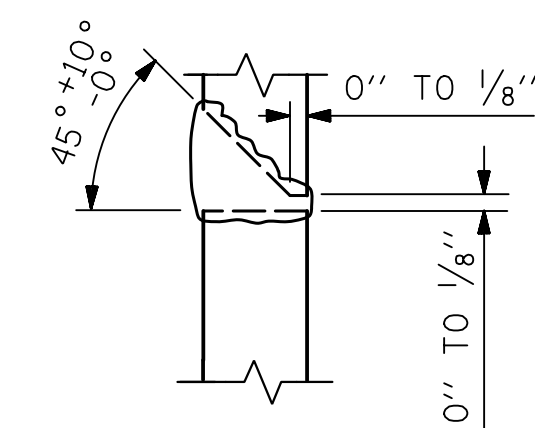
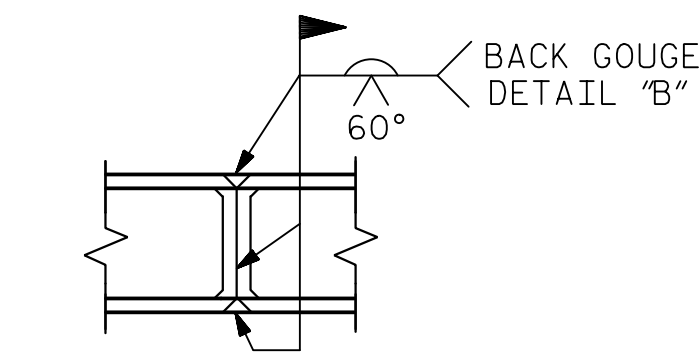


* PILE VERTICAL

* PILE HORIZONTAL OR VERTICAL



DETAIL "A"

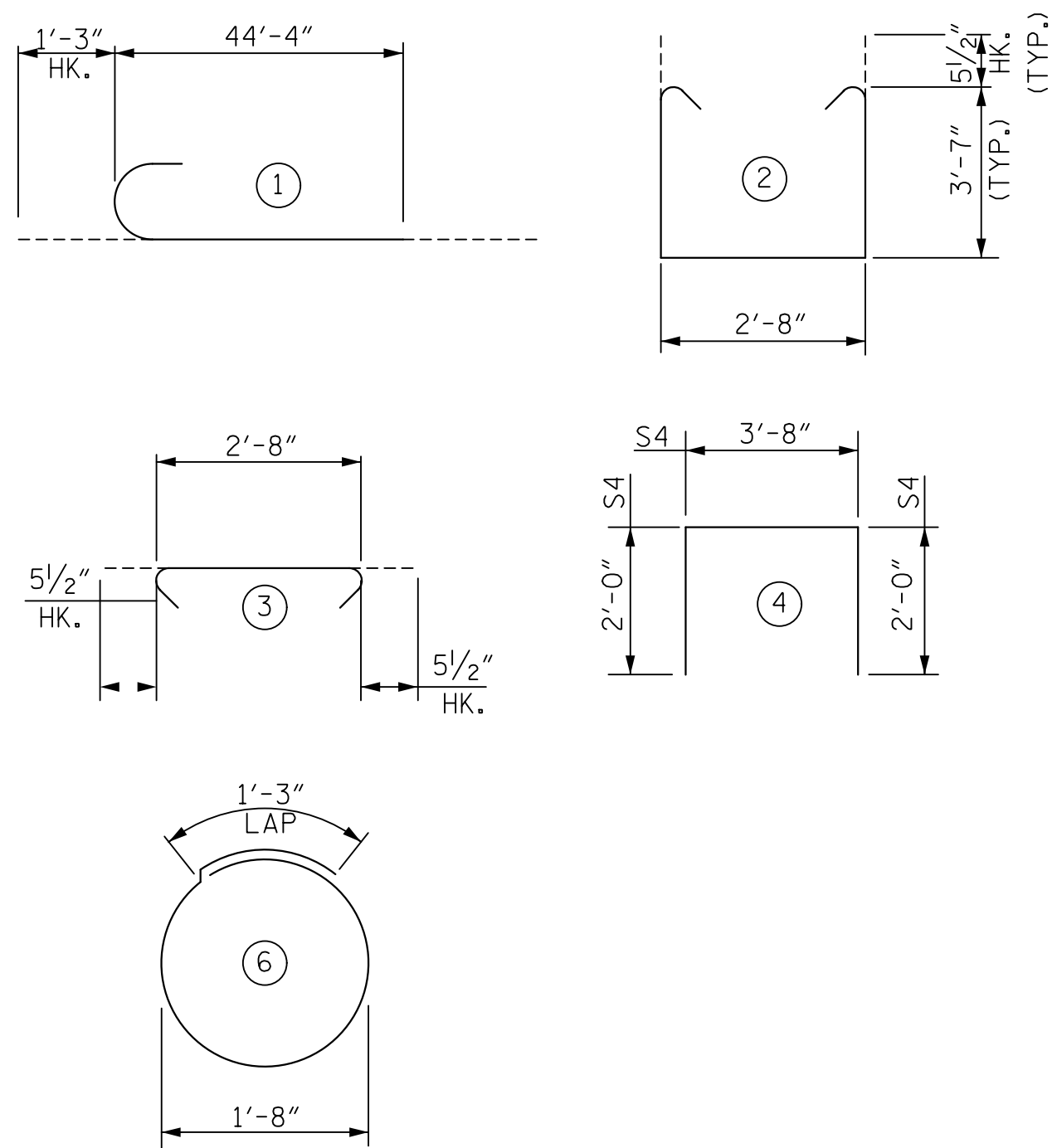


DETAIL "B"

* POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

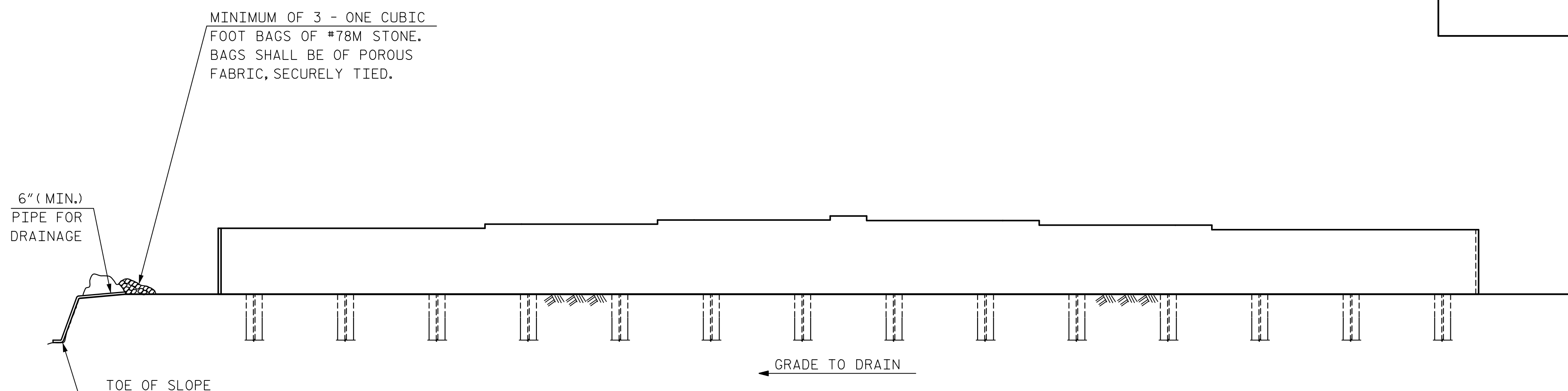
BILL OF REINFORCING

END BENT 2

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	24	9	1	45'-7"	3,720
B2	48	4	STR.	29'-1"	933
B3	20	4	STR.	3'-8"	49
B4	30	4	STR.	2'-0"	40
D1	169	5	STR.	5'-10"	1,028
S1	194	5	2	10'-9"	2,175
S2	194	5	3	3'-7"	725
S3	56	4	6	6'-6"	243
S4	25	4	4	7'-8"	128

QUANTITIES

REINFORCING STEEL	LBS.	9,041
CLASS "A" CONCRETE	CU. YDS.	50.6
PILE REDRIVES	EA.	7
PILE DRIVING EQUIPMENT SETUP	EA.	14
STEEL PILE POINTS	EA.	14
HP 12x53 STEEL PILES	NO.	14
	FEET	1,078



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.

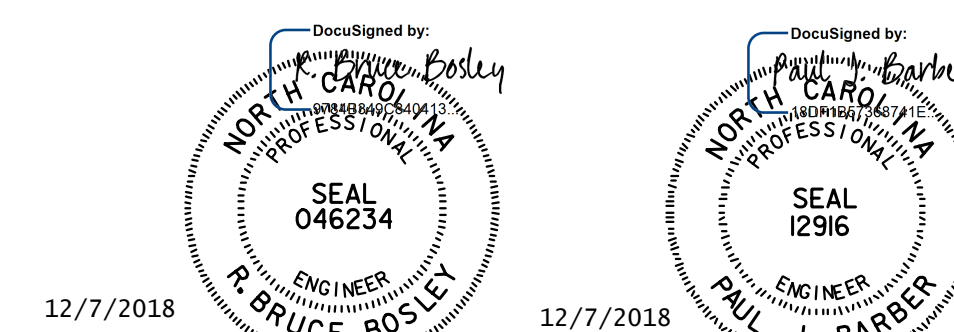
TEMPORARY DRAINAGE AT END BENT 2

PROJECT NO. R-5021
BRUNSWICK COUNTY
 STATION: 39+52.37 -Y14A-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 END BENT 2**



DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

HNTB		HNTB NORTH CAROLINA, P.C. NC License No. C-1554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609	
DRAWN BY	L. WATERS	DATE	7/18
CHECKED BY	J. ELKINS	DATE	7/18
DESIGN ENGINEER OF RECORD	B. BOSLEY	DATE	12/18

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S4-20
1			3			TOTAL SHEETS
2			4			24