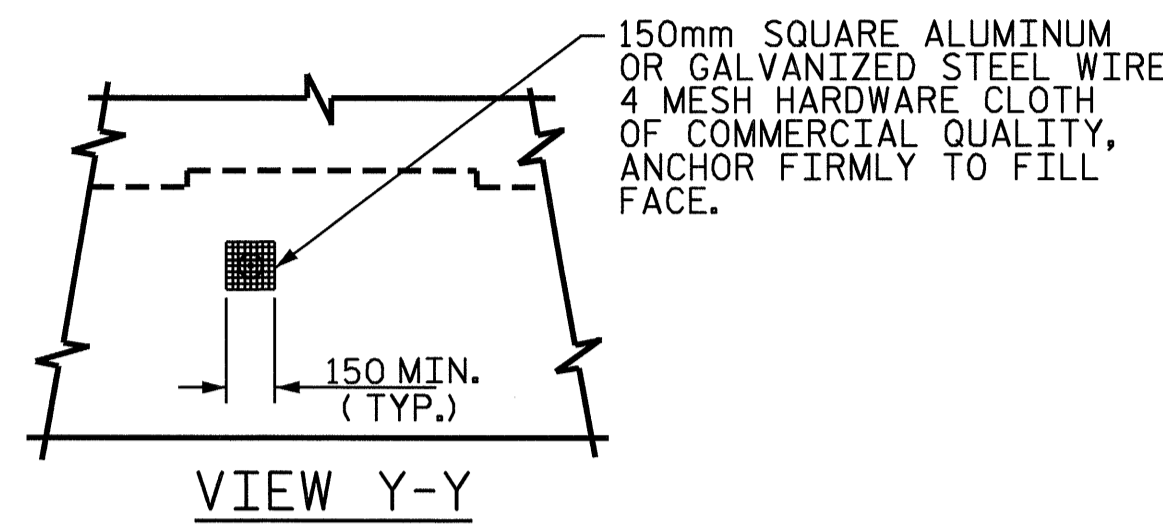
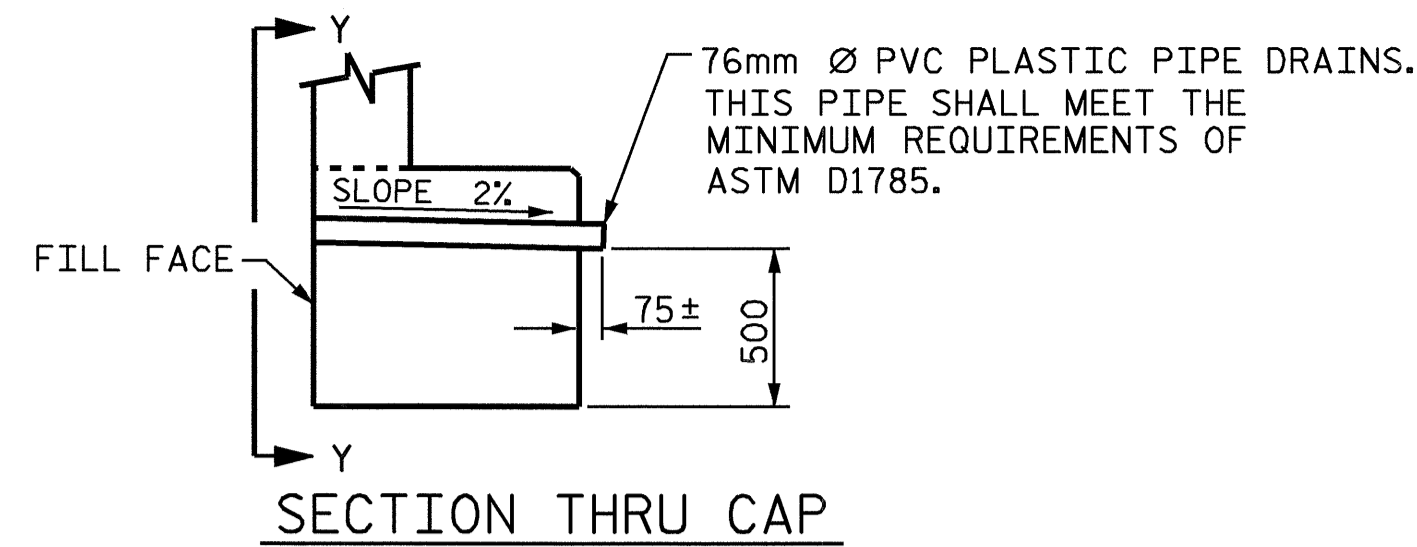


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

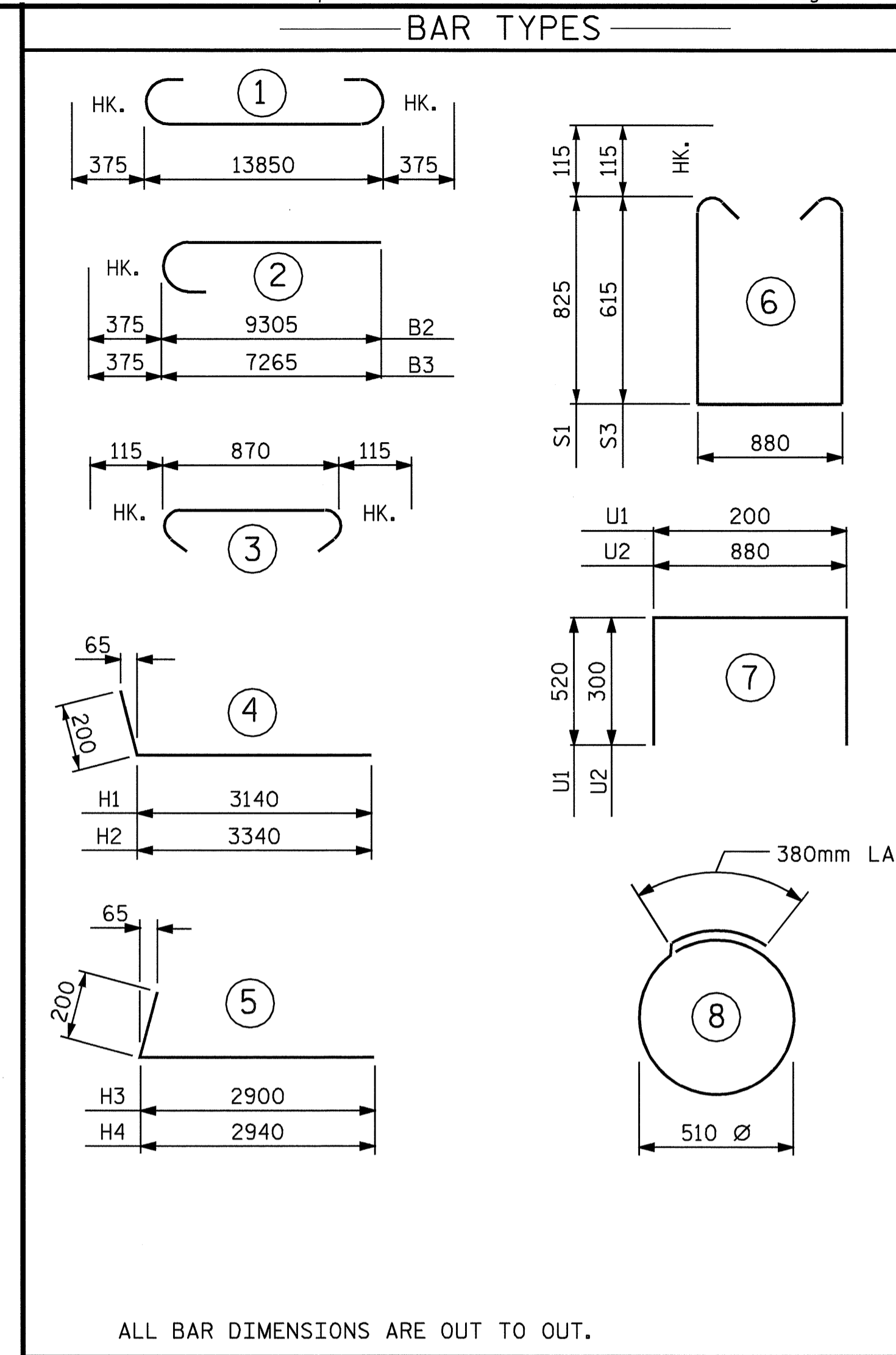
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

**TEMPORARY DRAINAGE AT END BENT**

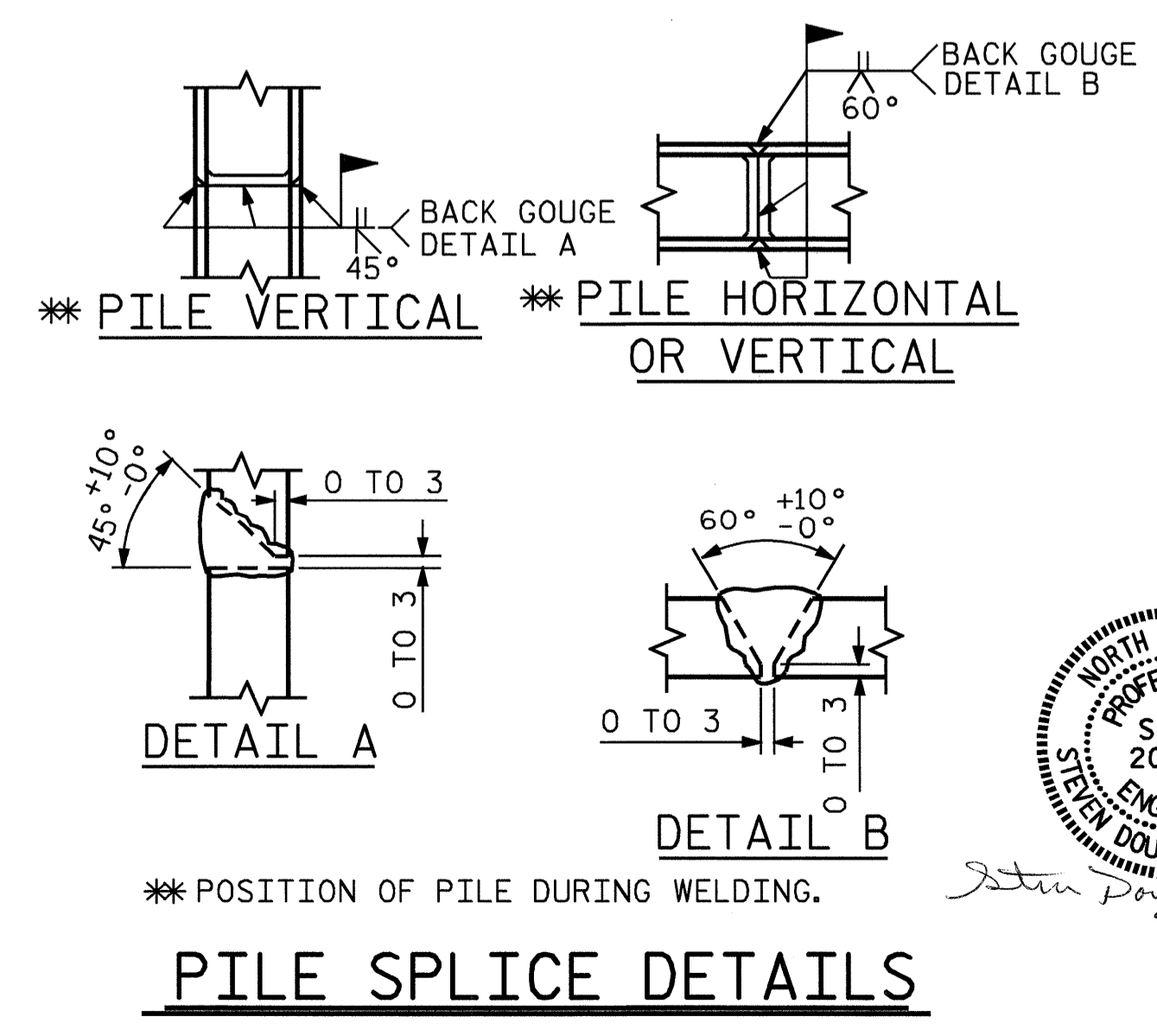
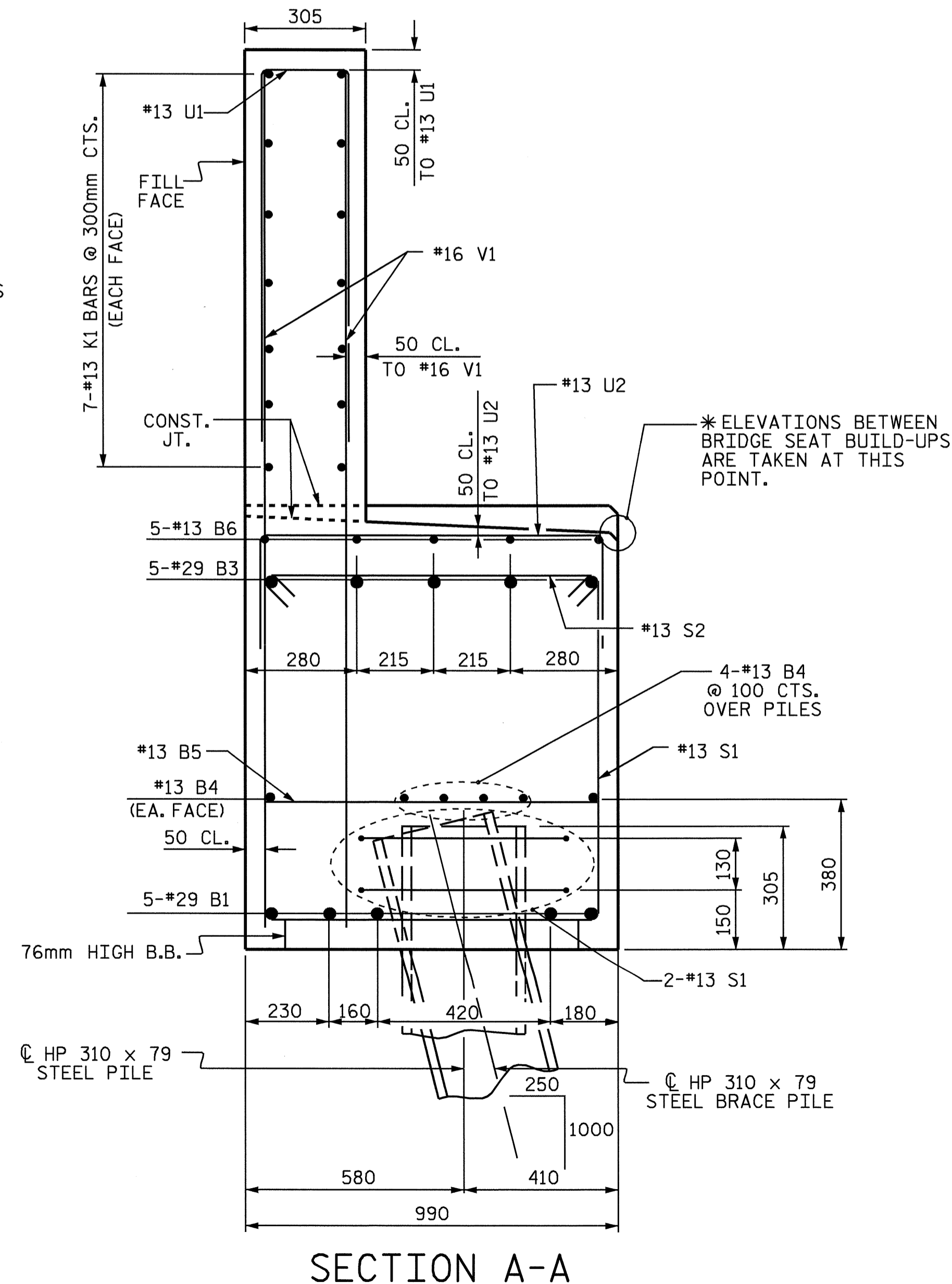
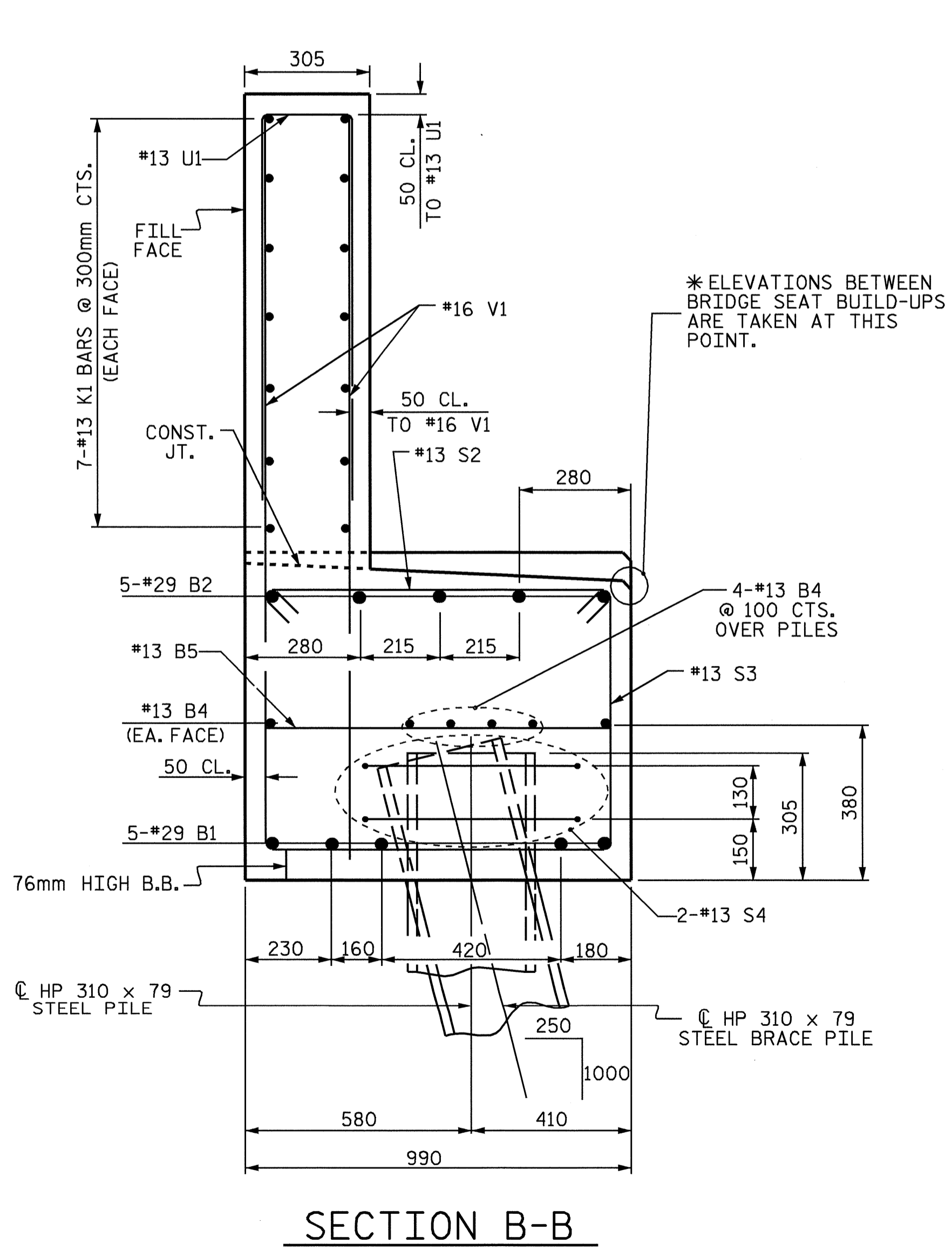


NOTE: NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE PVC PLASTIC PIPE DRAINS, HARDWARE CLOTH AND FASTENERS. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

**PIPE DRAIN DETAILS**



BILL OF MATERIAL					
END BENT #1					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	5	#29	1	14600	369
B2	5	#29	2	9680	245
B3	5	#29	2	7640	193
B4	12	#13	STR	7320	87
B5	15	#13	STR	880	13
B6	5	#13	STR	2480	12
H1	13	#13	4	3300	43
H2	13	#13	4	3340	43
H3	12	#13	5	3100	37
H4	12	#13	5	3140	37
K1	28	#13	STR	7320	204
K2	8	#13	STR	880	7
S1	21	#13	6	2760	58
S2	38	#13	3	1100	42
S3	17	#13	6	2340	40
S4	20	#13	8	1980	39
U1	40	#13	7	1240	49
U2	5	#13	7	1480	7
V1	80	#16	STR	2620	377
V2	30	#13	STR	3280	98
V3	28	#13	STR	3000	83
REINFORCING STEEL					= 2083 KG
CLASS A CONCRETE BREAKDOWN:					
POUR #1: (CAP, BOTTOM OF WINGS)					CU. METERS 14.4
POUR #2: (TOP OF WINGS & BACKWALL)					CU. METERS 8.4
CLASS A CONCRETE TOTAL:					CU. METERS 22.8
HP 310 x 79 STEEL PILES					NO. = 10 METERS = 210



PROJECT NO. R-2911A  
 IREDELL COUNTY  
 STATION: 41+59.472 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

SUBSTRUCTURE  
 END BENT #1  
 (RIGHT LANE)



DRAWN BY: DAN PLATICA DATE: 01/22/04  
 CHECKED BY: M. K. BEARD DATE: 02/06/04

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-99
1			3			TOTAL SHEETS
2			4			106