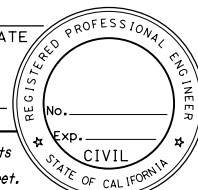


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</small>					
<small>The Registered Civil Engineer for the project is responsible for the selection and proper application of the component design and any modifications shown.</small>					

### DESIGN DATA

Design: AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments

WS: 33 psf on Sound wall and Barrier  
 LS: Varied surcharge on level ground surface  
 CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward  
 EQE: Mononabe-Okabe Method  
 $K_h = 0.3$   
 $K_v = 0.0$

Soil:  $\phi = 34^\circ$   
 $\gamma = 120$  pcf

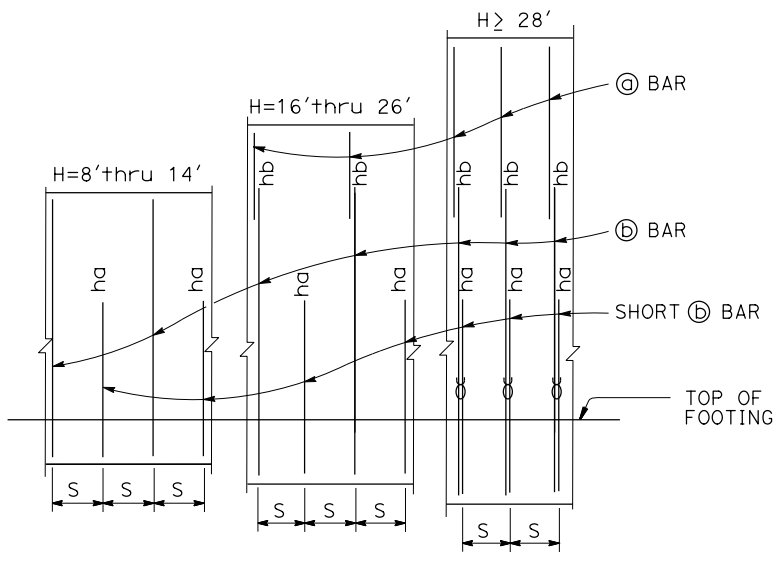
Reinforced Concrete:  $f'_c = 3600$  psi  
 $f_y = 60,000$  psi

Load Combinations and Limit States

Service I  $Q=1.00DC+1.00EV+1.00EH+1.00LS+0.30WS$   
 Service II  $Q=1.00DC+1.00EV+1.00EH+1.00WS$   
 Strength I  $Q=aDC+\beta EV+1.50EH+1.75LS$   
 Strength III  $Q=aDC+\beta EV+1.50EH+1.40WS$   
 Strength V  $Q=aDC+\beta EV+1.50EH+1.35LS+0.40WS$   
 Extreme I  $Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE$   
 Extreme II  $Q=1.00DC+1.00EV+1.00EH+1.00CT$

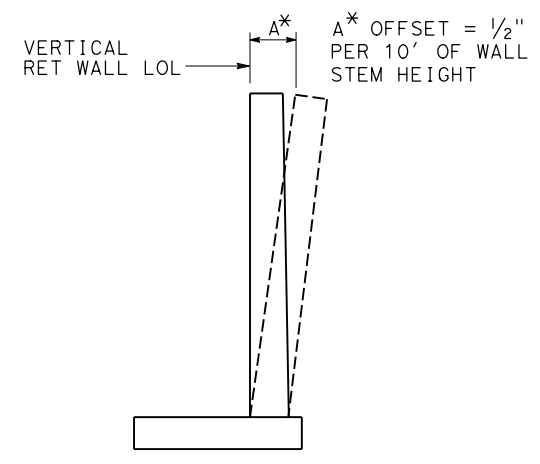
Where: Q: Force Effects  
 a: 1.25 or 0.90, Which ever Controls Design  
 B: 1.35 or 1.00, which ever Controls Design  
 DC: Dead Load of Structure Components  
 EV: Vertical Earth Fill Pressure  
 LS: Live Load Surcharge  
 EQE: Seismic Earth Pressure  
 EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design  
 WS: Wind Load on Sound wall and Barrier  
 CT: Vehicular Collision Force

- NOTES:
- All piles are class 90 concrete piles.
  - Pile batter shown are 1:3.
  - Minimum distance between center pile and edge of footing is 1'-6".
  - Lateral resistance of each pile:  
 30 kip for strength limit states.  
 40 kip for extreme limit states.  
 Pile group reduction factors are not applied, unless soil passive resistance on footing is included.
  - Maximum spacing between piles is shown in the table. Reduce to suit the length of footing.
  - Minimum distance between any two piles is 3'-0". Reduce to suit the length of footing.
  - For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
  - For details not shown and drainage notes, see (B3-5). Substitution of geocomposite drain for pervious backfill material is not permitted.
  - Footing cover, 2'-0" minimum.
  - For sound wall and reinforcement see "SOUND WALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheets.
  - For H=6' through 14', extend (B) bar into Barrier for stem with haunch.



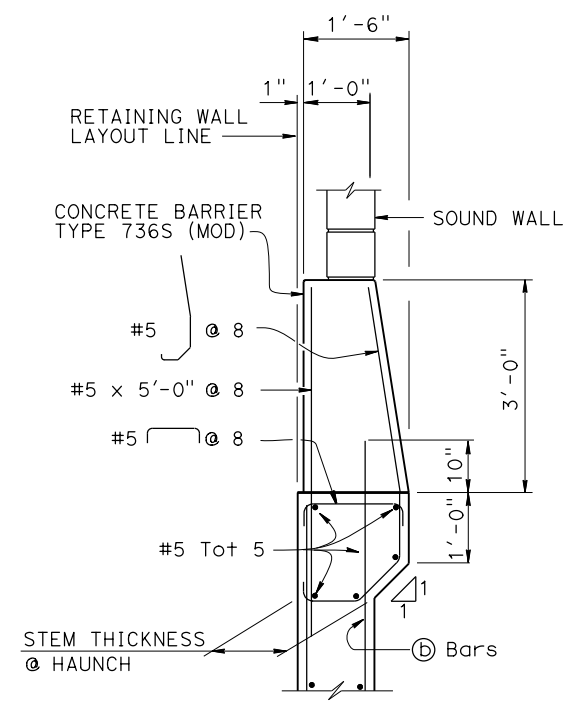
**ELEVATION**

NOTES:  
 "ha", "hb" above (B) bars indicate distance from top of footing to upper end of (B) bars, see table.  
 "S" is (B) bar spacing, see table.



**WALL OFFSET**

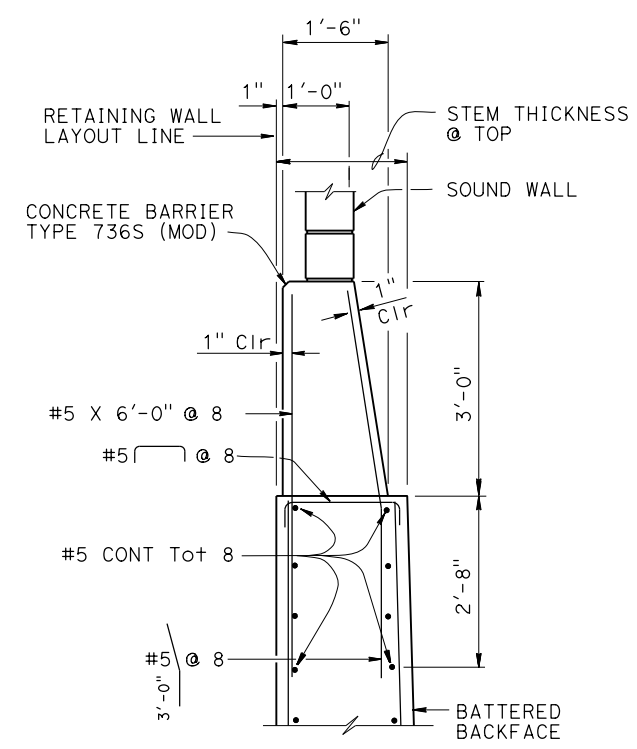
NO SCALE  
 Values for offsetting forms to be determined by the engineer



**DETAIL A - WITH HAUNCH**

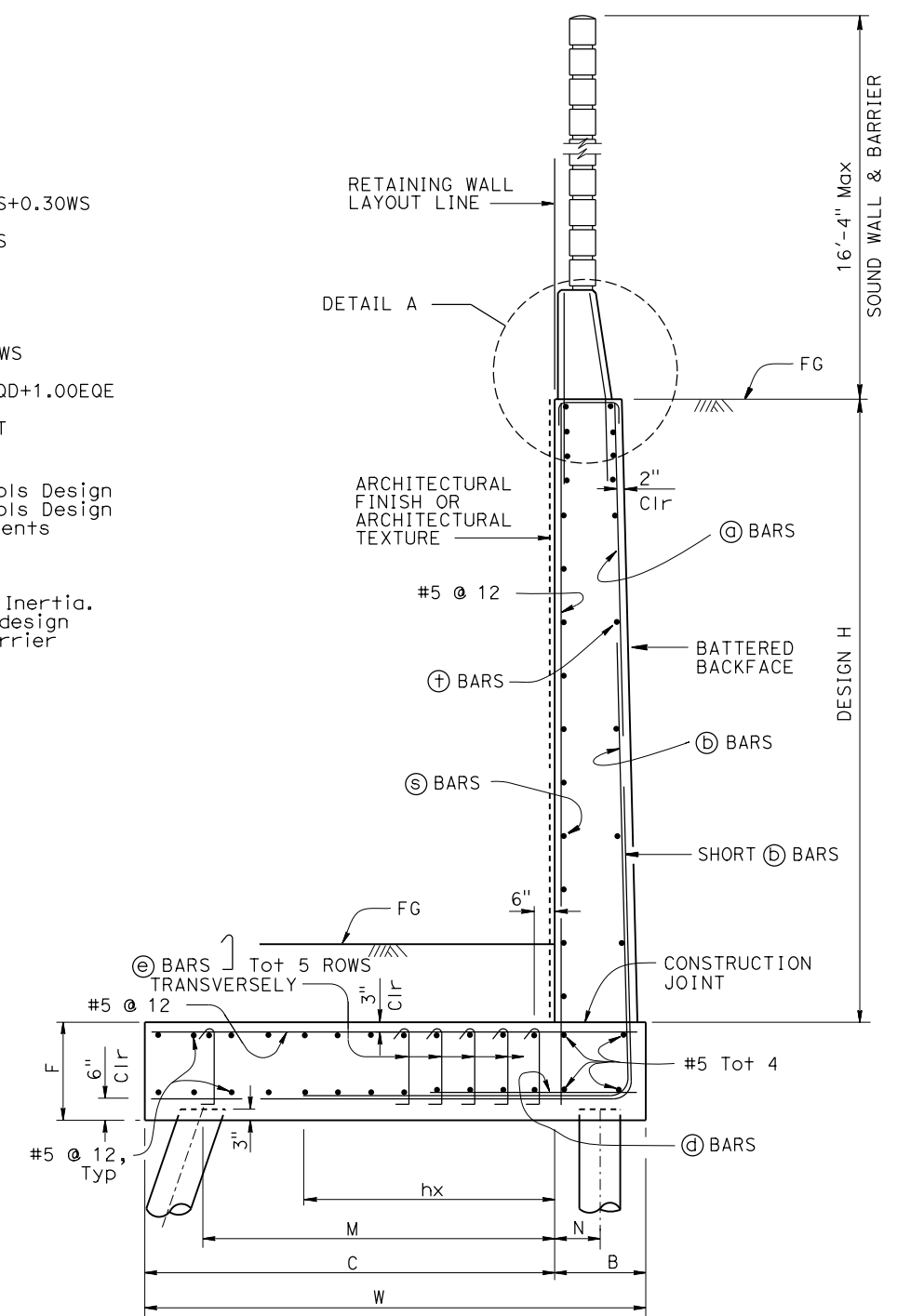
NO SCALE

For Details not shown, see "DETAIL A - WITHOUT HAUNCH"



**DETAIL A - WITHOUT HAUNCH**

NO SCALE



**PILE FOOTING SECTION**

NO SCALE

BRIDGE STANDARD DETAILS		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. POST MILE		<b>RETAINING WALL TYPE 7SWBP - DETAILS No. 1</b>					
xs14-410-1 <small>FILE NO.</small>	October 2014 <small>APPROVAL DATE</small>	<small>The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California.</small>		PROJECT NUMBER & PHASE:		CONTRACT NO.:		DISREGARD PRINTS BEARING EARLIER REVISION DATES					
<small>Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html</small>		<small>FILE =&gt; xs14-410-1.dgn</small> <small>USERNAME =&gt; s136236</small>		<small>ORIGINAL SCALE IN INCHES FOR REDUCED PLANS</small>		<small>TIME PLOTTED =&gt; 10:39</small>		<small>DATE PLOTTED =&gt; 18-JUL-2016</small>		<small>REVISION DATES</small>		<small>SHEET OF</small>	
								6-19-14		8-6-14		8-20-15	