



2006 IRC

R602.10.5 Continuous wood structural panel sheathing. When continuous wood structural panel sheathing is provided in accordance with:

- Method 3 of Section R602.10.3 **(“A” below)** on all sheathable areas of all exterior walls including areas above and below openings, braced wall panel lengths are not required to be in accordance with Section R602.10.4 provided
- they are in accordance with Table R602.10.5. **(“B” below)**
- Wood structural panel sheathing shall be installed at corners in accordance with Figure R602.10.5. **(“C” below)**
- The bracing percentages in Table R602.10.1 for Method 3 **(“D” below)** shall be permitted to be multiplied by
- a **factor of 0.9** for exterior walls with a maximum opening height that does not exceed **85 percent of the wall height**. **(“E” below)** or
- a **factor of 0.8** for exterior walls with a maximum opening height that does not exceed **67 percent of the wall height**. **(“F” below)**

A. R602.10.3 Braced wall panel construction methods. The construction of braced wall panels shall be in accordance with one of the following methods:

3. Wood structural panel sheathing with a thickness not less than 5/16 inch (8 mm) for 16-inch (406 mm) stud spacing and not less than 3/8 inch (9 mm) for 24-inch (610 mm) stud spacing. Wood structural panels shall be installed in accordance with Table R602.3(3).

B. Table R602.10.5

TABLE R602.10.5
LENGTH REQUIREMENTS FOR BRACED WALL PANELS IN A CONTINUOUSLY SHEATHED WALL^{a, b, c}

MINIMUM LENGTH OF BRACED WALL PANEL (inches)			MAXIMUM OPENING HEIGHT NEXT TO THE BRACED WALL PANEL (% of wall height)
8-foot wall	9-foot wall	10-foot wall	
48	54	60	100
32	36	40	85
24	27	30	65

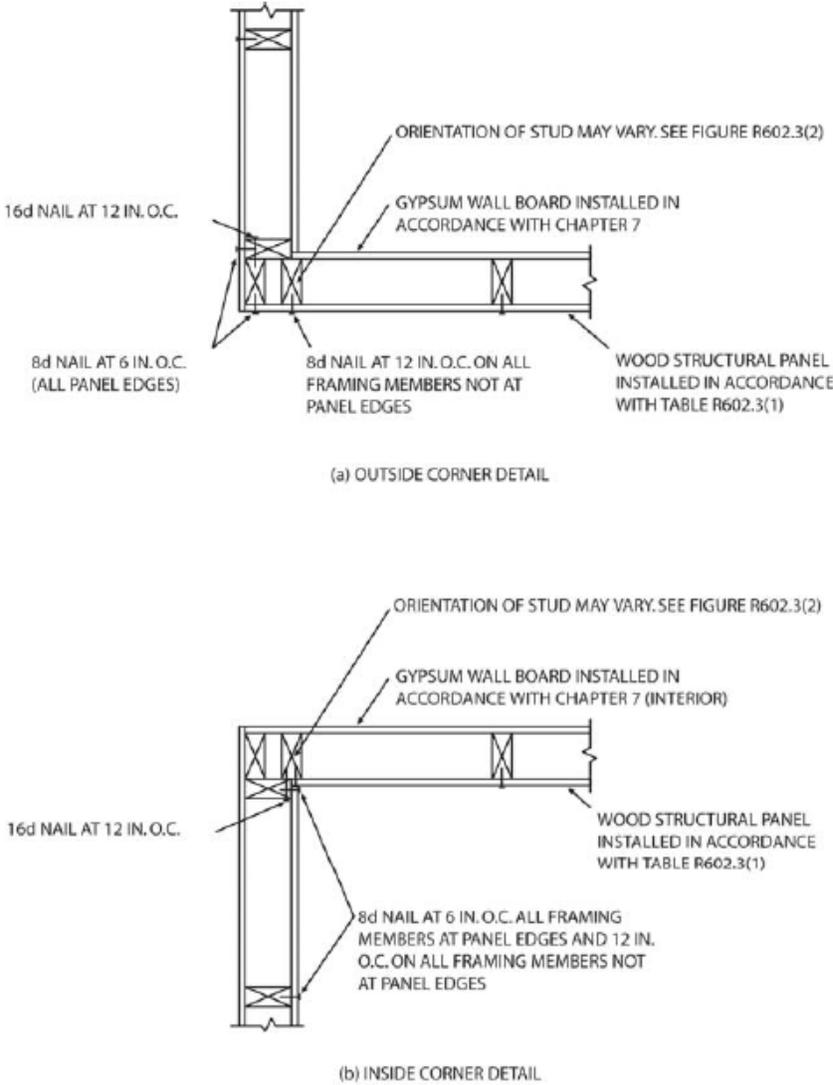
For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 pound per square foot = 0.0479 kPa.

- a. Linear interpolation shall be permitted.
- b. Full-height sheathed wall segments to either side of garage openings that support light frame roofs only, with roof covering dead loads of 3 psf or less shall be permitted to have a 4:1 aspect ratio.
- c. Walls on either or both sides of openings in garages attached to fully sheathed dwellings shall be permitted to be built in accordance with Section R602.10.6.2 and Figure R602.10.6.2 except that a single bottom plate shall be permitted and two anchor bolts shall be placed at 1/3 points. In addition, tie-down devices shall not be required and the vertical wall segment shall have a maximum 6:1 height-to-width ratio (with height being measured from top of header to the bottom of the sill plate). This option shall be permitted for the first story of two-story applications in Seismic Design Categories A through C.

GENERAL INFORMATION:

- Obtain a building permit before starting construction.
- The intent of this sheet is to address the basics of private residential foundation construction only and does not address the subject in great detail. Additional information can be found at your local home improvement store, library or on the web.
- This tip sheet is intended to show code requirements per the 2006 International Residential Code.

A. Figure R602.10.5.



For SI: 1 inch = 25.4 mm.
Gypsum board nails deleted for clarity.

FIGURE R602.10.5
TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS STRUCTURAL
PANEL SHEATHING; SHOWING REQUIRED STUD-TO-STUD NAILING

C. Table R602.10.1 for Method 3

SEISMIC DESIGN CATEGORY OR WIND SPEED	CONDITION	TYPE OF BRACE ^{b, c}	AMOUNT OF BRACING ^{a, d, e}
Category D ₂ or less than 110 mph	One story Top of two story	Methods 2, 3, 4, 5, 6, 7 or 8	Located in accordance with Section R602.10 and at least every 25 feet on center but not less than 25% of braced wall line for Method 3 or 40% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	First story of two story	Methods 2, 3, 4, 5, 6, 7 or 8	Located in accordance with Section R602.10 and at least every 25 feet on center but not less than 55% of braced wall line for Method 3 or 75% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	Cripple walls	Method 3	Located in accordance with Section R602.10 and at least every 25 feet on center but not less than 75% of braced wall line.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479kPa, 1 mile per hour = 0.477 m/s.

- a. Wall bracing amounts are based on a soil site class "D." Interpolation of bracing amounts between the S_{ds} values associated with the seismic design categories shall be permitted when a site specific S_{ds} value is determined in accordance with Section 1613.5 of the *International Building Code*.
- b. Foundation cripple wall panels shall be braced in accordance with Section R602.10.2.
- c. Methods of bracing shall be as described in Section R602.10.3. The alternate braced wall panels described in Section R602.10.6.1 or R602.10.6.2 shall also be permitted.
- d. The bracing amounts for Seismic Design Categories are based on a 15 psf wall dead load. For walls with a dead load of 8 psf or less, the bracing amounts shall be permitted to be multiplied by 0.85 provided that the adjusted bracing amount is not less than that required for the site's wind speed. The minimum length of braced panel shall not be less than required by Section R602.10.3.
- e. When the dead load of the roof/ceiling exceeds 15 psf, the bracing amounts shall be increased in accordance with Section R301.2.2.2.1. Bracing required for a site's wind speed shall not be adjusted.

D. a factor of 0.9 for exterior walls with a maximum opening height that does not exceed 85 percent of the wall height.

Example: opening height/wall height does not exceed 85%

- 6ft/8ft=.75 or 75%
- 6ft-8in [6.67 ft]/8ft=.834 or 83.4%
- Other (please specify)_____

Factor of 0.9 for (circle method using & values in table above.)_____

E. a factor of 0.8 for exterior walls with a maximum opening height that does not exceed 67 percent of the wall height.

Example: opening height/wall height does not exceed 67%

- 4ft/8ft=.5 or 50%
- 5ft/8ft=.625 or 62.5%
- Other (please specify)_____

Factor of 0.8 for (circle method using & values in table above.)_____

SUMMARY of RESULTS:

Based on Table R602.10.5, minimum width of full panel adjacent to opening:_____

Based on Table R602.10.1 percentage calcs above (item E or F), minimum width of full panel braced wall:_____