

FOUNDATION LAYOUT

NOTES

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENTS NO.1 AND 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 105 TONS PER PILE.

DRIVE PILES AT END BENTS NO.1 AND 2 TO A REQUIRED DRIVING RESISTANCE OF 175 TONS PER PILE.

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

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 20 TO 30 FT-KIPS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT END BENTS NO.1 AND 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 WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING MAY BE REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS (AND FOR PILE DRIVING CRITERIA, SEE PILE DRIVING CRITERIA PROVISION).

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

DRILLED PIERS AT BENT NO.1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 725 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 100 TSF.

PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT BENT NO.1. DO NOT EXTEND PERMANENT CASING AT BENT NO.1 BELOW ELEVATION 2557 FT FOR STAGE 1 LT AND STAGE 2 RT AND ELEVATION 2547 FOR STAGE 1 RT AND STAGE 2 LT WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

INSTALL DRILLED PIERS AT BENT NO.1 TO A TIP ELEVATION NO HIGHER THAN 2548 FEET FOR STAGE 1 LT, 2528 FEET FOR STAGE 1 RT AND STAGE 2 LT, AND 2542 FEET FOR STAGE 2 RT, RESPECTIVELY, AND WITH THE REQUIRED TIP RESISTANCE AND PENETRATION OF AT LEAST 9 FT INTO WEATHERED ROCK/ROCK AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO.1 IS 2557 FT FOR STAGE 1 LT, 2542 FT FOR STAGE 1 RT AND STAGE 2 LT, AND 2550 FT FOR STAGE 2 RT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

SID INSPECTIONS MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SID INSPECTIONS. FOR SID INSPECTIONS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

CSL TUBES AND TESTING ARE REQUIRED FOR DRILLED PIERS AT BENT NO.1. FOR CSL TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

LEGEND

- H HP12X53 VERTICAL PILE
- HP12X53 BRACE PILE (BATTER 3H:12V)
- (#) PILE NUMBER



PROJECT NO. B-3186/B-5898  
HAYWOOD COUNTY  
 STATION: 42+71.13 -L-

SHEET 2 OF 4

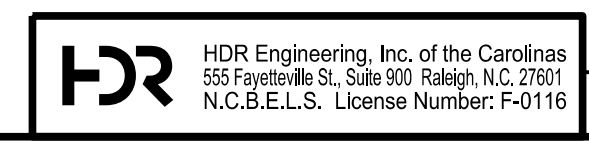
STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

GENERAL DRAWING  
 FOUNDATION LAYOUT

REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1	--	--	3	--	--
2	--	--	4	--	--

PLOT DRIVER: NCDOT STRUCTURES DEFAULT PLOTTER.plt  
 USER: PPETERSO  
 DATE: 1/25/2022  
 TIME: 8:24:18 AM  
 FILE: ... \401\_005\_B5898B3186\_SMU-FL\_002\_430168.dgn

DES BY: <u>K. DICKENS</u>	DATE: <u>06/21</u>	DWG BY: <u>B. PETERSON</u>	DATE: <u>06/21</u>
DES CHK: <u>L. GUALTERI</u>	DATE: <u>06/21</u>	CHK BY: <u>K. DICKENS</u>	DATE: <u>07/21</u>



1/25/2022  
 DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

SHEET NO. 501-02  
 TOTAL SHEETS 59