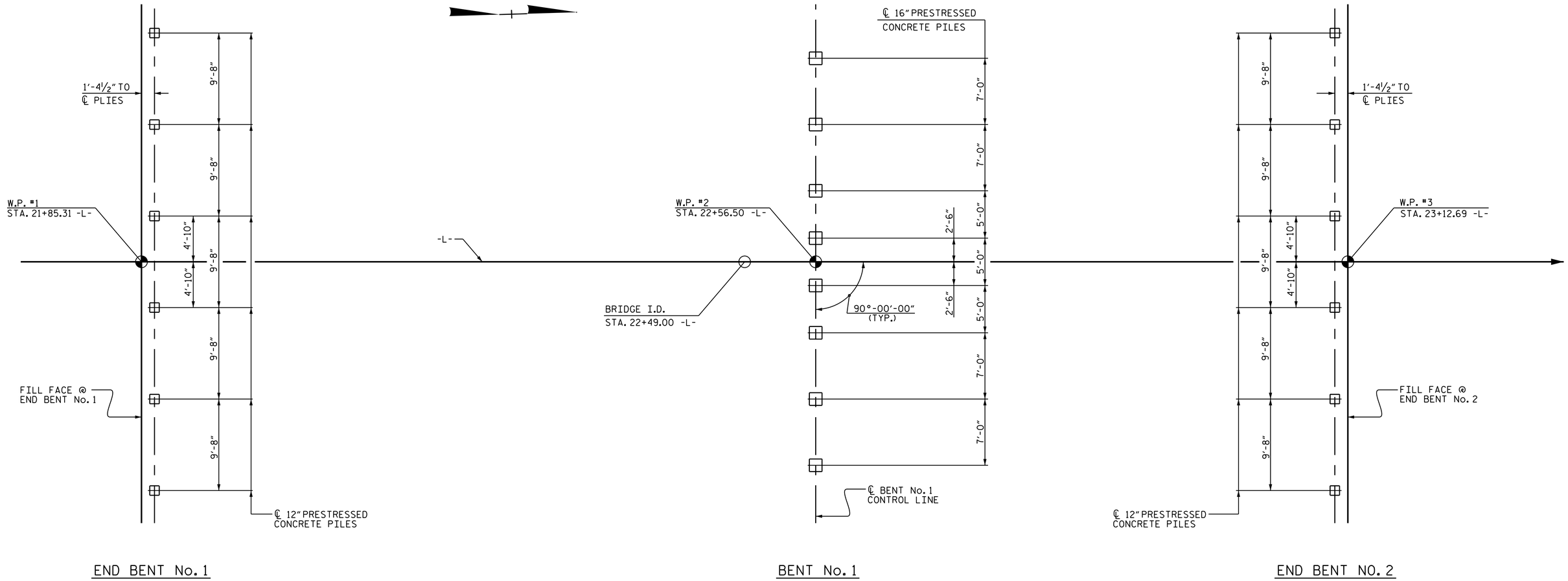

FOUNDATION LAYOUT

DIMENSIONS LOCATING PILES ARE TO THE 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 120 TONS AND 105 TONS PER PILE, RESPECTIVELY.

DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 200 TONS AND 175 TONS PER PILE, RESPECTIVELY.

PILES AT BENT NO. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 195 TONS PER PILE.

DRIVE PILES AT BENT NO. 1 TO A REQUIRED DRIVING RESISTANCE OF 325 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

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

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 IS ELEVATION 82 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. 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.

PROJECT NO. B-5124
NASH COUNTY
STATION: 22+49.00 -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-2A
1			3			TOTAL SHEETS
2			4			71

STR. #1

DRAWN BY :	M.D.PISO	DATE :	05-30-14
CHECKED BY :	N.RUFFIN	DATE :	11-07-14
DESIGN ENGINEER OF RECORD:	K.P.SEDAI	DATE :	01-05-15

06-MAR-2015 14:47
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