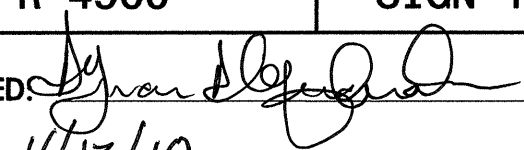



**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

TIP NO. R-4900	SHEET NO. SIGN-1
APPROVED: 	
DATE: 4/12/10	
SEAL 	

**SIGNING PLANS
COLUMBUS COUNTY**

LOCATION: NEW INTERCHANGE US 74 - NC 130 / NC 242

T.I.P.: R-4900

CONTRACT: C202441

PAY ITEM NOTES

1	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2	DISPOSAL OF SIGN SYSTEM, STEEL BEAM

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4048000000	902	REINFORCED CONCRETE SIGN FOUNDATION	11	C.Y.
4060000000	903	SUPPORTS, BREAKAWAY STEEL BEAM	8,641	LB.
4072000000	903	SUPPORTS, 3 LB U-CHANNEL	1,477	L.F.
4078000000	903	SUPPORTS, 2 LB U-CHANNEL	2	EA.
4096000000	904	SIGN ERECTION, TYPE D	9	EA.
4102000000	904	SIGN ERECTION, TYPE E	42	EA.
4108000000	904	SIGN ERECTION, TYPE F	12	EA.
4110000000	904	SIGN ERECTION, TYPE A (GROUND MOUNTED)	9	EA.
4114000000	904	SIGN ERECTION, MILEMARKERS	2	EA.
4152000000	907	DISPOSAL OF SIGN SYSTEM, STEEL BEAM	6	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	43	EA.

GENERAL NOTES

- . SIGNS FURNISHED BY STATE
- . ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . SIGNING PLANS DO NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING OR PAVEMENT MARKINGS. SEE TRAFFIC CONTROL PLANS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- . DO NOT BEGIN FABRICATION FOR TYPES A & B SIGNS MOUNTED ON OVERHEAD STRUCTURES OR STEEL SUPPORTS UNTIL "S" DIMENSIONS HAVE BEEN FIELD VERIFIED.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
901.10	TYPE 'A' SIGNS
901.20	TYPE 'B' SIGNS
901.50	ARROWS AND SHIELDS
901.70	SIGN STRINGERS AND SUPPORT SPACING
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.40	MILEPOST AND PLACEMENT
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

INDEX

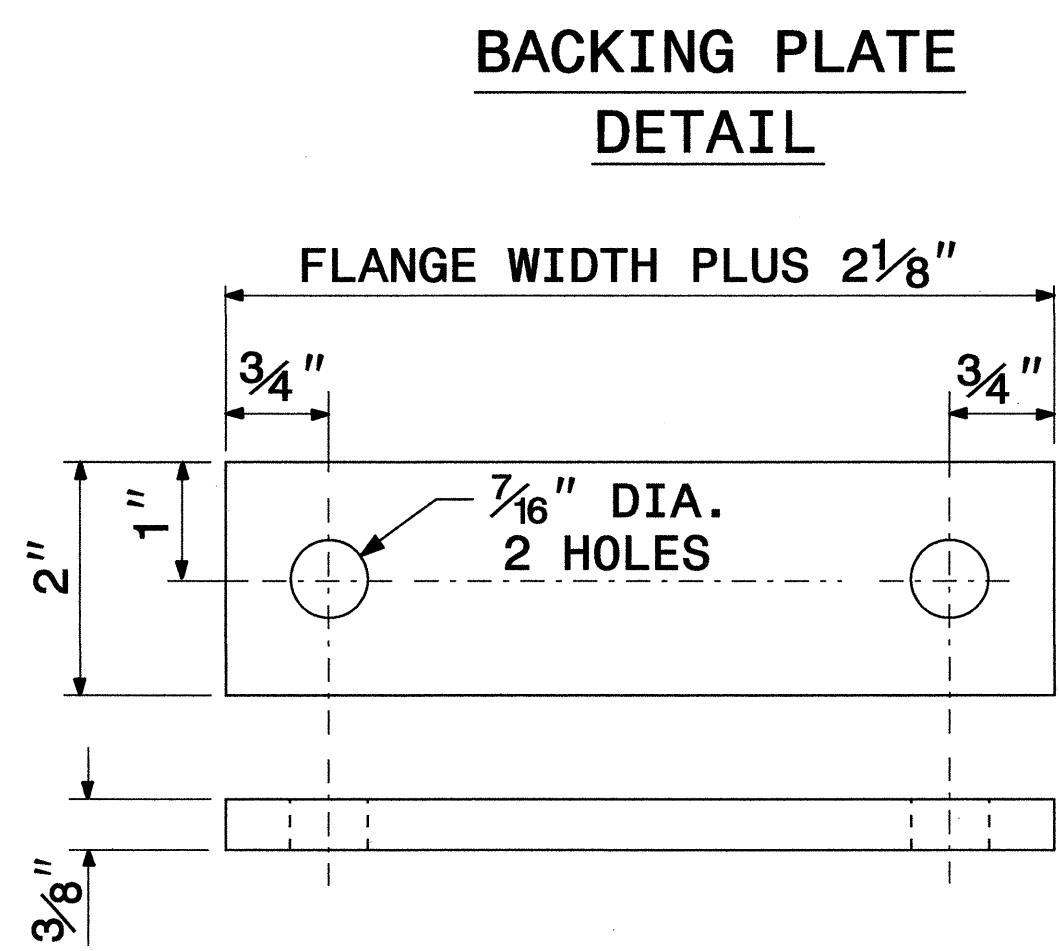
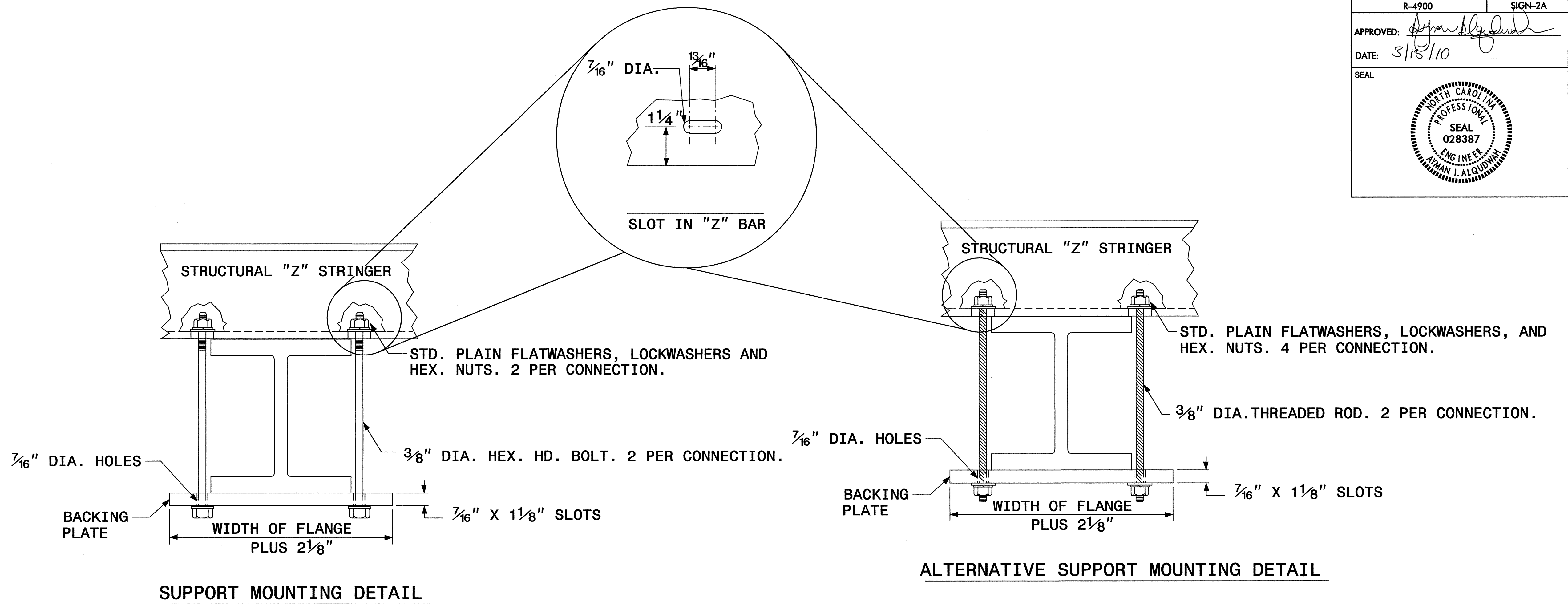
SHEET NO.	DESCRIPTION
SIGN - 1	TITLE SHEET - SUMMARY OF QUANTITIES, ROADWAY STANDARD DRAWINGS, INDEX, & NOTES
SIGN - 2 - 2D	SUPPORT INFORMATION
SIGN - 3 - 3E	SIGN DESIGN SHEETS, "E" AND "F" SHEETS
SIGN - 4 - 8	SIGNING DETAIL SHEETS
SIGN - 9	EXISTING SIGNS

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

AYMAN I. ALQUDWAH, P.E. SIGNING & DELINEATION REGIONAL ENGINEER
ERIC WARD SIGNING & DELINEATION DESIGN ENGINEER

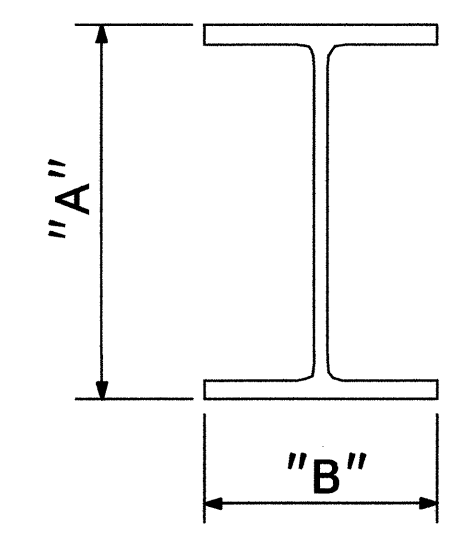
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TIP NO. R-4900	SHEET NO. SIGN-2A
APPROVED: <i>[Signature]</i>	
DATE: 3/15/10	
SEAL	



1. THE SUPPORT MOUNTING DETAIL SHOWS A "W" OR "S" BEAM. THIS DETAIL IS ALSO USED FOR MOUNTING SIGNS TO WOOD OR SQUARE TUBE SUPPORTS.
2. USE GALVANIZED STEEL FOR BACKING PLATES AND MOUNTING BOLTS IN ACCORDANCE WITH ASTM A123.
3. SEE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR TYPE OF MATERIAL TO BE USED FOR SIGN HANGER ASSEMBLIES AND SUPPORTS.
4. USE GALVANIZED STEEL FOR MOUNTING BOLTS AND THREADED RODS IN COMPLIANCE WITH ASTM A307 AND ASTM A153.

SIGN SUPPORTS SECTION DIMENSIONS

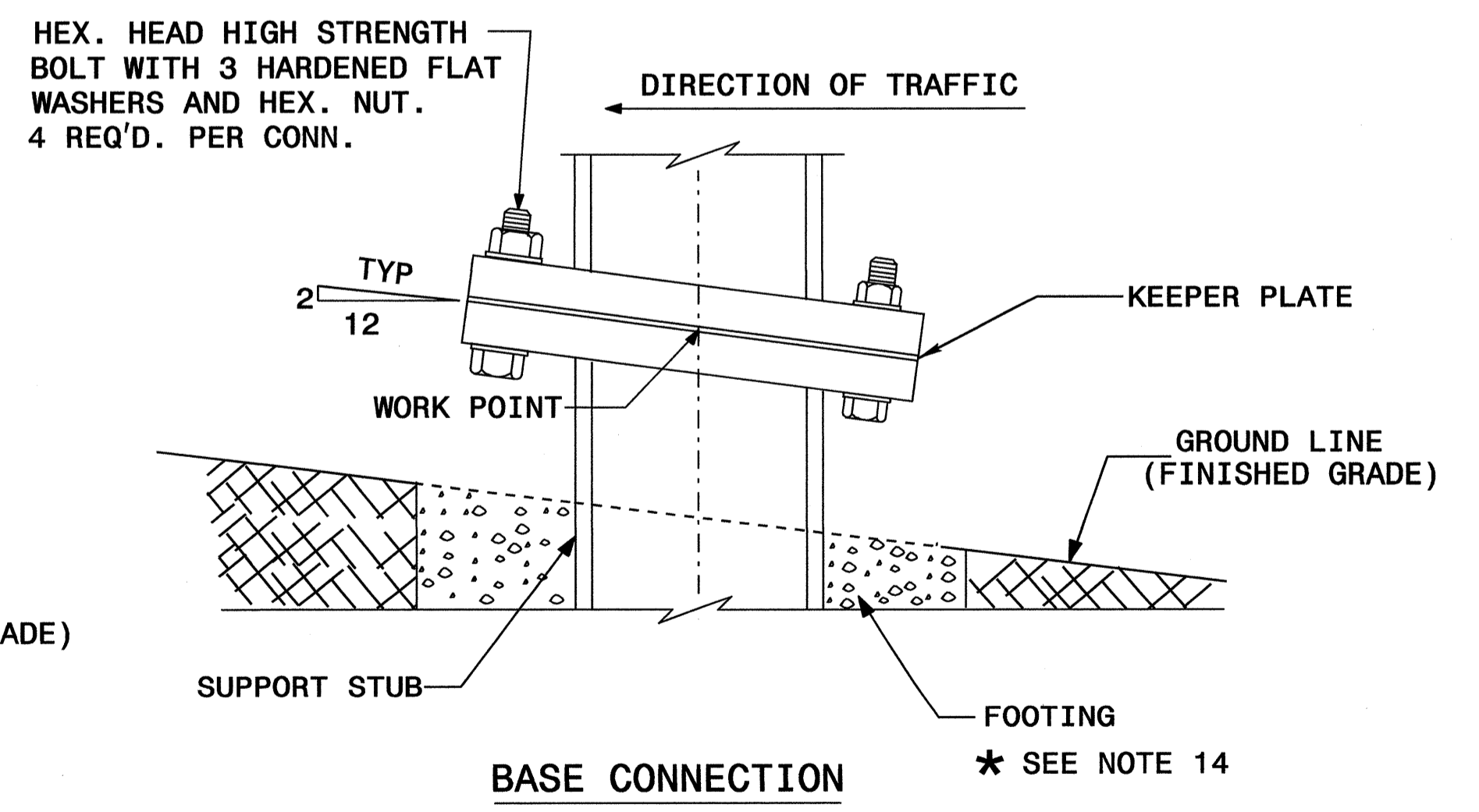
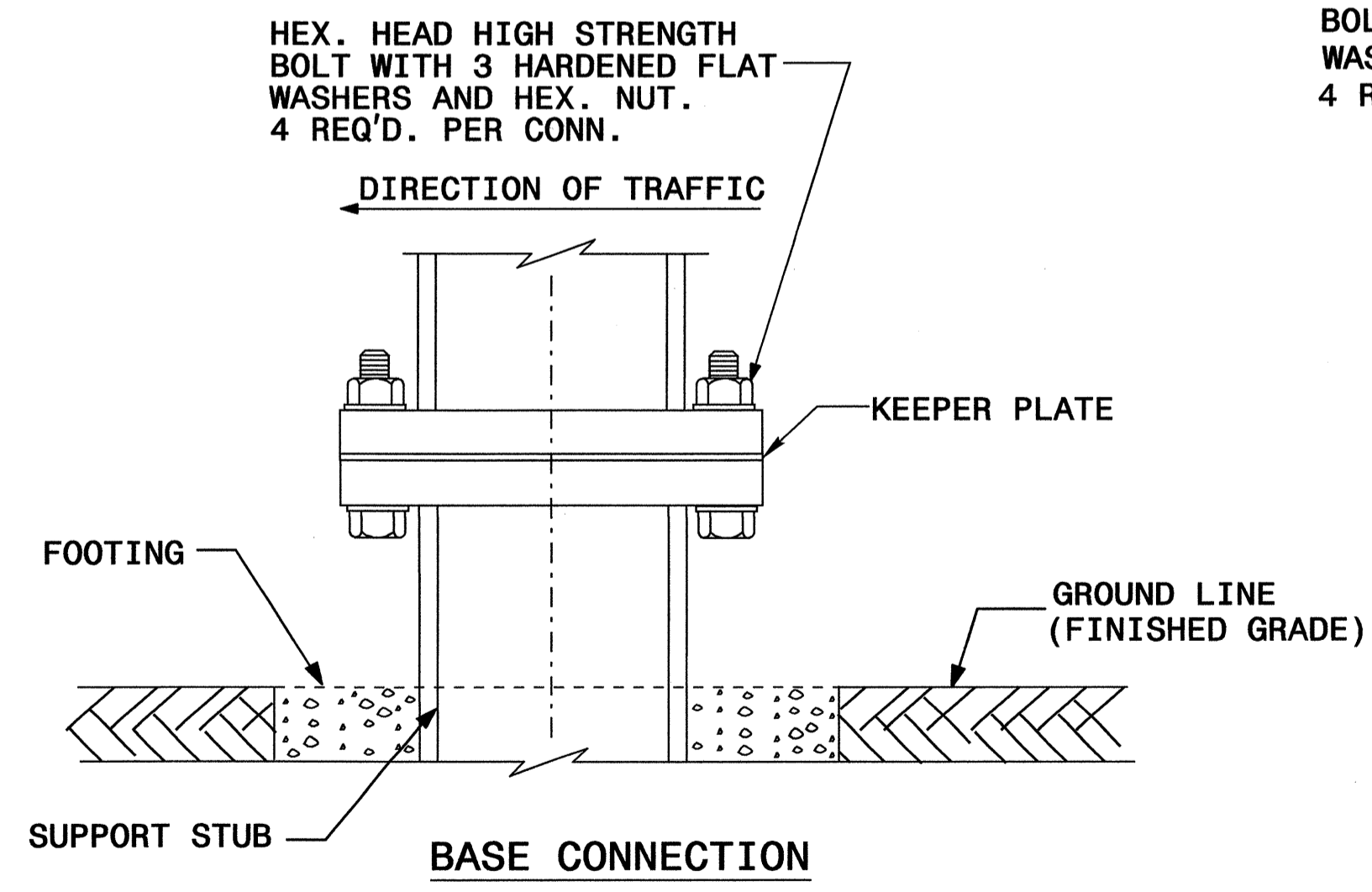
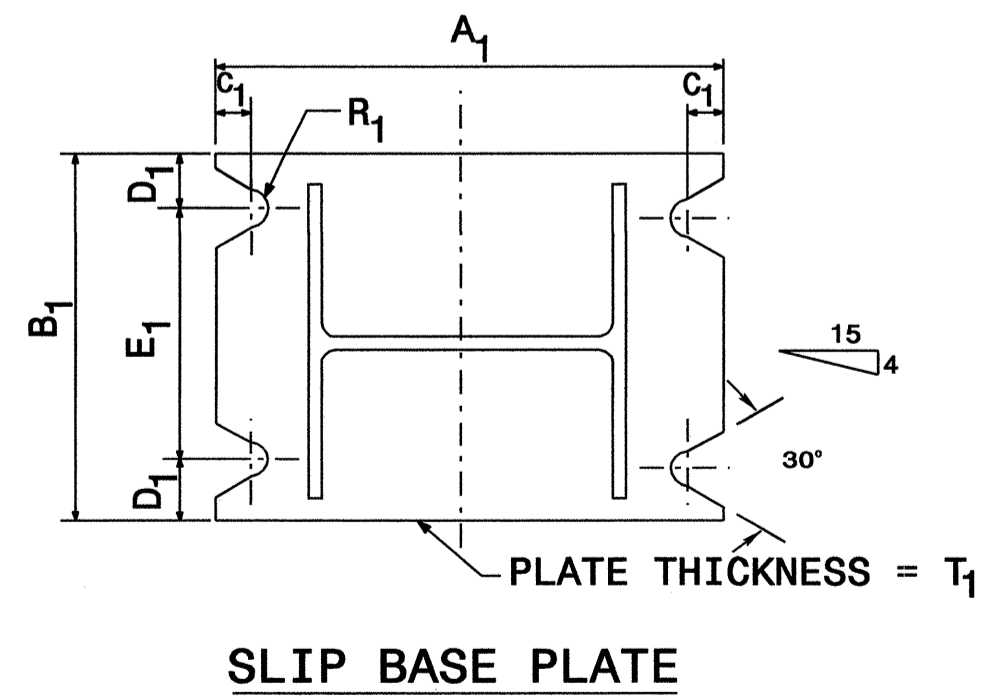
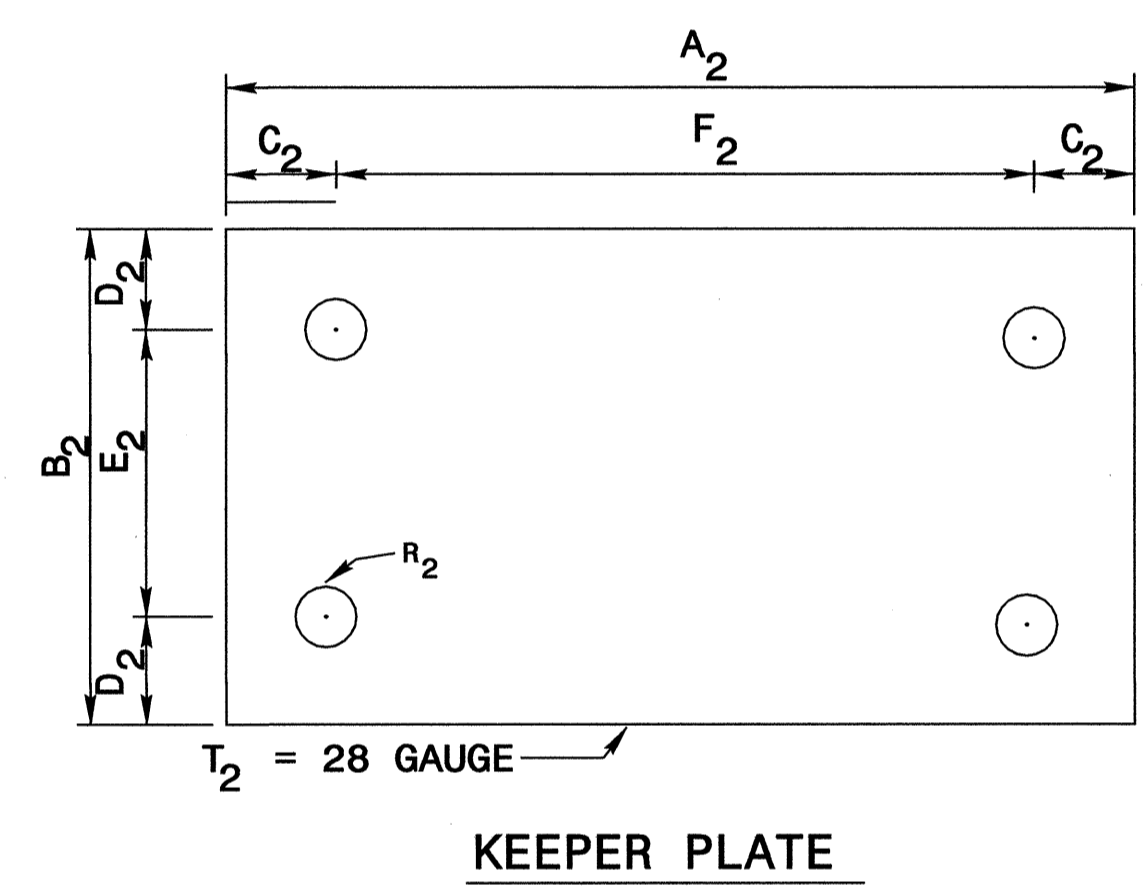
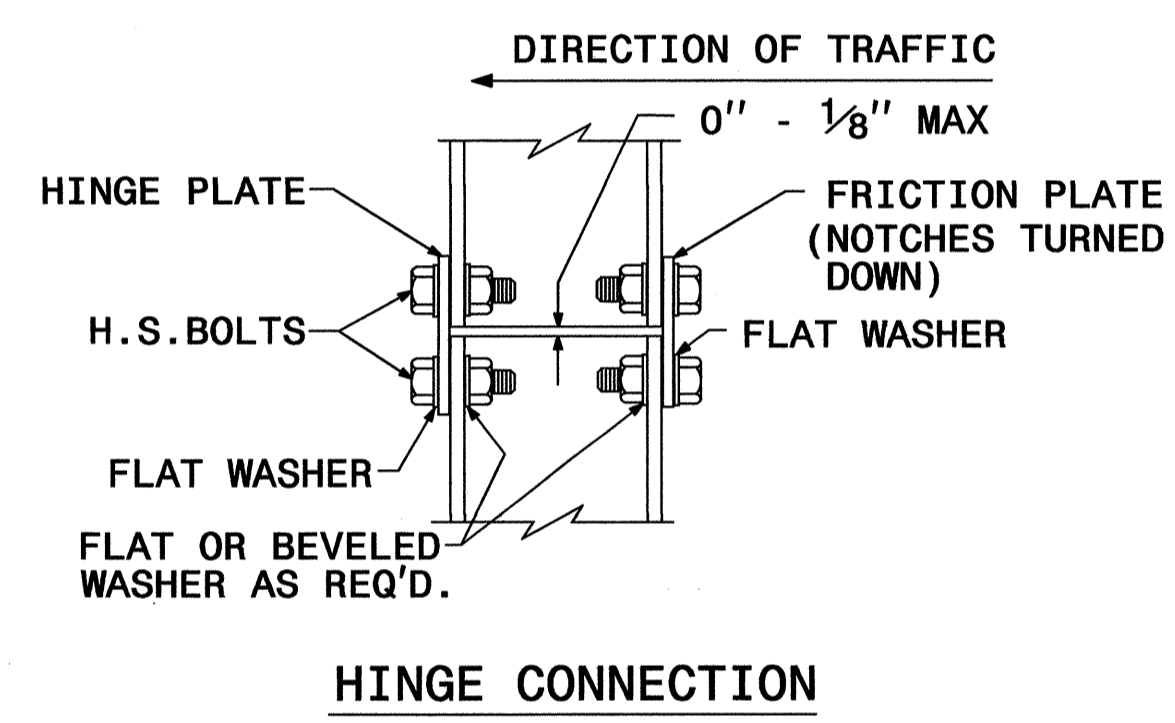
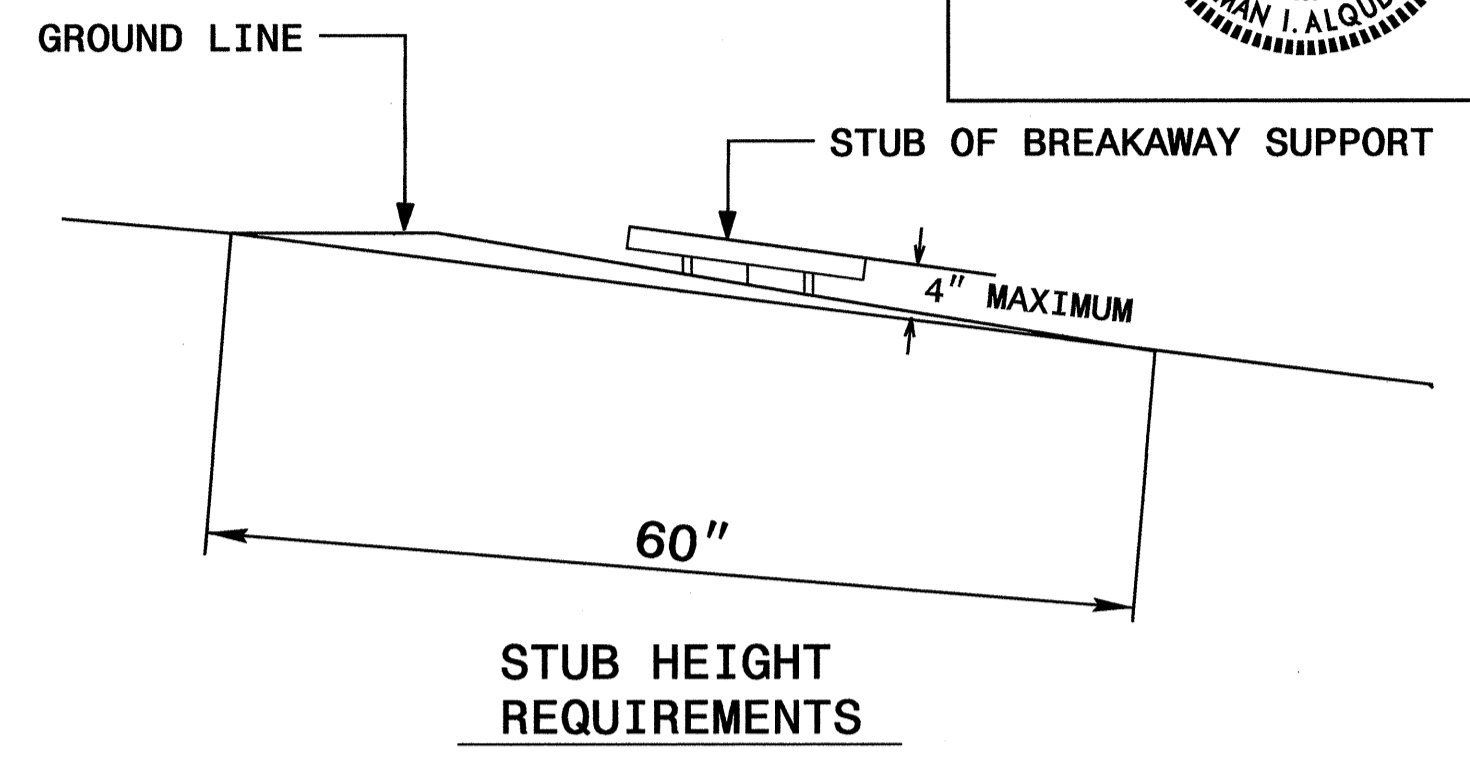
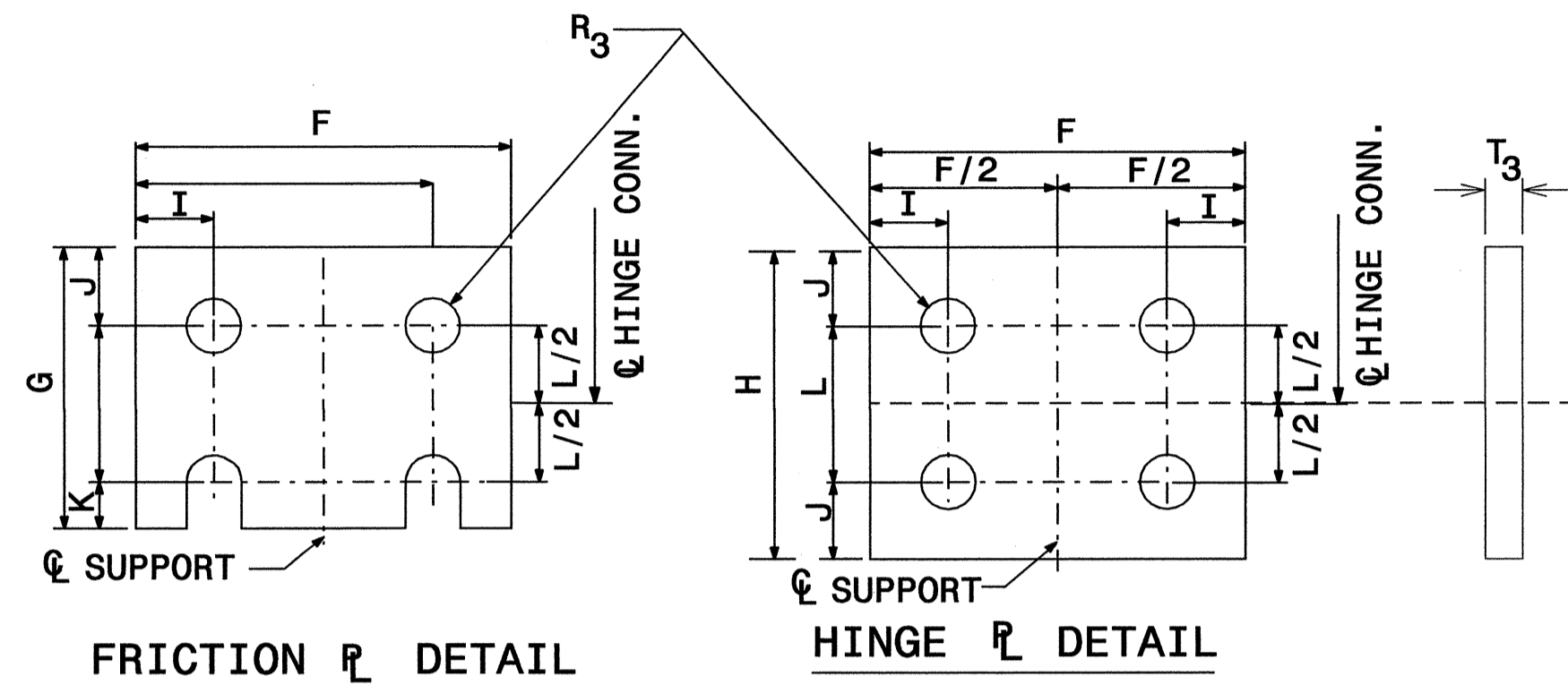
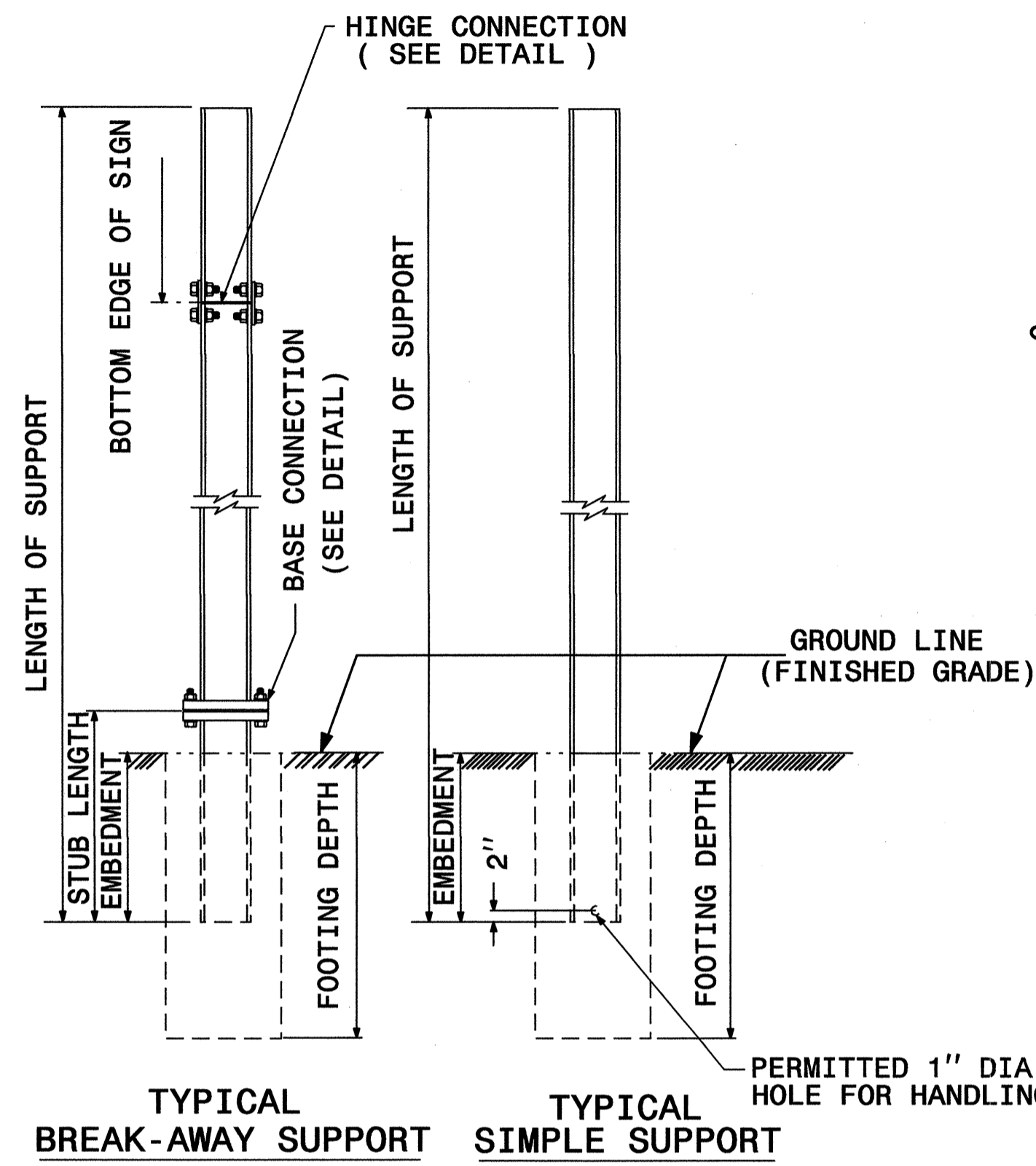


SECTION	A	B
S3 X 5.7	3"	2 3/8"
S4 X 7.7	4"	2 5/8"
W6 X 9	6"	4"
W6 X 12	6"	4"
W6 X 16	6 1/4"	4"
W8 X 18	8 1/8"	5 1/4"
W8 X 21	8 1/4"	5 1/4"
W10 X 22	10 1/8"	5 3/4"
W10 X 26	10 3/8"	5 3/4"
W12 X 26	12 1/4"	6 1/2"
W14 X 30	13 7/8"	6 3/4"
W16 X 31	15 7/8"	5 1/2"
W18 X 35	17 3/4"	6"
W18 X 40	17 7/8"	6"
W21 X 44	20 5/8"	6 1/2"

SIGN MOUNTING DETAILS

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 ericward AT TE221658

TIP NO. R-4900	SHEET NO. SIGN-2B
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DATE: 3/15/10	
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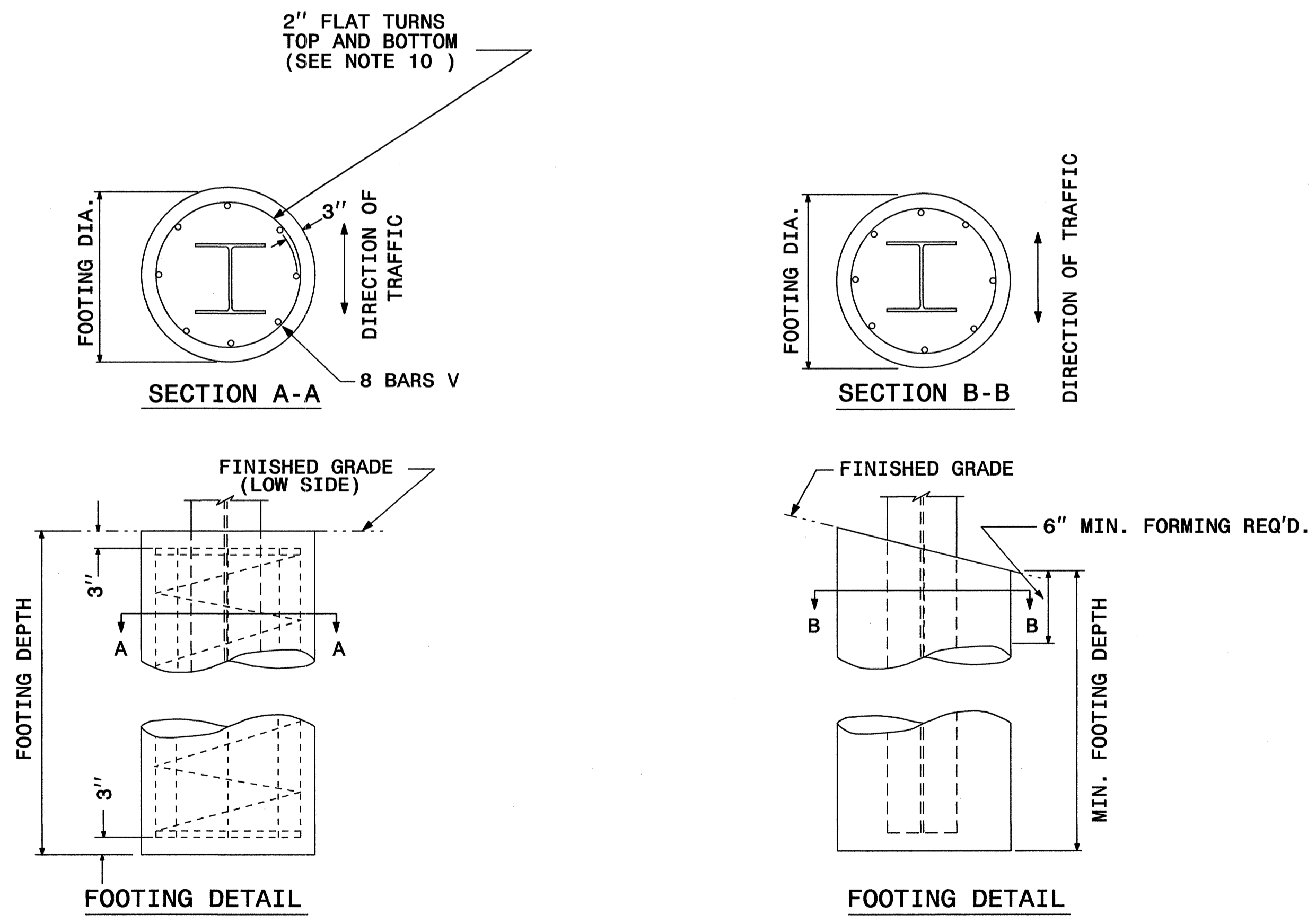
GROUND MOUNTED SIGN SUPPORT

SEE SHEET SIGN-2C FOR DIMENSIONS.
SEE SHEET SIGN-2D FOR NOTES.

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TIP NO. R-4900	SHEET NO. SIGN-2C
APPROVED: <i>[Signature]</i>	
DATE: 3/15/10	
SEAL	

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"	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.X1 1/4"	2 1/4"	3 1/2"	4"	1 1/2"	1"	1 1/2"	2"	9/32"	3/8"	18
S4X7.7	1/2"DIA.X 3"	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.X1 1/4"	2 5/8"	3 1/2"	4"	1 1/2"	1"	1 1/2"	2"	9/32"	3/8"	20
W6X9	1/2"DIA.X 3"	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.X1 1/4"	4"	3 1/2"	4"	3/4"	1"	1 1/2"	2"	9/32"	3/8"	32
W6X12	5/8"DIA.X3 3/4"	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.X2 1/4"	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.X3 3/4"	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.X2 1/2"	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 1/4"	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.X2 1/2"	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 1/4"	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.X2 3/4"	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 1/4"	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.X2 3/4"	5 3/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	1 3/32"	1/2"	119
W10X26	3/4"DIA.X4 3/4"	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.X2 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.X4 3/4"	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.X2 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 5"	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.X3"	6 3/4"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	5/8"	205
W16X31	1"DIA.X 5"	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.X3 1/4"	5 1/2"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	3/4"	223
W18X35	1"DIA.X 5"	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.X3 1/4"	6"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	3/4"	243
W18X40	1"DIA.X5 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.X3 3/4"	6"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	7/8"	278
W21X44	1"DIA.X5 1/2"	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.X3 3/4"	6 1/2"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	7/8"	310

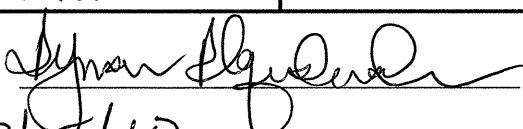



FOUNDATION DATA *		
FOOTING DIAMETER	REINFORCEMENT	SPIRAL BAR
1' 6"	8 # 6 BARS	#3 BAR, 3" PITCH
2'	8 # 7 BARS	#3 BAR, 3" PITCH
2' 6"	8 # 9 BARS	#3 BAR, 3" PITCH
3'	8 # 11 BARS	#3 BAR, 3" PITCH
3' 6"	8 # 12 BARS	#3 BAR, 3" PITCH
4'	8 # 14 BARS	#3 BAR, 3" PITCH

* FOUNDATION DIMENSIONS ARE SHOWN IN PLANS
SEE SHEET SIGN-2D FOR NOTES.

GROUND MOUNTED SIGN SUPPORT

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 ericward AT TE221658

TIP NO. R-4900	SHEET NO. SIGN-2D
APPROVED: 	
DATE: 3/15/10	
SEAL	
	

NOTES:

1. DESIGN CONFORMS WITH THE SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS - A.A.S.H.T.O.
2. USE MATERIALS, FABRICATE AND ERECT SIGNS AND SUPPORTS THAT CONFORM TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
3. USE HIGH STRENGTH BOLTS, NUTS AND WASHERS THAT CONFORM TO A.S.T.M. A-325 AND THAT ARE GALVANIZED IN ACCORDANCE WITH A.S.T.M. A-153.
4. USE BACKING PLATES, SLIP BASE PLATES, FRICTION PLATES, AND HINGE PLATES THAT CONFORM TO A.S.T.M. A-36 AND THAT ARE GALVANIZED IN ACCORDANCE WITH A.S.T.M. A-123 PRIOR TO GALVANIZING, GRIND SMOOTH ANY METAL PROJECTION BEYOND THE PLATE FACE. KEEPER PLATES SHALL BE MANUFACTURED FROM 28 GAUGE SHEET STEEL THAT CONFORMS TO A.S.T.M. A-36 AND IS GALVANIZED IN ACCORDANCE WITH A.S.T.M. A-123
5. ASSEMBLE HINGE CONNECTIONS IN THE SHOP. SHOP TIGHTEN BOLTS BY USE OF EITHER A CALIBRATED POWER WRENCH OR A MANUAL TORQUE WRENCH. TIGHTEN EACH HINGE CONNECTION BOLT TO 1/3 PAST SNUG.
6. BASE PLATES DETAILS ARE FOR INSTALLATIONS ON THE RIGHT SHOULDER AND IN GORE AREAS.
7. ASSEMBLE UPPER SUPPORT TO STUB AS SHOWN IN DETAIL. SLIP BASE PLATES SHALL BE FILLET WELDED ONTO POSTS ALL AROUND THE STRUCTURAL SHAPE SO AS TO INSURE NO LOSS OF STRENGTH. ASSEMBLE IN EITHER SHOP OR FIELD. 28 GAUGE KEEPER PLATE IS PLACED BETWEEN SLIP BASE PLATES TO PREVENT BOLT SLIPPING. TIGHTEN BOLTS TO THE FOLLOWING PRESCRIBED TORQUE:

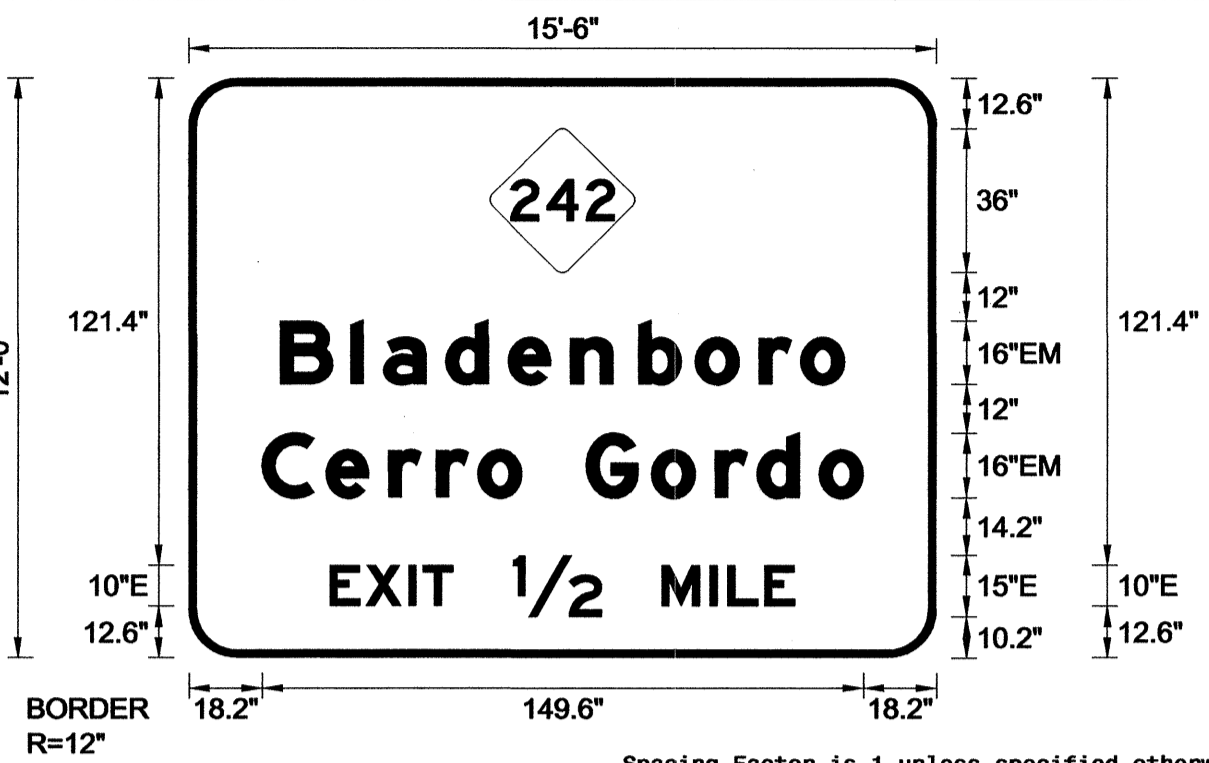
BOLT DIAMETER	TORQUE (LB. FT.)
1/2"	9
5/8"	22
3/8"	37
1"	48

COMPLETELY ASSEMBLE B/A POSTS PRIOR TO ERECTION. B/A POST TO BE SET IN ONE PIECE. AFTER SUPPORT HAS BEEN ERECTED AND THE CONCRETE FOOTINGS HAS CURED AT LEAST 48 HRS., CLEAN CONCRETE FROM BASE CONNECTION BOLTS THEN LOOSEN AND RETIGHTEN EACH BOLT IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. DO NOT OVERTIGHTEN. BURR ALL BOLT THREADS OF BASE CONNECTIONS TO PREVENT LOOSENING.

8. USE REINFORCED FOOTINGS WITH DIMENSIONS AS SHOWN IN PLANS. WHERE SOLID ROCK IS ENCOUNTERED, THE ENGINEER DIRECTS WHETHER TO PLACE THE FOOTING AT THE PRESCRIBED DEPTH OR EXTEND IT AT LEAST TWO FEET INTO THE ROCK. CONSTRUCT ALL FOOTINGS OF CLASS A CONCRETE.
9. FORM TOP 6" OF FOOTINGS. ENGINEER APPROVES THE METHOD USED.
10. THE FINAL FLAT TURN OF SPIRAL OR HOOPS NO. 3 OR LARGER PLACED 3" FROM TOP AND BOTTOM OF FOOTING MAY BE WELDED TO VERTICAL REINFORCING BARS. NO OTHER WELDING WILL BE PERMITTED.
11. ELIMINATE HINGE CONNECTION FOR ALL SINGLE SUPPORT SIGNS.
12. DETAIL IS FOR ONE DIRECTION BREAKAWAY. WHEN PLANS REQUIRE A TWO DIRECTION BREAKAWAY, TWO FRICTION PLATES SHALL BE USED IN LIEU OF ONE FRICTION PLATE AND ONE HINGE PLATE.
13. SHAPE THE TOPS OF THE FOOTINGS TO CONFORM WITH FINISHED GROUND ELEVATIONS SUCH THAT WATER WILL NOT COLLECT AGAINST THE SUPPORTS.
14. IF THE GROUNDWATER IS ENCOUNTERED AT AN DEPTH SHALLOWER THAN 7 FEET, THE SIGN FOUNDATION MUST BE REDESIGNED BASED UPON THE ACTUAL FIELD CONDITIONS. THE FOUNDATION DESIGN DOES NOT APPLY TO VERY SOFT OR LOOSE SOIL, MUCK, WEATHERED ROCK, OR HARD ROCK.

GROUND MOUNTED SIGN SUPPORT

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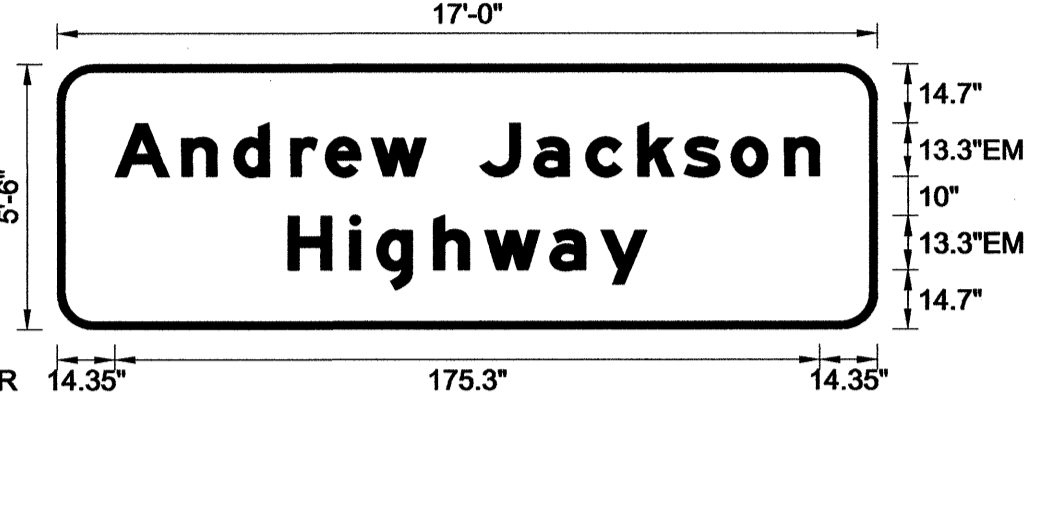
SIGN NUMBER: 101,105 TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 1 SYMBOL X Y WID HT NC243A 75 95.3 36 36
 SIGN WIDTH: 15'-6" HEIGHT: 12'-0" TOTAL AREA: 186.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12"
 NO. Z BARS: 0 LENGTH: 178.0 MAT'L: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: EEW CHECKED BY: DIV: 6 DATE: Feb 11, 2010 PROJECT ID: R-4900

 USE NOTES: 1,2,3,4
 1. Legend and border shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields shall be on 0.032" (0.8mm) aluminum and demountable.
 4. Shields shall be Grade C sheeting.
 5. 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
EM 2000	140.3
EM 2000	149.6
E 2000	115.7

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL


SIGN NUMBER: 104 TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 1 SYMBOL X Y WID HT
 SIGN WIDTH: 17'-0" HEIGHT: 5'-6" TOTAL AREA: 93.5 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9"
 NO. Z BARS: 2 LENGTH: 196.0 MAT'L: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: EEW CHECKED BY: DIV: 6 DATE: Oct 09, 2009 PROJECT ID: R-4900

 USE NOTES: 1,2
 1. Legend and border shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields shall be on 0.032" (0.8mm) aluminum and demountable.
 4. Shields shall be Grade A, B, or C sheeting.
 5. 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
EM 2000	175.3
EM 2000	89.2

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

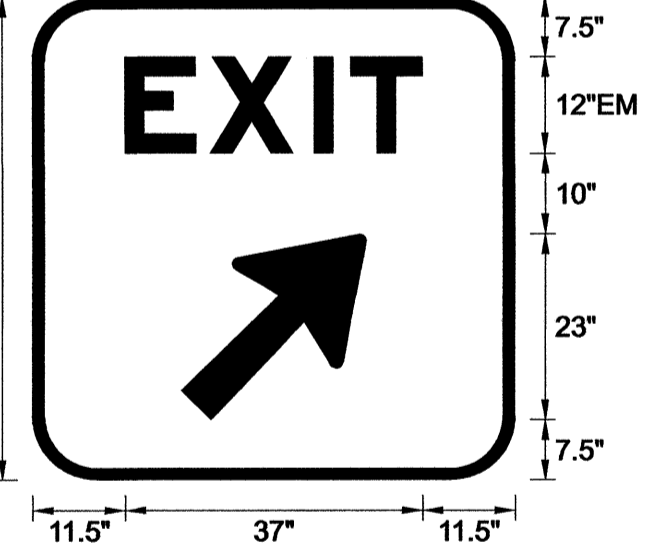
SIGN NUMBER: 102,103 TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 1 SYMBOL X Y WID HT NC243A 78.9 73 36 36 ARMED 183.1 25.3 22.4 35.3
 SIGN WIDTH: 19'-0" HEIGHT: 10'-6" TOTAL AREA: 199.5 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12"
 NO. Z BARS: 3 LENGTH: 220.0 MAT'L: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: EEW CHECKED BY: DIV: 6 DATE: Jan 11, 2010 PROJECT ID: R-4900

 USE NOTES: 1,2,3,4
 1. Legend and border shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields shall be on 0.032" (0.8mm) aluminum and demountable.
 4. Shields shall be Grade C sheeting.
 5. 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
EM 2000	140.3
EM 2000	149.6

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 201,202 TYPE: A BACKG COLOR: Green COPY COLOR: White
 QUANTITY: 1 SYMBOL X Y WID HT ARMED 18.5 7.5 18.8 29.5
 SIGN WIDTH: 5'-0" HEIGHT: 5'-0" TOTAL AREA: 25.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1.5" RADII: 8"
 NO. Z BARS: 2 LENGTH: 52.0 MAT'L: 0.125" (3.2 mm) ALUMINUM
 DESIGN BY: EEW CHECKED BY: DIV: 6 DATE: Feb 11, 2010 PROJECT ID: R-4900

 USE NOTES: 1,2
 1. Legend and border shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields shall be on 0.032" (0.8mm) aluminum and demountable.
 4. Shields shall be Grade A, B, or C sheeting.
 5. 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
EM 2000	37

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL


**TYPE "A"
SIGN DESIGNS**

I:\MAR-2010\1201\Projects\R4900\Traffic\Signing\CA00\Sign Designs\4900_guidesign.dgn
 ericward AT TE221658

TIP NO. R-4900	SHEET NO. SIGN-3A
APPROVED: <i>[Signature]</i>	
DATE: 3/15/10	
SEAL	



SIGN NUMBER: 106,107 TYPE: A QUANTITY: 1 SIGN WIDTH: 11'-0" HEIGHT: 4'-6" TOTAL AREA: 49.5 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 6" NO. Z BARS: 2 LENGTH: 124.0	BACKG COLOR: Green COPY COLOR: White SYMBO: X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: EEW PROJECT ID: R-4900 CHECKED BY: DIV: 6 DATE: Feb 11, 2010
--	---	--



BORDER R=6" TH=2"

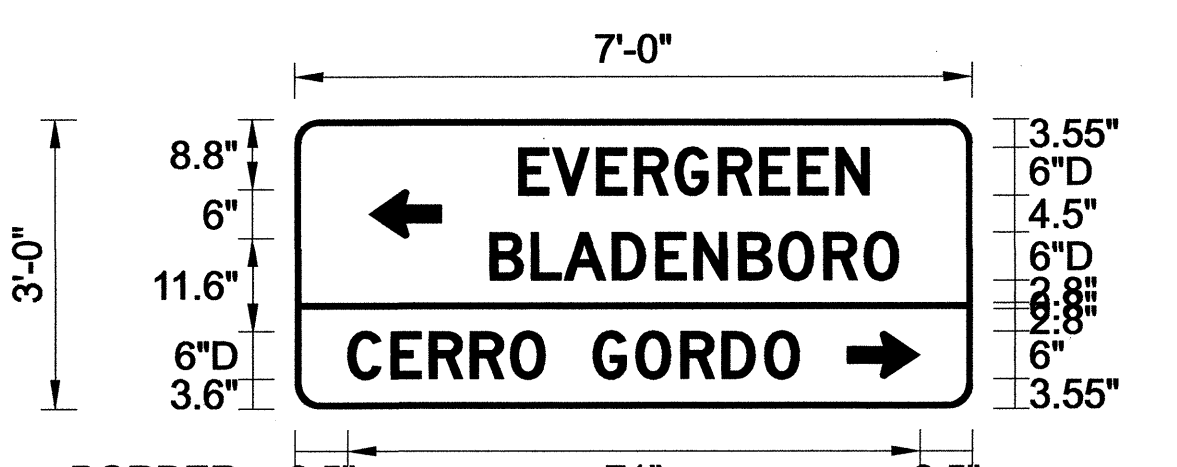
USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Letter positions												Series/Size
Letter spacings are to start of next letter												Text Length
E	V	E	R	G	R	E	E	N				EM 2000
14.6	12	12.9	12.9	8.7	14.1	8.7	11.7	12.9	8.8	14.6		102.8
H	E	X	T		E	X	I	T				E 2000
27.3	10.7	8.9	9.8	7.5	10	8.9	10.7	3.5	7.5	27.3		77.5

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 302 TYPE: D QUANTITY: 1 SIGN WIDTH: 7'-0" HEIGHT: 3'-0" TOTAL AREA: 21.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: 1 LENGTH: 124.0	BACKG COLOR: Green/Green COPY COLOR: White SYMBO: X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: EEW PROJECT ID: R-4900 CHECKED BY: DIV: 6 DATE: Jan 08, 2010
--	---	--



BORDER R=3" TH=0.75"

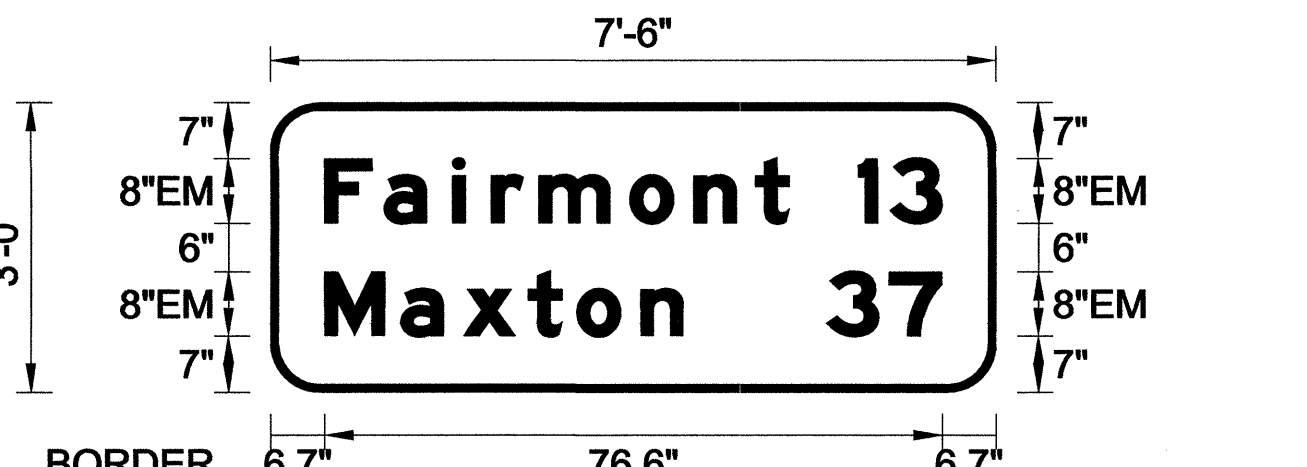
USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Letter positions												Series/Size
Letter spacings are to start of next letter												Text Length
E	V	E	R	G	R	E	E	N				D 2000
27.8	4.2	5.5	4.7	5	5.4	5.1	4.7	4.7	4.1	12.8		43.4
B	L	A	D	E	N	B	O	R	O			D 2000
24.2	5.1	4.1	6	5.4	4.7	5.5	5	5.6	5	4.3	9.2	50.6
C	E	R	R	O		G	O	R	D	O		D 2000
6.5	5.4	4.7	5.1	5	4.3	6	5.3	5.6	5.1	5.3	4.3	21.5

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 301 TYPE: D QUANTITY: 1 SIGN WIDTH: 7'-6" HEIGHT: 3'-0" TOTAL AREA: 22.5 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 6" NO. Z BARS: 1 LENGTH: 124.0	BACKG COLOR: Green COPY COLOR: White SYMBO: X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: EEW PROJECT ID: R-4900 CHECKED BY: DIV: 6 DATE: Jun 09, 2009
---	---	--



BORDER R=6" TH=1"

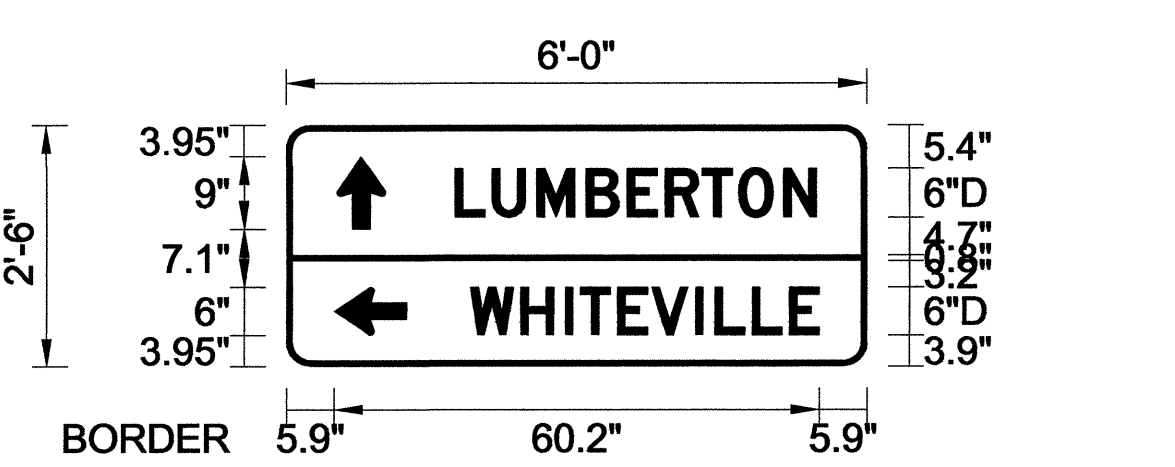
USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Letter positions												Series/Size
Letter spacings are to start of next letter												Text Length
F	a	i	r	m	o	n	t	1	3			EM 2000
6.7	7.4	8.5	4.8	5.9	11.3	7.9	7.7	4.2	8.6	3.9	6.5	76.6
M	a	x	t	o	n	3	7					EM 2000
6.7	9.4	7.8	8.1	6	7.9	5.3	17.8	7.8	6.5	6.8		76.5

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 303 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-0" HEIGHT: 2'-6" TOTAL AREA: 15.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: 1 LENGTH: 124.0	BACKG COLOR: Green/Green COPY COLOR: White SYMBO: X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: EEW PROJECT ID: R-4900 CHECKED BY: DIV: 6 DATE: Jun 09, 2009
--	---	--



BORDER R=3" TH=0.75"

USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:


Letter positions												Series/Size
Letter spacings are to start of next letter												Text Length
L	U	M	B	E	R	T	O	N				D 2000
20.9	4.6	5.5	6.1	5.1	4.7	4.6	4.5	5.6	4.1	6.3		44.8
W	H	I	T	E	V	I	L	L	E			D 2000
22.8	6.2	5.5	1.9	4.6	4.2	5.5	2.4	4.6	4.6	3.7	5.9	43.3

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

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 P:\TIPF\objects\TE221658
 entoward AT

TYPE "A" & "D"
 SIGN DESIGNS

TIP NO. R-4900	SHEET NO. SIGN-38
APPROVED: <i>[Signature]</i>	
DATE: 3/15/10	
SEAL	

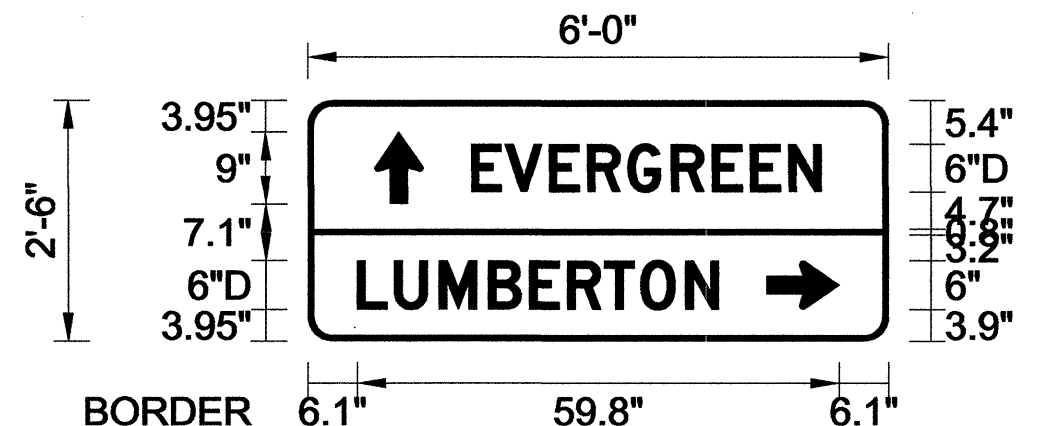


SIGN NUMBER: 304
TYPE: D
QUANTITY: 1
SIGN WIDTH: 6'-0"
HEIGHT: 2'-6"
TOTAL AREA: 15.0 Sq.Ft.

BACKG COLOR: Green/Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	8.3	17.1	6	9
ARUP	56.9	3.9	6	9

DESIGN BY: EEW
PROJECT ID: R-4900
CHECKED BY: DIV: 6
DATE: Jun 09, 2009



BORDER R=3" TH=0.75"

USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- 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
D 2000	43.4
D 2000	44.8

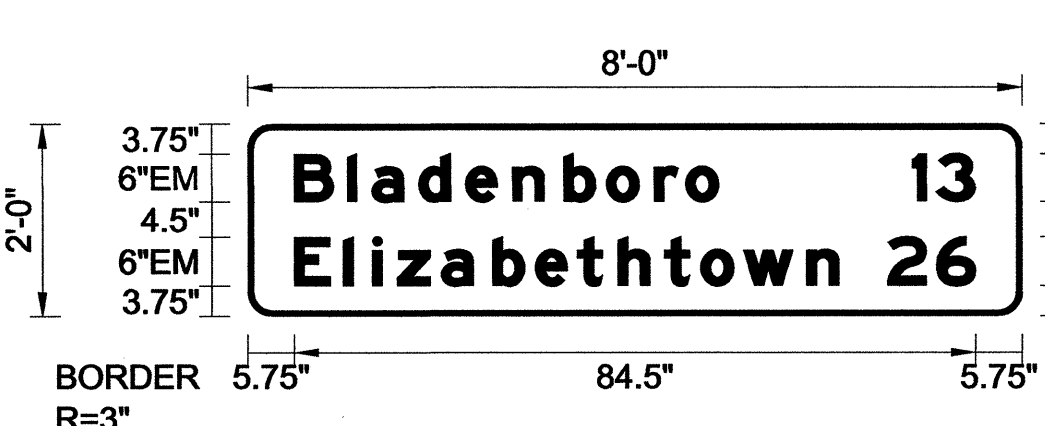
FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 306
TYPE: D
QUANTITY: 1
SIGN WIDTH: 8'-0"
HEIGHT: 2'-0"
TOTAL AREA: 16.0 Sq.Ft.

BACKG COLOR: Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	8.4	17.1	6	9
ARUP	6.1	3.9	6	9

DESIGN BY: E WARD
PROJECT ID: R-4900
CHECKED BY: DIV: 6
DATE: Dec 17, 2009



BORDER R=3" TH=0.75"

USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- 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
EM 2000	84.4
EM 2000	84.5

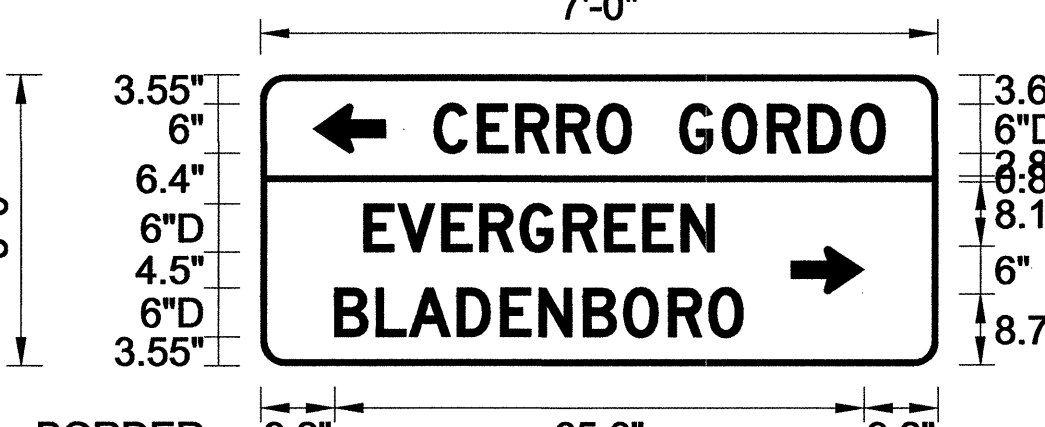
FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 305
TYPE: D
QUANTITY: 1
SIGN WIDTH: 7'-0"
HEIGHT: 3'-0"
TOTAL AREA: 21.0 Sq.Ft.

BACKG COLOR: Green/Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	6.5	26.4	6	9
ARUP	65.8	8.8	6	9

DESIGN BY: EEW
PROJECT ID: R-4900
CHECKED BY: DIV: 6
DATE: Jan 08, 2010



BORDER R=3" TH=0.75"

USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- 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
D 2000	56
D 2000	43.4
D 2000	50.6

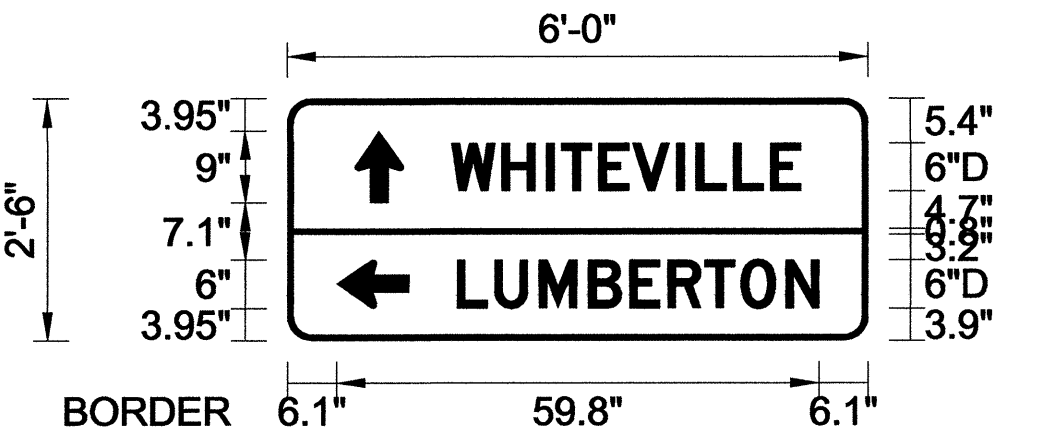
FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 307
TYPE: D
QUANTITY: 1
SIGN WIDTH: 6'-0"
HEIGHT: 2'-6"
TOTAL AREA: 15.0 Sq.Ft.

BACKG COLOR: Green/Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	8.4	17.1	6	9
ARUP	6.1	3.9	6	9

DESIGN BY: EEW
PROJECT ID: R-4900
CHECKED BY: DIV: 6
DATE: Jun 09, 2009



BORDER R=3" TH=0.75"

USE NOTES: 1,2

- Legend and border shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A, B, or C sheeting.
- 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
D 2000	43.3
D 2000	44.8

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

**TYPE "D"
SIGN DESIGNS**

I:\MAR-2010 12:04
 P:\TIP\Projects\R4900\Traffic\Sign Design\4900_guidesign.dgn
 ereward AT TE221658

TIP NO. R-4900	SHEET NO. SIGN-3C
APPROVED: <i>[Signature]</i>	
DATE: 3/15/10	
SEAL	

SIGN NUMBER: 308 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 2'-6" TOTAL AREA: 16.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: LENGTH:	BACKG COLOR: Green/Green COPY COLOR: White SYMBOL ARUP ARUP	DESIGN BY: EEW PROJECT ID: R-4900	CHECKED BY: DIV: 6	DATE: Jun 09, 2009
--	---	--------------------------------------	-----------------------	--------------------

BORDER
R=3"
TH=0.75"

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

		Letter Spacing Data													Series/Size
		C	E	R	R	O	G	O	R	D	O				Text Length
		16.8	5.4	4.7	5.1	5	4.3	6	5.3	5.6	5.1	5.3	4.3	5.2	D 2000
															56
		6.2	6.2	5.5	1.9	4.6	4.2	5.5	2.4	4.6	4.6	3.7	28.6	D 2000	
															43.3

FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 309 TYPE: D QUANTITY: 1 SIGN WIDTH: 8'-0" HEIGHT: 3'-0" TOTAL AREA: 24.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 6" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL	DESIGN BY: EEW PROJECT ID: R-4900	CHECKED BY: DIV: 6	DATE: Oct 09, 2009
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BORDER
R=6"
TH=1"

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

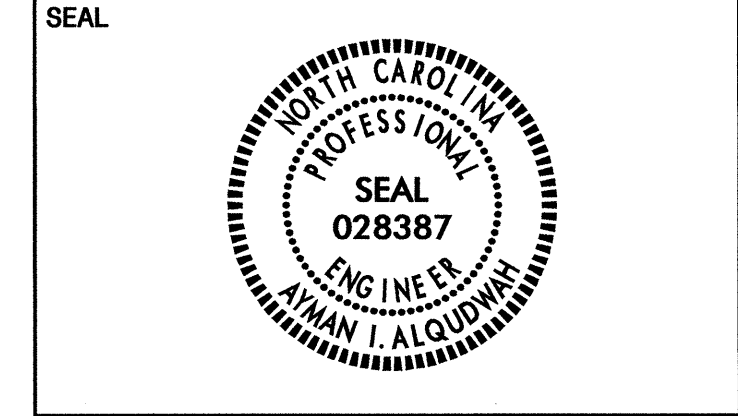
Letter spacings are to start of next letter

		Letter Spacing Data													Series/Size		
		C	h	a	d	b	o	u	r	n	6				Text Length		
		6.8	8.7	7.8	7.8	8.5	7	7.9	8.5	5.9	5.3	8.6	6.5	6.8	EM 2000		
															82.4		
		6.8	10.4	8.5	4	6	6.9	8.5	4.8	4.8	4.1	5.3	8	3.8	7.4	6.8	EM 2000
															82.4		

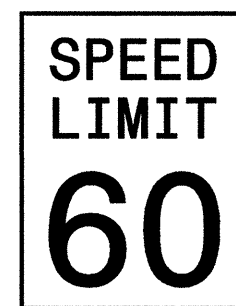
FILENAME: r4900_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

TYPE "D"
SIGN DESIGNS

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ereward AT TE221658



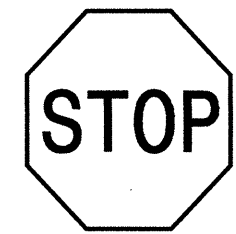
401 QUANTITY REQ'D _2_



48" X 60"
R2-1

TWO "U" POSTS PER SIGN

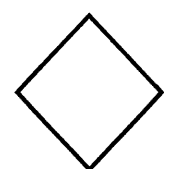
409 QUANTITY REQ'D _2_



36" X 36"
R1-1

ONE "U" POST PER SIGN

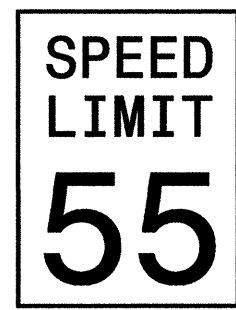
417 QUANTITY REQ'D _4_



18" X 18"
W23-15

MOUNT BELOW SIGN 415
IN 4 INSTALLATIONS

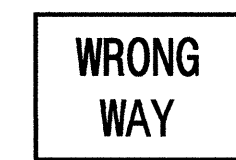
402 QUANTITY REQ'D _1_



30" X 36"
R2-1

ONE "U" POST PER SIGN

410 QUANTITY REQ'D _4_



36" X 24"
R5-1a

ONE "U" POST PER SIGN

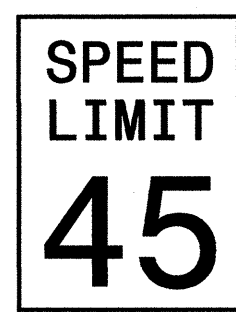
461 QUANTITY REQ'D _1_



36" X 36"
W3-5

YELLOW RETROREFLECTIVE SHEETING
ONE "U" POST PER SIGN

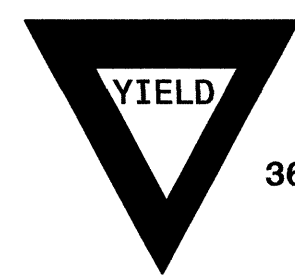
403 QUANTITY REQ'D _2_



30" X 36"
R2-1

ONE "U" POST PER SIGN

412 QUANTITY REQ'D _4_



36" X 36" X 36"
R1-2

ONE "U" POST PER SIGN

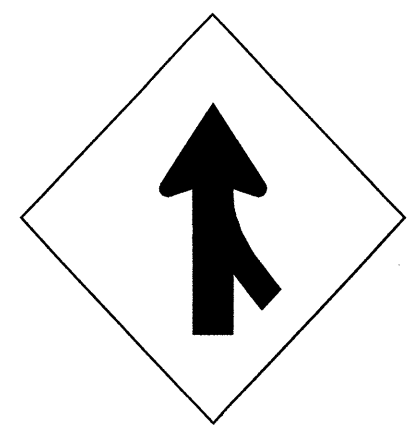
463 QUANTITY REQ'D _1_



36" X 36"
W3-5

YELLOW RETROREFLECTIVE SHEETING
ONE "U" POST PER SIGN

406 QUANTITY REQ'D _2_



48" X 48"
W4-1 (R)

TWO "U" POSTS PER SIGN

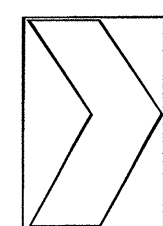
413 QUANTITY REQ'D _2_



54" X 18"
R6-1 (R)

TWO "U" POSTS PER SIGN

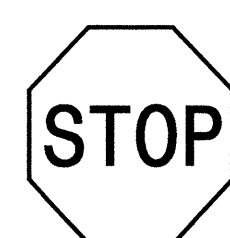
466 QUANTITY REQ'D _11_



18" X 24"
W1-8R

ONE "U" POST PER SIGN

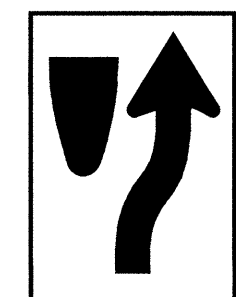
408 QUANTITY REQ'D _2_



30" X 30"
R1-1

ONE "U" POST PER SIGN

415 QUANTITY REQ'D _4_

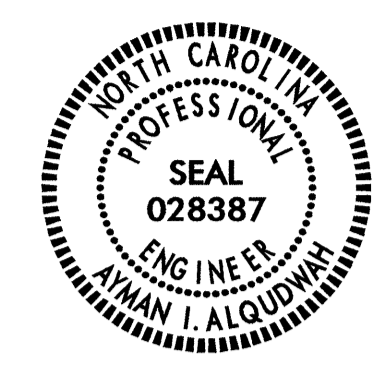


24" X 30"
R4-7

ONE "U" POST PER SIGN

TYPE "E" SIGNS

I:\APR-2010\1447
 P:\TIP\Projects\R4900\Traffic\Signing\CADD\Signing Layout Plans\4900_sgn_psh1.dgn
 ericward AT TE221658

TIP NO. R-4900	SHEET NO. SIGN-3E
APPROVED: <i>[Signature]</i>	
DATE: 3/16/10	
SEAL	
	

QUANTITY REQ'D - 2

MILE
3
7
9

12" X 48"

501

		2-30" X 15"
		1-36" X 36" 1-36" X 36"

TWO "U" POSTS PER SIGN

504 509

		2-21" X 15"
		1-24" X 24" 1-24" X 24"

TWO "U" POSTS PER SIGN

508

	1-24" X 12"
	1-24" X 24"

ONE "U" POST PER SIGN

502

		2-24" X 12"
		2-24" X 24"
		2-21" X 15"

TWO "U" POSTS PER SIGN

506

		2-24" X 12"
		1-24" X 24" 1-24" X 24"
		2-21" X 15"

TWO "U" POSTS PER SIGN

511

		2-24" X 12"
		1-24" X 24" 1-24" X 24"
		2-21" X 15"

TWO "U" POSTS PER SIGN

503

	1-24" X 12"
	1-24" X 24"

ONE "U" POST PER SIGN

507

		2-24" X 12"
		2-24" X 24"
		2-21" X 15"

TWO "U" POSTS PER SIGN

512

		2-30" X 15"
		1-36" X 36" 1-36" X 36"

TWO "U" POSTS PER SIGN

505

		2-24" X 12"
		2-24" X 24"
		2-21" X 15"
		2-24" X 12"
		2-24" X 24"
		2-21" X 15"

TWO "U" POSTS PER SIGN

510

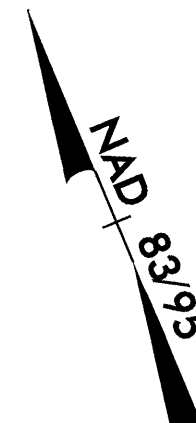
		2-24" X 12"
		2-24" X 24"
		2-21" X 15"
		2-24" X 12"
		2-24" X 24"
		2-21" X 15"

TWO "U" POSTS PER SIGN

**TYPE "F" SIGNS
& MILEMARKERS**

I:\MSB-2010-16138-01\PC\Drawings\4900\Signing Layout Plans\4900-sgn-psh1.dgn
 Enclosed At TE221658

TIP NO. R-4900	SHEET NO. SIGN-4
APPROVED: <i>[Signature]</i>	
DATE: 3/19/10	
SEAL	



BEGIN SIGNING PROJECT
-L- STATION IS 2,375' FROM
GUIDE SIGN NUMBER 102

90' X 36"
Fairmont 13
Maxton 37
-L- STA. 3+35+/-


US 74 / NC 130 ANDREW JACKSON HWY WBL
US 74 / NC 130 ANDREW JACKSON HWY EBL
MATCHLINE -L- STA. 10+00 SEE SHEET 5

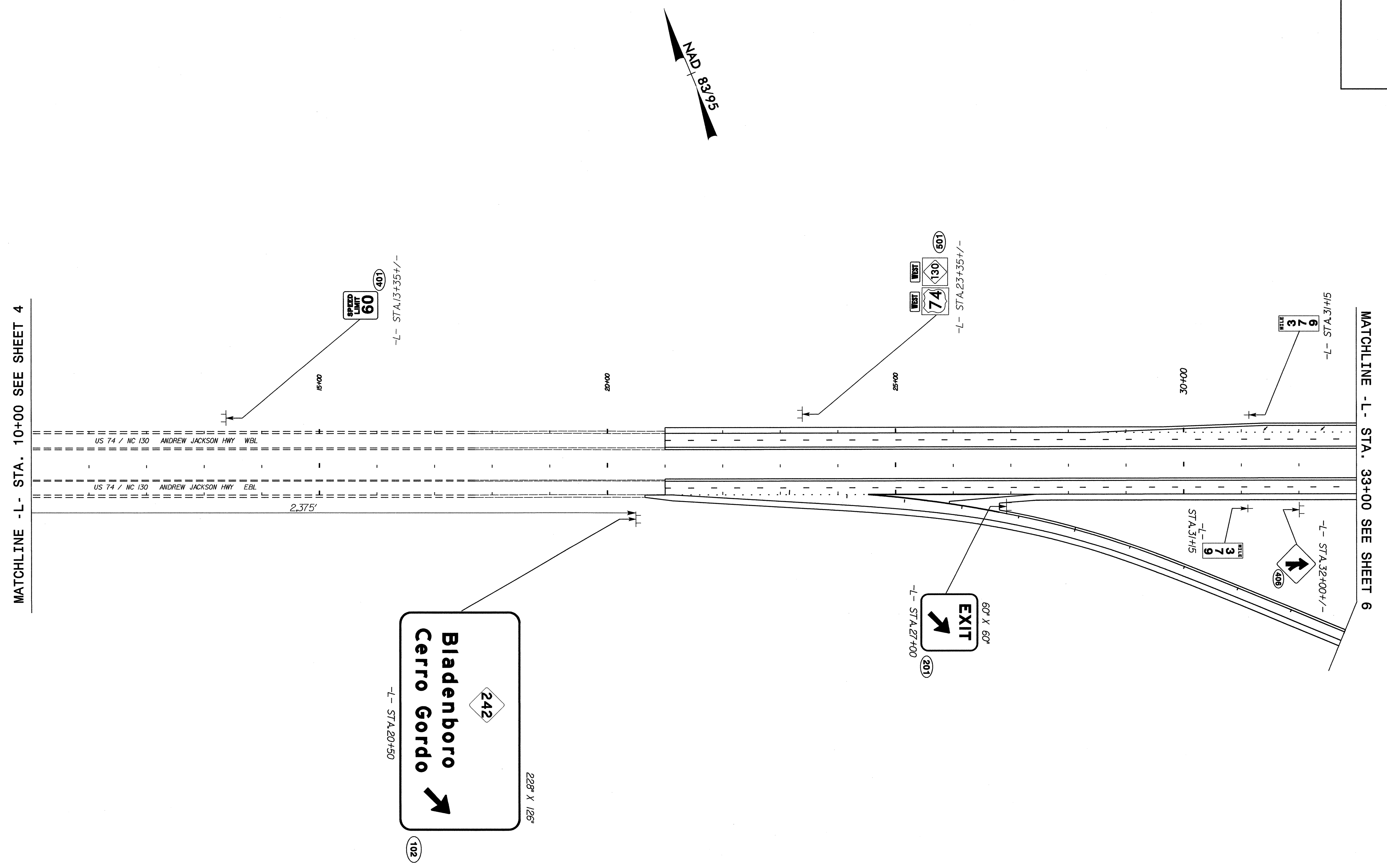
132' X 54"
Evergreen
NEXT EXIT
-L- STA. 9+95
106

186' X 144"
242
Bladenboro
Cerro Gordo
EXIT 1/2 MILE
-L- STATION IS 2375' FROM
GUIDE SIGN NUMBER 102
101

SIGNING DETAIL

TIP NO. R-4900	SHEET NO. SIGN-5
APPROVED: <i>[Signature]</i>	
DATE: 3/16/10	
SEAL	

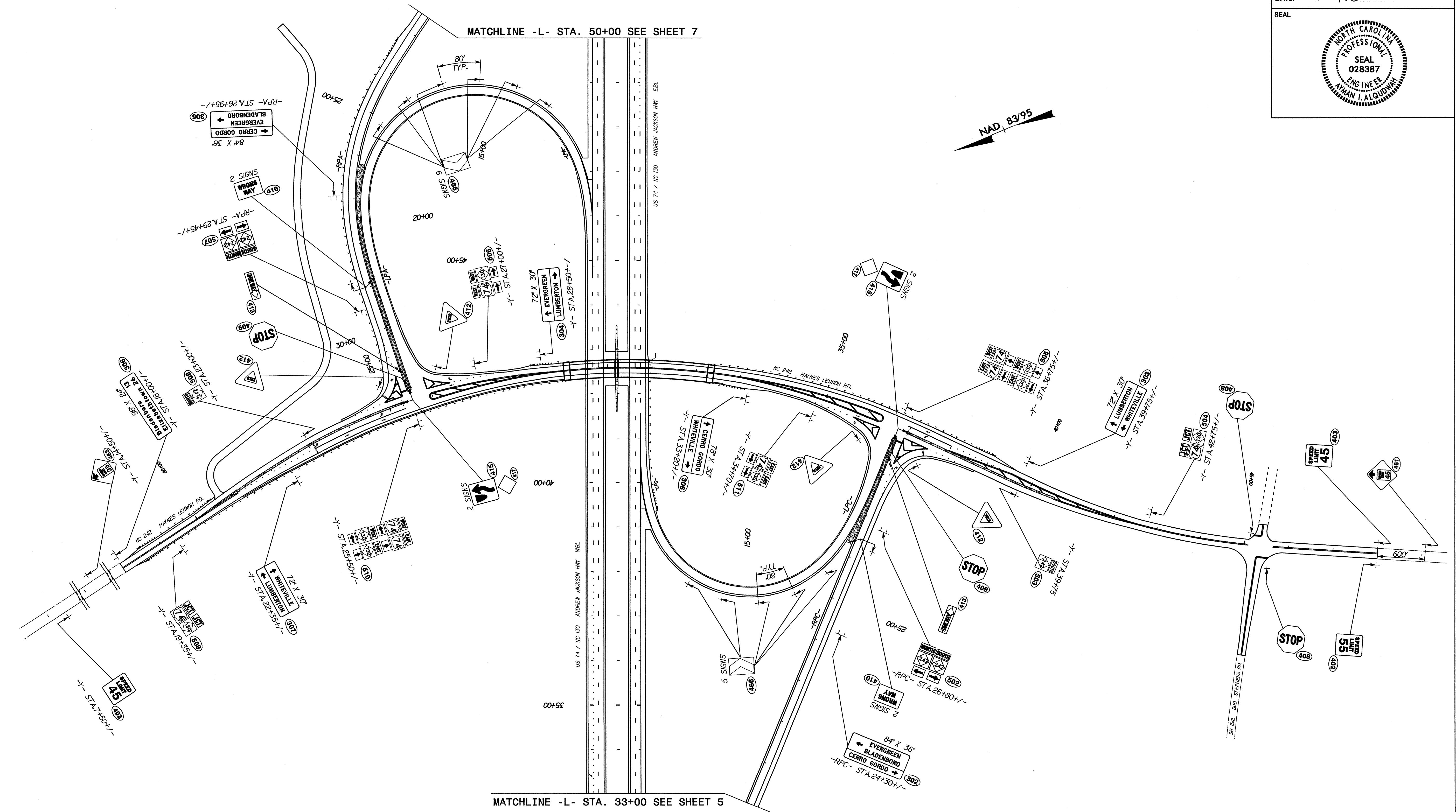
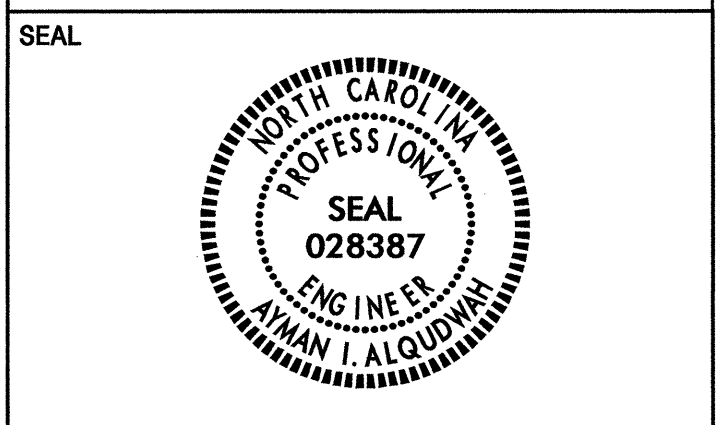




SIGNING DETAIL

E:\MIS-2010\6457
 E:\MIS-2010\6457\Traffic\Signing\CA00\Signing Layout\Plans\4900.sgn_psh5.dgn
 ericward
 3/16/10

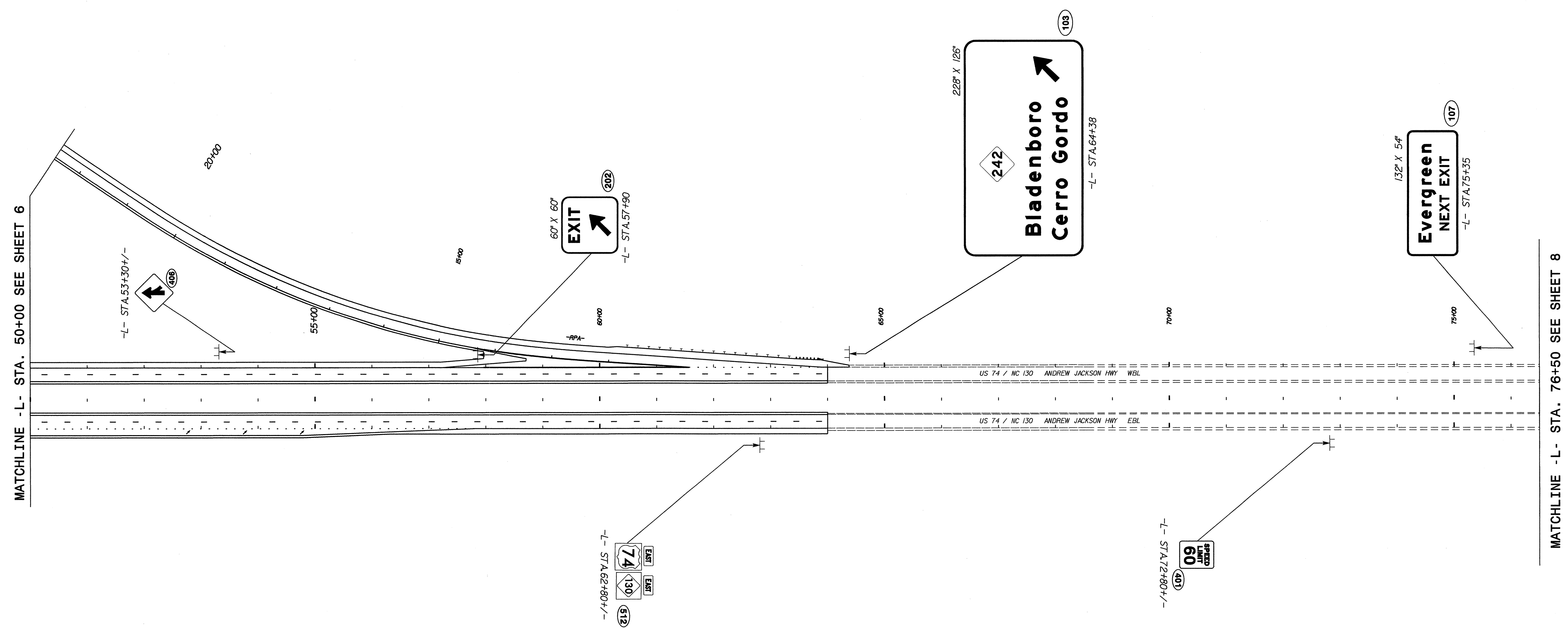
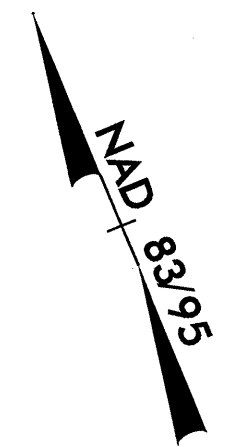
APPROVED: *[Signature]*
DATE: 4/12/10



SIGNING DETAIL

I:\APR-2010\14136
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 13-APR-2010 14:36
 ericward

TIP NO. R-4900	SHEET NO. SIGN-7
APPROVED: <i>Alman I. Alqouran</i>	
DATE: 3/15/10	
SEAL	




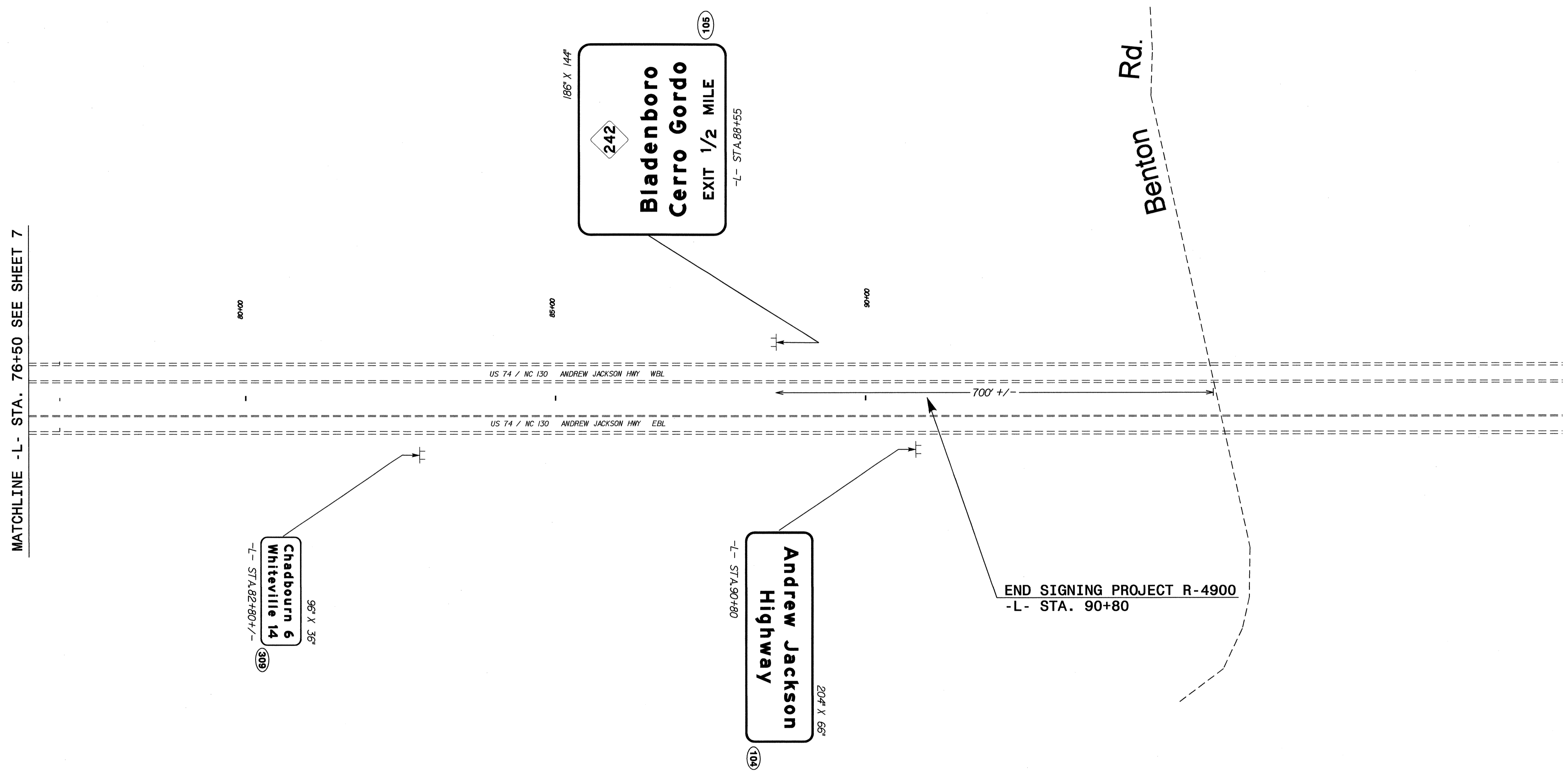
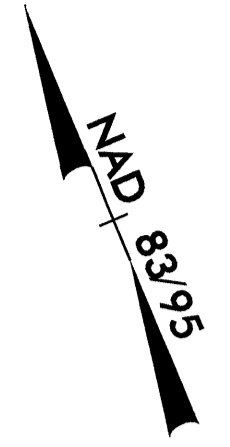
MATCHLINE - L - STA. 50+00 SEE SHEET 6

MATCHLINE - L - STA. 76+50 SEE SHEET 8

SIGNING DETAIL

I:\MAR-2010 1142
 P:\TIP\Projects-R\4900\Traffic\Signing\CADD\Signing Layout Plans\4900_sgn_psh7.dgn
 ericward AT 1E221658

TIP NO. R-4900	SHEET NO. SIGN-8
APPROVED: <i>[Signature]</i>	
DATE: 3/15/10	
SEAL	
	




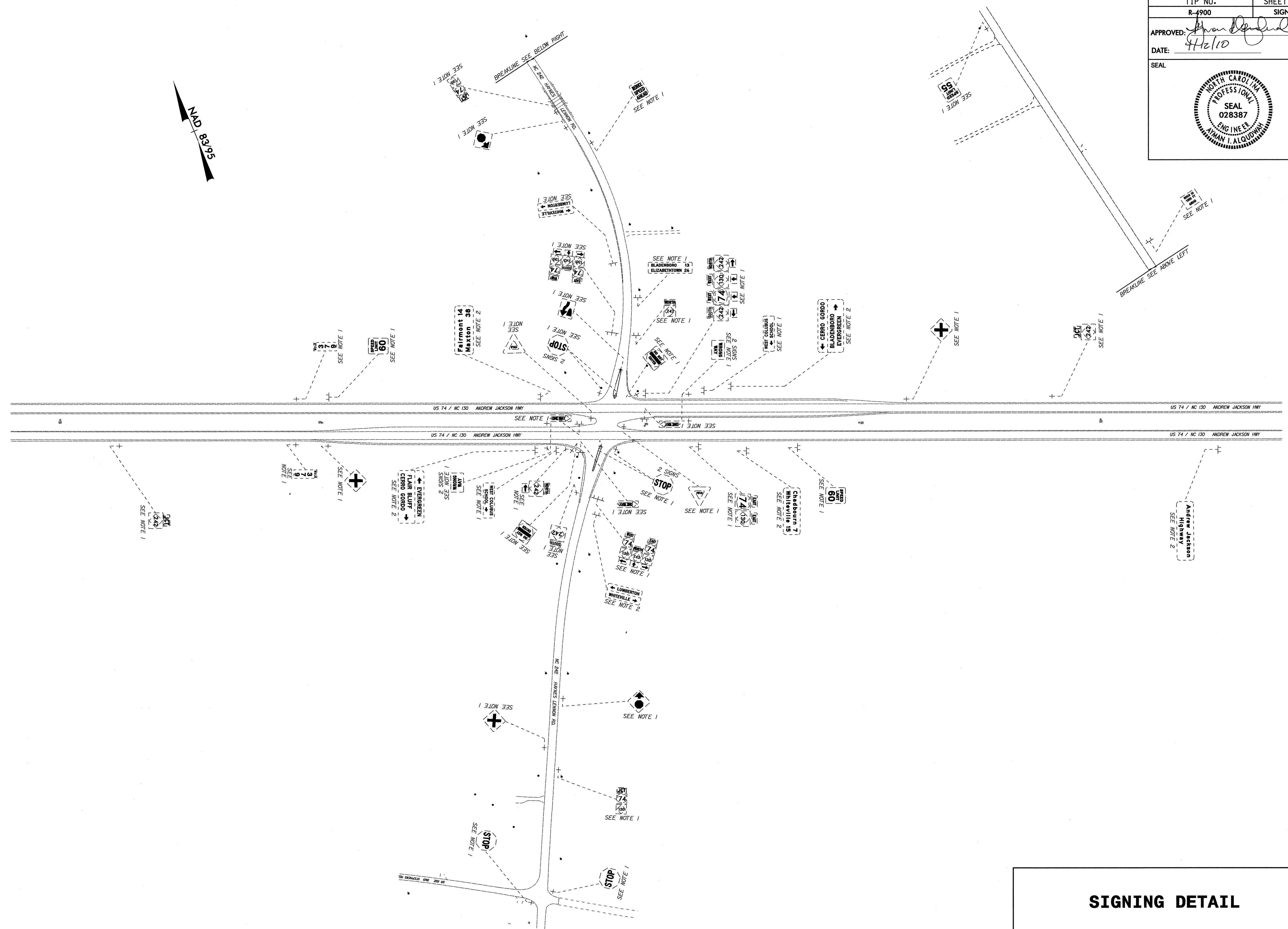
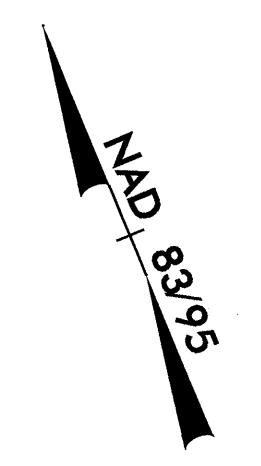
END SIGNING PROJECT R-4900
-L- STA. 90+80

Benton Rd.

SIGNING DETAIL

\\MAR-2010-1143
P:\1143\Projects\R4900\Traffic\Signing\CADD\Signing Layout Plans\4900_sgn_psh8.dgn
ericward AT TE221658

TIP NO. R-4900	SHEET NO. SIGN-9
APPROVED: <i>[Signature]</i>	
DATE: 4/2/10	
SEAL	
	



SIGNING DETAIL

I3-APR-2010 14:37
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 ericward AT TE221658