

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
DURHAM COUNTY**

LOCATION: I-85 - FROM THE ORANGE COUNTY LINE TO US 15/US 501

| | |
|--|------------------------------------|
| <small>TIP NO.</small> I-5941 | <small>SHEET NO.</small> SIGN-1 |
| <small>APPROVED:</small> <small>11/07/2023</small> | |
| <small>DATE:</small> 11/07/2023 | |
| <small>SEAL</small> | |
| <small>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</small> | |

T.I.P.: I-5941

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| <u>STD. NO.</u> | <u>TITLE</u> |
|-----------------|--|
| 901.10 | TYPE 'A' SIGNS |
| 901.20 | TYPE 'B' SIGNS |
| 901.50 | ARROWS AND SHIELDS |
| 901.70 | SIGN STRINGERS AND SUPPORT SPACING |
| 901.80 | SIGN MOUNTING DETAILS - FOR TYPE A AND TYPE B SIGNS |
| 903.10 | GROUND MOUNTED SIGN SUPPORTS |
| 904.10 | ORIENTATION OF GROUND MOUNTED SIGNS |
| 904.20 | SECONDARY SIGN MOUNTING |
| 904.30 | SUPPLEMENTAL SIGN MOUNTING |
| 904.50 | MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS |

PROJECT NOTES

- 1 DISPOSAL OF SIGN, A OR B (OVERHEAD)
- 2 SIGN ERECTION, TYPE A (OVERHEAD)
- 3 SIGN ERECTION, TYPE B (OVERHEAD)
- 4 DISPOSAL OF WALKWAY
- 5 DISPOSAL OF SIGN SYSTEM, A OR B (GROUND MOUNTED)
- 6 SIGN ERECTION, TYPE A (GROUND MOUNTED)
- 7 SIGN ERECTION, TYPE B (GROUND MOUNTED)
- 8 DISPOSAL OF SIGN SYSTEM, U-CHANNEL

SUMMARY OF QUANTITIES

| ITEM NO. | ITEM DESCRIPTION | QUANTITY | UNIT |
|------------|------------------|---|----------|
| DESC. NO. | SECT. NO. | | |
| 4109000000 | 904 | SIGN ERECTION, TYPE A (OVERHEAD) | 8 EA. |
| 4109000000 | 904 | SIGN ERECTION, TYPE B (OVERHEAD) | 6 EA. |
| 4110000000 | 904 | SIGN ERECTION, TYPE A (GROUND MOUNTED) | 8 EA. |
| 4110000000 | 904 | SIGN ERECTION, TYPE B (GROUND MOUNTED) | 3 EA. |
| 4102000000 | 904 | SIGN ERECTION, TYPE E | 19 EA. |
| 4108000000 | 904 | SIGN ERECTION, TYPE F | 2 EA. |
| 4234000000 | 907 | DISPOSAL OF SIGN, A OR B (OVERHEAD) | 14 EA. |
| 4236000000 | 907 | DISPOSAL OF SIGN, A OR B (GROUND MOUNTED) | 10 EA. |
| 4263000000 | 907 | DISPOSAL OF WALKWAY | 5 EA. |
| 4048000000 | 902 | REINFORCED CONCRETE SIGN FOUNDATION | 2 C.Y. |
| 4054000000 | 907 | PLAIN CONCRETE SIGN FOUNDATION | 2 C.Y. |
| 4060000000 | 903 | SUPPORTS, BREAKAWAY STEEL BEAM | 3439 LB. |
| 4155000000 | 907 | DISPOSAL OF SIGN SYSTEM, U-CHANNEL | 24 EA. |

GENERAL NOTES

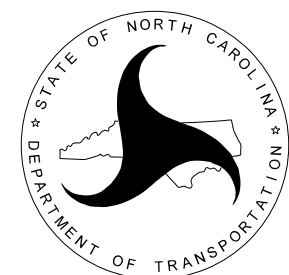
- SIGNS FURNISHED BY STATE
- CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.


INDEX

| <u>SHEET NO.</u> | <u>DESCRIPTION</u> |
|------------------|----------------------------------|
| SIGN - 1 | TITLE SHEET |
| SIGN - 1A - 1D | ROADWAY STANDARD DRAWINGS |
| SIGN - 2 | KEY SHEET |
| SIGN - 3 | SUPPORT INFORMATION |
| SIGN - 4 - 10 | SIGN DESIGNS, TYPE E AND F SIGNS |
| SIGN - 11 - 14 | SIGNING PLAN SHEETS |

PLAN PREPARED BY: NCDOT SIGNING & DELINEATION UNIT

MITCH EATON, PE SIGNING & DELINEATION REGIONAL ENGINEER
MATTHEW TRACEY, PE SIGNING & DELINEATION PROJECT DESIGN ENGINEER

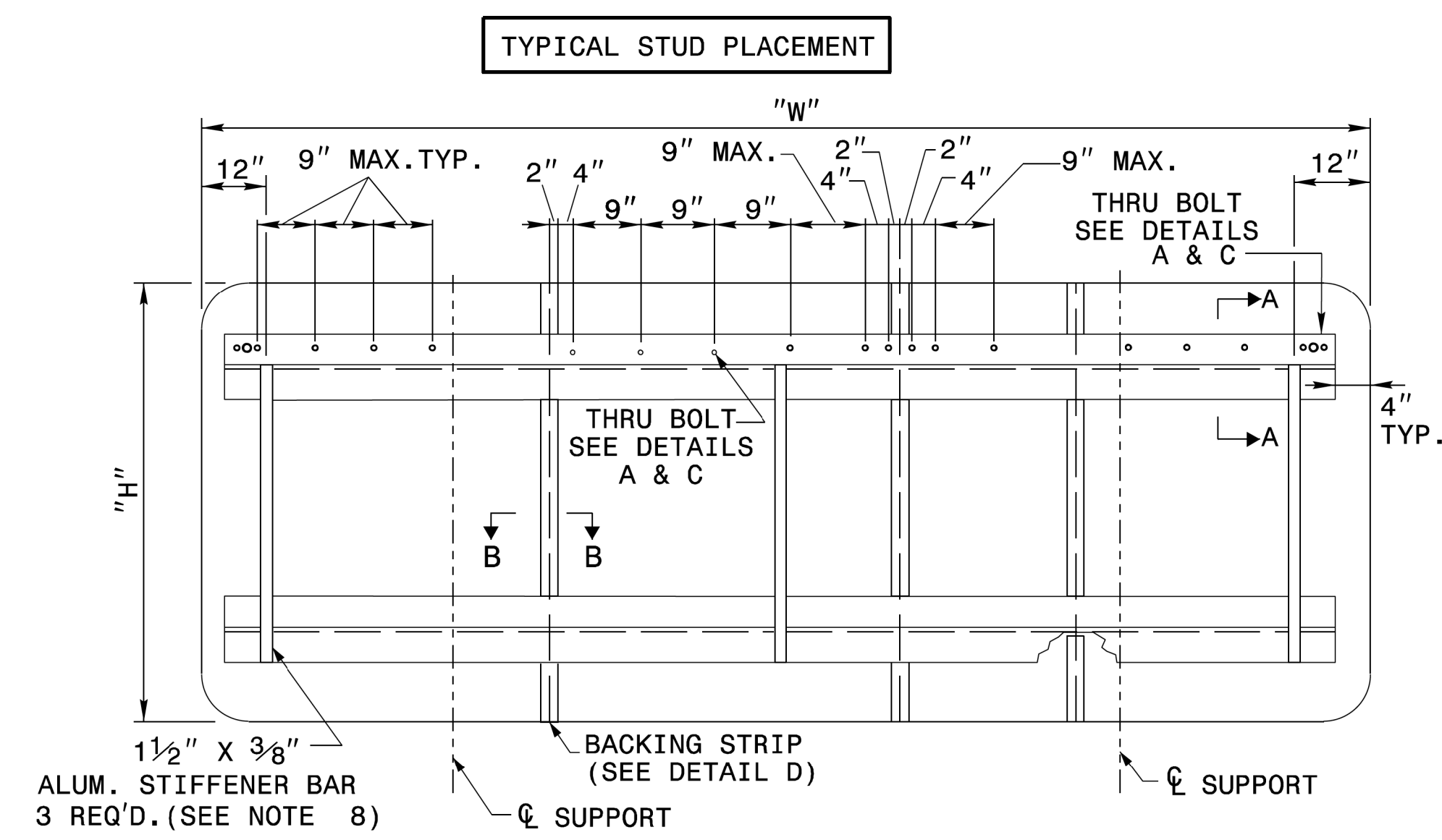


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| TIP NO. I-5941 | SHEET NO. DocuSigned by: SIGN-1A |
| APPROVED: <i>Matthew V. Springer</i> | DATE: 3/21/2019 |
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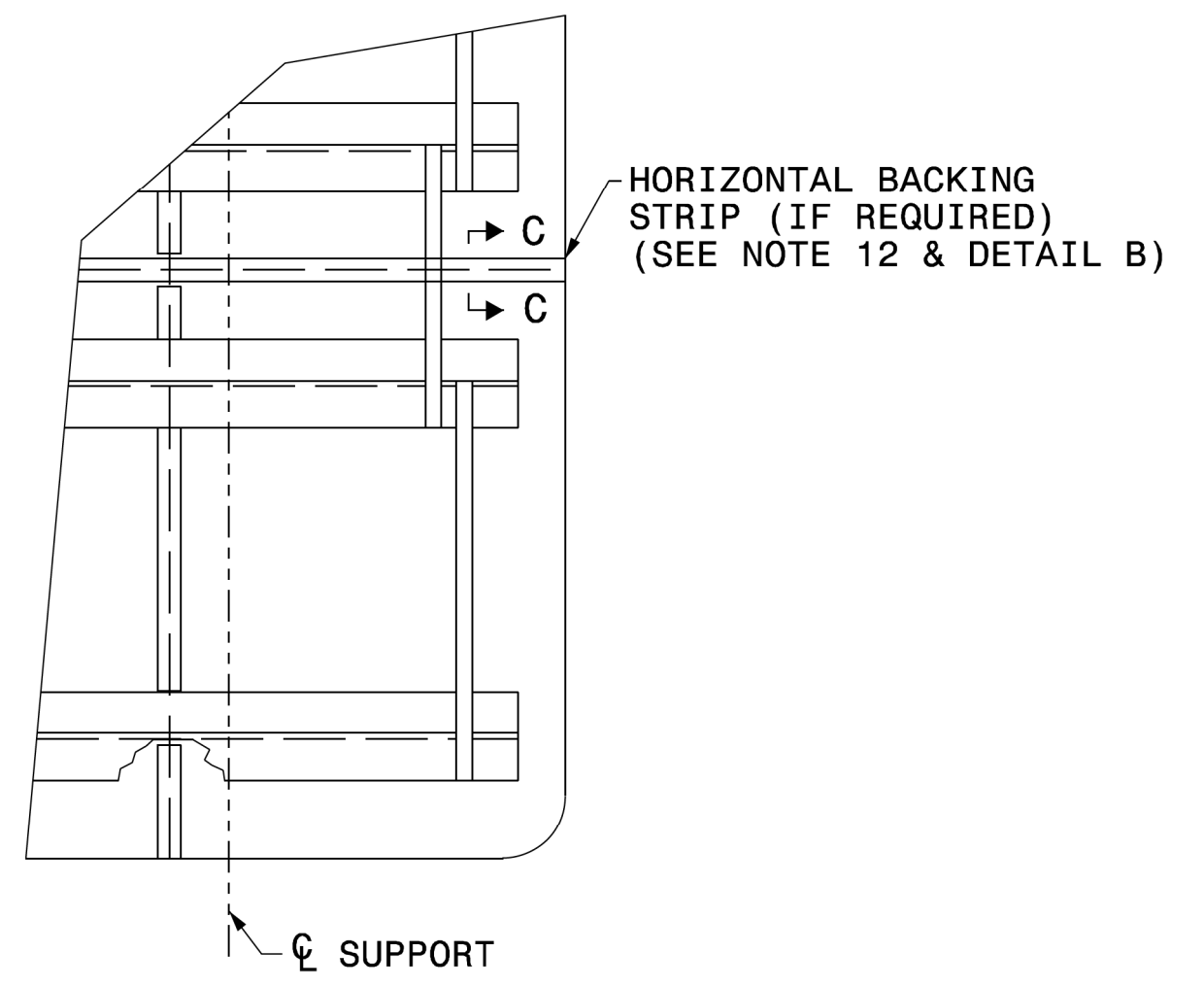
STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

2-19

ENGLISH DETAIL DRAWING FOR
TYPE 'A' SIGNS
 WELDED STUD CONSTRUCTION



HORIZONTAL BACKING STRIP



NOTES:

1. USE THE NUMBER AND SIZE OF SUPPORTS SHOWN ON THE SUPPORT CHART IN PROJECT PLANS.
2. FABRICATE SIGN PANEL SECTIONS WITH SHEETS 4'-0" WIDE. WHEN FABRICATING SIGNS WHICH ARE NOT MULTIPLES OF 4'-0" IN WIDTH, DO NOT CUT MORE THAN TWO SHEETS TO LESS THAN 4'-0" IN WIDTH. THESE PANELS SHALL NOT BE LESS THAN 1'-0" IN WIDTH.
3. SEE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, FOR TYPE OF MATERIAL TO BE USED FOR SIGN PANELS, HANGER ASSEMBLIES, AND SUPPORTS.
4. USE GALVANIZED STEEL FOR BACKING PLATES AND MOUNTING BOLTS.
5. SEE ROADWAY STANDARD 904.20 WHEN TYPE "B" SECONDARY SIGN MOUNTING IS REQUIRED.
6. DETAILS FOR TYPE "A" SECONDARY SIGNS SHALL BE THE SAME AS FOR TYPE "A" SIGNS.
7. THE VERTICAL DIMENSION BETWEEN PRIMARY AND SECONDARY SIGNS IS TWO (2) INCHES.
8. ADJUST STIFFENERS TO AVOID CONFLICT WITH SUPPORTS.
9. SEE ROADWAY STANDARD 901.70 FOR SUPPORT AND "Z" BAR SPACING.
10. FABRICATE SIGNS TALLER THAN 12'-0" AS TWO SEPARATE SIGNS WITH A HORIZONTAL SPLICE. LOCATE STRINGERS ON EACH SECTION OF THE SIGN BY THE SIGN STRINGER CHART. (SEE ROADWAY STANDARD 901.70)
11. FABRICATE SIGNS TALLER THAN 12'-0" BUT SHORTER THAN 14'-6" WITH A HORIZONTAL SPLICE LOCATED 7'-0" FROM BOTTOM OF SIGN.
12. FABRICATE SIGNS 14'-6" TALL AND TALLER WITH A HORIZONTAL SPLICE. LOCATE THE SPLICE AT LEAST HALF OF THE SIGN HEIGHT FROM THE BOTTOM AND AT LEAST 7'-0" FROM THE TOP.
13. THERE SHALL ONLY BE A 1/8" GAP BETWEEN THE VERTICAL BACKING STRIP AND THE "Z" BAR.
14. SEE ROADWAY STANDARD 901.80 FOR DETAILS SHOWING SIGN MOUNTING TO SUPPORTS.
15. PLACE NYLON WASHER UNDER HEAD OF 3/8" THRU BOLTS.
16. FABRICATE EACH SIGN WITH 3/8" DIA. THRU BOLT, 4" FROM EACH END OF EACH "Z" BAR THRU SIGN PANEL AND "Z" BAR. SEE DETAILS A & C.
17. FABRICATE EACH SIGN WITH 3/8" DIA. THRU BOLT CENTERED IN EACH PANEL THRU THE TOP AND BOTTOM "Z" BAR. CENTERED THRU BOLT REQUIRED IN END PANELS GREATER THAN 2'-0" WIDE. SEE DETAILS A & C.
18. THRU BOLTS WILL HAVE A MINIMUM 1/16" TO MAXIMUM 1/8" GAP

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
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 RALEIGH, N.C.

2-19

ENGLISH DETAIL DRAWING FOR
TYPE 'A' SIGNS
 WELDED STUD CONSTRUCTION

SHEET 1 OF 2

901D10

REVISED SIGNING
ROADWAY STANDARD DRAWING

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| TIP NO. | SHEET NO. |
| I-5941 | DocuSigned by: SIGN-1B |
| APPROVED: | <i>Matthew V. Springer</i> |
| DATE: | 3/21/2019 |
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STATE OF NORTH CAROLINA
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 RALEIGH, N.C.

2-19

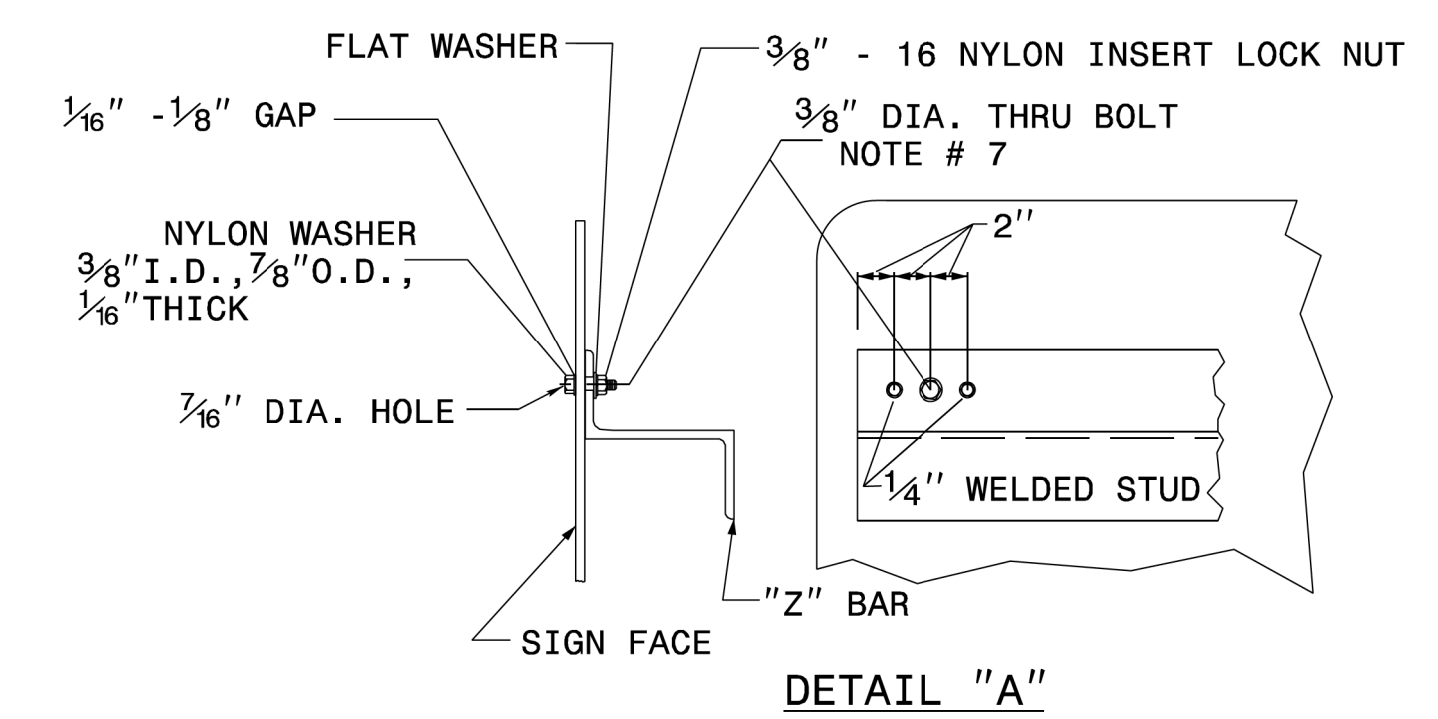
ENGLISH DETAIL DRAWING FOR
TYPE 'B' SIGNS
 WELDED STUD CONSTRUCTION

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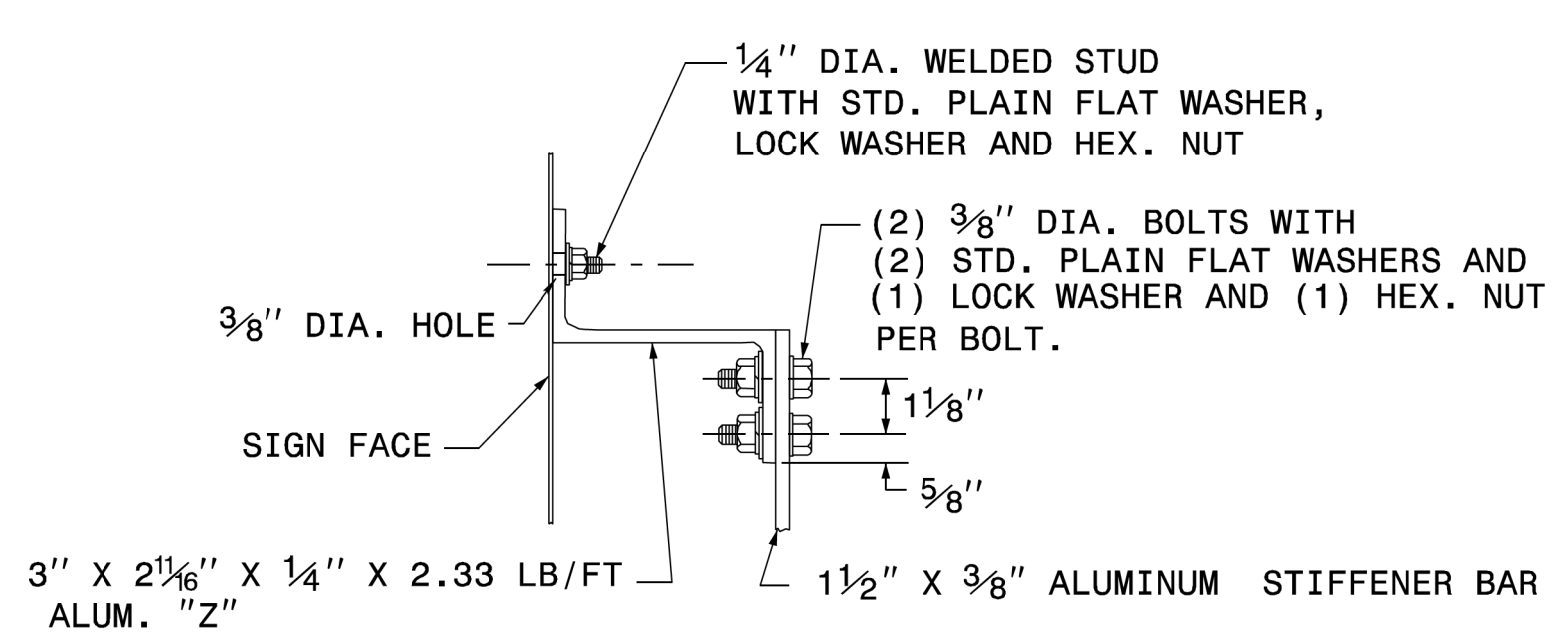
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ENGLISH DETAIL DRAWING FOR
TYPE 'B' SIGNS
 WELDED STUD CONSTRUCTION

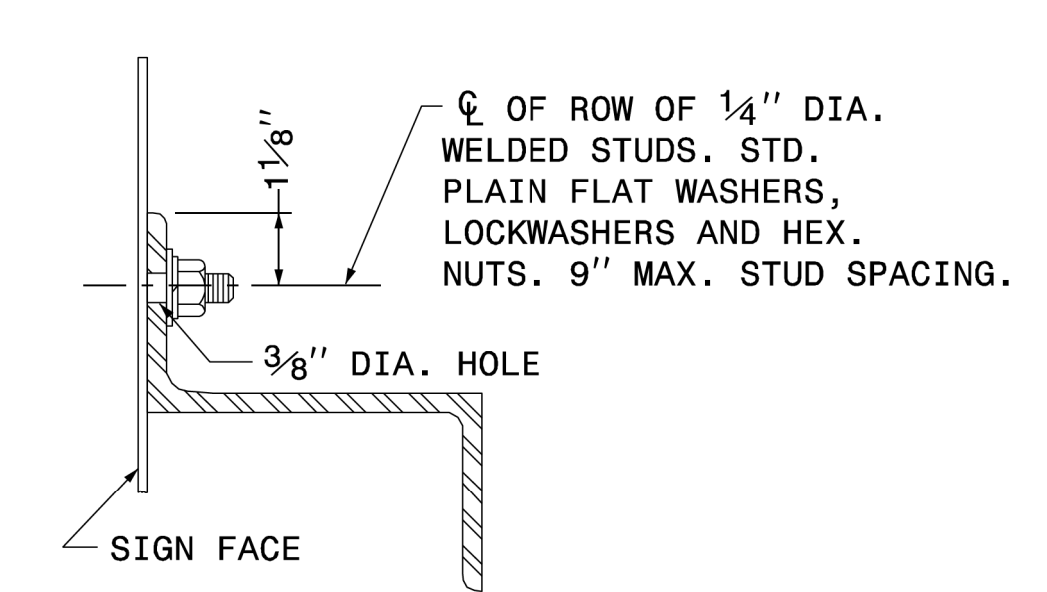
SHEET 1 OF 1
901D20



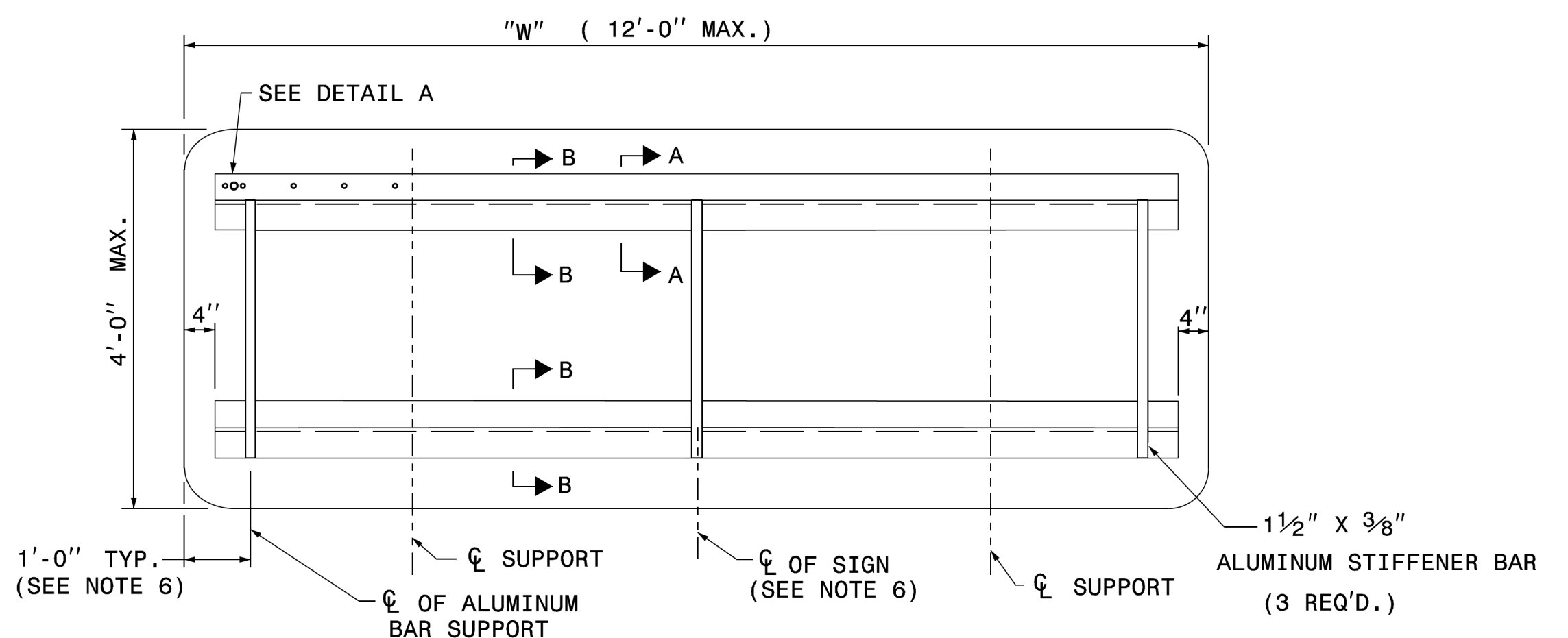
DETAIL "A"



SECTION A-A
STIFFENER DETAIL



SECTION B-B



- NOTES:
- USE NUMBER AND SIZE OF SUPPORTS SHOWN ON SUPPORT CHART IN PROJECT PLAN SHEETS.
 - SEE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR THE TYPE OF MATERIAL TO BE USED FOR SIGN PANELS, HANGER ASSEMBLIES AND SUPPORTS.
 - FURNISH ALL MOUNTING HARDWARE.
 - USE GALVANIZED STEEL FOR BACKING PLATES AND MOUNTING BOLTS.
 - THE VERTICAL DIMENSION BETWEEN PRIMARY AND SECONDARY SIGNS IS TWO (2) INCHES.
 - ADJUST STIFFENERS TO AVOID CONFLICT WITH SUPPORTS.
 - FABRICATE EACH SIGN WITH A 3/8" DIA. BOLT 4" FROM EACH END OF EACH "Z" BAR THRU SIGN PANEL AND "Z" BAR.
 - SEE ROADWAY STANDARD 901.70 FOR SUPPORT AND "Z" BAR SPACING.
 - SEE ROADWAY STANDARD 901.80 FOR DETAILS SHOWING SIGN MOUNTING TO SUPPORTS.
 - PLACE NYLON WASHER UNDER HEAD OF 3/8" THRU BOLT.
 - THRU BOLTS WILL HAVE A MINIMUM 1/16" TO MAXIMUM 1/8" GAP.

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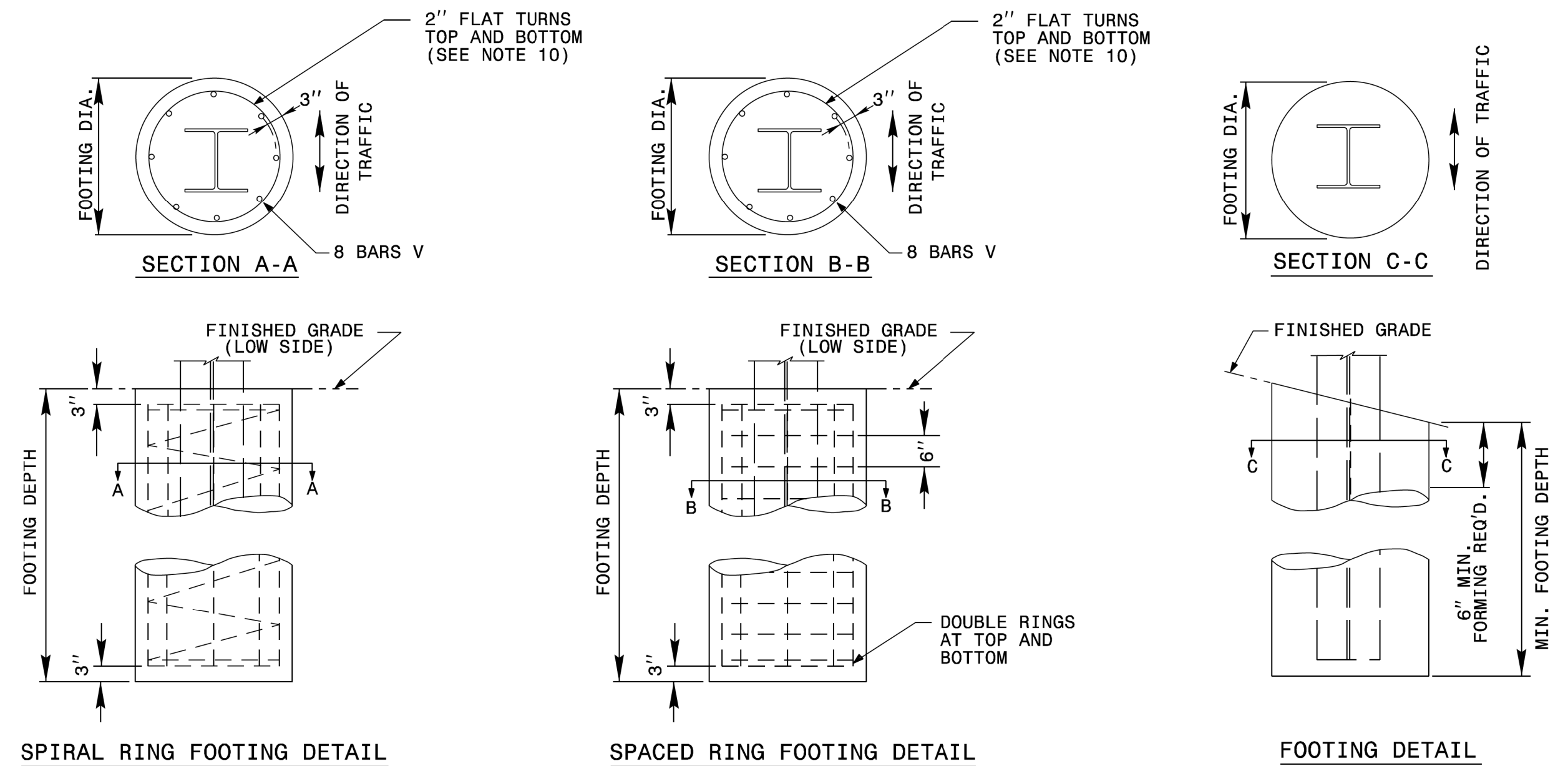
REVISED SIGNING
ROADWAY STANDARD DRAWING

TIP NO. I-5941 SHEET NO. DocuSigned by: SIGN-1C
 APPROVED: *Matthew V. Springer*
 DATE: 5/26/2020
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042546 MATTHEW V. SPRINGER

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
GROUND MOUNTED SIGN SUPPORTS
 SHEET 2 OF 3
903D10

| BEAM SHAPE | SLIP BASE PLATE DATA | | | | | | | | KEEPER PLATE DATA | | | | | | HINGE CONNECTION DATA | | | | | | | | BREAK AWAY SUPPORT WEIGHT CONSTANT LBS. | | | |
|------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|----------------|----------------|-----------------------|--------------------|--------|--------|--------|--------|--------|------|---|---------|----------------|----------------|
| | BOLT SIZE | A ₁ | B ₁ | C ₁ | D ₁ | E ₁ | T ₁ | R ₁ | A ₂ | B ₂ | C ₂ | D ₂ | E ₂ | R ₂ | T ₂ | BOLT SIZE | F | G | H | I | J | K | | L | R ₃ | T ₃ |
| S3X5.7 | 1/2" DIA. X 3/4" | 7" | 4" | 1" | 3/4" | 2 1/2" | 1" | 9/32" | 7" | 4" | 1" | 3/4" | 2 1/2" | 9/32" | 28 GAUGE | 1/2" DIA. X 1 3/4" | 2 1/4" | 3 1/2" | 4" | 1/2" | 1" | 1/2" | 2" | 9/32" | 3/8" | 18 |
| S4X7.7 | 1/2" DIA. X 3/4" | 8" | 4" | 1" | 3/4" | 2 1/2" | 1" | 9/32" | 8" | 4" | 1" | 3/4" | 2 1/2" | 9/32" | 28 GAUGE | 1/2" DIA. X 1 3/4" | 2 5/8" | 3 1/2" | 4" | 1/2" | 1" | 1/2" | 2" | 9/32" | 3/8" | 20 |
| W6X9 | 1/2" DIA. X 3/4" | 10" | 5" | 1" | 3/4" | 3 1/2" | 1" | 9/32" | 10" | 5" | 1" | 3/4" | 3 1/2" | 9/32" | 28 GAUGE | 1/2" DIA. X 1 3/4" | 4" | 3 1/2" | 4" | 3/4" | 1" | 1/2" | 2" | 9/32" | 3/8" | 32 |
| W6X12 | 5/8" DIA. X 4" | 11" | 5" | 1 1/4" | 7/8" | 3 1/4" | 1 1/4" | 1 1/32" | 11" | 5" | 1 1/4" | 7/8" | 3 1/4" | 1 1/32" | 28 GAUGE | 5/8" DIA. X 2" | 4" | 4" | 4 1/2" | 3/4" | 1 1/8" | 5/8" | 2 1/4" | 1 1/32" | 3/8" | 39 |
| W6X16 | 5/8" DIA. X 4 1/2" | 12" | 6" | 1 1/4" | 7/8" | 4 1/4" | 1 1/2" | 1 1/32" | 12" | 6" | 1 1/4" | 7/8" | 4 1/4" | 1 1/32" | 28 GAUGE | 5/8" DIA. X 2 1/4" | 4" | 4" | 4 1/2" | 3/4" | 1 1/8" | 5/8" | 2 1/4" | 1 1/32" | 1/2" | 47 |
| W8X18 | 5/8" DIA. X 4 1/2" | 13 1/2" | 6 1/2" | 1 1/4" | 7/8" | 4 3/4" | 1 1/2" | 1 1/32" | 13 1/2" | 6 1/2" | 1 1/4" | 7/8" | 4 3/4" | 1 1/32" | 28 GAUGE | 5/8" DIA. X 2 1/4" | 5 1/4" | 4" | 4 1/2" | 1" | 1 1/8" | 5/8" | 2 1/4" | 1 1/32" | 1/2" | 70 |
| W8X21 | 3/4" DIA. X 4 1/2" | 14" | 7" | 1 1/2" | 1" | 5" | 1 1/2" | 1 3/32" | 14" | 7" | 1 1/2" | 1" | 5" | 1 3/32" | 28 GAUGE | 3/4" DIA. X 2 1/2" | 5 1/4" | 6" | 7" | 1" | 1 3/4" | 3/4" | 3 1/2" | 1 3/32" | 1/2" | 73 |
| W10X22 | 3/4" DIA. X 4 1/2" | 16" | 8" | 1 1/2" | 1" | 6" | 1 1/2" | 1 3/32" | 16" | 8" | 1 1/2" | 1" | 6" | 1 3/32" | 28 GAUGE | 3/4" DIA. X 2 1/2" | 5 3/4" | 6" | 7" | 1" | 1 3/4" | 3/4" | 3 1/2" | 1 3/32" | 1/2" | 119 |
| W10X26 | 3/4" DIA. X 5 1/2" | 16 1/2" | 8" | 1 1/2" | 1" | 6" | 1 3/4" | 1 3/32" | 16 1/2" | 8" | 1 1/2" | 1" | 6" | 1 3/32" | 28 GAUGE | 3/4" DIA. X 2 3/4" | 5 3/4" | 6" | 7" | 1" | 1 3/4" | 3/4" | 3 1/2" | 1 3/32" | 5/8" | 140 |
| W12X26 | 3/4" DIA. X 5 1/2" | 18 1/2" | 9" | 1 1/2" | 1" | 7" | 1 3/4" | 1 3/32" | 18 1/2" | 9" | 1 1/2" | 1" | 7" | 1 3/32" | 28 GAUGE | 3/4" DIA. X 2 3/4" | 6 1/2" | 6" | 7" | 1" | 1 3/4" | 3/4" | 3 1/2" | 1 3/32" | 5/8" | 176 |
| W14X30 | 1" DIA. X 6" | 22" | 9" | 2" | 1 1/2" | 6" | 2" | 1 7/32" | 22" | 9" | 2" | 1 1/2" | 6" | 1 7/32" | 28 GAUGE | 1" DIA. X 3" | 6 3/4" | 7" | 8" | 1 1/4" | 2" | 1" | 4" | 1 7/32" | 5/8" | 205 |
| W16X31 | 1" DIA. X 6" | 24" | 9" | 2" | 1 1/2" | 6" | 2" | 1 7/32" | 24" | 9" | 2" | 1 1/2" | 6" | 1 7/32" | 28 GAUGE | 1" DIA. X 3" | 5 1/2" | 7" | 8" | 1 1/4" | 2" | 1" | 4" | 1 7/32" | 3/4" | 223 |
| W18X35 | 1" DIA. X 6" | 25" | 9" | 2" | 1 1/2" | 6" | 2" | 1 7/32" | 25" | 9" | 2" | 1 1/2" | 6" | 1 7/32" | 28 GAUGE | 1" DIA. X 3" | 6" | 7" | 8" | 1 1/4" | 2" | 1" | 4" | 1 7/32" | 3/4" | 243 |
| W18X40 | 1" DIA. X 6 1/2" | 26" | 9" | 2" | 1 1/2" | 6" | 2 1/4" | 1 7/32" | 26" | 9" | 2" | 1 1/2" | 6" | 1 7/32" | 28 GAUGE | 1" DIA. X 3 1/2" | 6" | 7" | 8" | 1 1/4" | 2" | 1" | 4" | 1 7/32" | 7/8" | 278 |
| W21X44 | 1" DIA. X 7" | 29" | 9" | 2" | 1 1/2" | 6" | 2 1/2" | 1 7/32" | 29" | 9" | 2" | 1 1/2" | 6" | 1 7/32" | 28 GAUGE | 1" DIA. X 3 1/2" | 6 1/2" | 7" | 8" | 1 1/4" | 2" | 1" | 4" | 1 7/32" | 7/8" | 310 |



| FOUNDATION DATA * | | | |
|-------------------|---------------|------------------|------------------|
| FOOTING DIAMETER | REINFORCEMENT | SPIRAL BAR | SPACED BAR |
| 1'-6" | 8 # 6 BARS | #3 BAR, 6" PITCH | #3 BAR, 6" SPACE |
| 2' | 8 # 7 BARS | #3 BAR, 6" PITCH | #3 BAR, 6" SPACE |
| 2'-6" | 8 # 9 BARS | #3 BAR, 6" PITCH | #3 BAR, 6" SPACE |
| 3' | 8 # 11 BARS | #3 BAR, 6" PITCH | #3 BAR, 6" SPACE |
| 3'-6" | 8 # 12 BARS | #3 BAR, 6" PITCH | #3 BAR, 6" SPACE |
| 4' | 8 # 14 BARS | #3 BAR, 6" PITCH | #3 BAR, 6" SPACE |

* FOUNDATION DIMENSIONS ARE SHOWN IN PLANS

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ENGLISH DETAIL DRAWING FOR
GROUND MOUNTED SIGN SUPPORTS
 SHEET 2 OF 3
903D10

REVISED SIGNING
 ROADWAY STANDARD DRAWING

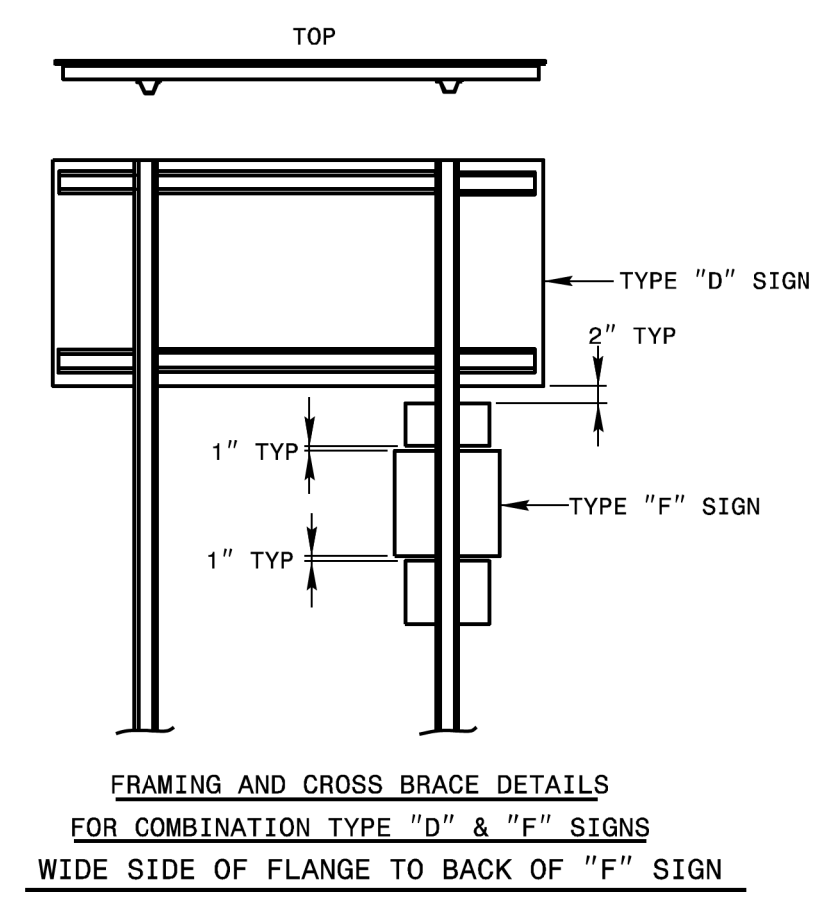
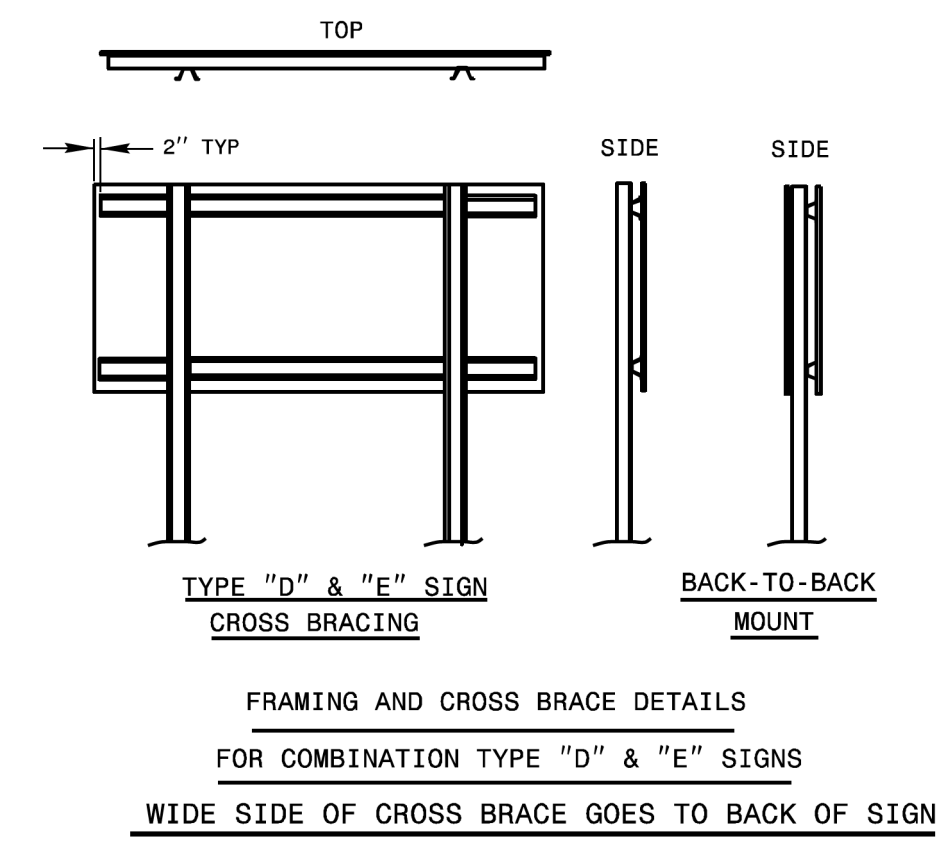
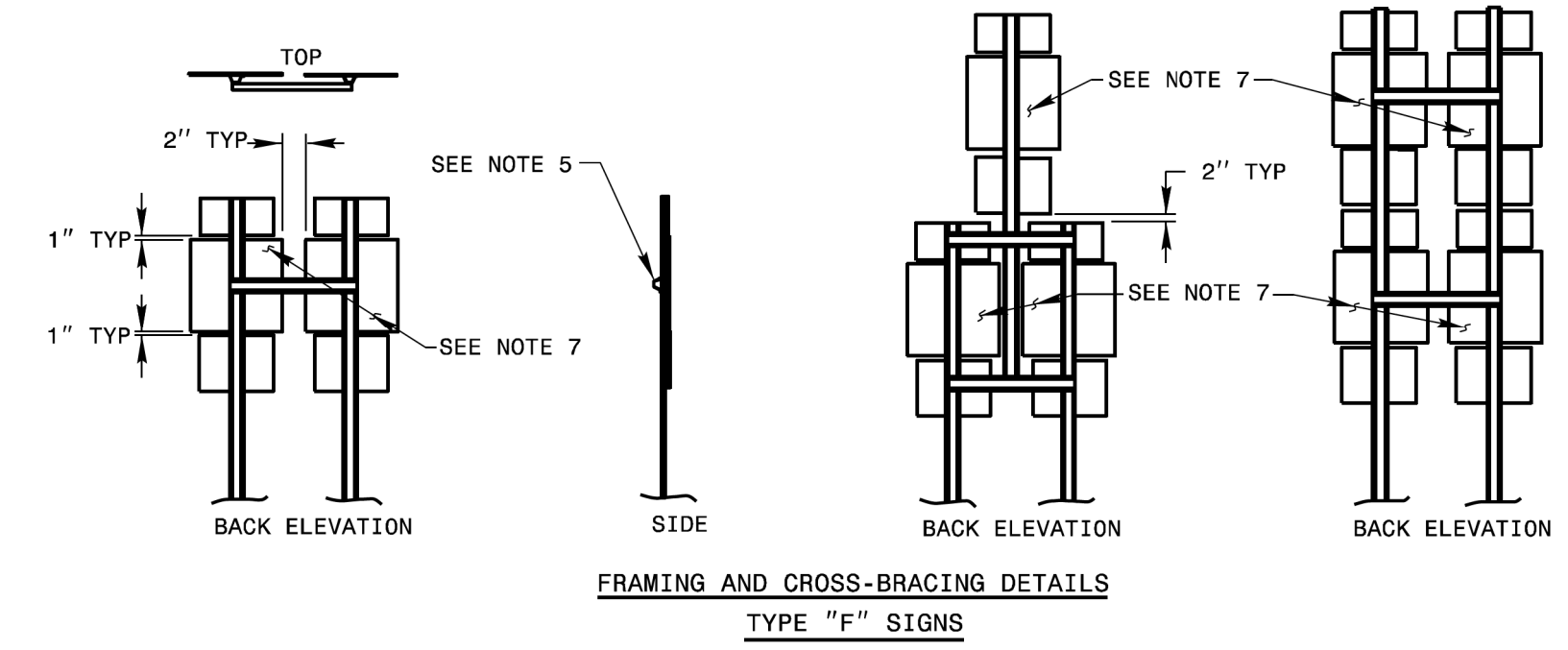
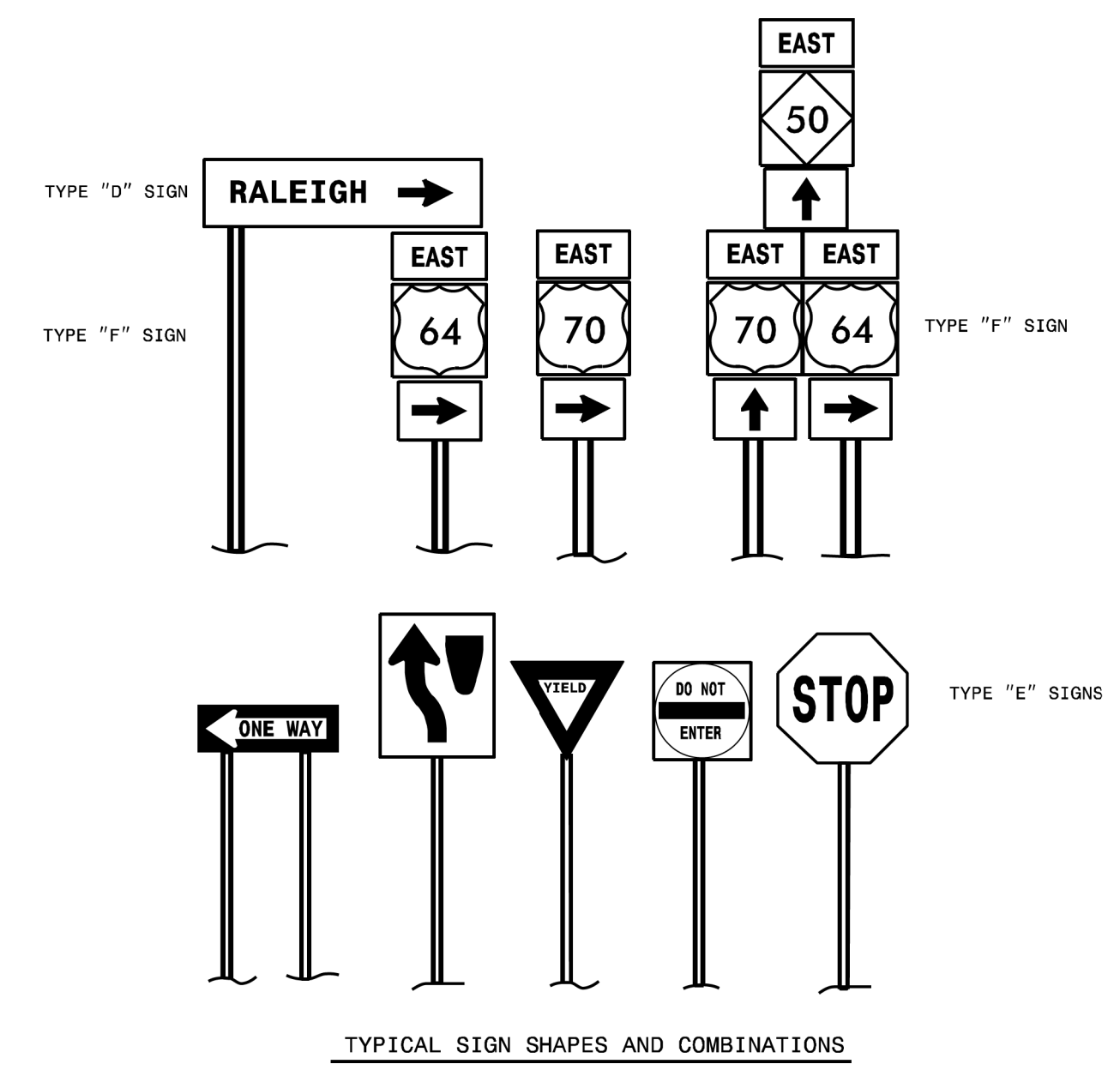
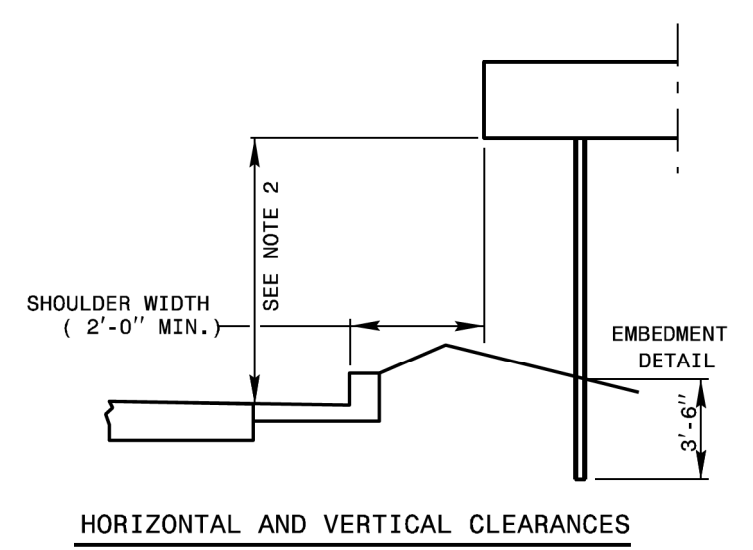
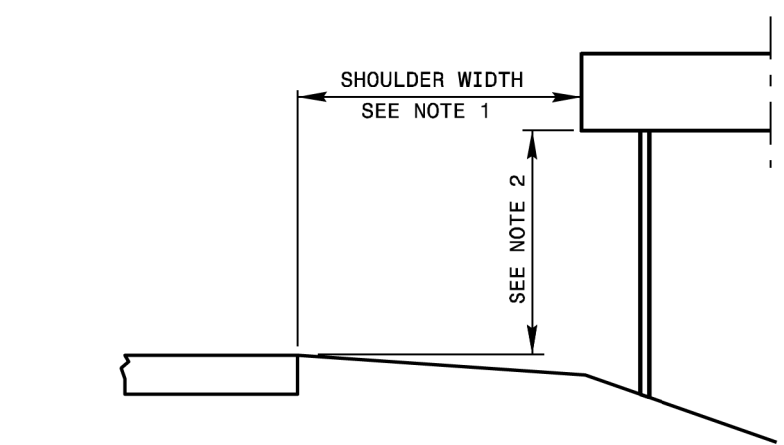
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| TIP NO. | SHEET NO. |
| I-5941 | DocuSigned by: SIGN-ID |
| APPROVED: | <i>Matthew V. Springer</i> |
| DATE: | 6/23/2021 |
| SEAL | |

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

6-21

ENGLISH DETAIL DRAWING FOR
MOUNTING OF
TYPE 'D', 'E' AND 'F' SIGNS
ON 'U' CHANNEL POSTS

SHEET 1 OF 2
904D50



- NOTES:
- ERECT TYPE "D", "E", AND "F" SIGNS ON FREEWAYS WITH THE NEAR EDGE OF THE SIGN 20 FT. FROM THE TRAVEL LANE. ERECT ALL OTHER "D", "E", AND "F" SIGNS WITH THE NEAR EDGE OF THE SIGN AT THE EDGE OF THE SHOULDER BREAK (6 FT. MINIMUM CLEARANCE, 12 FT. DESIRABLE, FROM THE EDGE OF TRAVEL LANE), OR AS DIMENSIONED ON PLAN SHEETS.
 - ERECT TYPE "D", "E", AND "F" SIGNS WITH THE BOTTOM OF SIGN ASSEMBLY AT LEAST 7 FT. ABOVE THE EDGE OF THE TRAVEL LANE ON ROADS WITH 2 OR MORE LANES IN THE SAME DIRECTION AND AT LEAST 5 FT. ON OTHER ROUTES. THE VERTICAL CLEARANCE IS 7 FT. WHERE REQUIRED FOR PEDESTRIAN TRAFFIC AND/OR PARKED VEHICLES.
 - THE VERTICAL DIMENSION BETWEEN MOUNTING HOLE CENTERS ON ALL TYPES "D", "E", AND "F" SIGNS IS 30" MAXIMUM. THE VERTICAL AND HORIZONTAL DIMENSIONS BETWEEN MOUNTING HOLES IS TO THE WHOLE INCH. EACH SIGN PANEL HAS A MINIMUM OF 2 BOLTS PER SUPPORT.
 - ATTACH SIGN W/ 5/8" HEX HEAD BOLT, NYLON WASHER, SHIM, FLAT WASHER, LOCK WASHER, HEX NUT NO BUCKLING OF THE SIGN WILL BE PERMITTED. SEE ASSEMBLY DETAIL SHEET# 2 OF 904.50.
 - FURNISH AND INSTALL CROSS-BRACING AS SHOWN IN DETAIL. PAINT ENDS OF CROSS BRACES W/ APPROVED. ZINC PAINT
 - INSTALL POST AND CROSS-BRACING WITH THE WIDE SIDE OF THE FLANGE TOWARD THE BACK OF SIGN(S) FOR COMBINATION TYPE "D" AND "F" SIGNS.
 - THE SHIELD HEIGHTS IN THESE ASSEMBLIES CAN NOT BE LARGER THAN 24".
 - IF SIGN ASSEMBLIES REQUIRE MORE THAN TWO U-CHANNEL SUPPORTS, THE SUPPORTS SHALL BE PLACED A MINIMUM OF 4 FT. BETWEEN POSTS. NO MORE THAN TWO POSTS SHALL FALL WITHIN 7 FT. PATH, OR THE SIGN ASSEMBLY MUST BE PLACED BEHIND BARRIER PROTECTION.



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6-21

ENGLISH DETAIL DRAWING FOR
MOUNTING OF
TYPE 'D', 'E' AND 'F' SIGNS
ON 'U' CHANNEL POSTS

SHEET 1 OF 2
904D50

**REVISED SIGNING
ROADWAY STANDARD DRAWING**

| | |
|--|-----------|
| TIP NO. | SHEET NO. |
| I-5941 | SIGN-2 |
| APPROVED:  | |
| DATE: 10/11/2023 | |
| SEAL | |
|  | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |



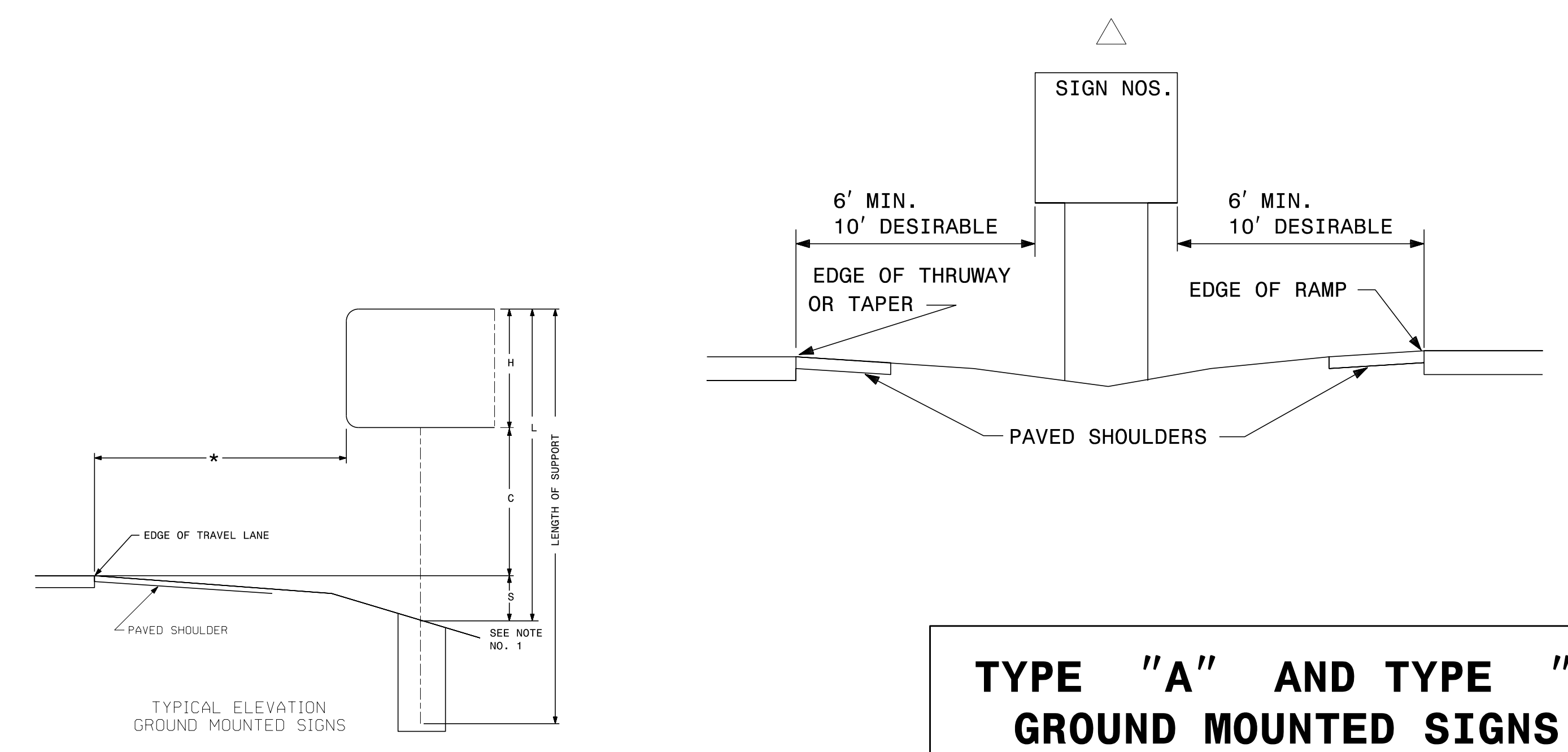
08/03/23
U:\I-5941\I-5941 Map.dgn
User:mmtracy

KEY SHEET

| NUMBER | TYPE | SIGN SIZE (in.) | | | ROADWAY STATION | NUMBER OF SUPPORTS | BEAM SECTION | SUPPORT TYPE BA or S | OMNI COUPLER | ATTACHMENT METHOD | MOUNTING METHOD | HORIZONTAL CLEARANCE* (ft.) | SUPPORT SPACING | LENGTH (ft) | | | LEFT SUPPORT (ft) | | | CENTER SUPPORT (ft) | | | RIGHT SUPPORT (ft) | | | SUPPORT WEIGHTS | | FOOTINGS | | | | FIELD VERIFIED SEE NOTE 2 (mm/dd/yy) | | | | | | | | | | | | | |
|--------|------|-----------------|-----|-----|-----------------|--------------------|--------------|----------------------|--------------|-------------------|-----------------|-----------------------------|-----------------|-------------|--------|------------|-------------------|-------|--------|---------------------|-------|--------|--------------------|---------|---------|-----------------|---------------|----------------|-------------|-------------------|--------------|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | w | x | h | | | | | | | | | | SNS HT | MTG HT | EMBED-MENT | S | L | LENGTH | S | L | LENGTH | S | L | LENGTH | B/A (lbs.) | SIMPLE (lbs.) | DIAMETER (ft.) | DEPTH (ft.) | REINFORCED (c.y.) | PLAIN (c.y.) | | | | | | | | | | | | | | |
| | | "H" | "C" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 101 | A | 240 | x | 54 | | 3 | S3x5.7 | BA | N/A | N/A | N/A | 0.00 | 7.10 | 4.50 | 7.00 | 3.0 | 0.10 | 11.60 | 14.60 | 0.10 | 11.60 | 14.60 | 0.10 | 11.60 | 14.60 | 303.66 | 0 | 1.0 | 3.5 | 0.00 | 0.31 | | | | | | | | | | | | | | |
| 102 | A | 222 | x | 84 | | 3 | W6x9 | BA | N/A | N/A | N/A | 0.00 | 6.57 | 7.00 | 7.00 | 3.0 | 0.10 | 14.10 | 17.10 | 0.10 | 14.10 | 17.10 | 0.10 | 14.10 | 17.10 | 557.70 | 0 | 1.5 | 3.5 | 0.69 | 0.00 | | | | | | | | | | | | | | |
| 103 | A | 174 | x | 174 | | 2 | W6x16 | BA | N/A | N/A | N/A | 0.00 | 8.50 | 14.50 | 7.00 | 5.0 | 0.10 | 21.60 | 26.60 | 0.00 | 0.00 | 0.00 | 0.10 | 21.60 | 26.60 | 945.20 | 0 | 1.5 | 5.5 | 0.72 | 0.00 | | | | | | | | | | | | | | |
| 104 | A | 132 | x | 84 | | 2 | S4x7.7 | BA | N/A | N/A | N/A | 0.00 | 6.45 | 7.00 | 7.00 | 3.5 | 0.10 | 14.10 | 17.60 | 0.00 | 0.00 | 0.00 | 0.10 | 14.10 | 17.60 | 311.04 | 0 | 1.0 | 4 | 0.00 | 0.23 | | | | | | | | | | | | | | |
| 105 | B | 108 | x | 36 | | 2 | S3x5.7 | BA | N/A | N/A | N/A | 0.00 | 5.27 | 3.00 | 7.00 | 2.0 | 0.10 | 10.10 | 12.10 | 0.00 | 0.00 | 0.00 | 0.10 | 10.10 | 12.10 | 173.94 | 0 | 1.0 | 2.5 | 0.00 | 0.15 | | | | | | | | | | | | | | |
| 106A | B | 96 | x | 24 | | 2 | W6x9 | BA | N/A | 1-R | N/A | 0.00 | 9.08 | 5.50 | 7.00 | 3.5 | 0.10 | 12.60 | 16.10 | 0.00 | 0.00 | 0.00 | 0.10 | 12.60 | 16.10 | 353.80 | 0 | 1.5 | 4 | 0.52 | 0.00 | | | | | | | | | | | | | | |
| 106B | A | 186 | x | 66 | | 2 | W6x9 | BA | N/A | N/A | N/A | 0.00 | 9.08 | 5.50 | 7.00 | 3.5 | 0.10 | 12.60 | 16.10 | 0.00 | 0.00 | 0.00 | 0.10 | 12.60 | 16.10 | 353.80 | 0 | 1.5 | 4 | 0.52 | 0.00 | | | | | | | | | | | | | | |
| 107 | B | 144 | x | 42 | | 2 | S3x5.7 | BA | N/A | N/A | N/A | 0.00 | 7.03 | 3.50 | 7.00 | 2.5 | 0.10 | 10.60 | 13.10 | 0.00 | 0.00 | 0.00 | 0.10 | 10.60 | 13.10 | 185.34 | 0 | 1.0 | 3 | 0.00 | 0.17 | | | | | | | | | | | | | | |
| 201 | A | 90 | x | 60 | | 2 | S3x5.7 | BA | N/A | N/A | N/A | Δ | 4.40 | 5.00 | 7.00 | 2.5 | 0.10 | 12.10 | 14.60 | 0.00 | 0.00 | 0.00 | 0.10 | 12.10 | 14.60 | 202.44 | 0 | 1.0 | 3 | 0.00 | 0.17 | | | | | | | | | | | | | | |
| 202 | A | 90 | x | 60 | | 2 | S3x5.7 | BA | N/A | N/A | N/A | Δ | 4.40 | 5.00 | 7.00 | 2.5 | 0.10 | 12.10 | 14.60 | 0.00 | 0.00 | 0.00 | 0.10 | 12.10 | 14.60 | 202.44 | 0 | 1.0 | 3 | 0.00 | 0.17 | | | | | | | | | | | | | | |
| 203 | A | 90 | x | 60 | | 2 | S3x5.7 | BA | N/A | N/A | N/A | Δ | 4.40 | 5.00 | 7.00 | 2.5 | 0.10 | 12.10 | 14.60 | 0.00 | 0.00 | 0.00 | 0.10 | 12.10 | 14.60 | 202.44 | 0 | 1.0 | 3 | 0.00 | 0.17 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | TOTAL | TOTAL | TOTAL | TOTAL | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 3438.00 | 0.00 | 1.93 | 1.38 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | USE: | 3439.00 | 0.00 | 2.00 | 2.00 | | | | | | | | | | | | | | | | | |

NOTES

- DIMENSION "S" REPRESENTS AN INCREASE (+), OR A DECREASE (-) IN POLE LENGTH, RELATIVE TO THE ELEVATION OF THE EDGE OF TRAVEL LANE.
- FIELD VERIFICATIONS SHALL BE REQUIRED FOR ALL SUPPORTS, SEE (*) ARTICLE 903-3. FABRICATORS SHALL BE AISC CERTIFIED IN CATEGORY 1, SEE (*) ARTICLE 1072-1. (*) = N.C.D.O.T. STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES
- PLAN LOCATIONS FOR EXISTING UTILITIES ARE BASED ON THE BEST AVAILABLE INFORMATION AND, THEREFORE MAY NOT BE PRECISELY ACCURATE. THEREFORE, IT IS INCUMBENT UPON THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF UTILITIES BEFORE BEGINNING WORK IN A LOCATION.

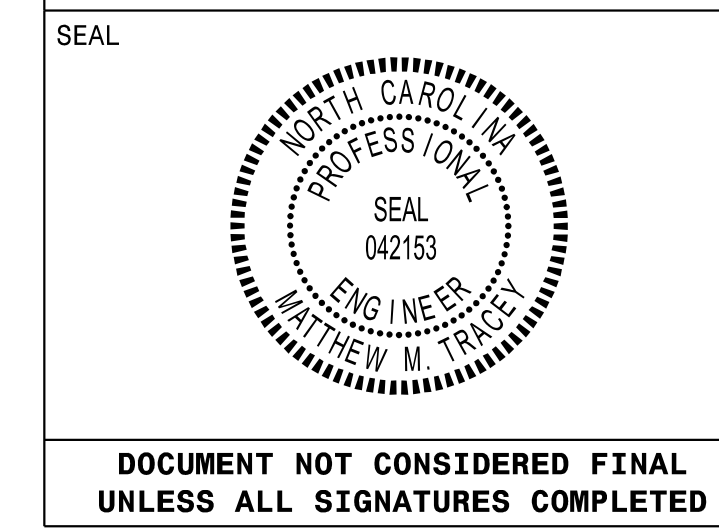


TYPE "A" AND TYPE "B" GROUND MOUNTED SIGNS

08/03/23 U:\I-5941\I-5941 Support Chart, E and F Signs.dgn User:mmr00001

APPROVED: *Matthew Tracey*
63820E1856974DB

DATE: 10/11/2023



SIGN NUMBER: 102 TYPE: A QUANTITY: 1
 SIGN WIDTH: 18'-6" HEIGHT: 7'-0" TOTAL AREA: 129.5 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADIUS: 9"
 NO. Z BARS: 2 LENGTH: 214.0

BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT

DESIGN BY: MT CHECKED BY: Feb 07, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | | | | | Series/Size Text Length | | | | | |
|---|------|------|------|------|-----|------|------|------|------|------|-----|------|------|-----|-------------------------|---------|---------|------|------|--------|
| N | o | r | t | h | C | a | r | o | l | i | n | a | | | | EM 2000 | | | | |
| 33.1 | 14.1 | 13.2 | 8.5 | 11.2 | 8.8 | 13.3 | 13.3 | 14.1 | 8.6 | 13.2 | 8 | 8 | 12.9 | 8.8 | 33.1 | 155.9 | | | | |
| C | e | n | t | r | a | l | U | n | i | v | e | r | s | i | t | y | EM 2000 | | | |
| 11.3 | 13.3 | 12.9 | 12.8 | 11.2 | 8.6 | 14.1 | 2.7 | 13.3 | 15.3 | 14.1 | 6.5 | 12.9 | 12.9 | 8.4 | 12.9 | 6.6 | 9.7 | 11.3 | 11.3 | 199.5 |
| E | X | I | T | 1 | 7 | 2 | | | | | | | | | | | | | | E 2000 |
| 71.2 | 8.9 | 10.7 | 3.5 | 7.5 | 15 | 7 | 14.7 | 12.2 | 71.3 | | | | | | | | | | | 79.5 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 1A, 2A, 3A TYPE: B QUANTITY: 3
 SIGN WIDTH: 8'-0" HEIGHT: 2'-0" TOTAL AREA: 16.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADIUS: 3"
 NO. Z BARS: 2 LENGTH: 88.0

BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT

DESIGN BY: MT CHECKED BY: Feb 07, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | Series/Size Text Length |
|---|-----|------|-----|-----|----|-----|------|------|-----|-------------------------|
| E | X | I | T | 1 | 7 | 2 | | | | EM 2000 |
| 8.3 | 8.9 | 10.7 | 3.5 | 7.5 | 15 | 7.1 | 14.7 | 12.1 | 8.3 | 79.5 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 1B TYPE: A QUANTITY: 1
 SIGN WIDTH: 23'-0" HEIGHT: 13'-0" TOTAL AREA: 299.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADIUS: 9"
 NO. Z BARS: 4 LENGTH: 268.0

BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT

DESIGN BY: MT CHECKED BY: Feb 07, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 0.7 for "Research Triangle Park" text only

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | | | | | Series/Size Text Length | | | | | | | | | |
|---|------|------|------|------|------|------|-------|------|------|------|------|-----|----|--------|-------------------------|-----|------|---|------|---------|------|------|-----|-------|
| S | O | U | T | H | | | | | | | | | | | E 2000 | | | | | | | | | |
| 133.6 | 12.2 | 2.3 | 12.8 | 11.8 | 11 | 9.7 | 82.6 | | | | | | | | 59.8 | | | | | | | | | |
| D | u | r | h | a | m | | | | | | | | | | EM 2000 | | | | | | | | | |
| 89.7 | 17.8 | 17 | 11.8 | 15.5 | 17 | 17.6 | 89.7 | | | | | | | | 96.6 | | | | | | | | | |
| D | O | W | N | T | O | W | N | | | | | | | E 2000 | | | | | | | | | | |
| 89.3 | 12.1 | 11.8 | 14.8 | 11.8 | 10.7 | 11.8 | 14.8 | 9.7 | 89.3 | | | | | 97.3 | | | | | | | | | | |
| R | e | s | e | a | r | c | h | T | r | i | a | n | g | l | e | P | a | r | k | EM 2000 | | | | |
| 6.4 | 15 | 12.8 | 13 | 13 | 15 | 9.7 | 14 | 10.6 | 8 | 14.5 | 10.7 | 6.7 | 15 | 14 | 15 | 6.7 | 10.6 | 8 | 14.6 | 15 | 10.7 | 10.6 | 6.4 | 263.3 |
| 1 | M | I | L | E | | | | | | | | | | | | | | | | E 2000 | | | | |
| 111.7 | 4.5 | 15 | 12 | 4.4 | 9.2 | 7.5 | 111.7 | | | | | | | | | | | | | 52.6 | | | | |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 101 TYPE: A QUANTITY: 1
 SIGN WIDTH: 20'-0" HEIGHT: 4'-6" TOTAL AREA: 90.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 1" WIDTH: 2" RADIUS: 6"
 NO. Z BARS: 2 LENGTH: 232.0

BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT

DESIGN BY: MT CHECKED BY: Mar 07, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | | | | | Series/Size Text Length | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|-------------------------|-----|------|--|-------|--------|
| D | u | k | e | / | v | a | M | e | d | C | t | r | s | | EM 2000 | | | | | |
| 21.7 | 14.8 | 14.1 | 11.7 | 10.2 | 14.8 | 13.3 | 13.4 | 13.3 | 15.7 | 11.7 | 8.8 | 13.3 | 13.2 | 11.2 | 8.4 | 8.8 | 21.7 | | 196.6 | |
| E | X | I | T | 1 | 7 | 2 | | | | | | | | | | | | | | E 2000 |
| 80.2 | 8.9 | 10.7 | 3.5 | 7.5 | 15 | 7.1 | 14.7 | 12.2 | 80.3 | | | | | | | | | | | 79.5 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

08/03/23
 U:\I-5941\I-5941 Map.dgn
 User:mmTracey

SIGN DESIGNS

SIGN NUMBER: 103 TYPE: A QUANTITY: 1
 SIGN WIDTH: 14'-6" HEIGHT: 14'-6" TOTAL AREA: 210.3 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12"
 NO. Z BARS: 5 LENGTH: 166.0
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 M1_4 36.6 86.6 36 36
 M1_4 96.9 86.6 45 36
 MATL: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: MT CHECKED BY: LOCATION: Feb 08, 2023 DIV: 5
 PROJECT ID: I-5941

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | Series/Size |
|---|------|------|-------|------|------|------|------|------|------|------|-------------|
| | | | | | | | | | | | Text Length |
| T | O | | | | | | | | | | E 2000 |
| 45.9 | 8.9 | 8.4 | 110.8 | | | | | | | | 17.3 |
| T | O | | | | | | | | | | E 2000 |
| 110.8 | 8.9 | 8.4 | 45.9 | | | | | | | | 17.3 |
| S | O | U | T | H | | | | | | | E 2000 |
| 29.7 | 9.7 | 2.3 | 10.7 | 9.8 | 9.2 | 8.1 | 94.5 | | | | 49.8 |
| S | O | U | T | H | | | | | | | E 2000 |
| 94.5 | 9.7 | 2.3 | 10.7 | 9.8 | 9.2 | 8.1 | 29.7 | | | | 49.8 |
| C | H | A | P | E | I | H | I | I | I | | EM 2000 |
| 29 | 14.5 | 12.9 | 14.1 | 11.7 | 12.9 | 2.7 | 13.3 | 15.3 | 8 | 8 | 116 |
| D | U | K | E | U | N | I | V | | | | EM 2000 |
| 32.6 | 14.8 | 14.1 | 11.7 | 8.8 | 13.3 | 15.3 | 14.1 | 6.5 | 10.2 | 32.6 | 108.8 |
| E | X | I | T | | | | | | | | E 2000 |
| 47.3 | 8.9 | 10.7 | 3.5 | 7.5 | 15 | 7 | 14.7 | 12.2 | 47.2 | | 79.5 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 104 TYPE: A QUANTITY: 1
 SIGN WIDTH: 11'-0" HEIGHT: 7'-0" TOTAL AREA: 77.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 1" WIDTH: 2" RADII: 9"
 NO. Z BARS: 3 LENGTH: 124.0
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 MATL: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: MT CHECKED BY: LOCATION: Feb 08, 2023 DIV: 5
 PROJECT ID: I-5941

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | Series/Size | |
|---|------|------|------|------|------|------|------|------|------|-----|-------------|--------|
| | | | | | | | | | | | Text Length | |
| H | O | S | P | I | T | A | L | | | | D 2000 | |
| 29.7 | 10.8 | 10.3 | 10.2 | 10 | 3.7 | 8.2 | 12 | 7.4 | 29.7 | | 72.6 | |
| T | R | A | U | M | A | C | E | N | T | E | R | D 2000 |
| 6 | 8.7 | 8.8 | 11.5 | 10.2 | 10.6 | 10.2 | 6 | 10 | 8.9 | 9.4 | 8.7 | 120 |
| E | X | I | T | | | | | | | | | E 2000 |
| 26.3 | 8.9 | 10.7 | 3.5 | 7.5 | 15 | 7.1 | 14.7 | 12.2 | 26.3 | | | 79.5 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 2B TYPE: A QUANTITY: 1
 SIGN WIDTH: 23'-0" HEIGHT: 14'-6" TOTAL AREA: 333.5 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12"
 NO. Z BARS: 5 LENGTH: 288.0
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 M1-5-3-24-7C 82.6 126 36 36
 ARDOWN 119.4 8 32 22
 MATL: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: MT CHECKED BY: LOCATION: Feb 08, 2023 DIV: 5
 PROJECT ID: I-5941

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
 4. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | Series/Size | | | | | | | | | | | | | | |
|---|------|------|------|------|-------|------|------|------|------|------|-------------|-----|----|----|----|-----|------|---|------|---------|------|------|-----|-------|---------|
| | | | | | | | | | | | Text Length | | | | | | | | | | | | | | |
| S | O | U | T | H | | | | | | | E 2000 | | | | | | | | | | | | | | |
| 133.6 | 12.2 | 2.3 | 12.8 | 11.8 | 11 | 9.7 | 82.6 | | | | 59.8 | | | | | | | | | | | | | | |
| D | U | R | H | A | M | | | | | | EM 2000 | | | | | | | | | | | | | | |
| 89.7 | 17.8 | 17 | 11.8 | 15.5 | 17 | 17.6 | 89.7 | | | | 96.6 | | | | | | | | | | | | | | |
| D | O | W | N | T | O | W | N | | | | E 2000 | | | | | | | | | | | | | | |
| 89.3 | 12.1 | 11.8 | 14.8 | 11.8 | 10.7 | 11.8 | 14.8 | 9.7 | 89.3 | | 97.3 | | | | | | | | | | | | | | |
| R | E | S | E | A | R | C | H | T | R | I | A | N | G | L | E | P | A | R | K | EM 2000 | | | | | |
| 6.4 | 15 | 12.8 | 13 | 13 | 15 | 9.7 | 14 | 10.6 | 8 | 14.5 | 10.7 | 6.7 | 15 | 14 | 15 | 6.7 | 10.6 | 8 | 14.8 | 15 | 10.7 | 10.6 | 6.4 | 263.3 | |
| E | X | I | T | | | | | | | | | | | | | | | | | | | | | | EM 2000 |
| 64.9 | 11.2 | 14 | 5.4 | 8.9 | 171.6 | | | | | | | | | | | | | | | | | | | | 39.5 |
| O | N | L | Y | | | | | | | | | | | | | | | | | | | | | | EM 2000 |
| 163.4 | 13 | 13.1 | 9.6 | 12.1 | 64.9 | | | | | | | | | | | | | | | | | | | | 47.8 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 4 TYPE: A QUANTITY: 1
 SIGN WIDTH: 14'-0" HEIGHT: 9'-6" TOTAL AREA: 133.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12"
 NO. Z BARS: 3 LENGTH: 160.0
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 M1_1 29 67.3 36 36
 MATL: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: MT CHECKED BY: LOCATION: Feb 08, 2023 DIV: 5
 PROJECT ID: I-5941

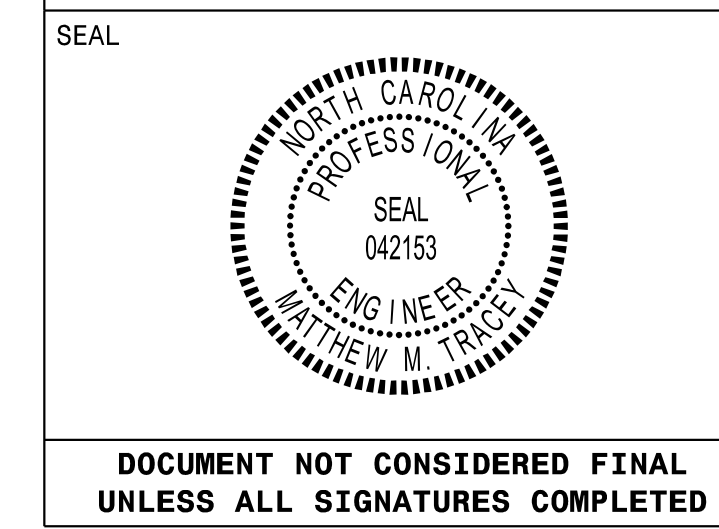
USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | Series/Size | |
|---|------|------|------|------|------|------|------|----|------|------|-------------|-------|
| | | | | | | | | | | | Text Length | |
| N | O | R | T | H | | | | | | | E 2000 | |
| 80 | 12.1 | 2.3 | 12.8 | 11 | 11 | 9.7 | 29 | | | | 59.1 | |
| D | U | R | H | A | M | | | | | | EM 2000 | |
| 35.7 | 17.8 | 17 | 11.8 | 15.5 | 17 | 17.6 | 35.7 | | | | 96.6 | |
| P | E | T | E | R | S | B | U | R | G | | EM 2000 | |
| 16.1 | 15.4 | 13.9 | 12 | 15.5 | 10.1 | 15.5 | 15.5 | 17 | 10.4 | 10.6 | 16.1 | 135.8 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

APPROVED: *Matthew Tracy*
 DATE: 10/11/2023



DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

SIGN NUMBER: 106B BACKG COLOR: Green
 TYPE: A COPY COLOR: White
 QUANTITY: 1

| SYMBOL | X | Y | WID | HT |
|--------|---|---|-----|----|
| | | | | |

SIGN WIDTH: 15'-6"
 HEIGHT: 5'-6"
 TOTAL AREA: 85.3 Sq.Ft.

BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 9"

NO. Z BARS: 2
 LENGTH: 178.0

MATL: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: MT CHECKED BY: Feb 16, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | | | Series/Size Text Length |
|---|-----|------|-----|------|-----|------|------|-----|-----|----|------|------|----------------------------|
| C | o | l | e | M | i | l | l | R | d | | | | EM 2000 |
| 17.2 | 16 | 15.8 | 8.2 | 10.6 | 16 | 20.3 | 9.6 | 9.6 | 3.2 | 16 | 15.8 | 10.6 | 17.2 |
| 1 | | | | M | I | L | E | | | | | | E 2000 |
| 66.7 | 4.5 | 15 | 12 | 4.4 | 9.2 | 7.5 | 66.7 | | | | | | 52.6 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 201 BACKG COLOR: Green
 TYPE: A COPY COLOR: White
 QUANTITY: 1

| SYMBOL | X | Y | WID | HT |
|-----------|----|---|------|------|
| AR_Type A | 61 | 6 | 18.6 | 29.2 |

SIGN WIDTH: 7'-6"
 HEIGHT: 5'-0"
 TOTAL AREA: 37.5 Sq.Ft.

BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 1.5"
 RADII: 6"

NO. Z BARS: 2
 LENGTH: 82.0

MATL: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: MT CHECKED BY: Feb 08, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | Series/Size Text Length |
|---|------|------|------|------|------|--|----------------------------|
| E | X | I | T | | | | E 2000 |
| 26.6 | 10.7 | 12.8 | 4.2 | 9 | 26.6 | | 36.7 |
| 1 | 7 | 2 | | | | | E 2000 |
| 8.5 | 8.5 | 17.6 | 14.6 | 40.8 | | | 40.7 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 3B BACKG COLOR: Green
 TYPE: A COPY COLOR: White
 QUANTITY: 1

| SYMBOL | X | Y | WID | HT |
|--------------|-------|-----|-----|------|
| M1-5-3-24-7C | 106.6 | 118 | 36 | 36 |
| AR_Type A | 145.4 | 6.6 | 20 | 31.5 |

SIGN WIDTH: 27'-0"
 HEIGHT: 13'-6"
 TOTAL AREA: 364.5 Sq.Ft.

BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 12"

NO. Z BARS: 4
 LENGTH: 316.0

MATL: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: MT CHECKED BY: Feb 08, 2023
 PROJECT ID: I-5419 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
 4. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | | | Series/Size Text Length | | | | | | | | | | | | |
|---|------|------|------|------|-------|------|-------|------|-------|------|------|-----|----------------------------|------|----|-----|------|----|------|----|------|------|------|---------|--------|
| S | O | U | T | H | | | | | | | | | E 2000 | | | | | | | | | | | | |
| 157.6 | 12.2 | 2.3 | 12.8 | 11.8 | 11 | 9.7 | 106.6 | | | | | | 59.8 | | | | | | | | | | | | |
| D | U | R | H | A | M | | | | | | | | EM 2000 | | | | | | | | | | | | |
| 113.7 | 17.8 | 17 | 11.8 | 15.5 | 17 | 17.6 | 113.7 | | | | | | 96.6 | | | | | | | | | | | | |
| D | O | W | N | T | O | W | N | | | | | | E 2000 | | | | | | | | | | | | |
| 113.3 | 12.1 | 11.8 | 14.8 | 11.8 | 10.7 | 11.8 | 14.8 | 9.7 | 113.3 | | | | 97.3 | | | | | | | | | | | | |
| R | E | S | E | A | R | C | H | T | R | I | A | N | G | L | E | P | A | R | K | | | | | EM 2000 | |
| 13.1 | 15.8 | 13.8 | 14.1 | 14.1 | 17 | 10.4 | 15.5 | 10.6 | 14 | 15.7 | 11.8 | 8.2 | 17 | 15.5 | 17 | 8.2 | 10.6 | 14 | 15.4 | 17 | 11.8 | 10.6 | 13.1 | 297.8 | |
| E | X | I | T | | | | | | | | | | | | | | | | | | | | | | E 2000 |
| 93.9 | 11.4 | 13.9 | 5.1 | 9 | 190.6 | | | | | | | | | | | | | | | | | | | 39.5 | |
| O | N | L | Y | | | | | | | | | | | | | | | | | | | | | | E 2000 |
| 182.2 | 12.8 | 12.8 | 10 | 12.2 | 93.9 | | | | | | | | | | | | | | | | | | | 47.9 | |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 106A BACKG COLOR: Green
 TYPE: B COPY COLOR: White
 QUANTITY: 1

| SYMBOL | X | Y | WID | HT |
|--------|---|---|-----|----|
| | | | | |

SIGN WIDTH: 8'-0"
 HEIGHT: 2'-0"
 TOTAL AREA: 16.0 Sq.Ft.

BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 3"

NO. Z BARS: 2
 LENGTH: 88.0

MATL: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: MT CHECKED BY: Feb 16, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.

LETTER POSITIONS

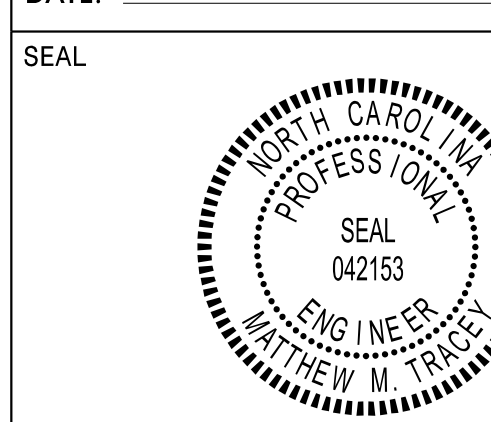
| Letter spacings are to start of next letter | | | | | | | | | | | | | Series/Size Text Length |
|---|-----|------|-----|-----|----|-----|------|------|-----|--|--|--|----------------------------|
| E | X | I | T | 1 | 7 | 3 | | | | | | | E 2000 |
| 8.3 | 8.9 | 10.7 | 3.5 | 7.5 | 15 | 7.1 | 14.7 | 12.1 | 8.3 | | | | 79.5 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

08/03/23
 U:\I-5941\I-5941 Map.dgn
 User:mmr0001

SIGN DESIGNS

APPROVED: *Matthew Tracey*
ES3820E1609974D0L
 DATE: 10/11/2023



**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

SIGN NUMBER: 8 TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 1
 SIGN WIDTH: 14'-6" HEIGHT: 9'-6"
 TOTAL AREA: 137.8 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADIUS: 12"
 NO. Z BARS: 3 LENGTH: 166.0
 MATL: 0.125" (3.2 mm) ALUMINUM

| SYMBOL | X | Y | WID | HT |
|--------|-------|----|-----|----|
| M1_1 | 37 | 52 | 36 | 36 |
| M1_4 | 106.4 | 52 | 36 | 36 |

DESIGN BY: MT CHECKED BY: Feb 21, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

| Series/Size Text Length | S | O | U | T | H |
|-------------------------|------|------|------|------|------|
| E 2000 59.8 | 25.1 | 12.2 | 2.3 | 12.8 | 11.8 |
| E 2000 48.9 | 99.9 | 15.9 | 2.3 | 10.7 | 11 |
| EM 2000 134.7 | 19.6 | 17.4 | 17 | 11.8 | 9.6 |
| EM 2000 139.7 | 17.2 | 17.8 | 10.4 | 14.1 | 15.5 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 202, 203 TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 2
 SIGN WIDTH: 7'-6" HEIGHT: 5'-0"
 TOTAL AREA: 37.5 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1.5" RADIUS: 6"
 NO. Z BARS: 2 LENGTH: 82.0
 MATL: 0.125" (3.2 mm) ALUMINUM

| SYMBOL | X | Y | WID | HT |
|-----------|----|---|------|------|
| AR_Type A | 61 | 6 | 18.6 | 29.2 |

DESIGN BY: MT CHECKED BY: Feb 20, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

| Series/Size Text Length | E | X | I | T |
|-------------------------|------|------|------|------|
| E 2000 36.7 | 26.6 | 10.7 | 12.8 | 4.2 |
| E 2000 40.7 | 8.5 | 8.5 | 17.6 | 14.6 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 7B TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 1
 SIGN WIDTH: 19'-0" HEIGHT: 6'-6"
 TOTAL AREA: 123.5 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADIUS: 9"
 NO. Z BARS: 2 LENGTH: 220.0
 MATL: 0.125" (3.2 mm) ALUMINUM

| SYMBOL | X | Y | WID | HT |
|-----------|----|-----|-----|------|
| AR_Type A | 96 | 6.6 | 20 | 31.5 |

DESIGN BY: MT CHECKED BY: Feb 21, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

| Series/Size Text Length | C | O | L | E | M | I | L | L | R | D |
|-------------------------|-------|------|------|-----|------|------|------|-----|-----|-----|
| EM 2000 151.7 | 38.2 | 16 | 15.8 | 8.2 | 10.6 | 16 | 20.3 | 9.6 | 9.6 | 3.2 |
| E 2000 36.7 | 47.3 | 10.7 | 12.8 | 4.2 | 9 | 144 | | | | |
| E 2000 47.9 | 132.8 | 12.8 | 12.8 | 10 | 12.2 | 47.3 | | | | |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 5B TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 1
 SIGN WIDTH: 19'-0" HEIGHT: 3'-6"
 TOTAL AREA: 66.5 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADIUS: 3"
 NO. Z BARS: 2 LENGTH: 220.0
 MATL: 0.125" (3.2 mm) ALUMINUM

| SYMBOL | X | Y | WID | HT |
|-----------|-------|-----|------|------|
| AR_Type A | 184.1 | 7.2 | 22.2 | 34.9 |

DESIGN BY: MT CHECKED BY: Feb 20, 2023
 PROJECT ID: I-5941 LOCATION: DIV: 5

USE NOTES:
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

| Series/Size Text Length | C | O | L | E | M | I | L | L | R | D |
|-------------------------|------|----|------|-----|------|----|------|-----|-----|-----|
| EM 2000 151.7 | 16.4 | 16 | 15.8 | 8.2 | 10.6 | 16 | 20.3 | 9.6 | 9.6 | 3.2 |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

APPROVED: *Matthew Tracey*
DocuSigned by: Matthew Tracey
 b3820e185974d8
 DATE: 10/11/2023



DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

| | | | | |
|-------------------------|--------------------------------|--------------------|-------------|--------------|
| SIGN NUMBER: 105 | BACKG COLOR: Green | DESIGN BY: MT | CHECKED BY: | Feb 21, 2023 |
| TYPE: B | COPY COLOR: White | PROJECT ID: I-5941 | LOCATION: | DIV: 5 |
| QUANTITY: 1 | | | | |
| SIGN WIDTH: 9'-0" | | | | |
| HEIGHT: 3'-0" | | | | |
| TOTAL AREA: 27.0 Sq.Ft. | | | | |
| BORDER TYPE: FLUSH | | | | |
| RECESS: 0" | | | | |
| WIDTH: 1" | | | | |
| RADIUS: 3" | | | | |
| NO. Z BARS: 2 | MATL: 0.125" (3.2 mm) ALUMINUM | | | |
| LENGTH: 100.0 | | | | |

USE NOTES:

- Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.

Spacing Factor is 1 unless specified otherwise

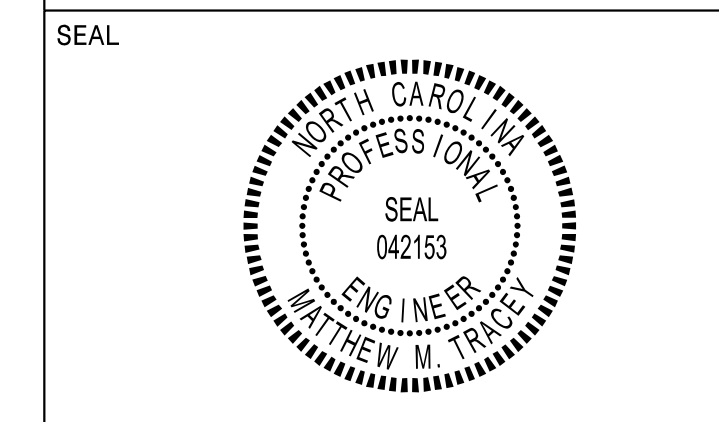
LETTER POSITIONS

| Letter spacings are to start of next letter | | | | | | | | | | | | | Series/Size |
|---|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|------|----------------|
| | B | u | r | l | i | n | g | t | o | n | | | Text Length |
| | 16.8 | 6.6 | 6.3 | 4 | 2.9 | 2.9 | 5.9 | 5.7 | 3.8 | 6.2 | 4.7 | 42.3 | D 2000 48.9 |
| | 2 | 9 | | | | | | | | | | | D 2000 12.5 |
| | 78.7 | 7 | 5.4 | 16.8 | | | | | | | | | D 2000 53.1 |
| | 16.8 | 7 | 3.7 | 5.5 | 5.8 | 5.8 | 4.8 | 5.8 | 6.2 | 3.7 | 4.9 | 38 | D 2000 13.2 |
| | 4 | 9 | | | | | | | | | | | |
| | 78 | 7.8 | 5.4 | 16.8 | | | | | | | | | |

I-5941 Map NORTH CAROLINA D.O.T. SIGN DETAIL

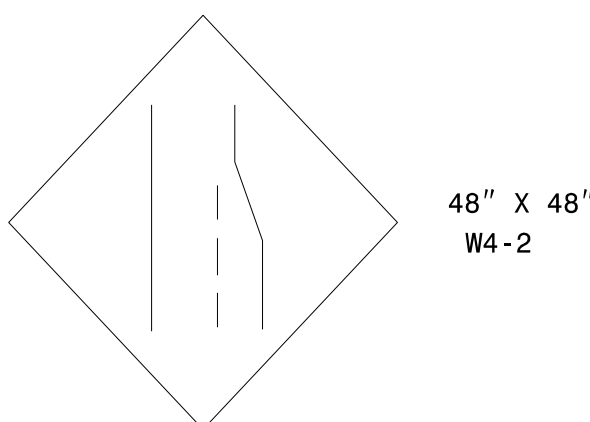
APPROVED: *Matthew Tracy*

DATE: 10/11/2023



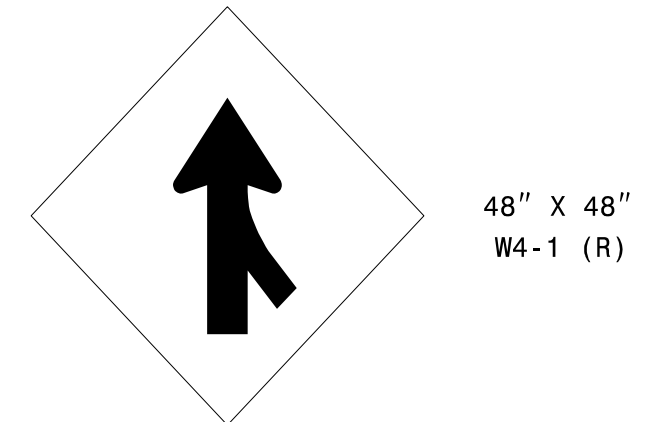
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

401 QUANTITY REQ'D 6



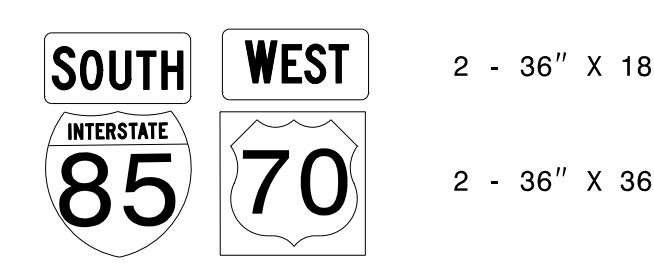
TWO "U" POSTS PER SIGN

406 QUANTITY REQ'D 2



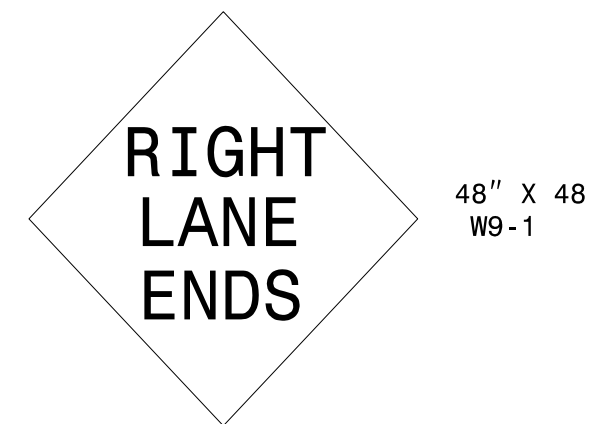
TWO "U" POSTS PER SIGN

501 502



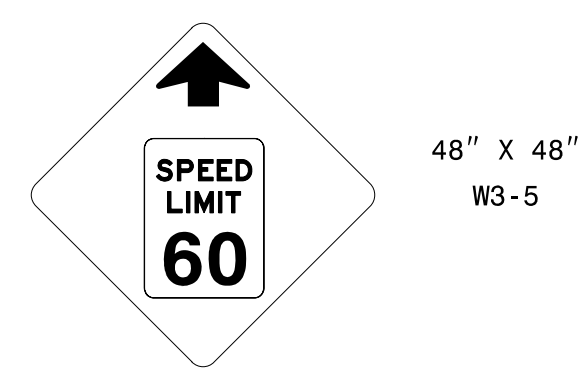
TWO "U" POSTS PER ASSEMBLY

402 QUANTITY REQ'D 4



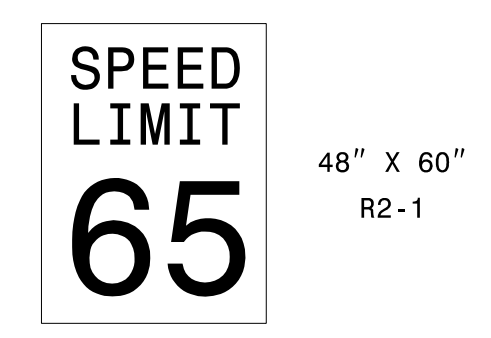
TWO "U" POSTS PER SIGN

403 QUANTITY REQ'D 2



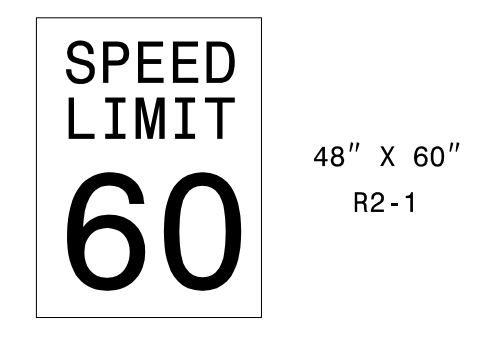
TWO "U" POSTS PER SIGN

404 QUANTITY REQ'D 3



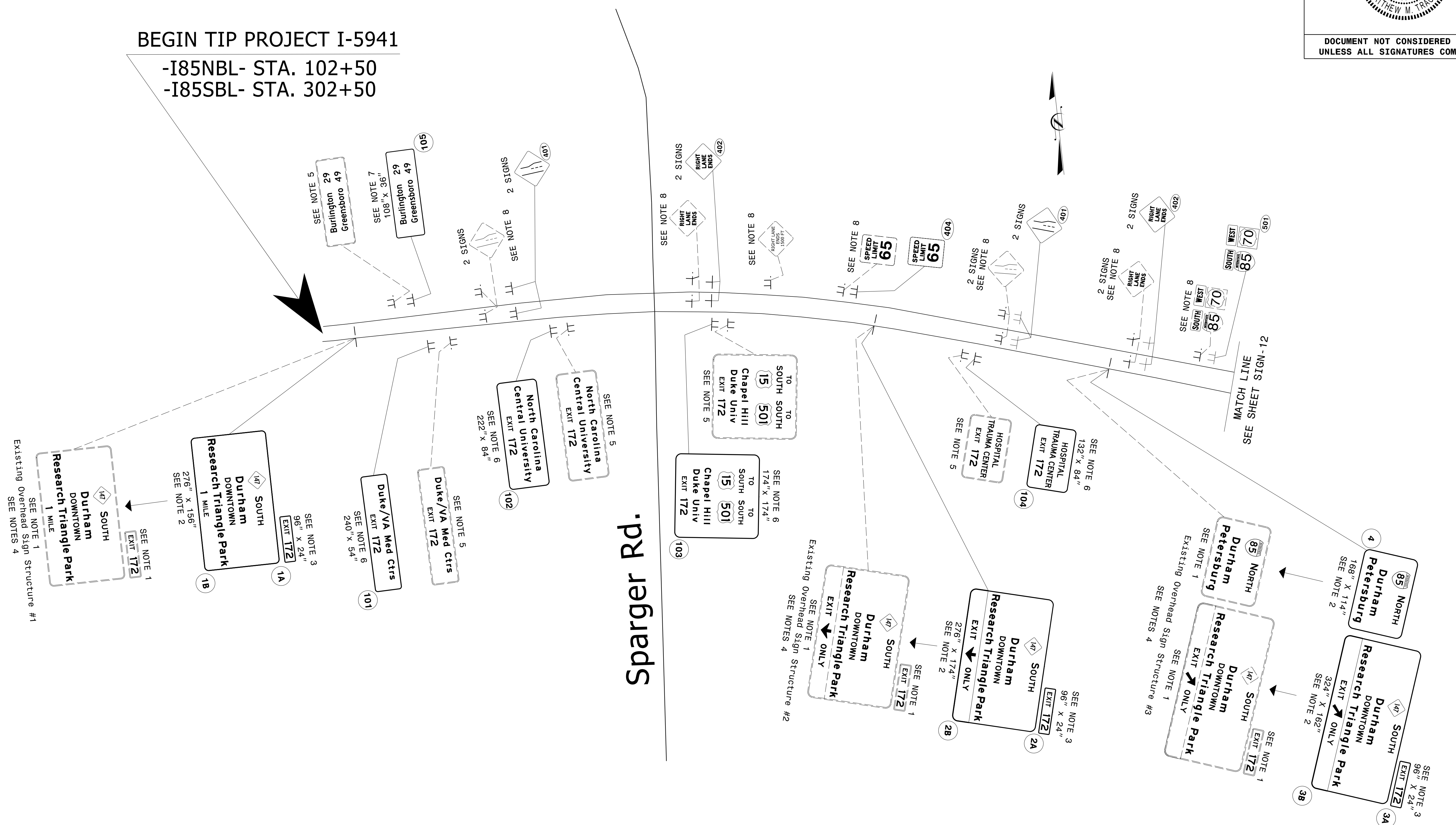
TWO "U" POSTS PER SIGN

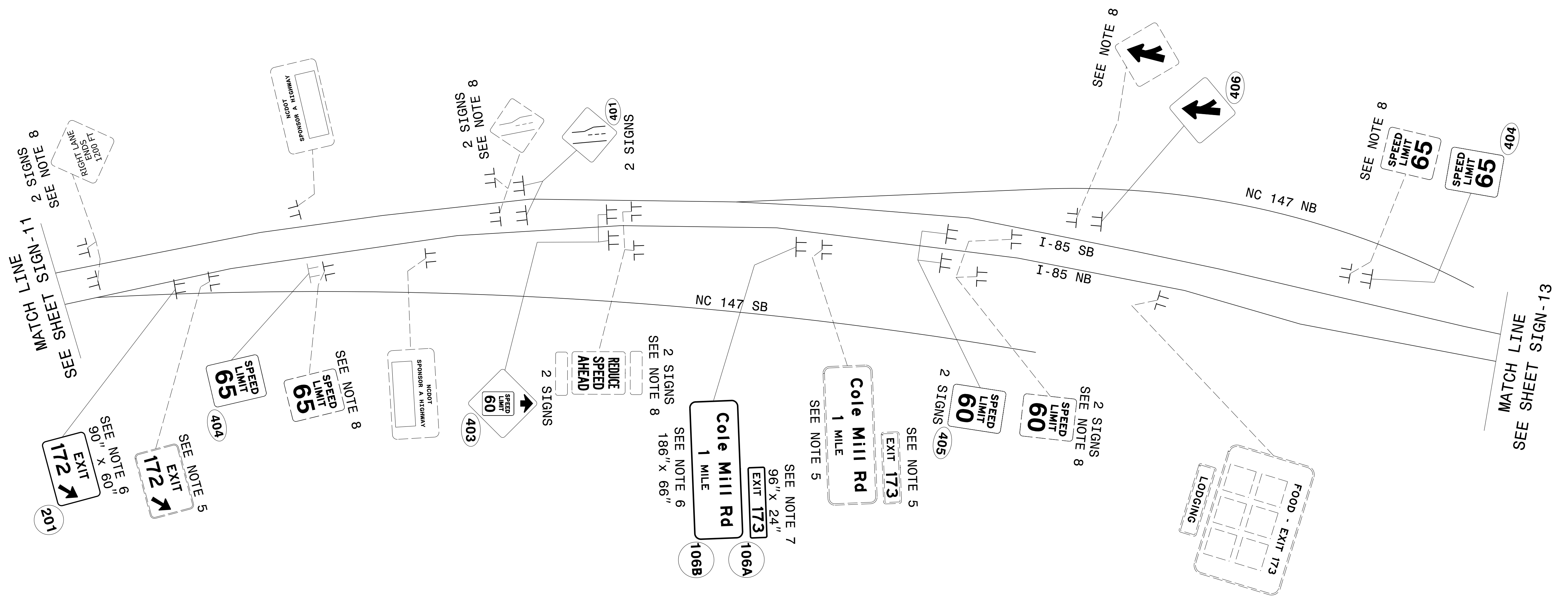
405 QUANTITY REQ'D 2



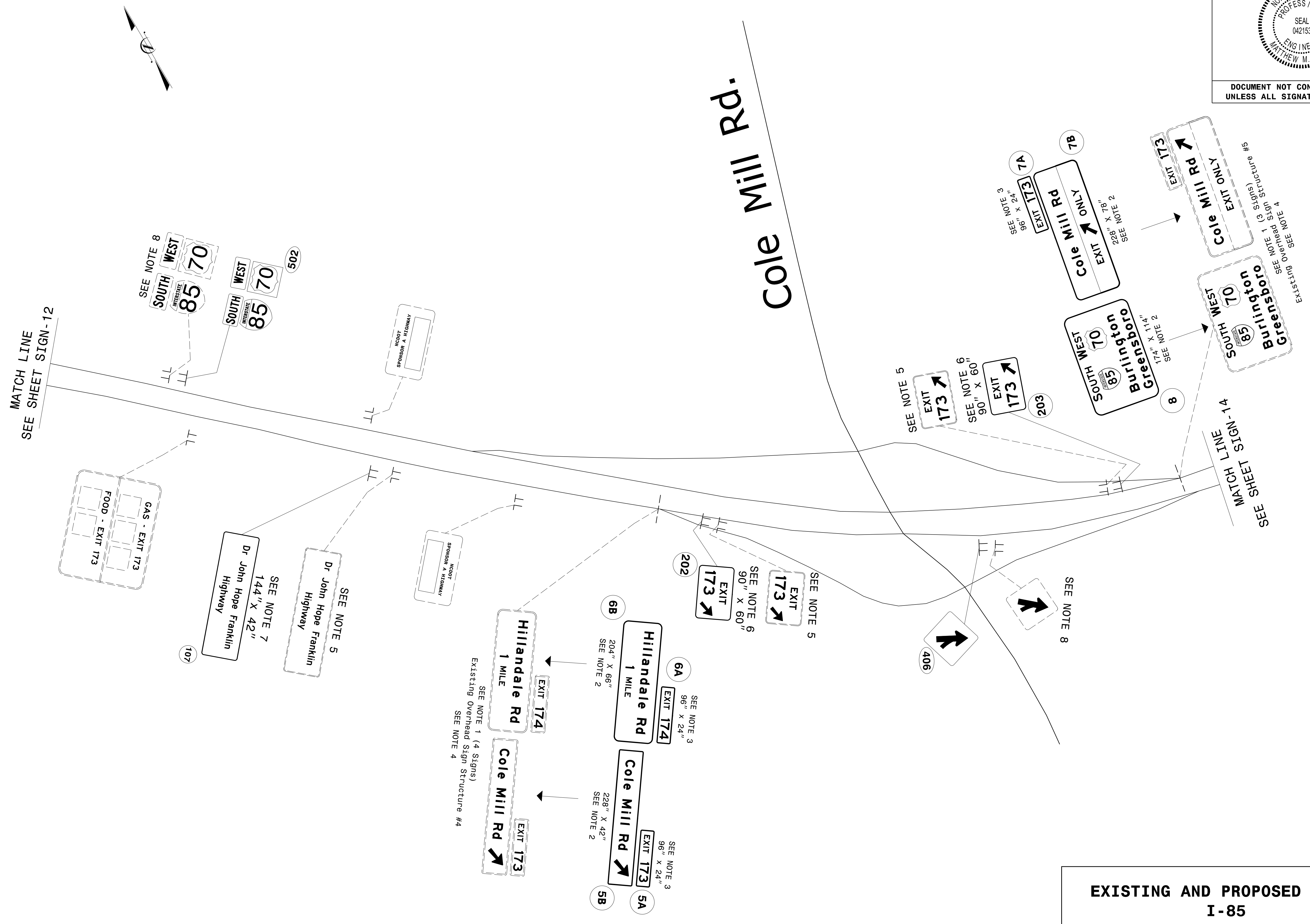
TWO "U" POSTS PER SIGN

TYPE "E" AND "F" SIGNS

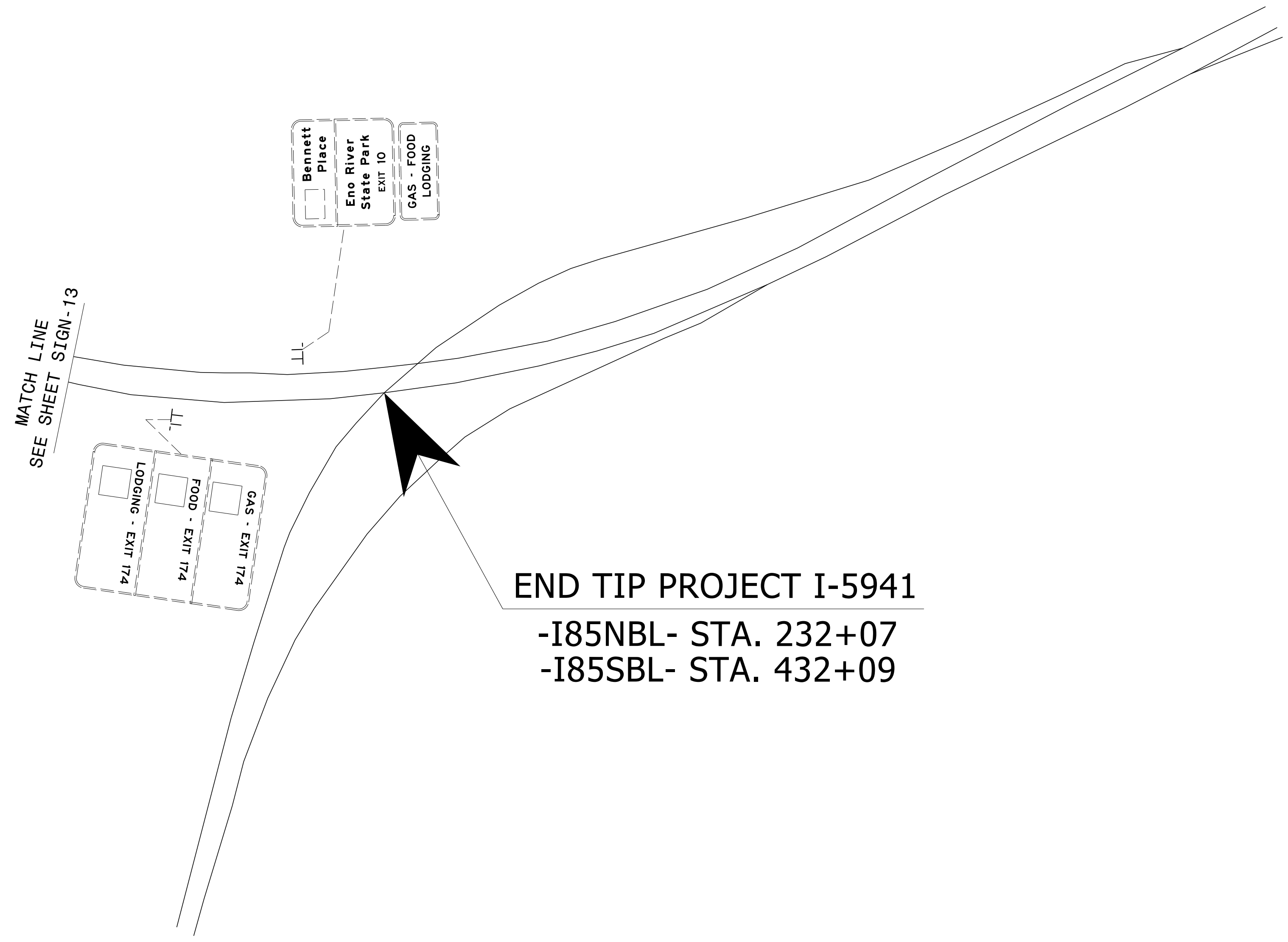




**EXISTING AND PROPOSED SIGNS
I-85**



**EXISTING AND PROPOSED SIGNS
I-85**



END TIP PROJECT I-5941
 -I85NBL- STA. 232+07
 -I85SBL- STA. 432+09