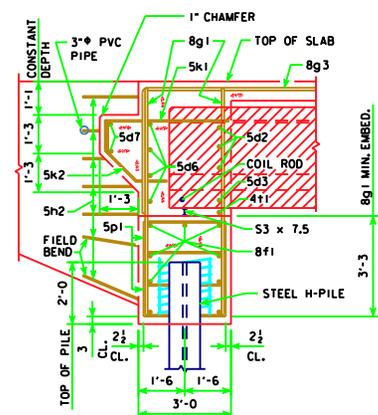
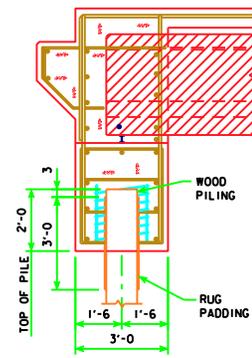


PART REAR ELEVATION AT ABUTMENT
 NOTE: BARRIER RAIL NOT SHOWN.
 (SHOWN FOR SOLID BARRIER RAIL)



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

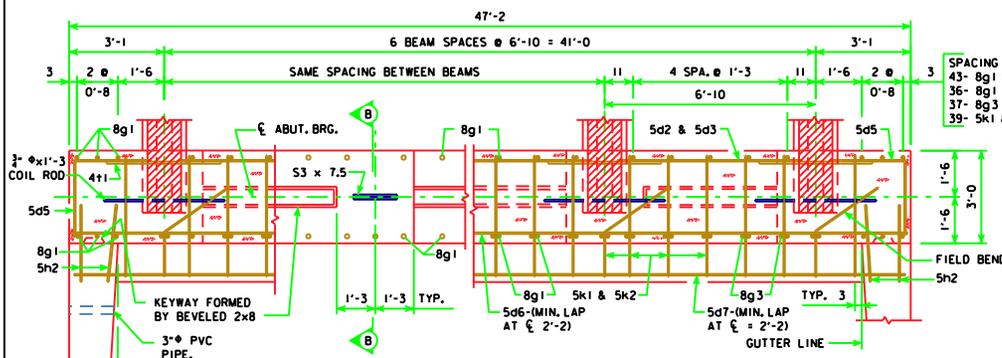


PART SECTION B-B
 (FOR WOOD PILING)

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 1/2 IN. THICK, (MATERIAL LESS THAN 1/2 IN. IN THICKNESS MAY BE USED, BUT WILL REQUIRE ADDITIONAL WRAPS FOR A TOTAL OF AT LEAST ONE INCH).

NOTE:
 THE SPIRAL AT THE TOP OF EACH PILE TO BE 7 TURNS OF NO. 2 BAR, 2" DIAMETER, 3" PITCH WITH 2 - 1/2" x 1/4" SPACERS PUNCHED TO HOLD SPIRAL.



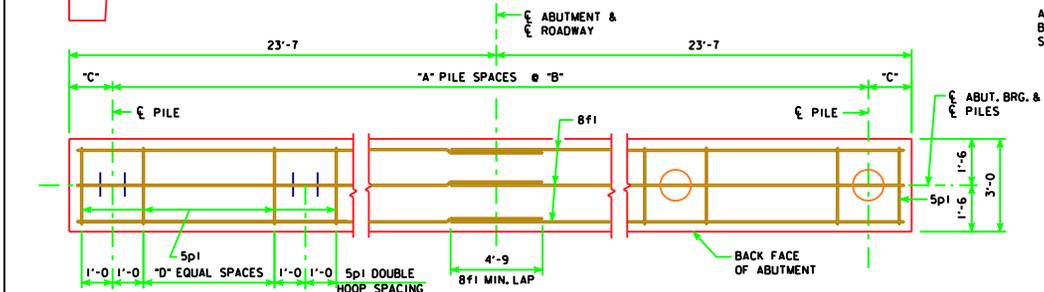
PART SECTION A - A

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

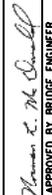
IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK OR BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE COUNTY OR STATE.

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

ABUTMENT PILE SPACING		ξ-ξ ABUT. BRG.				
		138'-10"	151'-4"	163'-10"	176'-4"	188'-10"
WITH WOOD PILES	"A" PILE SPACES	13	14	15	15	16
	"B" (FT. - IN.)	3'-3"	3'-0"	2'-10"	2'-10"	2'-8"
	"C" (FT. - IN.)	2'-5 1/2"	2'-7"	2'-4"	2'-4"	2'-3"
	"D" EQUAL SPACES	1	1	1	1	1
	NO. OF PILES PER ABUT.	14	15	16	16	17
WITH STEEL H-PILES	DESIGN PILE LOAD (TONS)	20	19	20	20	20
	"A" PILE SPACES	6	6	6	6	7
	"B" (FT. - IN.)	7'-1"	7'-1"	7'-1"	7'-1"	6'-1"
	"C" (FT. - IN.)	2'-4"	2'-4"	2'-4"	2'-4"	2'-3 1/2"
	DESIGN PILE LOAD (TONS)	43	45	48	50	45



ABUTMENT PILE PLAN

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division		
		STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES		
		HL93 SUPERSTRUCTURE	MARCH, 2007	HS25 SUBSTRUCTURE
		ABUTMENT DETAILS 0° SKEW A & B BEAMS		H44-05-07