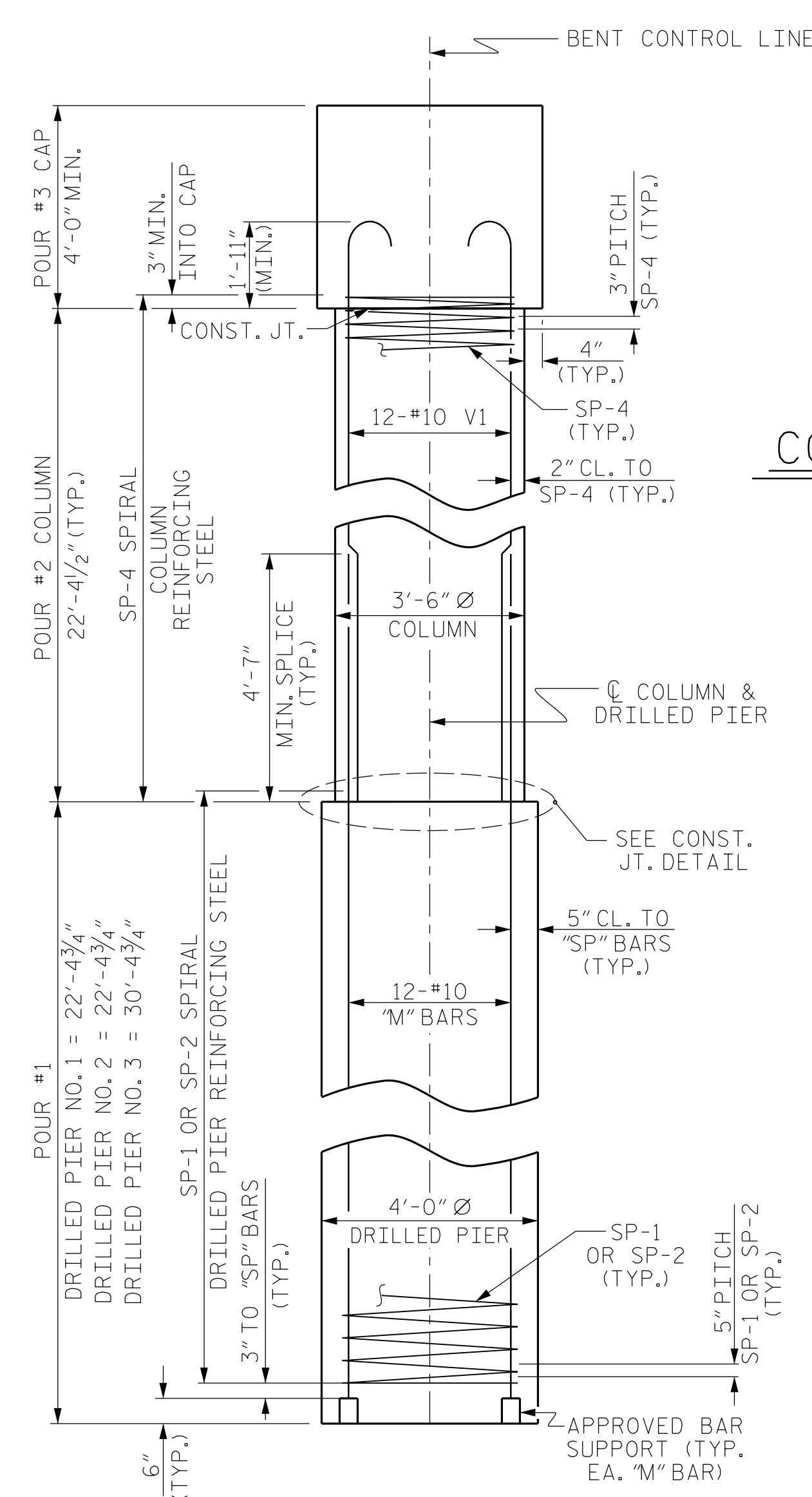
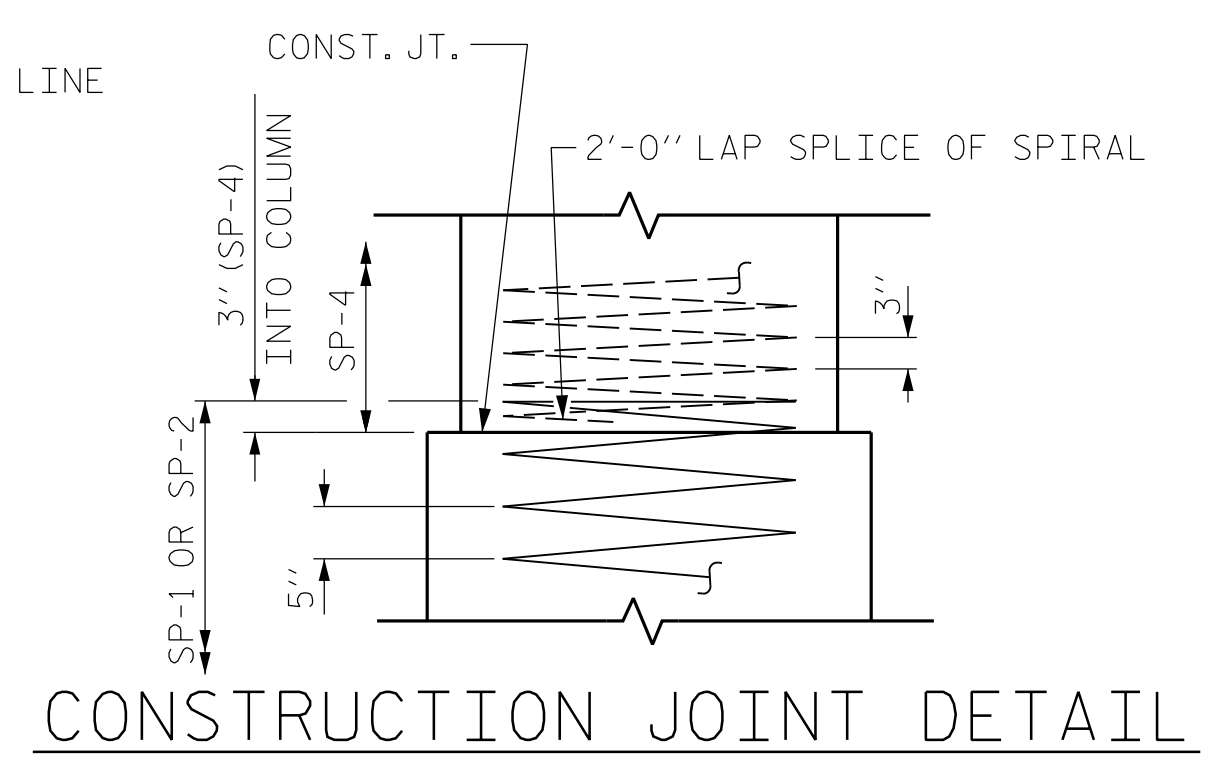


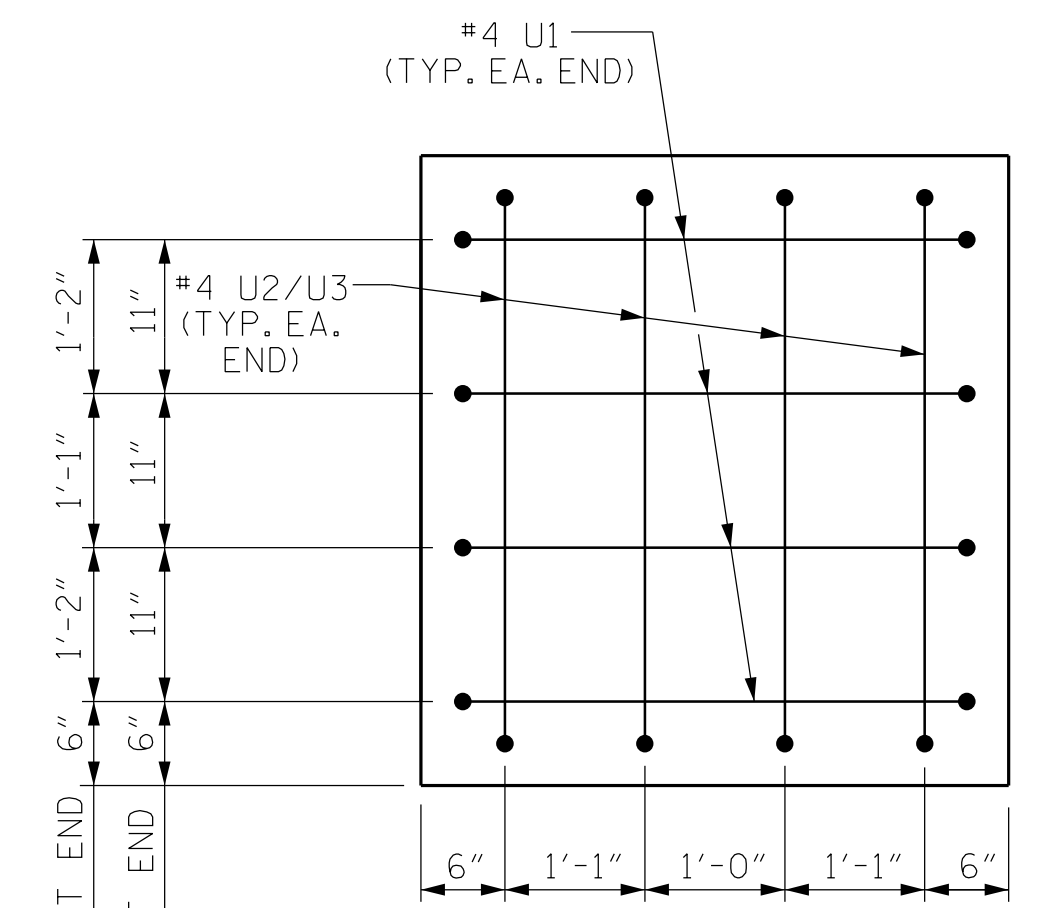
PLAN OF DRILLED PIERS & COLUMNS



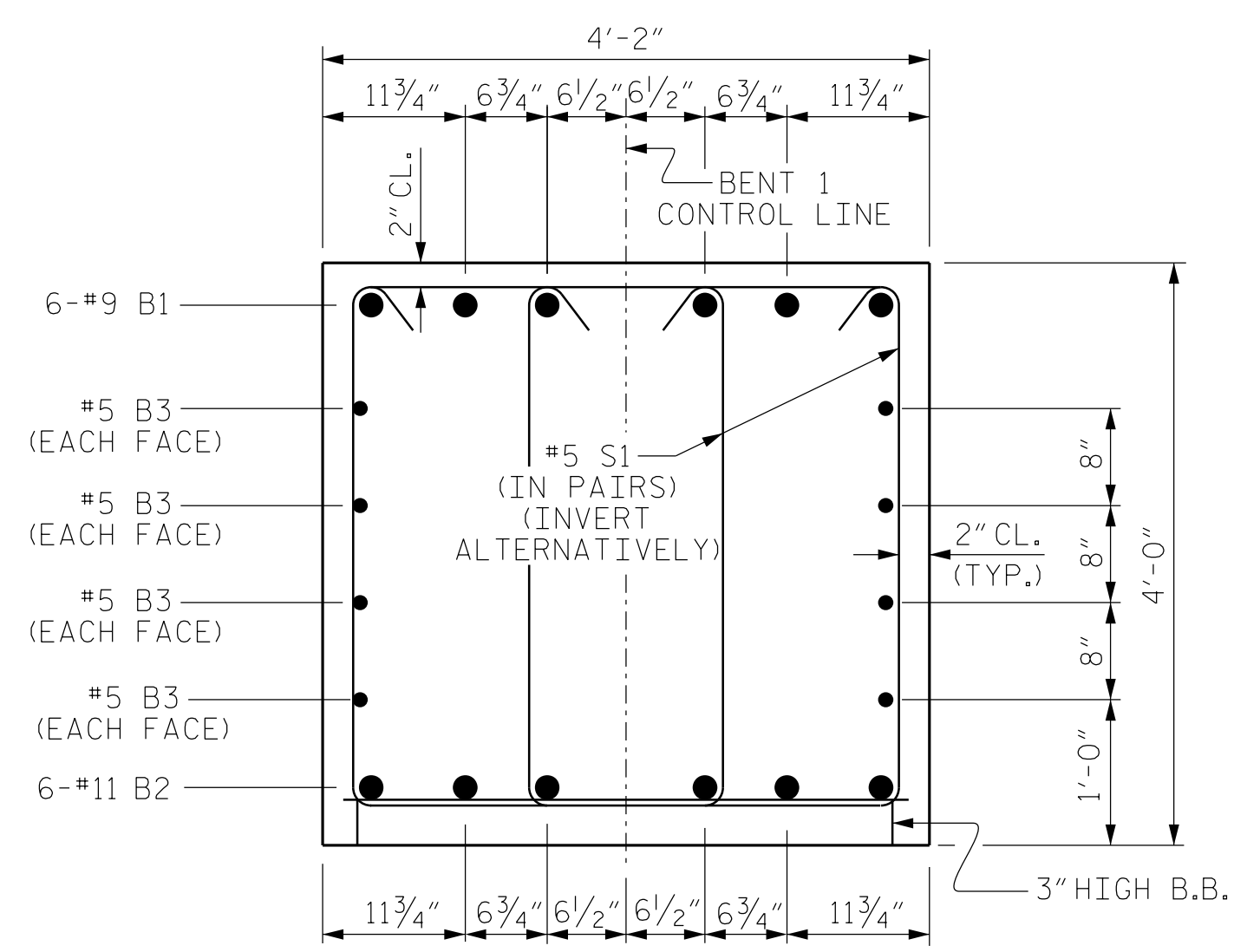
END ELEVATION



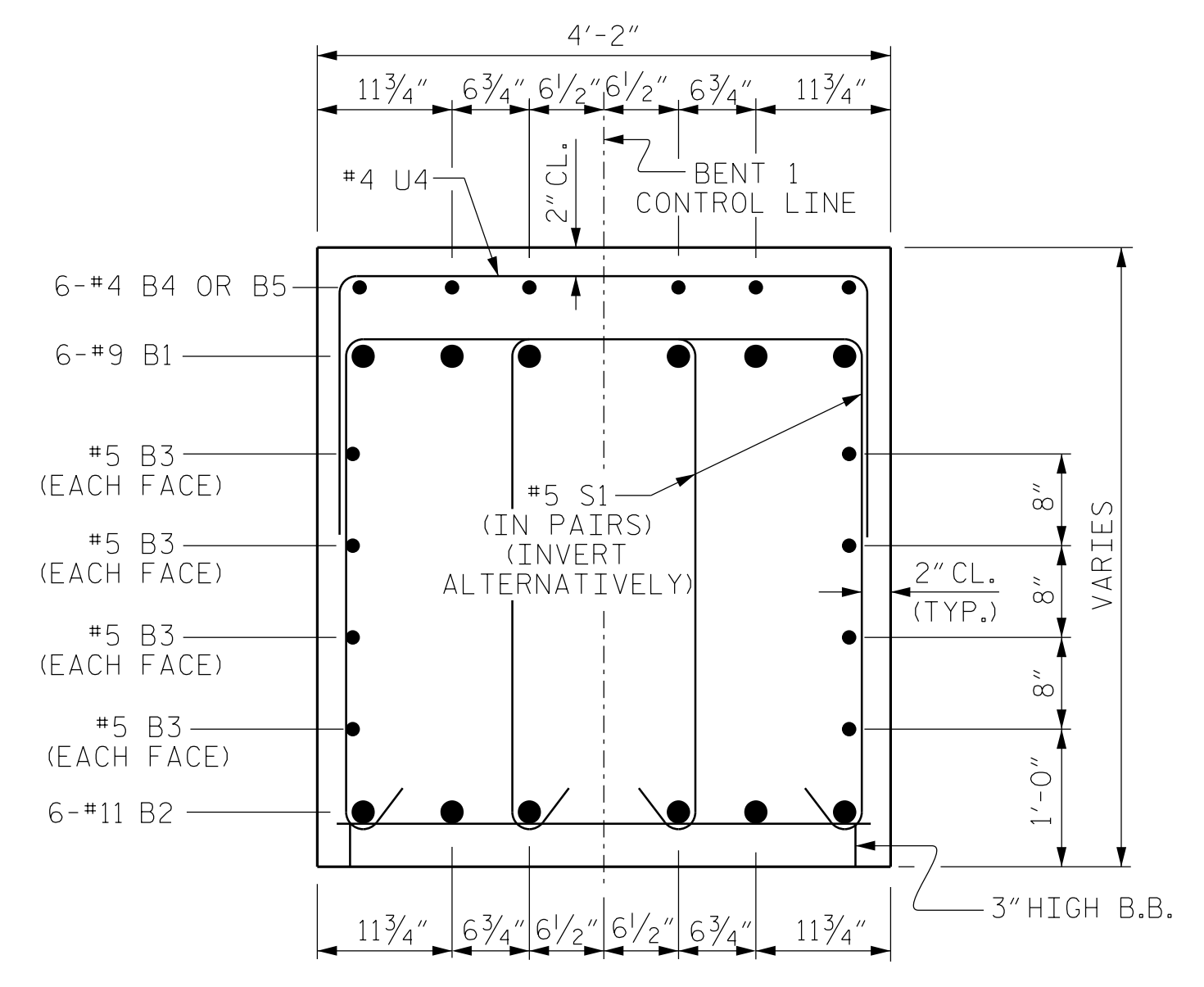
CONSTRUCTION JOINT DETAIL



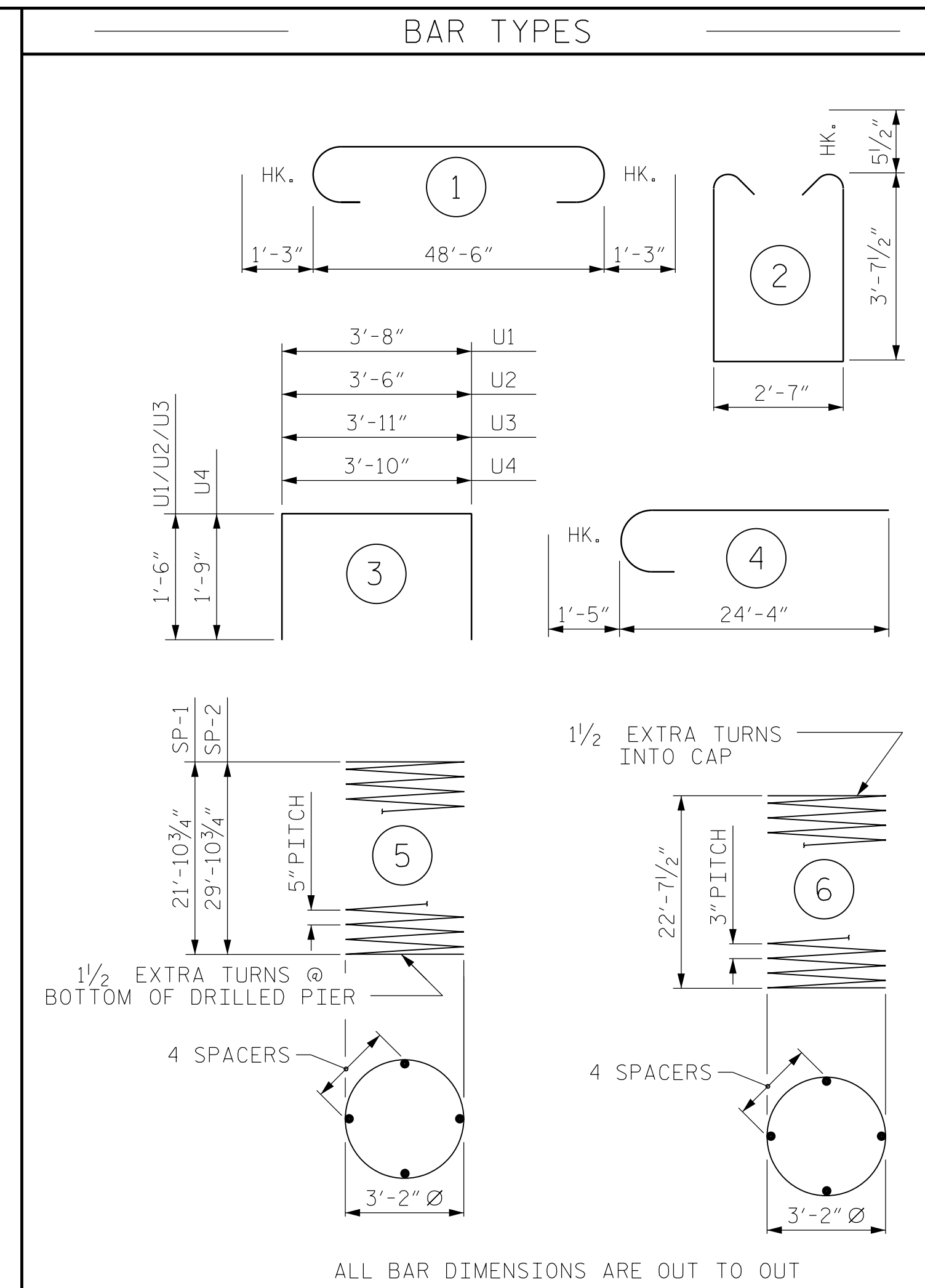
END OF CAP VIEW  
(TYPICAL BOTH ENDS)



SECTION A-A



SECTION B-B

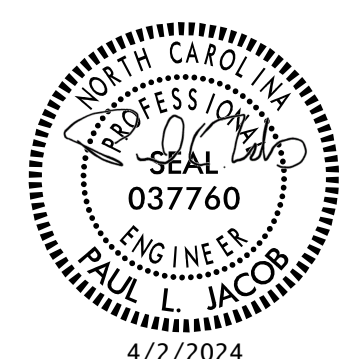


ALL BAR DIMENSIONS ARE OUT TO OUT

| BILL OF MATERIAL FOR ONE BENT   |     |      |      |         |               |
|---|-----|------|------|---------|---------------|
| BAR   | NO. | SIZE | TYPE | LENGTH  | WEIGHT        |
| B1  | 6   | #9   |      | 51'-0"  | 1,040         |
| B2  | 6   | #11  | STR  | 48'-8"  | 1,551         |
| B3  | 8   | #5   | STR  | 48'-8"  | 406           |
| B4  | 6   | #4   | STR  | 12'-0"  | 48            |
| B5  | 6   | #4   | STR  | 28'-8"  | 115           |
| M1  | 24  | #10  | STR  | 29'-6"  | 3,047         |
| M2  | 12  | #10  | STR  | 37'-6"  | 1,936         |
| S1  | 196 | #5   | 2    | 10'-9"  | 2,198         |
| U1  | 8   | #4   | 3    | 6'-8"   | 36            |
| U2  | 4   | #4   | 3    | 6'-6"   | 17            |
| U3  | 4   | #4   | 3    | 6'-11"  | 18            |
| U4  | 62  | #4   | 3    | 7'-1"   | 293           |
| V1  | 36  | #10  | 4    | 25'-9"  | 3,989         |
| REINFORCING STEEL (FOR ONE BENT)  |     |      |      |         | 14,694 LBS.   |
| SP-1  | 2   | *    | 5    | 528'-7" | 1,103         |
| SP-2  | 1   | *    | 5    | 716'-4" | 747           |
| SP-4  | 3   | **   | 6    | 902'-3" | 1,808         |
| SPIRAL COLUMN REINFORCING STEEL (FOR ONE BENT)  |     |      |      |         | 3,658 LBS.    |
| * THE SP-1 & SP-2 SPIRAL REINFORC. STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR |     |      |      |         |               |
| ** THE SP-4 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR     |     |      |      |         |               |
| CLASS A CONCRETE BREAKDOWN (FOR ONE BENT)   |     |      |      |         |               |
| POUR #2 (COLUMNS)   |     |      |      |         | 24.0 C.Y.     |
| POUR #3 (CAP)   |     |      |      |         | 33.0 C.Y.     |
| TOTAL CLASS A CONCRETE  |     |      |      |         | 57.0 C.Y.     |
| DRILLED PIERS: (FOR ONE BENT)   |     |      |      |         |               |
| DRILLED PIER CONCRETE   |     |      |      |         |               |
| POUR #1 (DRILLED PIERS)   |     |      |      |         | 35.0 C.Y.     |
| 4'-0" Ø DRILLED PIER NOT IN SOIL  |     |      |      |         | 36.9 LIN. FT. |
| 4'-0" Ø DRILLED PIER IN SOIL  |     |      |      |         | 38.3 LIN. FT. |
| PERMANENT STEEL CASING FOR 4'-0" Ø DRILLED PIER   |     |      |      |         | 39.0 LIN. FT. |
| CSL TESTING   |     |      |      |         | 3 EA.         |
| CSL TUBES   |     |      |      |         | 320 LIN. FT.  |
| PIT TESTING   |     |      |      |         | 1 EA.         |

PROJECT NO. BR-0069  
CASWELL COUNTY  
STATION: 20+18.00 -L-  
SHEET 2 OF 2

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
BENT 1  
DETAILS



DRAWN BY: J. WEIGER DATE: 6-2023  
CHECKED BY: J. LOFTUS DATE: 8-2023  
DESIGN ENGINEER OF RECORD: J. LOFTUS DATE: 3-2024

**moffatt & nichol**  
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RALEIGH, NORTH CAROLINA 27609  
(919) 781-4626 VOICE (919) 781-4869 FAX  
NC License No.: F-0105

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.       |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                 |
| 1         |     |       | 3   |     |       | S-29            |
| 2         |     |       | 4   |     |       | TOTAL SHEETS 38 |

3/20/2024 02:14:01 109:BR-0069 Structures\01-CADD\02-Final Drawings\01\_057\_BR0069\_SMU.B102.029\_160001.dgn jloftus