

**SUMMARY OF PILE INFORMATION/INSTALLATION**

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	Factored Resistance per Pile TONS	Pile Cut-Off (Top of Pile) Elevation FT	Estimated Pile Length per Pile FT	Scour Critical Elevation FT	Driven Piles			Predrilling for Piles*			Drilled-In Piles			
					Min Pile Tip (Tip No Higher Than) Elev FT	Required Driving Resistance (RDR)** per Pile TONS	Total Pile Redrives Quantity EACH	Predrilling Length per Pile Lin FT	Predrilling Elevation (Elev Not To Predrill Below) FT	Maximum Predrilling Dia INCHES	Pile Excavation (Bottom of Hole) Elev FT	Pile Exc Not In Soil per Pile Lin FT	Pile Exc In Soil per Pile Lin FT	
End Bent No. 1, Piles 1-6	84	See Structure Drawings	35			140								
End Bent No. 2, Piles 1-6	84		30			140								
<b>TOTAL QTY:</b>														

\*Predrilling for Piles is required for end bents/bents with a predrilling length and at the Contractor's option for end bents/bents with predrilling information but no predrilling length.

$$**RDR = \frac{\text{Factored Resistance} + \text{Factored Downdrag Load} + \text{Factored Dead Load}}{\text{Dynamic Resistance Factor}} + \frac{\text{Nominal Downdrag Resistance} + \text{Nominal Scour Resistance}}{\text{Scour Resistance Factor}}$$

**SUMMARY OF PILE ACCESSORIES**

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	Pipe Pile Plates Required? YES or MAYBE	Steel Pile Points			Steel Pile Tips Required? YES
		Pipe Pile Cutting Shoes Required? YES	Pipe Pile Conical Points Required? YES	H-Pile Points Required? YES	
<b>TOTAL QTY:</b>					

**PILE DESIGN INFORMATION**

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	Factored Axial Load per Pile TONS	Factored Downdrag Load per Pile TONS	Factored Dead Load* per Pile TONS	Dynamic Resistance Factor	Nominal Downdrag Resistance per Pile TONS	Nominal Scour Resistance per Pile TONS	Scour Resistance Factor (Default = 1.00)
End Bent No. 1, Piles 1-6	84			0.60			
End Bent No. 2, Piles 1-6	84			0.60			

\*Factored Dead Load is factored weight of pile above the ground line.

**SUMMARY OF PDA**

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	PDA Testing Required? YES or MAYBE	Total PDA Testing Quantity EACH

**NOTES**

1. The Pile and Drilled Pier Foundation Tables are based on the bridge substructure design and foundation recommendations sealed by a North Carolina Professional Engineer Michael H. Stephens (PE No. 028893) on 10/05/2023.
2. Total Pile Driving Equipment Setup quantity (not shown in Pile Foundation Tables) equals the number of driven piles, i.e., the number of piles with a Required Driving Resistance.
3. The Engineer will determine the need for PDA Testing, Pipe Pile Plates, Permanent Steel Casing, SPTs, CSL Testing, SID Inspections and PITs when these items may be required.

**SUMMARY OF DRILLED PIER INFORMATION/INSTALLATION**

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pier(s) #(-#) (e.g., "Bent 1, Piers 1-3")	Factored Resistance per Pier TONS	Minimum Pier Tip (Tip No Higher Than) Elev FT	Required Tip Resistance per Pier TSF	Scour Critical Elev FT	Minimum Drilled Pier Penetration Into Weathered Rock and Rock per Pier Lin FT	Minimum Drilled Pier Penetration Into Rock per Pier Lin FT	Drilled Pier Length per Pier Lin FT	Drilled Pier Length Not In Soil* per Pier Lin FT	Drilled Pier Length In Soil* per Pier Lin FT	Permanent Steel Casing Required? YES or MAYBE	Permanent Steel Casing Tip Elev (Elev Not To Extend Casing Below) FT	Permanent Steel Casing Length* per Pier Lin FT
Bent No. 1 - Pier 1-3	263	198.0	20	210.0	12.0		30.17			YES	215	13.0
Bent No. 2 - Pier 1-3	263	197.5	20	210.0	12.0		30.67			YES	215	13.0
<b>TOTAL QTY:</b>							182.5					78.0

\*Drilled Pier Length, Drilled Pier Length Not in Soil and Drilled Pier Length in Soil represent estimated drilled pier quantities and are measured and paid for as either "\_\_\_ Dia. Drilled Piers" or "\_\_\_ Dia. Drilled Piers Not in Soil" and "\_\_\_ Dia. Drilled Piers in Soil" in accordance with Article 411-7 of the NCDOT Standard Specifications.

\*\*Permanent Steel Casing Length equals the difference between the ground line or top of drilled pier elevation, whichever is higher, and the permanent casing tip elevation and is measured and paid for as "Permanent Steel Casting for \_\_\_ Dia. Drilled Pier" in accordance with Article 411-7 of the NCDOT Standard Specifications.

**SUMMARY OF DRILLED PIER TESTING**

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pier(s) #(-#) (e.g., "Bent 1, Piers 1-3")	Standard Penetration Test (SPT) Required? YES or MAYBE	Crosshole Sonic Logging (CSL) Required?*	Total CSL Tube Length (For All Tubes) per Pier Lin FT	Shaft Inspection Device (SID) Required? YES or MAYBE	Thermal Integrity Profiler Test (TIP) Required? YES or MAYBE
Bent No. 1 - Pier 1-3		MAYBE	127	MAYBE	
Bent No. 2 - Pier 1-3		MAYBE	129	MAYBE	
<b>TOTAL QTY:</b>			2	766	2

\*CSL Tubes are required if CSL Testing is or may be required. The number of CSL Tubes per drilled pier is equal to one tube per foot of design pier diameter with at least 4 tubes per pier. The length of each CSL Tube is equal to the drilled pier length plus 1.5 ft.

PROJECT NO. BR-0062

ANSON COUNTY

STATION: 18+07.50 -L-

SHEET 3 OF 4



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

GENERAL DRAWING  
PILE AND DRILLED PIER  
FOUNDATION TABLES

REVISIONS

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

SHEET NO.

S-03

TOTAL SHEETS

35

DRAWN BY : J. PENDERGRAFT DATE : 10-23  
CHECKED BY : G. GILLAND DATE : 10-23

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED