

STEEL STRONG-WALL®: Cold-Formed Steel 1st-Story Floor Systems



Steel Strong-Wall® panels designed for use on concrete foundations can now be used with cold-formed steel floor systems by extending the anchor bolts and installing compression nuts and stud blocking below the wall.

MATERIAL & FINISH: See page 40.

For product data and naming scheme information, see page 40.

CFS First-Floor Wall Connection Kit

Wall Width (in)	Model No.	Contents
12	SSW12-1KT	(1) Shear-Transfer Plate (with #14 self-drilling screws)
15	SSW15-1KT	(2) ¾" or 1"x18" Threaded Rods F1554 Grade 36
18	SSW18-1KT	(2) Coupler Nuts
21	SSW21-1KT	(2) Heavy Hex Nuts
24	SSW24-1KT	Installation Instructions

1. Two heavy hex nuts included with each wall.

Lateral Systems



For a complete set of wall profile drawings, see page 40.

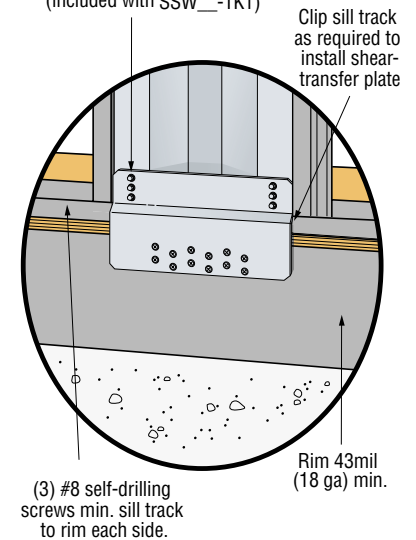
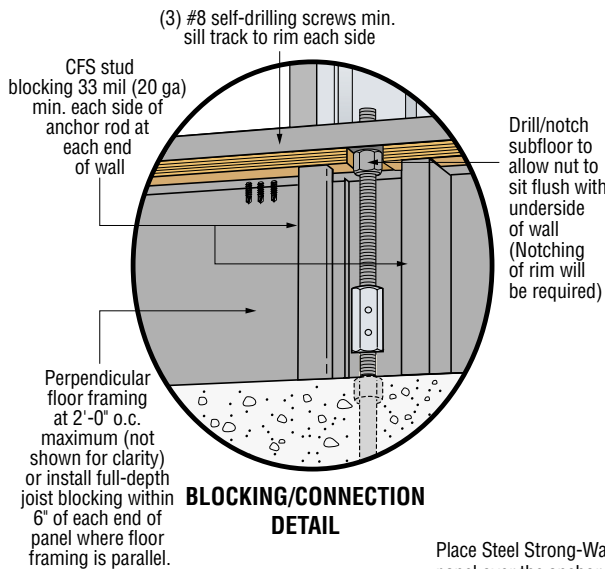


DO NOT cut wall or enlarge existing holes

Shear-Transfer Plate Fasteners for Raised-Floor Applications

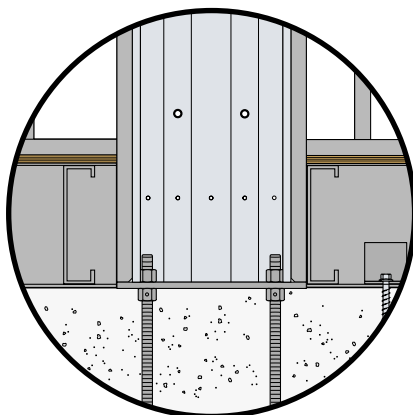
Strong-Wall Width	Fastener #14 Screws	Quantity #10 Screws
12" Wall	4	6
15" Wall	4	10
18" Wall	6	12
21" Wall	6	16
24" Wall	7	18

SSW Shear-Transfer Plate installs with #10 self-drilling screws (Quik Drive TRSD34S1016 recommended, not provided) into the rim and #14 self-drilling screws into the Strong-Wall® (included with SSW__-1KT)

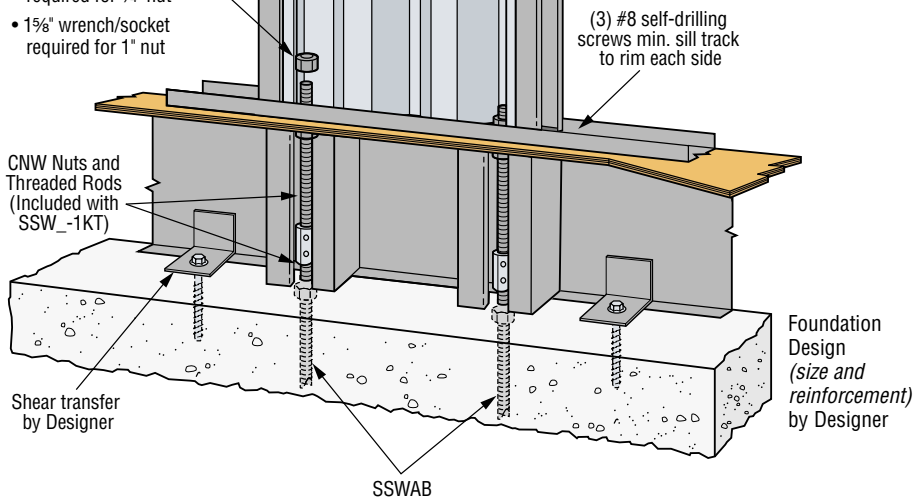


Place Steel Strong-Wall® panel over the anchor bolts and secure with heavy hex nuts (provided). Snug tight fit required, do not use an impact wrench.

- 1¼" wrench/socket required for ¾" nut
- 1½" wrench/socket required for 1" nut



Specify taller wall model to allow for floor framing and use load values for installation on concrete pages 40-41.



STEEL STRONG-WALL®: Cold-Formed Steel 1st-Story Floor Systems
2006 International Building Code®

S/SSW Model	Seismic ²			Wind		
	Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in)	Uplift at Allowable Shear ⁴ (lbs)	Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in)	Uplift at Allowable Shear ⁴ (lbs)
S/SSW12x7	530	0.31	6165	530	0.31	6165
S/SSW15x7	1355	0.35	11720	1395	0.36	12065
S/SSW18x7	1850	0.27	12080	1850	0.27	12080
S/SSW21x7	2100	0.20	11015	2100	0.20	11015
S/SSW24x7	2450	0.17	10740	2450	0.17	10740
S/SSW12x8X	435	0.40	6135	435	0.40	6135
S/SSW15x8X	1050	0.42	11010	1150	0.46	12060
S/SSW18x8X	1525	0.36	12075	1525	0.36	12075
S/SSW21x8X	1900	0.29	12085	1900	0.29	12085
S/SSW24x8X	2270	0.24	12065	2270	0.24	12065
S/SSW12x9X	390	0.47	6185	390	0.47	6185
S/SSW15x9X	900	0.48	10605	1025	0.54	12080
S/SSW18x9X	1355	0.42	12055	1355	0.42	12055
S/SSW21x9X	1690	0.34	12080	1690	0.34	12080
S/SSW24x9X	2020	0.28	12065	2020	0.28	12065
S/SSW15x10X	785	0.53	10270	925	0.63	12100
S/SSW18x10X	1220	0.48	12050	1220	0.48	12050
S/SSW21x10X	1520	0.39	12060	1520	0.39	12060
S/SSW24x10X	1820	0.32	12065	1820	0.32	12065

1. Loads are applicable to 1st-Story Cold-Formed Steel Raised-Floor installations supported on concrete or masonry foundations using the ASD basic (Section 1605.3.1) or the alternative basic (Section 1605.3.2) load combinations. Load values include evaluation of anchor rod compression capacity and do not require further evaluation by the Designer.
2. For seismic designs based on the 2006 IBC using R = 6.5. For other codes, use the seismic coefficients corresponding to light-frame bearing walls with wood structural panels or sheet steel panels.
3. Minimum standard-strength anchor bolts required. See pages 50–54 for SSWAB anchor bolt information and anchorage solutions.
4. Tabulated anchor tension (uplift) loads assume no resisting axial load. Anchor rod tension at design shear load and including the effect of axial load may be determined using the Strong-Wall Selector™ software or the following equation:

$$T = [(V \times h) / B] - P/2$$
 where: T = Anchor rod tension load (lbs)
 V = design shear load (lbs)
 h = Strong-Wall® height per page 40 (in)
 P = applied axial load (lbs)
 B = Anchor bolt centerline dimension (in)
 (6 5/8" for SSW12, 9 1/4" for SSW15, 12 1/4" for SSW18,
 15 1/4" for SSW21, and 18 1/4" for SSW24)
5. Allowable shear loads assume a maximum first-floor joist depth of 12".
6. Allowable shear loads are based on 1000 lbs. total uniformly distributed axial load acting on the entire panel in combination with the shear load. For allowable shear loads at 2000 lbs. uniformly distributed axial load, multiply table values by 0.92 for SSW12x models, and 0.96 for other SSW widths.
7. Top-of-wall screws for the S/SSW shall be approved 1/4" or #14 self-drilling screws with a minimum nominal shear strength (P_{SS}) of 2000 lbs. Top of panel shall be connected to a minimum 43 mil (18 ga) thick steel member typical.