

STEEL STRONG-WALL®: Standard Application on Concrete Foundations

2006 INTERNATIONAL BUILDING CODE®

SSW Model	Allowable Axial Load (lbs)	Seismic ²			Wind		
		Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in.)	Max Uplift at Allowable Shear ⁵ (lbs)	Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in.)	Max Uplift at Allowable Shear ⁵ (lbs)
SSW12x7	1000	955	0.36	9840	1215	0.46	13620
	4000	955	0.36	9840	1095	0.42	11765
	7500	890	0.34	9010	890	0.34	9010
SSW15x7	1000	1855	0.36	15655	1860	0.36	15715
	4000	1665	0.33	13550	1665	0.33	13550
	7500	1445	0.28	11340	1445	0.28	11340
SSW18x7	1000	2905	0.34	19660	3480	0.41	25805
	4000	2905	0.34	19660	3250	0.38	23135
	7500	2905	0.34	19660	2980	0.35	20370
SSW21x7	1000	4200	0.32	23755	4440	0.34	25710
	4000	4200	0.32	23755	4440	0.34	25710
	7500	4200	0.32	23755	4310	0.33	24635
SSW24x7	1000	5495	0.29	26270	5730	0.31	27835
	4000	5495	0.29	26270	5730	0.31	27835
	7500	5495	0.29	26270	5730	0.31	27835
SSW12x7.4	1000	870	0.39	9515	1105	0.49	13070
	4000	870	0.39	9515	970	0.43	10940
	7500	750	0.33	7940	750	0.33	7940
SSW15x7.4	1000	1685	0.39	15035	1700	0.39	15215
	4000	1500	0.34	12905	1500	0.34	12905
	7500	1270	0.29	10510	1270	0.29	10510
SSW18x7.4	1000	2700	0.37	19475	3255	0.44	25790
	4000	2700	0.37	19475	3040	0.42	23125
	7500	2700	0.37	19475	2790	0.38	20390
SSW21x7.4	1000	3890	0.35	23420	4230	0.38	26405
	4000	3890	0.35	23420	4230	0.38	26405
	7500	3890	0.35	23420	4035	0.36	24655
SSW24x7.4	1000	5330	0.34	27610	5450	0.34	28485
	4000	5330	0.34	27610	5450	0.34	28485
	7500	5330	0.34	27610	5450	0.34	28485
SSW12x8	1000	775	0.42	9180	985	0.53	12560
	4000	775	0.42	9180	865	0.47	10550
	7500	665	0.36	7630	665	0.36	7630
SSW15x8	1000	1505	0.42	14515	1530	0.43	14835
	4000	1345	0.37	12545	1345	0.37	12545
	7500	1135	0.32	10190	1135	0.32	10190
SSW18x8	1000	2480	0.41	19525	2985	0.50	25795
	4000	2480	0.41	19525	2790	0.47	23160
	7500	2480	0.41	19525	2560	0.43	20410
SSW21x8	1000	3560	0.39	23360	3960	0.43	27240
	4000	3560	0.39	23360	3960	0.43	27240
	7500	3560	0.39	23360	3700	0.41	24660
SSW24x8	1000	4865	0.37	27435	5105	0.39	29370
	4000	4865	0.37	27435	5105	0.39	29370
	7500	4865	0.37	27435	5055	0.39	28960
SSW12x9	1000	660	0.47	8745	840	0.60	11915
	4000	660	0.47	8745	705	0.50	9485
	7500	505	0.36	6380	505	0.36	6380
SSW15x9	1000	1315	0.45	14250	1315	0.47	14250
	4000	1130	0.38	11740	1130	0.40	11740
	7500	925	0.31	9235	925	0.33	9235
SSW18x9	1000	2145	0.47	18890	2645	0.58	25800
	4000	2145	0.47	18890	2470	0.54	23130
	7500	2145	0.47	18890	2265	0.50	20370
SSW21x9	1000	3145	0.46	23265	3590	0.52	28215
	4000	3145	0.46	23265	3530	0.51	27490
	7500	3145	0.46	23265	3280	0.47	24680
SSW24x9	1000	4285	0.44	27210	4605	0.47	30150
	4000	4285	0.44	27210	4605	0.47	30150
	7500	4285	0.44	27210	4480	0.46	28970

See footnotes on page 13.

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2006 INTERNATIONAL BUILDING CODE® (cont.)

SSW Model	Allowable Axial Load (lbs)	Seismic ²			Wind		
		Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in.)	Max Uplift at Allowable Shear ⁵ (lbs)	Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in.)	Max Uplift at Allowable Shear ⁵ (lbs)
SSW12x10	1000	570	0.52	8345	725	0.67	11300
	4000	570	0.52	8345	570	0.52	8345
	7500	360	0.33	4930	360	0.33	4930
SSW15x10	1000	1110	0.53	13150	1145	0.54	13690
	4000	960	0.45	10975	960	0.45	10975
	7500	715	0.34	7775	715	0.34	7775
SSW18x10	1000	1860	0.53	18030	2360	0.67	25545
	4000	1860	0.53	18030	2215	0.63	23095
	7500	1860	0.53	18030	2035	0.57	20395
SSW21x10	1000	3045	0.50	25905	3265	0.56	28795
	4000	3045	0.50	25905	3170	0.54	27510
	7500	2780	0.45	22780	2780	0.47	22780
SSW24x10	1000	3835	0.50	27100	4205	0.55	30920
	4000	3835	0.50	27100	4205	0.55	30920
	7500	3790	0.49	26660	3790	0.49	26660
SSW15x11	1000	975	0.58	12625	1015	0.60	13285
	4000	815	0.48	10135	815	0.48	10135
	7500	550	0.33	6470	550	0.33	6470
SSW18x11	1000	1635	0.58	17295	2075	0.73	24280
	4000	1635	0.58	17295	2010	0.71	23110
	7500	1635	0.58	17295	1730	0.61	18645
SSW21x11	1000	2485	0.58	22325	2990	0.70	29230
	4000	2485	0.58	22325	2785	0.65	26220
	7500	2305	0.54	20205	2305	0.54	20205
SSW24x11	1000	3475	0.57	27055	3845	0.63	31285
	4000	3475	0.57	27055	3710	0.60	29680
	7500	3205	0.52	24260	3205	0.52	24260
SSW15x12	1000	815	0.63	11280	905	0.70	12855
	4000	690	0.53	9245	690	0.53	9245
	7500	390	0.30	4905	390	0.30	4905
SSW18x12	1000	1450	0.63	16605	1845	0.80	23220
	4000	1450	0.63	16605	1815	0.79	22650
	7500	1435	0.62	16380	1435	0.62	16380
SSW21x12	1000	2210	0.63	21485	2755	0.79	29555
	4000	2210	0.63	21485	2420	0.69	24335
	7500	1900	0.54	17690	1900	0.54	17690
SSW24x12	1000	3150	0.63	26710	3540	0.71	31575
	4000	3150	0.63	26710	3250	0.65	27890
	7500	2705	0.54	21855	2705	0.54	21855
SSW18x13	1000	1335	0.68	16580	1695	0.87	23105
	4000	1335	0.68	16580	1580	0.81	20830
	7500	1180	0.60	14195	1180	0.60	14195
SSW21x13	1000	1985	0.68	20765	2520	0.87	29200
	4000	1985	0.68	20765	2110	0.73	22530
	7500	1555	0.53	15300	1555	0.53	15300
SSW24x13	1000	2830	0.68	25795	3275	0.79	31755
	4000	2830	0.68	25795	2860	0.69	26165
	7500	2280	0.55	19545	2280	0.55	19545

1. Allowable shear loads and anchor uplifts are applicable to installation on concrete with minimum $f'_c = 2500$ psi using the ASD basic (Section 1605.3.1) or the alternative basic (Section 1605.3.2) load combinations. Load values include evaluation of bearing stresses on the foundation 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. Allowable shear, drift, and uplift values may be interpolated for intermediate height or axial loads.
4. High-strength anchor bolts are required for anchor tension (uplift) forces exceeding the allowable load for standard-strength bolts tabulated on pages 32-33. See pages 32-37 for SSWAB anchor bolt information and anchorage solutions.
5. Tabulated anchor tension (uplift) loads assume no resisting axial load. For anchor tension loads at design shear values and including the effect of axial load, refer to the Strong-Wall Selector™ software or use the equations on page 15. Drifts at lower design shear may be linearly reduced.
6. See page 14 for allowable out-of-plane loads and axial capacities.