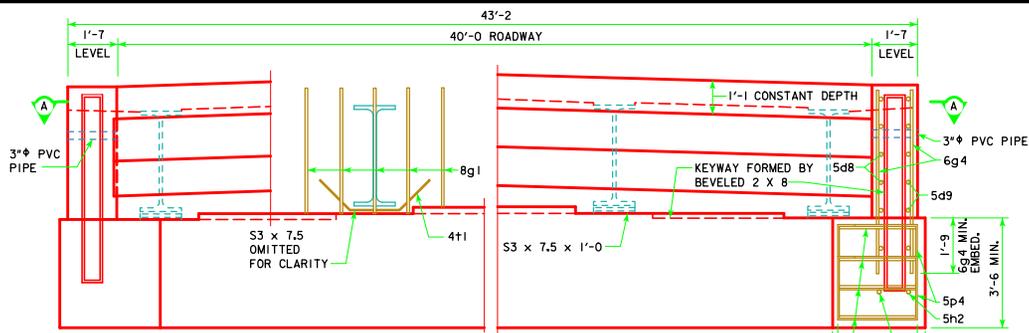
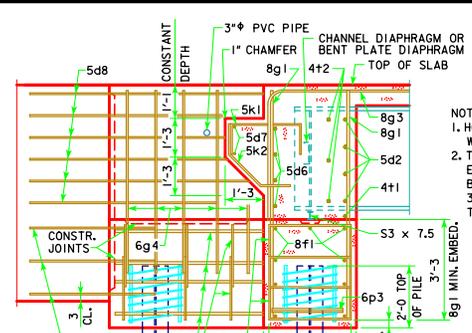


REVISED 05-13 - REVISION FOR LRPD PILE DESIGN.

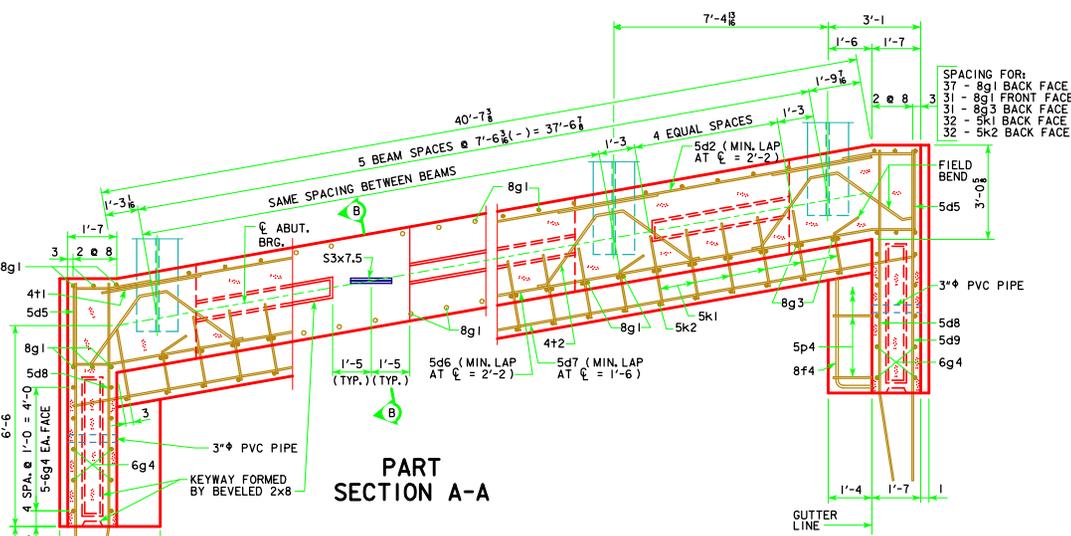


**PART REAR ELEVATION AT ABUTMENT**  
(WINGS NOT SHOWN)



**PART SECTION B-B**

- NOTES:
- HOLES DRILLED THROUGH BEAM WEB FOR 5d2 AND 4+2 BARS.
  - THE SPIRAL AT THE TOP OF EACH PILE TO BE 7 TURNS OF No. 2 BAR, 2 1/4" DIAMETER, 3" PITCH WITH 3 - L 1/2 x 1/2 x 1/2 SPACERS PUNCHED TO HOLD SPIRAL.



**PART SECTION A-A**

- SPACING FOR:
- 37 - 8g1 BACK FACE
  - 31 - 8g1 FRONT FACE
  - 32 - 5k1 BACK FACE
  - 32 - 5k2 BACK FACE

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

**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 SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

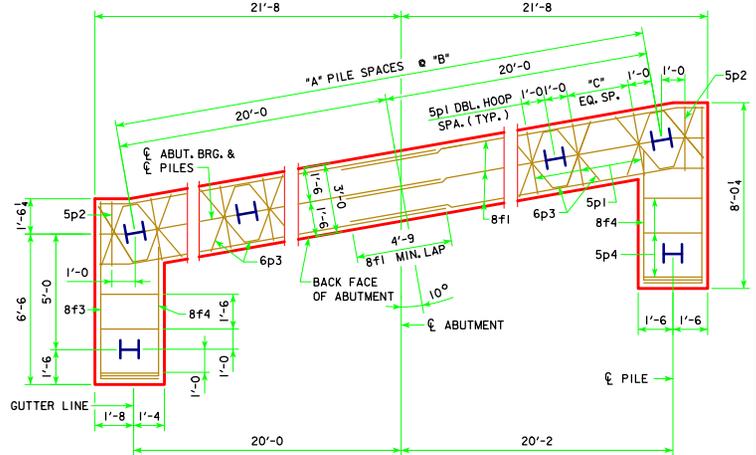
BARRIER RAIL NOT SHOWN IN DETAILS.

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

**ABUTMENT PILE SPACING**

DIMENSION OR NO.	ℓ TO ℓ ABUTMENT BEARING
"A"	340'-0
"B" (FT-IN)	9
"C" EQUAL SPACES	4'-5 5/8
NO. OF PILES PER ABUT.	12
PJ, STRENGTH I DESIGN LOAD (KIPS)	143

NOTE: HP 10 x 57 STEEL BEARING PILING REQUIRED.  
NOTE: PJ, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.



**ABUTMENT PILE PLAN**

NOTE:  
ABUTMENT STEP DIAGRAM PROVIDED BY DESIGNER, SEE "ESTIMATED BRIDGE QUANTITIES" SHEET.

LATEST REVISION DATE  
05-13  
APPROVED BY BRIDGE ENGINEER  
*Thomas E. McQuinn*

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

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES  
**ROLLED STEEL BEAM BRIDGES**  
JUNE, 2010

<b>ABUTMENT DETAILS</b> 10° SKEW	<b>RS40-010-10</b>
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