CHAPTER 6
WALL CONSTRUCTION

SECTION R602.3
IRC Interpretation No. 07-06
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R602.3 Design and construction. Exterior walls of wood-frame construction shall be designed and constructed in accordance with the provisions of this chapter and Figures R602.3(1) and R602.3(2) or in accordance with AF&PA's NDS. Components of exterior walls shall be fastened in accordance with Table R602.3(1) through R602.3(4). Exterior walls covered with foam plastic sheathing shall be braced in accordance with Section R602.10. Structural sheathing shall be fastened directly to structural framing members.

REFERENCED SECTION:

R602.10.8 Connections. Braced wall panel sole plates shall be fastened to the floor framing and top plates shall be connected to the framing above in accordance with Table R602.3(1). Sills shall be fastened to the foundation or slab in accordance with Sections R403.1.6 and R602.11. Where joists are perpendicular to the braced wall lines above, blocking shall be provided under and in line with the braced wall panels.

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Q: When a braced wall panel is connected to an elevated framed floor system as required in Section R602.10.8, the framed floor system is a structural member. Is the structural sheathing for a braced wall panel required to be attached to the floor framing system as required in Section R602.3 of the *International Residential Code* to complete the load path to the foundation?

A: No. The fastener requirements provided in the referenced tables are for the various structural framing members listed -- and are prescriptive. Table R602.3(1) includes, but is not limited to, fasteners for the (wall) sole plate to the joist, wall studs to the sole plate, top plates to wall studs, 1" board sheathing to wall framing, and wood structural panel sheathing to wall framing. The load path is completed through the connection of the braced wall to the floor plate and the floor framing connection to the wall below and thus to the foundation. The prescriptive requirements do not require the structural sheathing extend beyond the bottom of the wall and be fastened directly to the floor framing at the perimeter rim joist.

The prescriptive requirements provided in the IRC do not address regions where the basic wind speeds equal or exceed 110 miles per hour. Structural framing systems in these high-wind regions must be engineered or designed to comply with one of the referenced standards listed in Section R301.2.1.1. The design for a specific framing system in a high-wind area may permit the sheathing to extend beyond the wall top plate and/or sole plate and fasten to the rim joist as an alternative to using metal straps, along with other methods, that may be necessary to tie the foundation, floor, wall, ceiling, and roof framing together.
