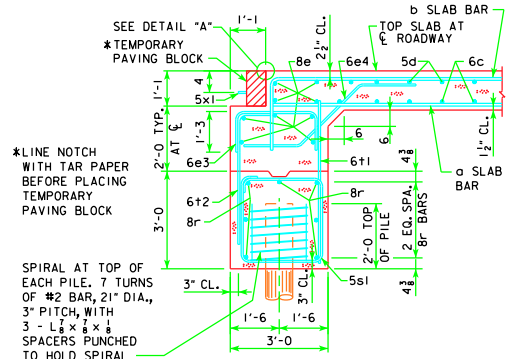
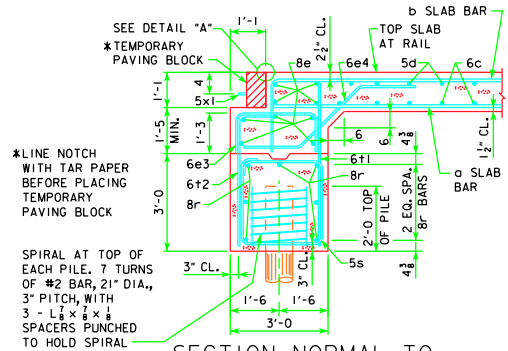


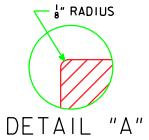
PILE PLAN - 15° SKEW WOOD PILING



SECTION NORMAL TO ABUTMENT AT ROADWAY



SECTION NORMAL TO ABUTMENT AT GUTTERLINE



DETAIL "A"

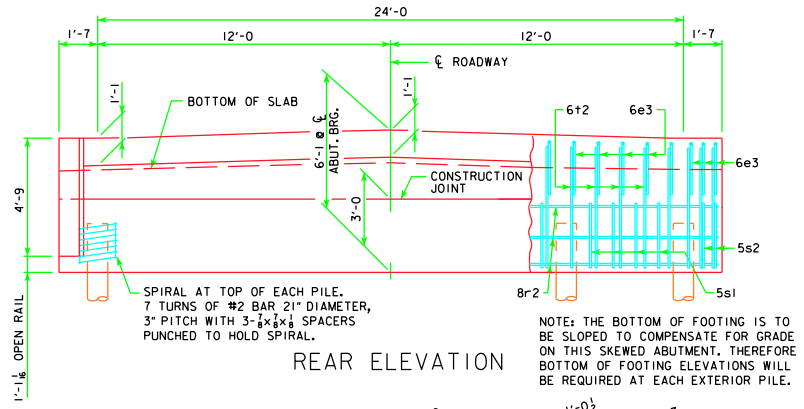
ABUTMENT NOTES:
 THE CONCRETE AND REINFORCING STEEL FOR THE WINGS IS INCLUDED WITH THE SUPERSTRUCTURE.

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.

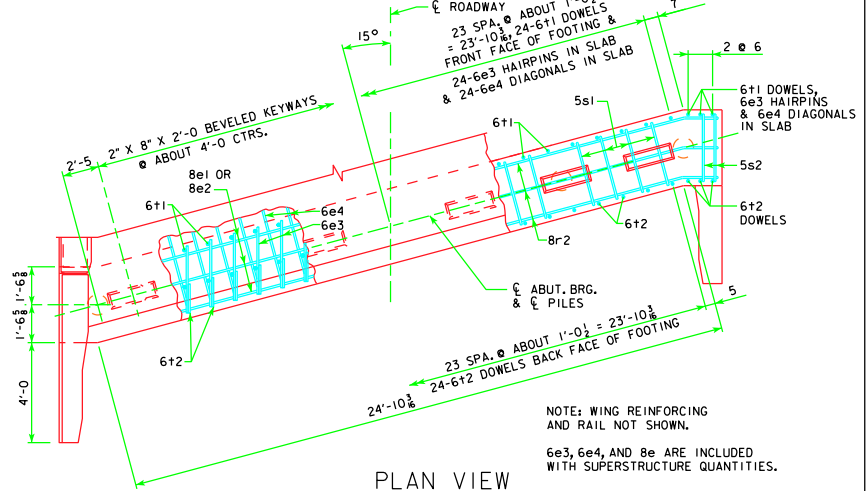
ALL REINFORCING STEEL IS TO BE GRADE 60.

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



REAR ELEVATION

NOTE: THE BOTTOM OF FOOTING IS TO BE SLOPED TO COMPENSATE FOR GRADE ON THIS SKEWED ABUTMENT. THEREFORE BOTTOM OF FOOTING ELEVATIONS WILL BE REQUIRED AT EACH EXTERIOR PILE.



PLAN VIEW

NOTE: WING REINFORCING AND RAIL NOT SHOWN.
 6e3, 6e4, AND 8e ARE INCLUDED WITH SUPERSTRUCTURE QUANTITIES.

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	255	269	283	301	318	337	356	Δ 412	Δ 433	
BEARING - TONS	19	20	18	19	20	19	20	21	22	
PILING - NUMBER	7	7	8	8	8	9	9	10	10	
STRENGTH 1 REACTION - KIPS	348	369	390	417	442	471	499	Δ 590	Δ 622	

Δ INCLUDES IMPACT

12-08 LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER <i>Thomas E. McQuinn</i>	Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 24' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006	
		ABUTMENT DETAILS 15° SKEW - TIMBER PILING	J24-28-06