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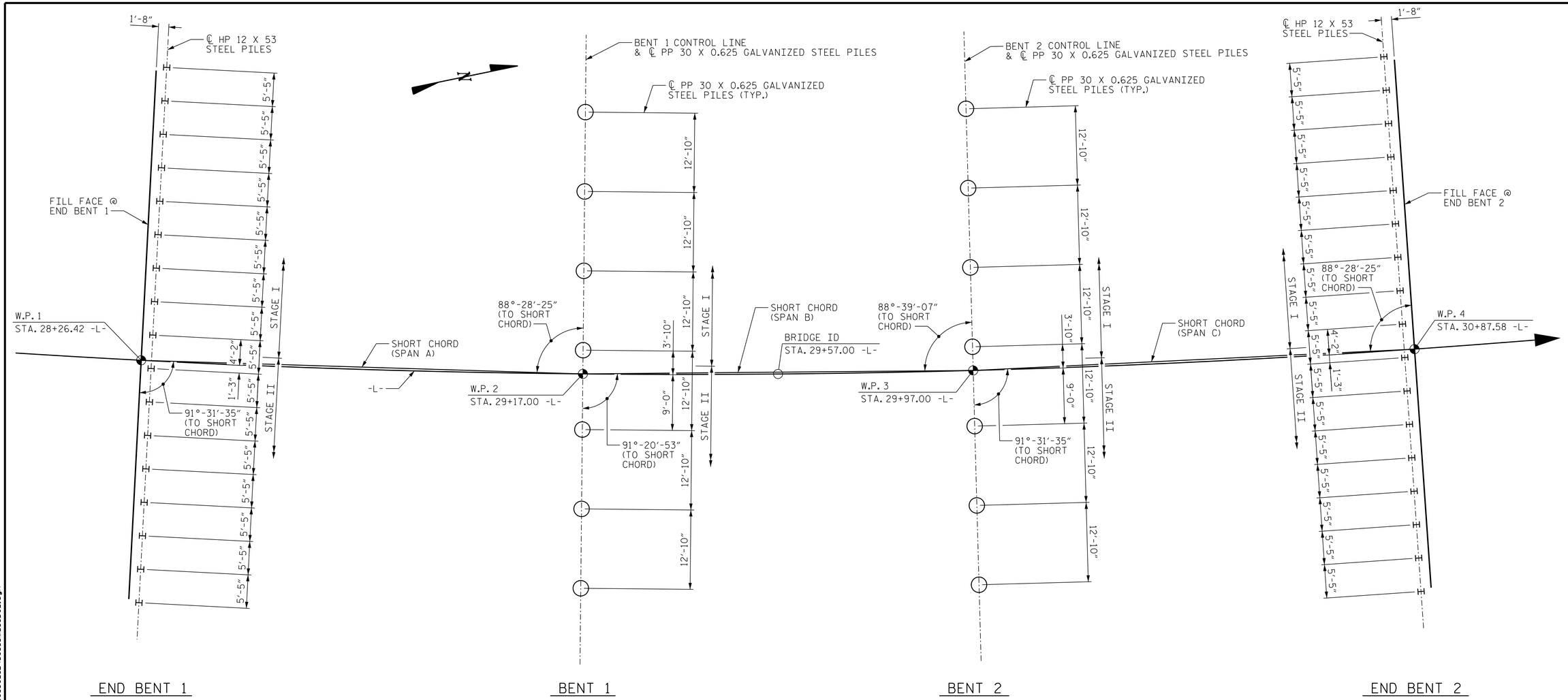

FOUNDATION LAYOUT

DIMENSIONS LOCATING END BENT PILES AND BENT PILES ARE SHOWN TO CENTERLINE PILES.

FOUNDATION NOTES

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT 1 AND END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 120 TONS PER PILE.

DRIVE PILES AT END BENT 1 TO A REQUIRED DRIVING RESISTANCE OF 200 TONS PER PILE.

DRIVE PILES AT END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 230 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

TESTING THE FIRST PRODUCTION PILE AT END BENT 1 OR END BENT 2 WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

INSTALL PILES AT END BENT 2 TO A TIP ELEVATION NO HIGHER THAN 0 FEET.

PILES AT BENT 1 AND BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 400 TONS PER PILE.

DRIVE PILES AT BENT 1 AND BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 550 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

TESTING THE FIRST PRODUCTION PILE AT BENT 1 AND BENT 2 WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

INSTALL PILES AT BENT 1 AND BENT 2 TO A TIP ELEVATION NO HIGHER THAN -13 FEET.

STEEL PIPE PILE CUTTING SHOES ARE REQUIRED FOR STEEL PIPE PILES AT BENT 1 AND BENT 2. USE "INSIDE FIT" PIPE PILE CUTTING SHOES, I.E., CUTTING SHOES WITH AN OUTSIDE DIAMETER EQUAL TO THE PIPE PILE DIAMETER. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT 1 AND BENT 2 IS ELEVATION 9 FEET. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 140 TO 170 FT-KIPS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT BENT 1 AND BENT 2. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH SUBARTICLE 450-3(D)(2) OF THE STANDARD SPECIFICATIONS.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 60 TO 80 FT-KIPS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT END BENT 1 AND END BENT 2. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH SUBARTICLE 450-3(D)(2) OF THE STANDARD SPECIFICATIONS.

PROJECT NO. B-4565

LENOIR COUNTY

STATION: 29+57.00 -L-

SHEET 2 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON US 70/258 BUS. OVER NEUSE RIVER OVERFLOW BETWEEN US 70/258 BYP. AND NC 11/55

NORTH CAROLINA PROFESSIONAL SEAL 041343 ENGINEER GREGORY R. COLS
11/13/2014

MI ENGINEERING
1011 SCHAUB DRIVE, SUITE 100
RALEIGH, NC 27606
(919) 851-6606
FIRM PE NUMBER : P-0671

REVISIONS							SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:		S-62
1			3				TOTAL SHEETS
2			4				118

DRAWN BY :	B.E. LANNING	DATE :	09/14
CHECKED BY :	G.R. COLS	DATE :	09/14
DESIGN ENGINEER OF RECORD :	G.R. COLS	DATE :	10/14

11/13/2014
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