

General Notes

Prescriptive Wall Bracing

1. Wall-bracing solutions are based on the requirements of the 2003 and 2006 International Residential Code (IRC) and the conventional framing provisions of the 2006 International Building Code (IBC). Standard braced-wall panels or alternate braced-wall panels may be replaced by Strong Frame™ ordinary moment frames. The panel substitutions shall be subject to the quantity and spacing requirements of the applicable building code, unless noted otherwise.
2. Wind solutions apply to wind speeds less than 110 mph (less than 100 mph in hurricane prone regions per 2006 IRC) and Seismic Design Categories (SDC) A and B.
3. Seismic solutions apply to wind speeds less than 110 mph and SDC C, D0, D1, and D2 (IRC) or SDC C, D, and E (IBC). Detached one- and two-family dwellings in SDC C may use the wind solutions per the exceptions in IRC R301.2.2. See note 13 for limitations on seismic designs with brick veneer.
4. 8 ft. substitutions indicate that one Strong Frame ordinary moment frame can replace up to 8 ft. of wall bracing, or two 4 ft. standard braced panels. 12 ft. substitutions can replace up to 12 ft. of wall bracing, or three 4 ft. standard braced panels. 20 ft. substitutions can replace up to 20 ft. of wall bracing, or five 4 ft. standard braced panels.
5. Refer to the engineered-design sections and details portion of this catalog for additional installation information and requirements.
6. Anchorage and foundation solutions contained in this section are based on the following:
 - Concrete Strength: 2500 psi
 - Reinforcing Steel: $f_y = 60,000$ psi
 - Allowable Soil-Bearing Pressure: 1500 psf (Gravity Loads)
2000 psf (Gravity + Lateral Loads)
 Footing designs consider uplift due to frame overturning with no resisting dead load applied to the frame. Designs are not applicable to frames that will be subjected to net wind uplift. For net wind uplift foundation solutions, contact Simpson Strong-Tie.
7. Strong Frame ordinary moment frame spacing requirements:
 - a. Strong Frame ordinary moment frames shall be spaced in accordance with the IRC or IBC wall bracing requirements. For spacing layout, the center of the moment frame column may be considered the center of a braced panel. See page 36.
 - b. Braced-wall panels shall begin no more than 12½ ft. from each end of a braced-wall line (8 ft. for IBC SDC D-E and IRC SDC D0-D2 provide IRC R602.11 requirements are met). The number of braced-wall panels shall be based on the minimum percentages of wall bracing as specified in IRC Table R602.10.1 and panels shall be spaced no more than 25 ft. on-center along the braced-wall line. It is also allowable to have up to a 4 ft. offset and still maintain the same braced-wall line. See page 35 for splice requirements.
8. Strong Frame™ ordinary moment frames that are counted as part of a braced-wall line shall be in line, except that out-of-plane offsets up to 4 ft. shall be permitted provided the total out-to-out offset dimension in any braced-wall line is not more than 8 ft. Reference IRC section R602.10.1.
9. Strong Frame ordinary moment frame solutions are based on the following total uniform vertical loads applied along the entire length of the beam:

Application	Dead Load	Floor Live Load	Roof Live Load
Single Story	400-plf	400-plf	400-plf
1 st of Two Story	500-plf	400-plf	400-plf
1 st of Three Story	600-plf	800-plf	400-plf
10. When cripple walls occur over garage headers, sheath the entire cripple-wall area from top plates to header with minimum ¾" thick sheathing and fasten to framing with 8d common nails (0.131" diameter x 2½" long) at 6" on-center edges and 12" on-center field.
11. Continuous top plate or header required at garage-front application, see page 35.
12. Strong Frame ordinary moment frames used as braced-wall panels are part of the overall lateral-force resisting system of the structure. Design of the buildings lateral-force resisting system, including the load path to transfer lateral forces from the structure to the ground, is the responsibility of the Designer. Installation of Simpson Strong-Tie® products shall be done in conformance with this catalog and the current *Wood Construction Connectors* catalog. The performance of modified products or altered installation procedures is the sole responsibility of the Designer.
13. Seismic designs with brick veneer in SDC C may use seismic solutions. Veneer height and weight limits and required length of wall bracing shall be per IRC Table R703.7. Seismic designs with brick veneer in SDC D0, D1 and D2 are beyond the scope of this catalog. Contact Simpson Strong-Tie for additional solutions.