

FOUNDATION LAYOUT

NOTES

- 1 ALL END BENT PILES ARE VERTICAL HP 14 x 89 STEEL PILES. DIMENSIONS LOCATING PILES ARE SHOWN TO PILE CENTERLINES AT THE BOTTOM OF THE END BENT CAPS.
- FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE STANDARD SPECIFICATIONS.
- PILES AT END BENT 1 AND END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 125 TONS PER PILE.
- 1 DRIVE PILES AT END BENT 1 AND END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 255 TONS PER PILE.
- IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 45,000 TO 60,000 FT-LBS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT END BENT 1 AND END BENT 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.
- PILES AT END BENT 1 AND END BENT 2 ARE TO BE DRIVEN AFTER CONSTRUCTION AND RELEASE OF THE MSE WALLS PENDING THE SETTLEMENT MONITORING PROGRAM.
- 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.

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

DRILLED PIERS AT BENT 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 570 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 50 TSF.

INSTALL DRILLED PIERS AT BENT 1 TO A TIP ELEVATION NO HIGHER THAN 1002.5 FEET (FOR LEFT TO CENTER) AND 1015.0 FEET (FOR RIGHT) WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 10 FEET INTO ROCK AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

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 ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR CSL TESTING. FOR CSL TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

CORRUGATED METAL CANS AT END BENT 1 AND END BENT 2 ARE TO BE PLACED DURING CONSTRUCTION IN THE REINFORCED BACKFILL OF THE MSE WALLS. SEE MSE WALL PLANS.

INSTALLATION OF CORRUGATED METAL CANS FROM THE BOTTOM OF THE PILE CAP TO THE LEVELING PAD ELEVATION IS REQUIRED FOR PILES AT END BENT 1 AND END BENT 2. THE CANS SHALL BE DESIGNED TO WITHSTAND THE PRESSURES FROM COMPACTION OPERATIONS ON ADJACENT FILLS WITHOUT DISTORTION. AT A MINIMUM, CORRUGATED METAL CANS SHALL BE 16-GAUGE WITH A WALL THICKNESS OF 0.064".

LOOSELY BACKFILL CORRUGATED METAL CANS USING SAME MATERIAL AS MSE REINFORCEMENT ZONE PRIOR TO CONSTRUCTION OF THE END BENT PILE CAP. DO NOT COMPACT MATERIAL WITHIN THE CAN.

1 OBSERVE A ONE MONTH WAITING PERIOD AFTER CONSTRUCTING THE MSE WALLS AND END BENTS BEFORE BEGINNING APPROACH SLAB CONSTRUCTION AT END BENT 1 AND END BENT 2. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SPECIAL PROVISIONS.

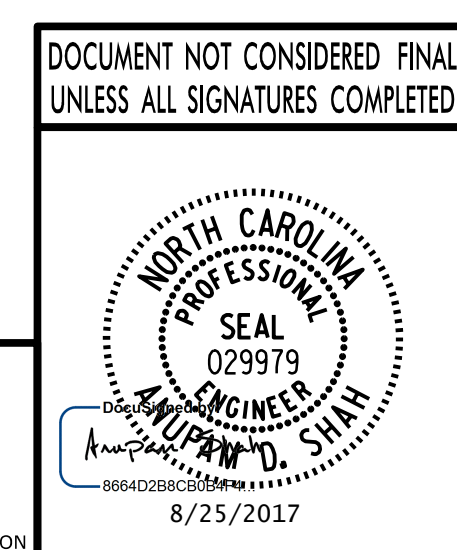
FOR SURCHARGES AND WAITING PERIODS, SEE SECTION 235 OF THE STANDARD SPECIFICATIONS AND THE SURCHARGES AND WAITING PERIODS PROVISION.

PROJECT NO. I-4729A
 POLK COUNTY
 STATION: 21+44.22 -RP F-

SHEET 2 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 BRIDGE OVER I-26 (-EL-)
 ON RAMP (-RP F-)
 BETWEEN US-74 AND I-26



REVISED PILE SIZE AND NOTES.

PLANS PREPARED BY:
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 FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DRAWN BY : K. E. LOFTON DATE : 7-17
 CHECKED BY : A. D. SHAH DATE : 7-17
 DESIGN ENGINEER : S. PHAN DATE : 7-17

REVISIONS						SHEET No.	
No.	BY:	DATE:	No.	BY:	DATE:	TOTAL SHEETS	
1	LOFTON	8-25-17	3			31	
2			4				

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