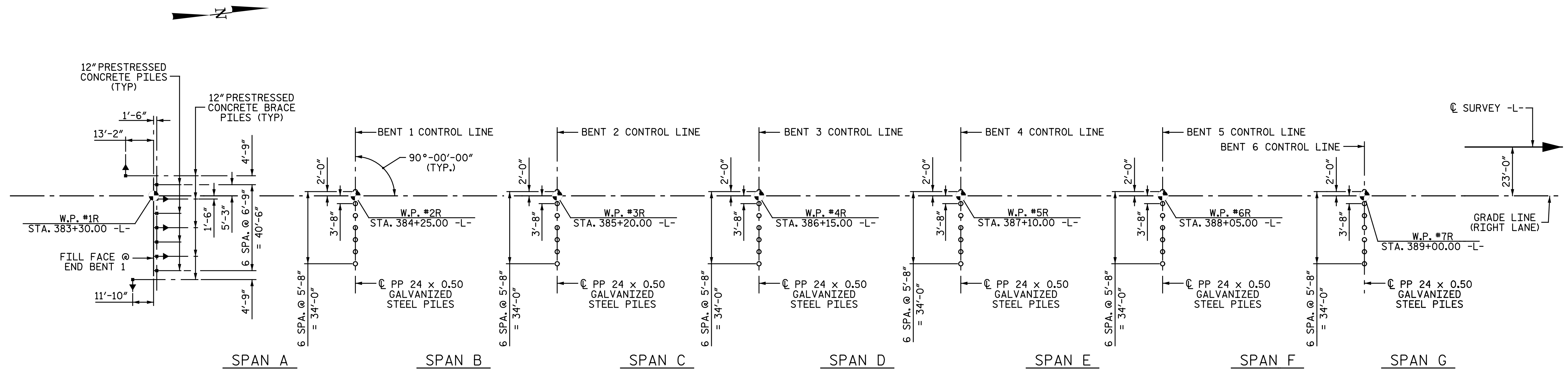


**NOTES:**

▲ INDICATES BATTER DIRECTION FOR BATTERED PILES.

ALL BATTERED PILES SHALL BE BATTERED AT 3 : 12 RATIO AT END BENTS.

FOR INTERIOR BENTS, ONLY PARTIAL GALVANIZING OF THE PILES IS REQUIRED. SEE INTERIOR BENT SHEETS FOR REQUIRED GALVANIZED LENGTHS. PAYMENT FOR PARTIALLY GALVANIZED PILES WILL BE MADE UNDER THE CONTRACT UNIT PRICE FOR GALVANIZED STEEL PILES.



**FOUNDATION LAYOUT**

ALL BENTS ARE PARALLEL  
 PILES ARE DIMENSIONED FROM WORK POINT TO CL OF PILE AT BOTTOM OF CONCRETE CAP.

**FOUNDATION NOTES:**

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT NO. 1 AND END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 110 TONS PER PILE.

DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

PILES AT BENT NO. 1 THROUGH BENT NO. 7 AND AT BENT NO. 10 THROUGH BENT NO. 12 ARE DESIGNED FOR A FACTORED RESISTANCE OF 225 TONS PER PILE.

DRIVE PILES AT BENT NO. 1 THROUGH BENT NO. 7 AND AT BENT NO. 10 THROUGH BENT NO. 12 TO A REQUIRED DRIVING RESISTANCE OF 300 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

PILES AT BENT NO. 8 AND BENT NO. 9 ARE DESIGNED FOR A FACTORED RESISTANCE OF 265 TONS PER PILE.

DRIVE PILES AT BENT NO. 8 AND BENT NO. 9 TO A REQUIRED DRIVING RESISTANCE OF 360 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

INSTALL PILES AT BENT NO. 1 THROUGH BENT NO. 5 TO A TIP ELEVATION NO HIGHER THAN -21.0 FT.

INSTALL PILES AT BENT NO. 6 AND BENT NO. 7 TO TIP ELEVATIONS NO HIGHER THAN -26.0 FT AND -34.0 FT, RESPECTIVELY.

INSTALL PILES AT BENT NO. 8 AND BENT NO. 9 TO A TIP ELEVATION NO HIGHER THAN -43.0 FT.

INSTALL PILES AT BENT NO. 10 THROUGH BENT NO. 12 TO A TIP ELEVATION NO HIGHER THAN -38.0 FT.

PIPE PILE PLATES ARE REQUIRED FOR STEEL PIPE PILES AT BENT NO. 1 THROUGH BENT NO. 12. USE PIPE PILE PLATES WITH A DIAMETER EQUAL TO THE PIPE PILE DIAMETER. FOR STEEL PIPE PILE PLATES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

SCOUR CRITICAL ELEVATIONS FOR BENT NO. 1 THROUGH BENT NO. 12 ARE ELEVATIONS 4 FT, 4 FT, 4 FT, 4 FT, 4 FT, -1 FT, -6 FT, -14 FT, -14 FT, -3 FT, -3 FT, AND -3 FT, RESPECTIVELY. 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 80-135 KIPS-FT PER BLOW WILL BE REQUIRED TO DRIVE PILES AT BENT NO. 1 THROUGH BENT NO. 7 AND AT BENT NO. 10 THROUGH BENT NO. 12. 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 120-170 KIPS-FT PER BLOW WILL BE REQUIRED TO DRIVE PILES AT BENT NO. 8 AND BENT NO. 9. 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 WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED AT END BENT NO. 1 OR END BENT NO. 2. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

TESTING THE FIRST 24" DIA. PRODUCTION STEEL PIPE PILE WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

TESTING THE FIRST 30" DIA. PRODUCTION STEEL PIPE PILE WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

TEMPORARY STEEL CASINGS ARE REQUIRED FOR PREDRILLING (AND SPUDGING) AT BENT NO. 7, BENT NO. 8 AND BENT NO. 9.

SPUDGING MAY BE USED INSTEAD OF PREDRILLING AT BENT NO. 1 THROUGH BENT NO. 12.

IF NECESSARY, PREDRILL PILE LOCATIONS AT BENT NO. 1 THROUGH BENT NO. 5 TO AN ELEVATION NO LOWER THAN ELEVATION -21 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 24". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IF NECESSARY, PREDRILL PILE LOCATIONS AT BENT NO. 6 AND BENT NO. 7 TO AN ELEVATION NO LOWER THAN ELEVATIONS -26 FT AND -34 FT, RESPECTIVELY, WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 24". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IF NECESSARY, PREDRILL PILE LOCATIONS AT BENT NO. 8 AND BENT NO. 9 TO AN ELEVATION NO LOWER THAN ELEVATION -43 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 NO. 10 THROUGH BENT NO. 12 TO AN ELEVATION NO LOWER THAN ELEVATION -38 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 24". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PROJECT NO. R-2514D  
JONES COUNTY  
 STATION: 389+47.50 -L-

SHEET 3 OF 5

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DRAWN BY : N. B. SPEAKS DATE : 6-20-14  
 CHECKED BY : A. M. HOUSTON DATE : 7-14-14

DWG. 3 OF 68

DEPARTMENT OF TRANSPORTATION RALEIGH <b>GENERAL DRAWING</b> BRIDGE OVER TRENT RIVER ON US17 BETWEEN SR 1337 & SR 1121 RIGHT LANE			
REVISIONS			SHEET NO. S08-3
NO.	BY:	DATE:	NO.
1			3
2			4
			TOTAL SHEETS 68

**Baker**

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