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 KIPS	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 KIPS	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 1, Piles 1-13	260	See Structure Drawings	20			435							
End Bent 2, Piles 1-13	260		75			435							

✳ 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 = $\frac{\text{Factored Resistance + Factored Drag Load + Factored Dead Load}}{\text{Dynamic Resistance Factor}}$ + Nominal Drag Load Resistance + Nominal Resistance from Scourable Material

SUMMARY OF DRILLED PIER INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piers 1-3")	Number of Piers per Line	Factored Resistance per Pier KIPS	Required Drilled Pier Tip Elevation FT	Required Tip Resistance per Pier KSF	Scour Critical Elevation FT	Minimum Drilled Pier Penetration Into Weathered Rock(WR) and/or Rock(R) 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	Permanent Steel Casing Tip Elevation (Elev. Not To Extend Casing Below) FT	Permanent Steel Casing Length ✳✳ per Pier LIN FT
Bent No. 1, Piers 1-3	3	1620	936.00	20	948.00	12 (R)	60.1			YES	948.00	48.1
Bent No. 2, Piers 1-3	3	1620	927.50	20	939.50	12 (R)	68.6			YES	939.50	56.6
Bent No. 3, Piers 1-3	3	1620	921.50	20	933.50	12 (R)	74.6			YES	933.50	62.6
Bent No. 4, Piers 1-3	3	1620	918.50	20	936.50	18 (WR and R)	77.6			YES	936.50	59.6
Bent No. 5, Piers 1	1	1660	921.00	20	941.00	20 (WR and R)	75.1			YES	941.00	55.1
Bent No. 5, Piers 2-3	2	1660	917.00	20	935.00	18 (WR and R)	79.1			YES	935.00	61.1
Bent No. 6, Piers 1-2	2	1700	928.00	20	950.00	12 (R)	68.1			YES	950.00	46.1
Bent No. 6, Piers 3	1	1700	935.00	20	953.00	18 (WR and R)	61.1			YES	953.00	43.1
Bent No. 7, Piers 1-3	3	1700	933.00	20	954.00	12 (R)	63.1			YES	954.00	42.1
TOTAL QTY:							1462.6					1119.6

✳ Drilled Pier Length, drilled Pier Length Not in Soil and Drilled Pier Length in Soil represent estimitated 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 the drilled pier elevation, whichever is higher, and the permanent casing tip elevation and is measured and paid for as "Permanent Steel Casing 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, Pile(s) #(-#) (e.g., "Bent 1, Piers 1-3")	Standard Penetration Test (SPT) EACH	Crosshole Sonic Logging (CSL) EACH	Thermal Integrity Profiler (TIP) EACH	Shaft Inspection Device (SID) EACH	Pile Integrity Test (PIT) EACH
Bent No. 1, Piers 1-3		3	3	3	
Bent No. 2, Piers 1-3		3	3	3	
Bent No. 3, Piers 1-3		3	3	3	
Bent No. 4, Piers 1-3		3	3	3	
Bent No. 5, Piers 1		1	1	1	
Bent No. 5, Piers 2-3		2	2	2	
Bent No. 6, Piers 1-2		2	2	2	
Bent No. 6, Piers 3		1	1	1	
Bent No. 7, Piers 1-3		3	3	3	
TOTAL QTY:		21	21	21	

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 Drag Load per Pile KIPS	Factored Load per Pile KIPS	Factored Dead Load ✳ per Pile KIPS	Dynamic Resistance Factor	Nominal Drag Resistance per Pile KIPS	Nominal Scour Resistance per Pile KIPS
End Bent 1, Piles 1-13	260			0.60		
End Bent 2, Piles 1-13	260			0.60		

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

SUMMARY OF DPT/PILE ORDER LENGTHS

(Blank entries indicate item is not applicable to structure)

Dynamic Pile Testing (DPT)		
End Bent/ Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-3")	DPT Test Pile Length FT	DPT Testing Quantity EACH
End Bent No. 1, Piles 1-13		1
TOTAL QUANTITY:		1

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 EACH	Steel Pile Points		
		Pipe Pile Cutting Shoes EACH	Pipe Pile Conical Points EACH	H-Pile Points EACH
End Bent 1, Piles 1-13				13
TOTAL QTY:				13

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, #028893) on 5/7/2025.
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 may adjust the quantity for DPT Testing and Pipe Pile Plates when necessary.
4. The Engineer may adjust the quantity for Permanent Steel Casing, SPTs, TIPs, CSL Testing, SID Inspections and PITs when necessary.

PROJECT NO. R-3430B

BURKE & CALDWELL COUNTY

STATION: 34+52.50 -L-

SHEET 5 OF 7

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029360 RYAN D. FISHER

7/8/2025

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER CATAWBA RIVER ON SR 1001 BETWEEN SR 1115 AND US-70

DRAWN BY : J. MYA DATE : 03/2024
CHECKED BY : R. FISHER DATE : 03/2024
DESIGN ENGINEER OF RECORD: DATE :

GANNETT FLEMING — One Glenwood Avenue Suite 900 Raleigh, NC 27603 919-420-7660 NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			61