

DESIGN DATA

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

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: Mononobe-Okabe Method
 $K_h = 0.2$
 $K_v = 0.0$

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

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

Load Combinations and Limit States

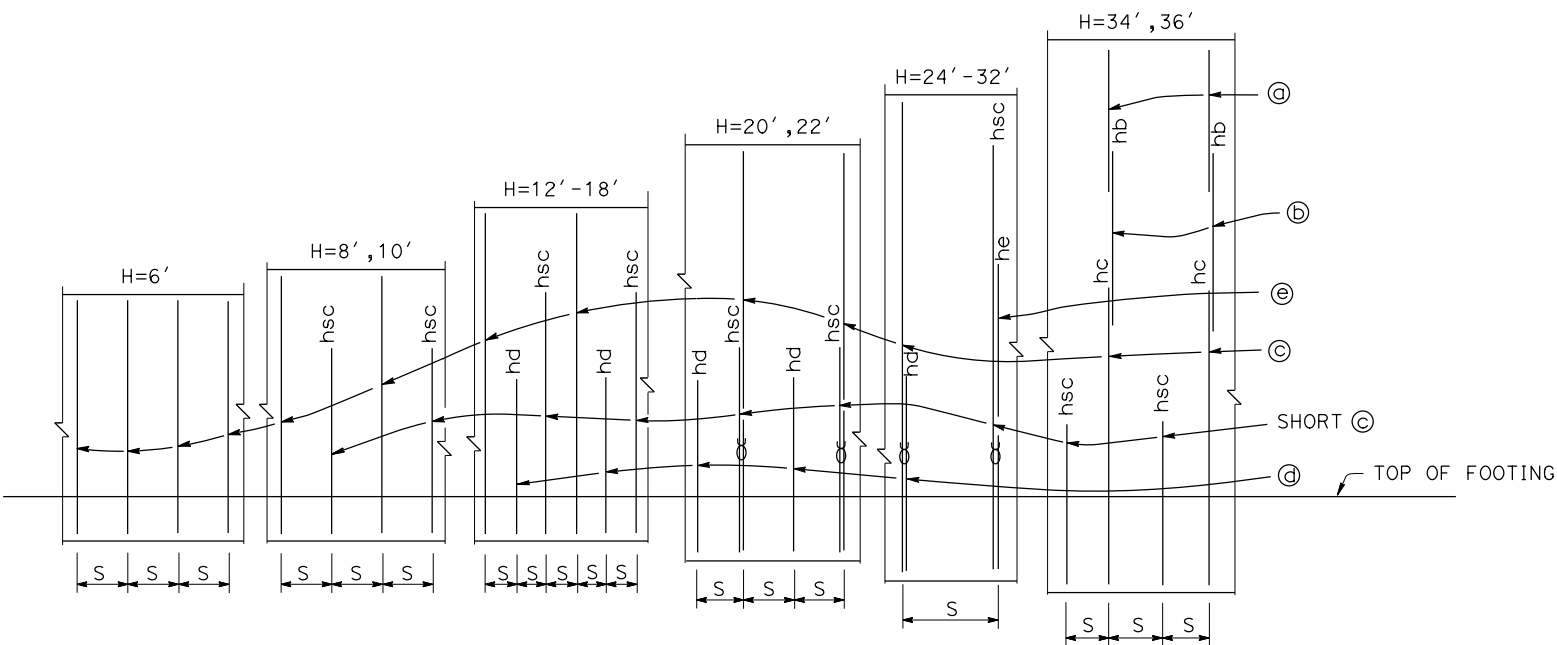
Service I $Q=1.00DC+1.00EV+1.00EH+1.00LS+Td$

Strength I $Q=aDC+\beta EV+1.50EH+1.75LS+Td$

Extreme I $Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE+Td$

Extreme II $Q=1.00DC+1.00EV+1.00EH+1.00CT+Td$

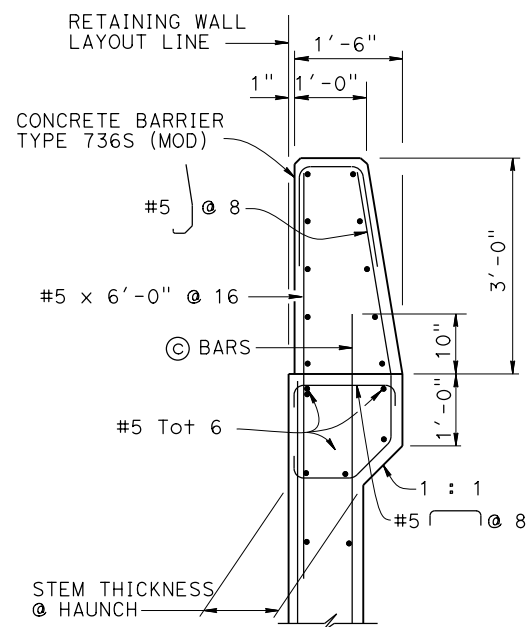
Where: Q: Force Effects
a: 1.25 or 0.90, Which ever Controls Design
B: 1.35 or 1.00, which ever Controls Design
DC: Dead Load of Structure Components
EV: Vertical Earth Fill Pressure
LS: Live Load Surcharge
EQE: Seismic Earth Pressure
EQD: Soil and Structure Components Inertia. Soil inertia ignored for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



ELEVATION
NO SCALE

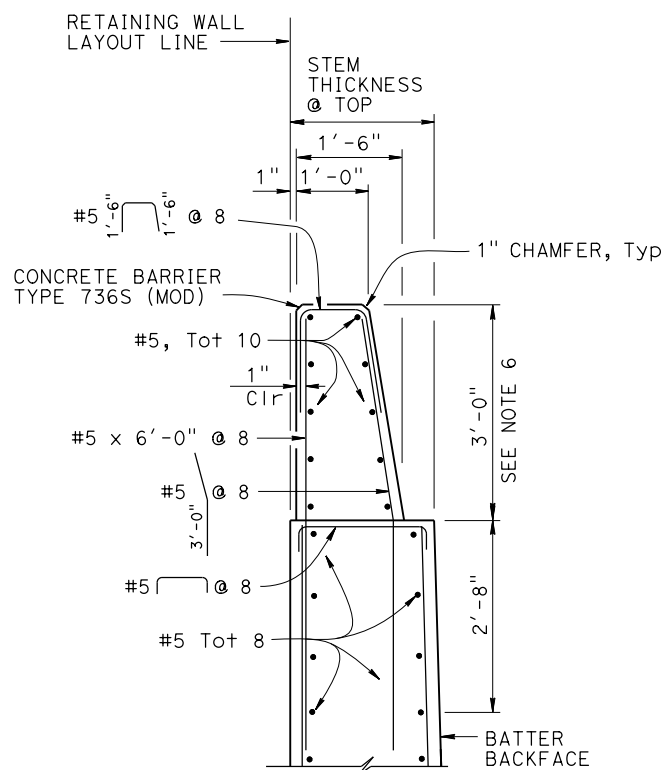
NOTE:

"hb", "hsc", "hc", "hd" and "he" above bars indicate distance from top of footing to upper end of the bars, see table.



DETAIL A - WITH HAUNCH

$\frac{3}{4} = 1'-0"$
For Details not shown, see "DETAIL A - WITHOUT HAUNCH"

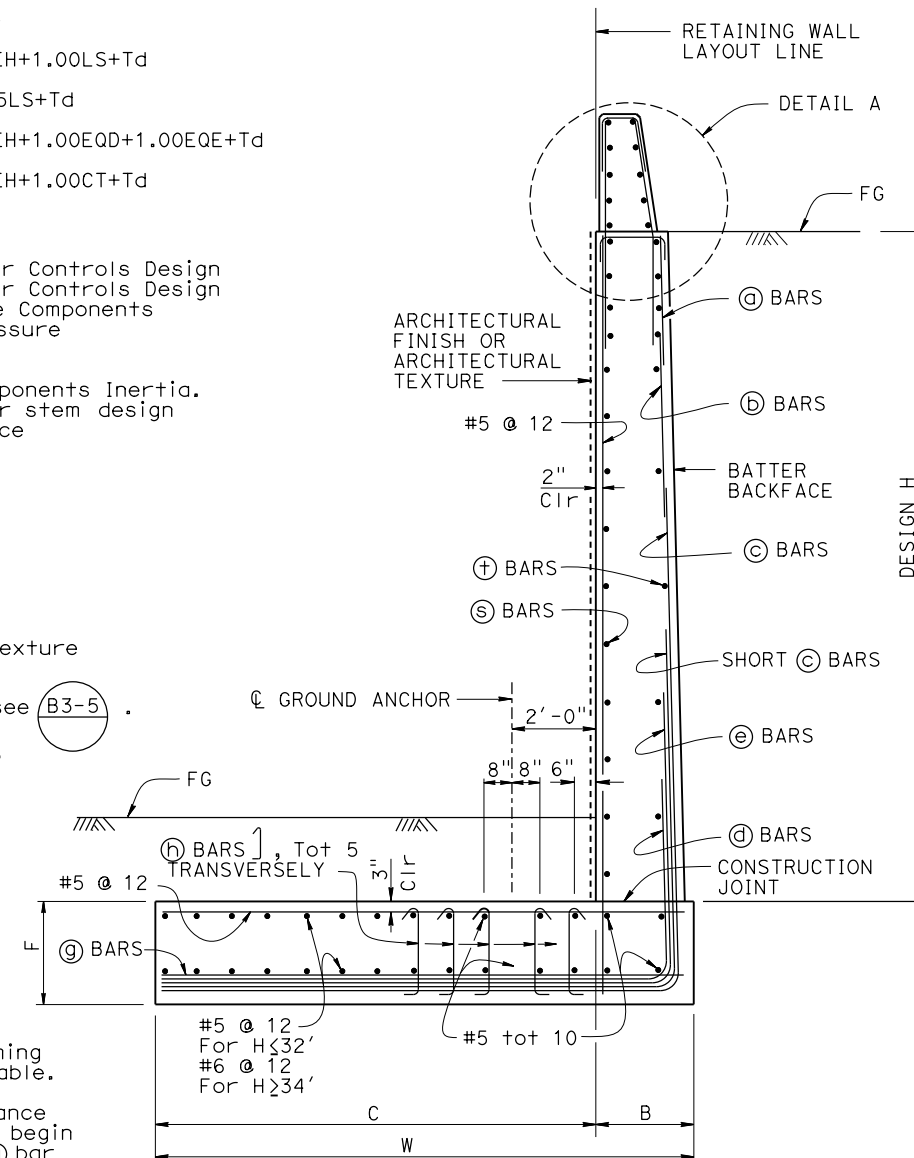


DETAIL A - WITHOUT HAUNCH

$\frac{3}{4} = 1'-0"$

NOTES:

- For 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 H=6' through 10', extend © bars into Barrier for stem with haunch.
- Shift © bars, © bars and © bars as required to clear formed hole for ground anchor.
- Dimensions may vary with roadway cross slope and with certain thickness of surfacing. See Project Plans.
- Footing is designed to resist 1.33 Td assuming the maximum anchor spacing shown in the table.
- Provide #6 @ 12" X 16'-0" © bar over a distance of 8'-0" measured from all expansion joints begin wall and end wall locations. For H < 14' hook © bar into footing and reduce bar length as needed to maintain Min Clr cover.



SPREAD FOOTING SECTION

NO SCALE