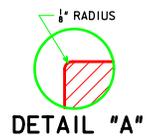
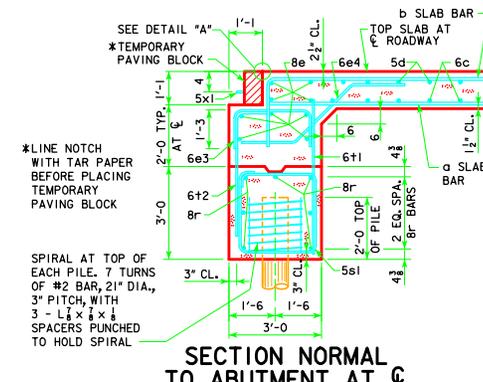
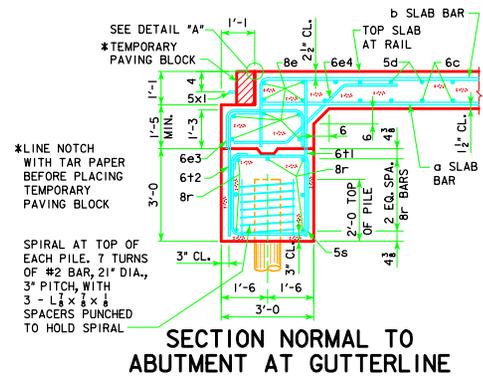
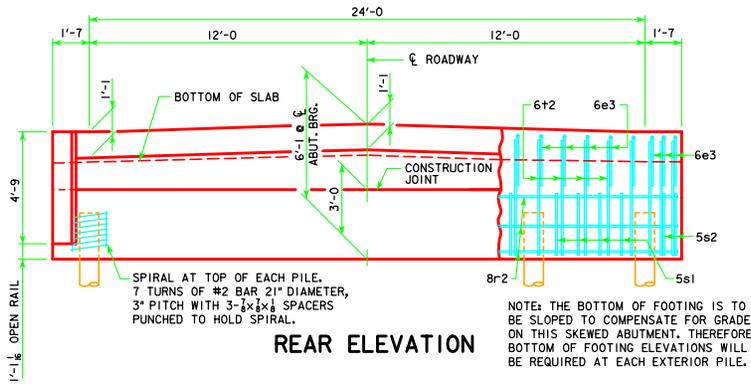


REVISED 06-13 - REVISION FOR LRFD PILE DESIGN.



ABUTMENT NOTES:

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

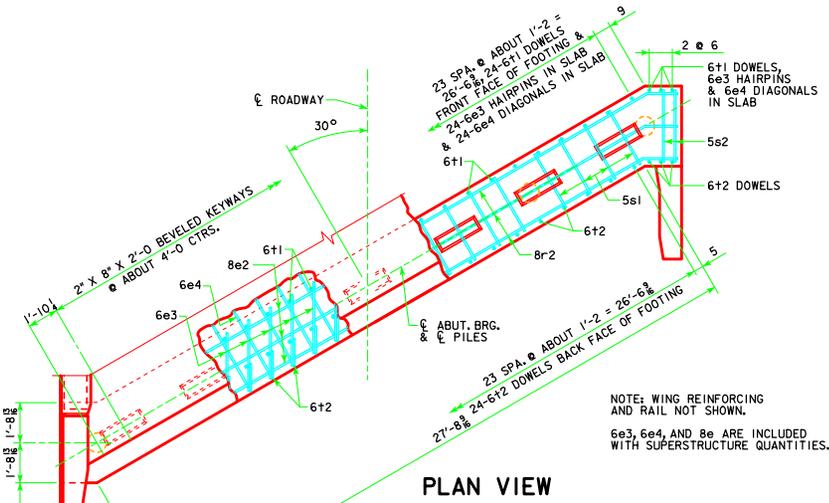
DETAILS ON THIS SHEET ARE TO BE USED ONLY WHEN ABUTMENTS ARE PLACED ON TIMBER PILES.

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

TIMBER PILES SHALL BE DRIVEN TO FULL PENETRATION IF PRACTICABLE BUT IN NO CASE TO A BEARING VALUE LESS THAN SHOWN IN DESIGN PLANS. TIMBER PILES SHALL NOT BE DRIVEN TO MORE THAN 160 TONS.

ALL REINFORCING STEEL IS TO BE GRADE 60.

ABUTMENT PILING WAS DESIGNED FOR HL-93 LOADING WITH AN ALLOWANCE FOR 20 LBS. PER SQ. FT. FUTURE WEARING SURFACE.



NUMBER OF PILES AND ABUTMENT DESIGN LOADS									
BRIDGE LENGTH	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"
PILING - NUMBER	7	7	8	8	9	9	10	11	12
PU, STRENGTH I DESIGN LOAD - KIPS	358	379	400	427	452	481	510	Δ 601	Δ 632

Δ INCLUDES DYNAMIC LOAD ALLOWANCE
NOTE: PU, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

06-13
LATEST REVISION DATE

Iowa Department of Transportation
Highway Division

APPROVED BY BRIDGE ENGINEER

STANDARD DESIGN - 24' ROADWAY, 3 SPAN BRIDGES

**CONTINUOUS CONCRETE
SLAB BRIDGES**

NOVEMBER, 2006

**30° ABUTMENT DETAILS
SKEW - TIMBER PILING**

J24-29-06