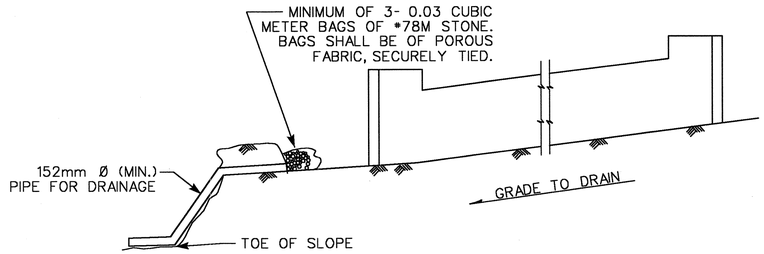
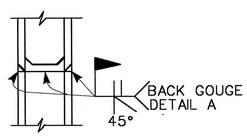


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

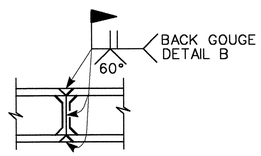
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

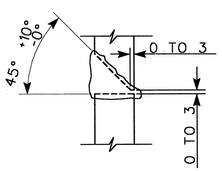
TEMPORARY DRAINAGE AT END BENT



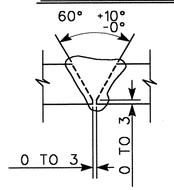
**PILE VERTICAL



**PILE HORIZONTAL OR VERTICAL



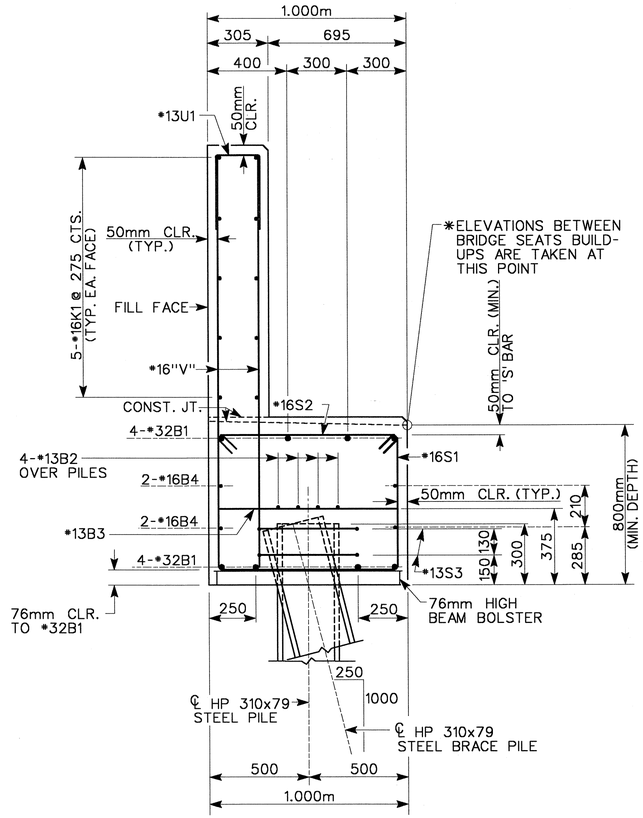
DETAIL A



DETAIL B

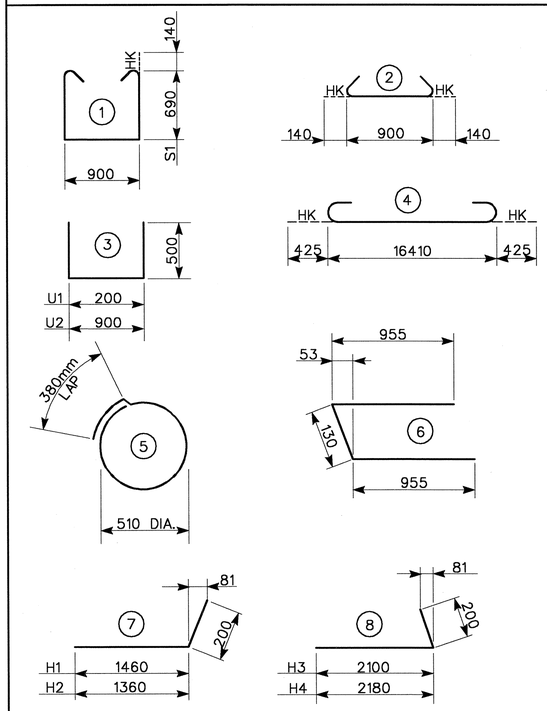
PILE SPLICE DETAILS

**POSITION OF PILE DURING WELDING



SECTION A-A

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

FOR END BENT #1

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	32	4	17260	884
B2	8	13	STR	8600	68
B3	14	13	STR	900	13
B4	4	16	STR	16460	102
B5	20	13	STR	740	15
H1	11	16	7	1660	28
H2	11	16	7	1560	27
H3	10	16	8	2300	36
H4	10	16	8	2380	37
K1	10	16	STR	16460	255
S1	64	16	1	2560	254
S2	64	16	2	1180	117
S3	18	13	5	1980	35
U1	48	13	3	1200	57
U2	25	13	3	1900	47
U3	4	16	6	2040	13
V1	96	16	STR	1960	292
V2	18	16	STR	2400	67
V3	24	16	STR	2360	88

REINFORCING STEEL - kg 2435

CLASS A CONCRETE BREAKDOWN
POUR 1 -
(CAP & BOT. OF WINGS) m³ 14.5
POUR 2 -
(TOP OF WINGS & BACKWALL) m³ 8.4

CLASS A CONCRETE TOTAL m³ 22.9

HP 310x79 STEEL PILES
NO. 9 METERS 135.0

PROJECT NO. R-2552B
JOHNSTON COUNTY
STATION: 78+35.547 -L-
12+97.374 -Y10-
SHEET 3 of 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT #1
SUBSTRUCTURE

(LEFT LANE)

PBSJ
1616 E. MILLBROOK RD., SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE (919) 876-6888
FAX (919) 876-6848

DRAWN BY : SD DATE : 6/03
CHECKED BY : AR DATE : 9/03

NORTH CAROLINA PROFESSIONAL SEAL 027417 ENGINEER ADAM J. RECHER
2-13-04

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-45
1			3			TOTAL SHEETS
2			4			431