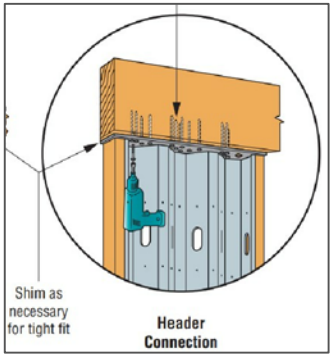
GENERAL NOTES:

1. Voluntary upgrade in garage only and no special inspections required.
2. No architectural changes.
3. If (E) slab is 4" thick or greater install 12" #3 dowels 24" o.c. 6" embed in existing concreted and 6" in new.
4. If (N) footing abuts (E) footing epoxy (2) ASTM A615-40 bars top and bottom with Hilti Hy-150. 6" embed into both old and new footings

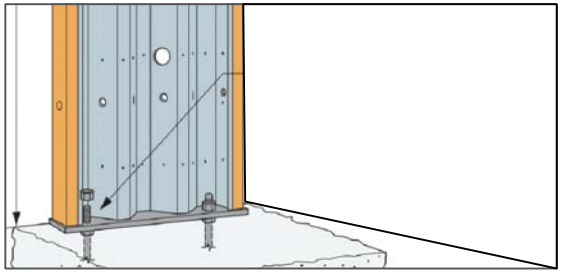
StrongWall to Header Connection

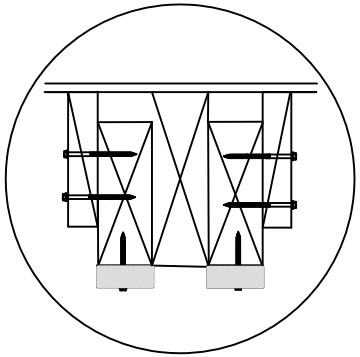
(14) $\frac{1}{4}$" x 3 $\frac{1}{2}$" Simpson Heavy Duty Connector Screws. Shim as necessary. $\frac{7}{8}$" max.



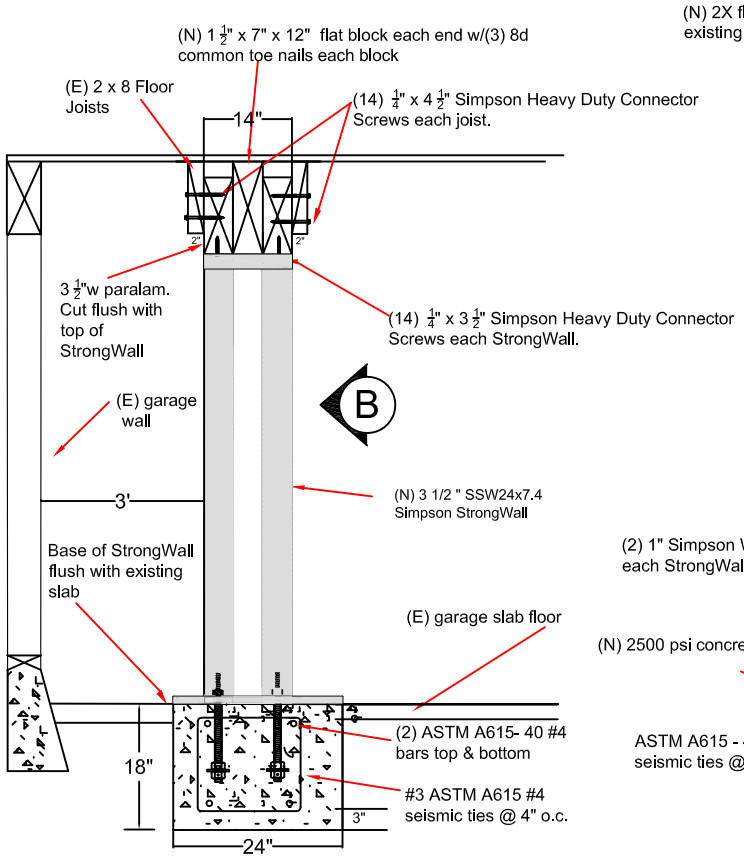
StrongWall Placement

Installl 1" anchor bolts and secure with 1" hex nuts. Snug-Fit. Do not use impact wrench

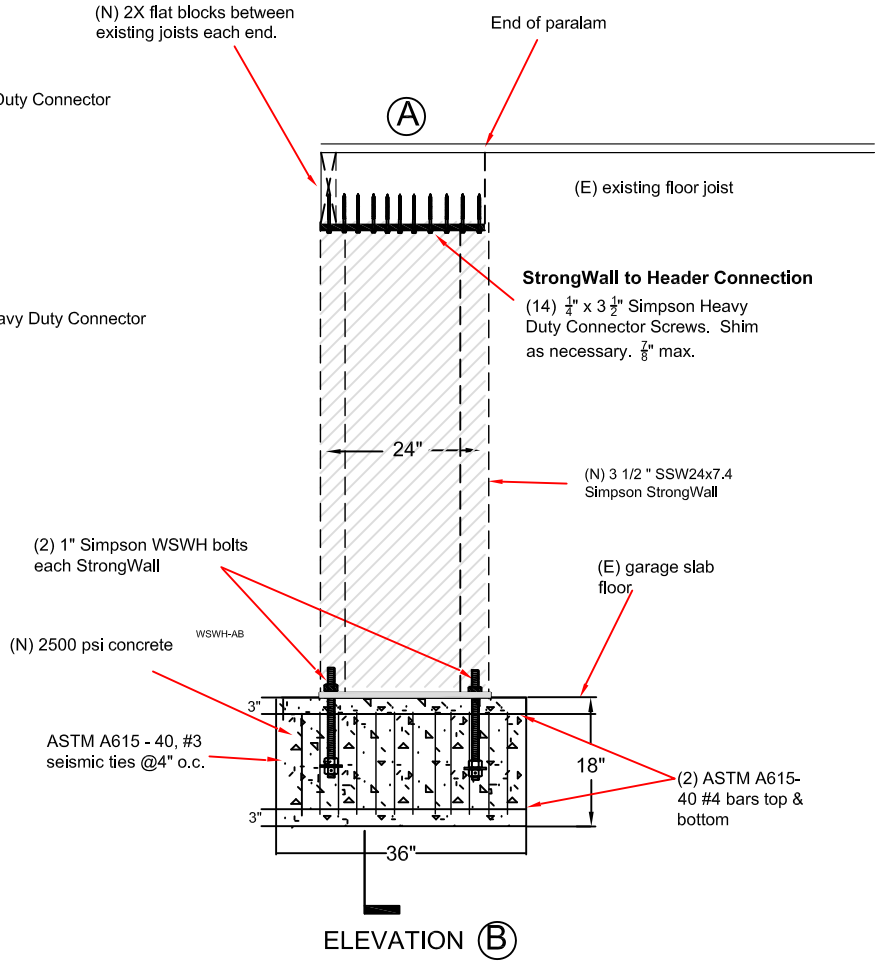




Strongwall to floor joists connection



SECTION (A)



ELEVATION (B)

Standard Application on Concrete Foundations

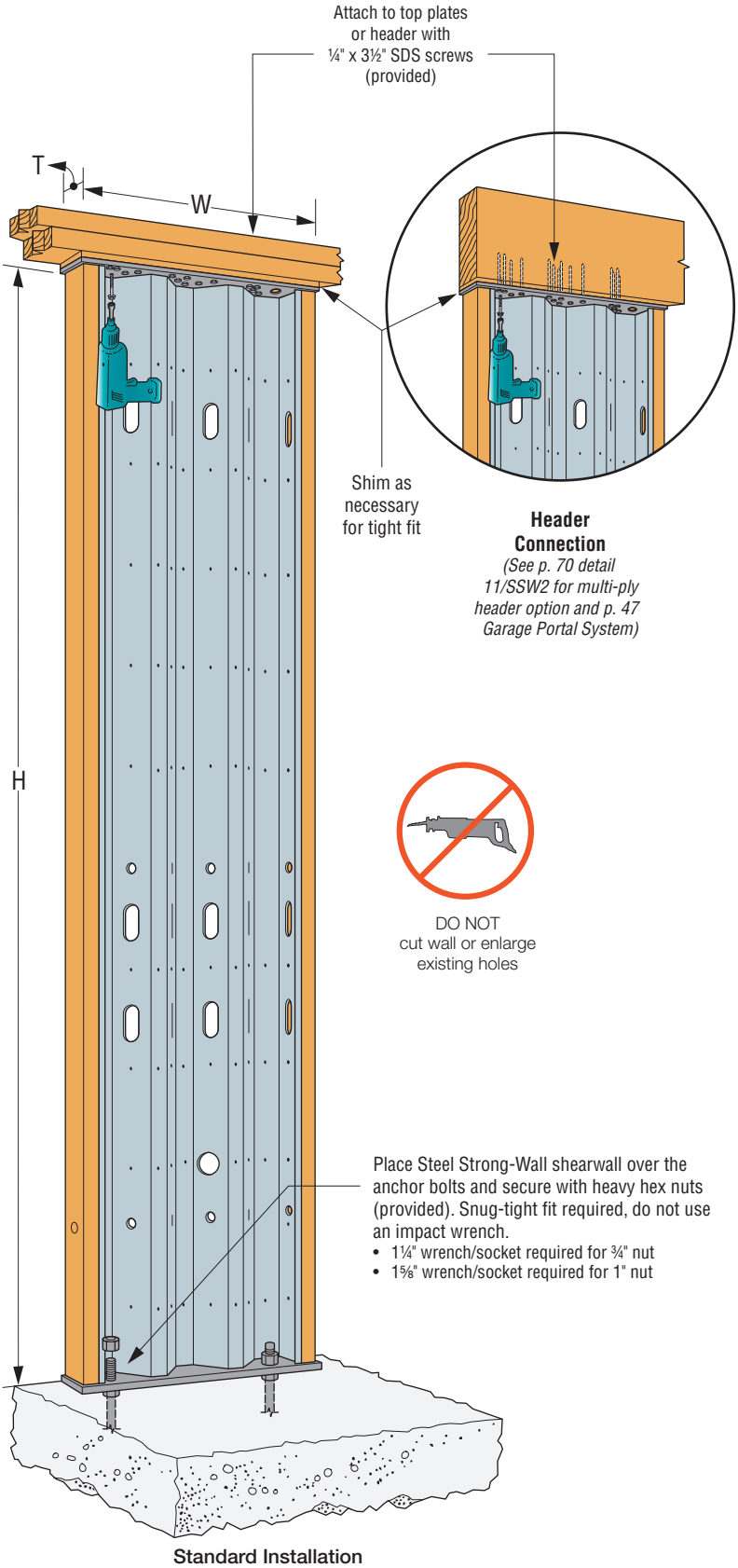
SIMPSON Strong-Tie®

Installation Information

- Do not cut the Steel Strong-Wall® or enlarge existing holes. Doing so will compromise the performance of the wall.
- Do not use an impact wrench to tighten nuts on the anchor bolts.
- Maximum shim thickness between the Steel Strong-Wall and top plates or header is ⅞" using Simpson Strong-Tie® Strong-Drive® ¼" x 3½" SDS Heavy-Duty Connector screws. For top of wall height adjustment, see detail 5/SSW2 on p. 69.
- Walls with 2x4 preattached studs may also be used in 2x6 or 2x8 wall framing. Install the wall flush to one face of the framing and add furring to the opposite side.
- Walls may be installed with solid or multi-ply headers, see detail 11/SSW2 on p. 70 for details.

Steel Strong-Wall® Product Data

Model No.	W (in.)	H (in.)	T (in.)	Anchor Bolts		Number of Screws in Top of Wall	Total Wall Weight (lb.)
				Qty.	Dia. (in.)		
SSW12x7	12	80	3½	2	¾	4	74
SSW15x7	15	80	3½	2	1	6	86
SSW18x7	18	80	3½	2	1	9	99
SSW21x7	21	80	3½	2	1	12	117
SSW24x7	24	80	3½	2	1	14	127
SSW12x7.4	12	85½	3½	2	¾	4	78
SSW15x7.4	15	85½	3½	2	1	6	91
SSW18x7.4	18	85½	3½	2	1	9	104
SSW21x7.4	21	85½	3½	2	1	12	122
SSW24x7.4	24	85½	3½	2	1	14	134
SSW12x8	12	93¼	3½	2	¾	4	85
SSW15x8	15	93¼	3½	2	1	6	99
SSW18x8	18	93¼	3½	2	1	9	113
SSW21x8	21	93¼	3½	2	1	12	132
SSW24x8	24	93¼	3½	2	1	14	144
SSW12x9	12	105¼	3½	2	¾	4	94
SSW15x9	15	105¼	3½	2	1	6	110
SSW18x9	18	105¼	3½	2	1	9	125
SSW21x9	21	105¼	3½	2	1	12	147
SSW24x9	24	105¼	3½	2	1	14	160
SSW12x10	12	117¼	3½	2	¾	4	104
SSW15x10	15	117¼	3½	2	1	6	121
SSW18x10	18	117¼	3½	2	1	9	138
SSW21x10	21	117¼	3½	2	1	12	162
SSW24x10	24	117¼	3½	2	1	14	177
SSW15x11	15	129¼	5½	2	1	6	148
SSW18x11	18	129¼	5½	2	1	9	167
SSW21x11	21	129¼	5½	2	1	12	193
SSW24x11	24	129¼	5½	2	1	14	209
SSW15x12	15	141¼	5½	2	1	6	160
SSW18x12	18	141¼	5½	2	1	9	180
SSW21x12	21	141¼	5½	2	1	12	208
SSW24x12	24	141¼	5½	2	1	14	225
SSW18x13	18	153¼	5½	2	1	9	194
SSW21x13	21	153¼	5½	2	1	12	224
SSW24x13	24	153¼	5½	2	1	14	243



Header Connection
(See p. 70 detail 11/SSW2 for multi-ply header option and p. 47 Garage Portal System)

Standard Installation

US Patent 8,281,551
Canadian Patent 2,489,845

Standard Application on Concrete Foundations

Model No.	Allowable Axial Load (lb.)	Seismic[2]			Wind		
		Allowable ASD Shear Load V (lb.)	Drift at Allowable Shear (in.)	Anchor Tension at Allowable Shear[5] (lb.)	Allowable ASD Shear Load V (lb.)	Drift at Allowable Shear (in.)	Anchor Tension at Allowable Shear[5] (lb.)
SSW12x7	1,000	955	0.36	9,840	1,215	0.46	13,620
	4,000	955	0.36	9,840	1,095	0.42	11,765
	7,500	890	0.34	9,010	890	0.34	9,010
SSW15x7	1,000	1,855	0.36	15,655	1,860	0.36	15,715
	4,000	1,665	0.33	13,550	1,665	0.33	13,550
	7,500	1,445	0.28	11,340	1,445	0.28	11,340
SSW18x7	1,000	2,905	0.34	19,660	3,480	0.41	25,805
	4,000	2,905	0.34	19,660	3,250	0.38	23,135
	7,500	2,905	0.34	19,660	2,980	0.35	20,370
SSW21x7	1,000	4,200	0.32	23,755	4,440	0.34	25,710
	4,000	4,200	0.32	23,755	4,440	0.34	25,710
	7,500	4,200	0.32	23,755	4,310	0.33	24,635
SSW24x7	1,000	5,495	0.29	26,270	5,730	0.31	27,835
	4,000	5,495	0.29	26,270	5,730	0.31	27,835
	7,500	5,495	0.29	26,270	5,730	0.31	27,835
SSW12x7.4	1,000	870	0.39	9,515	1,105	0.49	13,070
	4,000	870	0.39	9,515	970	0.43	10,940
	7,500	750	0.33	7,940	750	0.33	7,940
SSW15x7.4	1,000	1,685	0.39	15,035	1,700	0.39	15,215
	4,000	1,500	0.34	12,905	1,500	0.34	12,905
	7,500	1,270	0.29	10,510	1,270	0.29	10,510
SSW18x7.4	1,000	2,700	0.37	19,475	3,255	0.44	25,790
	4,000	2,700	0.37	19,475	3,040	0.42	23,125
	7,500	2,700	0.37	19,475	2,790	0.38	20,390
SSW21x7.4	1,000	3,890	0.35	23,420	4,230	0.38	26,405
	4,000	3,890	0.35	23,420	4,230	0.38	26,405
	7,500	3,890	0.35	23,420	4,035	0.36	24,655
SSW24x7.4	1,000	5,330	0.34	27,610	5,450	0.34	28,485
	4,000	5,330	0.34	27,610	5,450	0.34	28,485
	7,500	5,330	0.34	27,610	5,450	0.34	28,485
SSW12x8	1,000	775	0.42	9,180	985	0.53	12,560
	4,000	775	0.42	9,180	865	0.47	10,550
	7,500	665	0.36	7,630	665	0.36	7,630
SSW15x8	1,000	1,505	0.42	14,515	1,530	0.43	14,835
	4,000	1,345	0.37	12,545	1,345	0.37	12,545
	7,500	1,135	0.32	10,190	1,135	0.32	10,190
SSW18x8	1,000	2,480	0.41	19,525	2,985	0.50	25,795
	4,000	2,480	0.41	19,525	2,790	0.47	23,160
	7,500	2,480	0.41	19,525	2,560	0.43	20,410
SSW21x8	1,000	3,560	0.39	23,360	3,960	0.43	27,240
	4,000	3,560	0.39	23,360	3,960	0.43	27,240
	7,500	3,560	0.39	23,360	3,700	0.41	24,660
SSW24x8	1,000	4,865	0.37	27,435	5,105	0.39	29,370
	4,000	4,865	0.37	27,435	5,105	0.39	29,370
	7,500	4,865	0.37	27,435	5,055	0.39	28,960
SSW12x9	1,000	660	0.47	8,745	840	0.60	11,915
	4,000	660	0.47	8,745	705	0.50	9,485
	7,500	505	0.36	6,380	505	0.36	6,380
SSW15x9	1,000	1,315	0.45	14,250	1,315	0.47	14,250
	4,000	1,130	0.38	11,740	1,130	0.40	11,740
	7,500	925	0.31	9,235	925	0.33	9,235
SSW18x9	1,000	2,145	0.47	18,890	2,645	0.58	25,800
	4,000	2,145	0.47	18,890	2,470	0.54	23,130
	7,500	2,145	0.47	18,890	2,265	0.50	20,370
SSW21x9	1,000	3,145	0.46	23,265	3,590	0.52	28,215
	4,000	3,145	0.46	23,265	3,530	0.51	27,490
	7,500	3,145	0.46	23,265	3,280	0.47	24,680
SSW24x9	1,000	4,285	0.44	27,210	4,605	0.47	30,150
	4,000	4,285	0.44	27,210	4,605	0.47	30,150
	7,500	4,285	0.44	27,210	4,480	0.46	28,970

See footnotes on p. 44.