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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 150 TONS PER PILE.

DRIVE PILES AT END BENT 1 TO A REQUIRED DRIVING RESISTANCE OF 230 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

DRIVE PILES AT END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 200 TONS PER PILE.

INSTALL PILES AT END BENT 1 AND END BENT 2 TO A TIP ELEVATION NO HIGHER THAN 0 FEET.

PILES AT BENT 1, BENT 2, AND BENT 3 ARE DESIGNED FOR A FACTORED RESISTANCE OF 425 TONS PER PILE.

DRIVE PILES AT BENT 1 AND BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 675 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

DRIVE PILES AT BENT 3 TO A REQUIRED DRIVING RESISTANCE OF 725 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

INSTALL PILES AT BENT 1 TO A TIP ELEVATION NO HIGHER THAN -30 FEET.

INSTALL PILES AT BENT 2 TO A TIP ELEVATION NO HIGHER THAN -31 FEET.

INSTALL PILES AT BENT 3 TO A TIP ELEVATION NO HIGHER THAN -30 FEET.

STEEL PIPE PILE CUTTING SHOES ARE REQUIRED FOR STEEL PIPE PILES AT BENT 1, BENT 2 AND BENT 3. 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, BENT 2, AND BENT 3 ARE ELEVATION -4 FT AT BENT 1, -5 AT BENT 2 AND -6 AT BENT 3. 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, BENT 2 AND BENT 3. 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.

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

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

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

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

TESTING THE FIRST PRODUCTION PILE AT BENT 3 WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IF NECESSARY, PREDRILL PILE LOCATIONS AT BENT 1 TO AN ELEVATION NO LOWER THAN -30 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 30". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IF NECESSARY, PREDRILL PILE LOCATIONS AT BENT 2 TO AN ELEVATION NO LOWER THAN -31 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 30". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IF NECESSARY, PREDRILL PILE LOCATIONS AT BENT 3 TO AN ELEVATION NO LOWER THAN -30 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 30". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

CONTRACTOR MAY PREDRILL THROUGH THE CENTER OF THE 36"DIA. STEEL PIPE PILES WITH CUTTING SHOES TO ELEVATIONS AS NOTED IN THE PLANS AT BENT 1, BENT 2 AND BENT 3.

DRIVE A TEST STEEL PIPE PILE AT STA 23+32.00 -L-, 205 FT. LEFT TO A REQUIRED DRIVING RESISTANCE OF 725 TONS AND TO A TIP ELEVATION NO HIGHER THAN -30 FT. PRIOR TO CONTRACT INTERMEDIATE COMPLETION DATE.

IF NECESSARY, PREDRILL TEST PILE LOCATION AT STA 23+32.00 -L-, 205 FT. LEFT TO AN ELEVATION NO LOWER THAN -30 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 30". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

STEEL PIPE PILE CUTTING SHOE IS REQUIRED FOR STEEL PIPE TEST PILE AT STA 23+32.00 -L-, 205 FT. LEFT. 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.

TEST STEEL PIPE PILE TO BE DRIVEN AT STA 23+32.00 -L-, 205 FT. LEFT SHALL MATCH THE LENGTH, PILE CUTTING SHOE, PREDRILLING TECHNIQUE, IF PROPOSED FOR PRODUCTION PILES, AND HAMMER PROPOSED FOR INTERIOR BENTS.

TESTING THE TEST STEEL PIPE PILE AT STA 23+32.00 -L-, 205 FT. LEFT WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

FOR TEST STEEL PIPE PILE, SEE TEST PILE SPECIAL PROVISION.

PROJECT NO. B-4565

LENOIR COUNTY

STATION: 20+17.50 -L-

SHEET 3 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

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

NORTH CAROLINA PROFESSIONAL SEAL 027799 ENGINEER ALLYSON K. ORR
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-3
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 :	A.K. ORR	DATE :	10/14

11/13/2014
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User: blanning
Filename: P:\NC Bridges\MI4001.01 - B-4565 Lenoir\Site 1\Structures\401.015.S01.B4565.SMU.GD03.dgn