

STATE BUILDING CODE INTERPRETATION NO. I-11-05

August 24, 2005

The following is offered in response to your August 15, 2005 letter to me in which you seek a formal interpretation of the provisions of Table R301.5 of the 2003 International Residential Code portion of the 1999 State Building Code.

Question: Is it the intention of the referenced code section to require the application of a 20 pound per square foot (psf) live load along the entire bottom chord of trusses within an attic created by metal-plate-connected open web wood trusses when such attic is to be used for limited storage?

Answer: No. The intent of the code, as clarified by approved code changes that are published in the 2004 Supplement to the International Codes, is to apply the 20 psf load only to those portions of the truss that contain the volume necessary to allow storage. The 2004 Supplement defines such areas as portions of the bottom chord of not less than two adjacent trusses with the same web configuration containing a rectangle 42 inches high or greater by 2 feet wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any truss member. In order for this requirement to apply the bottom chord pitch shall be less than 2:12. Other portions of the bottom chord to which the 20 psf load is not applied shall be designed to support a live load of 10 psf.

Note: It is important to understand that the 20 psf limited storage live load is utilized when access to the attic space is via a code-compliant attic access (see Section R807) or via a pull-down stair. When access to the attic is via a fixed stair, the appropriate live load is 30 psf. Where the code allows an attic with no access (again, see Section R807), the appropriate live load is 10 psf. This loading criteria depending on access applies in conventionally framed attics as well as in attics formed by trusses.