CODE CHANGE PROPOSAL FORM
(See instructions on page 2)

Code: IRC–12/13
Sections R404.1.3 and R404.4

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

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DEFINITIONS

WALL, RETAINING. A wall not laterally supported at the top, that resists only lateral soil load. ~~and other imposed loads.~~

R404.1.3 Design required. Concrete or masonry foundation walls shall be designed in accordance with accepted engineering practice when either of the following conditions exists:

1. Walls are subject to hydrostatic pressure from groundwater.
2. Walls supporting more than 48 inches (1219 mm) of unbalanced backfill that do not have permanent lateral support at the top ~~or~~ and bottom.

R404.4 Retaining walls. Retaining walls that are not laterally supported at the top and that retain in excess of ~~24~~ 48 inches (610 mm) of unbalanced fill shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

The International Code Council's Building Code Action Committee identified several items in Chapter 4, "Foundations", that are in conflict with other provisions of the code or lack clarity. This proposal specifically addresses conflicts and confusing language for when a design is required in Section R404.1.3 and retaining walls in Section R404.4.

Section R404.1.3 specifically requires that walls supporting more than 48 inches of unbalanced fill and not laterally supported require an engineered design. Section R404.4 addresses the same walls where they are not supported at the top but states that a design is required when the height of the unbalanced fill exceeds 24 inches. The two sections are in direct conflict. This proposal changes the trigger height in R404.1.3 to 48 inches to be consistent with other sections of the code.

In addition, this proposal clarifies, in R404.1.3 that the lateral support is required at the top **and** bottom. The definition of "WALL, RETAINING" is modified to be consistent with the intent of section R404.4. The type of wall addressed in R404.4 is a self-standing retaining wall that is not supported at the top and is laterally supported at the bottom against sliding and overturning by a factor of 1.5. This type of wall would typically be a site retaining wall where it is primarily resisting only lateral soil loads. The definition is modified to clarify that this type of wall is not intended to support structural loads. A similar wall that does support structural loads would be addressed by other sections.

Cost Impact: The code change will not increase the cost of construction.