

Strong-Wall® Shearwall Anchorage Solutions

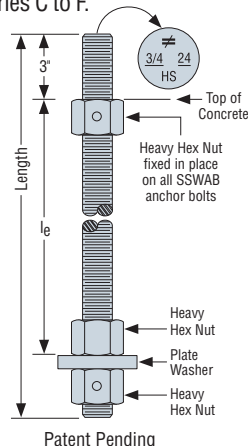


SSWABHS IS THE MOST EFFICIENT ANCHORING SOLUTION FOR STEEL STRONG-WALL PANELS

In order to streamline the specification process for Designers, Simpson Strong-Tie has put together the most complete range of anchorage solutions in the prefabricated steel-shearwall industry. Pre-engineered and designed to conform to ACI 318 Appendix D, Designers can feel confident our that SSWABHS solutions meet the latest requirements of the 2006 and 2009 IBC.

SSWABHS HIGH-STRENGTH ANCHOR BOLTS: THE PREFERRED SOLUTION

Typically steel-shearwall manufacturers require high-strength anchor rods in order to achieve the maximum usable capacity of their panels. There are cases where standard rod is acceptable for lower capacities, but these are uncommon and can cause confusion in the field as to what is acceptable. For this reason, Simpson Strong-Tie recommends the use of our SSWABHS high-strength anchor bolts for all engineered Steel Strong-Wall® applications, and requires them for all projects located in Seismic Design Categories C to F.

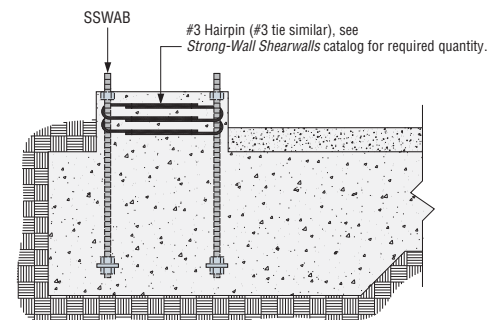


SSWABHS ARE FULLY ASSEMBLED ANCHOR BOLTS THAT HELP ELIMINATE GUESSWORK:

- High-strength rods suitable for all applications
- The fixed nut at the top ensures correct embedment when used with our anchorage templates and helps distribute forces into the concrete
- Head stamp includes length, diameter, "HS" (for "high strength") and the "No Equal" sign (\neq) for easier inspection after the pour
- Seismic anchorage designs for tension and shear conform to ACI 318 Section D.3.3. Solutions are also available for wind applications. See the *Strong-Wall Shearwalls* catalog for more information.

Steel Strong-Wall Model	Required Diameter (in)	Required Strength	
		SDC A & B ¹	SDC C - F
SSW12	$\frac{3}{4}$	STD or HS	HS
SSW15	1	STD or HS	HS
SSW18	1	STD or HS	HS
SSW21	1	STD or HS	HS
SSW24	1	STD or HS	HS

1. Designer may justify STD strength AB's.



Hairpin Installation

(Garage curb shown, other footing types similar)

Hairpin ties may be required for edge installations in SDC C-F based upon ACI 318 Appendix D requirements. See the *Strong-Wall Shearwalls* catalog for more information.

STEEL STRONG-WALL® SHEARWALL ANCHORAGE TEMPLATES

Our anchorage templates mount on the forms to ensure proper placement of the SSWABHS anchor bolts. Note that Steel Strong-Wall shearwalls only require two anchor bolts to handle both tension and shear loads.

Steel Strong-Wall Anchor Bolt Templates

Steel Strong-Wall Model	Width (in)	Steel Strong-Wall Template Model		
		Reversible	Panel Form	Brick Ledge
SSW12	12	SSWT12	SSWTPF12	SSWTBL12
SSW15	15	SSWT15	SSWTPF15	SSWTBL15
SSW18	18	SSWT18	SSWTPF18	SSWTBL18
SSW21	21	SSWT21	SSWTPF21	SSWTBL21
SSW24	24	SSWT24	SSWTPF24	SSWTBL24

1. The height of the garage curb above the garage slab is critical for rough header opening at garage return walls. See garage portal information in the *Strong-Wall Shearwalls* catalog for more information.
2. Templates are recommended and are required in some jurisdictions.
3. Foundation design by Designer.
4. Templates are the same for 4" or 6" thick walls.

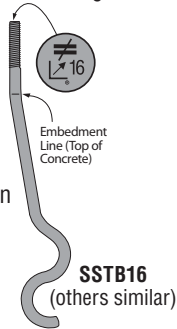
SSTB: The Most Efficient Wood Strong-Wall Shearwall Anchorage Solution

THE SSTB ANCHOR BOLT IS ICC-ES CODE-LISTED UNDER THE 2006 & 2009 IBC AND IRC

Now the most economical anchorage solution for our Wood Strong-Wall® shearwall is also code listed under the latest I-codes. The unique design of the SSTB anchor bolt allows for smaller footings that require less concrete. Additionally, the SSTB has been tested in the most common Wood Strong-Wall foundation applications for use in all seismic design categories and high-wind regions, so it is easier to specify than ever.

FEATURES

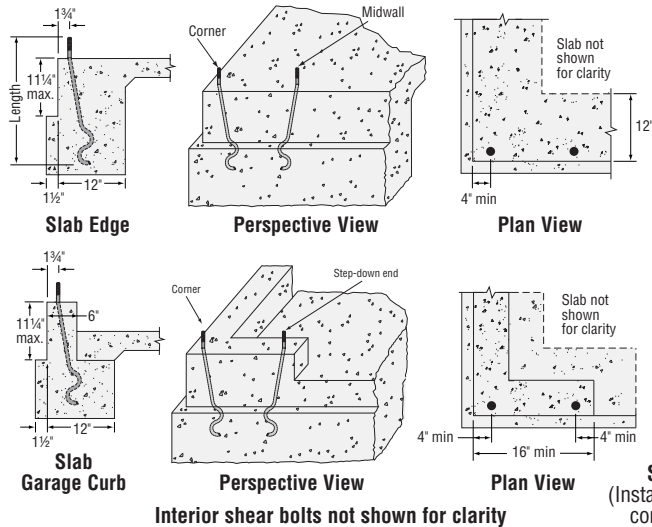
- Innovative offset angle reduces side blowout and provides more concrete cover
- Embedment line on the shank and installation angle on the head help ensure correct installation
- Head stamp includes length and the “No Equal” sign (≠) for easier inspection after the pour
- Unique shape results in less rebar interference



CODE LISTED: ICC-ES ESR-2611, City of Los Angeles RR 25827

Minimum SSTB Anchor Requirements ^{1,2}		
Wood Strong-Wall Model	Slab on Grade	
	Garage Curb	Slab Edge
SW16	SSTB28	SSTB28
SW22		
SW18	SSTB28 ³	
SW24		
SW32		
SW48		

1. This table applies to single story Wood Strong-Wall applications directly on concrete. Two-story stacked applications may require high-strength anchors (Designed by others).
2. Additional applications may use the SSTB where the demand uplift force is less than the allowable SSTB load shown in F-SBSSTB10.
3. SW18x8/9, SW24x8/9, SW32x9, SW48x8/9/10 under seismic loading may use SSTB28 with no load reductions. Maximum uplift for all other models shall be limited to 10,460 lbs (Wind and SDC A&B), and 8,785 lbs (SDC C-F).



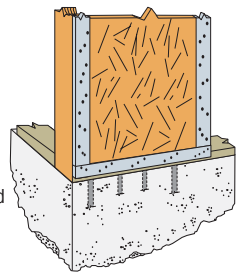
WOOD STRONG-WALL® SHEARWALL ANCHORAGE TEMPLATES

Our anchorage templates mount on the forms to ensure proper placement of the SSTB anchor bolts as well as the interior shear bolts. Note that for proper anchorage of the Wood Strong-Wall shearwall, each template should hold two tension anchor bolts and two or three shear bolts (depending on model).

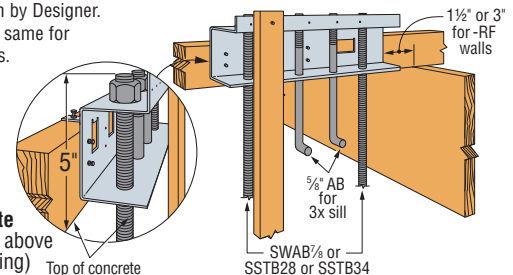
Wood Strong-Wall Concrete Templates

Strong-Wall Model	Width (in)	Strong-Wall Template Model				
		Exterior	Interior	Panel Form	Steel Form	CMU
SW16	16	SWT16	SWT16	SWTPF16	SWTSF16	SWTCMU16
SW18	18	SWT18	SWT18	SWTPF18	SWTSF18	SWTCMU18
SW22	22	SWT22	SWT22	SWTPF22	SWTSF22	SWTCMU22
SW24	24	SWT24	SWT24	SWTPF24	SWTSF24	SWTCMU24
SW32	32	SWT32	SWT32	SWTPF32	SWTSF32	SWTCMU32
SW48	48	SWT48	SWT48	SWTPF48	SWTSF48	SWTCMU48

1. The height of the garage curb above the garage slab is critical for rough header opening on portal walls. See garage portal information in the *Strong-Wall Shearwalls* catalog for more information.
2. Raised-floor Wood Strong-Wall shearwalls require 1 1/2" or 3" of concrete on either side. Allow 1 1/2" or 3" of concrete on either side of the template if the design is for a wood 1st-floor or 2nd-floor application.
3. For RF raised-floor walls, use the corresponding standard Wood Strong-Wall shearwall template as required.
4. Templates are recommended and are required in some jurisdictions.
5. Foundation design by Designer.
6. Templates are the same for 4" or 6" thick walls.



SWTI Interior Template
(Installed on a 2x4 to stand above concrete for easier finishing)
Top of concrete



This flier is effective until January 31, 2013, and reflects information available as of September 1, 2010. This information is updated periodically and should not be relied upon after January 31, 2013; contact Simpson Strong-Tie for current information and limited warranty or see www.strongtie.com.