

DIS+ COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

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REGISTERED CIVIL ENGINEER

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.

EXP. 6-30-12
CIVIL
STATE OF CALIFORNIA

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
- SEISMIC: $K_h = 0.2$
 $K_v = 0.0$
- SOIL: $\phi = 34^\circ$
 $\gamma = 120$ pcf
- REINFORCED CONCRETE: $f'_c = 3,600$ psi
 $f_y = 60,000$ psi

LOAD COMBINATIONS AND LIMIT STATES:

- Service I $Q = 1.00DC + 1.00EV + 1.00EH + 1.00LS$
Strength I $Q = aDC + \phi EV + \eta EH + 1.75LS$
Extreme I $Q = 1.00DC + 1.00EV + 1.00EH + 1.00EQD + 1.00EQE$

Where:

- Q: Force Effects
a: 1.25 or 0.90, Whichever Controls Design
 ϕ : 1.35 or 1.00, Whichever Controls Design
 η : 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
EQE: Seismic Earth Pressure
EQD: Soil and Structural and Nonstructural Components Inertia

NOTES:

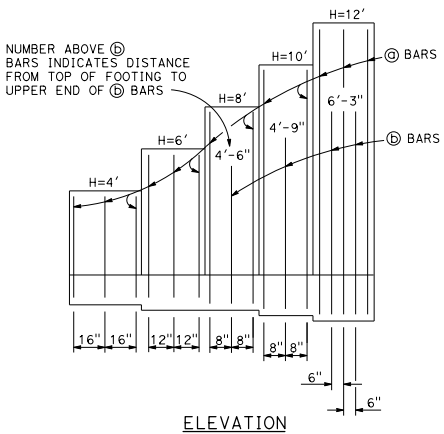
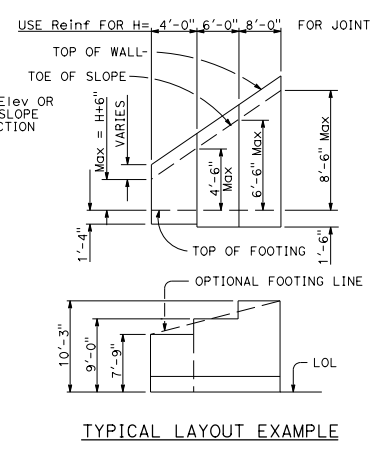
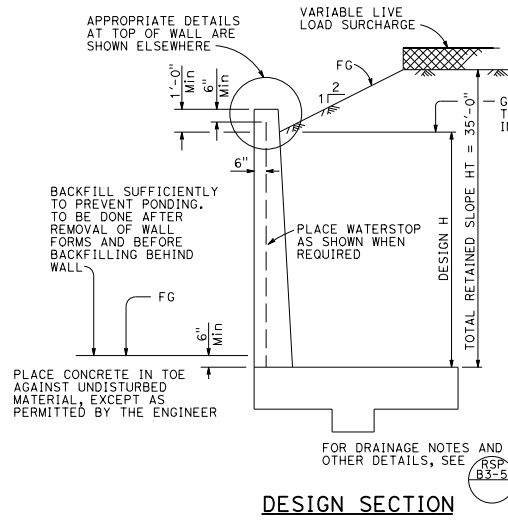
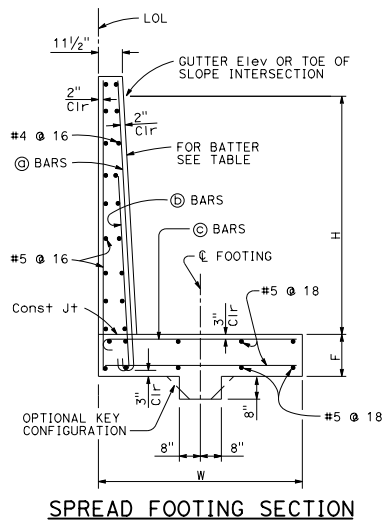
1. At \odot and \oplus bars:
H \leq 6', no splices are allowed within 1'-8" above the top of footing.
H > 6', no splices are allowed within H/4 above the top of footing.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
RETAINING WALL TYPE 5 (CASE 2)
NO SCALE

RSP B3-4B DATED APRIL 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B3-4B

2010 REVISED STANDARD PLAN RSP B3-4B



SYMBOLS:

- Ser - service limit state I
Str - strength limit state I
Ext - extreme event limit state I
B' - effective footing width (ft)
 q_0 - net bearing stress (ksf), q_0 assumed to be FG at toe
 q_0 - gross uniform bearing stress (ksf)

TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA					
DESIGN H	4'	6'	8'	10'	12'
W	7'-9"	9'-0"	10'-3"	11'-6"	13'-3"
F SPREAD FOOTING	1'-4"	1'-6"	1'-6"	1'-6"	1'-10"
BATTER	NONE	NONE	NONE	100 : 3	100 : 5
\oplus BARS	#5 @ 16	#5 @ 12	#5 @ 16	#6 @ 16	#5 @ 12
\odot BARS	NONE	NONE	#6 @ 16	#6 @ 16	#6 @ 12
\ominus BARS	#7 @ 8	#7 @ 12	#8 @ 8	#9 @ 8	#10 @ 6
Ser: B', q_0	5.2,1.3	6.0,1.8	9.1,1.8	10.0,2.3	11.4,2.7
Str: B', q_0	3.6,2.2	4.1,2.8	4.8,3.4	5.5,3.9	6.7,4.3
Ext: B', q_0	3.7,2.9	3.6,4.5	3.7,5.9	3.9,7.2	4.4,8.4