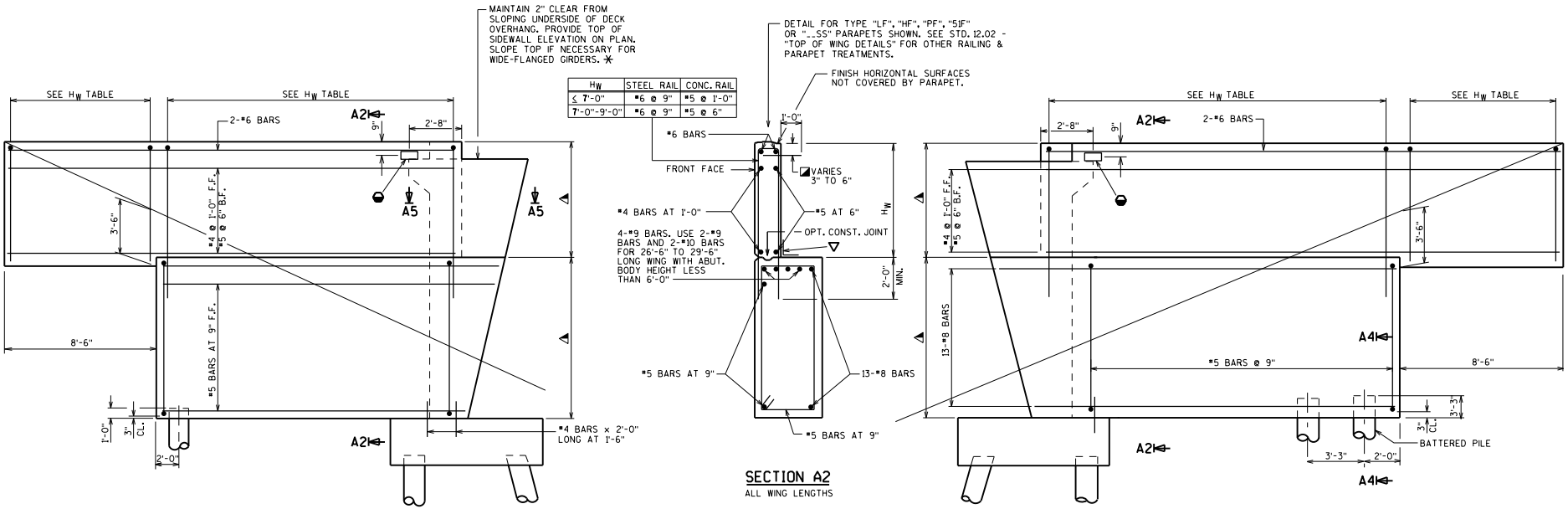
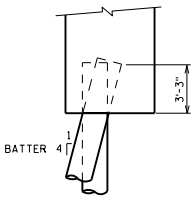


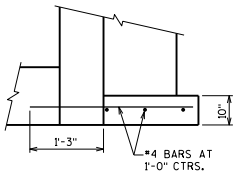
WING ELEVATION
WING LENGTH TO 26'-6"

SECTION A2
ALL WING LENGTHS

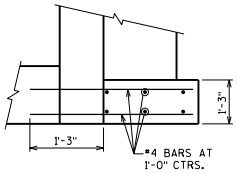
WING ELEVATION
WING LENGTH OVER 26'-6" TO 29'-6"



SECTION A4



SECTION A5
(WITHOUT STRUCTURAL APPROACH SLAB)



SECTION A5
(WITH STRUCTURAL APPROACH SLAB)

DESIGNER NOTES

USAGE OF A4 ABUTMENTS IS DISCONTINUED.

BODY DESIGN IS BASED ON AN EQUIVALENT FLUID UNIT WEIGHT OF SOIL OF 40 P.C.F., A 1'-6" SURCHARGE, AND SUPERSTRUCTURE REACTIONS "P".

WING DESIGN IS BASED ON AN EQUIVALENT FLUID UNIT WEIGHT OF SOIL OF 35 P.C.F. AND A 2'-0" SURCHARGE. A 5 KIP LATERAL RESISTANCE IS USED FOR EACH WING PILE.

FRONT ROW PILE DESIGN IS BASED ON AN EQUIVALENT FLUID UNIT WEIGHT OF SOIL OF 40 P.C.F. WITH γ_{pEH} = 1.50, AND SUPERSTRUCTURE REACTIONS "P". BACK ROW PILE DESIGN IS BASED ON AN EQUIVALENT FLUID UNIT WEIGHT OF SOIL OF 20 P.C.F. WITH $\gamma_{pEH_{MIN.}}$ = 0.90, AND "P".

UNIT WEIGHT OF SOIL IS ASSUMED AS 120 P.C.F.

BRIDGE SEATS BETWEEN BEARINGS SHALL SLOPE 1" FROM FRONT FACE OF BACKWALL.

PAY LIMITS FOR EXCAVATION FOR STRUCTURES & GRANULAR BACKFILL IS SHOWN IN CHAPTER 12 OF THE BRIDGE MANUAL.

BARS IN WINGS, ABUTMENT BACKWALL, AND PAVING BLOCK SHALL BE EPOXY COATED.

◒ NAME PLATE (ONLY FOR TYPE "W", "M", NY3&4 OR TIMBER RAIL AS SHOWN ON STANDARD 30.24), LOCATE NAME PLATE ON FIRST RIGHT WING TRAVELING UP STATION.

FOR MODULAR EXPANSION JOINTS W/CONC. DIAPH. RUNNING TO EDGE OF DECK: IF SIDEWALL IS USED, FORM SIDEWALL 2" BELOW CONC. DIAPH.

◪ #4 DOWELS (COATED), 2'-0" LONG AT 1'-0" CTRS. FROM WING TIP TO PAVING NOTCH. PLACE IN WING ADJACENT TO SURFACE DRAIN APRON ONLY.

◭ DIMENSIONS TO BE CONSTANT.

▽ 18" 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
BODY = 1'-6" SURCHARGE
WINGS = 2'-0" SURCHARGE
HORIZ. EARTH LOAD BASED ON:
BODY = 40 P.C.F. EQUIV. FLUID UNIT WGT. OF SOIL
WINGS = 35 P.C.F. EQUIV. FLUID UNIT WGT. OF SOIL
LOAD FACTORS:
γ_{pDC} = 1.25
γ_{pDW} = 1.50
γ_{pEH} = 1.50
$\gamma_{pEH\ MIN.}$ = 0.90
γ_{pEV} = 1.35
γ_{LL} = 1.75
EXPOSURE CLASS 2, γ_E = 0.75
f_y = 60,000 P.S.I.
f'_c = 3,500 P.S.I.

ABUTMENT A4 PILE FOOTING

BUREAU OF STRUCTURES

APPROVED: Bill Oliva

DATE: 1-18

STANDARD 40.41