

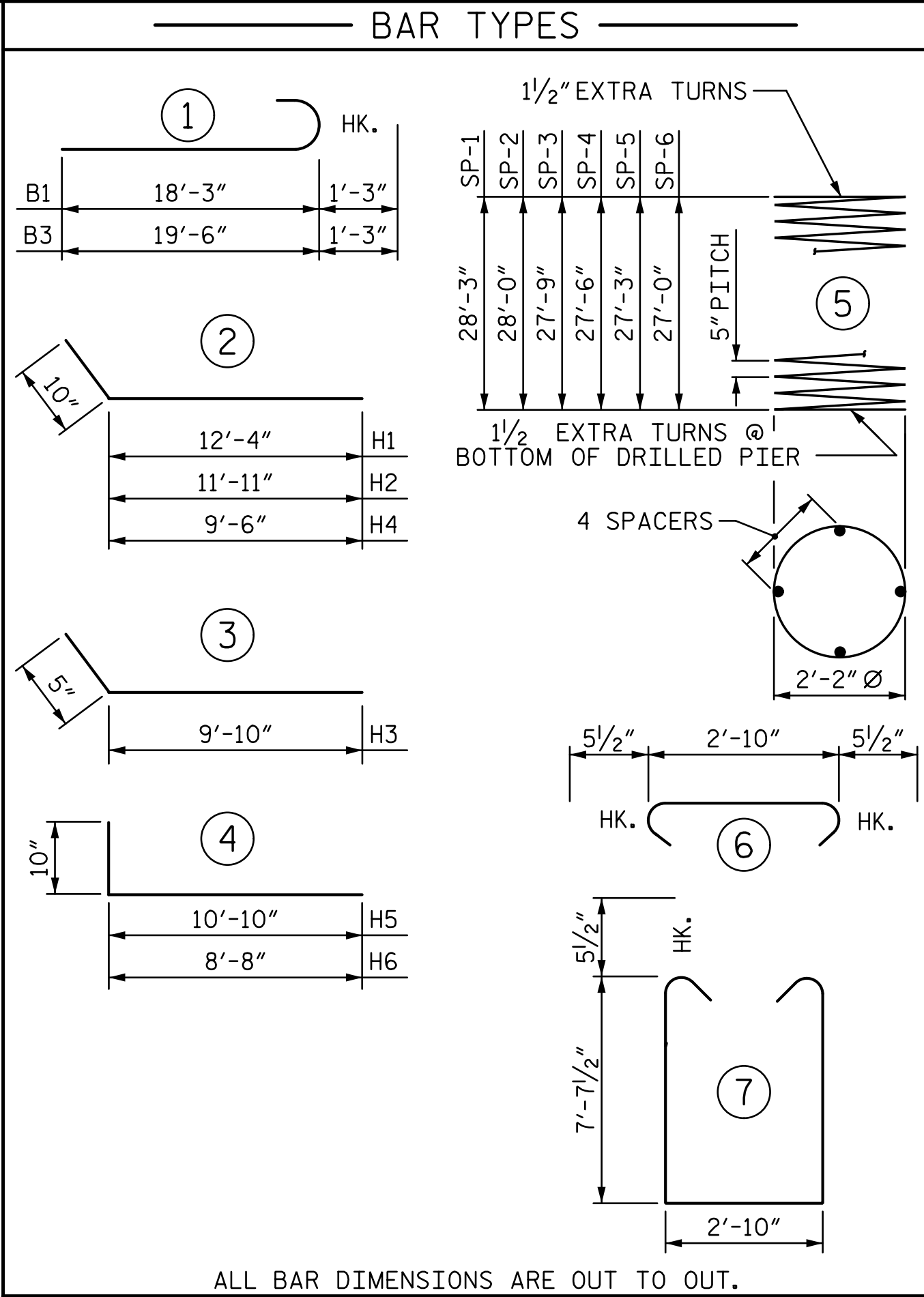
BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.

NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT

DRILLED PIER LENGTHS					
PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6
28'-9"	28'-6"	28'-3"	28'-0"	27'-9"	27'-6"



BILL OF MATERIAL						BILL OF MATERIAL					
END BENT 2 (STAGE 3)						END BENT 2 (STAGE 5)					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
† B1	8	#9	1	19'-6"	530	B3	8	#9	1	20'-9"	564
* B2	28	#5	STR	19'-9"	577	B4	28	#5	STR	20'-4"	594
D1	10	#6	STR	1'-6"	23	D1	12	#6	STR	1'-6"	27
H1	16	#5	2	13'-2"	220	H5	32	#5	4	11'-8"	389
H2	16	#5	2	12'-9"	213	H6	10	#5	4	9'-6"	99
H3	5	#5	3	10'-3"	53	H4	5	#5	2	10'-4"	54
H4	5	#5	2	10'-4"	54	K2	5	#5	STR	3'-3"	17
K1	10	#5	STR	1'-2"	12	K3	5	#5	STR	3'-0"	16
S1	16	#5	7	19'-0"	317	S1	25	#5	7	19'-0"	495
S2	16	#5	6	3'-9"	63	S2	25	#5	6	3'-9"	98
M1	36	#10	STR	36'-4"	5628	M1	36	#10	STR	36'-4"	5628
V1	24	#5	STR	9'-9"	244	V1	26	#5	STR	9'-9"	264
REINFORCING STEEL (STAGE 3) 7,934 LBS.						REINFORCING STEEL (STAGE 5) 8,191 LBS.					
SP-1	1	**	5	459'-4"	479	SP-4	1	**	5	472'-8"	493
SP-2	1	**	5	459'-4"	479	SP-5	1	**	5	472'-8"	493
SP-3	1	**	5	452'-8"	472	SP-6	1	**	5	466'-0"	486
SPIRAL REINFORCING STEEL 1,430 LBS.						SPIRAL REINFORCING STEEL 1,472 LBS.					
DRILLED PIER CONCRETE POUR #1 DRILLED PIERS 15.2 C.Y.						DRILLED PIER CONCRETE POUR #1 DRILLED PIERS 15.7 C.Y.					
CLASS A CONCRETE BREAKDOWN POUR #2 CAP & LOWER PART OF WINGS 18.3 C.Y.						CLASS A CONCRETE BREAKDOWN POUR #2 CAP & LOWER PART OF WINGS 21.8 C.Y.					
POUR #3 UPPER PART OF WINGS 0.9 C.Y.						POUR #3 UPPER PART OF WINGS 0.9 C.Y.					
TOTAL CLASS A CONCRETE 19.2 C.Y.						TOTAL CLASS A CONCRETE 22.7 C.Y.					
TOTAL REINFORCING STEEL 16,125 LBS.						TOTAL REINFORCING STEEL 16,125 LBS.					
TOTAL SPIRAL REINFORCING 2,902 LBS.						TOTAL SPIRAL REINFORCING 2,902 LBS.					
TOTAL CLASS A CONCRETE 41.9 C.Y.						TOTAL CLASS A CONCRETE 41.9 C.Y.					
TOTAL DRILLED PIER CONCRETE 30.9 C.Y.						TOTAL DRILLED PIER CONCRETE 30.9 C.Y.					

NOTE:
FOR DETAILS ON CONSTRUCTION STAGING,
SEE CONSTRUCTION STAGING SHEETS.

† BAR LENGTH IS BASED ON "B" BAR PROJECTING FROM THE CONSTRUCTION JOINT 1'-0". BAR LENGTH MAY NEED TO BE MODIFIED PER MANUFACTURER'S RECOMMENDATIONS.

* THE "SP" SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR.

* BARS ARE DETAILED WITH ADEQUATE LENGTH FOR A SPLICE. MECHANICAL REBAR SPLICES WILL BE REQUIRED IF THE TEMPORARY SHORING LOCATION DOES NOT ALLOW FOR MIN. REQUIRED SPLICE LENGTH. ALL COSTS ASSOCIATED WITH MECHANICAL BAR SPLICES SHALL BE CONSIDERED INCIDENTAL TO THE REINFORCING STEEL. NO ADDITIONAL PAYMENT WILL BE MADE.

PROJECT NO. DF18314.2045332

HENDERSON COUNTY

STATION: 13+70.81 -L-

SHEET 3 OF 3



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE					
END BENT 2 DETAILS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					S-29
TOTAL SHEETS					32

DRAWN BY : J. SCACCA DATE : 06/2025
CHECKED BY : M. ACOSTA DATE : 07/2025
DESIGN ENGINEER OF RECORD: M. ACOSTA DATE : 03/2026

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED