line if the combination of protected and unprotected was less than or equal to 1, there would be some required protected openings in the wall. But looking at the Table 704.8, protected openings could be required at 10 feet from the lot line using the same equation. Does one measure the distance from wall and its location in relation to the lot line or from the point at 10 feet where openings would have been required if they would have used the same equation? Or from some other assumed vertical plane?

The philosophy of this code change is to line up with the recent code changes that have occurred with the Table 508.4, Table 602 and other sections of the code that have based their merit on similar and dissimilar risks as well as similar fuel loads of occupancies. We have taken the approach of using Table 508.4, Table 602 and Table 706.4 to develop this language. As you can see, we tried to fit the occupancies and their exterior wall fire rating from Table 602 into this new table.

By putting some actual measurements into the code, we believe that this will vastly improve the application and consistency in which projections are regulated.

705.3 Buildings on the same lot. For the purposes of determining the required wall and opening protection, **projections** and roof-covering requirement, buildings on the same lot shall be assumed to have an imaginary line between them.

Reason: This code change is to clarify that buildings on the same lot that are not considered one building. If one is concerned about wall and opening protection it stands to reason that projections also should be considered.