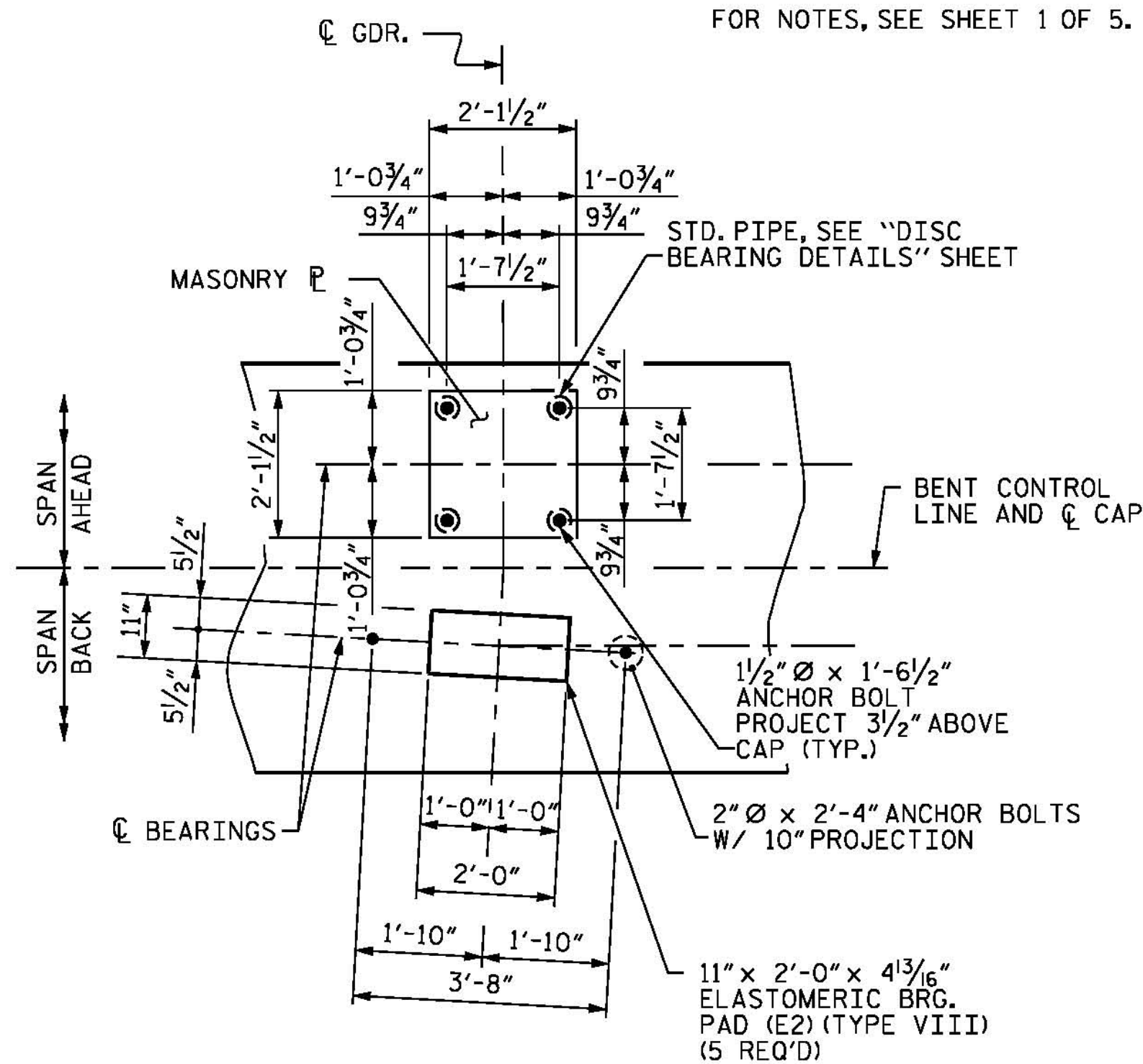


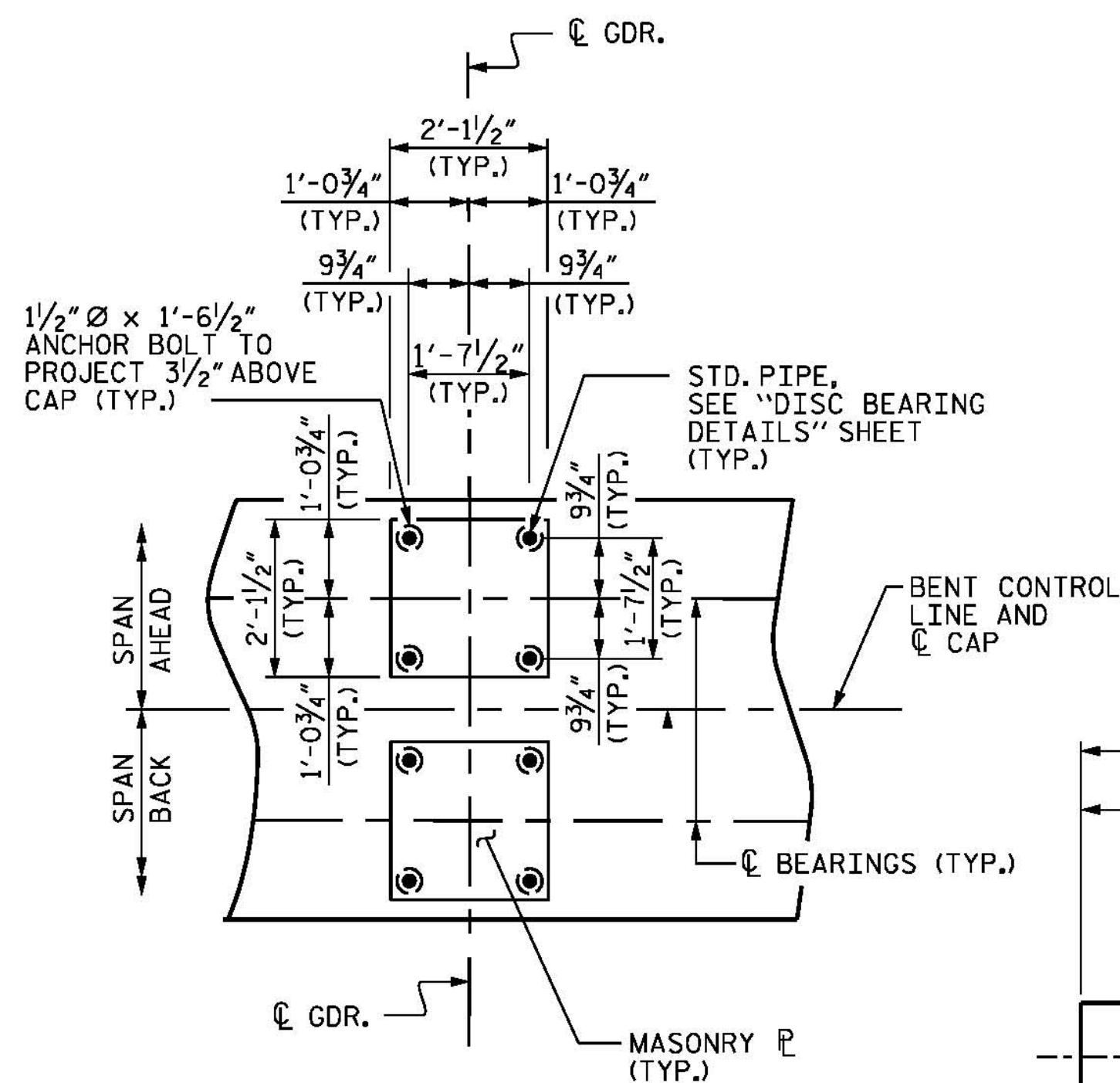
NOTES

FOR NOTES, SEE SHEET 1 OF 5.



DETAIL A

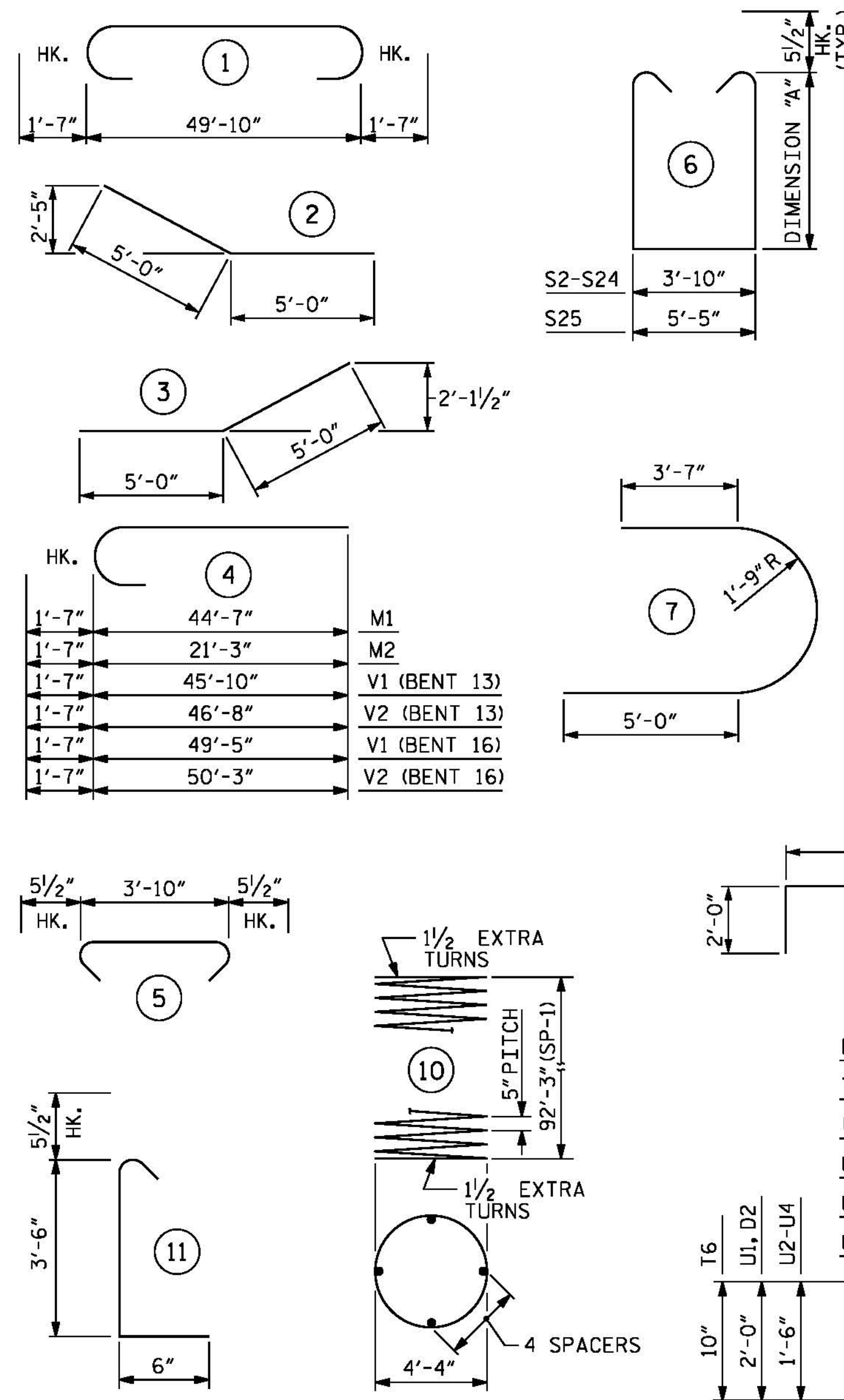
BENT 13 SHOWN



DETAIL B

BENT 16 SHOWN

BAR TYPES



| DIMENSION "A" | |
|---------------|------------|
| BAR | "A" |
| S2 | 7'-5 1/2" |
| S3 | 7'-4" |
| S4 | 7'-1 1/2" |
| S5 | 6'-11" |
| S6 | 6'-8" |
| S7 | 6'-5 1/2" |
| S8 | 6'-3" |
| S9 | 6'-0 1/2" |
| S10 | 5'-9 1/2" |
| S11 | 5'-7" |
| S12 | 5'-4 1/2" |
| S13 | 5'-2" |
| S14 | 7'-5" |
| S15 | 7'-3" |
| S16 | 7'-1" |
| S17 | 6'-10" |
| S18 | 6'-8" |
| S19 | 6'-5 1/2" |
| S20 | 6'-3" |
| S21 | 6'-1" |
| S22 | 5'-10 1/2" |
| S23 | 5'-8" |
| S24 | 5'-5 1/2" |
| S25 | 7'-5 1/2" |

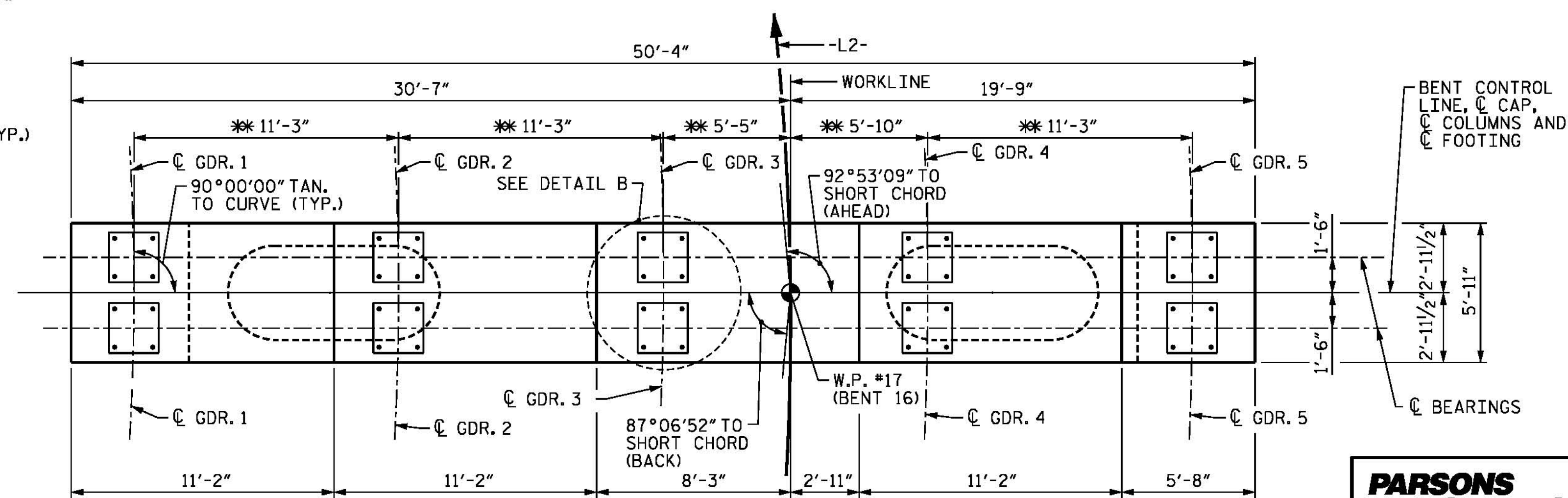
ALL BAR DIMENSIONS ARE OUT TO OUT.

* THE SP-1 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN DEFORMED BAR.

BILL OF MATERIAL

BENT 16

| BAR | NUMBER | SIZE | TYPE | LENGTH | WEIGHT | BAR | NUMBER | SIZE | TYPE | LENGTH | WEIGHT |
|---|--------|------|------|-----------|--------|-----|--------|------|------|---------|--------|
| B1 | 10 | #11 | 1 | 53'-0" | 2816 | T1 | 93 | #9 | STR | 54'-4" | 17180 |
| B2 | 10 | #11 | STR | 49'-10" | 2648 | T2 | 134 | #9 | STR | 24'-4" | 11086 |
| B3 | 10 | #10 | STR | 40'-4" | 1736 | T3 | 83 | #6 | STR | 24'-4" | 3034 |
| B4 | 6 | #10 | STR | 42'-0" | 1084 | T4 | 20 | #6 | STR | 54'-4" | 1632 |
| B5 | 10 | #10 | 2 | 10'-0" | 430 | T5 | 138 | #5 | STR | 7'-2" | 1032 |
| B6 | 10 | #10 | 3 | 10'-0" | 430 | T6 | 316 | #5 | 9 | 8'-6" | 2801 |
| B7 | 14 | #7 | STR | 49'-10" | 1426 | | | | | | |
| B8 | 2 | #7 | STR | 47'-4" | 193 | U1 | 116 | #4 | 9 | 6'-5" | 497 |
| B9 | 2 | #7 | STR | 44'-8" | 183 | U2 | 10 | #4 | 9 | 8'-3" | 55 |
| B10 | 20 | #4 | STR | 6'-3" | 84 | U3 | 6 | #4 | 9 | 8'-2" | 33 |
| B11 | 10 | #4 | STR | 5'-2" | 35 | U4 | 6 | #4 | 9 | 8'-0" | 32 |
| B12 | 24 | #4 | STR | 5'-5" | 87 | | | | | | |
| B13 | 20 | #4 | STR | 12'-2" | 163 | V1 | 36 | #11 | 4 | 51'-0" | 9755 |
| | | | | | | V2 | 36 | #11 | 4 | 51'-10" | 9914 |
| D1 | 26 | #6 | STR | 39'-4" | 1536 | V3 | 72 | #11 | 8 | 21'-2" | 8097 |
| D2 | 48 | #5 | 9 | 10'-4" | 517 | | | | | | |
| M1 | 144 | #11 | 4 | 46'-2" | 35321 | | | | | | |
| M2 | 144 | #11 | 4 | 22'-10" | 17469 | | | | | | |
| M3 | 432 | #11 | STR | 50'-0" | 114761 | | | | | | |
| M4 | 144 | #11 | STR | 26'-8" | 20402 | | | | | | |
| S1 | 118 | #5 | 5 | 4'-9" | 585 | | | | | | |
| S2 | 74 | #5 | 6 | 19'-8" | 1518 | | | | | | |
| S3 | 2 | #5 | 6 | 19'-5" | 41 | | | | | | |
| S4 | 2 | #5 | 6 | 19'-0" | 40 | | | | | | |
| S5 | 2 | #5 | 6 | 18'-7" | 39 | | | | | | |
| S6 | 2 | #5 | 6 | 18'-1" | 38 | | | | | | |
| S7 | 2 | #5 | 6 | 17'-8" | 37 | | | | | | |
| S8 | 2 | #5 | 6 | 17'-3" | 36 | | | | | | |
| S9 | 2 | #5 | 6 | 16'-10" | 35 | | | | | | |
| S10 | 2 | #5 | 6 | 16'-4" | 34 | | | | | | |
| S11 | 2 | #5 | 6 | 15'-11" | 33 | | | | | | |
| S12 | 2 | #5 | 6 | 15'-6" | 32 | | | | | | |
| S13 | 2 | #5 | 6 | 15'-1" | 31 | | | | | | |
| S14 | 2 | #5 | 6 | 19'-7" | 41 | | | | | | |
| S15 | 2 | #5 | 6 | 19'-3" | 40 | | | | | | |
| S16 | 2 | #5 | 6 | 18'-11" | 39 | | | | | | |
| S17 | 2 | #5 | 6 | 18'-5" | 38 | | | | | | |
| S18 | 2 | #5 | 6 | 18'-1" | 38 | | | | | | |
| S19 | 2 | #5 | 6 | 17'-8" | 37 | | | | | | |
| S20 | 2 | #5 | 6 | 17'-3" | 36 | | | | | | |
| S21 | 2 | #5 | 6 | 16'-11" | 35 | | | | | | |
| S22 | 2 | #5 | 6 | 16'-6" | 34 | | | | | | |
| S23 | 2 | #5 | 6 | 16'-1" | 34 | | | | | | |
| S24 | 2 | #5 | 6 | 15'-8" | 33 | | | | | | |
| S25 | 26 | #5 | 6 | 21'-3" | 576 | | | | | | |
| S26 | 560 | #5 | 7 | 14'-1" | 8226 | | | | | | |
| S27 | 1120 | #5 | 11 | 4'-6" | 5257 | | | | | | |
| EPOXY COATED REINFORCING STEEL LBS. 283,432 | | | | | | | | | | | |
| SP-1 | 8 | * | 10 | 2,987'-1" | 24,924 | | | | | | |
| EPOXY COATED SPIRAL COLUMN REINFORCING STEEL LBS. 24,924 | | | | | | | | | | | |
| CLASS "AA" CONCRETE BREAKDOWN | | | | | | | | | | | |
| POUR #2 - FOOTING C.Y. 412.4 | | | | | | | | | | | |
| POUR #3 - STRUT C.Y. 61.5 | | | | | | | | | | | |
| POUR #4 - COLUMNS C.Y. 100.3 | | | | | | | | | | | |
| POUR #5 - CAP C.Y. 88.2 | | | | | | | | | | | |
| CLASS "AA" CONCRETE C.Y. 662.4 | | | | | | | | | | | |
| 5'-0" Ø DRILLED PIERS QUANTITIES: | | | | | | | | | | | |
| DRILLED PIER LIN. FT. 741.9 | | | | | | | | | | | |
| POUR 1 - DRILLED PIER C.Y. 539.6 | | | | | | | | | | | |
| PERMANENT STEEL CASING FOR 5'-0" Ø DRILLED PIERS LIN. FT. 245.9 | | | | | | | | | | | |
| CSL TUBES LIN. FT. 3,770 | | | | | | | | | | | |



PLAN

** MEASURED ALONG BENT CONTROL LINE BENT 16 SHOWN, FOR BENT 13 SEE SHEET 1 OF 5

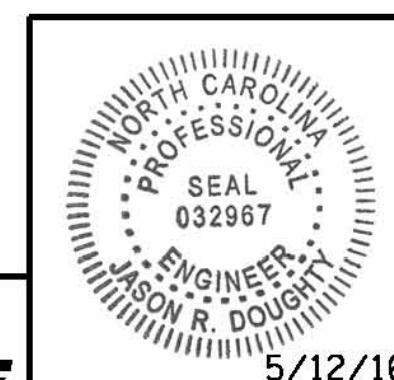
PROJECT NO. B-4929

PENDER COUNTY

STATION: 38+13.81 -L2-

SHEET 5 OF 5 STEEL ALTERNATE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENTS 13 AND 16
BILL OF MATERIALS



DocuSigned by:
Jason R. Doughty

PARSONS BRINCKERHOFF
434 FAYETTEVILLE STREET
SUITE 1500
RALEIGH, NC 27601
LICENSE NO. F-0165

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

| REVISIONS | | | | | | SHEET NO. | |
|-----------|-----|-------|-----|-----|-------|--------------|--|
| NO. | BY: | DATE: | NO. | BY: | DATE: | TOTAL SHEETS | |
| 1 | | | 3 | | | S-263 | |
| 2 | | | 4 | | | 278 | |

| | | | |
|----------------------------|------------|-------|----------|
| DESIGNED BY: | E. ULLMER | DATE: | MAR 2016 |
| DRAWN BY: | M. HOBBS | DATE: | MAR 2016 |
| CHECKED BY: | B. LOFLIN | DATE: | APR 2016 |
| DESIGN ENGINEER OF RECORD: | J. DOUGHTY | DATE: | MAY 2016 |

5/13/2016
401_103_B4929_SMU_IB13_5s.dgn