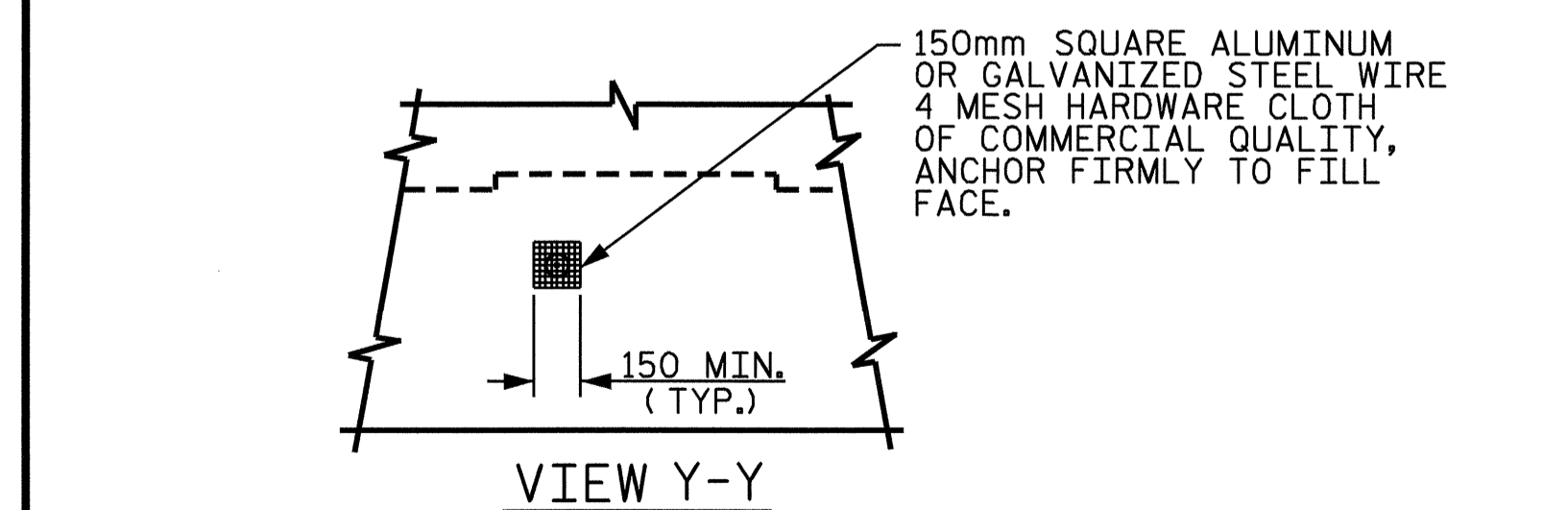
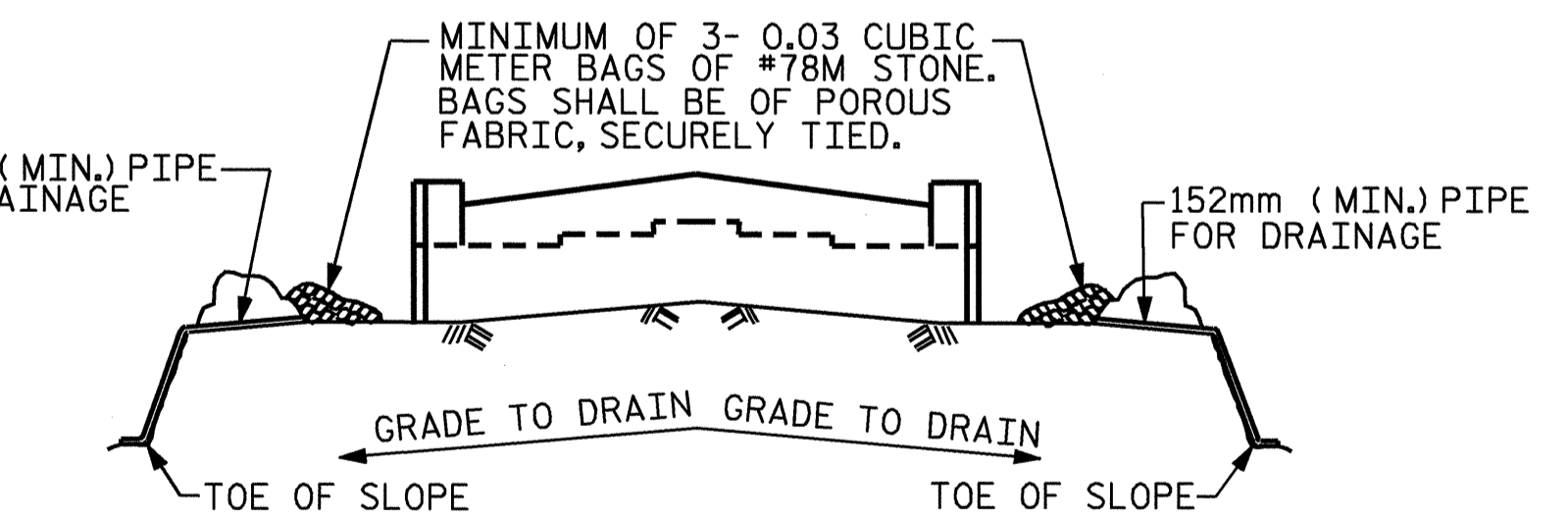
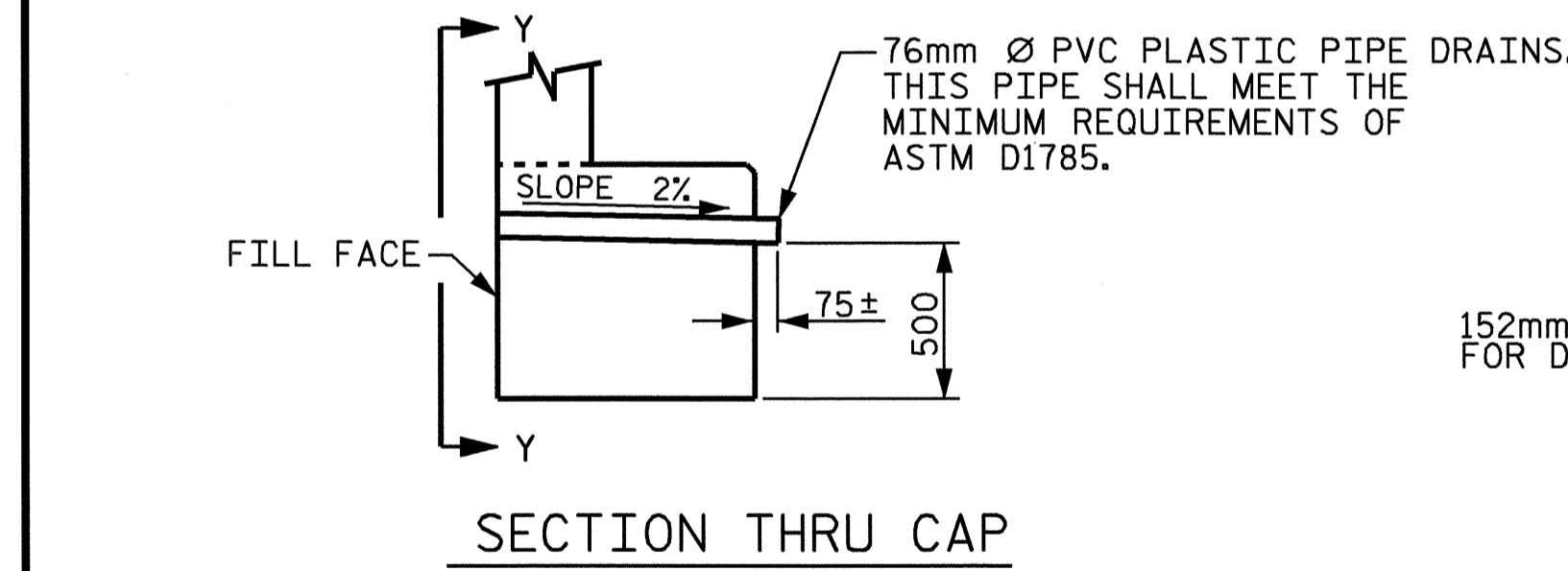


BILL OF MATERIAL						
END BENT 2						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	10	29	1	14800	749	
B2	10	29	1	14420	730	
B3	4	16	STR	13560	84	
B4	16	13	STR	7120	113	
B5	21	13	STR	900	19	
B6	10	13	STR	3060	30	
B7	5	13	STR	4060	20	
H1	11	16	4	3040	52	
H2	11	16	4	3080	53	
H3	11	16	5	3140	54	
H4	11	16	5	3100	53	
K1	48	13	STR	7140	341	
K2	8	13	STR	900	7	
S1	77	13	2	1120	86	
S2	77	13	3	2420	185	
S3	32	13	6	2000	64	
U1	85	13	7	1100	93	
U2	26	13	7	1800	47	
V1	170	16	STR	2520	665	
V2	56	16	STR	2920	254	
REINFORCING STEEL				kg.	3699	
CLASS A CONCRETE BREAKDOWN						
POUR 1 (CAP AND LOWER PORTION OF WINGS)				m <sup>3</sup>	23.8	
POUR 2 (BACKWALL AND UPPER PORTION OF WINGS)				m <sup>3</sup>	19.2	
TOTAL				m <sup>3</sup>	43.0	
305mm P/S SQUARE PRESTRESSED CONCRETE PILES						
NO. 16		METERS		256.0		

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 BID FOR THE SEVERAL PAY ITEMS.

NOTE: NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE PVC PIPE DRAINS, HARDWARE CLOTH AND FASTENERS. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

PIPE DRAIN DETAILS

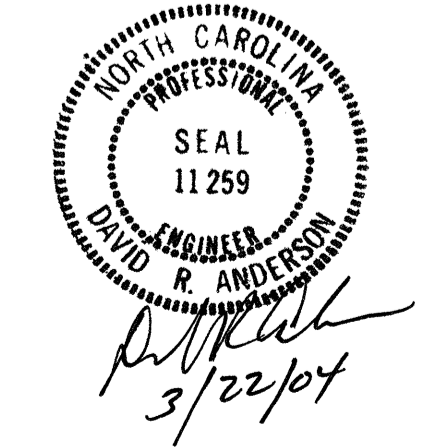
TEMPORARY DRAINAGE AT END BENT

PROJECT NO. R-513C  
ROBESON COUNTY  
 STATION: 298+57.237 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

SUBSTRUCTURE  
 END BENT 2



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	5-273
1			3			TOTAL SHEETS
2			4			312

DRAWN BY: S. M. RASHIDI DATE: 10/01/02  
 CHECKED BY: K. P. SEDAI DATE: 8/16/02