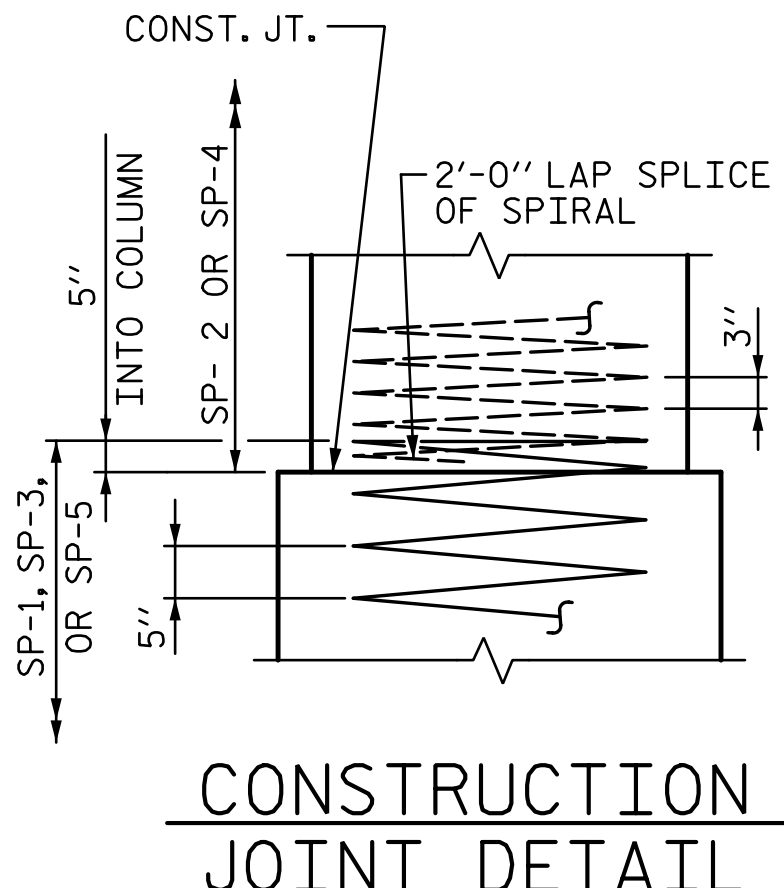
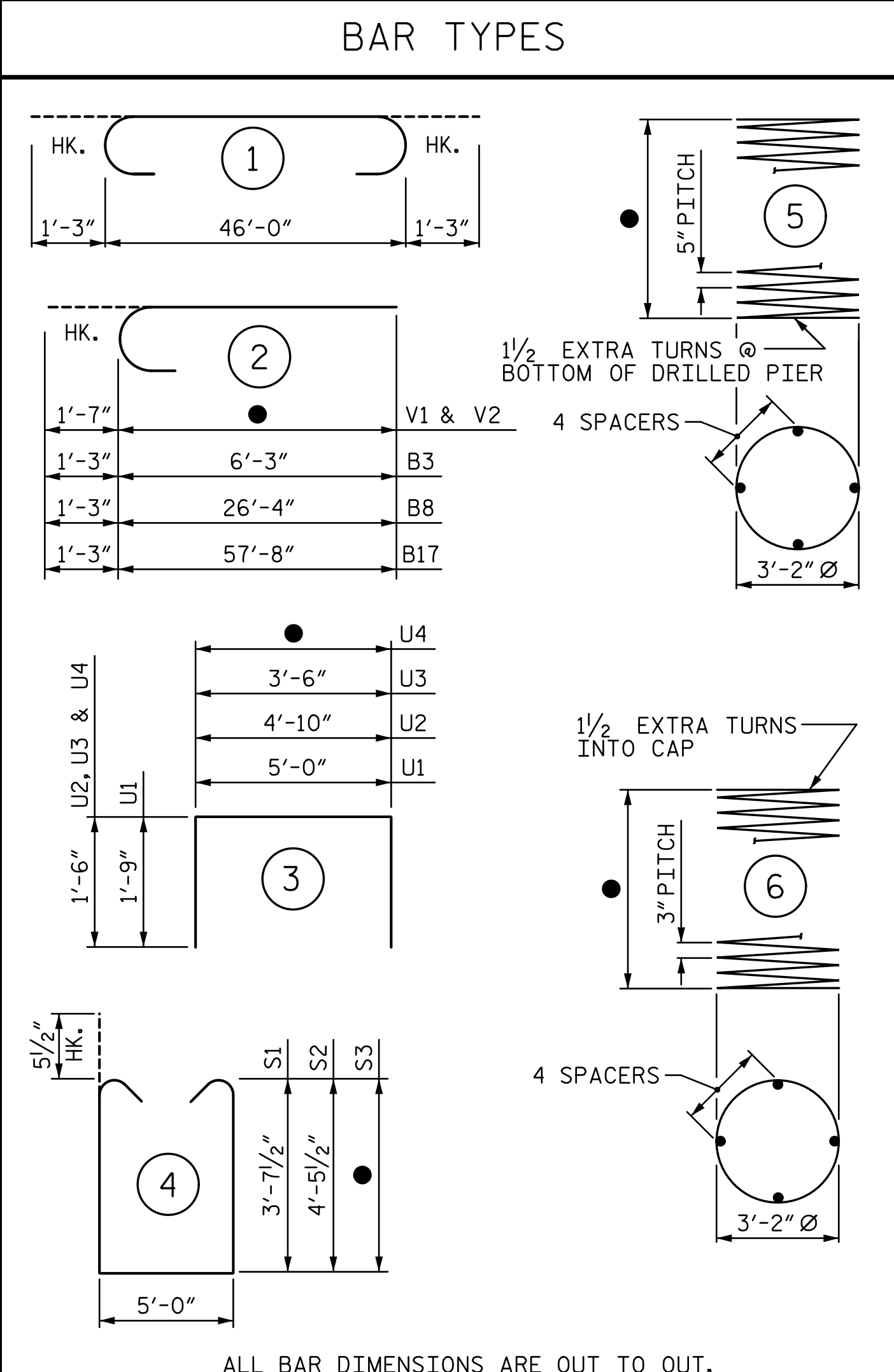


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CONSTRUCTION JOINT DETAIL



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL FOR STAGE 1

BENT 1						
BAR NO.	SIZE	TYPE	●	LENGTH	WEIGHT	
B1	8	#9	1	48'-6"	1,319	
B2	16	#4	STR	14'-7"	156	
B3	8	#9	2	7'-6"	204	
B4	8	#5	STR	47'-4"	395	
B5	8	#9	STR	47'-3"	1,285	
B18	1	#4	STR	5'-0"	3	
M1	36	#11	STR	28'-7"	5,467	
S1	98	#5	4	13'-2"	1,346	
S2	16	#5	4	14'-10"	248	
U1	52	#4	3	8'-6"	295	
U2	4	#4	3	7'-10"	21	
U3	5	#4	3	6'-6"	22	
V1	36	#11	2	14'-9"	3,124	
SP-1	3	*	5	20'-8"	500'-6"	1,566
SP-2	3	**	6	12'-11"	522'-2"	1,046

BILL OF MATERIAL FOR STAGE 2

BENT 1						
BAR NO.	SIZE	TYPE	●	LENGTH	WEIGHT	
B6	8	#9	STR	41'-3"	1,122	
B7	16	#4	STR	17'-5"	186	
B8	8	#9	2	27'-7"	750	
B9	2	#5	STR	58'-11"	123	
B10	8	#9	STR	58'-1"	1,580	
B11	8	#5	STR	58'-1"	485	
B12	8	#4	STR	21'-11"	117	
B13	2	#5	STR	20'-11"	44	
B18	2	#4	STR	5'-0"	7	
M1	12	#11	STR	28'-7"	1,822	
M2	24	#11	STR	36'-7"	4,665	
S3	62	#5	4	4'-9 1/2"	1,002	
U1	61	#4	3	8'-6"	346	
SP-1	1	*	5	20'-8"	500'-6"	522
SP-2	1	**	6	12'-11"	522'-2"	349
SP-3	2	*	5	28'-8"	688'-6"	1,436
SP-4	2	**	6	11'-5"	463'-3"	619

BILL OF MATERIAL FOR STAGE 3

BENT 1						
BAR NO.	SIZE	TYPE	●	LENGTH	WEIGHT	
B14	8	#4	STR	16'-9"	90	
B15	12	#5	STR	57'-9"	723	
B16	8	#9	STR	57'-9"	1,571	
B17	8	#9	2	58'-11"	1,603	
B19	8	#4	STR	9'-11"	53	
M2	12	#11	STR	36'-7"	2,332	
M3	24	#11	STR	28'-1"	3,581	
S3	148	#5	4	4'-9 1/2"	15'-6"	2,393
U1	51	#4	3	8'-6"	290	
U2	5	#4	3	7'-10"	26	
U4	5	#4	3	4'-8"	7'-8"	26
V2	36	#11	2	13'-3"	14'-10"	2,837
SP-3	1	*	5	28'-8"	688'-6"	718
SP-4	3	**	6	11'-5"	463'-3"	928
SP-5	2	*	5	20'-2"	488'-9"	1,020

BENT 2

BAR NO.	SIZE	TYPE	●	LENGTH	WEIGHT	
B1	8	#9	1	48'-6"	1,319	
B2	16	#4	STR	14'-7"	156	
B3	8	#9	2	7'-6"	204	
B4	8	#5	STR	47'-4"	395	
B5	8	#9	STR	47'-3"	1,285	
B18	1	#4	STR	5'-0"	3	
S1	98	#5	4	13'-2"	1,346	
S2	16	#5	4	14'-10"	248	
U1	52	#4	3	8'-6"	295	
U2	4	#4	3	7'-10"	21	
U3	5	#4	3	6'-6"	22	
V1	36	#11	2	34'-5"	36'-0"	6,886
SP-1	3	*	5	24'-8"	594'-6"	1,860
SP-2	3	**	6	5'-1"	214'-6"	430

BENT 2

BAR NO.	SIZE	TYPE	●	LENGTH	WEIGHT	
B6	8	#9	STR	41'-3"	1,122	
B7	16	#4	STR	17'-5"	186	
B8	8	#9	2	27'-7"	750	
B9	2	#5	STR	58'-11"	123	
B10	8	#9	STR	58'-1"	1,580	
B11	8	#5	STR	58'-1"	485	
B12	8	#4	STR	21'-11"	117	
B13	2	#5	STR	20'-11"	44	
B18	2	#4	STR	5'-0"	7	
M2	24	#11	STR	36'-1"	4,601	
S2	84	#5	4	14'-10"	1,300	
S3	62	#5	4	5'-2"	16'-3"	1,051
U1	61	#4	3	8'-6"	346	
V1	12	#11	2	34'-5"	36'-0"	2,295
V2	24	#11	2	11'-11"	13'-6"	1,721
SP-1	1	*	5	24'-8"	594'-6"	620
SP-2	1	**	6	5'-1"	214'-6"	143
SP-3	2	*	5	28'-2"	676'-9"	1,412
SP-4	2	**	6	10'-1"	410'-10"	549

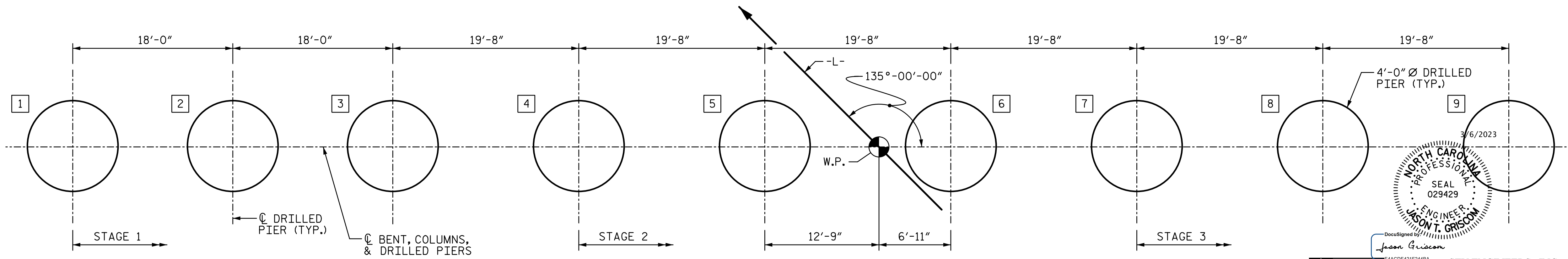
BENT 2

BAR NO.	SIZE	TYPE	●	LENGTH	WEIGHT	
B14	8	#4	STR	16'-9"	90	
B15	12	#5	STR	57'-9"	723	
B16	8	#9	STR	57'-9"	1,571	
B17	8	#9	2	58'-11"	1,603	
B19	8	#4	STR	9'-11"	53	
M2	12	#11	STR	36'-1"	2,301	
M3	24	#11	STR	45'-1"	5,749	
S3	148	#5	4	5'-2"	16'-3"	2,508
U1	51	#4	3	8'-6"	290	
U2	5	#4	3	7'-10"	26	
U4	5	#4	3	5'-0"	8'-0"	27
V2	36	#11	2	11'-11"	13'-6"	2,582
SP-3	1	*	5	28'-2"	676'-9"	706
SP-4	3	**	6	10'-1"	410'-10"	823
SP-5	2	*	5	37'-2"	888'-4"	1,853

QUANTITIES

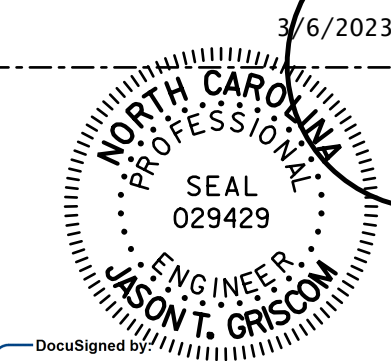
	UNITS	BENT 1				BENT 2			
		STAGE 1	STAGE 2	STAGE 3	TOTAL	STAGE 1	STAGE 2	STAGE 3	TOTAL
REINFORCING STEEL	LBS.	13,885	16,481	15,525	45,891	12,180	15,728	17,523	45,431
SPIRAL REINFORCING STEEL	LBS.	2,612	2,926	2,666	8,204	2,290	2,724	3,382	8,396
CLASS A CONCRETE: CAP POUR	CU. YDS.	40.4	62.4	63.4		40.4	62.8	66.4	
COLUMN POUR	CU. YDS.	13.5	12.4	11.9		5.1	8.7	10.5	
TOTAL	CU. YDS.	53.9	74.8	75.3	204.0	45.5	71.5	76.9	193.9
DRILLED PIER CONCRETE	CU. YDS.	29.3	36.8	32.6		34.9	38.2	48.2	

* THE SP-1, SP-3 AND SP-5 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR WITH A 5" PITCH.
 ** THE SP-2 AND SP-4 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR WITH A 3" PITCH.



PLAN OF DRILLED PIERS

■ = DRILLED PIER NUMBER



STV ENGINEERS, INC.
 900 West Trade St., Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

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PROJECT NO. **B-5808**
 CABARRUS COUNTY
 STATION: **20+64.00 -L-**

SHEET 4 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

BENTS 1 & 2

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

TOTAL SHEETS: 65

ASSEMBLED BY: SGH DATE: 12-22
 CHECKED BY: MLO DATE: 12-22
 DESIGN ENGINEER OF RECORD: J. GRISCOM DATE: 3-23