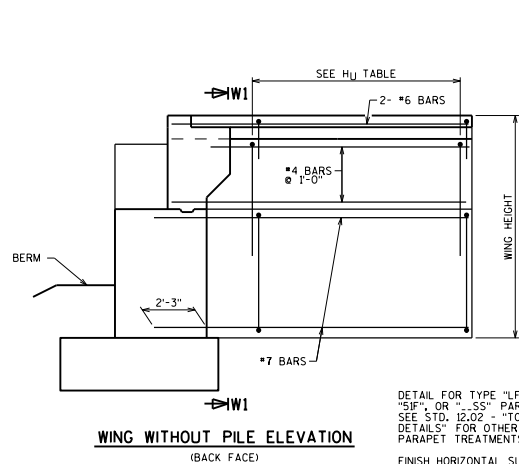
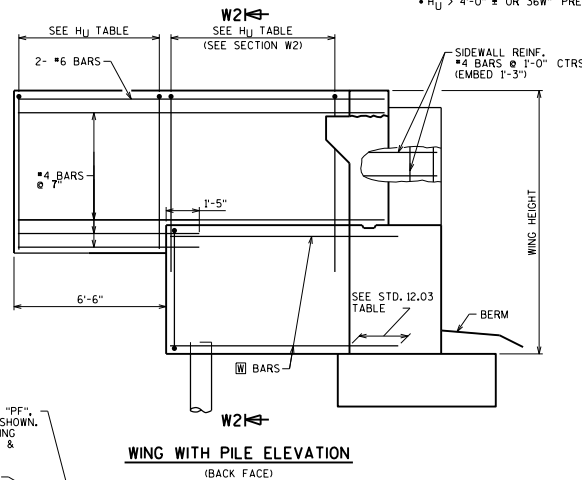


**WING WITHOUT PILE ELEVATION (FRONT FACE)**

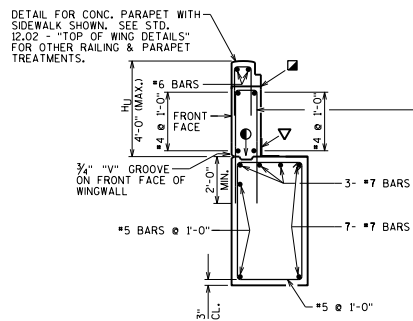
**WING WITH PILE ELEVATION (FRONT FACE)**



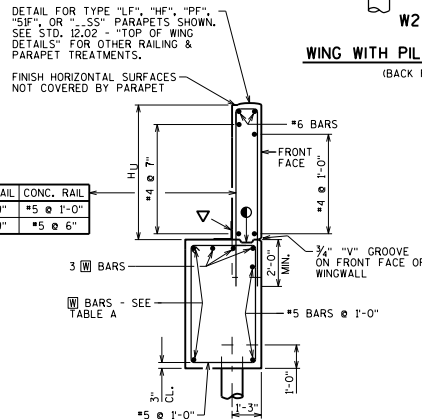
**WING WITHOUT PILE ELEVATION (BACK FACE)**



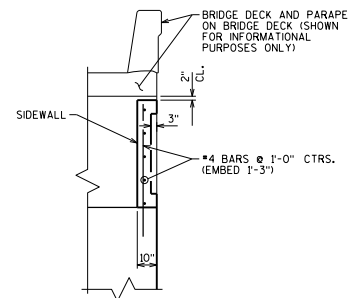
**WING WITH PILE ELEVATION (BACK FACE)**



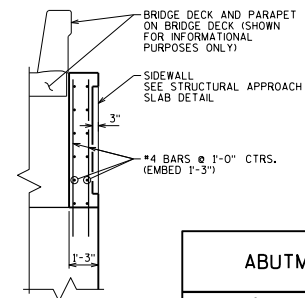
**SECTION W1 (WING WITHOUT PILE)**



**SECTION W2 (WING WITH PILE)**



**SECTION W3 (WITHOUT STRUCTURAL APPROACH SLAB)**



**SECTION W3 (WITH STRUCTURAL APPROACH SLAB)**

**DESIGNER NOTES**

SEE STD. 12.03 FOR ADDITIONAL DESIGNER NOTES.

WING WITH PILE & WING WITHOUT PILE CAN BE USED FOR EITHER SIDEWALK OR SLOPED FACE PARAPETS. THE TYPE OF WING TO USE IS BASED ONLY ON THE WING HEIGHT AND WING LENGTH LIMITATIONS SHOWN.

NAME PLATE (ONLY FOR TYPE "F", "W", AND "M" OR TIMBER RAIL AS SHOWN ON STANDARD 30.24). LOCATE NAME PLATE ON FIRST RIGHT WING TRAVELING UP STATION.

FOR MODULAR EXPANSION JOINTS WITH CONCRETE DIAPHRAGMS RUNNING TO EDGE OF DECK; IF SIDEWALL IS USED, FORM SIDEWALL 2" BELOW CONCRETE DIAPHRAGM.

CONSTRUCTION JOINT: LEAVE ROUGH. REQUIRED FOR PRESTRESSED CONCRETE SUPERSTRUCTURES, OPTIONAL FOR OTHERS. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE.

OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE.

"R" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

ABUTMENT DETAILED WITHOUT STRUCTURAL APPROACH SLAB. SEE STD. 12.10 THRU 12.13 FOR STRUCTURAL APPROACH DETAILS.

**LRFD DESIGN LOADS**

LIVE LOAD = 2'-0" SURCHARGE

LOAD FACTORS:

φ<sub>DC</sub> = 1.25

φ<sub>SW</sub> = 1.50

φ<sub>EH</sub> = 1.50

φ<sub>EH</sub> MIN. = 0.90

φ<sub>EV</sub> = 1.35

φ<sub>EL</sub> = 1.75

EXPOSURE CLASS 2,  $\eta_e = 0.75$

$f_y = 60,000$  P.S.I.

$f_c = 3,500$  P.S.I.

HORIZONTAL EARTH LOAD BASED ON:

35 P.C.F. EQUIVALENT FLUID UNIT WEIGHT OF SOIL

**TABLE A**

WING 2 LENGTH	WING 2 HEIGHT				
	10'-0"	11'-6"	13'-0"	14'-6"	
12'-0"	6-#6's	7-#6's		W	
16'-0"	8-#6's	7-#7's	8-#7's	W	
20'-0"	7-#6's	5-#8's	7-#7's	A3	
24'-0"	8-#7's	9-#7's	9-#8's	10-#8's	W
28'-0"	5-#9's	6-#9's	7-#9's	8-#9's	A3
32'-0"	9-#8's	10-#8's	10-#9's	8-#10's	W
36'-0"	9-#8's	9-#9's	9-#10's	10-#10's	A3
40'-0"	9-#9's	10-#9's	9-#9's	10-#9's	W
44'-0"	7-#10's	9-#10's	9-#10's	10-#10's	A3

\*USE 4'-6" FOR LOWER WING POUR WIDTH  
 \*\*USE 3'-3" MIN. FOR BEARING SEAT WIDTH

**ABUTMENT TYPE A3**



APPROVED: *Laura Shadewald* DATE: 1-20