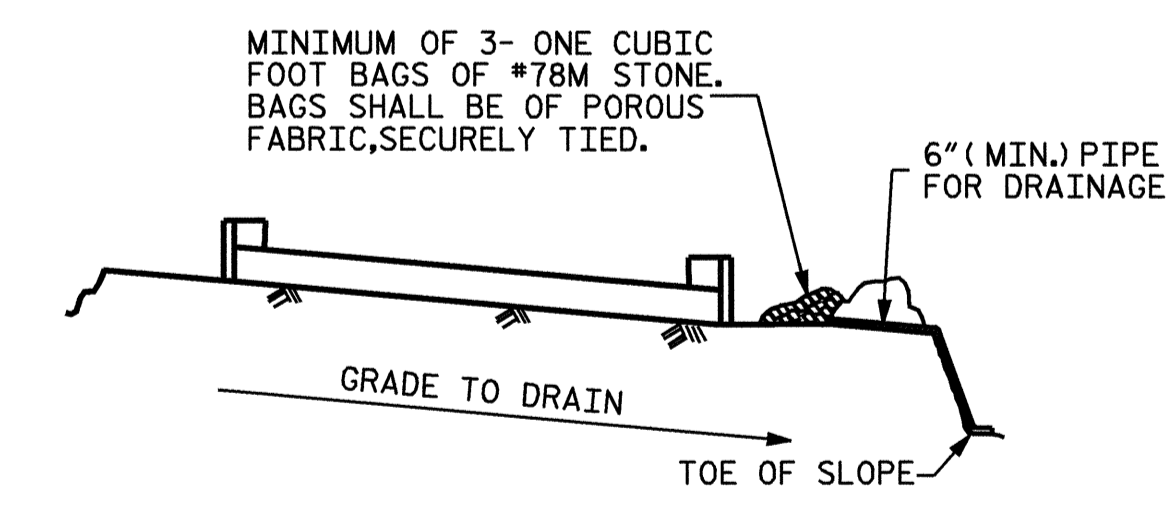


BILL OF MATERIAL					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	#9	1	53'-0"	1442	
B2	#6	STR	50'-8"	152	
B3	#4	STR	26'-7"	142	
B4	#4	STR	2'-5"	21	
D1	#6	STR	1'-6"	68	
H1	#4	5	5'-7"	90	
K1	#4	STR	2'-6"	20	
S1	#4	3	7'-5"	218	
S2	#4	2	3'-2"	93	
S3	#4	6	6'-6"	61	
S4	#4	4	5'-1"	14	
V1	#4	STR	4'-3"	57	
V2	#4	STR	4'-5"	59	
REINFORCING STEEL =					2437 LBS

CLASS "A" CONCRETE BREAKDOWN		
POUR #1 CAP & BOTTOM OF WINGS		13.9 C.Y.
POUR #2 TOP PART OF WINGS		1.2 C.Y.
POUR #3 LATERAL GUIDES		0.1 C.Y.
CLASS "A" CONCRETE TOTAL		15.2 C.Y.

HP 12 X 53 STEEL PILES		
NO. 7	LIN. FT.	245

ALL BAR DIMENSIONS ARE OUT TO OUT.



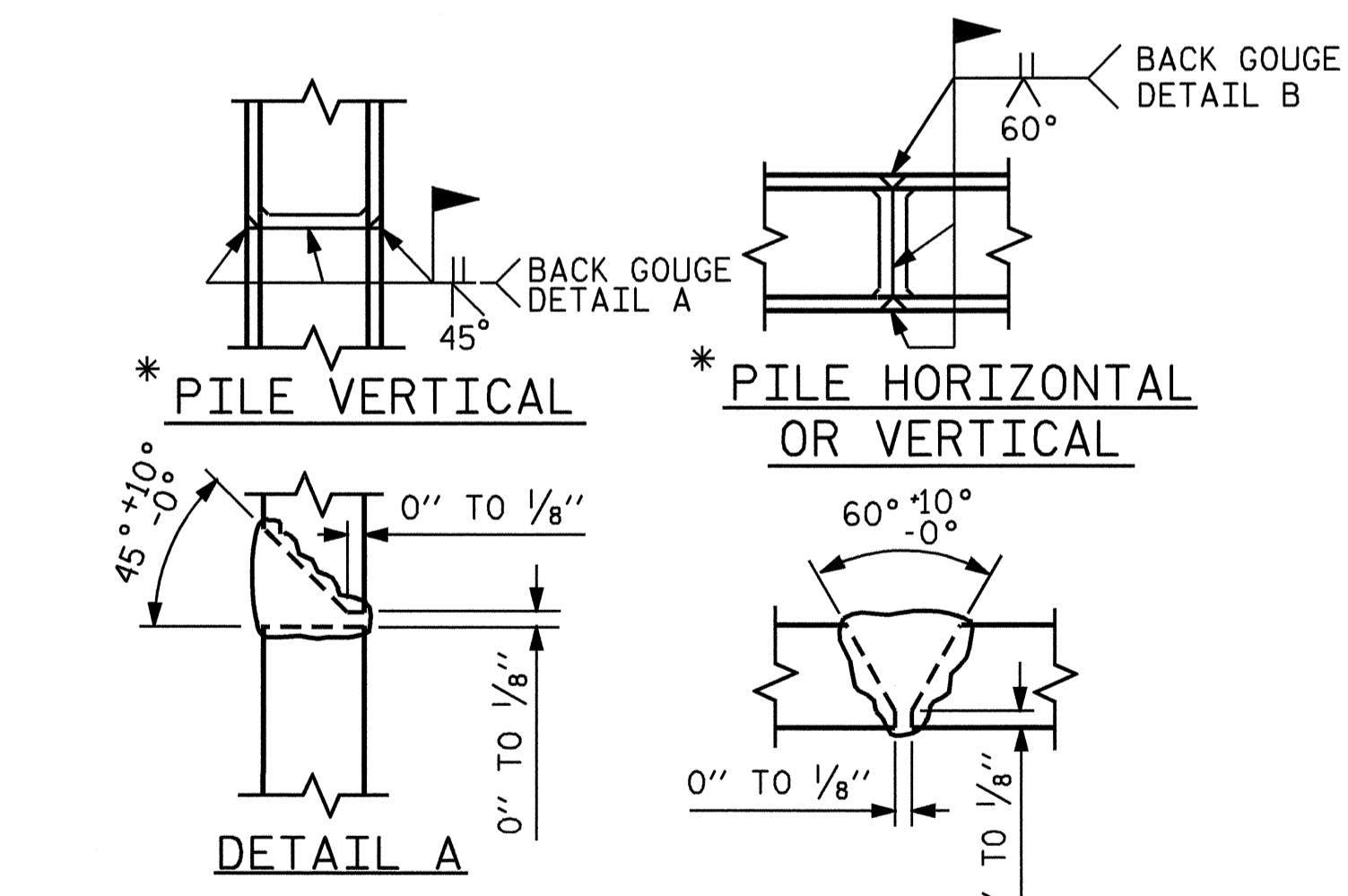
MINIMUM OF 3- ONE CUBIC FOOT BAGS OF #78M STONE. BAGS SHALL BE OF POROUS FABRIC, SECURELY TIED.

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 BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



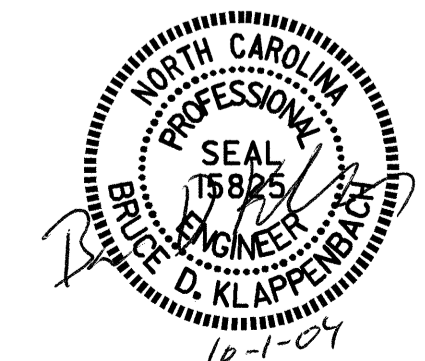
* POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

PROJECT NO. B-3454
FORSYTH COUNTY
STATION: 20+93.00 -L-

SHEET 3 OF 3
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE
END BENT #1**



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

TOTAL SHEETS: 27

DRAWN BY: J.B. WILSON DATE: 8/04
CHECKED BY: D.A. GLADDEN DATE: 9/04