

DESIGN:
AASHTO LRFD Bridge Design Specifications, 2007 edition
with California Amendments

DESIGN:
AASHTO LRFD Bridge Design Specifications, 2007 edition
with California Amendments

DEAD LOAD:
2" Concrete Surface Texture added to stem (DC)

WIND LOADING:
0.033 ksf on Sound Wall and Barrier (WS)

LIVE LOADING:
Varied surcharge on level ground surface (LS)

54 kip maximum traffic impact loading, evenly distributed over 10' at top of the Barrier and 1:1 distribution down and outward (CT)

SEISMIC LOADING (EQE):
 $K_h = 0.3$

SOIL PARAMETERS (BACKFILL):
 $\phi = 34^\circ$
 $\gamma = 0.120 \text{ kcf}$

REINFORCED CONCRETE:
 $f_y = 60 \text{ ksi}$
 $f'_c = 3.6 \text{ ksi}$

LOAD COMBINATIONS AND LIMIT STATES

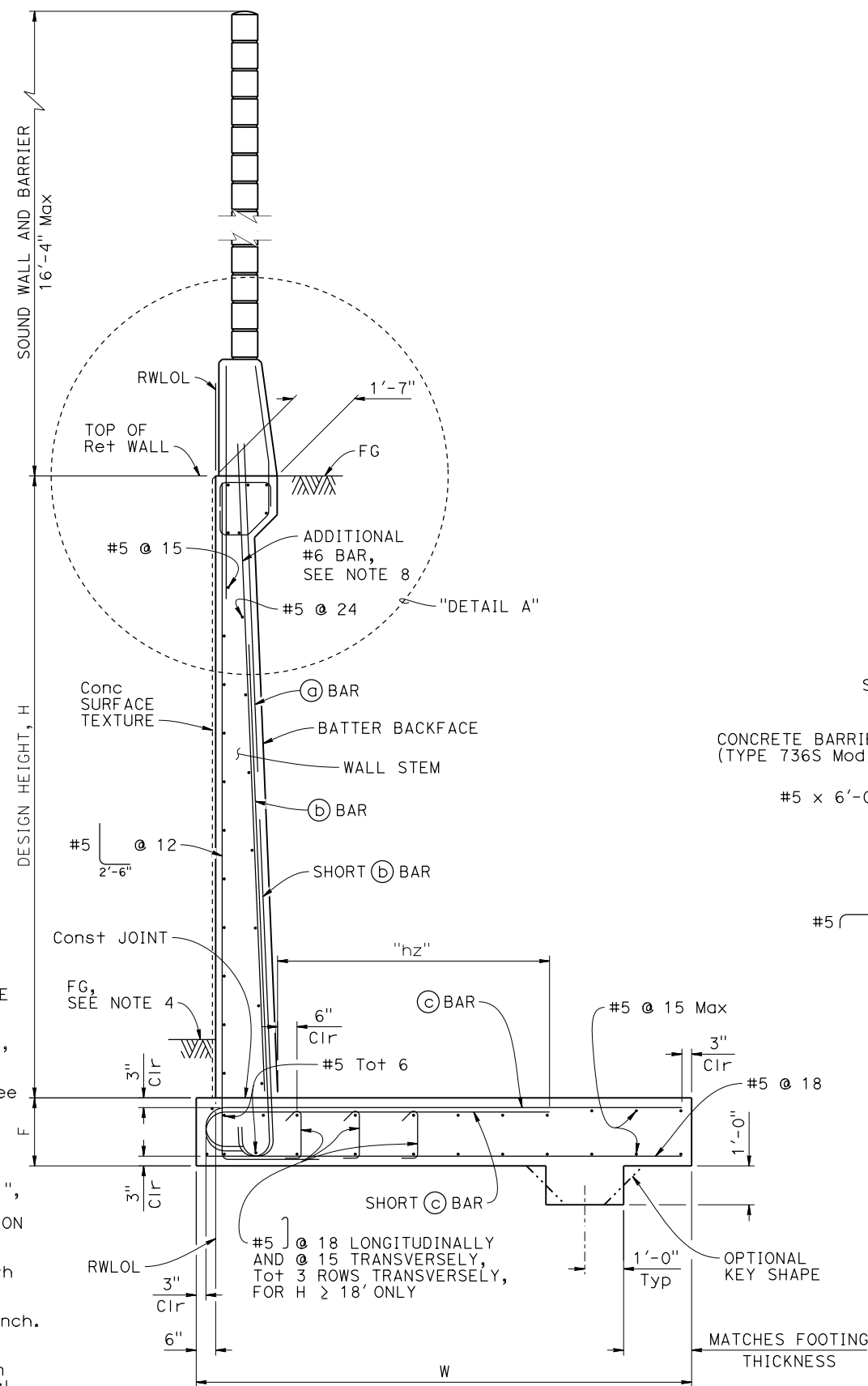
Service I	Q	= 1.00DC+1.00EV+1.00EH+1.00LS+0.30WS
Service II	Q	= 1.00DC+1.00EV+1.00EH+1.00WS
Strength I	Q	= aDC+BEV+1.50EH+1.75LS
Strength III	Q	= aDC+BEV+1.50EH+1.40WS
Strength V	Q	= aDC+BEV+1.50EH+1.35LS+0.40WS
Extreme I	Q	= 1.00DC+1.00EV+1.00EH+1.00EQD+1.00EE
Extreme II	Q	= 1.00DC+1.00EV+1.00EH+1.00CT

WHERE:

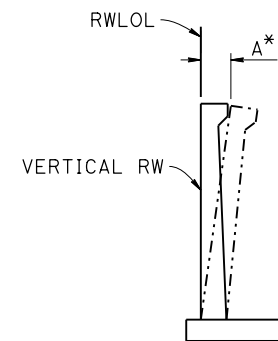
Q: Force Effects
a: 1.25 or 0.90, Whichever Controls Design
B: 1.35 or 1.00, Whichever Controls Design
DC: Dead Load of Structure Components
EV: Vertical Earth Fill Pressure
EH: Horizontal Earth Fill Pressure
LS: Live Load Surcharge
EQE: Seismic Earth Pressure
EQD: Soil and Structure Components Inertia
(Soil inertia ignored for stem design)
WS: Wind Load on Sound Wall and Barrier
CT: Vehicular Collision Force

NOTES:

1. For reinforcement layout details, see "RETAINING WALL (TYPE 5SWB) DETAILS No. 2" sheet.
2. For Sound Wall and Retaining Wall Concrete Surface Texture, see "ARCHITECTURAL DETAILS" sheet.
3. For Retaining Wall details not shown and drainage notes, see Standard Plan B0-3 and B3-5.
4. Footing cover, 1'-6" minimum.
5. For Sound Wall reinforcement and details, see "SOUND WALL MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 1", "SOUND WALL MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 2" and "SOUND WALL MASONRY BLOCK WITH BARRIER ON RETAINING WALL DETAILS No. 3" sheets.
6. For $H = 6'$ to $14'$, extend (b) bars into Barrier for stem with haunch.
7. For $H \geq 16'$, extend (c) bars into Barrier for stem with haunch.
8. Provide additional #6 x $18'-0"$ @ 6 vertical bars over a distance of $8'-0"$ measured from all expansion joints, begin wall and end wall locations. For $H \leq 14'$, hook the additional #6 bars into footing and reduce bar length as needed to maintain minimum clear cover.

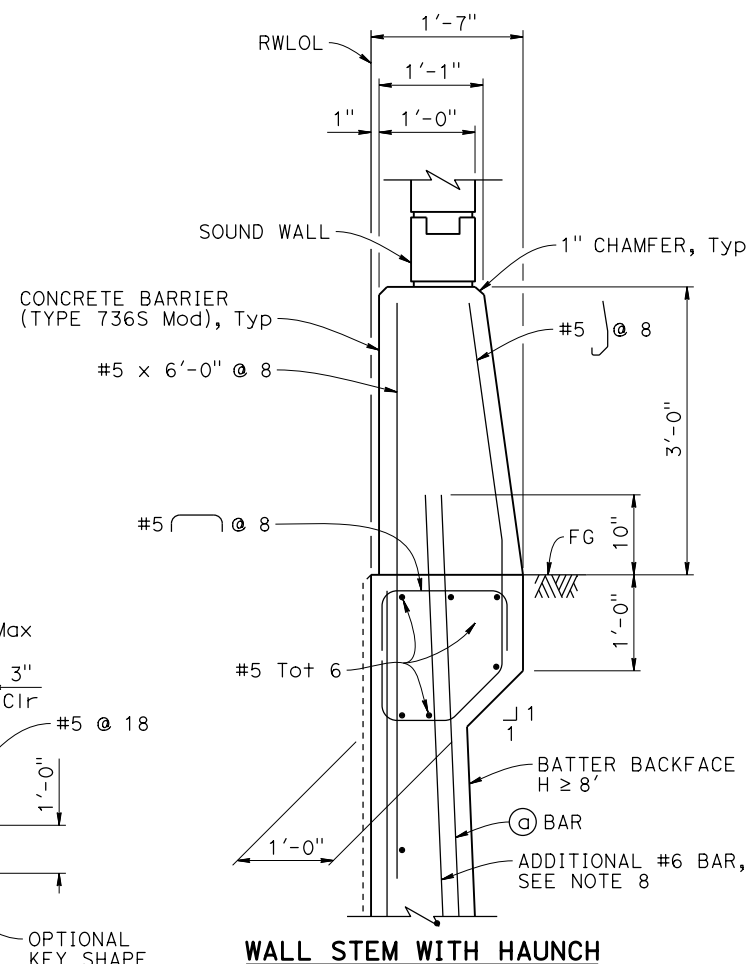


TYPICAL SECTION

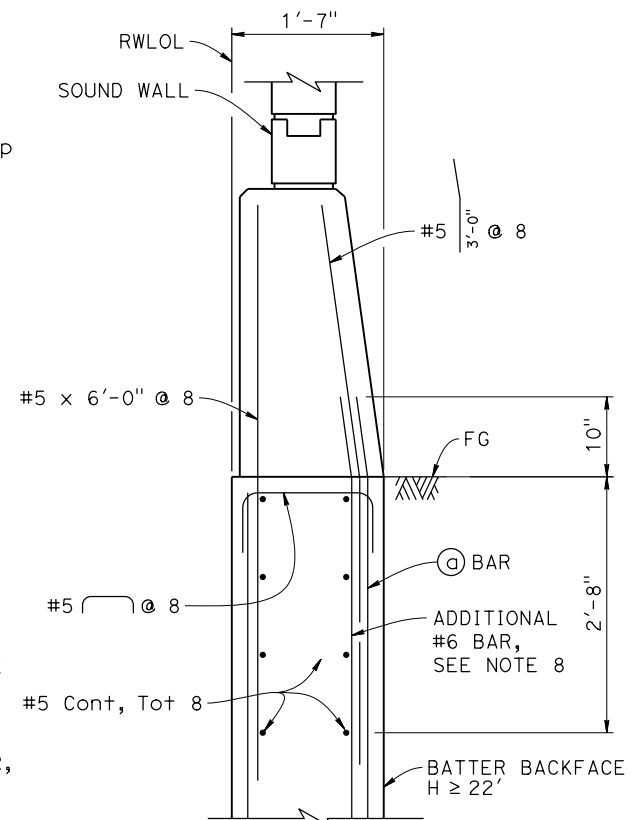
WALL OFFSET

NOTES:

1. A* offset = $\frac{1}{2}$ " per 10' of wall stem height.
2. Values for offsetting forms to be approved by the Engineer.



WALL STEM WITH HAUNCH



WALL STEM WITH NO HAUNCH

NOTE:
For details not shown,
see "WALL STEM WITH HAUNCH".

DETAIL A

NO SCALE

BRIDGE STANDARD DETAILS		DESIGN	BY X	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION				DIVISION OF ENGINEERING SERVICES		BRIDGE No.	X RETAINING WALL (TYPE 5SWB) DETAILS No. 1												
xs14-350-1 FILE NO.	August+ 2026 APPROVAL DATE	DETAILS	BY X	CHECKED X							XX-XXXX													
		QUANTITIES	BY X	CHECKED X							POST MILE													
																						X.X		
Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html					DATE PLOTTED => 31-Aug-2026 FILE => xs14-350-1.dgn		TIME PLOTTED => 14:10 USERNAME => sl36247		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3				UNIT: XXXX PROJECT NUMBER & PHASE: XXXXXXXXXX1		COUNTY/ROUTE /ZONE: XXX/XXX/X CONTRACT No.: XX-XXXXX4		DISREGARD PRINTS BEARING EARLIER REVISION DATES →		REVISION DATES		SHEET	OF
																					X	X		