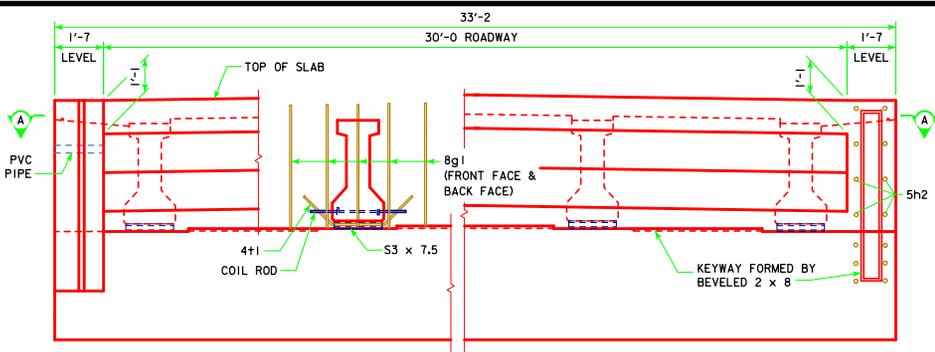
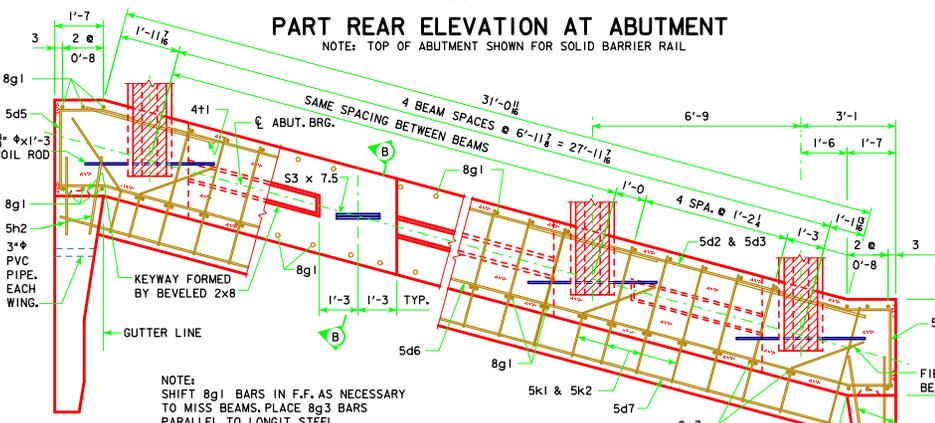


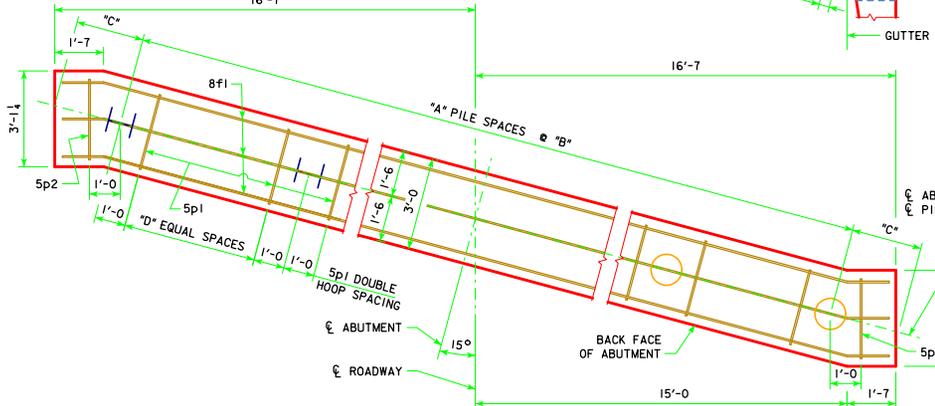
REVISED 04-13 - REVISION FOR LRFD PILE DESIGN.



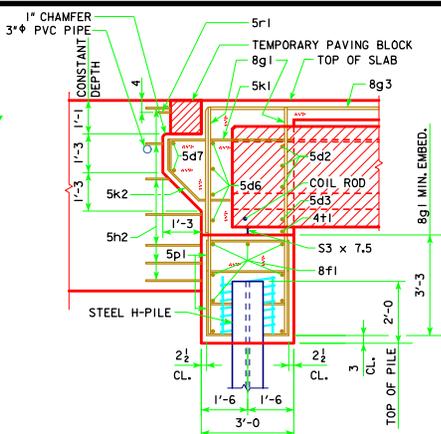
**PART REAR ELEVATION AT ABUTMENT**  
NOTE: TOP OF ABUTMENT SHOWN FOR SOLID BARRIER RAIL



**PART SECTION A-A**

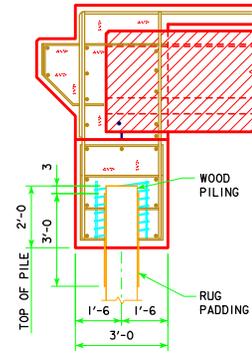


**ABUTMENT PILE PLAN**



**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\"/>



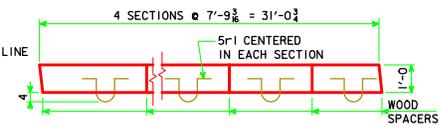
**PART SECTION B-B**  
(FOR WOOD PILING)

**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\"/>

(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\"/>

**SPACING FOR:**  
31- 8g1 BACK FACE  
26- 8g1 FRONT FACE  
25- 8g3 BACK FACE  
27- 5k1 & 5k2 BACK FACE



**PLAN OF TEMPORARY PAVING BLOCK**

NOTE:  
LINE PAVING NOTCH WITH TAR PAPER BEFORE PLACING THE TEMPORARY PAVING BLOCK.

**ABUTMENT NOTES:**

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2\"/>

ABUTMENT PILES SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

PLACE 5h2 BAR AT 1:6 SLOPE TO MATCH TRAFFIC SIDE OF ABUTMENT WING FACE. (BOTH SIDES TYPICAL)

BARRIER RAIL NOT SHOWN IN DETAILS.

IF ROCK IS CLOSER THAN 15' BELOW ABUTMENT FOOTING, SPECIAL ANALYSIS MAY BE REQUIRED.

ABUTMENT PILE SPACING		℄-℄ ABUT. BRG.				
		138'-10	151'-4	163'-10	176'-4	188'-10
WITH WOOD PILES	*A* PILE SPACES	10	11	12	12	12
	*B* (FT. - IN.)	3'-1	2'-10	2'-7	2'-7	2'-7
	*C* (FT. - IN.)	1'-9	1'-7	1'-8	1'-8	1'-8
	*D* EQUAL SPACES	1	1	1	1	1
	NO. OF PILES PER ABUT.	11	12	13	13	13
P <sub>u</sub> STRENGTH I DESIGN LOAD (KIPS)		57	54	54	56	58
WITH STEEL H-PILES	*A* PILE SPACES	4	4	5	5	5
	*B* (FT. - IN.)	7'-5	7'-5	5'-11	5'-11	5'-11
	*C* (FT. - IN.)	2'-4	2'-4	2'-4 1/2	2'-4 1/2	2'-4 1/2
	*D* EQUAL SPACES	5	5	4	4	4
	NO. OF PILES PER ABUT.	5	5	6	6	6
P <sub>u</sub> STRENGTH I DESIGN LOAD (KIPS)		137	142	127	132	136

NOTE P<sub>u</sub> STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

LATEST REVISION DATE  
04-13  
*Thomas E. M. Donnell*  
APPROVED BY BRIDGE ENGINEER

**Iowa Department of Transportation**  
*Highway Division*

STANDARD DESIGN - 30' ROADWAY, THREE SPAN BRIDGES  
**PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES**  
DECEMBER, 2006

**ABUTMENT DETAILS**  
15° SKEW A & B BEAMS

**H30-11-06**