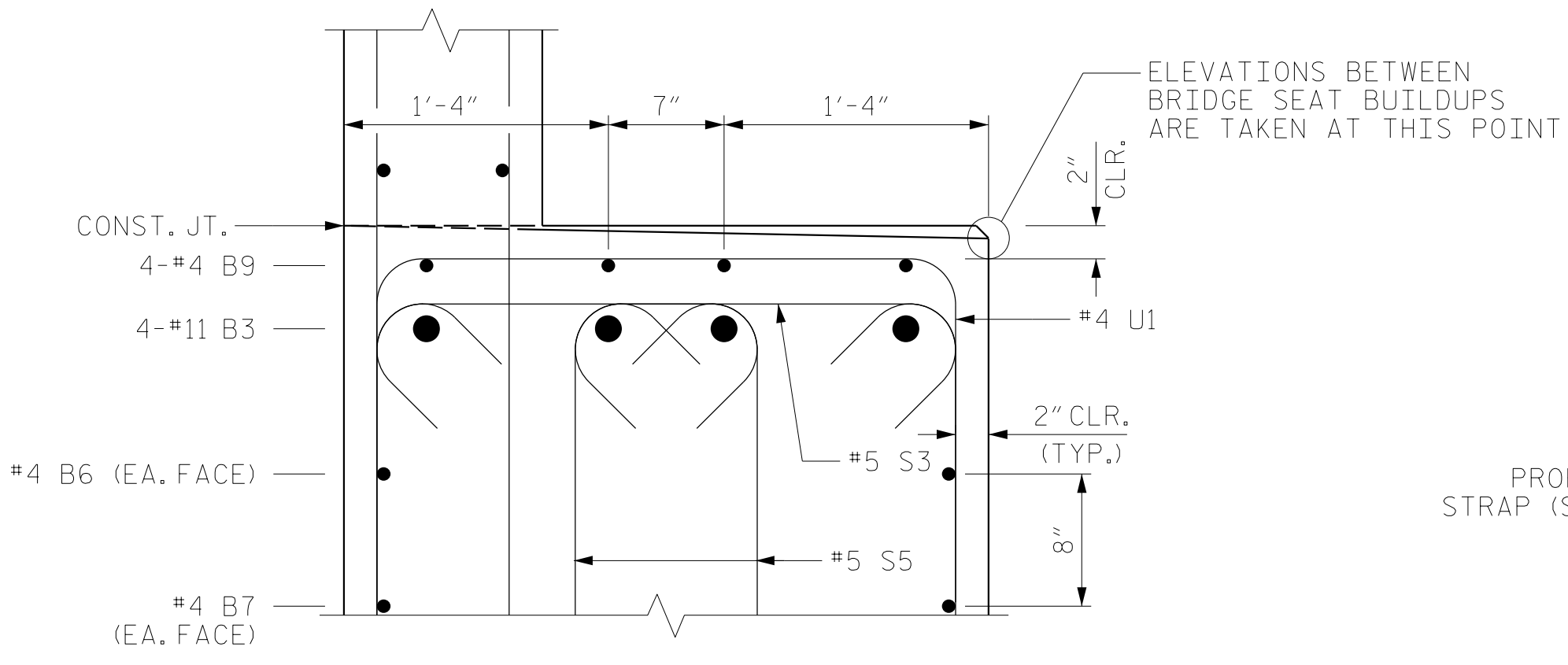


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

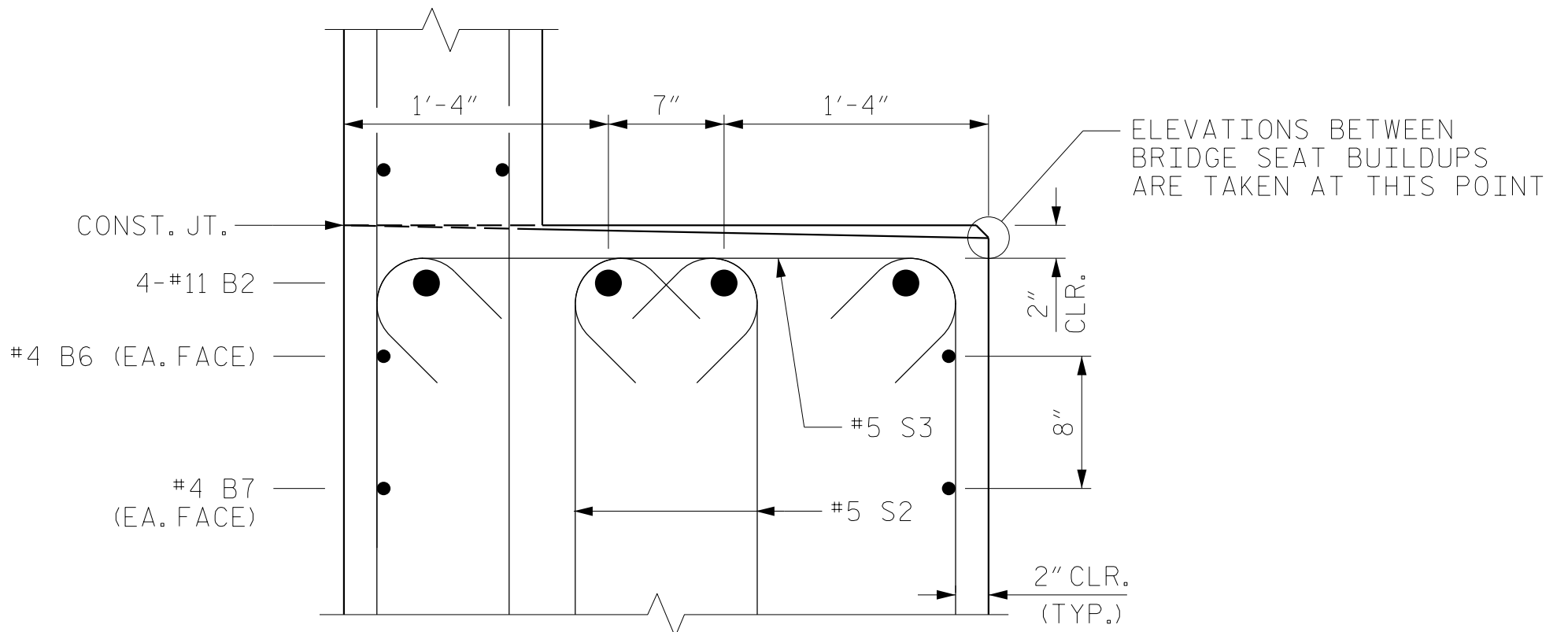
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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



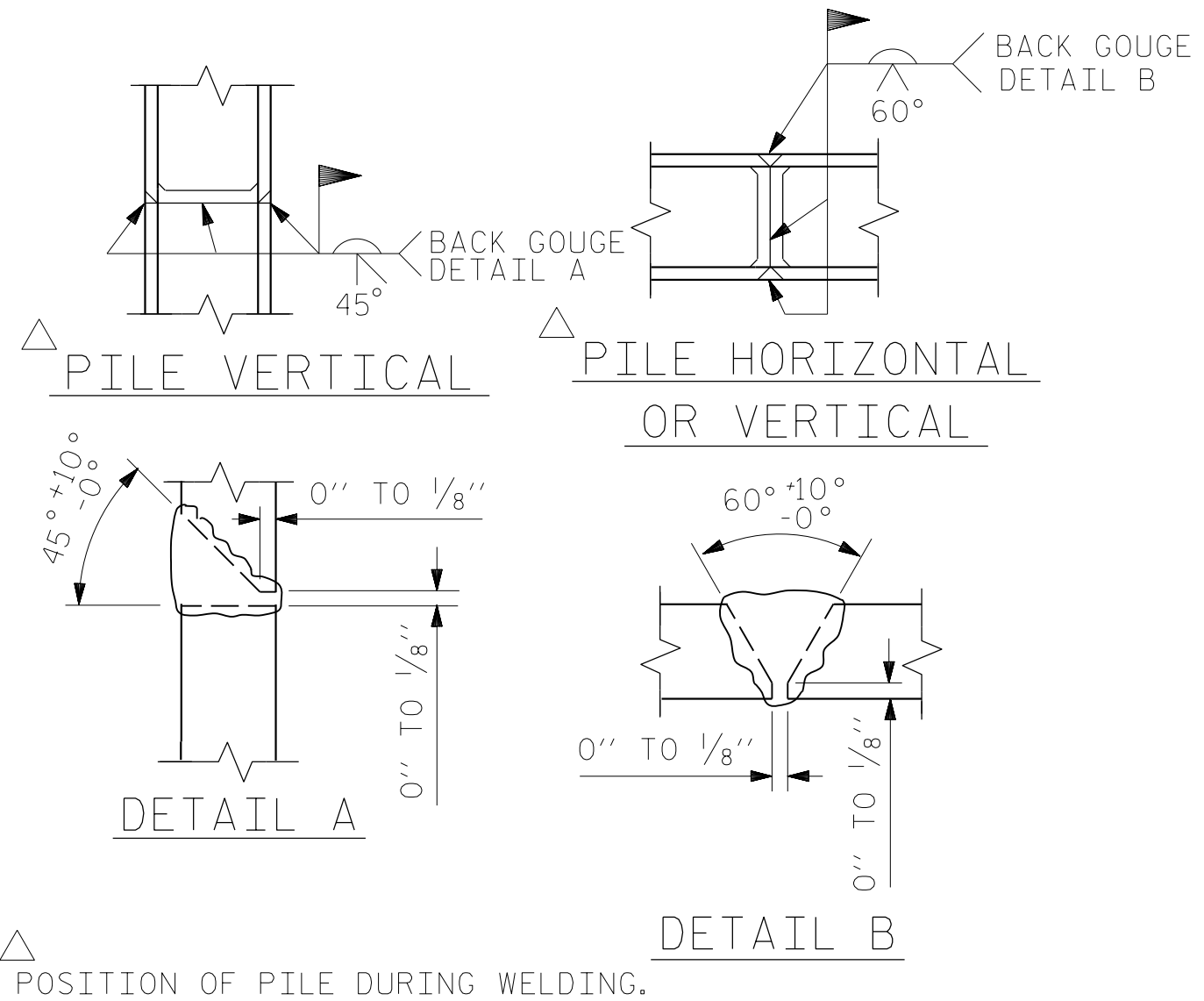
SECTION B-B



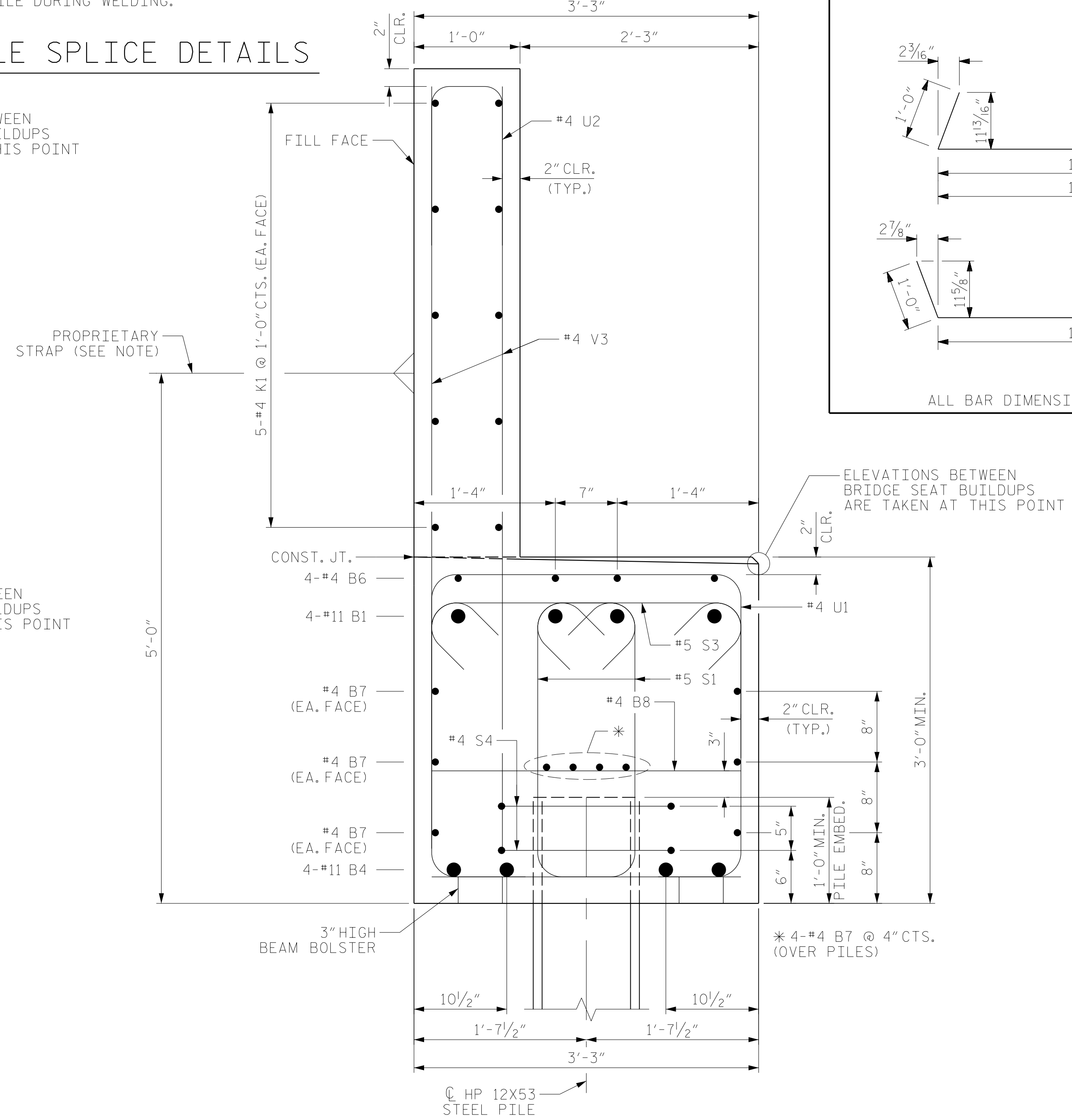
SECTION C-C

NOTE:

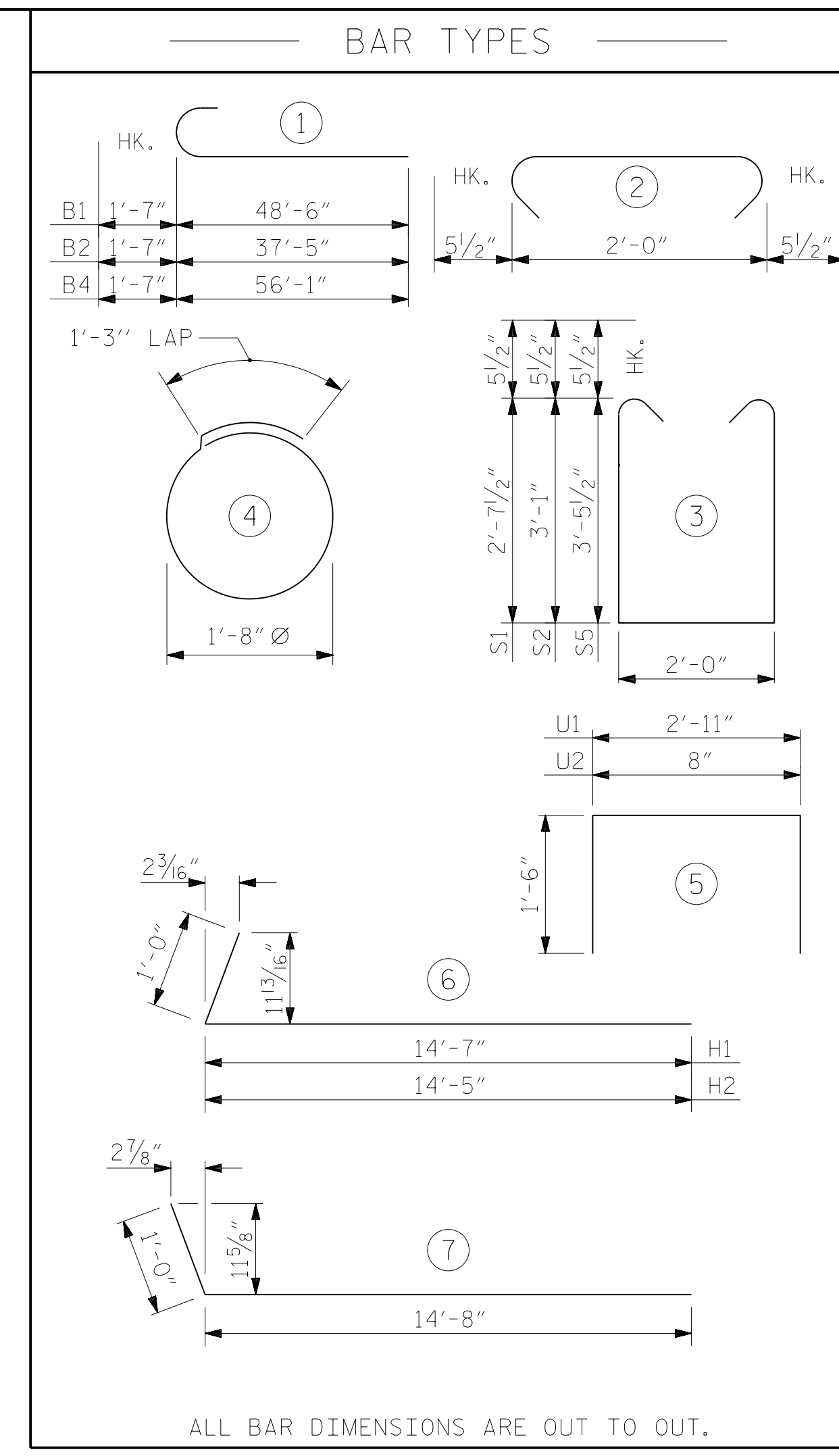
THE CONTRACTOR SHALL DESIGN, FURNISH, AND INSTALL A TIE BACK SYSTEM CAPABLE OF RESISTING THE FOLLOWING HORIZONTAL FORCES: 8.1 KIP/FT UNDER STRENGTH LOADING DEMAND AND 6.1 FIP/FT UNDER SERVICE LOADING DEMAND. PROPOSED CHANGES TO THE STRAP HEIGHT SHOWN IN SECTION A-A SHALL BE APPROVED BY THE DESIGN ENGINEER. THE TIE BACK SYSTEM SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER IN THE FORM OF SHOP DRAWINGS. THE TIE BACK SYSTEM AND REINFORCED BRIDGE APPROACH FILL SHALL BE INSTALLED PRIOR TO GIRDER ERECTION.



PILE SPLICE DETAILS



SECTION A-A



| BILL OF MATERIAL   |     |      |      |         |                |
|--|-----|------|------|---------|----------------|
| END BENT NO. 2   |     |      |      |         |                |
| BAR  | NO. | SIZE | TYPE | LENGTH  | WEIGHT         |
| B1   | 4   | #11  | 1    | 50'-1"  | 1064           |
| B2   | 4   | #11  | 1    | 39'-0"  | 829            |
| B3   | 4   | #11  | STR  | 59'-4"  | 1261           |
| B4   | 8   | #11  | 1    | 57'-8"  | 2451           |
| B5   | 4   | #11  | STR  | 22'-9"  | 483            |
| B6   | 10  | #4   | STR  | 27'-10" | 186            |
| B7   | 40  | #4   | STR  | 33'-0"  | 882            |
| B8   | 38  | #4   | STR  | 2'-11"  | 74             |
| B9   | 4   | #4   | STR  | 25'-9"  | 69             |
|  |     |      |      |         |                |
| H1   | 19  | #6   | 6    | 15'-7"  | 445            |
| H2   | 19  | #6   | 6    | 15'-5"  | 440            |
| H3   | 36  | #6   | 7    | 15'-8"  | 847            |
|  |     |      |      |         |                |
| K1   | 40  | #4   | STR  | 33'-0"  | 882            |
| K2   | 12  | #4   | STR  | 2'-8"   | 21             |
|  |     |      |      |         |                |
| S1   | 136 | #5   | 3    | 8'-2"   | 1158           |
| S2   | 96  | #5   | 3    | 9'-1"   | 909            |
| S3   | 454 | #5   | 2    | 2'-11"  | 1381           |
| S4   | 36  | #4   | 4    | 6'-6"   | 156            |
| S5   | 222 | #5   | 4    | 9'-10"  | 2277           |
|  |     |      |      |         |                |
| U1   | 33  | #4   | 5    | 5'-11"  | 130            |
| U2   | 119 | #4   | 5    | 3'-8"   | 291            |
|  |     |      |      |         |                |
| V1   | 36  | #4   | STR  | 9'-2"   | 220            |
| V2   | 36  | #4   | STR  | 8'-8"   | 208            |
| V3   | 474 | #4   | STR  | 7'-1"   | 2243           |
|  |     |      |      |         |                |
| REINFORCING STEEL  |     |      |      |         | 18,907 LBS.    |
| CLASS A CONCRETE   |     |      |      |         |                |
| POUR #1<br>CAP AND LOWER PART OF WINGS                   |     |      |      |         | 58.7 C.Y.      |
| POUR #2<br>UPPER PART OF WINGS AND BACKWALL              |     |      |      |         | 27.9 C.Y.      |
| TOTAL CLASS A CONCRETE                                   |     |      |      |         | 86.6 C.Y.      |
| HP 12 X 53 STEEL PILES<br>NO. 18                         |     |      |      |         | 540.0 LIN. FT. |
| STEEL PILE POINTS  |     |      |      |         | NO. 6          |
| PILE DRIVING EQUIPMENT SETUP<br>FOR HP 12X53 STEEL PILES |     |      |      |         | NO. 18         |
| PILE EXCAVATION<br>IN SOIL                               |     |      |      |         | 25 LIN. FT.    |
| NOT IN SOIL  |     |      |      |         | 95 LIN. FT.    |

PROJECT NO. U-2579AB  
 FORSYTH COUNTY  
 STATION: 30+67.66 -Y4-

SHEET 4 OF 4

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

LEON BOLINGER  
 PROFESSIONAL ENGINEER  
 NO. 18442  
 10/14/2021

**RS&H**  
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 www.rsandh.com  
 North Carolina License No. 50737-F-0403-C-28

| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S2-33        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 37           |

|                                |                |
|--------------------------------|----------------|
| DRAWN BY : MRA                 | DATE : 08/2019 |
| CHECKED BY : JMR               | DATE : 09/2019 |
| DESIGN ENGINEER OF RECORD: JMR | DATE : 10/2019 |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED