Table R602.10.5

Contributing Length of Method CS-PF Braced Wall Panels

CHANGE TYPE: Modification

CHANGE SUMMARY: The contributing length of continuously sheathed portal frames (Method CS-PF) in low-seismic regions has increased by 50 percent.

2015 CODE:

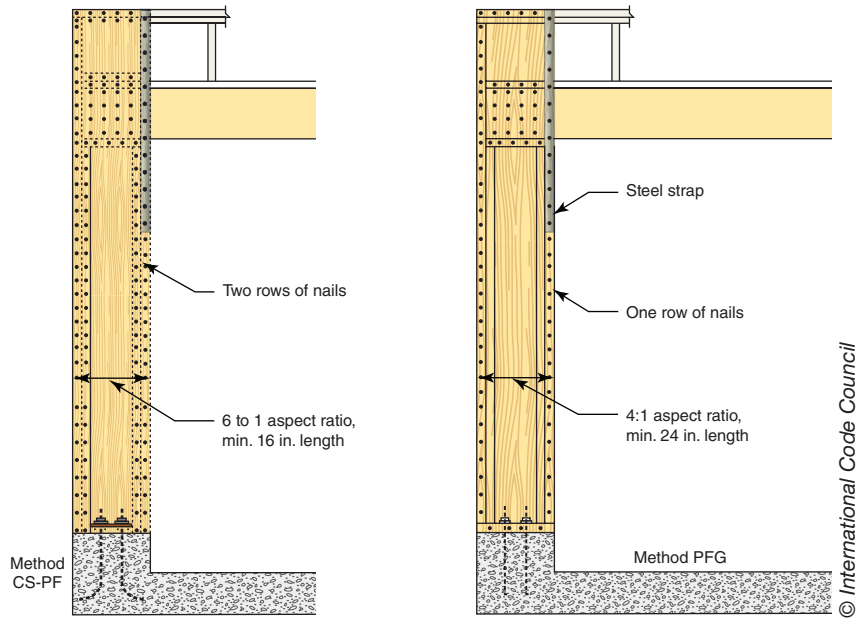
TABLE R602.10.5 Minimum Length of Braced Wall Panels

Method (See Table R602.10.4)		Minimum Length[a] (in.) Wall Height 8 ft.	9 ft.	10 ft.	11 ft.	12 ft.	Contributing Length (in.)
CS-PF	SDC A, B, and C	16	18	20	22[e]	24[e]	1.5 × Actual[b]
	SDC D_0, D_1 and D_2	16	18	20	22[e]	24[e]	Actual[b]

(Portions of table and footnotes not shown for brevity and clarity.)

CHANGE SIGNIFICANCE: In the 2012 IRC, Method CS-PF, continuously sheathed portal frame, has a contributing bracing length that matches the actual length of braced panel in the portal frame. This bracing length is based in part on a 6:1 aspect ratio of the panels and two rows of nails into braced wall panel studs.

Method PFG (Portal Frame at Garage) is permitted, in the 2012 IRC Table R602.10.5, a 1.5 multiplier for contributing bracing length. This panel has a 4:1 aspect ratio and is required to have a braced wall panel at



Comparison of nailing of CS-PF and PFG

Table R602.10.5 continues

Table R602.10.5 continued

the end of a single portal frame. Method PFG has only a single row of nailing along studs in the braced wall panel and is permitted with intermittent bracing. The 1.5 multiplier has been permitted because Method PFG is restricted for use in areas of low seismicity (Seismic Design Categories [SDCs] A, B, and C).

Cyclic testing of Method CS-PF (Continuous Sheathed—Portal Frame) has shown that the CS-PF has a design strength as high as Method PFG. Based on the results of this testing, the same multiplier may be applied to Method CS-PF when similarly restricted to areas of low seismicity.

CS-PF can have a leg length as small as 16 inches, while PFG has a minimum leg length of 24 inches. What makes CS-PF perform as well or better than PFG, even with a shorter leg length, is the fact that CS-PF has nearly twice as many fasteners as PFG. It is the fastener interaction between the framing and sheathing that determines the ultimate capacity of this bracing system.