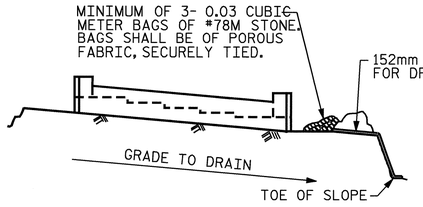
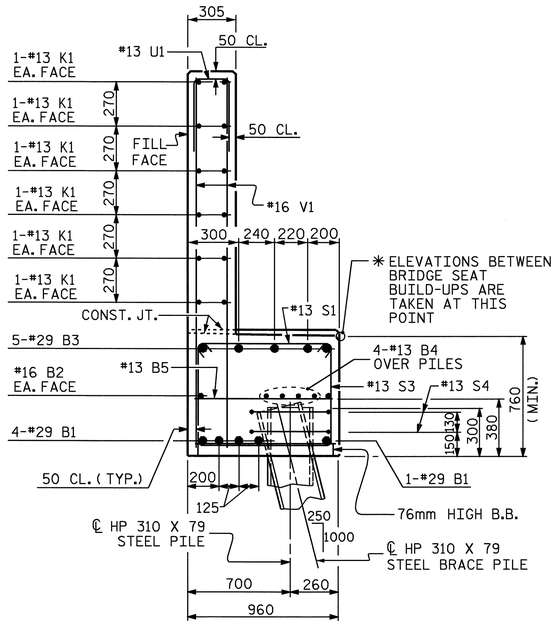


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

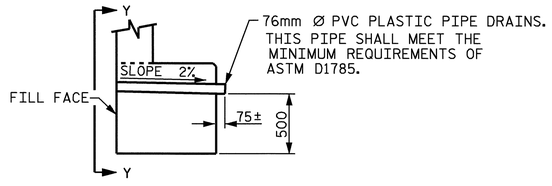
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR 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.

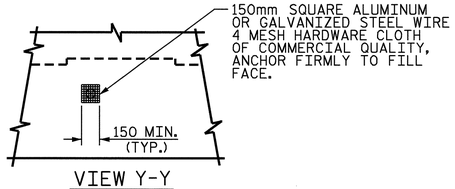
TEMPORARY DRAINAGE AT END BENT



SECTION A-A



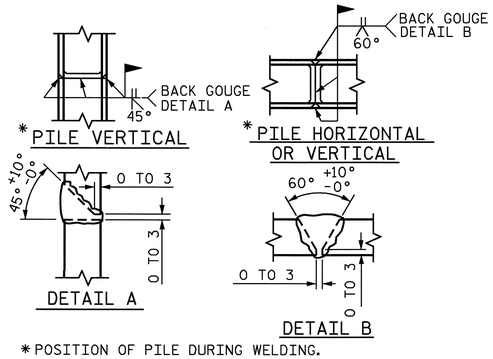
SECTION THRU CAP



VIEW Y-Y

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.

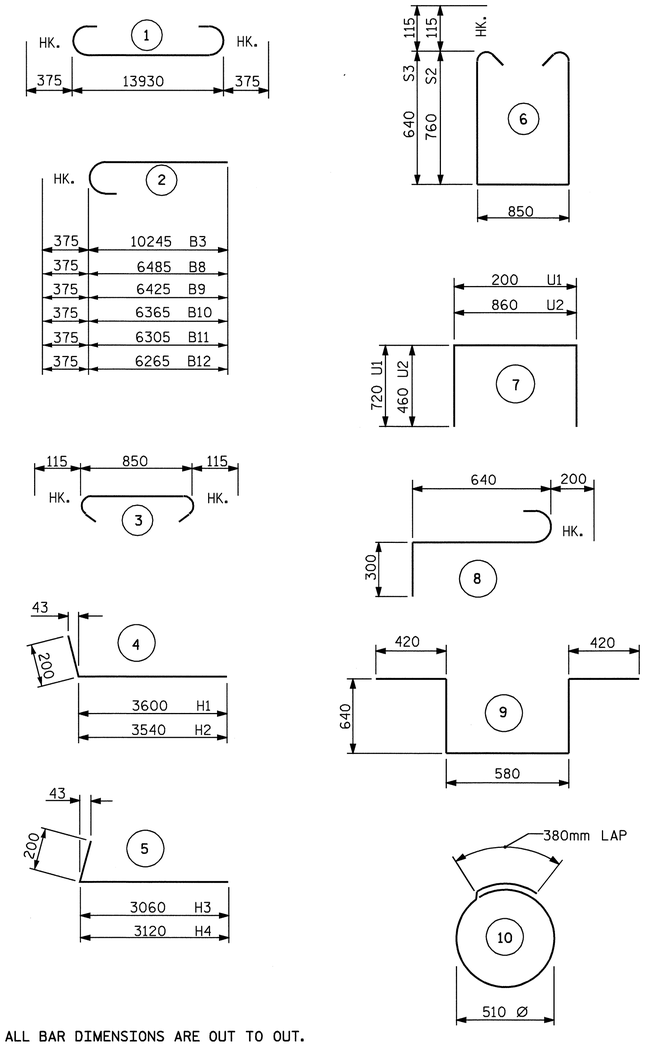
PIPE DRAIN DETAILS



* POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

END BENT #1

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	5	#29	1	14680	371
B2	2	#16	STR	13980	43
B3	5	#29	STR	10620	269
B4	8	#13	STR	7360	59
B5	10	#13	STR	860	9
B6	2	#16	STR	4640	14
B7	10	#13	STR	740	7
B8	1	#29	2	6860	35
B9	1	#29	2	6800	34
B10	1	#29	2	6740	34
B11	1	#29	2	6680	34
B12	1	#29	2	6640	34
H1	12	#16	4	3800	71
H2	12	#16	4	3740	70
H3	11	#16	5	3260	56
H4	11	#16	5	3320	57
K1	24	#13	STR	7360	176
K2	8	#13	STR	860	7
S1	54	#13	3	1080	58
S2	25	#13	6	2600	65
S3	29	#13	6	2360	68
S4	20	#13	10	1980	39
S5	3	#19	8	1140	8
S6	1	#19	9	2700	6
U1	40	#13	7	1640	65
U2	8	#13	7	1780	14
V1	80	#16	STR	2160	268
V2	32	#16	STR	2500	124
V3	30	#16	STR	2540	118

REINFORCING STEEL = 2213 kg

CLASS A CONCRETE BREAKDOWN

POUR #1:
CAP & LOWER WINGS & BRACE PILE BLOCK 13.7 CU. METERS

POUR #2:
BACKWALL & UPPER WINGS 10.5 CU. METERS

TOTAL CLASS A CONCRETE 24.2 CU. METERS

HP 310 X 79 STEEL PILES
NO. 11 242.0 METERS

NORTH CAROLINA PROFESSIONAL SEAL 20125 ENGINEER MARSHALL G. GREEK, JR. 5-11-04

PROJECT NO. R-2911A
IREDELL COUNTY
STATION: 39+62.402 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
END BENT #1
RIGHT LANE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-49
1			3			TOTAL SHEETS
2			4			106

DRAWN BY : QT NGUYEN DATE : 3-04
CHECKED BY : L.L. MURPHY DATE : 3-04

STR. #2