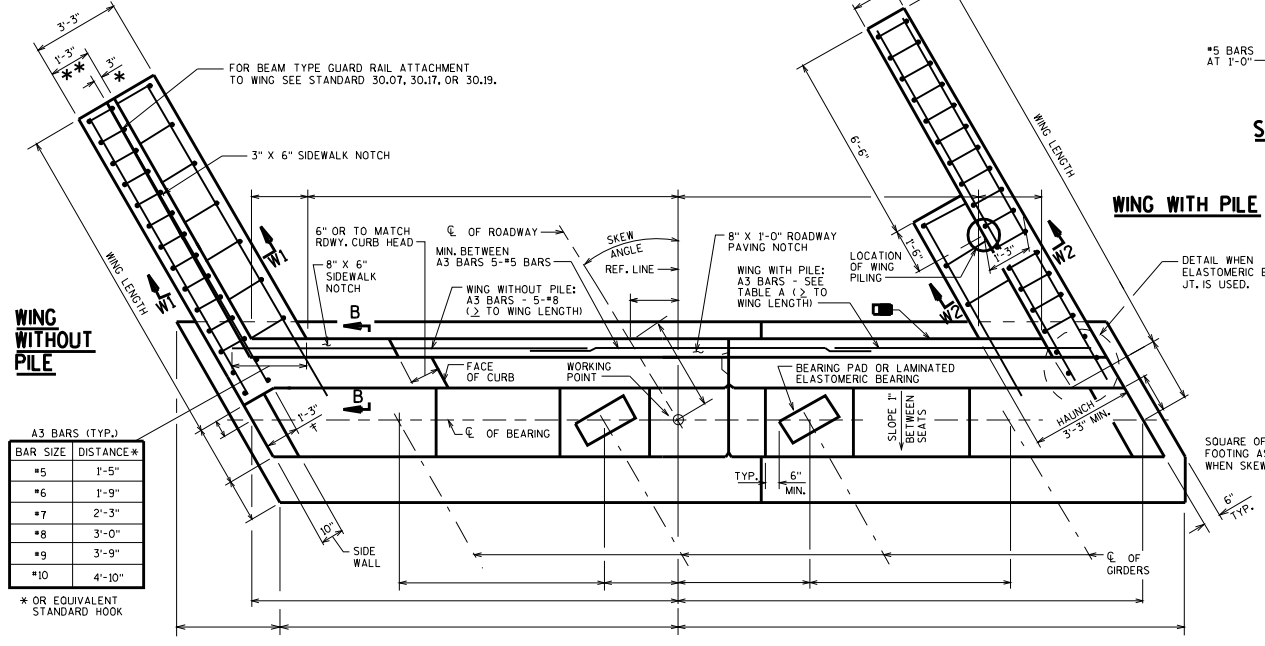


FRONT ELEVATION



PLAN

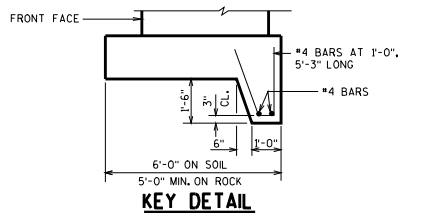
A3 BARS (TYP.)

BAR SIZE	DISTANCE *
#5	1'-5"
#6	1'-9"
#7	2'-3"
#8	3'-0"
#9	3'-9"
#10	4'-10"

* OR EQUIVALENT STANDARD HOOK

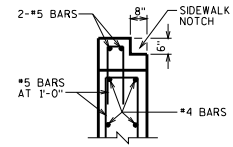
DESIGNER NOTES

- ▮ PILING SPACING IN ABUTMENT FOOTING SHALL BE 8'-0" MAXIMUM.
- ▮ WHEN BODY SECTION IS MORE THAN ± 50'-0" LONG PROVIDE VERTICAL CONSTRUCTION JOINT, RUN BAR STEEL THRU JOINT, SEAL JOINT WITH 18" RUBBERIZED MEMBRANE WATERPROOFING. SEE STD. 12.09 FOR ALTERNATE CONSTRUCTION JOINT.
- ▮ IN "FRONT ELEVATION" VIEW, GIVE ELEVATION OF ALL BEARING AREAS AND ELEVATION AT BOTTOM OF RAIL PARAPETS AT EACH END OF WINGS.
- ▮ LAP LENGTHS FOR HORIZONTAL BARS SHALL BE BASED ON A "CLASS C" TOP TENSION LAP SPLICE.
- ▮ 18" RUBBERIZED MEMBRANE WATERPROOFING, SEAL ALL HORIZ. AND VERT. JOINTS ON BACKFACE ABOVE FOOTING.
- ▴ KEYED CONST. JOINT FORMED BY BEVELED 2" X 6".
- #4 AT 9" BEAM SEAT, SPACE AT 1'-0" BETWEEN SEATS. THIS STEEL IS REQUIRED ONLY IF DIMENSION "A" EXCEEDS 4".
- † 1'-5" WHEN VERTICAL FACE PARAPET TYPE "TX" IS USED.
- * 4" WHEN VERTICAL FACE PARAPET TYPE "TX" IS USED.
- ** WINGWALL WIDTH SHALL BE 1'-6" WHEN VERTICAL FACE PARAPET TYPE "TX" IS USED.
- ☒ 3'-3" (SLOPE PAVING), 4'-6" (HEAVY RIPRAP)



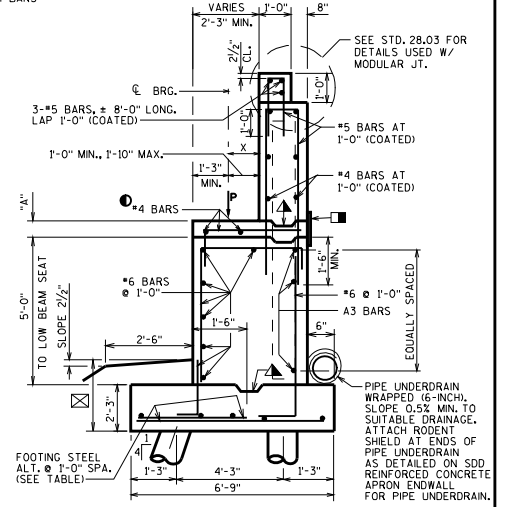
KEY DETAIL

FOR SILL ABUTMENT WITHOUT PILING PLACED ON SOIL



SECTION B-B

WING WITH PILE



SECTION THRU BODY

ALL FOOTING BARS NOT IDENTIFIED ARE #5 BARS

ABUTMENT TYPE A3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: **Scot Becker** DATE: 7-09

h = WING HEIGHT (FT.)
P = X_{DC}(P_{DC}) + X_{DW}(P_{DW}) + X_{LL}(LL) (K/FT.)

PILE REACTIONS PER FOOT IN KIPS

FRONT ROW = P [(0.22+X/4.25)] + [(h+2.25)³/310] + 4.6

BACK ROW = P [(0.78-X/4.25)] - [(h+2.25)³/705] + 16.8

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

P k/FT.	FOOTING STEEL SIZE
20	#6
40	#7
62	#8
75	#9