



DIS+ COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL SHEETS

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 Exp. 6-30-16  
 CIVIL  
 STATE OF CALIFORNIA

October 30, 2015  
 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.

**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
  - $\phi$ : 1.35 or 1.00, Whichever Controls Design
  - $\eta$ : 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:**

- 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.

**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),  $OG$  assumed to be FG at toe
- $q_0$  - gross uniform bearing stress (ksf)

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
$\oplus$ 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

