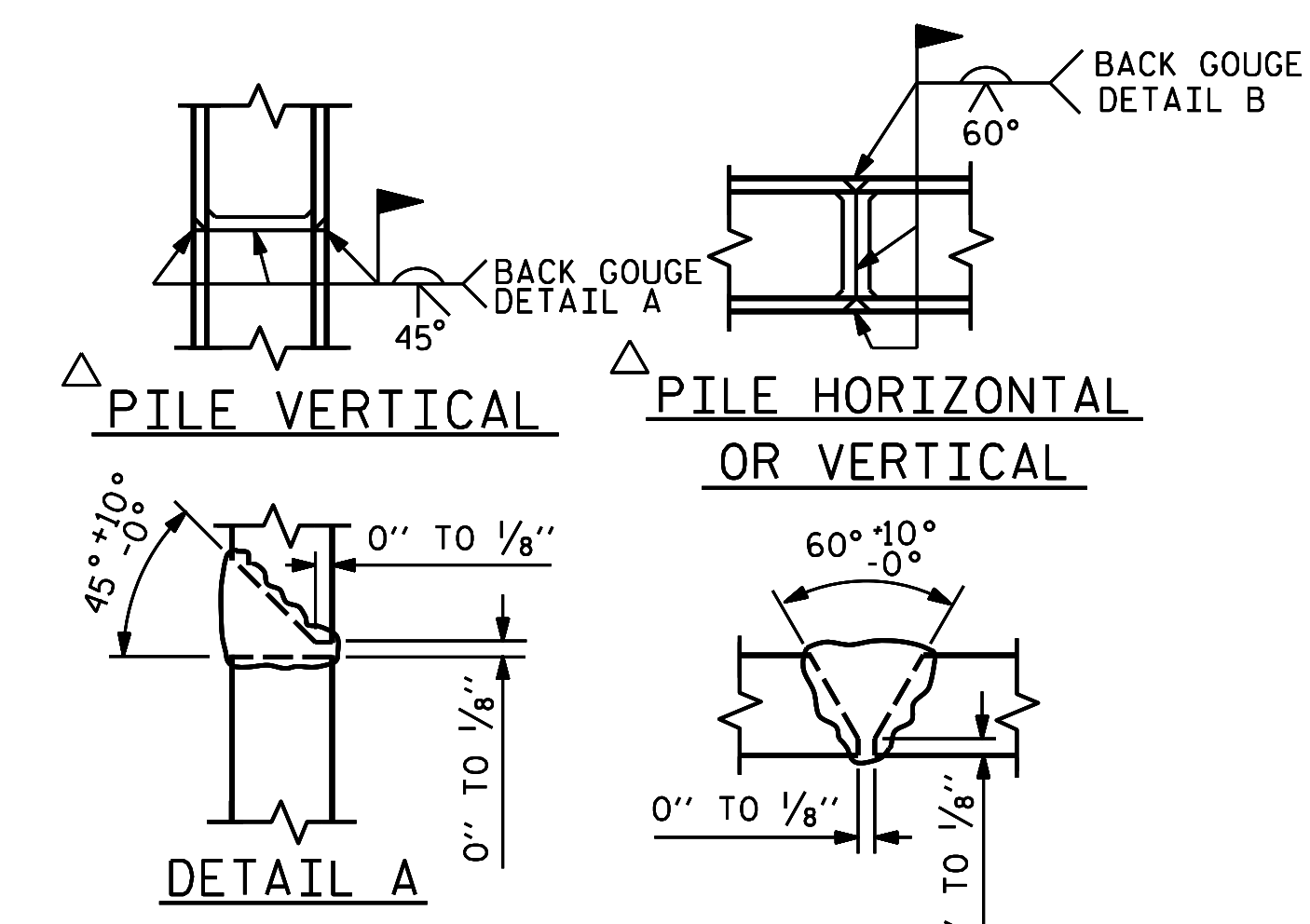
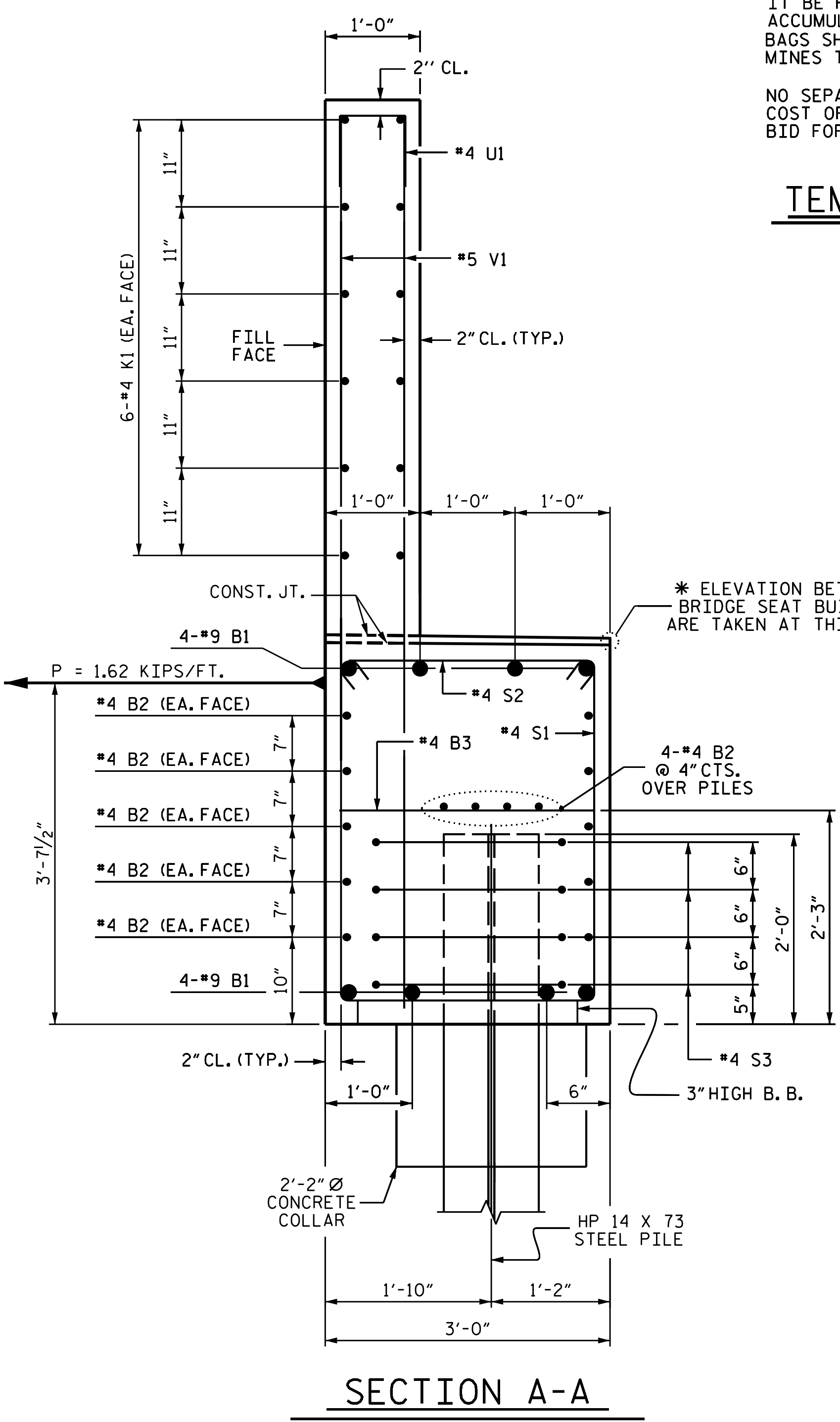


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

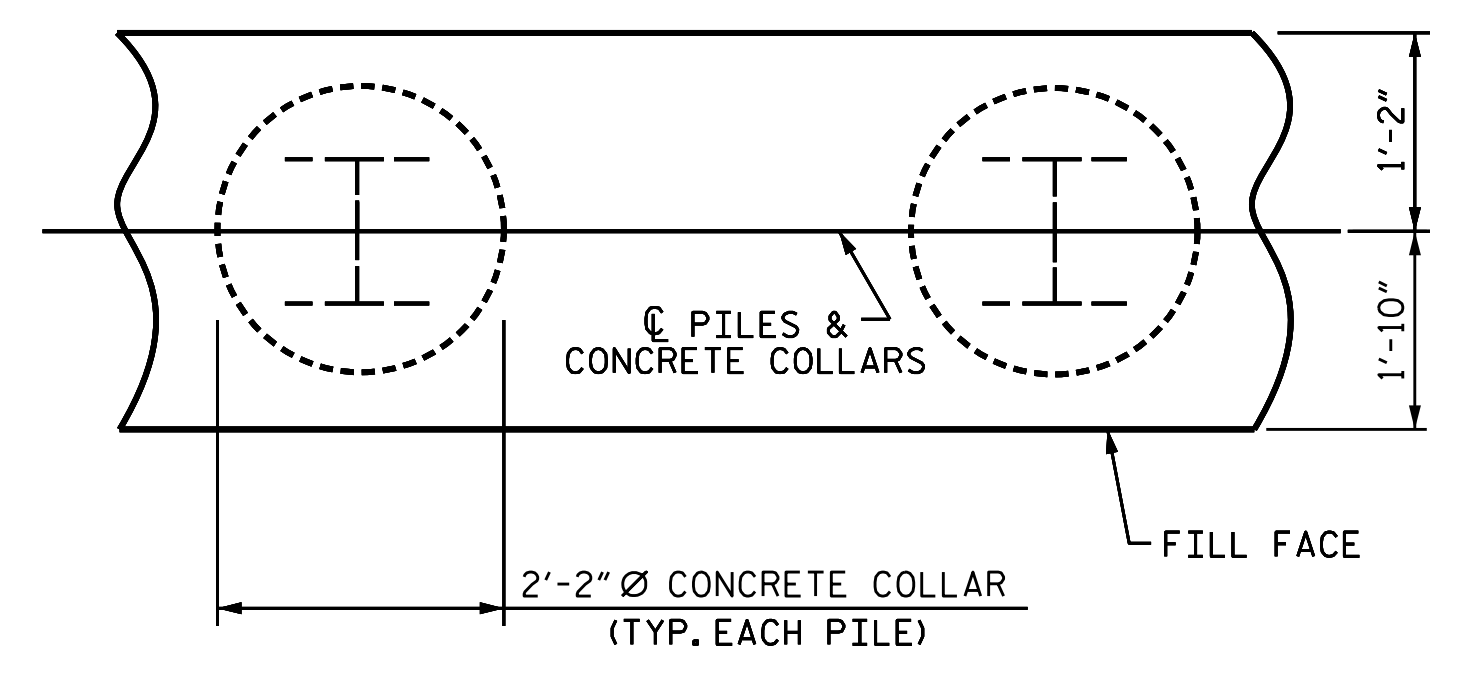
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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



PILE SPlice DETAILS



CORROSION PROTECTION FOR STEEL PILES DETAIL

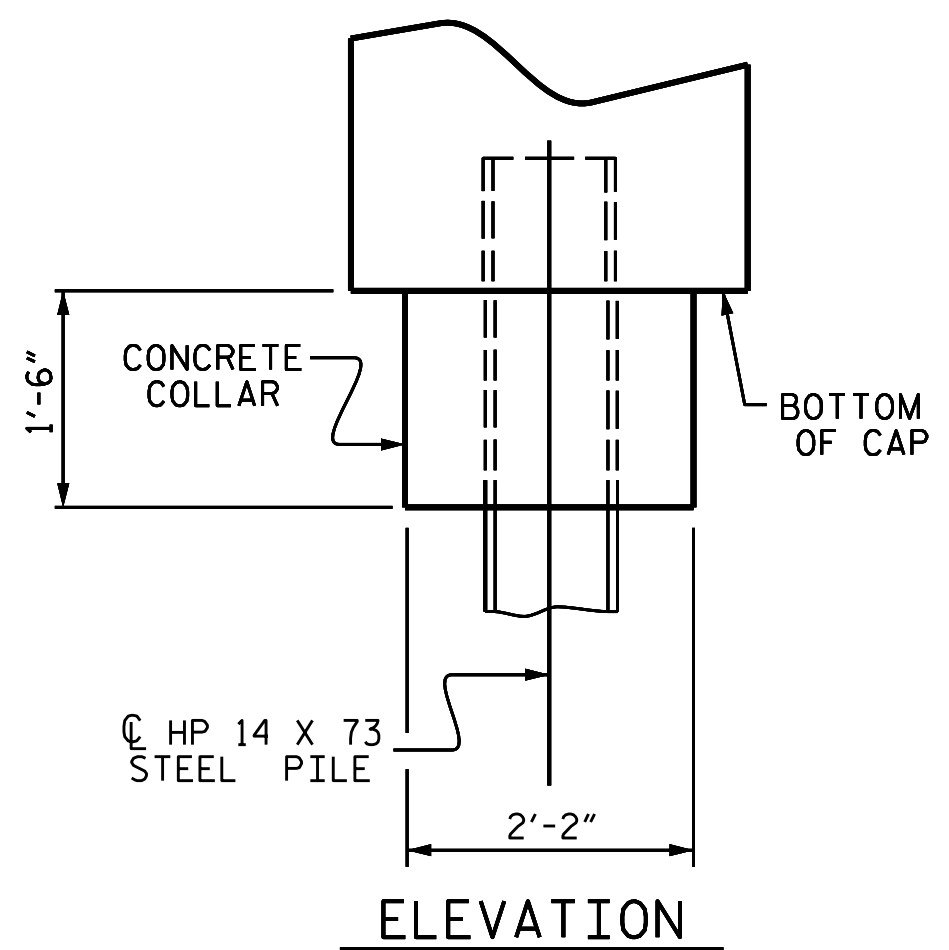
| BAR TYPES | | | | | | BILL OF MATERIAL | | | | | |
|-----------|-----|------|------|---------|--------|---|-----|------|------|---------|--------|
| | | | | | | END BENT #2 | | | | | |
| BAR | NO. | SIZE | TYPE | LENGTH | WEIGHT | BAR | NO. | SIZE | TYPE | LENGTH | WEIGHT |
| B1 | 8 | #9 | 1 | 42'-3" | 1149 | B1 | 8 | #9 | 1 | 42'-3" | 1149 |
| B2 | 14 | #4 | STR | 39'-11" | 373 | B2 | 14 | #4 | STR | 39'-11" | 373 |
| B3 | 10 | #4 | STR | 2'-8" | 18 | B3 | 10 | #4 | STR | 2'-8" | 18 |
| B4 | 8 | #4 | STR | 2'-4" | 12 | B4 | 8 | #4 | STR | 2'-4" | 12 |
| E1 | 16 | #5 | STR | 3'-6" | 58 | E1 | 16 | #5 | STR | 3'-6" | 58 |
| H1 | 52 | #5 | 2 | 7'-7" | 411 | H1 | 52 | #5 | 2 | 7'-7" | 411 |
| K1 | 12 | #4 | STR | 39'-11" | 320 | K1 | 12 | #4 | STR | 39'-11" | 320 |
| K2 | 8 | #4 | STR | 3'-0" | 16 | K2 | 8 | #4 | STR | 3'-0" | 16 |
| S1 | 74 | #4 | 3 | 10'-8" | 527 | S1 | 74 | #4 | 3 | 10'-8" | 527 |
| S2 | 74 | #4 | 4 | 3'-5" | 169 | S2 | 74 | #4 | 4 | 3'-5" | 169 |
| S3 | 28 | #4 | 5 | 7'-7" | 142 | S3 | 28 | #4 | 5 | 7'-7" | 142 |
| U1 | 34 | #4 | 6 | 3'-8" | 83 | U1 | 34 | #4 | 6 | 3'-8" | 83 |
| U2 | 6 | #4 | 6 | 5'-8" | 23 | U2 | 6 | #4 | 6 | 5'-8" | 23 |
| V1 | 68 | #5 | STR | 8'-10" | 626 | V1 | 68 | #5 | STR | 8'-10" | 626 |
| V2 | 48 | #5 | STR | 10'-6" | 526 | V2 | 48 | #5 | STR | 10'-6" | 526 |
| | | | | | | REINFORCING STEEL = 4453 LBS | | | | | |
| | | | | | | CLASS A CONCRETE BREAKDOWN | | | | | |
| | | | | | | POUR #1 CAP LOWER PART OF WINGS AND COLLARS | | | | | |
| | | | | | | C.Y. 21.6 | | | | | |
| | | | | | | POUR #2 (BACKWALL & UPPER PART OF WINGS) | | | | | |
| | | | | | | C.Y. 11.5 | | | | | |
| | | | | | | TOTAL CLASS A CONCRETE | | | | | |
| | | | | | | C.Y. 33.1 | | | | | |
| | | | | | | HP 14 X 73 STEEL PILES | | | | | |
| | | | | | | NO. 7 LIN. FT. 125.0 | | | | | |
| | | | | | | PREDRILLING FOR PILES | | | | | |
| | | | | | | LIN. FT. 20.0 | | | | | |
| | | | | | | STEEL PILE POINTS | | | | | |
| | | | | | | NO. 7 | | | | | |

NOTES

ABUTMENT RESTRAINTS (STRAPS) ARE REQUIRED ALONG THE CAP AS SHOWN. THE 1.62 KLF LOAD PROVIDED IS A FACTORED LOAD. THE SPACING AND LENGTH OF STRAPS SHALL BE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN NORTH CAROLINA AND SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. ANY ADDITIONAL CONSTRUCTION LOADS THAT WILL APPLY LOAD TO THE STRAPS (INCLUDING BUT NOT LIMITED TO CRANE LOADS) SHALL BE INCLUDED IN THE STRAP DESIGN AND SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO PLACING CONSTRUCTION LOAD ON THE APPROACH FILL.

PAYMENT FOR THE ABUTMENT RESTRAINTS (STRAPS) SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

FOR ADDITIONAL NOTES, SEE "FOUNDATION LAYOUT" SHEET.



PROJECT NO. B-5772
 ROWAN COUNTY
 STATION: 20+91.04 -EL-
 SHEET 3 OF 3



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT #2

DRAWN BY: A. SORSENGINH DATE: 4/2021
 CHECKED BY: M. G. SHAIKH DATE: 5/2021
 DESIGN ENGINEER OF RECORD: A. SORSENGINH DATE: 5/2021

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-23 |
| 1 | | | 3 | | | TOTAL SHEETS 25 |
| 2 | | | 4 | | | |