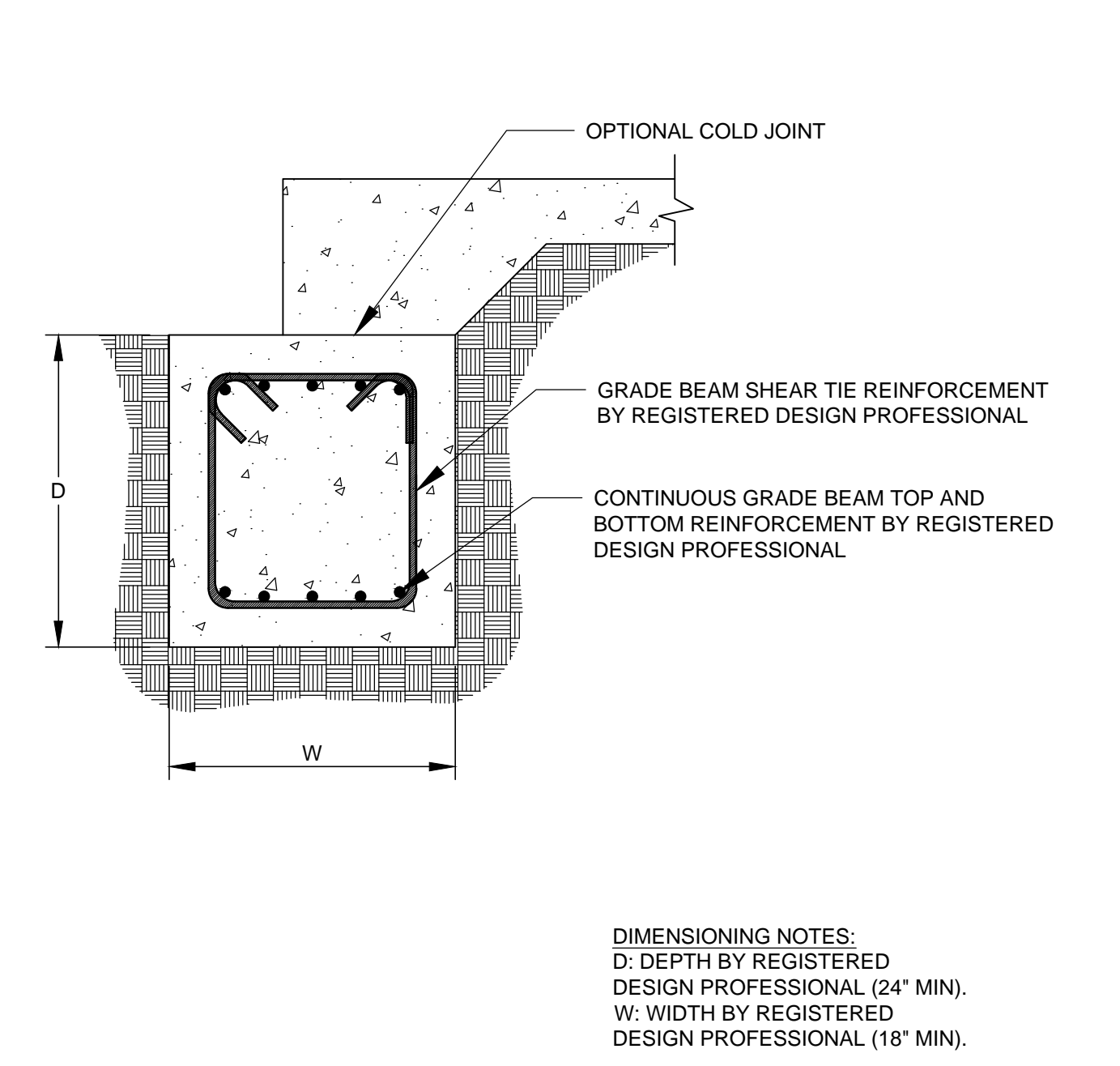
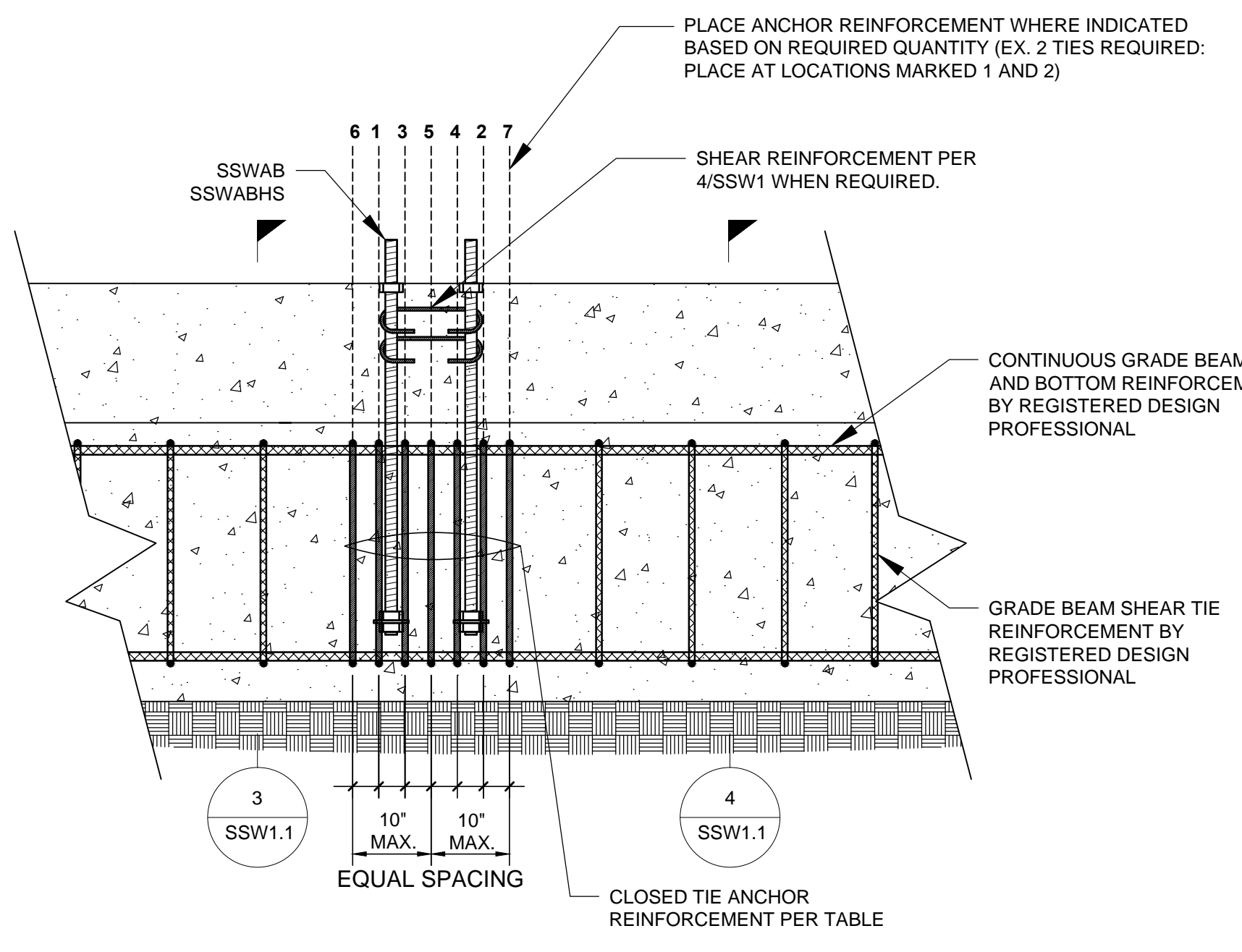


GRADE BEAM ELEVATION AT 18", 21" AND 24" WALL MODELS 1

GRADE BEAM SECTION AT ANCHOR REINFORCEMENT 3

CLOSED TIE ANCHOR REINFORCEMENT 6



GRADE BEAM ELEVATION AT 12" AND 15" WALL MODELS 2

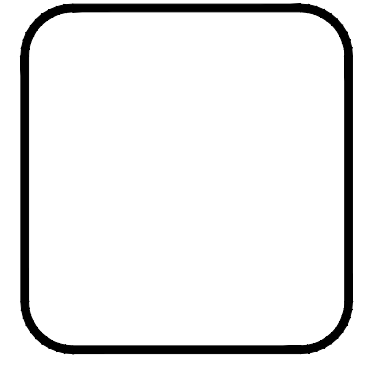
GRADE BEAM SECTION AWAY FROM ANCHOR REINFORCEMENT 4

SSW GRADE BEAM ANCHOR REINFORCEMENT						
STEEL STRONG-WALL WIDTH (in.)	ANCHOR MODEL NO.	ANCHOR DIAMETER (in.)	ANCHOR REINFORCEMENT FOR WIND AND SEISMIC ^{3,8,9}		LRFD APPLIED DESIGN SEISMIC MOMENT (ft.-lbs.) ^{4,5,6,7}	
			STANDARD STRENGTH SSWAB	HIGH STRENGTH (HS) SSWAB	STANDARD STRENGTH SSWAB	HIGH STRENGTH (HS) SSWAB
12" MODEL	SSWAB3/4 SSWAB3/4HS	3/4	2- #4 CLOSED TIES PER $\frac{2}{SSW1.1}$	6- #4 CLOSED TIES PER $\frac{2}{SSW1.1}$	16,000	23,000
15" MODEL	SSWAB1 SSWAB1HS	1	4- #4 CLOSED TIES PER $\frac{2}{SSW1.1}$	7- #4 CLOSED TIES PER $\frac{2}{SSW1.1}$	36,000	44,000
18" MODEL			2- #4 CLOSED TIES PER $\frac{1}{SSW1.1}$	4- #4 CLOSED TIES PER $\frac{1}{SSW1.1}$	48,000	61,000
21" MODEL					59,000	77,000
24" MODEL					71,000	87,000

NOTES:
 1. ANCHOR REINFORCEMENT CONFORMS TO ACI 318-11, SECTION D.5.2.9 AND PERFORMANCE WAS VALIDATED THROUGH FULL SCALE TESTING.
 2. MINIMUM CONCRETE COMPRESSIVE STRENGTH, $f_c = 2500$ psi.
 3. CLOSED TIE ANCHOR REINFORCEMENT TO BE ASTM A615 GRADE 60 (MIN) #4 REBAR.
 4. GRADE BEAM LONGITUDINAL AND TIE REINFORCEMENT SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL FOR FLEXURE AND SHEAR LOADING. DESIGN SHOULD CONSIDER PROJECT SPECIFIC DESIGN LOADS AND ALLOWABLE SOIL PRESSURE.
 5. SIMPSON STRONG-TIE RECOMMENDS USING THE TABULATED MINIMUM LRFD APPLIED SEISMIC DESIGN MOMENT TO ENSURE GRADE BEAM DESIGN FLEXURE AND SHEAR STRENGTH IS ADEQUATE TO PREVENT PLASTIC HINGE FORMATION UNDER DEMANDS ASSOCIATED WITH ANCHORAGE FORCES CORRESPONDING TO ACI 318-11, SECTION D.3.3.4.3.
 6. DESIGNER MAY USE REDUCED MOMENT DUE TO APPLIED SSW LATERAL LOAD. MINIMUM MOMENT SHALL BE THE LESSER OF THE TABULATED MOMENT OR THE AMPLIFIED LRFD DESIGN MOMENT FOR SEISMIC: (ASD SHEAR/0.7) x ϕ_o x SSW HEIGHT FOR GRADE BEAM DESIGN.
 7. MINIMUM GRADE BEAM DESIGN MOMENT FOR WIND AND SEISMIC IN SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SD C: (ASD SHEAR/0.6) x SSW HEIGHT.
 8. CLOSED TIE MAY BE SINGLE PIECE HOOP OR TWO PIECE ASSEMBLY WITH A U-STIRRUP WITH STANDARD 135 DEGREE HOOKS AND A TOP CROSS TIE CAP. SEE DETAIL 6/SSW1.1.
 9. SEE DETAILS FOR GRADE BEAM ANCHOR REINFORCEMENT PLACEMENT, INSTALLATION AND SPACING REQUIREMENTS. CLOSED TIE ANCHOR REINFORCEMENT QUANTITY IS PER WALL FOR THE 12" AND 15" WALL MODELS, AND PER ANCHOR FOR THE 18", 21" AND 24" MODELS.

SSWAB ANCHOR GRADE BEAM REINFORCEMENT AND DESIGN MOMENTS 5

NO.	DATE	REVISIONS
0	10/27/2014	FIRST RELEASE



SIMPSON STRONG-TIE COMPANY, INC.
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 5956 W. LAS PLEASANTON, CA 94588
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STEEL STRONG-WALL
 ALTERNATE ANCHORAGE DETAILS
 ENGINEERED DESIGNS



NAME	
DATE	10-27-2014
SCALE	N.T.S.
CHECKED	
SHEET	SSW1.1
OF SHEETS	
JOB NO.	