

VERT. CONST. JOINT

$P = \sum DC (PDC) + \sum DW (PDW) + \sum LL (PLL)$

P' K/FT.	'A' BAR SIZE	FOOTING STEEL SIZE	FOOTING DEPTH 'D'
16	#6	#6	3'-0"
24	#7	#6	3'-0"
27	#7	#7	3'-0"
38	#8	#6	3'-3"
41	#8	#7	3'-3"
48	#9	#6	3'-3"
54	#9	#7	3'-3"

ABUTMENT BODY DEPTH	'B' BARS
<7'	9 #11'S
>7'	10 #10'S

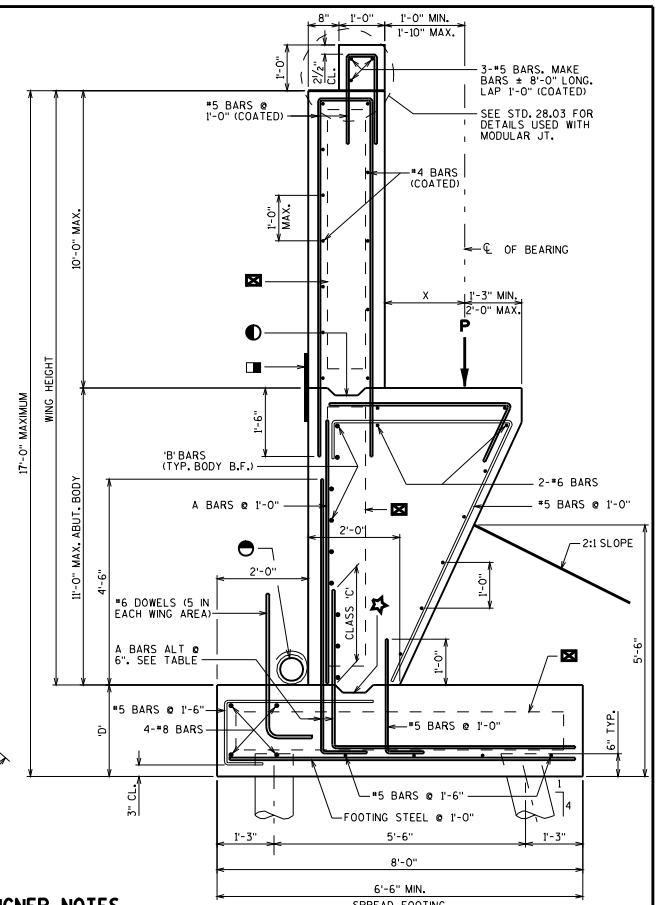
h = WING HEIGHT

PILE REACTIONS PER FOOT IN KIPS

BACK ROW =  $P(0.56 - X/5.5) + 915 + 17.2$

FRONT ROW =  $P(0.44 + X/5.5) + 425 + 7.3$

(PILES MUST ALSO BE DESIGNED TO ACCOUNT FOR LATERAL LOADS)



DESIGNER NOTES

IN "FRONT ELEVATION" VIEW, GIVE ELEVATION OF ALL BEARING AREAS AND ELEVATION AT BOTTOM OF PARAPETS AT EACH END OF WINGS. ALL DIMENSIONS AND ELEVATIONS ARE TAKEN AT FRONT FACE OF BACKWALL.

PIILING SPACING IN ABUTMENT BODY SHALL BE 8'-0" MAX. FOR FRONT ROW & 8'-0" MAX. FOR BACK ROW FOR ALL TYPES OF PILING.

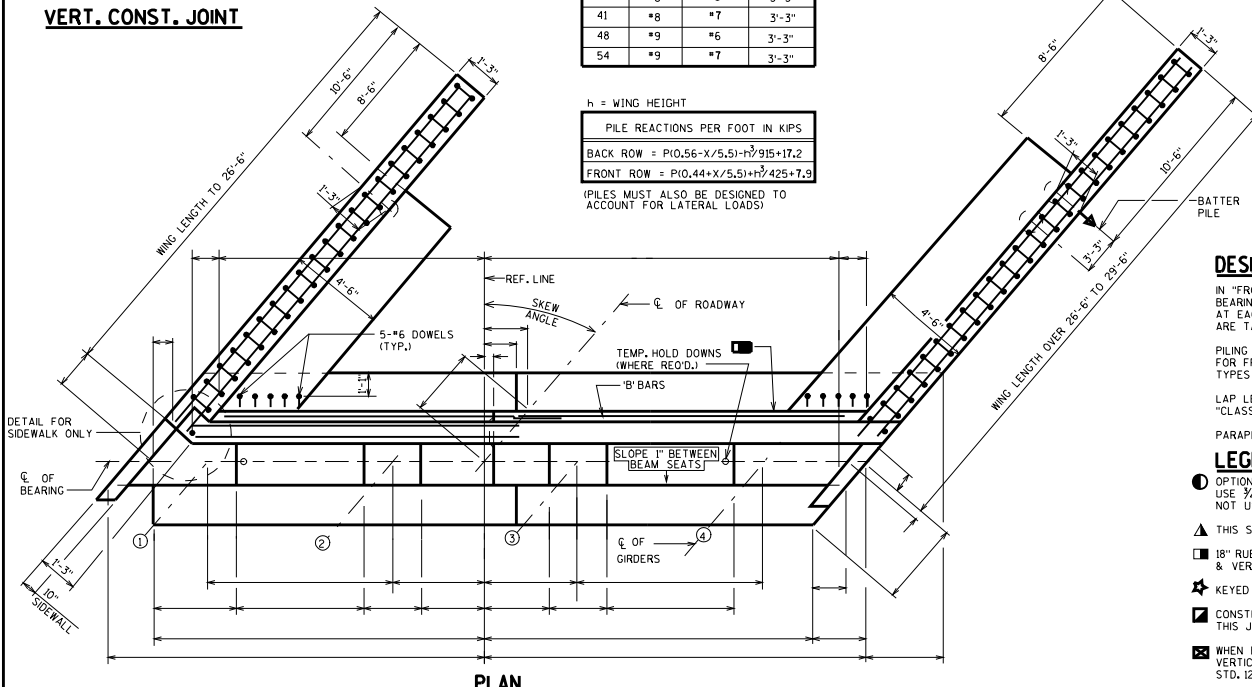
LAP LENGTH FOR HORIZONTAL BARS SHALL BE BASED ON A "CLASS C" TOP TENSION LAP SPLICE.

PARAPET NOT SHOWN IN PLAN VIEW.

LEGEND

- OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". USE 3/4" V-GROOVE ON F.F. OF WINGWALL ONLY. IF JOINT IS NOT USED WATERPROOFING IS NOT REQ'D.
- ▲ THIS STEEL IS REQUIRED ONLY IF DIMENSION "A" EXCEEDS 4'.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS ON BACKFACE ABOVE FOOTING.
- ★ KEYED CONST. JOINT FORMED BY A BEVELED 2" x 6".
- ☒ CONSTRUCTION JOINT. LEAVE ROUGH. POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.
- ⊗ WHEN BODY SECTION IS MORE THAN ± 50'-0" LONG PROVIDE VERTICAL CONST. JOINT. RUN BAR STEEL THRU JOINT. SEE STD. 12.09 FOR ALTERNATE CONSTRUCTION JOINT.
- PIPE UNDERDRAIN WRAPPED (6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

NOTE: ALL HORIZONTAL BARS NOT LABELED IN SECTION AA ARE #5 BARS.



SQUARE OFF END OF FOOTING AS SHOWN WHEN ABUTMENT IS SKEWED OVER 20°.

<b>ABUTMENT A4 PILE FOOTING</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DEVELOPMENT SECTION	
APPROVED: <b>Scot Becker</b>	DATE: 1-09