

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

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

WIND LOADING:  
0.033 ksf on Sound Wall (WS)

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

SEISMIC LOADING (EQE):  
 $K_h = 0.3$

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

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

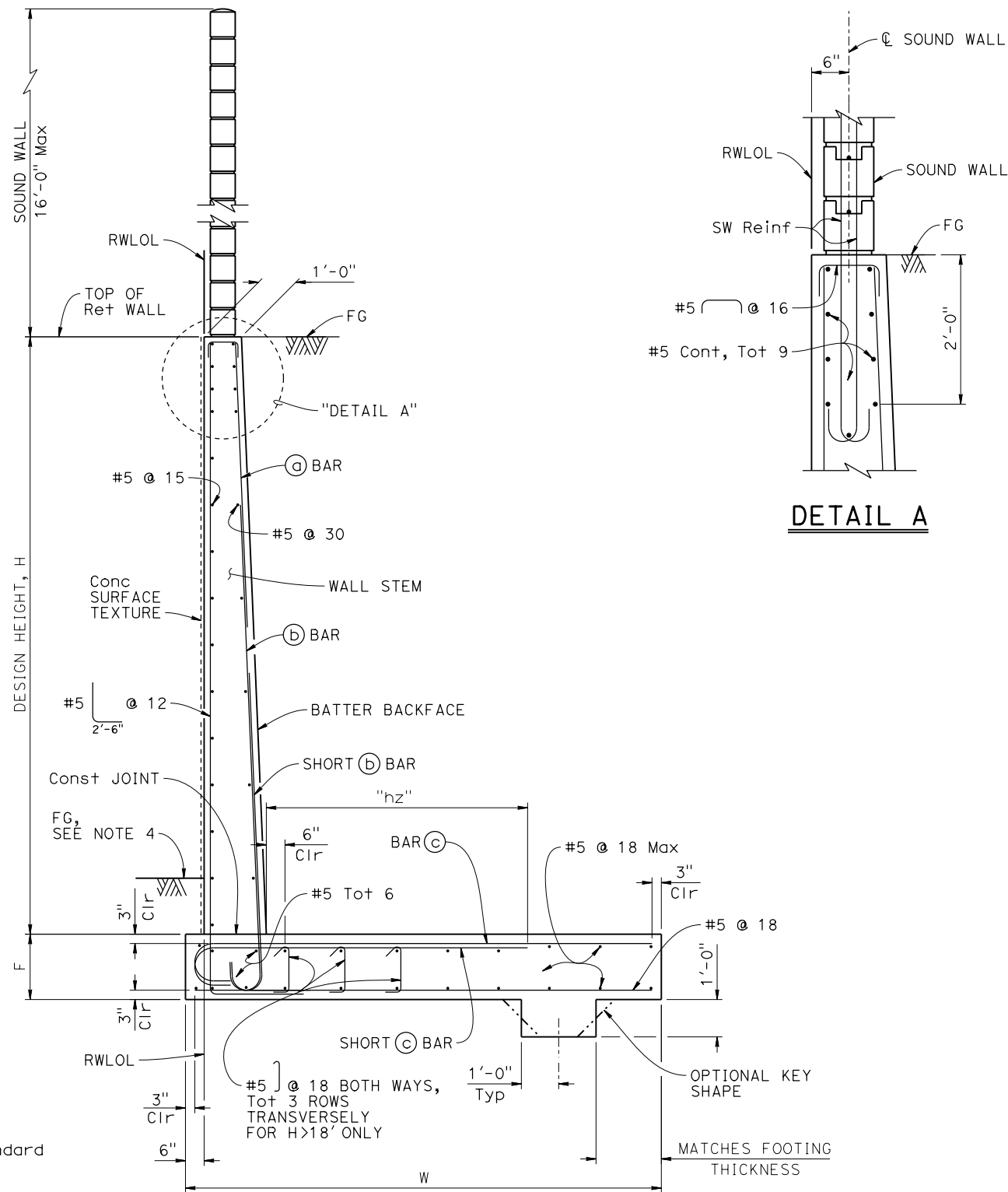
| LOAD COMBINATIONS AND LIMIT STATES |                                          |
|------------------------------------|------------------------------------------|
| Service I                          | Q = 1.00DC+1.00EV+1.00EH+1.00LS+1.30WS   |
| Service II                         | Q = 1.00DC+1.00EV+1.00EH+1.00WS          |
| Strength I                         | Q = dC+dBEV+1.50EH+1.75LS                |
| Strength III                       | Q = dC+dBEV+1.50EH+1.40WS                |
| Strength V                         | Q = dC+dBEV+1.50EH+1.35LS+0.40WS         |
| Extreme I                          | Q = 1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE |

WHERE:

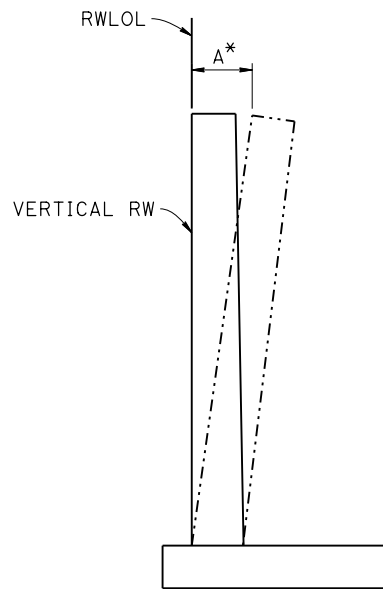
|      |                                                                                 |
|------|---------------------------------------------------------------------------------|
| Q:   | Force Effects                                                                   |
| a:   | 1.25 or 0.90, Whichever Controls Design                                         |
| B:   | 1.35 or 1.00, Whichever Controls Design                                         |
| DC:  | Dead Load of Structural 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<br>(Soil inertia ignored for stem design) |
| WS:  | Wind Load on Sound Wall                                                         |

NOTES:

1. For reinforcement layout details, see "RETAINING WALL (TYPE 5SW) 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 ON RETAINING WALL DETAILS No. 1" and "SOUND WALL MASONRY BLOCK ON RETAINING WALL DETAILS No. 2" sheets.



## 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.

NO SCALE

|                                                                                                                                                                                                                                 |                              |            |         |              |                                                        |  |  |  |                                              |  |                  |                                                  |                                                  |  |  |  |      |  |  |  |                                                   |  |  |  |                                                         |  |  |  |                                                    |  |  |  |                |  |  |  |       |  |    |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------|---------|--------------|--------------------------------------------------------|--|--|--|----------------------------------------------|--|------------------|--------------------------------------------------|--------------------------------------------------|--|--|--|------|--|--|--|---------------------------------------------------|--|--|--|---------------------------------------------------------|--|--|--|----------------------------------------------------|--|--|--|----------------|--|--|--|-------|--|----|--|
| BRIDGE STANDARD DETAILS                                                                                                                                                                                                         |                              | DESIGN     | BY<br>X | CHECKED<br>X | STATE OF<br>CALIFORNIA<br>DEPARTMENT OF TRANSPORTATION |  |  |  | DIVISION OF<br>ENGINEERING SERVICES          |  | BRIDGE No.       | X<br><br>RETAINING WALL (TYPE 5SW) DETAILS No. 1 |                                                  |  |  |  |      |  |  |  |                                                   |  |  |  |                                                         |  |  |  |                                                    |  |  |  |                |  |  |  |       |  |    |  |
| xs14-340-1<br>FILE NO.                                                                                                                                                                                                          | August 2026<br>APPROVAL DATE | DETAILS    | BY<br>X | CHECKED<br>X |                                                        |  |  |  |                                              |  | XX-XXXX          |                                                  |                                                  |  |  |  |      |  |  |  |                                                   |  |  |  |                                                         |  |  |  |                                                    |  |  |  |                |  |  |  |       |  |    |  |
|                                                                                                                                                                                                                                 |                              | QUANTITIES | BY<br>X | CHECKED<br>X |                                                        |  |  |  |                                              |  | POST MILE<br>X.X |                                                  |                                                  |  |  |  |      |  |  |  |                                                   |  |  |  |                                                         |  |  |  |                                                    |  |  |  |                |  |  |  |       |  |    |  |
| Refer to: <a href="http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html">http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html</a> |                              |            |         |              | DATE PLOTTED => 31-Aug-2026<br>FILE => xs14-340-1.dgn  |  |  |  | TIME PLOTTED => 14:10<br>USERNAME => s136247 |  |                  |                                                  | ORIGINAL SCALE<br>IN INCHES FOR<br>REDUCED PLANS |  |  |  | 0123 |  |  |  | UNIT: XXXX<br>PROJECT NUMBER & PHASE: XXXXXXXXXX1 |  |  |  | COUNTY/ROUTE/ZONE: XXX/XXX/X<br>CONTRACT No.: XX-XXXXX4 |  |  |  | DISREGARD PRINTS BEARING<br>EARLIER REVISION DATES |  |  |  | REVISION DATES |  |  |  | SHEET |  | OF |  |
|                                                                                                                                                                                                                                 |                              |            |         |              |                                                        |  |  |  |                                              |  |                  |                                                  |                                                  |  |  |  |      |  |  |  |                                                   |  |  |  |                                                         |  |  |  |                                                    |  |  |  |                |  |  |  | X     |  | X  |  |