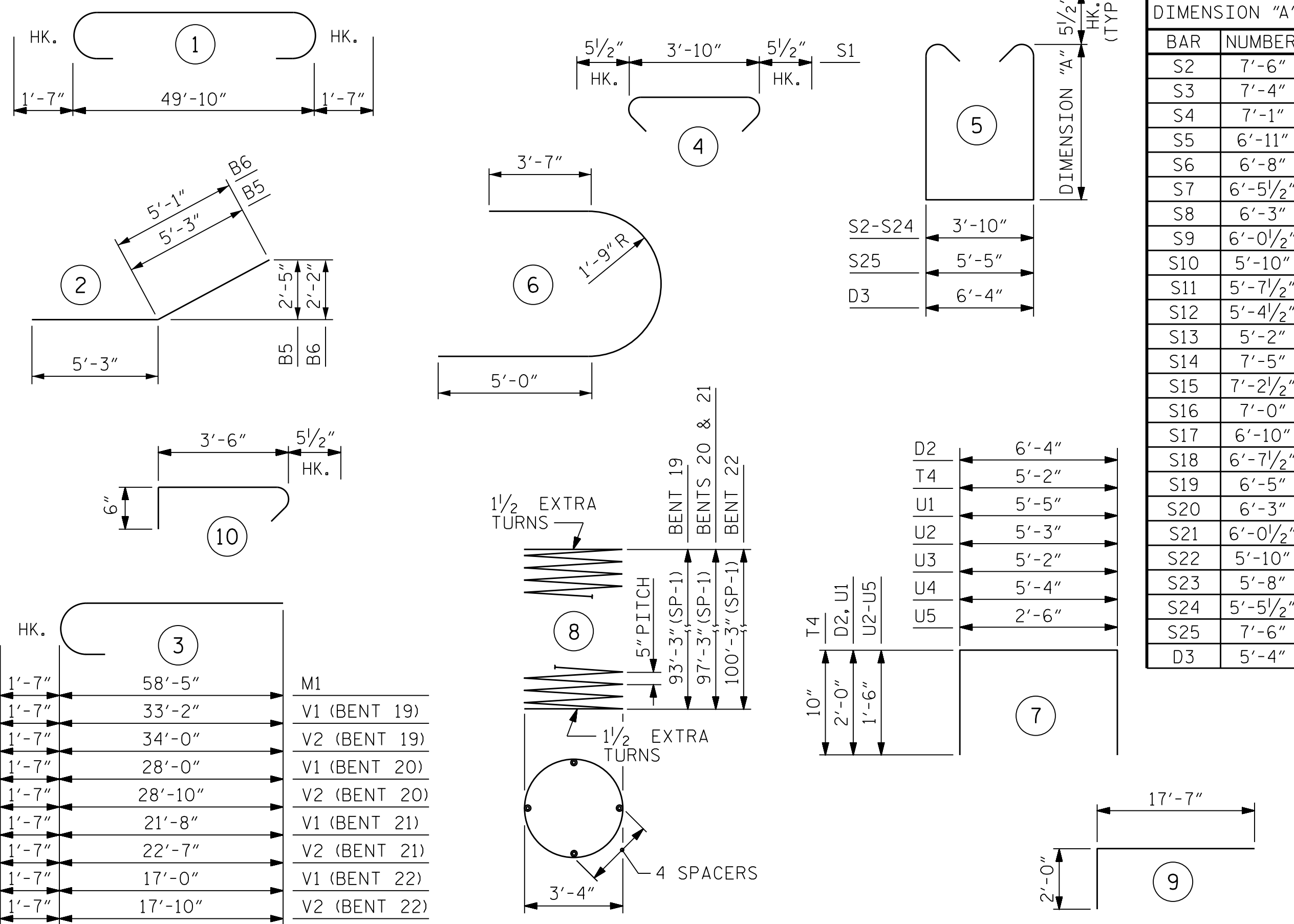


BAR TYPES



DIMENSION "A"

BAR NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S2	7'-6"			
S3	7'-4"			
S4	7'-1"			
S5	6'-11"			
S6	6'-8"			
S7	6'-5 1/2"			
S8	6'-3"			
S9	6'-0 1/2"			
S10	5'-10"			
S11	5'-7 1/2"			
S12	5'-4 1/2"			
S13	5'-2"			
S14	7'-0"			
S15	7'-2 1/2"			
S16	7'-0"			
S17	6'-10"			
S18	6'-7 1/2"			
S19	6'-5"			
S20	6'-3"			
S21	6'-0 1/2"			
S22	5'-10"			
S23	5'-8"			
S24	5'-5 1/2"			
S25	7'-6"			
D3	5'-4"			

BENT 19

BAR NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#11	53'-0"	2816
B2	10	#11	49'-10"	2648
B3	10	#10	40'-4"	1736
B4	6	#10	42'-4"	1093
B5	10	#10	10'-6"	452
B6	10	#10	10'-4"	445
B7	14	#7	49'-10"	1426
B8	2	#7	47'-8"	195
B9	2	#7	45'-0"	184
B10	40	#4	6'-3"	167
B11	10	#4	5'-2"	35
B12	24	#4	5'-5"	87
D1	42	#10	39'-4"	7109
D2	76	#5	10'-4"	819
D3	14	#5	17'-11"	262
M1	160	#11	60'-0"	51005
M2	160	#11	52'-2"	44346
S1	118	#5	4'-9"	585
S2	74	#5	19'-9"	1524
S3	2	#5	19'-5"	41
S4	2	#5	18'-11"	39
S5	2	#5	18'-7"	39
S6	2	#5	18'-1"	38
S7	2	#5	17'-8"	37
S8	2	#5	17'-3"	36
S9	2	#5	16'-10"	35
S10	2	#5	16'-5"	34
S11	2	#5	16'-0"	33
S12	2	#5	15'-6"	32
S13	2	#5	15'-1"	31
S14	2	#5	19'-7"	41
S15	2	#5	19'-2"	40
S16	2	#5	18'-9"	39
S17	2	#5	18'-5"	38
S18	2	#5	18'-0"	38
S19	2	#5	17'-7"	37
S20	2	#5	17'-3"	36
S21	2	#5	16'-10"	35
S22	2	#5	16'-5"	34
S23	2	#5	16'-1"	34
S24	2	#5	15'-8"	33

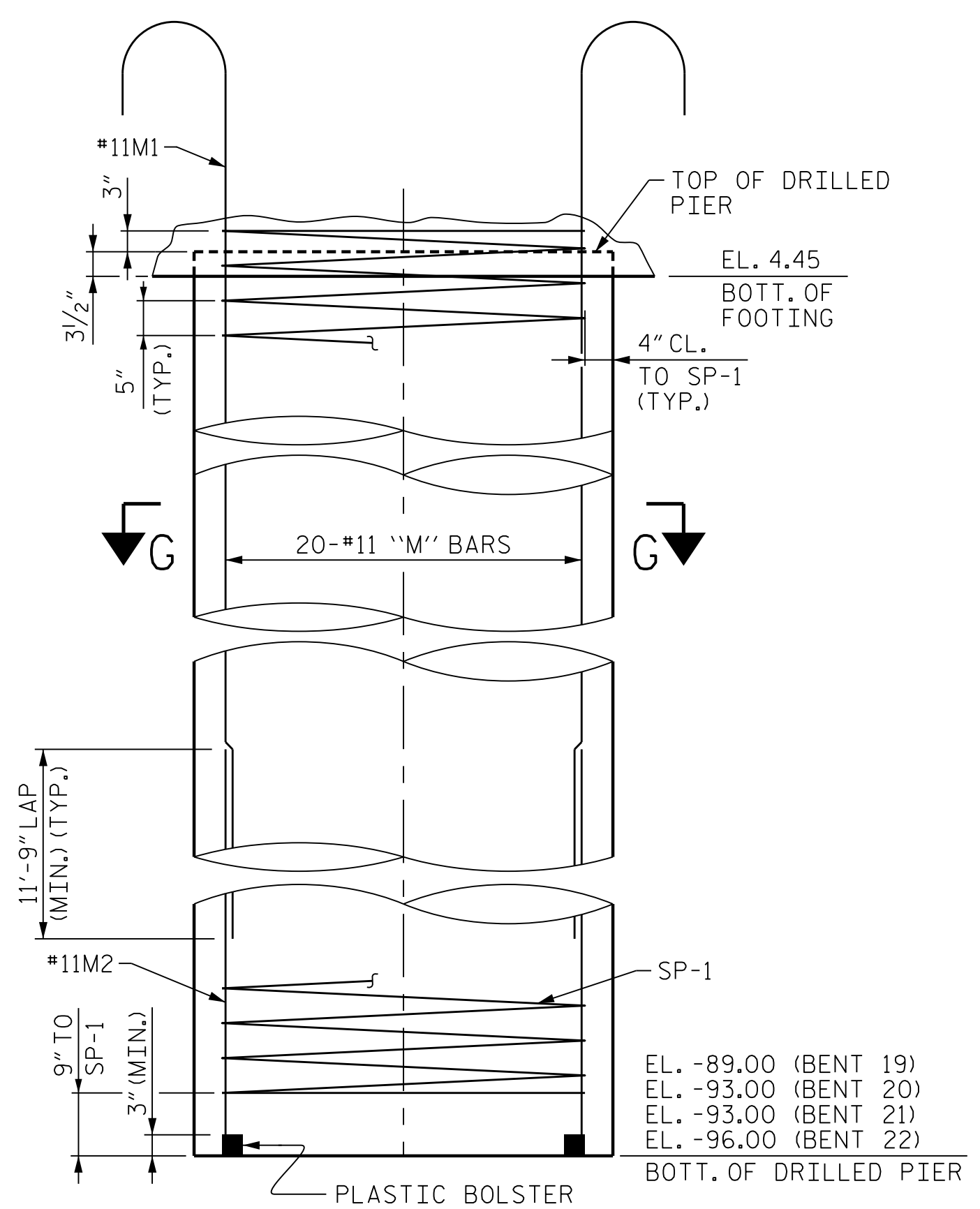
BENT 20

BAR NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#11	53'-0"	2816
B2	10	#11	49'-10"	2648
B3	10	#10	40'-4"	1736
B4	6	#10	42'-4"	1093
B5	10	#10	10'-6"	452
B6	10	#10	10'-4"	445
B7	14	#7	49'-10"	1426
B8	2	#7	47'-8"	195
B9	2	#7	45'-0"	184
B10	40	#4	6'-3"	167
B11	10	#4	5'-2"	35
B12	24	#4	5'-5"	87
D1	42	#10	39'-4"	7109
D2	76	#5	10'-4"	819
D3	14	#5	17'-11"	262
M1	160	#11	60'-0"	51005
M2	160	#11	56'-2"	47746
S1	118	#5	4'-9"	585
S2	74	#5	19'-9"	1524
S3	2	#5	19'-5"	41
S4	2	#5	18'-11"	39
S5	2	#5	18'-7"	39
S6	2	#5	18'-1"	38
S7	2	#5	17'-8"	37
S8	2	#5	17'-3"	36
S9	2	#5	16'-10"	35
S10	2	#5	16'-5"	34
S11	2	#5	16'-0"	33
S12	2	#5	15'-6"	32
S13	2	#5	15'-1"	31
S14	2	#5	19'-7"	41
S15	2	#5	19'-2"	40
S16	2	#5	18'-9"	39
S17	2	#5	18'-5"	38
S18	2	#5	18'-0"	38
S19	2	#5	17'-7"	37
S20	2	#5	17'-3"	36
S21	2	#5	16'-10"	35
S22	2	#5	16'-5"	34
S23	2	#5	16'-1"	34
S24	2	#5	15'-8"	33

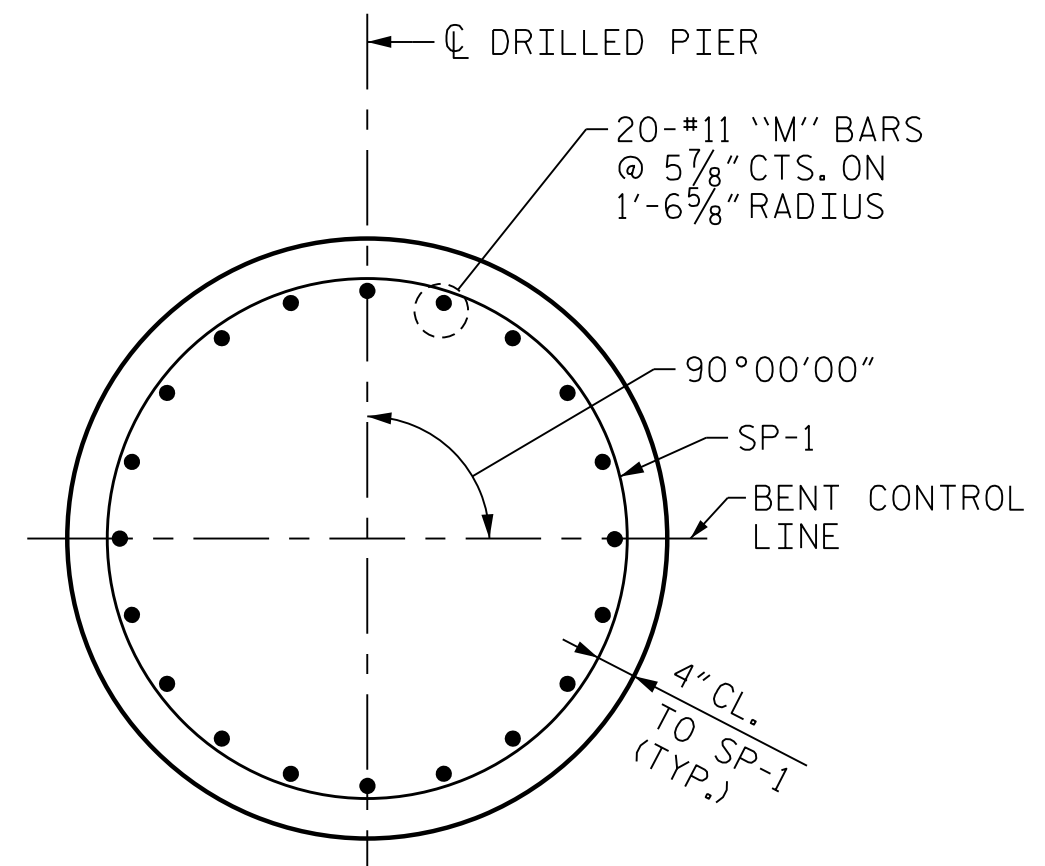
BAR NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
U1	50	#4	9'-5"	315	
U2	10	#4	8'-3"	55	
U3	6	#4	8'-2"	33	
U4	6	#4	8'-4"	33	
V1	36	#11	34'-9"	6647	
V2	36	#11	35'-7"	6806	
V3	72	#11	19'-7"	7491	
SP-1	8	*	8	2339'-9"	19523
EPOXY COATED REINFORCING STEEL LBS. 167,991					
EPOXY COATED SPIRAL DRILLED PIER REINFORCING STEEL LBS. 19,523					
CLASS "AA" CONCRETE BREAKDOWN					
POUR #2 - FOOTING C.Y. 179.8					
POUR #3 - STRUT C.Y. 62.7					
POUR #4 - COLUMNS C.Y. 61.7					
POUR #5 - CAP C.Y. 88.1					
CLASS "AA" CONCRETE C.Y. 392.3					
4'-0" Ø DRILLED PIERS QUANTITIES:					
DRILLED PIER LIN. FT. 749.9					
POUR 1 - DRILLED PIER C.Y. 349.0					
PERMANENT STEEL CASING FOR 4'-0" Ø DRILLED PIERS LIN. FT. 269.9					
CSL TUBES LIN. FT. 3047.7					

BAR NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
U1	50	#4	9'-5"	315	
U2	10	#4	8'-3"	55	
U3	6	#4	8'-2"	33	
U4	6	#4	8'-4"	33	
V1	36	#11	34'-9"	6647	
V2	36	#11	30'-5"	5818	
V3	72	#11	19'-7"	7491	
SP-1	8	*	8	2438'-9"	20349
EPOXY COATED REINFORCING STEEL LBS. 168,353					
EPOXY COATED SPIRAL DRILLED PIER REINFORCING STEEL LBS. 20,349					
CLASS "AA" CONCRETE BREAKDOWN					
POUR #2 - FOOTING C.Y. 179.8					
POUR #3 - STRUT C.Y. 62.7					
POUR #4 - COLUMNS C.Y. 49.1					
POUR #5 - CAP C.Y. 87.5					
CLASS "AA" CONCRETE C.Y. 379.1					
4'-0" Ø DRILLED PIERS QUANTITIES:					
DRILLED PIER LIN. FT. 781.9					
POUR 1 - DRILLED PIER C.Y. 363.9					
PERMANENT STEEL CASING FOR 4'-0" Ø DRILLED PIERS LIN. FT. 269.9					
CSL TUBES LIN. FT. 3175.7					

ALL BAR DIMENSIONS ARE OUT TO OUT.



DRILLED PIER ELEVATION

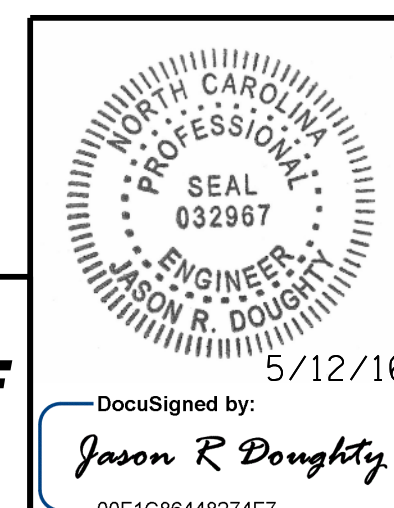


SECTION G-G

* THE SP-1 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-20 OR D-31 COLD DRAWN WIRE OR #5 PLAIN DEFORMED BAR.

NOTES:
FOR NOTES, SEE SHEET 1 OF 5.

PROJECT NO. B-4929
PENDER COUNTY
STATION: 38+13.81 -L2-
SHEET 4 OF 5 STEEL ALTERNATE



PARSONS BRINCKERHOFF
434 FAYETTEVILLE STREET
SUITE 1500
RALEIGH, NC 27601
LICENSE NO. F-0165

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENTS 19 THROUGH 22
BILL OF MATERIALS

REVISIONS		SHEET NO.	
NO.	BY:	DATE:	TOTAL SHEETS
1			278
2			
3			
4			

5/12/2016
401_131_B4929_SMU_IB19_4s.dgn

DESIGNED BY: J. BORUTA DATE: MAR 2016
DRAWN BY: K. WHITE DATE: MAR 2016
CHECKED BY: J. DOUGHTY DATE: APR 2016
DESIGN ENGINEER OF RECORD: J. DOUGHTY DATE: MAY 2016

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED