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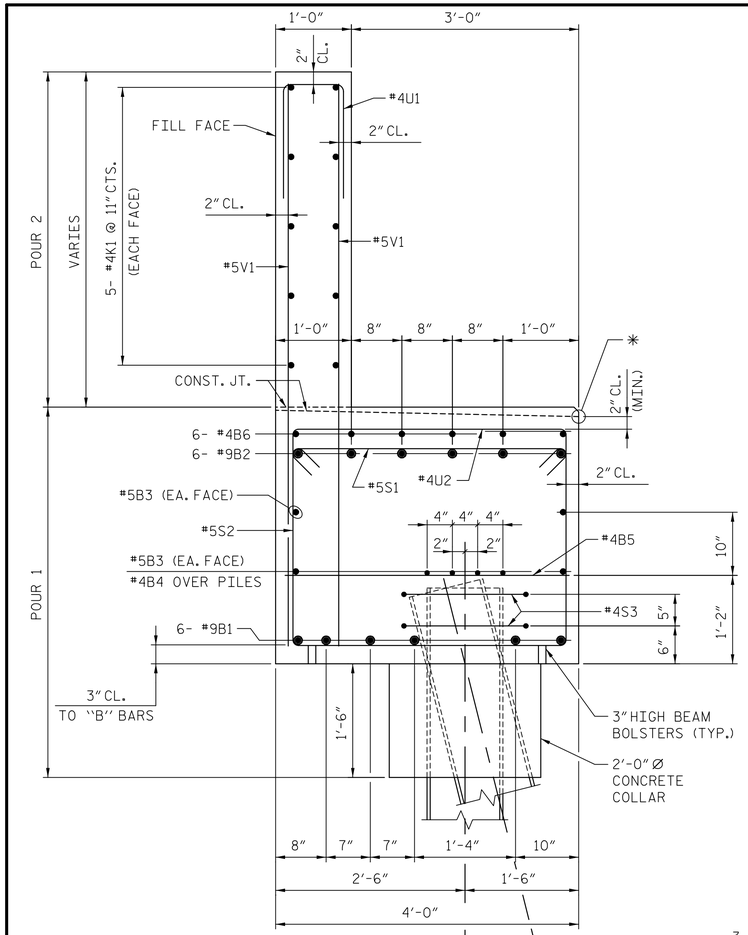
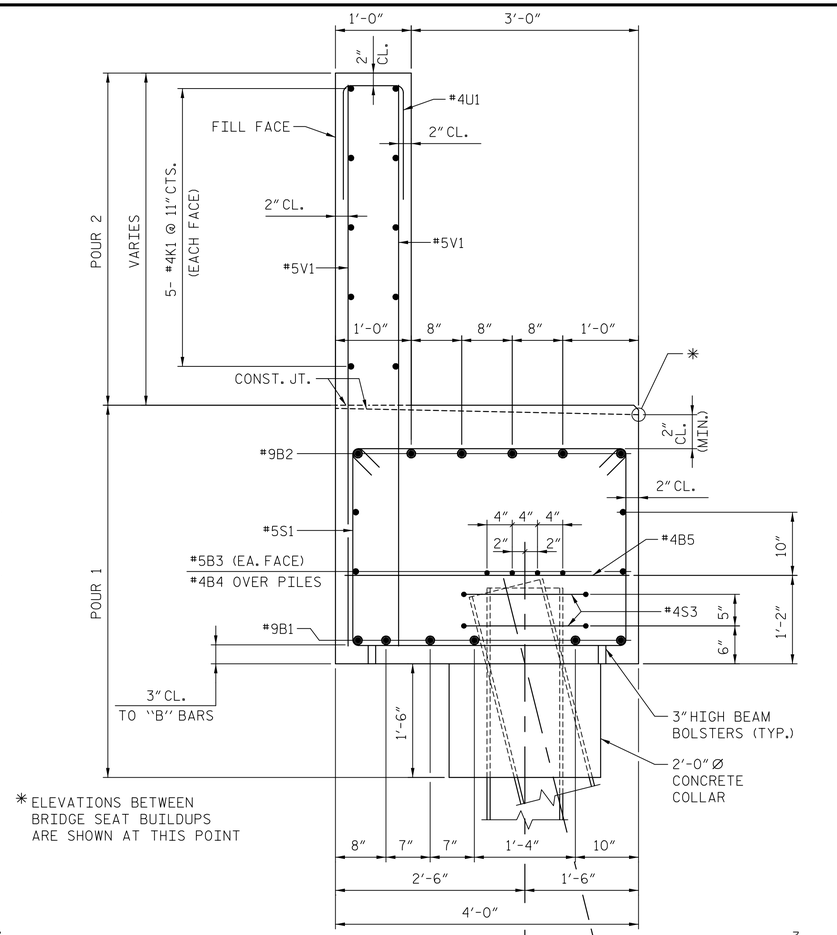


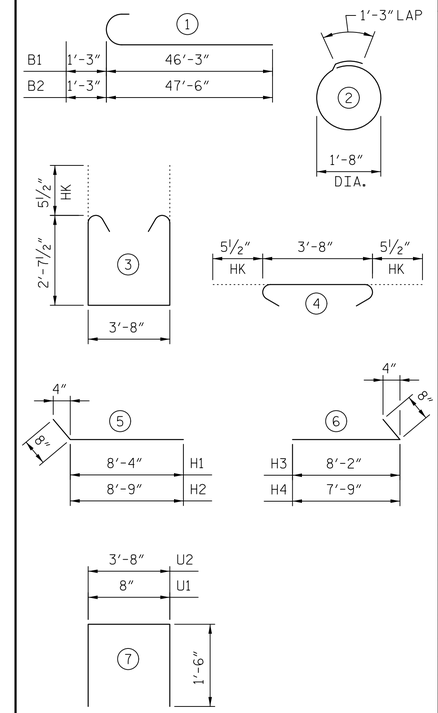

SECTION "A-A"




SECTION "B-B"

* ELEVATIONS BETWEEN BRIDGE SEAT BUILDUPS ARE SHOWN AT THIS POINT

## BAR TYPES




ALL BAR DIMENSIONS ARE OUT TO OUT.

## BILL OF MATERIAL

### END BENT 1

| BAR | NO. | SIZE | TYPE | LENGTH | WEIGHT |
|---|---|---|---|---|---|
| B1 | 12 | #9 | 1 | 47'-6" | 1938 |
| B2 | 12 | #9 | 1 | 48'-9" | 1989 |
| B3 | 8 | #5 | STR | 44'-8" | 373 |
| B4 | 16 | #4 | STR | 23'-5" | 250 |
| B5 | 22 | #4 | STR | 3'-8" | 54 |
| B6 | 6 | #4 | STR | 10'-0" | 40 |
| B7 | 35 | #4 | STR | 3'-2" | 74 |
| | | | | | |
| H1 | 13 | #6 | 5 | 9'-0" | 176 |
| H2 | 13 | #6 | 5 | 9'-5" | 184 |
| H3 | 12 | #6 | 6 | 8'-10" | 159 |
| H4 | 12 | #6 | 6 | 8'-5" | 152 |
| | | | | | |
| K1 | 40 | #4 | STR | 23'-5" | 626 |
| K2 | 4 | #4 | STR | 4'-6" | 12 |
| K3 | 4 | #4 | STR | 4'-5" | 12 |
| | | | | | |
| S1 | 132 | #5 | 4 | 4'-7" | 631 |
| S2 | 132 | #5 | 3 | 9'-10" | 1354 |
| S3 | 34 | #4 | 2 | 6'-6" | 148 |
| | | | | | |
| U1 | 77 | #4 | 7 | 3'-8" | 189 |
| U2 | 41 | #4 | 7 | 6'-8" | 183 |
| | | | | | |
| V1 | 154 | #5 | STR | 7'-3" | 1164 |
| V2 | 28 | #5 | STR | 9'-7" | 280 |
| V3 | 26 | #5 | STR | 9'-1" | 246 |
| | | | | | |
| TOTAL REINFORCING STEEL | | | | LBS. | 10234 |

### END BENT 1 TOTAL QUANTITIES

| | | |
|---|---|---|
| CLASS A CONCRETE | | |
| POUR #1 (CAP & LOWER WING) | C.Y. | 46.8 |
| POUR 2 (BACKWALL & UPPER WING) | C.Y. | 18.9 |
| TOTAL | C.Y. | 65.7 |
| HP 12x53 STEEL PILES | NO. | 17 |
| | LIN. FT. | 935 |

## NOTES:

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.

BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.

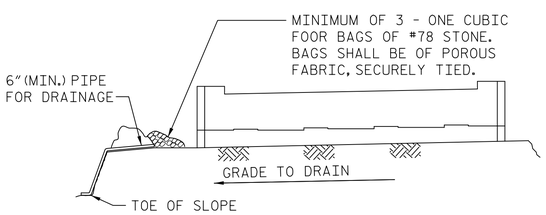
THE TOP SURFACE AREAS OF THE END BENT CAP SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THAT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.

THE TOP SURFACE OF THE CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE FILL FACE TO THE BACK FACE AT THE RATE OF 2%.

FOR OTHER NOTES, SEE "FOUNDATION LAYOUT" SHEET AND "LONG CHORD LAYOUT" SHEET.

THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE JOINT BETWEEN THE DECK AND THE APPROACH SLAB HAS BEEN SAWED AND THE PARAPET AND END POST ARE CAST IF SLIP FORMING IS USED.

INSTALL THE 4" DIA. DRAIN PIPE THROUGH THE WING WALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE THE ROADWAY PLANS. REINFORCING STEEL IN THE WING WALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.

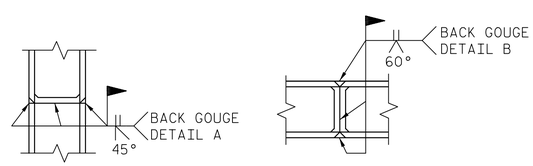



BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

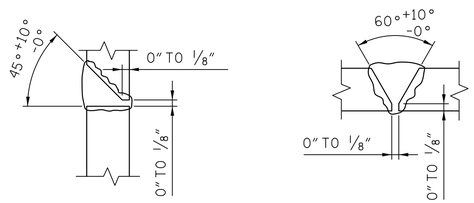
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE FOR THE SEVERAL PAY ITEMS.

## TEMPORARY DRAINAGE AT END BENT




** PILE VERTICAL

** PILE HORIZONTAL OR VERTICAL




DETAIL A

DETAIL B

** POSITION OF PILE DURING WELDING.

## PILE SPLICE DETAILS

PROJECT NO. U-2707

FORSYTH COUNTY

STATION: 17+34.88 -Y-

SHEET 4 OF 4 BRIDGE NO. 109

AECOM
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AECOM License No. F-0342

NORTH CAROLINA PROFESSIONAL SEAL 030474 ENGINEER JOHN C. MORRISON
DocuSigned by: John C. Morrison
1/12/2016

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

END BENT 1
SECTION AND DETAILS

| REVISIONS | | | | | | SHEET NO. |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-71 |
| | | | | | | TOTAL SHEETS 86 |

DRAWN BY : MTB DATE : 11/2015
CHECKED BY : JCM DATE : 11/2015

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