



COUNTY OF PRINCE WILLIAM
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DEPARTMENT OF
PUBLIC WORKS
Division of
Building Development

BUILDING OFFICIAL INTERPRETATION 2003-04
November 16, 2006

CODE/EDITION: VIRGINIA UNIFORM STATEWIDE BUILDING CODE/2003

**SECTION(S): IBC/2003 Section 706 Fire Barriers
IBC/2003 Section 708 Fire Partitions
IBC/2003 Section 711 Horizontal Assemblies**

QUESTION:

1. Are “horizontal structural members supporting floor or roof decks”...“considered through-wall penetrations, much like conduits, pipes, and ducts, when they penetrate vertical fire barriers?”

ANSWER:

1. **Yes.** See the attached ICC Staff Interpretation that was originally issued with regard to the IBC/2000.

Eric M. Mays, P.E., C.B.O.
Building Official

Attachment

ICC Staff Interpretation, dated July 27, 2004



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PWC BUILDING DEVELOPMENT

July 27, 2004

Iran Scott
Department of Public Works
Division of Building Development
County of Prince William
1 County Complex Court
Prince William, VA 22192-9201

RE: Sections 706.7 and 711.3 of the 2000 International Building Code

Dear Mr. Scott:

This letter is in response to your request for a written code interpretation regarding structural penetrations of fire-resistance rated assemblies. You ask if horizontal structural members supporting floor or roof decks are considered through-wall penetrations, much like conduits, pipes and ducts, when they penetrate vertical fire barriers.

The building code does not specifically address penetrations of fire-resistance rated assemblies by structural members. Structural penetrations are considered similar to, but less of a breach than, conduits, pipes and ducts. Therefore, any of the methods in Section 711.3 that apply to through penetrations (as opposed to membrane penetrations) are considered adequate for protecting structural penetrations. Note that size limitations for penetrating pipes and conduits, as described in the exception to Section 711.3.1, are not considered applicable to penetrating structural elements. As always, alternative methods of protection are acceptable in accordance with Section 104.11.

This interpretation can be applied to fire partitions, smoke barriers and horizontal assemblies as well. It does not apply to fire walls due to their requirement for structural independence. Note that structural elements that penetrate exit stair enclosures (i.e., fire barriers) are considered acceptable penetrations with respect to Section 1005.3.4.1 when they are necessary for the direct or indirect support and/or bracing of stair components, or any part of the stair enclosure, including a roof.

We are pleased to provide you with the opinions stated herein. We have made no independent effort to verify the accuracy of your submitted information nor have we conducted a review beyond the scope of your question. The opinions of the ICC technical staff are only advisory in nature and, as such, it is up to you to choose to use this information as you desire. As always, we recognize that the final interpretation is the legal responsibility of the authority having jurisdiction, typically, the local building official.

Sincerely,

Handwritten signature of Philip Hahn, Senior Staff Architect

Philip Hahn, A
Senior Staff Architect

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