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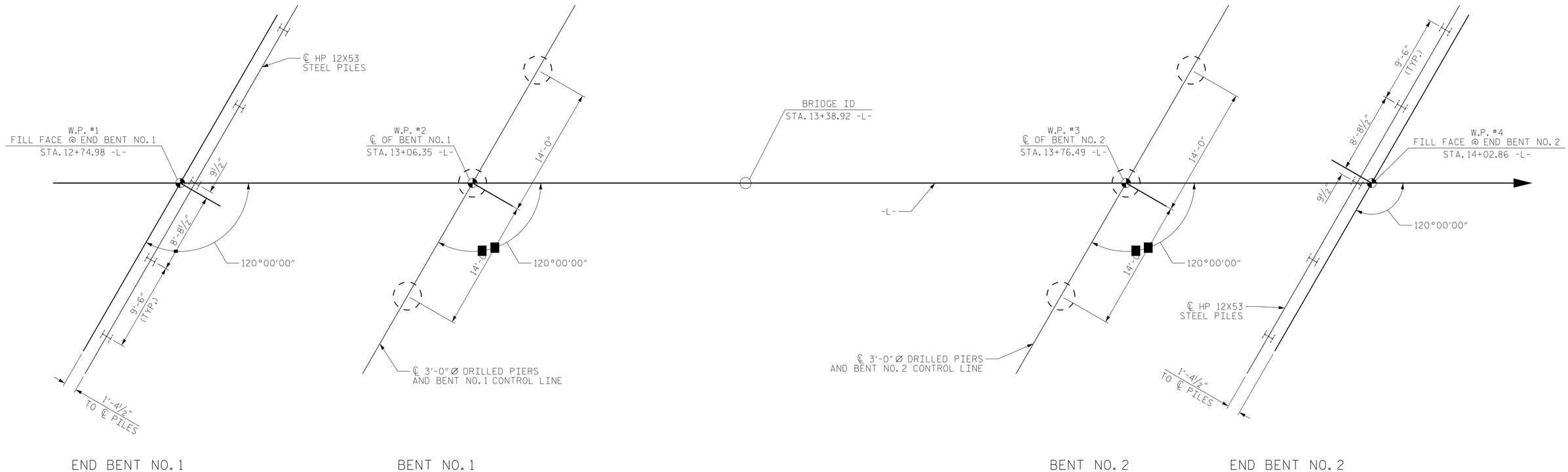

FOUNDATION LAYOUT

FOUNDATION NOTES

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT NO. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 61 TONS PER PILE.

DRIVE PILES AT END BENT NO. 1 TO A REQUIRED DRIVING RESISTANCE OF 105 TONS PER PILE.

PILES AT END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 55 TONS PER PILE.

DRIVE PILES AT END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 95 TONS PER PILE.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENT NO. 1 AND END BENT NO. 2. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

FOR DRILLED PIERS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

CSL TUBES ARE REQUIRED FOR ALL DRILLED PIERS. CSL TESTING IS REQUIRED AT A MINIMUM OF 25 PERCENT OF DRILLED PIERS AT EACH BRIDGE OR ONE PER BENT, WHICHEVER IS GREATER. THE ENGINEER WILL DETERMINE THE LOCATIONS FOR CSL TESTING. FOR CSL TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

DRILLED PIERS AT BENT NO. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 340 TONS PER PIER. FOR BENT NO. 1, CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 15 TSF.

THE ESTIMATED TIP ELEVATIONS FOR DRILLED PIERS AT BENT NO. 1 ARE NO HIGHER THAN 2,481.5 FT, LEFT, AND 2,478.7 FT, CENTER AND RIGHT, WITH THE REQUIRED TIP RESISTANCE AND PENETRATION OF AT LEAST 16.5 FEET INTO WEATHERED ROCK OR BETTER.

DRILLED PIERS AT BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 340 TONS PER PIER. FOR BENT NO. 2, CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 115 TSF.

THE ESTIMATED TIP ELEVATIONS FOR DRILLED PIERS AT BENT NO. 2 ARE NO HIGHER THAN 2,508.7 FT, LEFT, AND 2,497.4 FT, CENTER AND RIGHT, WITH THE REQUIRED TIP RESISTANCE AND PENETRATION OF AT LEAST 4.5 FEET INTO ROCK, AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

PERMANENT STEEL CASINGS ARE REQUIRED FOR DRILLED PIERS AT BENT NO. 1 AND BENT NO. 2. DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 2,495 FT AT BENT NO. 1 AND 2,510 FT AT BENT NO. 2 WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 IS ELEVATION 2,508 FT. THE SCOUR CRITICAL ELEVATIONS FOR BENT NO. 2 ARE ELEVATIONS 2,513.8 FT AND 2,508.4 FT LEFT TO RIGHT, RESPECTIVELY. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PROJECT NO. 17BP.14.R.183
TRANSYLVANIA COUNTY
STATION: 13+38.92 -L-

SHEET 2 OF 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 18442 ENGINEER RICHARD LEON BOLLINGER JR.
DocuSigned by: Richard Bollinger
10/19/2023

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
BRIDGE OVER WEST FORK OF THE FRENCH BROAD RIVER ON SR 1309 (SILVERSTEEN RD.) BETWEEN US HWY. 64 AND SR 1322 (DIAMOND CREEK RD.)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			23

DRAWN BY :	PDS	DATE :	04/2017
CHECKED BY :	TLC	DATE :	09/2017
DESIGN ENGINEER OF RECORD:	PDS	DATE :	04/2017

17-OCT-2023 15:15
R:\Structures\Working DGN\063_003_17BP.14.R.183_SMU_GD02_S-2.dgn
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