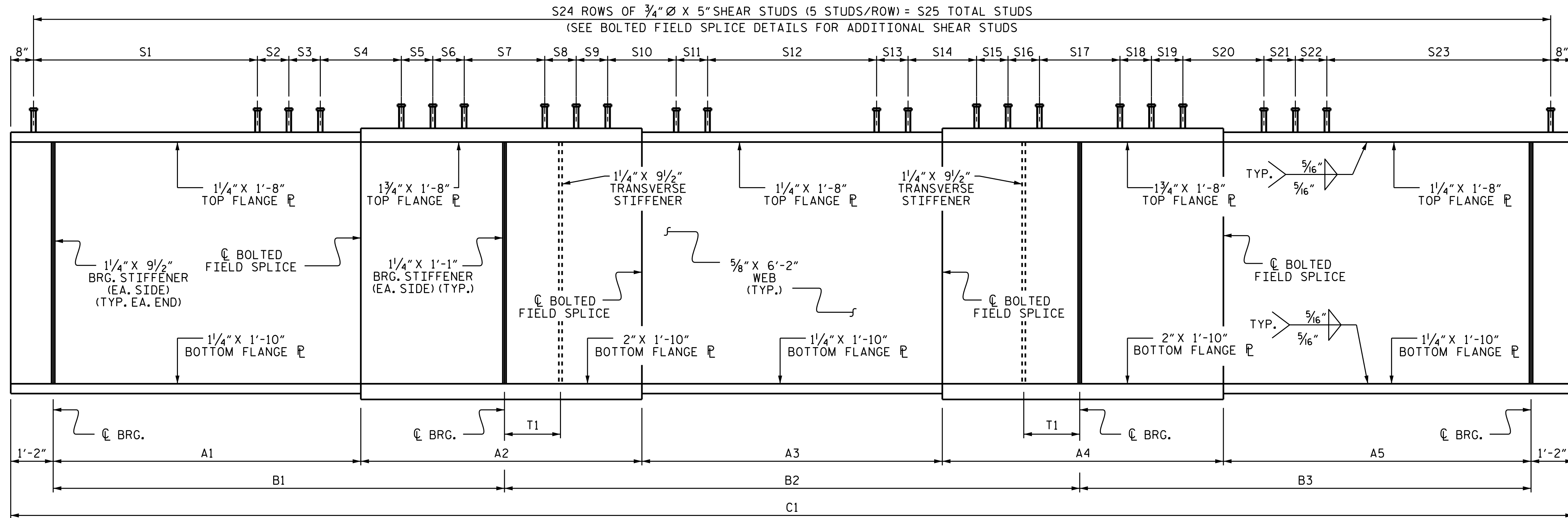


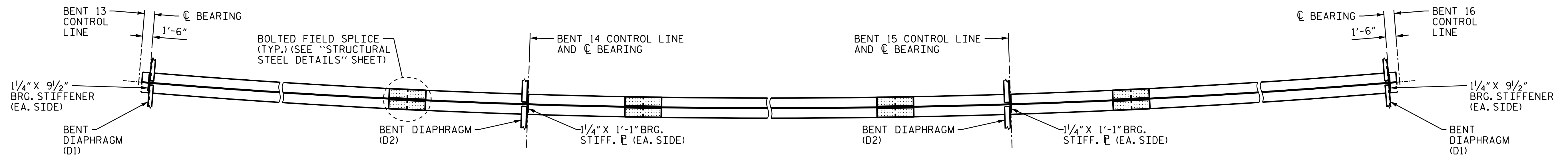
**SHEAR STUD SPACINGS**

| GIRDER | S1              | S2      | S3      | S4        | S5     | S6     | S7            | S8  | S9  | S10        | S11   | S12             | S13   | S14        | S15 | S16 | S17           | S18    | S19    | S20       | S21     | S22     | S23             | S24 | S25  |
|--------|-----------------|---------|---------|-----------|--------|--------|---------------|-----|-----|------------|-------|-----------------|-------|------------|-----|-----|---------------|--------|--------|-----------|---------|---------|-----------------|-----|------|
| 1      | 89 ROWS @ 1'-0" | 10 1/2" | 10 1/2" | 3'-8 1/8" | 9"     | 9"     | 93 ROWS @ 10" | 9"  | 9"  | 3'-7 7/8"  | 8"    | 73 ROWS @ 1'-2" | 8"    | 3'-7 7/8"  | 9"  | 9"  | 93 ROWS @ 10" | 9"     | 9"     | 3'-8 1/8" | 10 1/2" | 10 1/2" | 89 ROWS @ 1'-0" | 451 | 2255 |
| 2      | 90 ROWS @ 1'-0" | 9 1/2"  | 9 1/2"  | 3'-7 3/4" | 9"     | 9"     | 94 ROWS @ 10" | 8"  | 8"  | 3'-7 3/8"  | 1'-1" | 73 ROWS @ 1'-2" | 1'-1" | 3'-7 3/8"  | 8"  | 8"  | 94 ROWS @ 10" | 9"     | 9"     | 3'-7 3/4" | 9 1/2"  | 9 1/2"  | 90 ROWS @ 1'-0" | 455 | 2275 |
| 3      | 91 ROWS @ 1'-0" | 8"      | 8"      | 3'-7 3/4" | 9 1/2" | 9 1/2" | 95 ROWS @ 10" | 7"  | 7"  | 3'-7 9/16" | 10"   | 74 ROWS @ 1'-2" | 10"   | 3'-7 9/16" | 7"  | 7"  | 95 ROWS @ 10" | 9 1/2" | 9 1/2" | 3'-7 3/4" | 8"      | 8"      | 91 ROWS @ 1'-0" | 460 | 2300 |
| 4      | 92 ROWS @ 1'-0" | 6 1/2"  | 6 1/2"  | 3'-7 5/8" | 7 1/2" | 7 1/2" | 96 ROWS @ 10" | 8"  | 8"  | 3'-8 1/8"  | 1'-2" | 74 ROWS @ 1'-2" | 1'-2" | 3'-8 1/8"  | 8"  | 8"  | 96 ROWS @ 10" | 7 1/2" | 7 1/2" | 3'-7 5/8" | 6 1/2"  | 6 1/2"  | 92 ROWS @ 1'-0" | 464 | 2320 |
| 5      | 92 ROWS @ 1'-0" | 11 1/2" | 11 1/2" | 3'-7 1/8" | 10"    | 10"    | 96 ROWS @ 10" | 10" | 10" | 3'-7 1/2"  | 1'-0" | 75 ROWS @ 1'-2" | 1'-0" | 3'-7 1/2"  | 10" | 10" | 96 ROWS @ 10" | 10"    | 10"    | 3'-7 1/8" | 11 1/2" | 11 1/2" | 92 ROWS @ 1'-0" | 465 | 2325 |



**GIRDER ELEVATION**

HORIZONTAL DIMENSIONS ARE MEASURED ALONG ARC



**BOTTOM FLANGE DETAIL**

| GIRDER DIMENSIONS |           |               |             |            |             |               |               |              |               |              |
|-------------------|-----------|---------------|-------------|------------|-------------|---------------|---------------|--------------|---------------|--------------|
| GIRDER            | RADIUS    | A1            | A2          | A3         | A4          | A5            | B1            | B2           | B3            | C1           |
| 1                 | 1342'-1"  | 91'-1 3/8"    | 83'-3 1/2"  | 89'-0 1/4" | 83'-3 1/2"  | 91'-1 3/8"    | 133'-8 1/4"   | 170'-5 1/2"  | 133'-8 1/4"   | 440'-2"      |
| 2                 | 1353'-4"  | 91'-10 11/16" | 83'-11 1/8" | 89'-9 7/8" | 83'-11 7/8" | 91'-10 11/16" | 134'-9 3/16"  | 171'-10 5/8" | 134'-9 3/16"  | 443'-10 1/4" |
| 3                 | 1364'-7"  | 92'-8"        | 84'-8 1/4"  | 90'-6 1/8" | 84'-8 1/4"  | 92'-8"        | 135'-11 1/16" | 173'-3 3/4"  | 135'-11 1/16" | 447'-6 5/8"  |
| 4                 | 1375'-10" | 93'-5 3/8"    | 85'-4 5/8"  | 91'-3"     | 85'-4 5/8"  | 93'-5 3/8"    | 137'-11 1/16" | 174'-8 7/8"  | 137'-11 1/16" | 451'-3"      |
| 5                 | 1387'-1"  | 94'-2 5/8"    | 86'-1"      | 92'-0"     | 86'-1"      | 94'-2 5/8"    | 138'-2 5/8"   | 176'-2"      | 138'-2 5/8"   | 454'-11 1/4" |

| TRANSVERSE STIFFENER LOCATIONS |        |
|--------------------------------|--------|
| GIRDER                         | T1     |
| 1                              | ---    |
| 2                              | ---    |
| 3                              | ---    |
| 4                              | ---    |
| 5                              | 18'-1" |

**NOTES:**

GIRDERS ARE NUMBERED FROM LEFT TO RIGHT (LOOKING UPSTATION).

THERE ARE 5 STUDS PER ROW.

PLACE TRANSVERSE STIFFENERS ON THE INSIDE OF WEB FOR EXTERIOR GIRDERS.

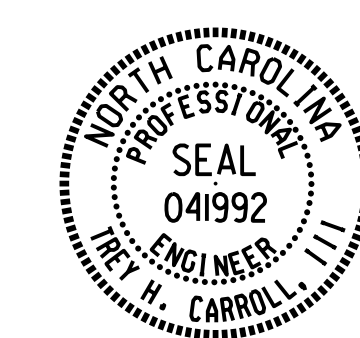
NO TRANSVERSE STIFFENER REQUIRED AT LOCATIONS MARKED AS "----".

SPANS "N", "O", AND "P" SHOWN, SPANS "Q", "R", "S" AND "T", "U", "V" SIMILAR.

PROJECT NO. B-4929  
PENDER COUNTY  
 STATION: 38+13.81 -L2-

SHEET 1 OF 4 STEEL ALTERNATE

6/1/2016



DocuSigned by:  
Trey H. Carroll III  
0516282D0C748E

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SUPERSTRUCTURE  
**STRUCTURAL STEEL  
 DETAILS**

DRAWN BY : K. WHITE DATE : FEB 2016  
 CHECKED BY : T. H. CARROLL DATE : MAR 2016  
 DESIGN ENGINEER OF RECORD: T. H. CARROLL DATE : MAY 2016

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     | SHEET NO. |       |
|-----------|-----|-------|-----|-----------|-------|
| NO.       | BY: | DATE: | NO. | BY:       | DATE: |
| 1         |     |       | 3   |           |       |
| 2         |     |       | 4   |           |       |

TOTAL SHEETS  
278