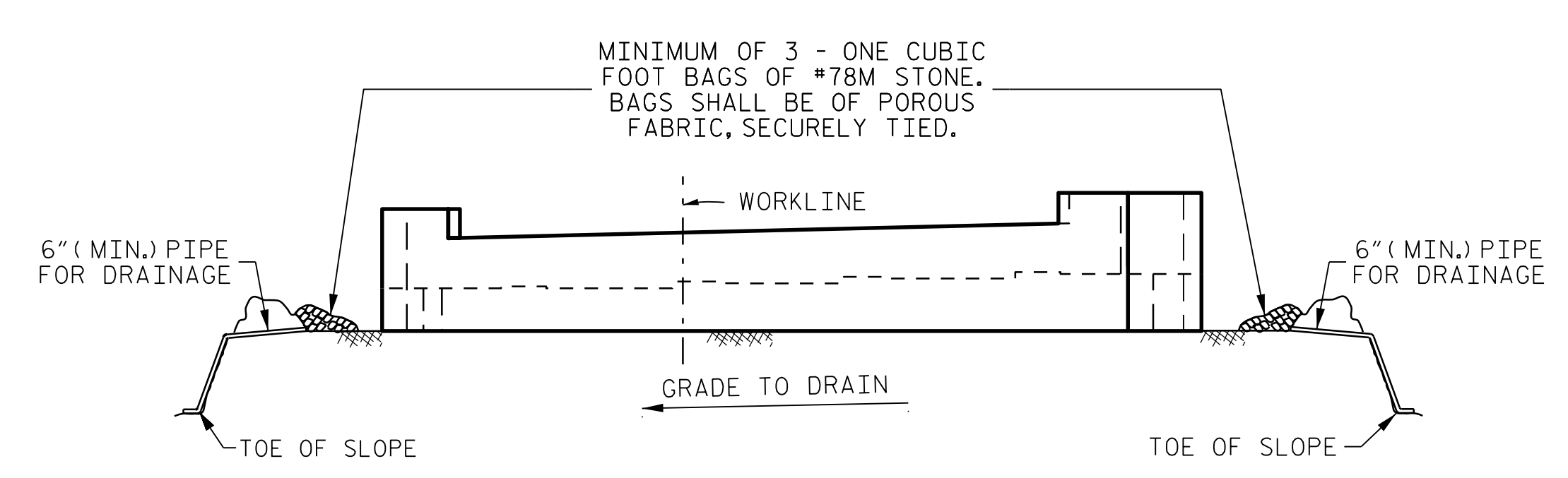
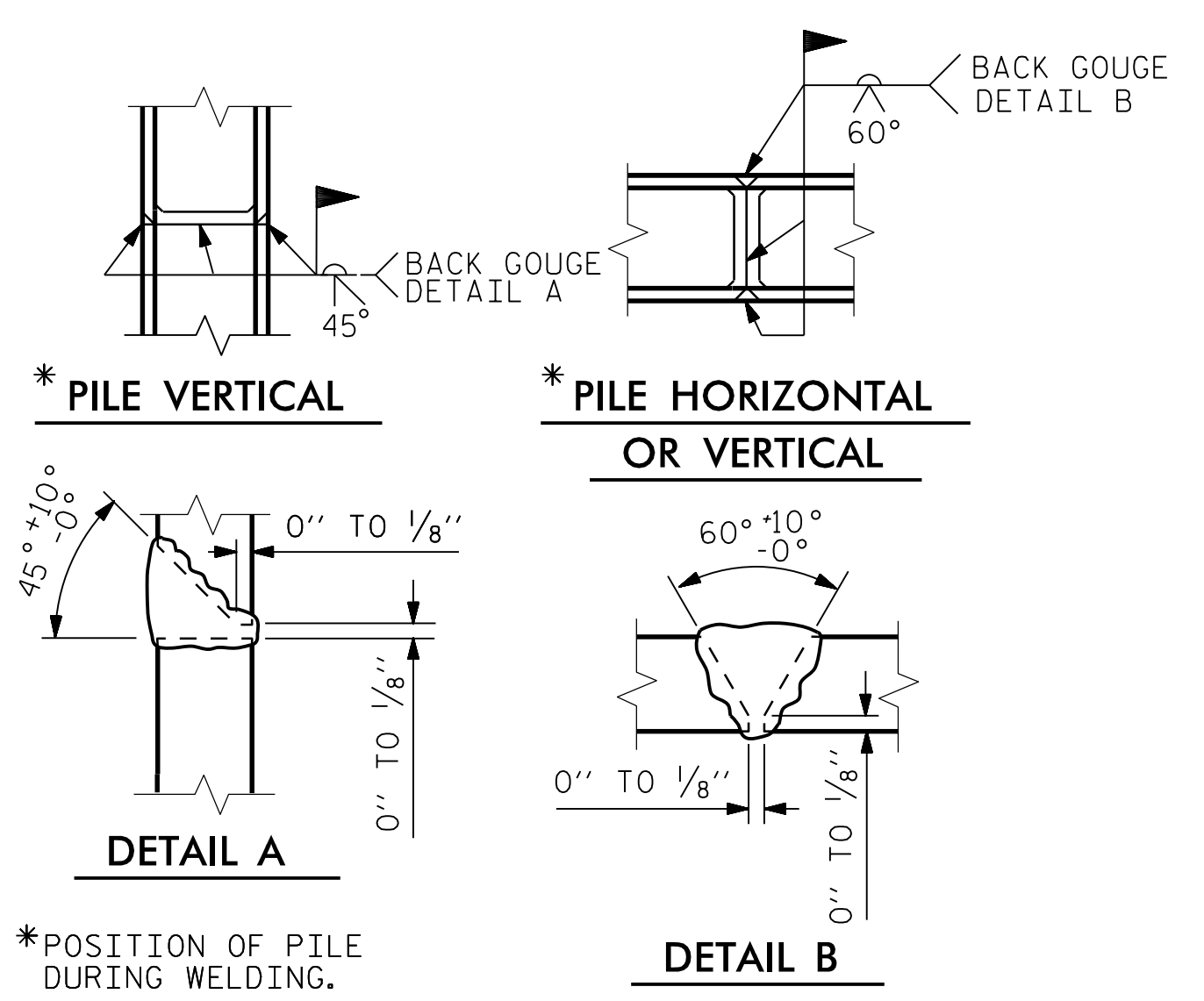
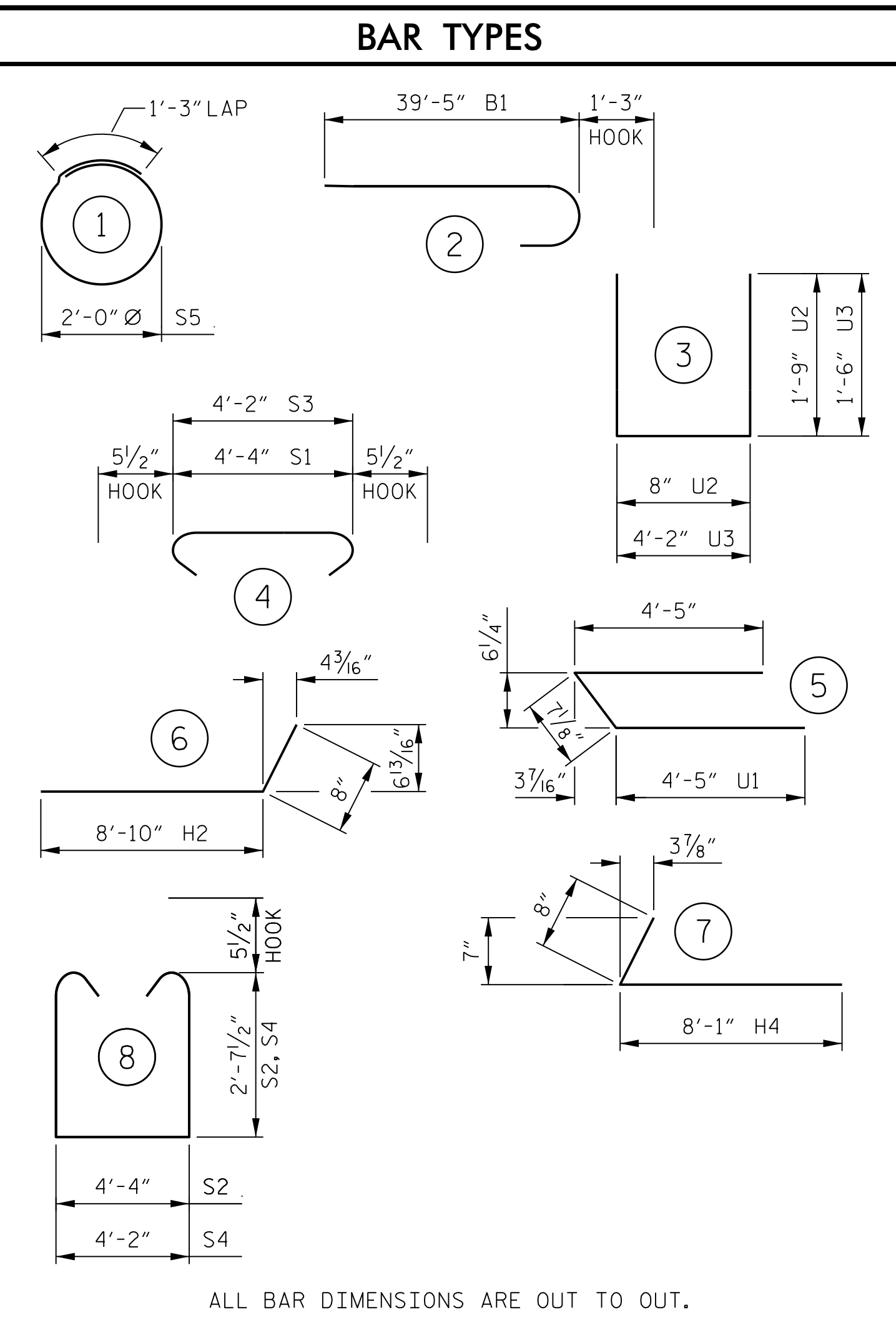


COMPONENT	"P" (K / FT.)	"Y" (FT.)
WIND ON STRUCTURE (WS)	0.10	3.514
WIND ON LIVE LOAD (WL)	0.05	3.514
BRAKING FORCE (BR)	0.57	3.514
THERMAL FORCE (TU)	0.21	3.514
EARTH FORCE (EH)	1.28	2.684
LIVE LOAD SURCHARGE (LS)	1.27	4.025

NOTE:  
"P" IS UNFACTORED SERVICE LOAD NORMAL TO FILL FACE.

BILL OF MATERIAL					
END BENT 1					
BAR No.	SIZE	TYPE	LENGTH	WEIGHT	
B1	24	#9	2	40'-8"	3,318
B2	8	#5	STR	33'-8"	281
B3	16	#4	STR	4'-2"	45
B4	8	#4	STR	33'-2"	177
B5	6	#4	STR	6'-0"	24
B6	24	#4	STR	9'-6"	152
B7	6	#4	STR	13'-6"	54
H1	8	#5	STR	8'-7"	72
H2	14	#5	6	9'-6"	139
H3	6	#5	STR	7'-9"	48
H4	14	#5	7	8'-9"	128
K1	20	#4	STR	31'-8"	423
S1	6	#5	4	5'-3"	33
S2	6	#5	8	10'-6"	66
S3	66	#5	4	5'-1"	350
S4	66	#5	8	10'-4"	711
S5	24	#4	1	7'-7"	122
U1	4	#4	5	9'-6"	25
U2	51	#4	3	4'-2"	142
U3	43	#4	3	7'-2"	206
V1	28	#5	STR	9'-6"	277
V2	102	#5	STR	7'-9"	824
V3	28	#5	STR	8'-11"	260
REINFORCING STEEL			7,755 LBS.		
CLASS "A" CONCRETE					
POUR 1 COLLARS, CAP AND LOWER WINGS			57.0 CU. YDS.		
POUR 2 BACKWALL AND UPPER WINGS			14.5 CU. YDS.		
TOTAL			71.5 CU. YDS.		
HP 14 x 89 STEEL PILES			12 REQUIRED 630.0 LIN. FT.		
PILE DRIVING EQUIPMENT SETUP FOR HP 14 x 89 STEEL PILES			12 EACH		



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 FOR THE SEVERAL PAY ITEMS.

REVISD PILE SIZE.

DRAWN BY :	M. CLAREY / T. DETMERS	DATE :	7-17
CHECKED BY :	D. PRETORIUS	DATE :	7-17
DESIGN ENGINEER :	D. PRETORIUS	DATE :	7-17

PLANS PREPARED BY :  
**PARSONS**  
5540 CenterView Drive, Suite 217  
Raleigh, NC 27606-3386  
NC LICENSE No. F-0246  
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. I-4729A  
POLK COUNTY  
STATION: 21+44.22 -RP F-

SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE END BENT 1					
REVISIONS					
No.	BY:	DATE:	No.	BY:	DATE:
1	LOFTON	8-25-17	3		
2			4		
SHEET No. S2-22.1					TOTAL SHEETS 31