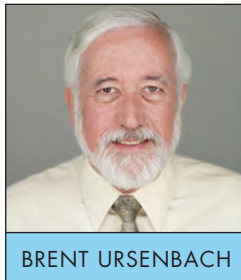


MECHANICAL CODE DISCUSSION

Indirectly Conditioned Basements



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A question received from a builder:

“We are building homes with basement walls insulated using continuous insulation blankets, which as I understand the code, places the basement inside the thermal envelope. I have been told by our building official that as the unfinished basement does not include supply outlets and at least one return air inlet, it is an unconditioned space and must be separated from the conditioned space above by an insulated door and insulated floors. We’ve built homes all over the state like this and have not encountered this interpretation of the code. Please help!”

Let’s begin with a definition from 2015 IRC section N1101.6 and supporting code section N1102.2.8. *Conditioned space. An area, room, or space that is enclosed within the building thermal envelope and that is directly heated or cooled or indirectly heated or cooled. Spaces are indirectly heated or cooled*

where they communicate through openings with conditioned spaces by uninsulated walls, floors, or ceilings, or where they contain uninsulated ducts, piping or other sources of heating or cooling.

Section N1102.2.9 Basement Walls. Walls associated with conditioned basements shall be insulated from the top of the basement wall down to 10 feet below grade or to the basement floor, whichever is less. Walls associated with unconditioned basements shall meet this requirement unless the floor overhead is insulated in accordance with sections N1102.1.2 and N1102.2.8.

The wall insulation package meets the wall requirements for a

conditioned basement. Additionally, the basement is indirectly conditioned through the uninsulated ceiling basement ceiling from the conditioned space above and from the uninsulated duct located in the basement. When and if the basement is finished into occupiable space, supply outlets and return inlets will be required.

In conclusion, the basement described does not require supply outlets and/or return air inlets; however, the builder must ensure the basement thermal envelope is complete, including compliant insulation at the rim joist, weather-stripped doors on under porch storage rooms, slab edge insulation where the basement has a walkout,

and compliant windows.

Please reach out with your comments or questions.

—Brent ■

