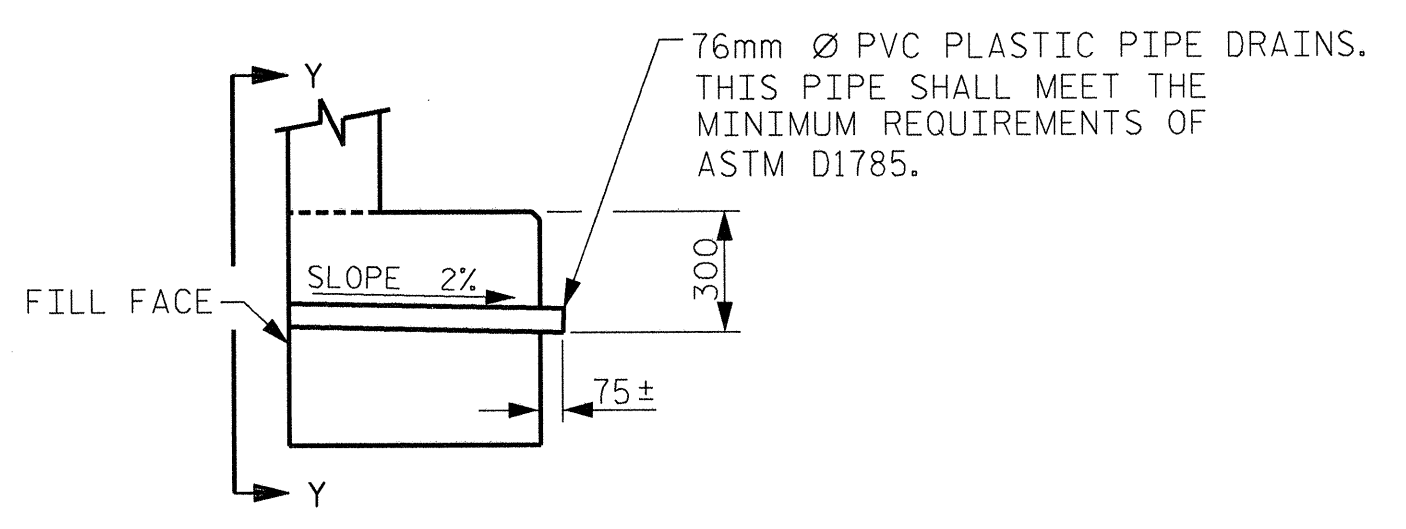
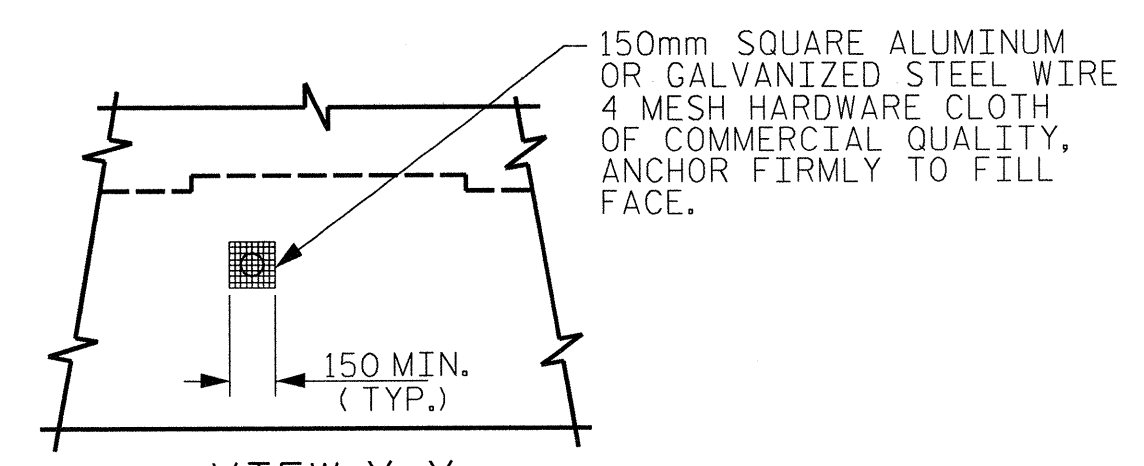


SECTION A-A



SECTION THRU CAP

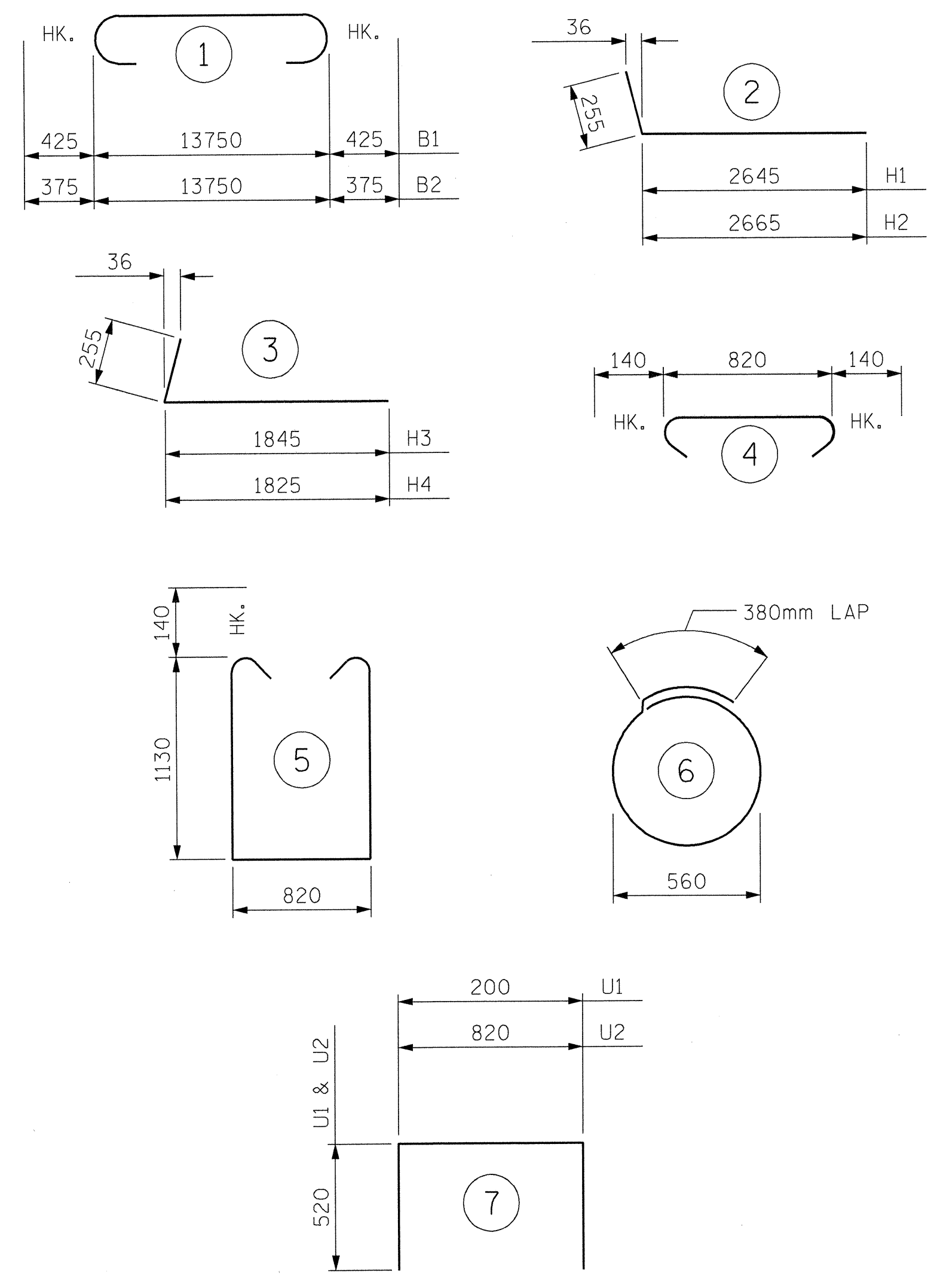


VIEW Y-Y

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

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

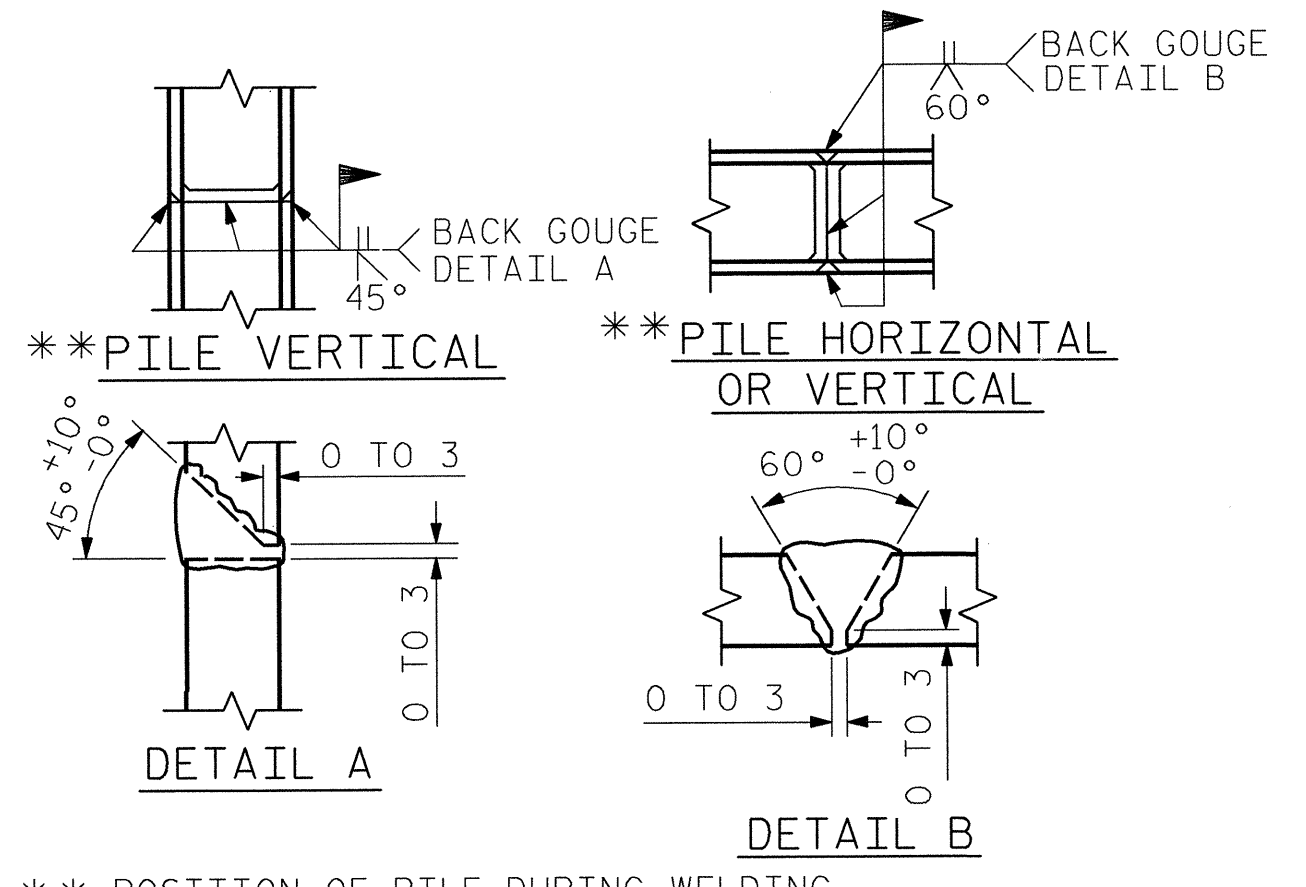
BILL OF MATERIAL

| END BENT 2 | | | | | |
|------------|------|------|--------|--------|-----|
| BAR NO. | SIZE | TYPE | LENGTH | WEIGHT | |
| B1 | 4 | #32 | 1 | 14600 | 374 |
| B2 | 5 | #29 | 1 | 14500 | 367 |
| B3 | 6 | #16 | STR | 13780 | 128 |
| B4 | 8 | #13 | STR | 7300 | 58 |
| B5 | 12 | #13 | STR | 820 | 10 |
| B6 | 20 | #13 | STR | 1080 | 21 |
| B7 | 5 | #13 | STR | 2380 | 12 |
| H1 | 12 | #16 | 2 | 2900 | 54 |
| H2 | 12 | #16 | 2 | 2920 | 54 |
| H3 | 13 | #16 | 3 | 2100 | 42 |
| H4 | 13 | #16 | 3 | 2080 | 42 |
| K1 | 20 | #13 | STR | 7300 | 145 |
| K2 | 8 | #13 | STR | 880 | 7 |
| S1 | 42 | #16 | 4 | 1100 | 72 |
| S2 | 42 | #16 | 5 | 3360 | 219 |
| S3 | 12 | #13 | 6 | 2140 | 26 |
| U1 | 40 | #13 | 7 | 1240 | 49 |
| U2 | 18 | #13 | 7 | 1860 | 33 |
| V1 | 80 | #13 | STR | 2400 | 191 |
| V2 | 28 | #16 | STR | 2700 | 117 |
| V3 | 22 | #16 | STR | 2840 | 97 |

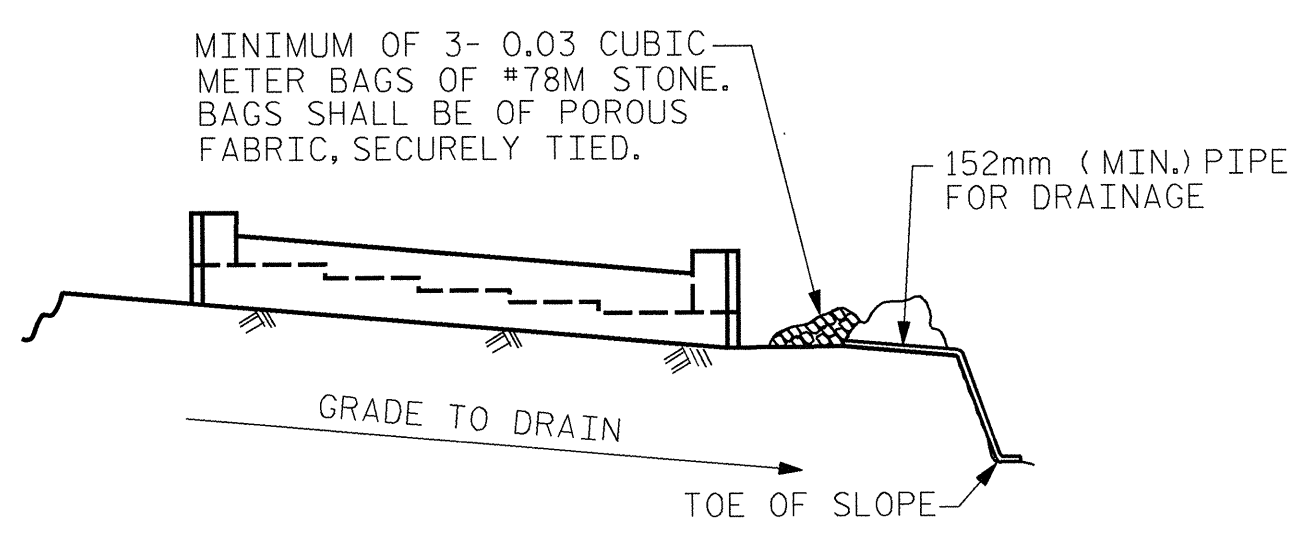
REINFORCING STEEL = 2,118 kg

| CLASS A CONCRETE BREAKDOWN | | | |
|----------------------------|------------------------|----------------|------|
| POUR #1 | CAP & BOTTOM OF WING | m ³ | 18.5 |
| POUR #2 | BACKWALL & TOP OF WING | m ³ | 7.2 |
| TOTAL CLASS A CONCRETE | | m ³ | 25.7 |

HP 310 X 79 STEEL PILES
 NO. = 6 72.0 METERS



PILE SPLICE DETAILS



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

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.

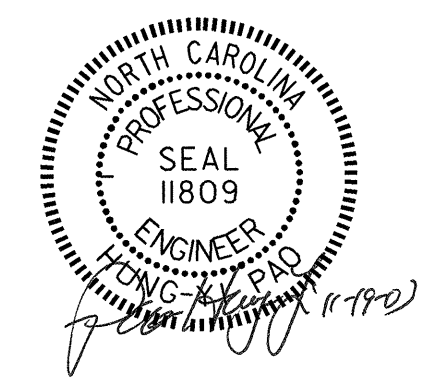
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

Stantec
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 Raleigh, NC 27606
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 Fax. 919.851.7024
 www.stantec.com

DRAWN BY: M. J. OSTRISHKO DATE: 10-3-03
 CHECKED BY: H. PAO DATE: 10-10-03



PROJECT NO. R-2610A
 CHATHAM COUNTY
 STATION: 18+04.666 -L-

SHEET 3 OF 3
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT 2
 (LEFT LANE BRIDGE)

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | 5-30 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 82 |