INTERPRETATION IC 90.1-2004-1 OF
ANSI/ASHRAE/IESNA STANDARD 90.1-2004
Energy Standard for Buildings Except Low-Rise Residential Buildings

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Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 5.2.1 Compliance, relating to gross wall area.

Background: Standard 90.1-2004 does not appear to be clear as to what gross wall area means. International Energy Conservation Code is clear that prescriptive requirements are based on window to above-grade wall area. This impacts all sections of the code where the window-to-wall area ratio is taken into consideration.

Interpretation: Gross wall area refers to above-grade wall only.

Question: Is this interpretation correct?

Answer: No.

Comments:

Section 3.2 defines "building envelope" to include "the elements of a building…that enclose...spaces through which thermal energy may be transferred to or from the exterior".

Section 3.2, in the definition of "wall" states "this includes above- and below-grade walls, between floor spandrels, peripheral edges of floors, and foundation walls".

Section 3.2 defines "gross wall area" as "the area of the wall measured on the exterior face from the top of the floor to the bottom of the roof".

Therefore, for buildings with conditioned space below-grade, the gross wall area extends from the top of the surface of the floor of the lowest conditioned space to the bottom of the roof of the highest conditioned space.

(Note that the use of a similar term in a document from another organization is irrelevant to an interpretation of Standard 90.1.)