

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			X DATE		
PLANS APPROVAL DATE			X No. X Exp. X CIVIL STATE OF CALIFORNIA		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
THE REGISTERED CIVIL ENGINEER FOR THE PROJECT IS RESPONSIBLE FOR THE SELECTION AND PROPER APPLICATION OF THE COMPONENT DESIGN AND ANY MODIFICATIONS SHOWN.					

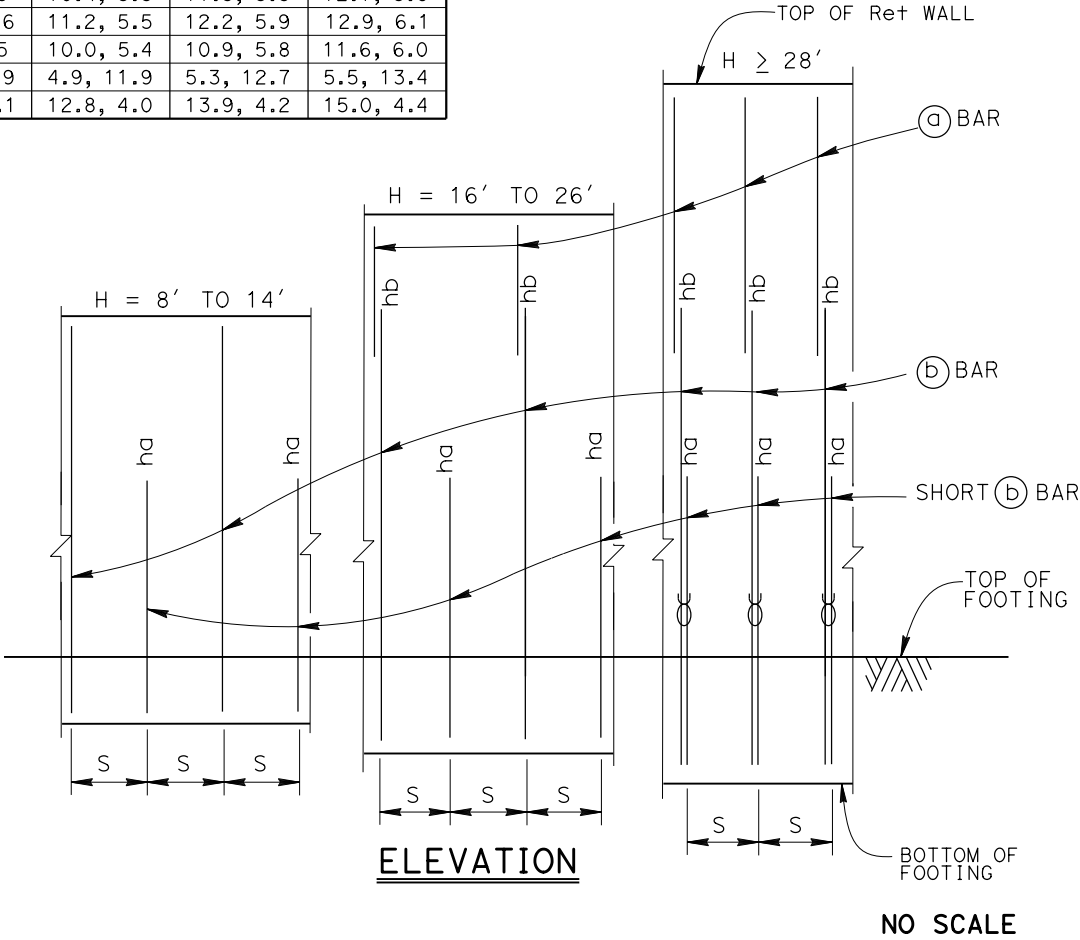
TABLE OF WALL DIMENSIONS, REINFORCING STEEL AND DATA													
Design Height, H	STEM WITH HAUNCH				STEM WITHOUT HAUNCH								
	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'
Footing Width,W	6'-9"	7'-6"	7'-0"	7'-6"	8'-6"	9'-3"	10'-3"	11'-3"	12'-3"	13'-0"	14'-3"	15'-3"	16'-3"
Footing Toe, C	5'-6"	6'-3"	5'-6"	6'-0"	6'-9"	7'-3"	8'-0"	8'-6"	9'-6"	10'-0"	10'-10"	11'-6"	12'-5"
Footing Heel, B	1'-3"	1'-3"	1'-6"	1'-6"	1'-9"	2'-0"	2'-3"	2'-9"	2'-9"	3'-0"	3'-5"	3'-9"	3'-10"
Footing Thickness, F	1'-6"	2'-0"	2'-4"	2'-4"	2'-6"	2'-6"	2'-9"	2'-9"	3'-0"	3'-3"	3'-6"	3'-9"	4'-0"
Stem Thickness At Top	-	-	-	-	1'-7"	1'-9"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-3"	2'-3"
Stem Thickness At Haunch	1'-0"	1'-0"	1'-3"	1'-3"	-	-	-	-	-	-	-	-	-
Batter	0	0	0	0	0	0	0	1/4:12	1/4:12	1/4:12	1/2:12	1/2:12	1/2:12
Ⓐ BARS	-	-	-	-	#5 @ 14	#6 @ 13	#6 @ 13	#6 @ 13	#6 @ 11	#7 @ 12	#7 @ 11	#7 @ 10	#8 @ 11
Ⓑ BARS	#5 @ 6	#5 @ 5.5	#6 @ 5	#6 @ 5	#8 @ 7	#8 @ 6.5	#9 @ 6.5	#9 @ 6.5	#9 @ 5.5	#10 @ 6	#10 @ 11	#10 @ 10	#11 @ 11
"ha"	7'-10"	9'-10"	5'-3"	6'-0"	6'-9"	7'-6"	7'-3"	9'-0"	9'-9"	9'-3"	11'-3"	13'-0"	13'-0"
"hb"	-	-	-	-	13'-0"	13'-0"	13'-0"	14'-6"	15'-6"	18'-6"	20'-6"	21'-6"	23'-0"
"hx"	5'-3"	6'-0"	5'-3"	5'-9"	6'-6"	7'-0"	7'-9"	7'-6"	8'-3"	9'-9"	10'-0"	11'-0"	12'-2"
Ⓐ BARS	#5 @ 12	#5 @ 11	#5 @ 10	#5 @ 10	#5 @ 14	#5 @ 13	#5 @ 13	#5 @ 13	#5 @ 11	#5 @ 12	#5 @ 11	#5 @ 10	#5 @ 11
Ⓐ Bar Length	3'-6"	3'-6"	3'-6"	3'-6"	4'-6"	7'-0"	7'-6"	10'-9"	11'-9"	12'-6"	13'-9"	14'-9"	15'-9"
Ⓐ BARS	-	-	-	-	-	-	-	#4 @ 13	#4 @ 11	#4 @ 12	#4 @ 11	#4 @ 10	#4 @ 11
Ⓒ BARS	#4 @ 12	#4 @ 12	#5 @ 15	#5 @ 15	#5 @ 12	#5 @ 12	#6 @ 12	#6 @ 12	#6 @ 12	#6 @ 12	#6 @ 12	#7 @ 12	#7 @ 12
Ⓓ BARS	#4 @ 18	#4 @ 18	#4 @ 18	#4 @ 18	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 12	#5 @ 12	#5 @ 12	#5 @ 12	#5 @ 12
Td (kips/ft)	0	0	5.25	7.5	9.0	11.25	12.75	15.0	16.5	21.0	21.75	24.75	27.75
To (kips/ft)	0	0	*	*	*	*	*	*	*	*	*	*	*
Tp= Larger of 1.33 Td & 1.25 To (kips/ft)	0	0	*	*	*	*	*	*	*	*	*	*	*
Max Anchor Spacing	-	-	10'-6"	9'-6"	7'-9"	6'-3"	7'-9"	6'-6"	8'-0"	6'-3"	6'-0"	5'-3"	4'-9"
SER I: B'(ft), q ₀ (ksf)	6.3, 0.6	6.9, 0.7	5.7, 2.1	6.1, 2.4	7.4, 2.4	8.1, 2.7	9.1, 2.8	9.8, 3.0	10.9, 3.0	11.4, 3.5	12.6, 3.5	13.6, 3.7	14.7, 3.8
STR Ia: B'(ft), q ₀ (ksf)	6.5, 1.3	6.7, 1.6	5.4, 3.3	5.7, 3.7	6.7, 3.8	7.4, 4.2	8.2, 4.3	8.9, 4.8	9.8, 4.9	10.1, 5.5	11.2, 5.6	12.1, 5.9	12.8, 6.2
STR, Ib: B'(ft), q ₀ (ksf)	5.7, 1.2	5.7, 1.5	4.6, 3.3	5.0, 3.7	5.9, 3.8	6.6, 4.0	7.3, 4.2	7.9, 4.6	8.7, 4.7	9.1, 5.3	10.0, 5.4	10.8, 5.7	11.5, 6.0
STR, IIa: B'(ft), q ₀ (ksf)	5.0, 1.9	5.7, 2.6	4.9, 4.0	5.4, 4.4	6.4, 4.0	7.2, 4.5	8.2, 4.6	9.0, 4.9	10.0, 4.9	10.4, 5.4	11.6, 5.4	12.6, 5.7	13.4, 5.8
STR, IIb: B'(ft), q ₀ (ksf)	3.7, 2.3	4.2, 2.8	4.0, 4.2	4.5, 4.5	5.6, 4.2	6.3, 4.5	7.2, 4.5	8.0, 4.8	8.9, 4.7	9.4, 5.3	10.4, 5.3	11.3, 5.3	12.1, 5.6
STR, Va: B'(ft), q ₀ (ksf)	6.0, 1.4	6.4, 1.7	5.2, 3.4	5.5, 3.8	6.6, 3.9	7.3, 4.3	8.2, 4.5	8.8, 4.8	9.8, 4.9	10.2, 5.6	11.2, 5.5	12.2, 5.9	12.9, 6.1
STR, Vb: B'(ft), q ₀ (ksf)	5.0, 1.3	5.2, 1.6	4.4, 3.4	4.8, 3.8	5.7, 3.8	6.4, 4.2	7.2, 4.4	7.8, 4.7	8.7, 4.8	9.1, 5.5	10.0, 5.4	10.9, 5.8	11.6, 6.0
Ext I: B'(ft), q ₀ (ksf)	3.4, 2.0	3.1, 3.6	2.4, 6.5	2.6, 8.1	3.0, 7.7	3.3, 9.0	3.5, 9.4	3.9, 10.1	4.3, 10.4	4.4, 11.9	4.9, 11.9	5.3, 12.7	5.5, 13.4
Ext II: B'(ft), q ₀ (ksf)	2.0, 3.1	3.5, 2.6	4.1, 3.7	4.9, 3.6	6.4, 3.3	7.4, 3.6	8.6, 3.4	9.6, 3.7	10.8, 3.6	11.5, 4.1	12.8, 4.0	13.9, 4.2	15.0, 4.4

NOTES:

- "ha" and "hb" above Ⓑ bars indicate distance from top of footing to upper end of Ⓑ bars, see Table.
- "s" is Ⓑ bar spacing, see Table.
- Minimum lap splice for Ⓐ and Ⓑ bars is 45 x reinforcement diameter of Ⓐ bar. Lap splice begins at a distance "hb" above footing.
- Ⓐ bar spacing shown is along the length of the retaining wall.
- Footing is designed to resist 1.33 Td assuming the maximum anchor spacing shown in the Table.

LEGEND:

⌘: Bundled Reinforcement
SER: Service limit state
STR: Strength limit state
EXT: Extreme event limit state
B': Effective footing width (ft)
q₀: Net bearing stress (ksf)
q₀: Gross uniform bearing stress (ksf)
To: Anchor Lock off Load (kip/ft)
Td: Anchor Design Load (kip/ft)
Tp: Anchor Factored Test Load (Large of 1.33Td or 1.25To) (kip/ft)
*: Values to be determined by Designer (remove this note afterwards)



BRIDGE STANDARD DETAILS		DESIGN	BY X	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE No.	X	RETAINING WALL (TYPE 7SWB) DETAILS No. 2						
x814-390-2 FILE NO.	August 2026 APPROVAL DATE	DETAILS	BY X	CHECKED X			XX-XXXX POST MILE								
		QUANTITIES	BY X	CHECKED X			X.X								
Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html		DATE PLOTTED => 31-AUG-2026 FILE => x814-390-2.dgn		TIME PLOTTED => 14:12 USERNAME => s136247		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: XXXX PROJECT NUMBER & PHASE: XXXXXXXXXX1	COUNTY/ROUTE/ZONE: XXX/XXX/X CONTRACT No.: XX-XXXXX4	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET X	OF X