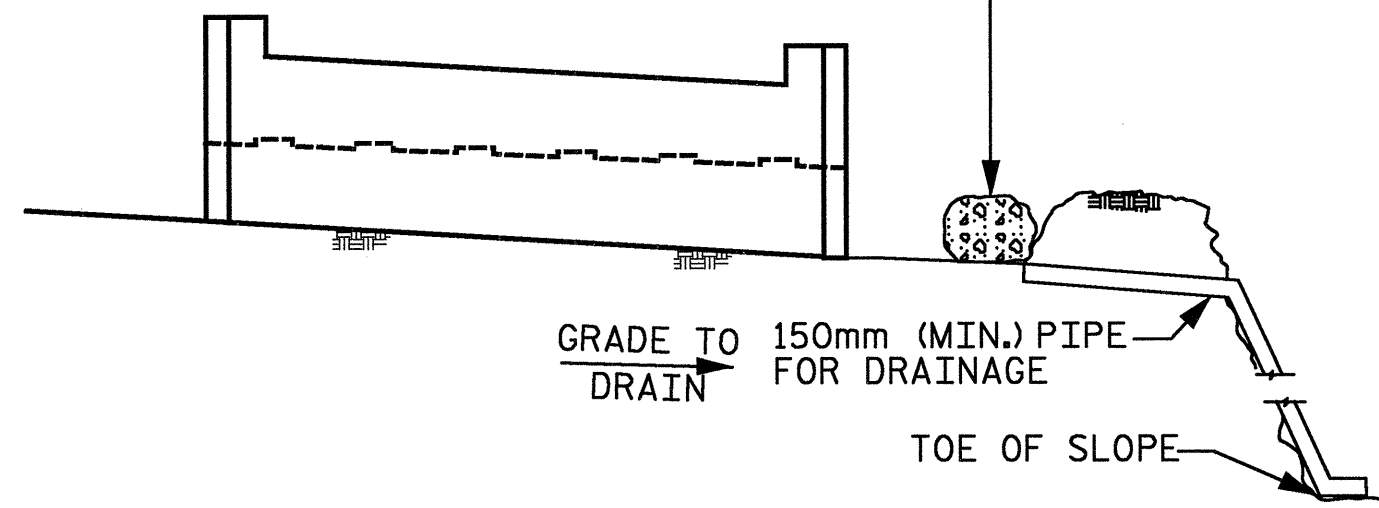


MINIMUM OF 3 - 0.03 CUBIC METER BAGS OF #78M STONE. BAGS SHALL BE OF POROUS FABRIC, SECURELY TIED.



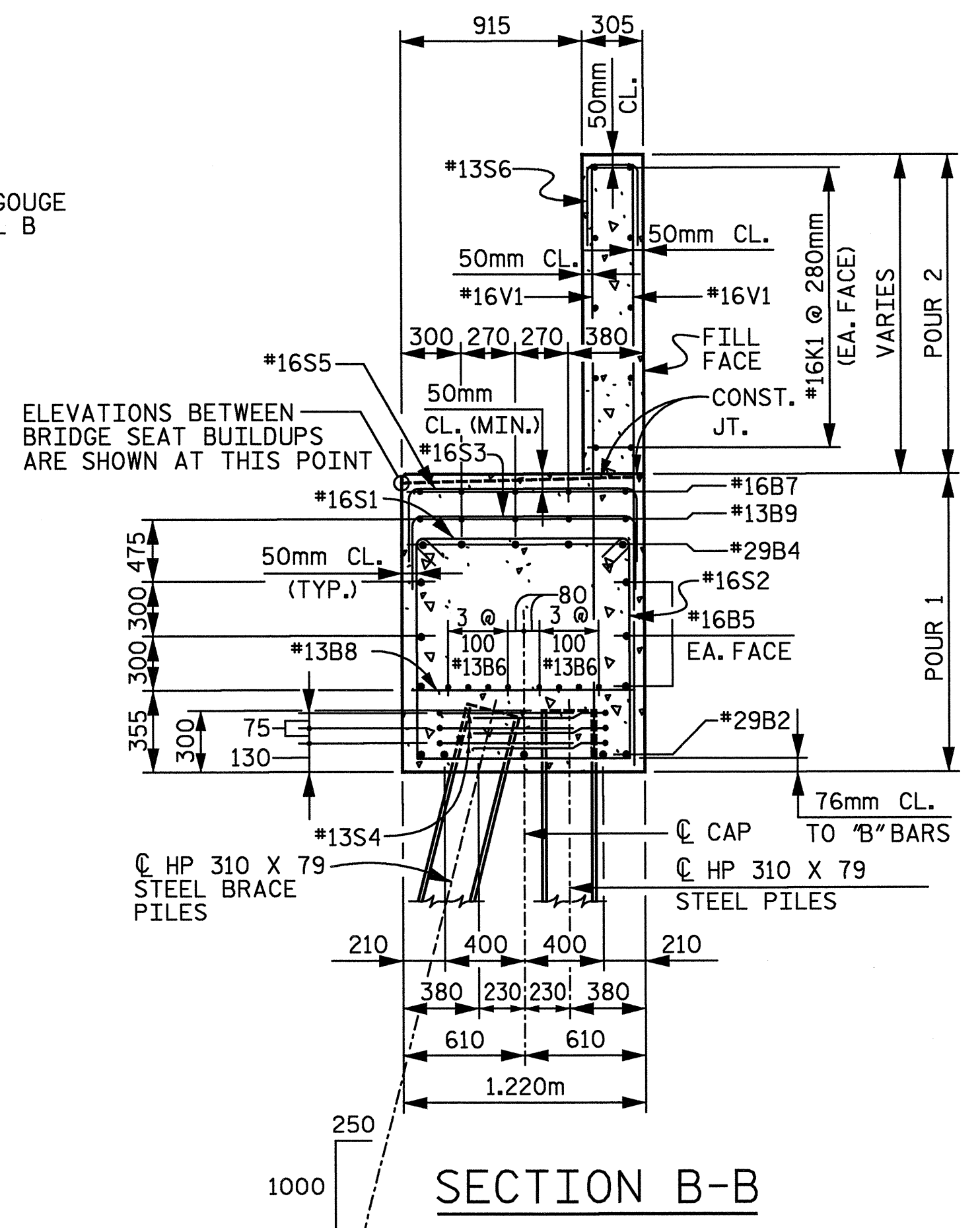
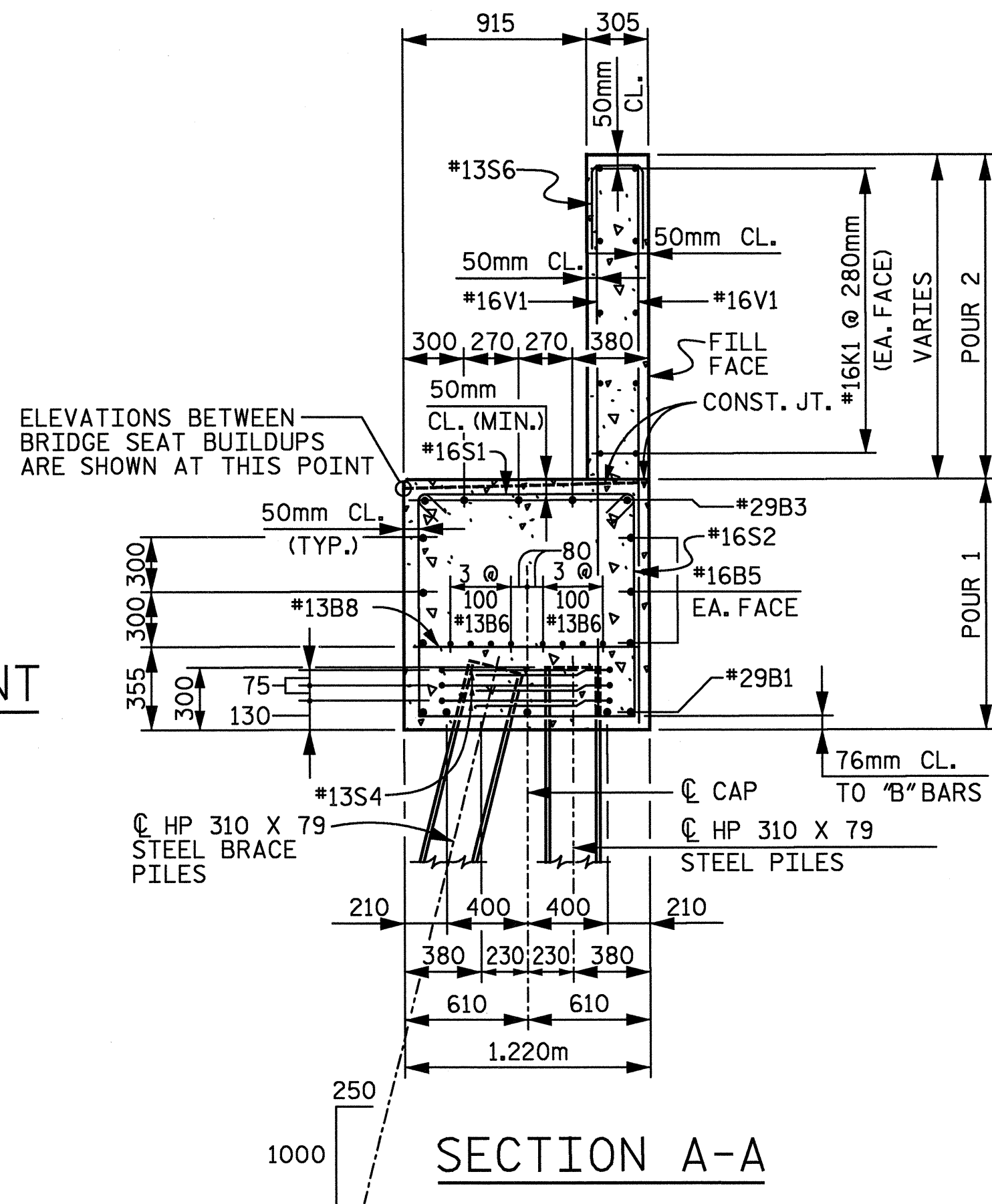
TEMPORARY DRAINAGE AT END BENT

DRAINAGE NOTES:

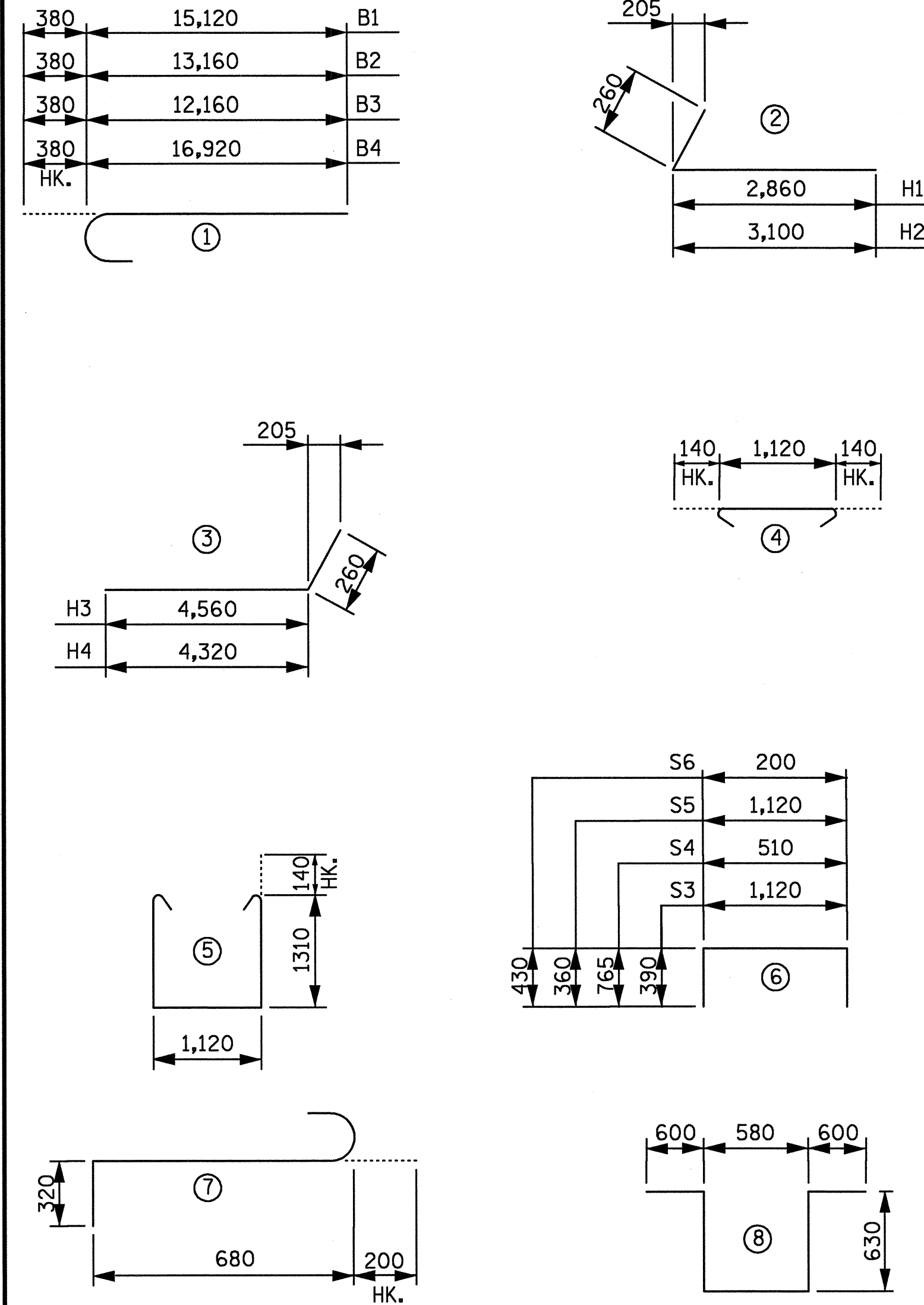
BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.



BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF REINFORCING

MARK	NO.	SIZE	TYPE	LENGTH (mm)	MASS (kg)
B1	5	#29	①	15,500	392
B2	5	#29	①	13,540	343
B3	5	#29	①	12,540	317
B4	5	#29	①	17,300	438
B5	12	#16	STR.	13,660	254
B6	32	#13	STR.	7,160	228
B7	30	#16	STR.	900	42
B8	20	#13	STR.	1,120	22
B9	5	#13	STR.	8,160	41
H1	13	#16	②	3,120	63
H2	13	#16	②	3,360	68
H3	12	#16	③	4,820	90
H4	12	#16	③	4,580	85
K1	20	#16	STR.	13,660	424
K2	4	#16	STR.	1,340	8
K3	4	#16	STR.	1,400	9
S1	62	#16	④	1,400	135
S2	62	#16	⑤	4,020	387
S3	15	#16	⑥	1,900	44
S4	42	#13	⑥	2,040	85
S5	30	#16	⑥	1,840	86
S6	77	#13	⑥	1,060	81
S7	3	#19	⑦	1,200	8
S8	1	#19	⑧	3,040	7
V1	154	#16	STR.	2,820	674
V2	28	#16	STR.	3,440	149
V3	38	#16	STR.	3,220	190

TOTAL REINFORCING STEEL = 4,670 kg

QUANTITIES - END BENT 1

REINFORCING STEEL	4,670 kg
CLASS A CONCRETE	POUR 1 : 52.8 CU. METERS POUR 2 : 16.7 CU. METERS TOTAL : 69.5 CU. METERS
HP 310 X 79 STEEL PILES	15 (NO.) 218.7 METERS

PROJECT NO R-2552C

JOHNSTON COUNTY

STATION: POT 148+08.446 -L2-  
POT 23+96.446 -Y4-

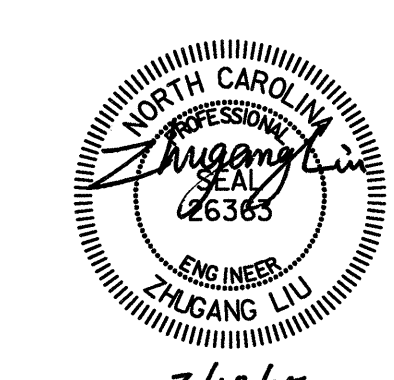
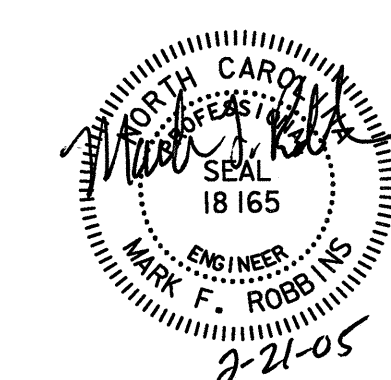
SHEET 3 OF 3

NO.	BY	DATE	REVISIONS
1	TVR	1-05	
2	TVR	1-05	

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

END BENT 1  
-RIGHT LANE-

SHEET NO. 5-307  
TOTAL SHEETS 431



**W** RALPH WHITEHEAD ASSOCIATES, INC.  
CONSULTING ENGINEERS  
P.O. BOX 35624 CHARLOTTE, N.C. 28235

DRAWN BY: WBS, DDL DATE: 1-05 DWG. NO. D-1750.25  
CHECKED BY: TVR DATE: 1-05