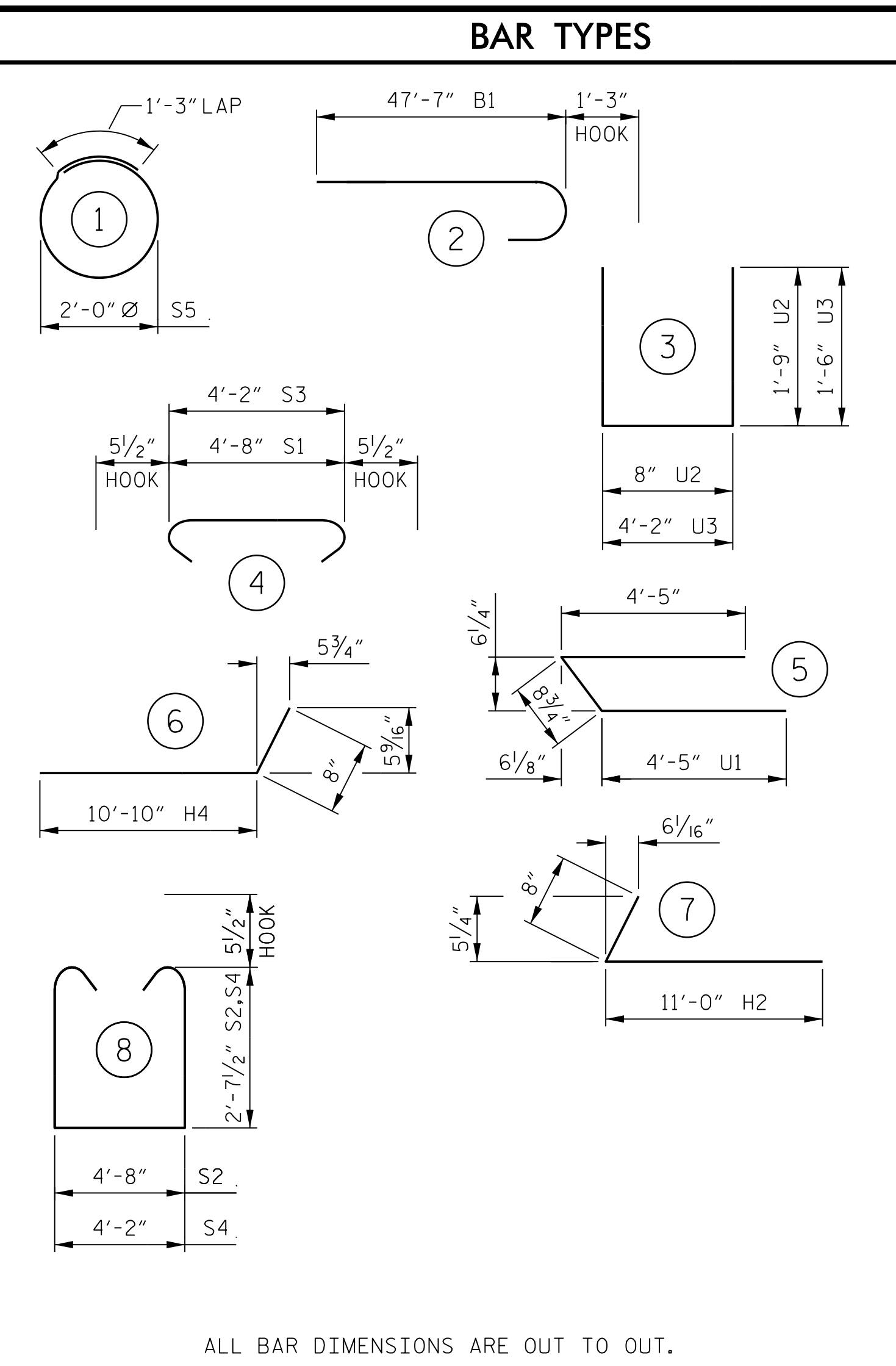


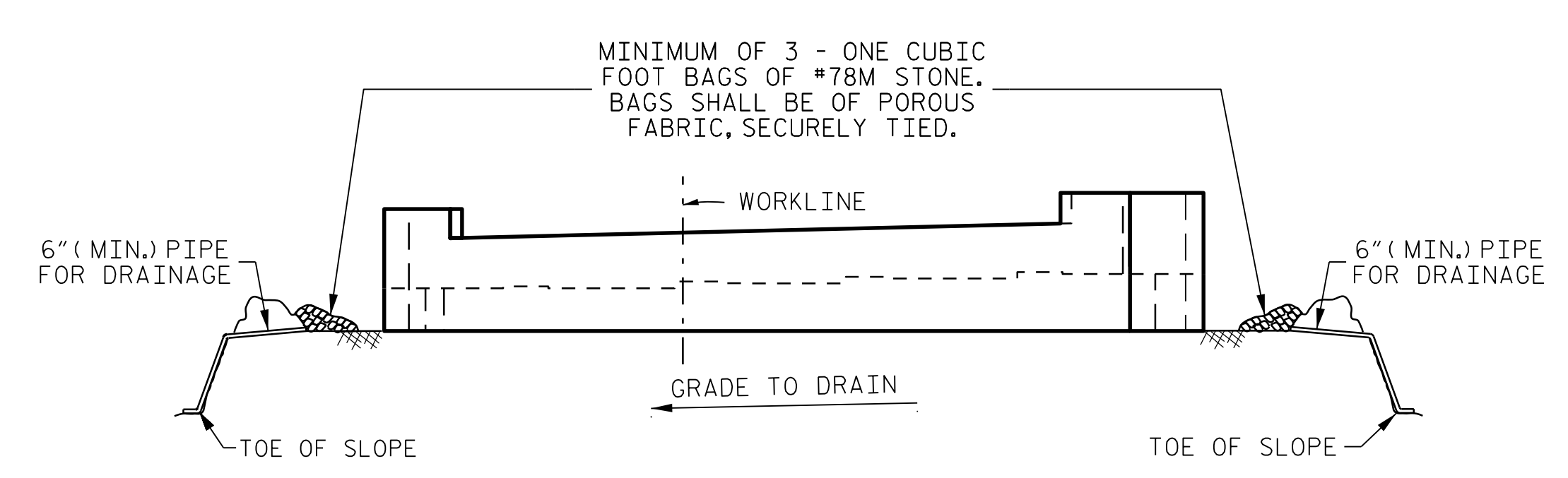
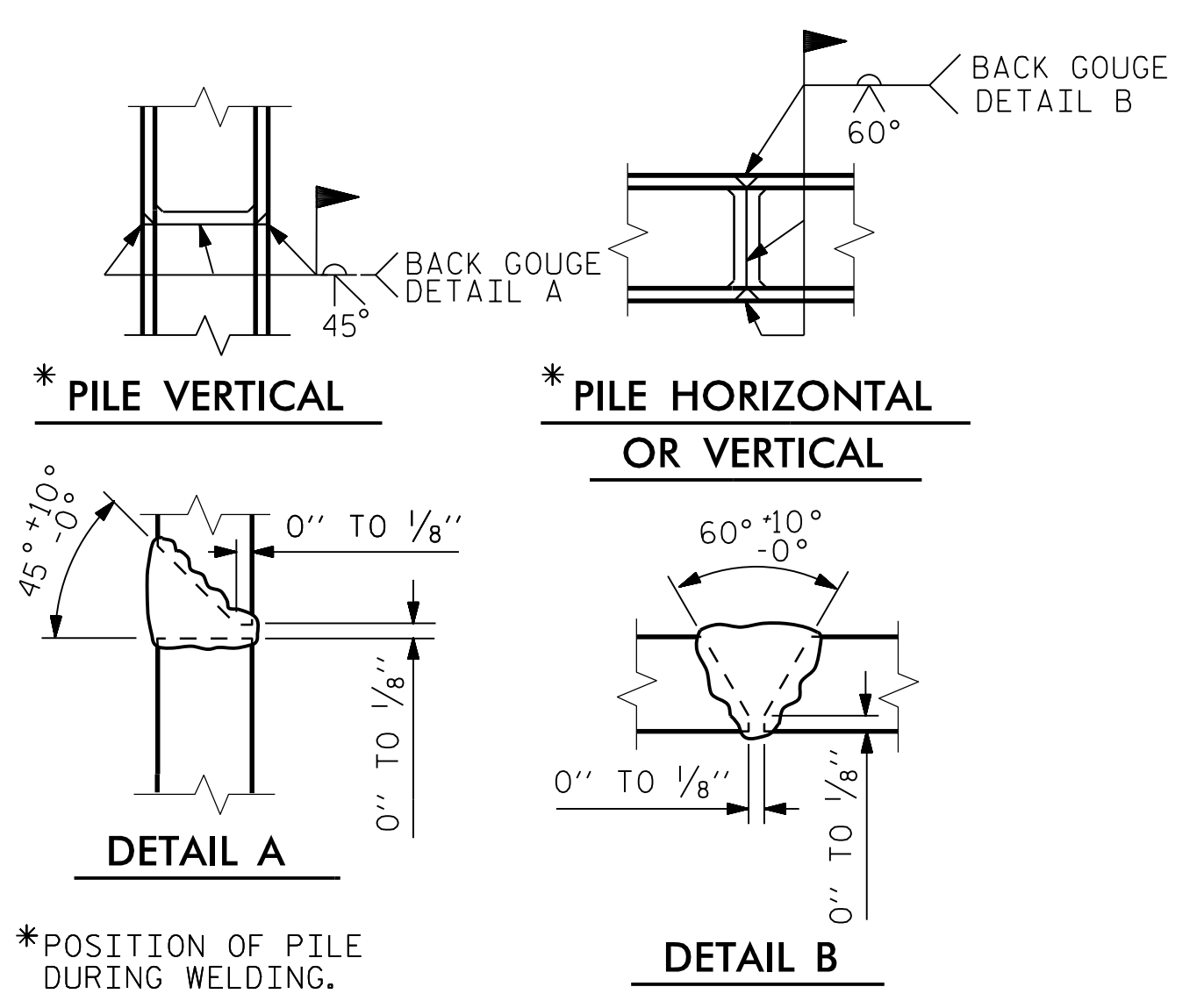
COMPONENT	"P" (K / FT.)	"Y" (FT.)
WIND ON STRUCTURE (WS)	0.11	3.514
WIND ON LIVE LOAD (WL)	0.05	3.514
BRAKING FORCE (BR)	0.33	3.514
THERMAL FORCE (TU)	0.16	3.514
EARTH FORCE (EH)	1.28	2.684
LIVE LOAD SURCHARGE (LS)	1.27	4.025

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

BILL OF MATERIAL					
END BENT 2					
BAR No.	SIZE	TYPE	LENGTH	WEIGHT	
B1	24	#9	2	44'- 6"	3,631
B2	8	#5	STR	40'- 2"	349
B3	18	#4	STR	4'- 2"	50
B4	8	#4	STR	40'- 0"	214
B5	6	#4	STR	7'- 3"	29
B6	24	#4	STR	11'- 6"	184
B7	6	#4	STR	23'- 5"	94
H1	8	#5	STR	11'- 0"	92
H2	12	#5	7	11'- 8"	146
H3	8	#5	STR	10'- 8"	89
H4	14	#5	6	11'- 6"	168
K1	20	#4	STR	40'- 0"	534
S1	5	#5	4	5'- 7"	29
S2	5	#5	8	10'- 10"	56
S3	82	#5	4	5'- 1"	435
S4	82	#5	8	10'- 4"	884
S5	24	#4	1	7'- 7"	122
U1	4	#4	5	9'- 7"	26
U2	66	#4	3	4'- 2"	184
U3	53	#4	3	7'- 2"	254
V1	36	#5	STR	9'- 9"	366
V2	132	#5	STR	7'- 10"	1,078
V3	34	#5	STR	8'- 11"	316
REINFORCING STEEL			9,330 LBS.		
CLASS "A" CONCRETE					
POUR 1 COLLARS, CAP AND LOWER WINGS			68.3 CU. YDS.		
POUR 2 BACKWALL AND UPPER WINGS			19.3 CU. YDS.		
TOTAL			87.6 CU. YDS.		
HP 14 x 89 STEEL PILES			12 REQUIRED 660.0 LIN. FT.		
PILE DRIVING EQUIPMENT SETUP FOR HP 14 x 89 STEEL PILES			12 EACH		



ALL BAR DIMENSIONS ARE OUT TO OUT.



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.

TEMPORARY DRAINAGE AT END BENT

REVISIONED 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

NORTH CAROLINA PROFESSIONAL SEAL  
029979  
ENGINEER  
8/25/2017

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 2

REVISIONS					
No.	BY:	DATE:	No.	BY:	DATE:
1	LOFTON	8-25-17	3		
2			4		

SHEET No. S2-27.1  
TOTAL SHEETS 31  
STR. #2