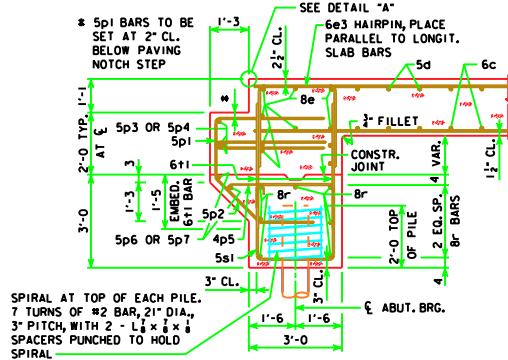


SECTION NORMAL TO  
ABUTMENT AT GUTTERLINE



SECTION NORMAL TO ABUTMENT AT C

#### ABUTMENT NOTES:

THE CONCRETE AND REINFORCING STEEL FOR THE WINGS IS INCLUDED WITH THE SUPERSTRUCTURE.

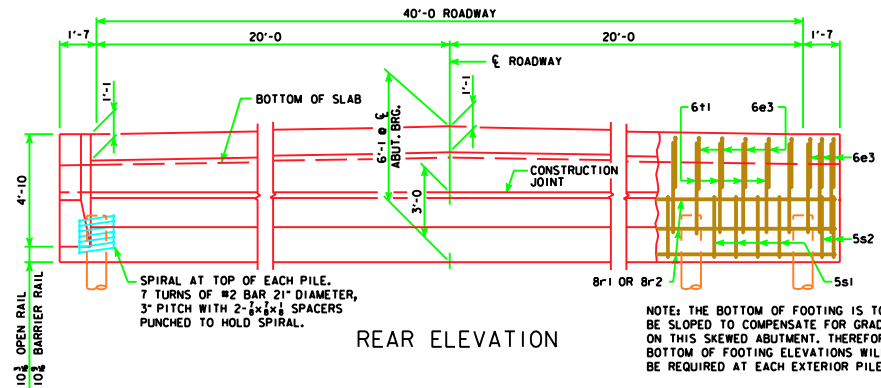
DETAILS ON THIS SHEET ARE TO BE USED ONLY WHEN ABUTMENTS ARE PLACED ON TIMBER PILES.

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

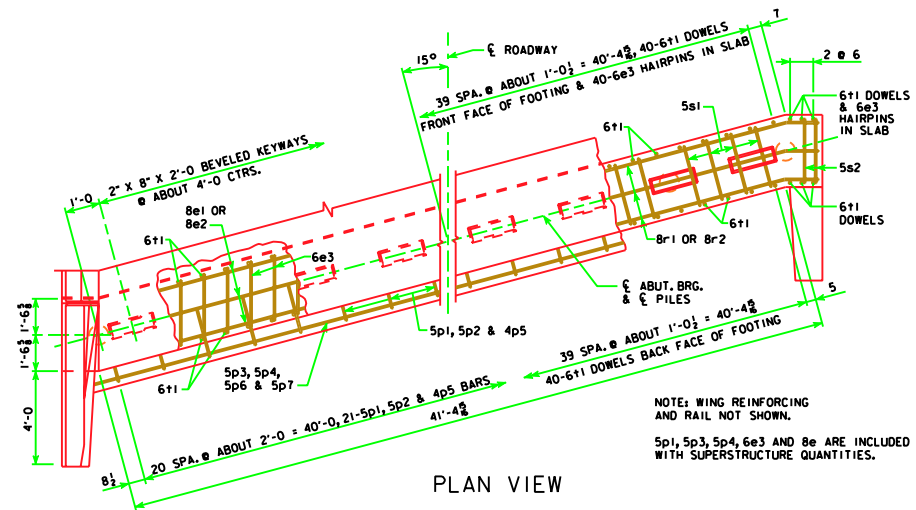
THE ABUTMENT PILES ARE TO BE DRIVEN TO FULL PENETRATION, IF PRACTICABLE, BUT IN NO CASE TO A BEARING VALUE LESS THAN THE PILE BEARING REQUIRED FOR EACH BRIDGE LENGTH AS SHOWN ON THIS SHEET, NOR TO MORE THAN 40 TONS PER BEARING PILE.

ALL REINFORCING STEEL IS TO BE GRADE 60.

ABUTMENT PILING WAS DESIGNED FOR HS25 LOADING WITH AN ALLOWANCE FOR 20 LBS. PER SQ. FT. FUTURE WEARING SURFACE.



REAR ELEVATION



PLAN VIEW

REACTION, PILE NUMBER & BEARING										
BRIDGE LENGTH	70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0	
REACTION - KIPS	352	381	405	431	456	484	512	Δ 594	Δ 627	
BEARING - TONS	20	20	19	20	19	19	20	20	20	
PILING - NUMBER	9	10	11	11	12	13	13	15	16	

Δ INCLUDES IMPACT

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER



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

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

**CONTINUOUS CONCRETE  
SLAB BRIDGES**

NOVEMBER, 2006

15° ABUTMENT DETAILS  
SKEW - TIMBER PILING

J40-32-06