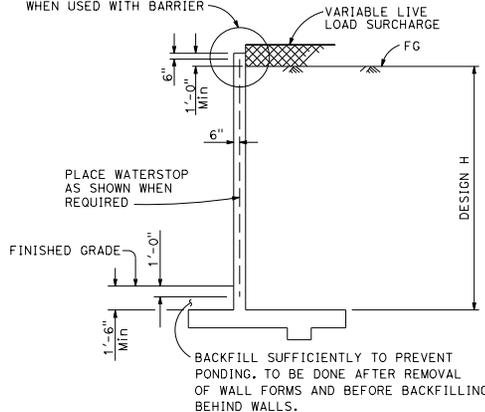


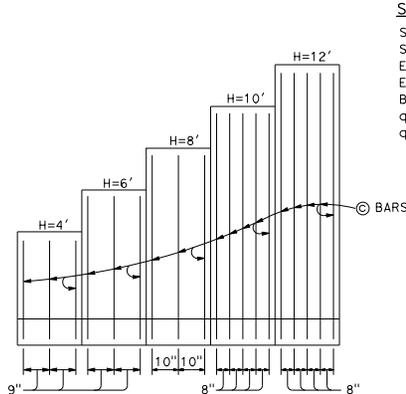
**SPREAD FOOTING SECTION**

Place concrete in toe against undisturbed material, except as permitted by the Engineer.

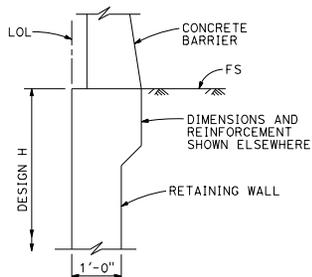
APPROPRIATE DETAILS AT TOP OF WALL ARE SHOWN ELSEWHERE, SEE "STEM HAUNCH DETAIL" WHEN USED WITH BARRIER



**DESIGN SECTION**



**ELEVATION**



**STEM HAUNCH DETAIL**

TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA						
DESIGN H	4'	6'	8'	10'	12'	
W	7'-0"	7'-0"	7'-3"	7'-5"	8'-2"	
C	2'-3"	2'-3"	2'-3"	2'-5"	2'-7"	
B	4'-9"	4'-9"	5'-0"	5'-0"	5'-7"	
⊙ BARS	#6 @ 9	#6 @ 9	#7 @ 10	#7 @ 8	#7 @ 8	
⊙ BARS	#5 @ 9	#5 @ 9	#6 @ 10	#7 @ 8	#7 @ 8	
Ser: B', q <sub>0</sub>	6.7, 0.9	6.7, 1.0	6.3, 1.3	5.8, 1.6	6.2, 1.9	
Str: B', q <sub>0</sub>	6.6, 1.6	5.2, 1.7	3.7, 2.2	2.8, 3.3	3.0, 3.9	
Ext I: B', q <sub>0</sub>	5.6, 0.9	4.8, 1.4	4.1, 2.0	3.1, 3.2	2.7, 4.5	
Ext II: B', q <sub>0</sub>	2.8, 1.9	2.7, 2.5	2.8, 3.0	2.6, 3.7	3.4, 3.6	

**SYMBOLS:**

- Ser - service limit state I
- Str - strength limit state I
- Ext I - extreme event limit state I
- Ext II - extreme event limit state II
- B' - effective footing width (ft)
- q<sub>0</sub> - net bearing stress (ksf), OG assumed to be FG at toe
- q<sub>0</sub> - gross uniform bearing stress (ksf)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

April 20, 2012  
 PLANS APPROVAL DATE  
 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.

TO ACCOMPANY PLANS DATED \_\_\_\_\_

**DESIGN CONDITIONS:**

Design H may be exceeded by 6" before going to the next size. Special footing design is required where foundation material is incapable of supporting bearing stress listed in the table.

**DESIGN NOTES:**

- DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments
- LS: Varied surcharge on level ground surface
- DC: Stem Architectural Treatment of thickness up to 6' of concrete (75 psf) considered
- CT: 54 kip transverse force applied at H<sub>e</sub> = 32", distributed over 10 feet at the top of wall and 1 : 1 distribution down and outward. Distribution below footing taken no less than 40'.
- SEISMIC: K<sub>h</sub> = 0.2  
K<sub>v</sub> = 0.0
- SOIL: φ = 34°  
γ = 120 pcf
- REINFORCED CONCRETE: f'<sub>c</sub> = 3,600 psi  
f<sub>y</sub> = 60,000 psi
- LOAD COMBINATIONS AND LIMIT STATES:  
Service I Q = 1.00DC+1.00EV+1.00EH+1.00LS  
Strength I Q = aDC+φEV+φEH+1.75LS  
Extreme I Q = 1.00DC+1.00EV+1.00EH+1.00EOD+1.00EOE  
Extreme II Q = 1.00DC+1.00EV+1.00EH+1.00CT
- Where:  
Q: Force Effects  
a: 1.25 or 0.90, Whichever Controls Design  
φ: 1.35 or 1.00, Whichever Controls Design  
φ: 1.50 or 0.90, Whichever Controls Design  
DC: Dead Load of Structure Components  
EH: Horizontal Earth Fill Pressure  
EV: Vertical Earth Pressure from Earth Fill Weight  
LS: Live Load Surcharge  
EOE: Seismic Earth Pressure  
EOD: Soil and Structural and Nonstructural Components Inertia  
CT: Vehicular Collision Force

**NOTES:**

1. For details not shown and drainage notes see
2. For wall stem joint details see and
3. At ⊙ bars:  
H < 6', no splices are allowed within 1'-8" above the top of footing.  
H > 6', no splices are allowed within H/4 above the top of footing.
4. Provide #6 @ 8" ⊙ bars in addition to tabulated ⊙ bars over a distance of 8'-0" measured from all expansion joints, begin wall and end wall location.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**RETAINING WALL TYPE 1A (CASE 1)**  
 NO SCALE  
 RSP B3-3A DATED APRIL 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP B3-3A**

2010 REVISED STANDARD PLAN RSP B3-3A