DESIGNER NOTES

THIS TYPE OF WING SHOULD BE USED WHEN POSSIBLE IN LIEU OF WINGS PARALLEL TO THE ROADWAY. DO NOT USE FOR STREAM CROSSINGS WHERE HIGH WATER ELEVATION IS ABOVE THE BOTTOM OF ABUTMENT.

*USE 2½:1 FOR THE UNSTABLE CLAYS WHICH ARE SOMETIMES ENCOUNTERED IN NORTHWEST WISC. (SUPERIOR AREA)

◑ WHEN TIMBER RAILING IS USED AS PER STANDARD 30.24, AND THE SKEW IS > 0°, THIS CONSTRUCTION JOINT SHALL BE MANDATORY. THE WING CONCRETE SHALL BE PLACED ABOVE CONSTR. JT. AFTER THE TIMBER END POSTS ARE IN PLACE.

ALL WING BARS SHALL BE EPOXY COATED.

⊗ SHOW ALL LONGITUDINAL BARS FOR CLARITY.

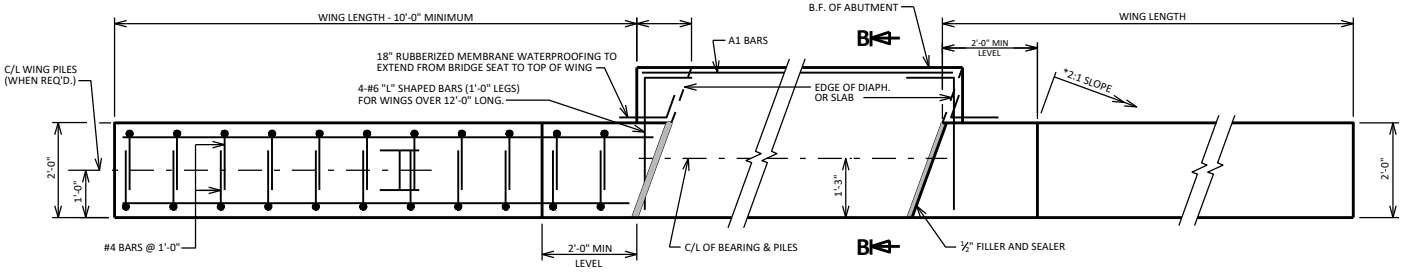
LRFD DESIGN LOADS (WINGS)

LIVE LOAD = 1'-0" SURCHARGE
LOAD FACTORS:
γ_{pDC} = 1.25
γ_{pEH} = 1.50
γ_{LS} = 1.75
EXPOSURE CLASS 2, γ_d = 0.75
HORIZ. EARTH LOAD BASED ON: 35 P.C.F. EQUIV. FLUID UNIT WEIGHT OF SOIL
FY = 60,000 P.S.I.
F'C = 3,500 P.S.I.

TABLE A

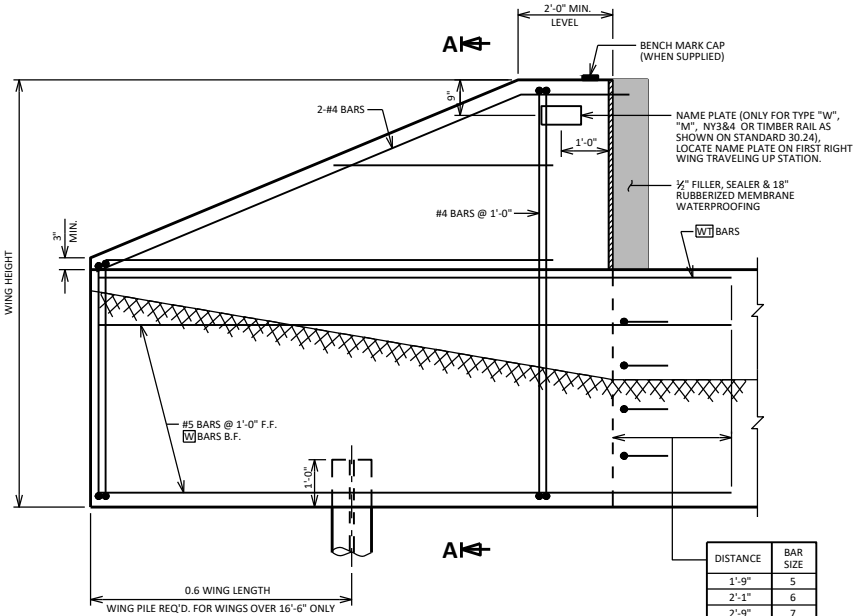
WING LENGTH	WING HEIGHT 8'-6"	10'-0"	11'-6"	13'-0"	BARS
10'-0"	5-#5'S	5-#5'S	6-#5'S		W
	2-#5'S	2-#5'S	2-#5'S		WT
	4-#6'S	4-#6'S	5-#6'S		A1
12'-0"		5-#6'S	5-#7'S	6-#7'S	W
		2-#7'S	2-#7'S	2-#8'S	WT
		5-#6'S	6-#6'S	6-#7'S	A1
16'-0"		5-#8'S	6-#8'S	5-#9'S	W
		2-#8'S	2-#8'S	2-#9'S	WT
		5-#8'S	6-#8'S	7-#8'S	A1
20'-0" ⚠			8-#8'S	8-#9'S	W
			2-#8'S	2-#9'S	WT
			7-#9'S	8-#9'S	A1

⚠ WING PILE REQUIRED



PLAN FOR TYPE A1 ABUTMENT

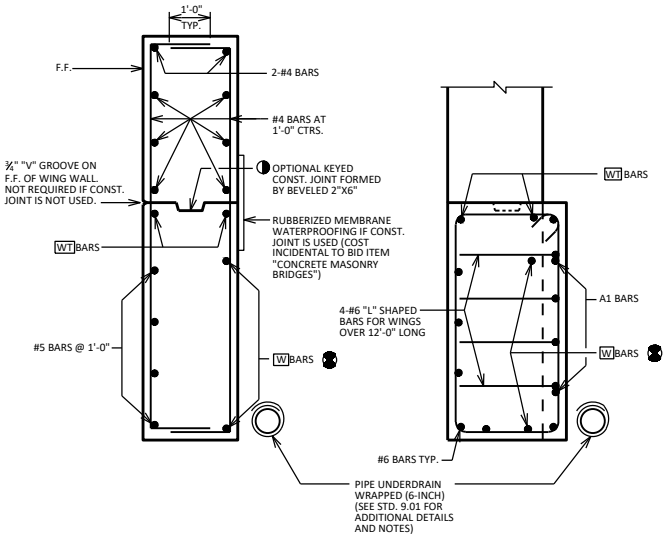
(SEE STD. 12.01 FOR ABUTMENT BODY DETAILS)



DISTANCE	BAR SIZE
1'-9"	5
2'-1"	6
2'-9"	7
3'-8"	8
4'-7"	9

WING ELEVATION

(A1 ABUTMENT)



SECTION A-A

SECTION B-B

SEE STD. 12.01 & 12.02 FOR NOTES & DETAILS

DETAILS FOR WINGS PARALLEL TO A1 ABUTMENT CENTERLINE

BUREAU OF STRUCTURES

APPROVED: *Laura Shadewald* DATE: 7-21

STANDARD 12.07