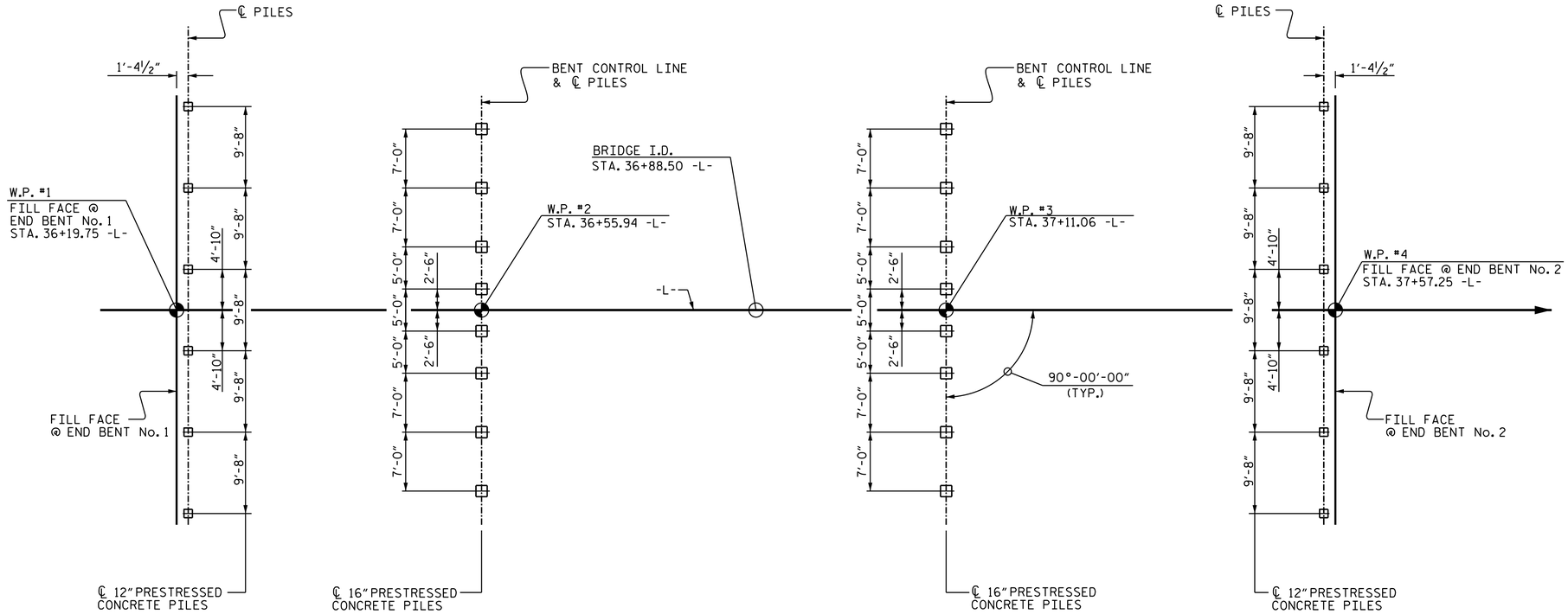

END BENT No. 1 | BENT No. 1 | BENT No. 2 | END BENT No. 2

FOUNDATION LAYOUT

DIMENSIONS LOCATING PILES ARE SHOWN TO PILE CENTERLINE AT THE BOTTOM OF END BENT CAP & BENT 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 80 TONS AND 90 TONS PER PILE, RESPECTIVELY.

DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 135 AND 150 TONS PER PILE, RESPECTIVELY.

PILES AT BENT NO. 1 AND BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 170 AND 180 TONS PER PILE, RESPECTIVELY.

DRIVE PILES AT BENT NO. 1 AND BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 290 AND 305 TONS PER PILE, RESPECTIVELY. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWN DRAG OR SCOUR.

INSTALL PILES AT BENT NO. 1 AND BENT NO. 2 TO A TIP ELEVATION NO HIGHER THAN 58 FEET.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 AND BENT NO. 2 IS ELEVATION 81 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 83,500 FT.-LBS. TO 186,500 FT.-LBS. PER BLOW WILL BE REQUIRED TO DRIVE PILES AT BENT NO. 1 AND BENT NO. 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 PILES WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING MAY BE REQUIRED. THE ENGINEER WILL DETERMINE THE NEED FOR PDA TESTING. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IF NECESSARY, PREDRILL PILE LOCATIONS AT BENT NO. 2 TO ELEVATION 68 FEET WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 16". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PROJECT NO. B-5124
NASH COUNTY
STATION: 36+88.50 -L-

SHEET 2A OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE OVER SWIFT CREEK OVERFLOW ON US 301 BETWEEN SR 1560 & SR 1516
ALTERNATE 1

NORTH CAROLINA PROFESSIONAL SEAL 14045 ENGINEER TIMOTHY L. COGGINS
3/9/2015
DocuSigned by: Tim Coggins
DEFD4A8D48FA47B...

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-24A
1			3			TOTAL SHEETS
2			4			71

DRAWN BY : M.D. PISO DATE : 05-30-14
CHECKED BY : N.RUFFIN DATE : 11-13-14
DESIGN ENGINEER OF RECORD: K. P. SEDAI DATE : 01-06-15

09-MAR-2015 07:54
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nruffin

STR. #2