

**ELEVATION**

NOTES:

"h:b" above @ bars indicate distance from top of footing to upper end of @ bars, see table. 
5" @ bar spacing, see table.

**WALL OFFSET**

Values for offsetting forms to be determined by the engineer.

**DETAIL A - WITHOUT HAUNCH**

**DETAIL A - WITH HAUNCH**

**NOTES:**

1. All piles are class 90 concrete piles.
2. Pile batter shown are 1:3.
3. Minimum distance between center pile and edge of footing is 1'-6".
4. Lateral resistance of each pile: 

   - 30 kip for normal limit states.
   - 40 kip for extreme limit states.
5. Maximum spacing between piles is shown in the table. Reduce to suit the length of footing.
6. Minimum distance between any two piles is 5'-0". Reduce to suit the length of footing.

7. For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
8. For details not shown and drainage notes, see "SOUND WALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheets.
9. Footing cover, 2'-0" minimum.
10. For sound wall and reinforcement see "SOUND WALL & BARRIER" sheets.
11. For & through 14", extend @ bar into barrier for sites with haunch.

**DESIGN DATA**

Design: ASCE 7-10, bridge design specifications, 4th edition with California Amendments.

- **Wt:** 35 psf on Sound wall and Barrier
- **Lr:** Varied surcharge on level ground surface
- **Cl:** 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 111 distribution over and outward
- **Eo:** Monotone-Double Vertical
  - Ky = 0.3
  - Ky = 0.0

**Soils:**

- **0 = 34°**
- **Y = 120 pcf**

- **Reinforced Concrete:**
  - f'c = 3600 psi
  - wy = 6000 psi
- **Load Combinations and Limit States**:
  - **Service I**
    - 0.25 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip
  - **Service II**
    - 0.25 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip
  - **Strength I**
    - 0.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip
  - **Strength II**
    - 0.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip
  - **Strength III**
    - 0.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip
  - **Strength IV**
    - 0.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip
  - **Extreme I**
    - 0.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip
  - **Extreme II**
    - 0.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip + 1.00 kip

**Concrete:**

- **Reinforced**
  - fy = 60,000 psi
- **Unreinforced**
  - f'c = 3600 psi
  - wy = 6000 psi

**Soil:**

- **0 = 34°**
- **Y = 120 pcf**

**Vehicular Collision Force**

Q = a DC + BEV + 1.50 EH + 1.75 LS

**Wind Load on Sound wall and Barrier**

Q = 1.00 DC + 1.00 EV + 1.00 EH + 1.00 EQD + 1.00 EQE

**Live Load Surcharge**

Q = 1.00 DC + 1.00 EV + 1.00 EH + 1.00 EQD + 1.00 EQE

**Earth Pressure**

Q = 0.25 DC + 1.00 EV + 1.00 EH + 1.00 EQD + 1.00 EQE

**Soil Inertia Ignored for Stem Design**

Values for offsetting forms to be determined by the engineer.

**Component Design and Any Modifications Shown**

The components of the Bridge Standard Details have been prepared under the direction of a registered civil engineer in the State of California and proper application of the component design and any modifications shown.

**Pile Group Reduction Factors**

Pile group reduction factors are not applied, unless specified otherwise.