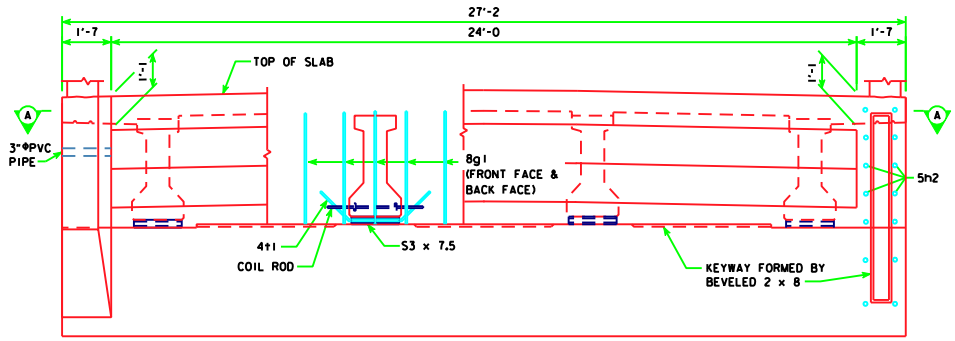
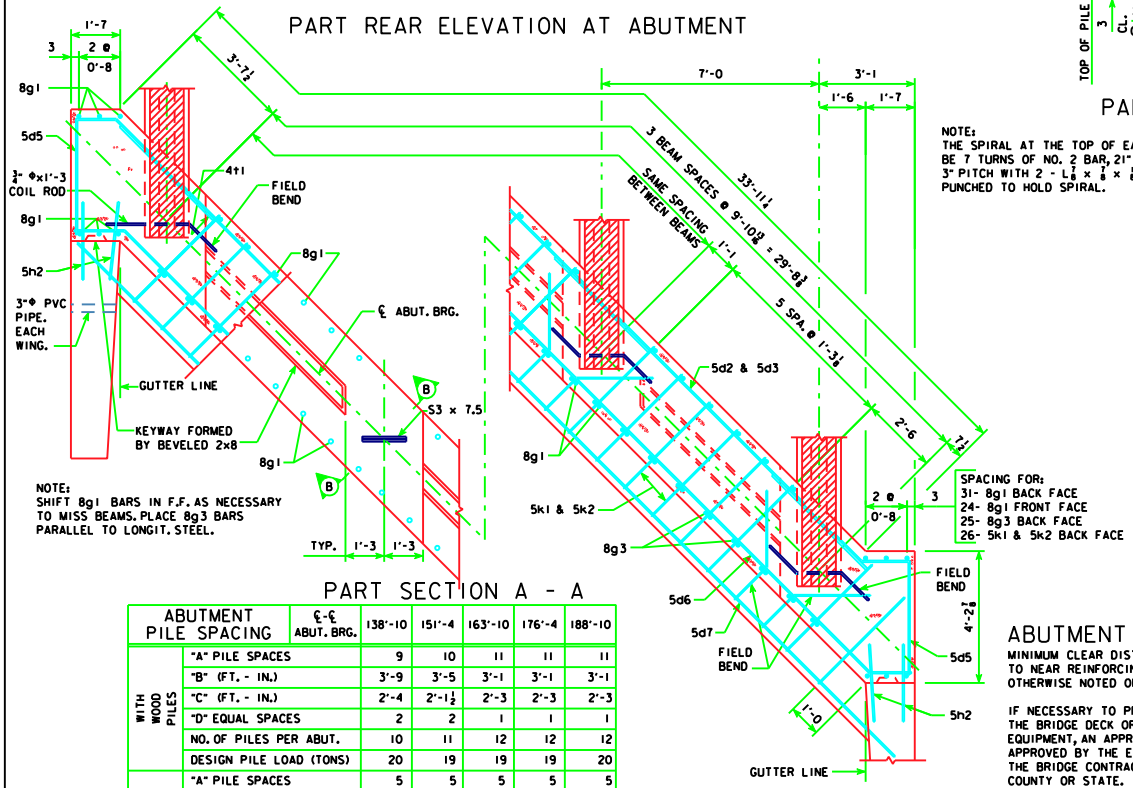


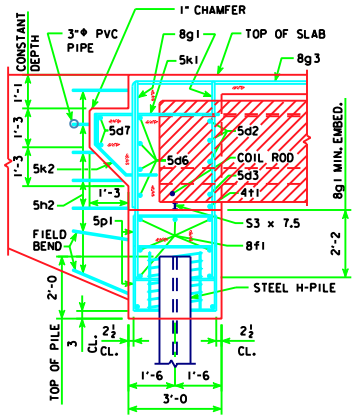
PART REAR ELEVATION AT ABUTMENT



NOTE:
SHIFT 8g1 BARS IN F.F. AS NECESSARY TO MISS BEAMS. PLACE 8g3 BARS PARALLEL TO LONGIT. STEEL.

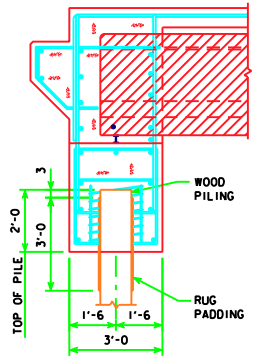
PART SECTION A - A

ABUTMENT PILE SPACING		℄-℄ ABUT. BRG.	138'-10	151'-4	163'-10	176'-4	188'-10
WITH WOOD PILES	"A" PILE SPACES		9	10	11	11	11
	"B" (FT. - IN.)		3'-9	3'-5	3'-1	3'-1	3'-1
	"C" (FT. - IN.)		2'-4	2'-1½	2'-3	2'-3	2'-3
	"D" EQUAL SPACES		2	2	1	1	1
	NO. OF PILES PER ABUT.		10	11	12	12	12
	DESIGN PILE LOAD (TONS)		20	19	19	19	20
WITH STEEL H-PILES	"A" PILE SPACES		5	5	5	5	5
	"B" (FT. - IN.)		6'-4	6'-4	6'-4	6'-4	6'-4
	"C" (FT. - IN.)		3'-4½	3'-4½	3'-4½	3'-4½	3'-4½
	"D" EQUAL SPACES		4	4	4	4	4
	NO. OF PILES PER ABUT.		6	6	6	6	6
	DESIGN PILE LOAD (TONS)		37	38	41	42	43



PART SECTION B-B
(FOR STEEL H-PILING)

NOTE:
THE SPIRAL AT THE TOP OF EACH PILE TO BE 7 TURNS OF NO. 2 BAR, 21" DIAMETER, 3" PITCH WITH 2 - L 1½ x 1½ x ⅛ SPACERS PUNCHED TO HOLD SPIRAL.

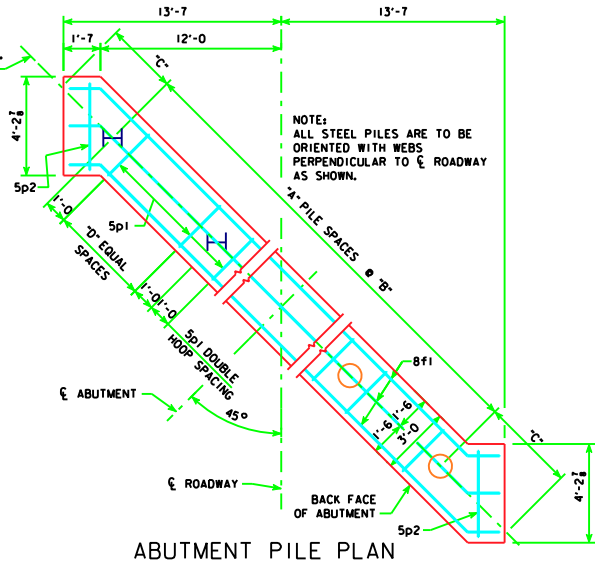


PART SECTION B-B
(FOR WOOD PILING)

WOOD PILING NOTE:
AFTER PILES ARE CUT OFF, THE UPPER 3', EXCEPT AS SHOWN, IS TO BE WRAPPED WITH A DOUBLE THICKNESS OF RUG PADDING HELD IN PLACE BY TACKING WITH GALVANIZED ROOFING NAILS AND WRAPPED WITH #14 GAUGE GALVANIZED WIRE AT A 4" PITCH. CARE IS TO BE TAKEN NOT TO DAMAGE PADDING WHEN PLACING CONCRETE. RUG PADDING MAY BE EITHER OF THE FOLLOWING:

(1) HAIR AND JUTE RUG PADDING, RUBBERIZED ON BOTH SIDES, AND WEIGHING NOT LESS THAN 47 OZ. PER SQ. YD.

(2) BONDED URETHANE OR BONDED POLYFOAM WITH A MINIMUM DENSITY OF 5 LBS. PER CU. FT. AND SHALL BE AT LEAST ½ IN. THICK. (MATERIAL LESS THAN ½ IN. IN THICKNESS MAY BE USED, BUT WILL REQUIRE ADDITIONAL WRAPS FOR A TOTAL OF AT LEAST ONE INCH).



NOTE:
ALL STEEL PILES ARE TO BE ORIENTED WITH WEBS PERPENDICULAR TO ℄ ROADWAY AS SHOWN.

ABUTMENT PILE PLAN

ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK OR BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE COUNTY OR STATE.

ABUTMENT PILES ARE TO BE DRIVEN TO THE DESIGN BEARING VALUE AS GIVEN IN THE ABUTMENT PILE SPACING TABLE.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE

ABUTMENT DETAILS

45° SKEW A & B BEAMS

H24-25-06