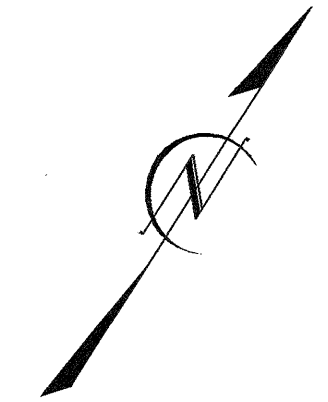
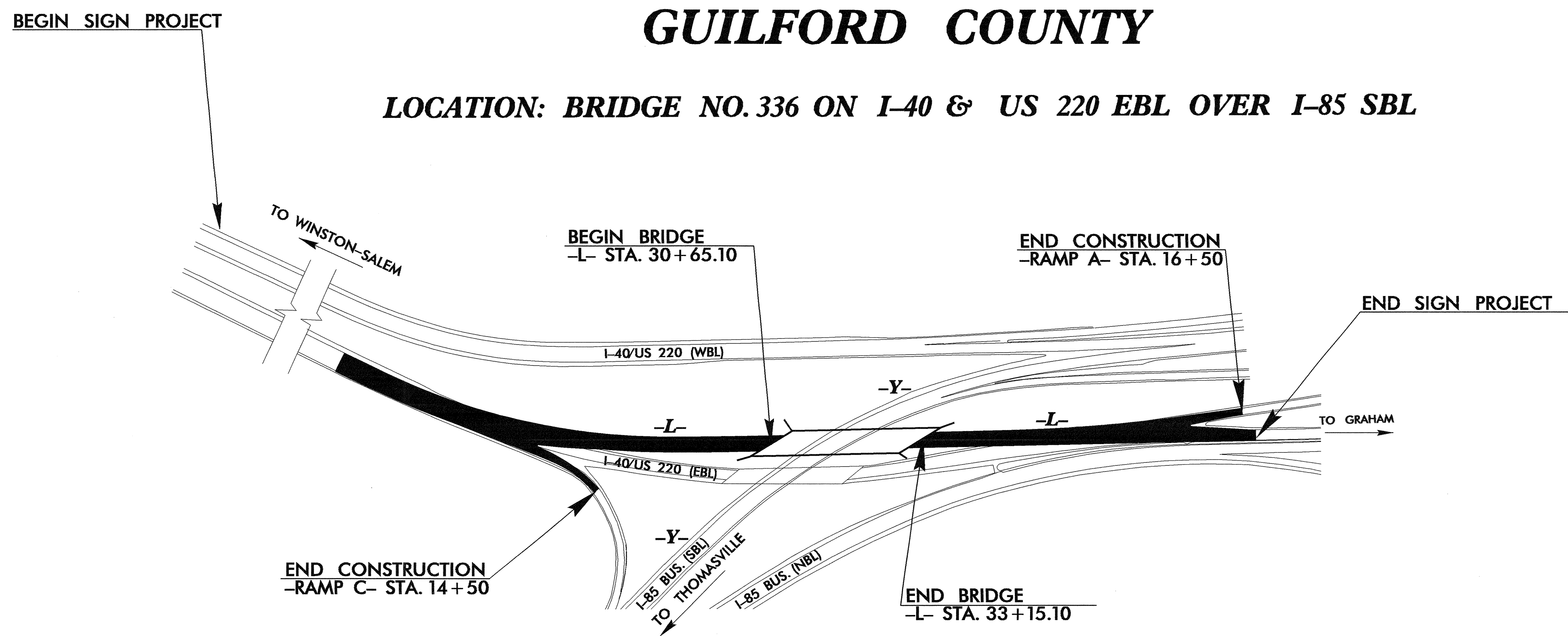


TIP NO. B-4534	SHEET NO. SIGN-1
APPROVED: <i>Ayman Alqudwah</i>	
DATE: 5/16/08	
SEAL	

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLANS
GUILFORD COUNTY**

LOCATION: BRIDGE NO. 336 ON I-40 & US 220 EBL OVER I-85 SBL



INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	NOTES & SUMMARY OF QUANTITIES
3 - 6	SUPPORT INFORMATION
7 - 9	OVERHEAD SHEETS
10 and 11	LIGHTING SHEETS
12 - 17	A and B SHEETS
18	D SHEET
19	E SHEET
20	SUPPORT CHART
21 and 22	SIGN ROADWAY SHEETS


PLAN PREPARED BY: N.C.D.O.T. SIGNING SECTION

RONALD KING, P.E.	SIGNING ENGINEER
AYMAN ALQUDWAH, P.E.	SIGNING PROJECT ENGINEER
SAMUEL COLEMAN	SIGNING PROJECT DESIGN ENGINEER
GEORGE TERLIZZI	SIGNING DESIGN ENGINEER
	SIGNING DESIGNER

CONTRACT: C201876 T.I.P.: B-4534

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sterlizzi - AT - 100221636

GWT, smg, RPH

TIP NO. B-4534	SHEET NO. SIGN-2
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	
	

Pay Item Notes:	
1	DISPOSAL OF SIGN, A OR B (OVERHEAD)
2	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
3	DISPOSAL OF SIGN SYSTEM, STEEL BEAM
4	DISPOSAL OF SIGN SYSTEM, OVERHEAD

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 III REFLECTIVE SHEETING.

. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT TO THE N.C.D.O.T. FOR APPROVAL, DETAIL DRAWINGS OF LUMINAIRE RETRIEVAL SYSTEM MOUNTING ON OHS ASSEMBLY.

. THE CONTRACTOR SHALL USE LUMINAIRE RETRIEVAL SYSTEM ON ALL OVERHEAD STRUCTURES. WALKWAY AND HANDRAIL IS NOT REQUIRED.

. INSTALLATION OF LUMINAIRE RETRIEVAL SYSTEM SHALL ALLOW LUMINAIRE MAINTENACE FROM THE SHOULDER WITHOUT THE NEED FOR LANE CLOSURE. THE DRIVE HANDLE OF THE LUMINAIRE RETRIEVAL SYSTEM SHALL BE LOCATED A MINIMUM OF 0.92M (3 ') FROM THE RIGHT EDGE OF THE SHOULDER AWAY FROM THE ROADWAY TRAFFIC.

. THE CONTRACTOR SHALL ENSURE THAT COORDINATION IS ESTABLISHED BETWEEN THE OHS ASSEMBLY AND LUMINAIRE RETRIEVAL SYSTEM FABRICATORS SO THAT A FULLY FUNCTIONAL SIGN AND LIGHTING SYSTEM IS INSTALLED. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY OHS ASSEMBLY AND LUMINAIRE RETRIEVAL SYSTEM INCOMPATIBILITIES, OR INSTALLATION OF A LIGHTING SYSTEM NOT FUNCTIONING TO ITS INTENDED PURPOSE.

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.

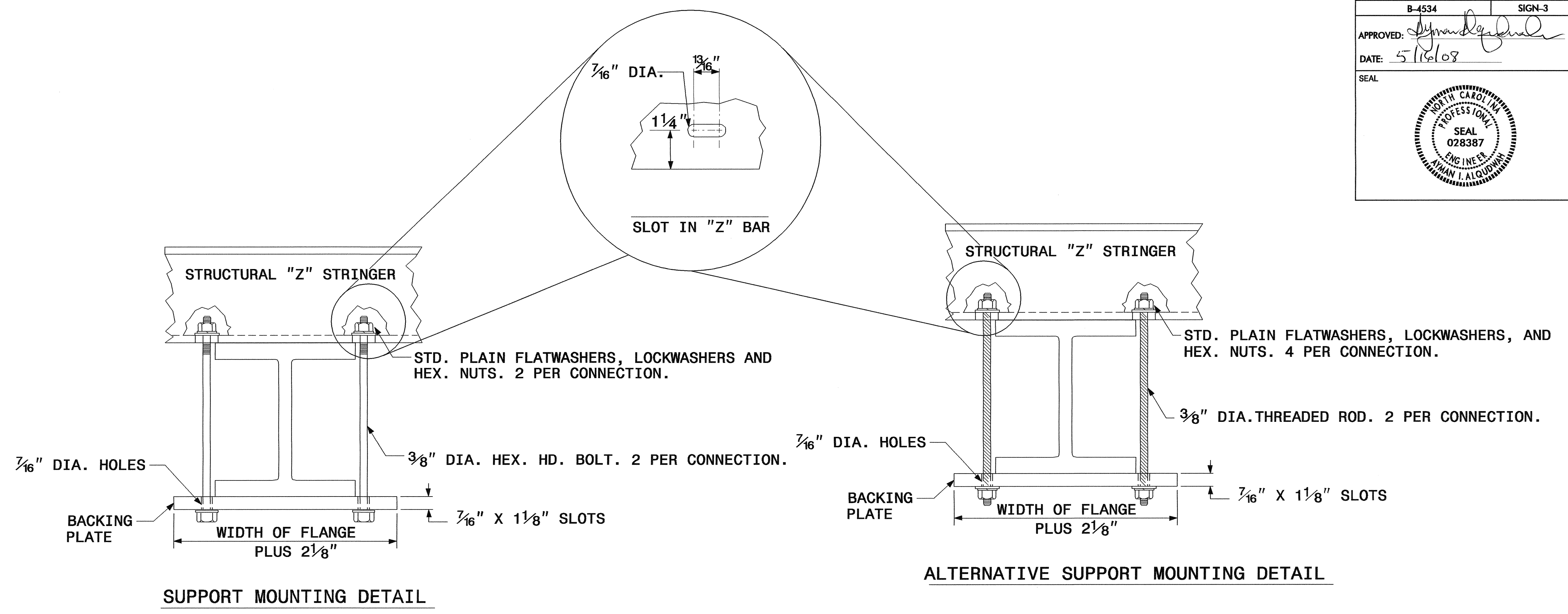
ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4048000000	902	REINFORCED CONCRETE SIGN FOUNDATION.....	2	C.Y.
4057000000	SP	OVERHEAD FOOTINGS.....	36	C.Y.
4060000000	903	SUPPORTS, BREAKAWAY STEEL BEAM.....	431	LB.
4066000000	903	SUPPORTS, SIMPLE STEEL BEAM.....	779	LB.
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL.....	420	L.F.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA. 21+80 -L-.....	1	L.S.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA. 34+50 -L-.....	1	L.S.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA. 11+00 -L-.....	1	L.S.
4096000000	904	SIGN ERECTION, TYPE D.....	1	EA.
4102000000	904	SIGN ERECTION, TYPE E.....	11	EA.
4110000000	904	SIGN ERECTION, TYPE A (GROUND MOUNTED).....	4	EA.
4127500000	SP	LRS LIGHTING SYSTEM FOR OVERHEAD SIGN ASSEMBLY AT STA. 21+80 -L-.....	1	L.S.
4127500000	SP	LRS LIGHTING SYSTEM FOR OVERHEAD SIGN ASSEMBLY AT STA. 34+50 -L-.....	1	L.S.
4127500000	SP	LRS LIGHTING SYSTEM FOR OVERHEAD SIGN ASSEMBLY AT STA. 11+00 -L-.....	1	L.S.
4149000000	907	DISPOSAL OF SIGN SYSTEM, OVERHEAD.....	2	EA.
4152000000	907	DISPOSAL OF SIGN SYSTEM, STEEL BEAM.....	5	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL.....	20	EA.
4234000000	907	DISPOSAL OF SIGN, A OR B (OVERHEAD).....	1	EA.

**ROADWAY STANDARD DRAWINGS
APPLICABLE TO THESE SIGNING PLANS**

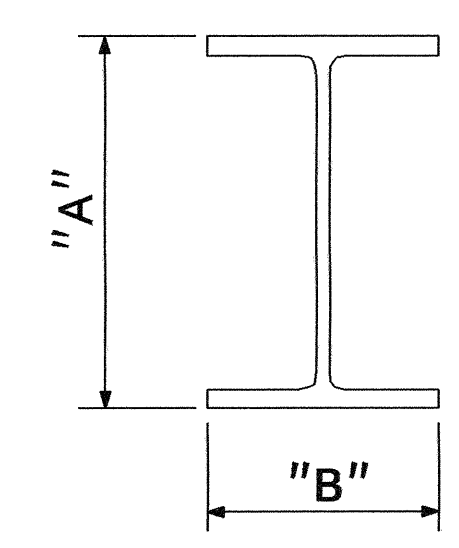
- | | |
|--------|--------|
| 901.10 | 901.70 |
| 901.20 | 901.80 |
| 901.30 | 903.10 |
| 901.40 | 904.10 |
| 901.50 | 904.50 |

**NOTES & SIGNS
SUMMARY OF QUANTITIES**

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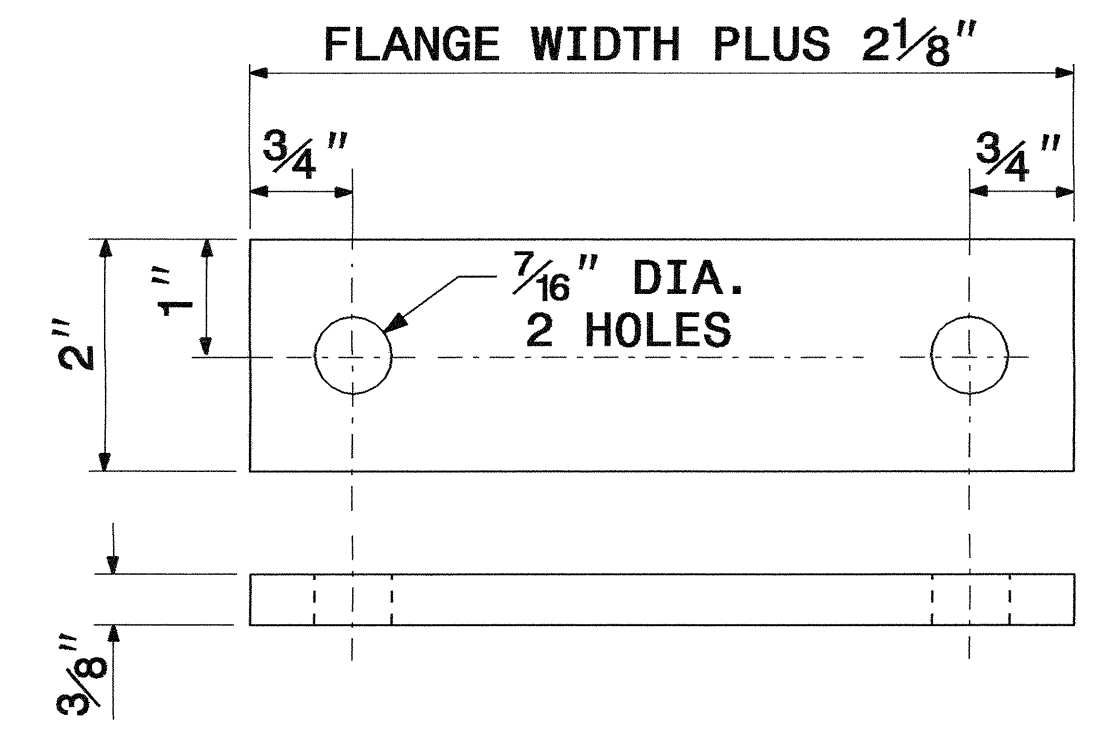


SIGN SUPPORTS SECTION DIMENSIONS




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

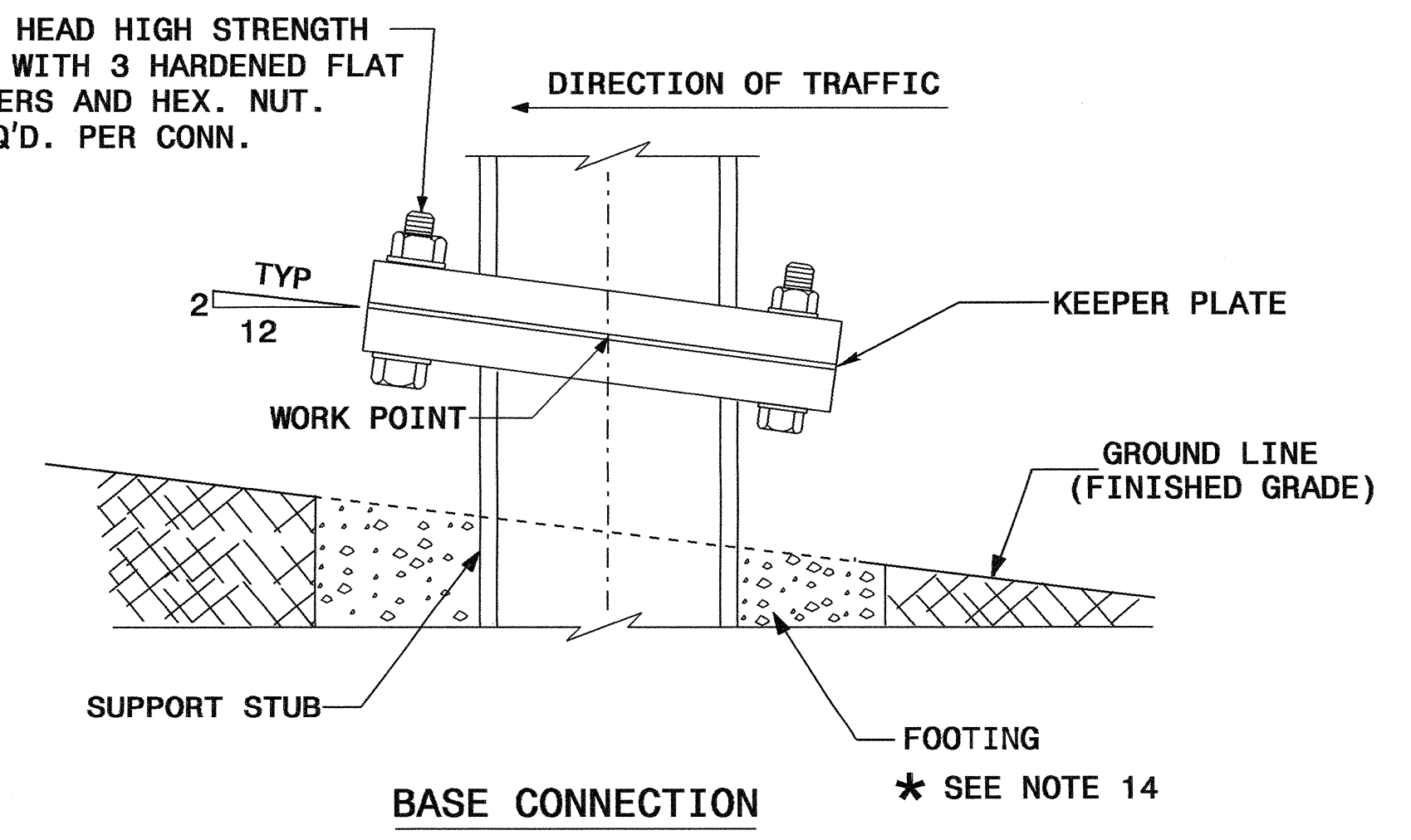
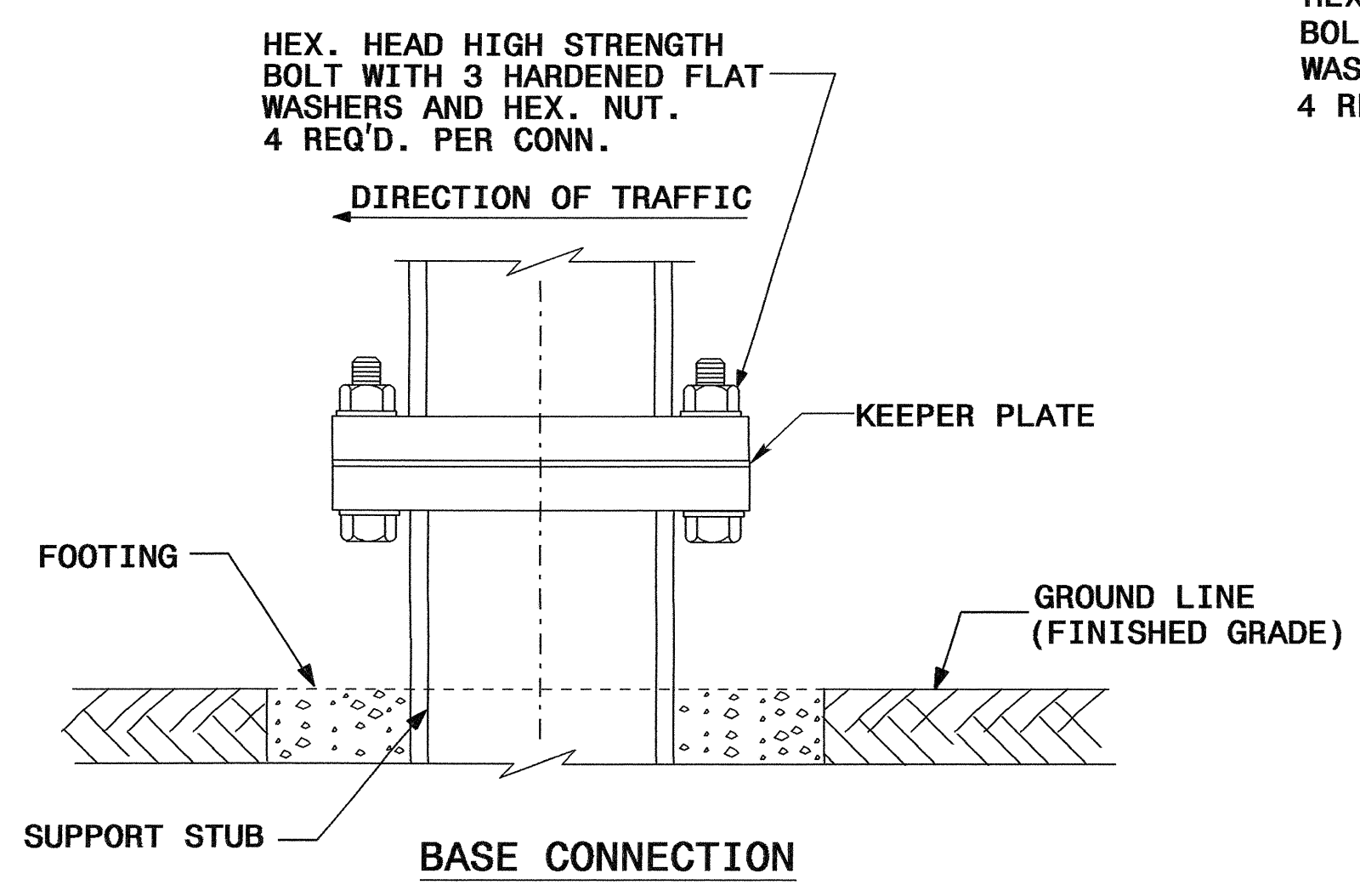
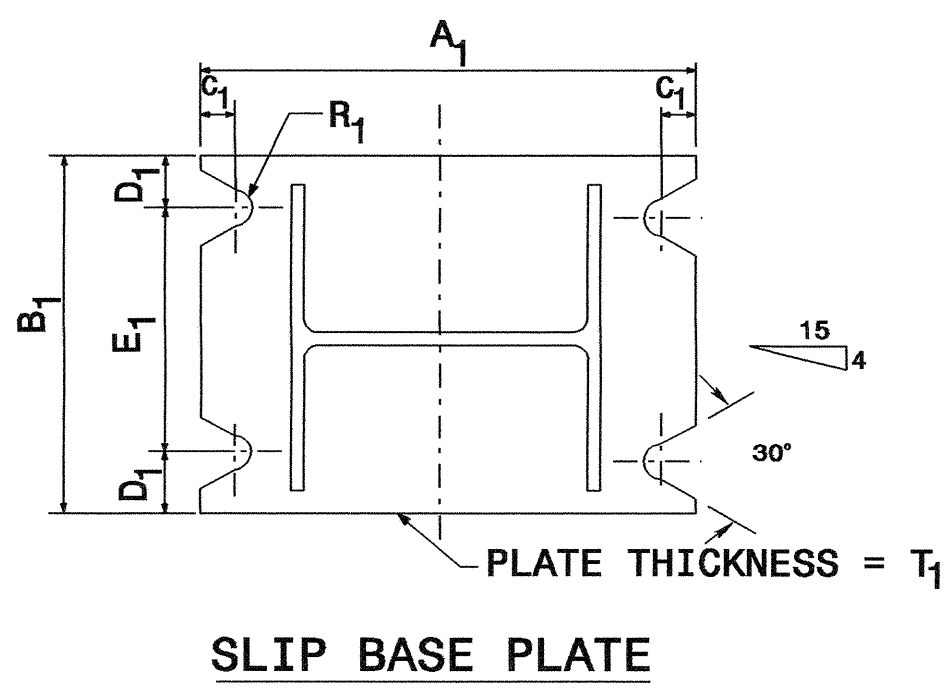
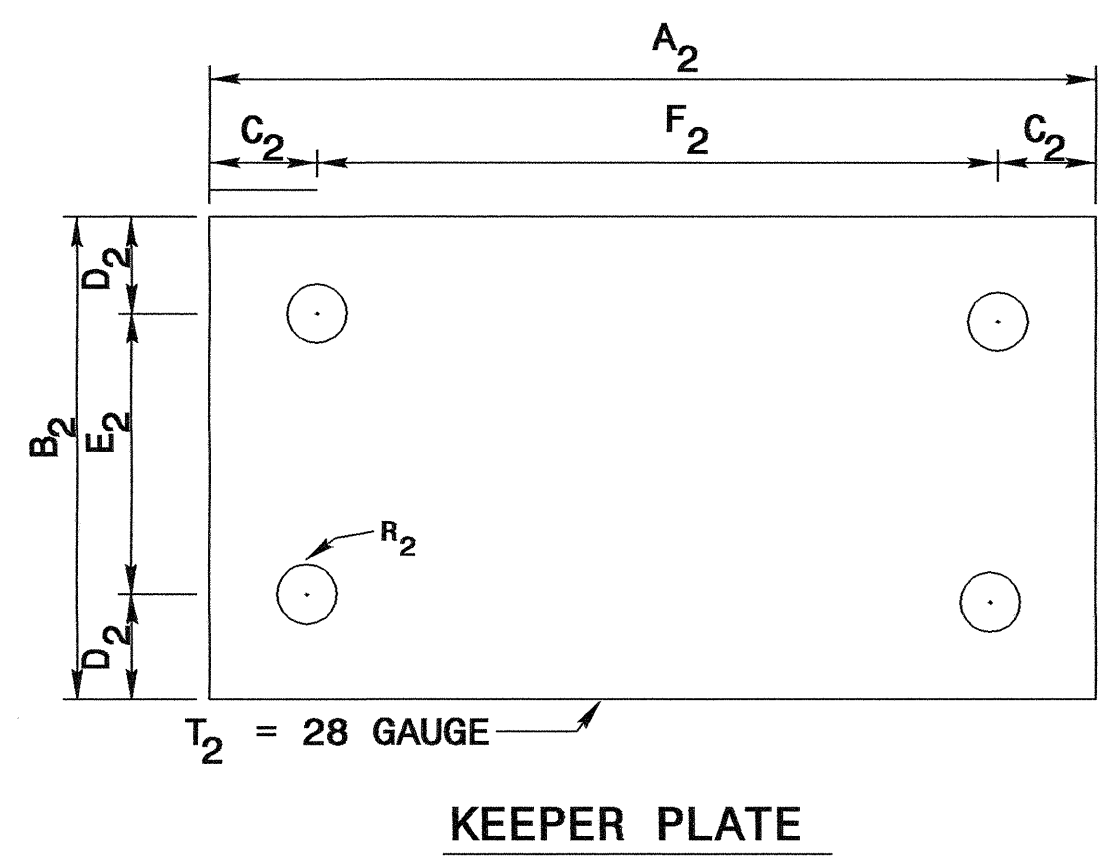
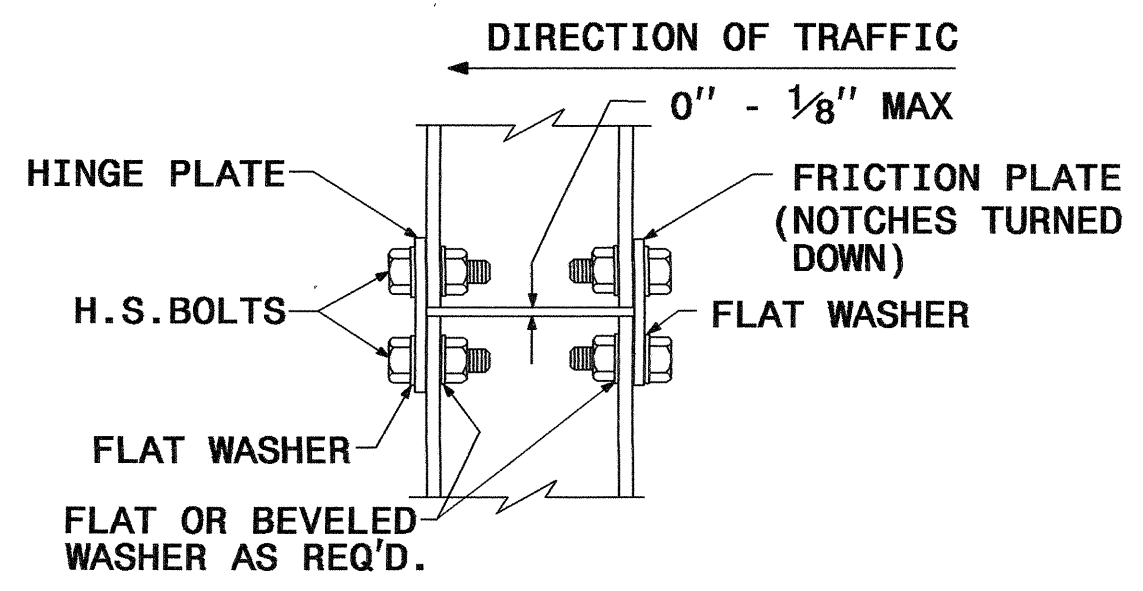
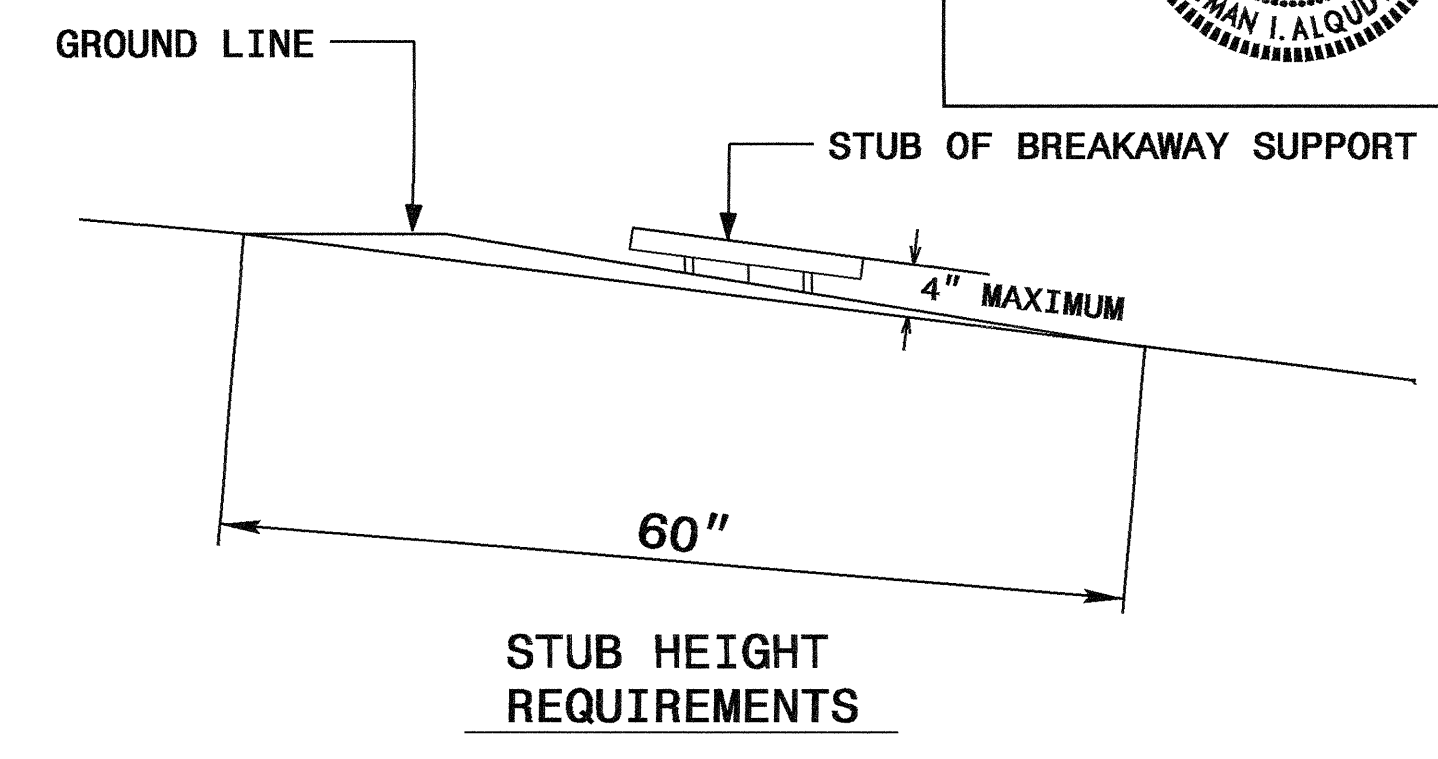
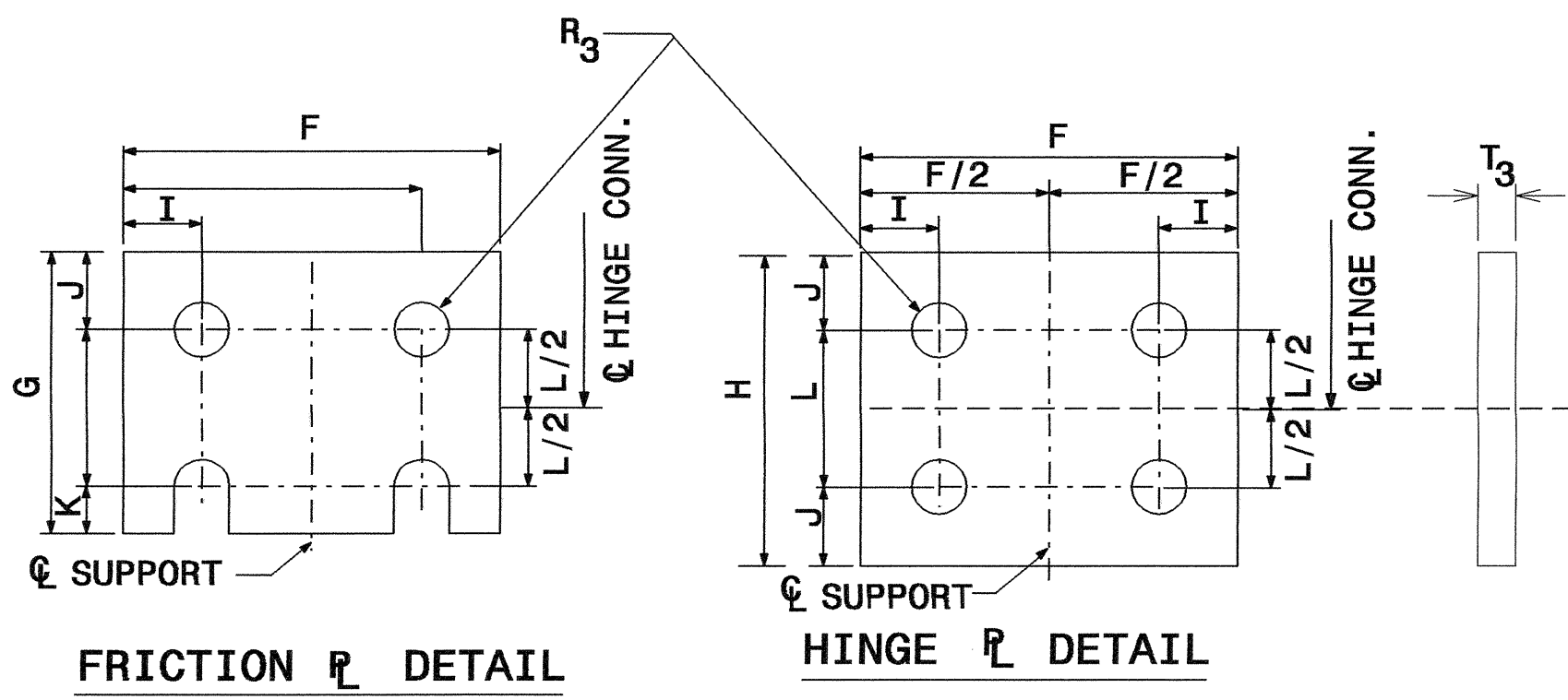
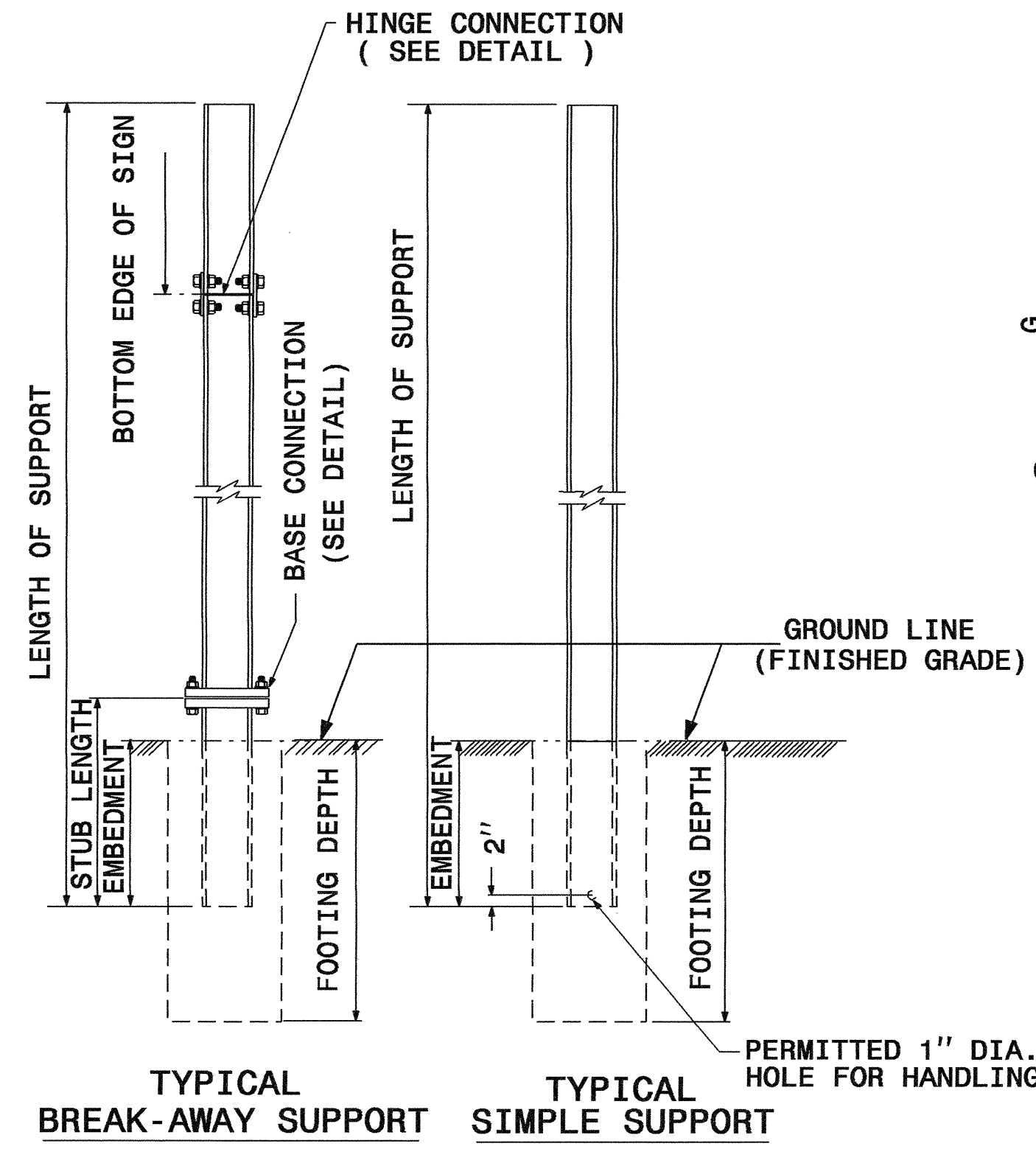
BACKING PLATE DETAIL



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 BOTS AND THREADED RODS IN COMPLIANCE WITH ASTM A307 AND ASTM A153.

SIGN MOUNTING DETAILS


TIP NO. B-4534	SHEET NO. SIGN-4
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DATE: 5/16/08	
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SEE SHEET SIGN-5 FOR DIMENSIONS.
SEE SHEET SIGN-6 FOR NOTES.

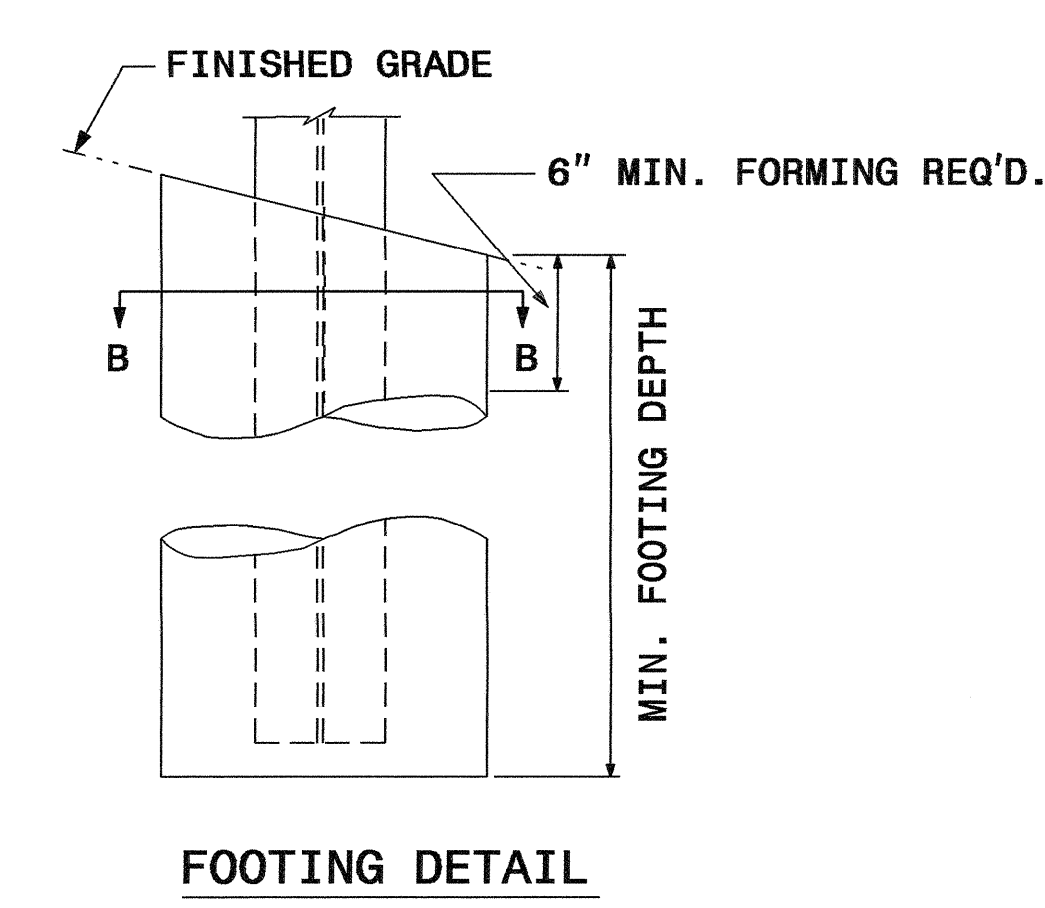
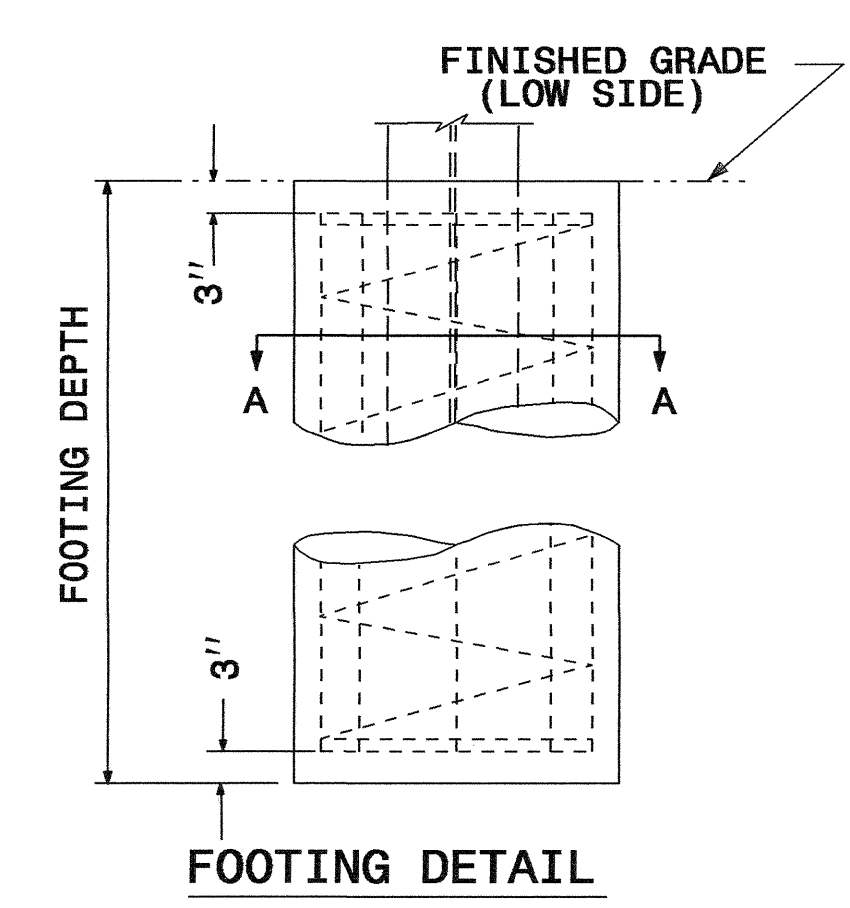
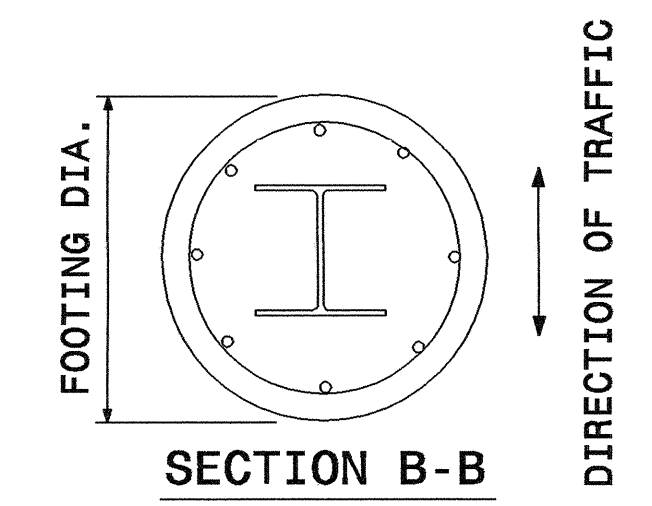
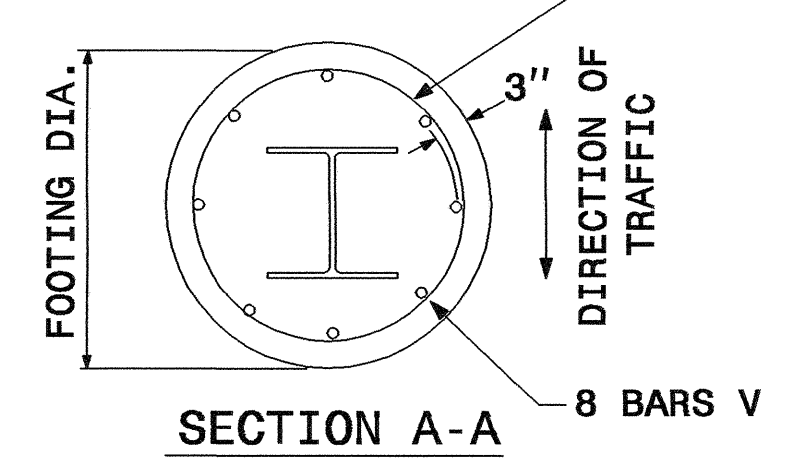
GROUND MOUNTED SIGN SUPPORT

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TIP NO. B-4534	SHEET NO. SIGN-5
APPROVED: <i>[Signature]</i>	
DATE: 5/10/08	
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. X 1 1/4"	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"	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 1/4"	2 5/8"	3 1/2"	4"	1/2"	1"	1/2"	2"	9/32"	3/8"	20
W6X9	1/2"DIA. X 3"	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 1/4"	4"	3 1/2"	4"	3/4"	1"	1/2"	2"	9/32"	3/8"	32
W6X12	5/8"DIA. X 3 3/4"	11"	5"	1 1/4"	7/8"	3 1/4"	1 1/4"	11/32"	11"	5"	1 1/4"	7/8"	3 1/4"	11/32"	28 GAUGE	5/8"DIA. X 2 1/4"	4"	4"	4 1/2"	3/4"	1 1/8"	5/8"	2 1/4"	11/32"	3/8"	39
W6X16	5/8"DIA. X 3 3/4"	12"	6"	1 1/4"	7/8"	4 1/4"	1 1/2"	11/32"	12"	6"	1 1/4"	7/8"	4 1/4"	11/32"	28 GAUGE	5/8"DIA. X 2 1/2"	4"	4"	4 1/2"	3/4"	1 1/8"	5/8"	2 1/4"	11/32"	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"	11/32"	13 1/2"	6 1/2"	1 1/4"	7/8"	4 3/4"	11/32"	28 GAUGE	5/8"DIA. X 2 1/2"	5 1/4"	4"	4 1/2"	1"	1 1/8"	5/8"	2 1/4"	11/32"	1/2"	70
W8X21	3/4"DIA. X 4 1/4"	14"	7"	1 1/2"	1"	5"	1 1/2"	13/32"	14"	7"	1 1/2"	1"	5"	13/32"	28 GAUGE	3/4"DIA. X 2 3/4"	5 1/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	1/2"	73
W10X22	3/4"DIA. X 4 1/4"	16"	8"	1 1/2"	1"	6"	1 1/2"	13/32"	16"	8"	1 1/2"	1"	6"	13/32"	28 GAUGE	3/4"DIA. X 2 3/4"	5 3/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	1/2"	119
W10X26	3/4"DIA. X 4 3/4"	16 1/2"	8"	1 1/2"	1"	6"	1 3/4"	13/32"	16 1/2"	8"	1 1/2"	1"	6"	13/32"	28 GAUGE	3/4"DIA. X 2 3/4"	5 3/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	5/8"	140
W12X26	3/4"DIA. X 4 3/4"	18 1/2"	9"	1 1/2"	1"	7"	1 3/4"	13/32"	18 1/2"	9"	1 1/2"	1"	7"	13/32"	28 GAUGE	3/4"DIA. X 2 3/4"	6 1/2"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	5/8"	176
W14X30	1"DIA. X 5"	22"	9"	2"	1 1/2"	6"	2"	17/32"	22"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3"	6 3/4"	7"	8"	1 1/4"	2"	1"	4"	17/32"	5/8"	205
W16X31	1"DIA. X 5"	24"	9"	2"	1 1/2"	6"	2"	17/32"	24"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3 1/4"	5 1/2"	7"	8"	1 1/4"	2"	1"	4"	17/32"	3/4"	223
W18X35	1"DIA. X 5"	25"	9"	2"	1 1/2"	6"	2"	17/32"	25"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3 1/4"	6"	7"	8"	1 1/4"	2"	1"	4"	17/32"	3/4"	243
W18X40	1"DIA. X 5 1/2"	26"	9"	2"	1 1/2"	6"	2 1/4"	17/32"	26"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3 3/4"	6"	7"	8"	1 1/4"	2"	1"	4"	17/32"	7/8"	278
W21X44	1"DIA. X 5 1/2"	29"	9"	2"	1 1/2"	6"	2 1/2"	17/32"	29"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3 3/4"	6 1/2"	7"	8"	1 1/4"	2"	1"	4"	17/32"	7/8"	310

2" FLAT TURNS
TOP AND BOTTOM
(SEE NOTE 11)




FOUNDATION DATA *		
FOOTING DIAMETER	REINFORCEMENT	SPIRAL BAR
1'	8 # 4 BARS	#3 BAR, 3" PITCH
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

GROUND MOUNTED SIGN SUPPORT

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TIP NO. B-4534	SHEET NO. SIGN-6
APPROVED: <i>[Signature]</i>	
DATE: 5/16/08	
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:

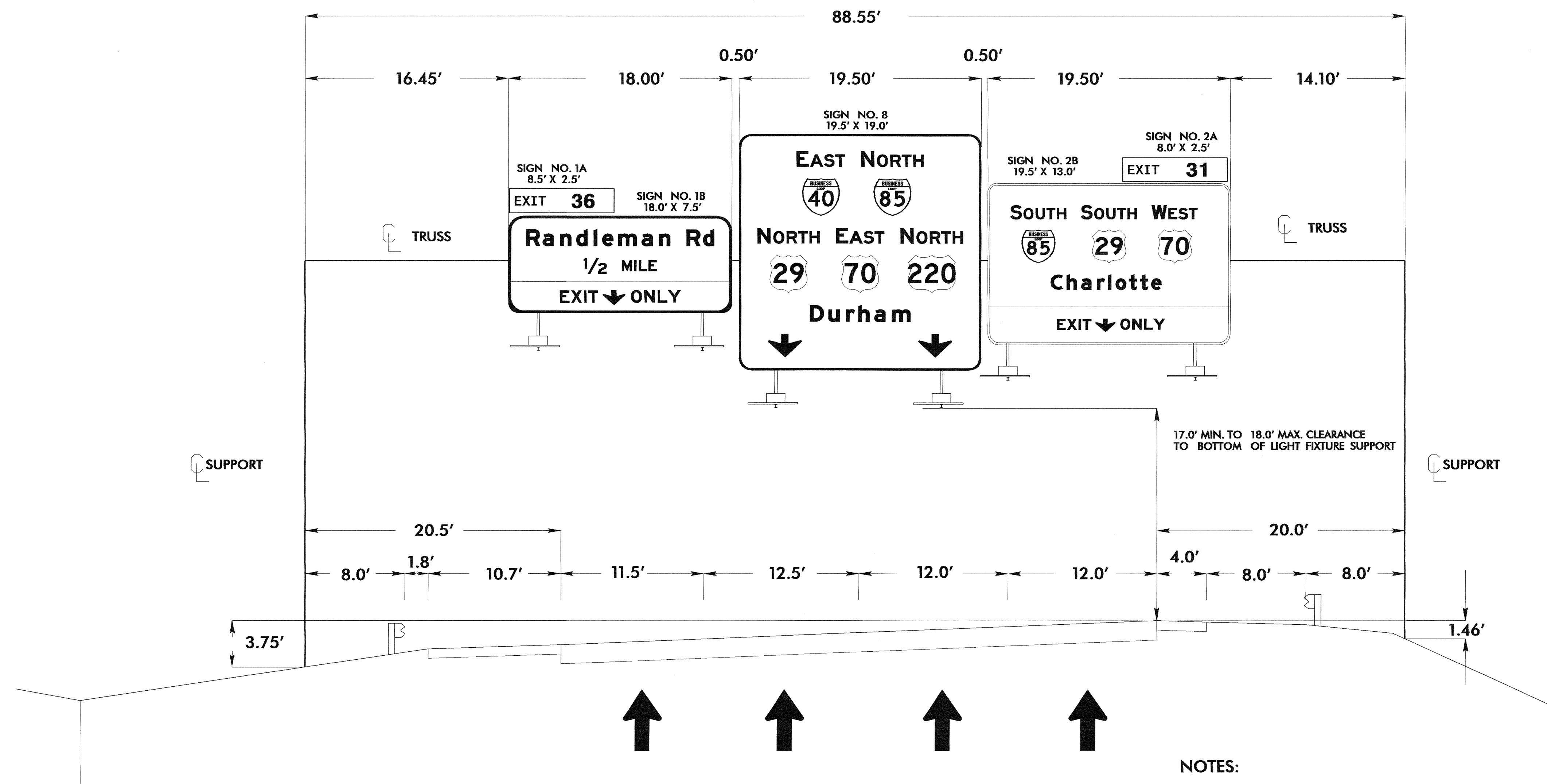
BOLT DIAMETER	TORQUE (LB. FT.)
1/2"	9
5/8"	22
3/8"	37
1"	48

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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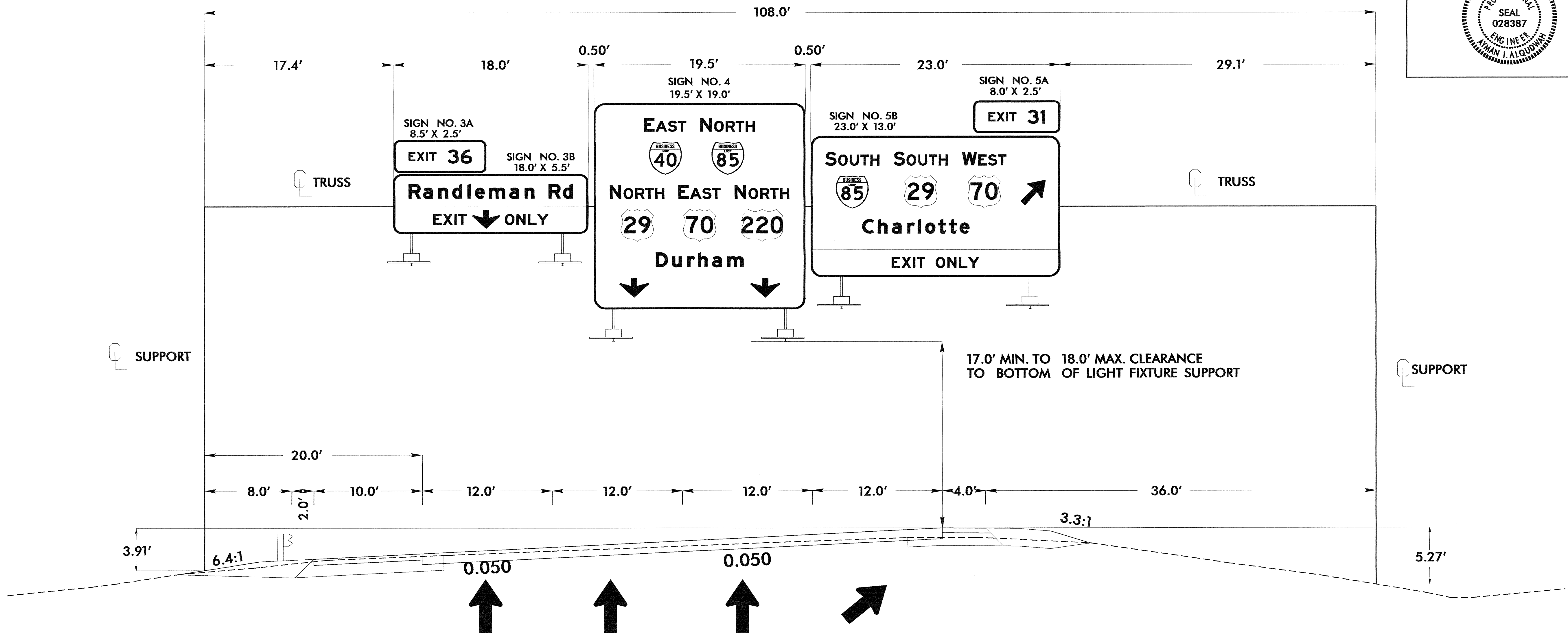
**BUS 40 EB
OVERHEAD SIGN ASSEMBLY "A"
@ STA. 11+00 (-L-)**

NOTES:

- IF THE CONTRACTOR BIDS ALUMIMUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
- MOUNT SIGNS VERTICALLY CENTERED ON HORIZONTAL MEMBER OF STRUCTURE.
- FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- THE TOP OF THE FOOTING SHALL EXTEND AT LEAST 6in AND NOT MORE THAN 24in ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
- SIGN HANGERS, LUMINAIRE RETRIEVAL SYSTEM AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THE PLANS, INCLUDING THOSE DESIGNATED AS "FUTURE".

**BUS. 40 EB
OVERHEAD SIGN ASSEMBLY "A"
STA. 11+00 (-L-)**

TIP NO. B-4534	SHEET NO. SIGN-8
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	



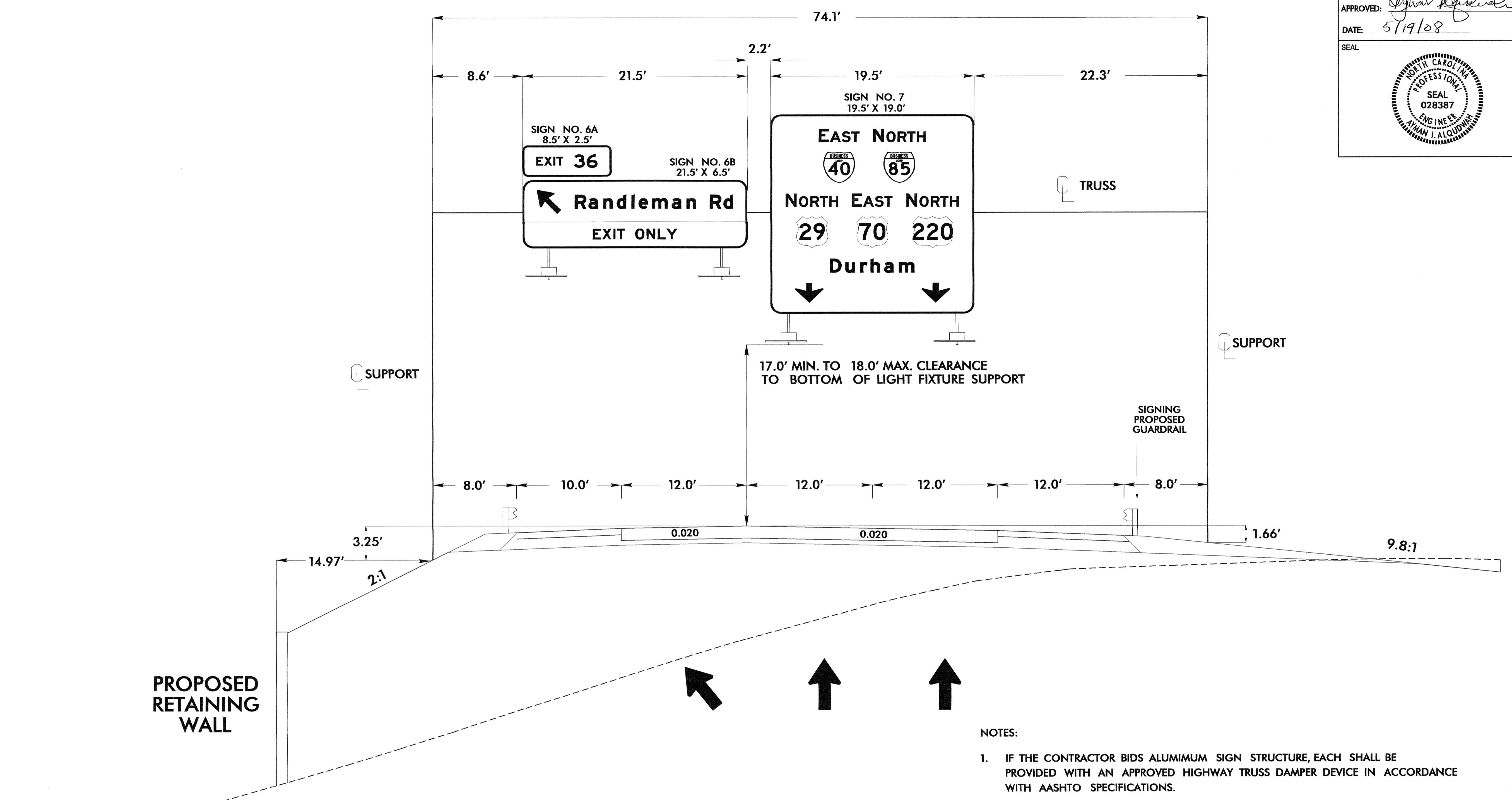
**BUS. 40 EB
OVERHEAD SIGN ASSEMBLY "B"
@ STA. 21 + 80 (-L-)**

NOTES:

1. IF THE CONTRACTOR BIDS ALUMIMUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
2. MOUNT SIGNS VERTICALLY CENTERED ON HORIZONTAL MEMBER OF STRUCTURE.
3. FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
4. THE TOP OF THE FOOTING SHALL EXTEND AT LEAST 6in AND NOT MORE THAN 24in ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
5. SIGN HANGERS, LUMINAIRE RETRIEVAL SYSTEM AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THE PLANS, INCLUDING THOSE DESIGNATED AS "FUTURE".

**BUS. 40 EB
OVERHEAD SIGN ASSEMBLY "B"
STA. 21 + 80 (-L-)**

I6-MAY-2008 15:12
 p:\tpp\proj\ec\4534\B-4534\tr\ref\10\signing\cadd\overheads\DH_A\dgm
 3/18/11 11:21 AM TEC221636

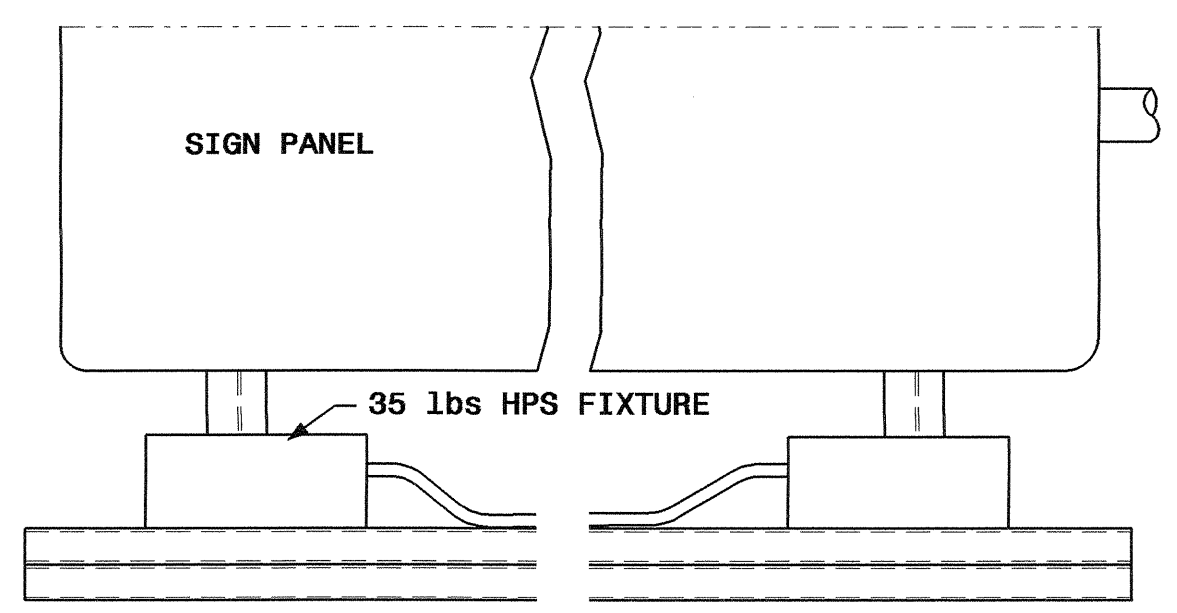
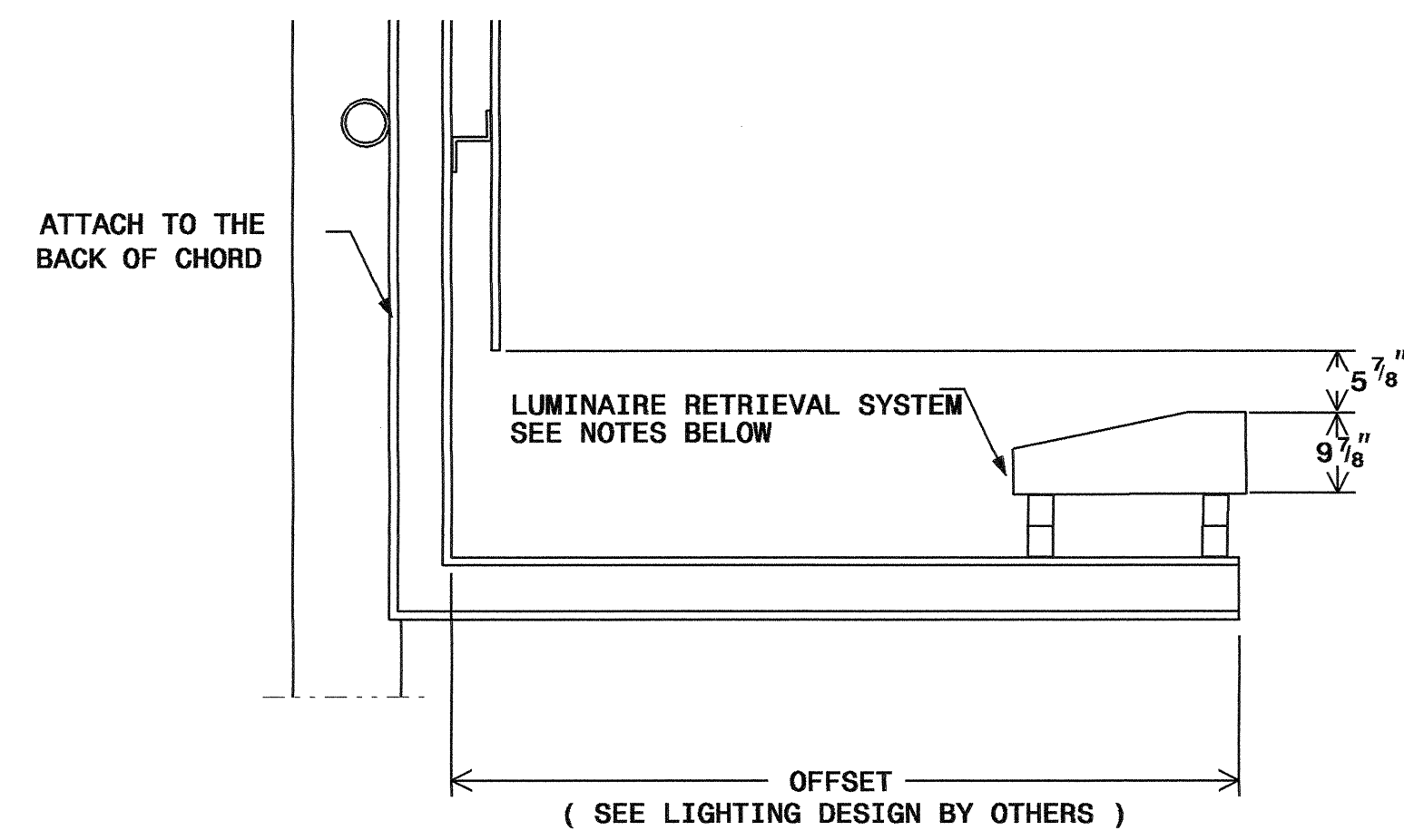


**BUS. 40 EB
OVERHEAD SIGN ASSEMBLY "C"
@ STA. 34 + 50 (-L-)**

- NOTES:
- IF THE CONTRACTOR BIDS ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
 - MOUNT SIGNS VERTICALLY CENTERED ON HORIZONTAL MEMBER OF STRUCTURE.
 - FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
 - THE TOP OF THE FOOTING SHALL EXTEND AT LEAST 6in AND NOT MORE THAN 24in ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
 - SIGN HANGERS, LUMINAIRE RETRIEVAL SYSTEM AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THE PLANS, INCLUDING THOSE DESIGNATED AS "FUTURE".

**BUS. 40 EB
OVERHEAD SIGN ASSEMBLY "C"
STA. 34 + 50 (-L-)**

16-MAY-2008 15:13 p:\tpp\projects\B-4534\ref\10\signing\codd\overheads\OH_B.dgn gaver11z1 AL TECC21636



IMPORTANT:

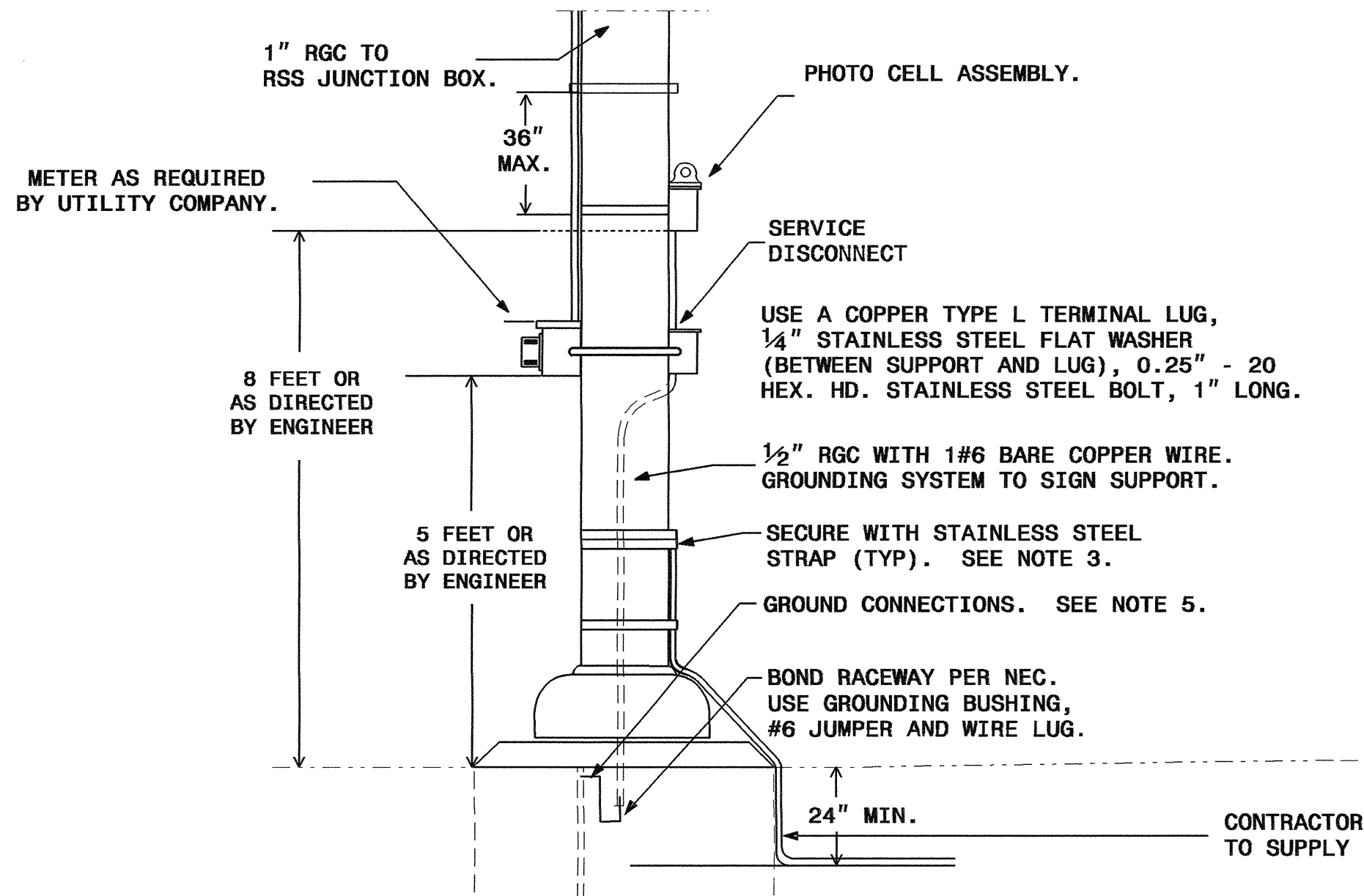
THE POWER SHALL BE DELIVERED UNDER GROUND TO THE SIGN STRUCTURE'S VERTICAL UPRIGHT. NO SERVICE POLE SHALL BE INSTALLED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.

UTILITY COMPANY SHALL NOT INSTALL LINE POLES WITHIN NCDOT RIGHT OF WAY UNLESS APPROVED BY THE ENGINEER.

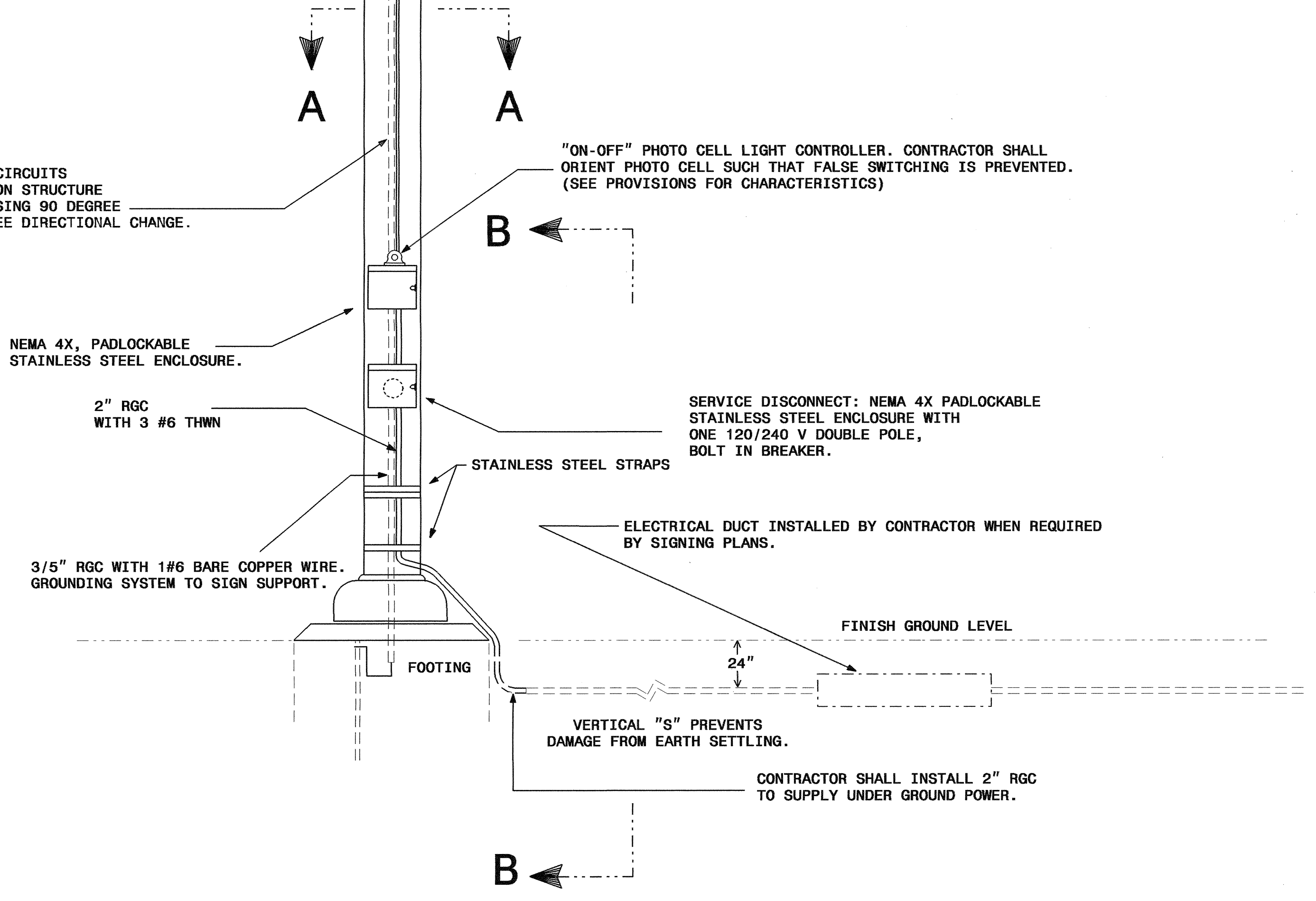
IF ELECTRICAL SERVICE IS TO BE DELIVERED OVERHEAD:

* WEATHER HEAD TO BE INSTALLED 13' MINIMUM ABOVE GROUND LINE.

* EYE BOLT OR EYE ATTACHMENT TO BE INSTALLED WITH STAINLESS STEEL STRAPS 12" ABOVE WEATHERHEAD FOR OVERHEAD SERVICE CONDUCTOR ATTACHMENT (NO DRILLING ALLOWED)

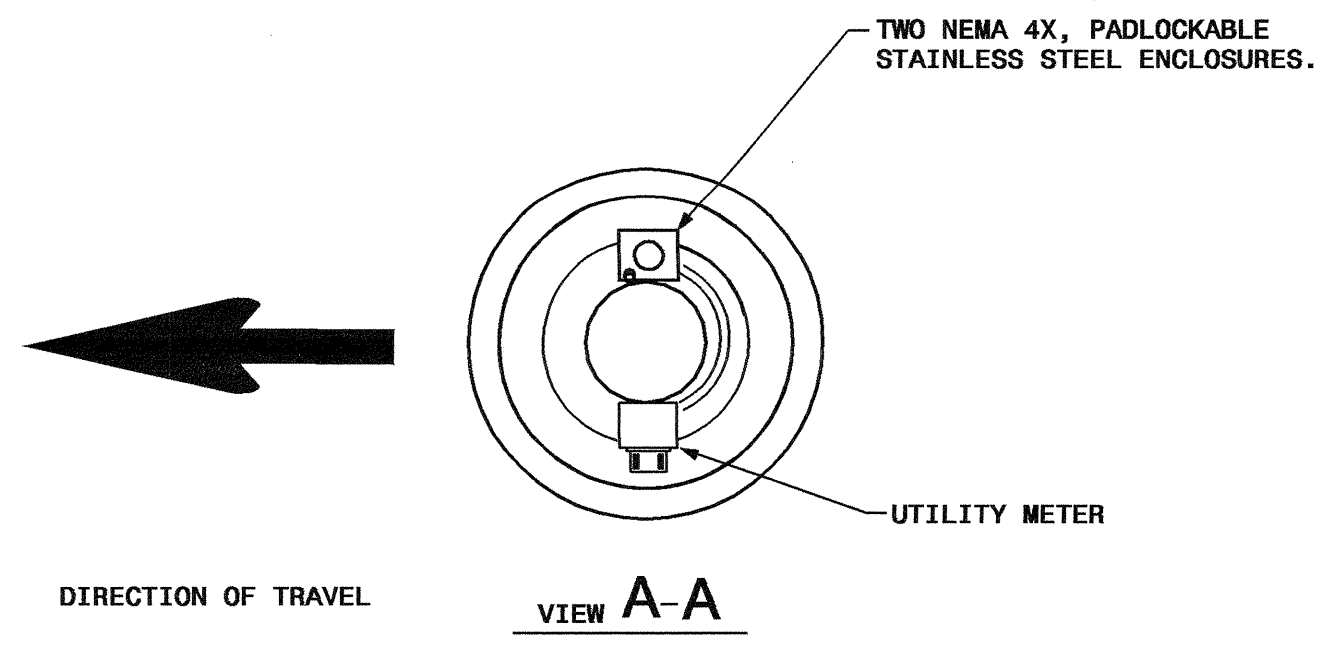


1" RGC TO RSS JUNCTION BOX WHERE CIRCUITS SEPARATE. ALL CONDUIT INSTALLED ON STRUCTURE SHALL FOLLOW STRUCTURAL MEMBERS USING 90 DEGREE CONDULET FITTINGS AT EACH 90 DEGREE DIRECTIONAL CHANGE.

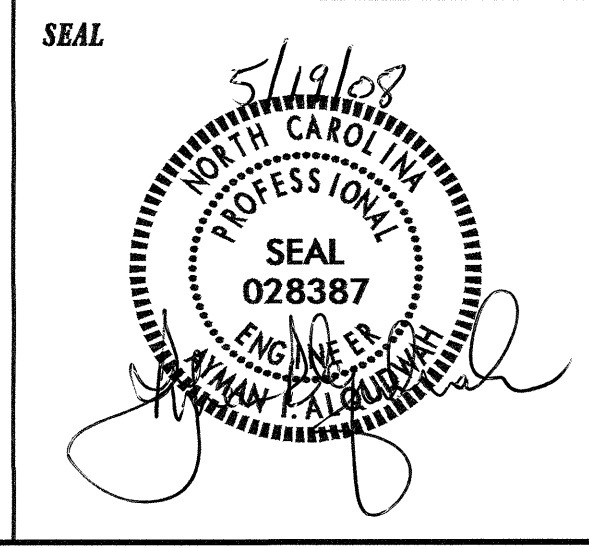


VIEW B-B

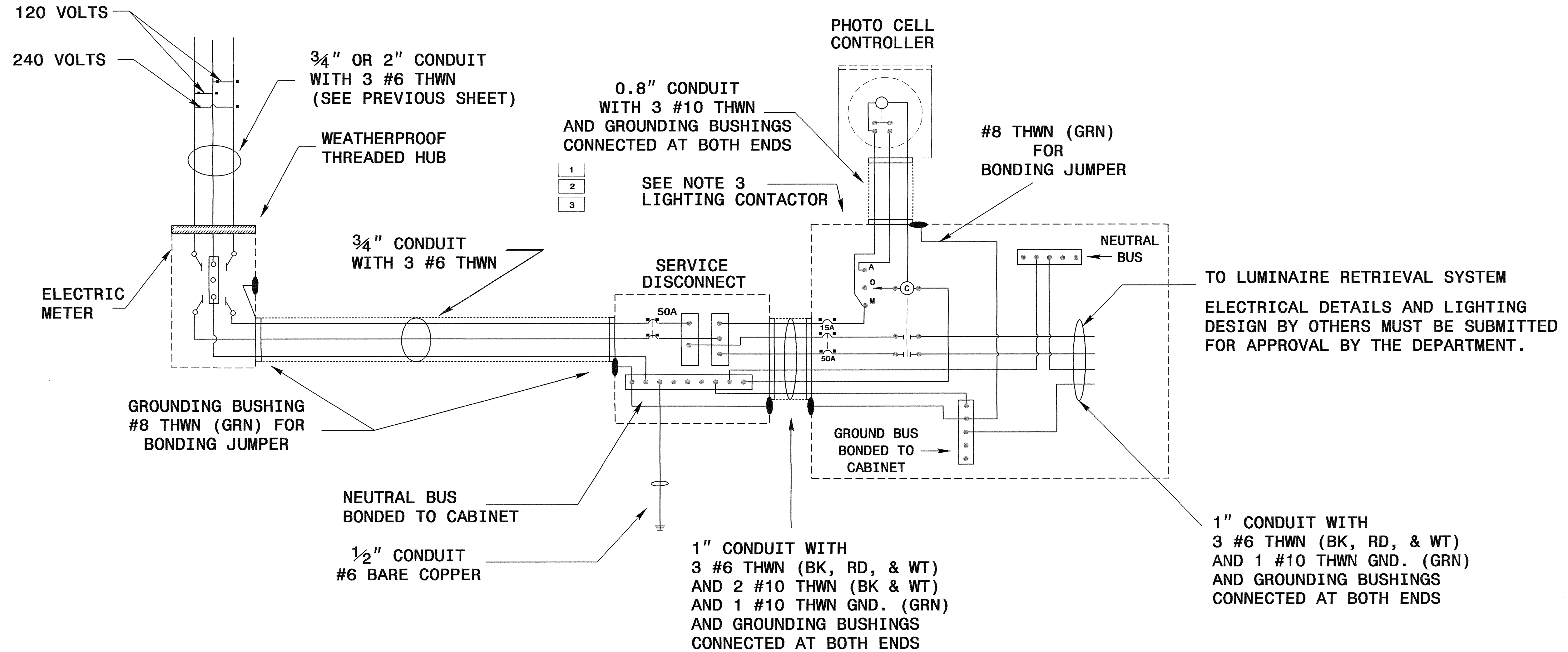
- NOTES:
1. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT TO THE N.C.D.O.T. FOR APPROVAL, DETAIL DRAWINGS OF LUMINAIRE RETRIEVAL SYSTEM MOUNTING ON OHS ASSEMBLY.
 2. CAULK ALL ENDS OF CONDUIT UNDERGROUND WITH A CAULKING COMPOUND APPROVED BY THE ENGINEER.
 3. STRAPS SHALL BE STAINLESS STEEL MATERIAL UNLESS OTHERWISE SPECIFIED.
 4. ALL JUNCTION BOXES AND CONDULETS SHALL BE WATER TIGHT.
 5. ALL GROUNDING ELECTRODES SHALL BE 10 FEET LONG AND 0.6" IN DIAMETER COPPER CLAD STEEL RODS DRIVEN A MINIMUM DEPTH OF 36" INTO UNDISTURBED EARTH.
 6. TEST GROUNDING SYSTEM USING AN APPROVED METHOD. SYSTEM SHOULD MEASURE LESS THAN TWENTY (20) OHMS. IF THE RESISTANCE MEASUREMENT IS GREATER THAN 20 OHMS, ADDITIONAL GROUND RODS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER TO FULFILL THIS REQUIREMENT.
 7. ALL UNDERGROUND BONDING OF GROUNDING ELECTRODES AND CONDUCTORS SHALL BE BY AN EXOTHERMIC WELDING PROCESS (CADWELD OR EQUIVALENT).
 8. ALL ASSEMBLIES AND COMPONENTS SHALL BE UL APPROVED. INSTALLATION SHALL MEET NEC REQUIREMENTS AND ALL APPROVED STATE AND LOCAL CODES.
 9. WALKWAY AND HANDRAIL IS NOT REQUIRED.
 10. INSTALLATION OF LUMINAIRE RETRIEVAL SYSTEM SHALL ALLOW LUMINAIRE MAINTENANCE FROM THE SHOULDER WITHOUT THE NEED FOR LANE CLOSURE. THE DRIVE HANDLE OF THE LUMINAIRE RETRIEVAL SYSTEM SHALL BE LOCATED A MINIMUM OF 3 FEET FROM THE RIGHT EDGE OF THE SHOULDER AWAY FROM THE ROADWAY TRAFFIC.
 11. THE CONTRACTOR SHALL ENSURE THAT COORDINATION IS ESTABLISHED BETWEEN THE OHS ASSEMBLY AND LUMINAIRE RETRIEVAL SYSTEM FABRICATORS SO THAT A FULLY FUNCTIONAL SIGN AND LIGHTING SYSTEM IS INSTALLED. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY OHS ASSEMBLY AND LUMINAIRE RETRIEVAL SYSTEM INCOMPATIBILITIES, OR INSTALLATION OF A LIGHTING SYSTEM NOT FUNCTIONING TO ITS INTENDED PURPOSE.



VIEW A-A



LIGHTING SYSTEM FOR OVERHEAD SIGN ASSEMBLIES WITH LUMITRAK (SHEET 1 OF 2)			
SCALE	NONE	N. C. DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH	REVISIONS
DATE	01-25-05		
SIGNING TECHNICIAN			
SIGNING ELECTRICAL ENG	M. HOVIUS		
SIGNING PROJECT ENG	A. ALQUDWAH		

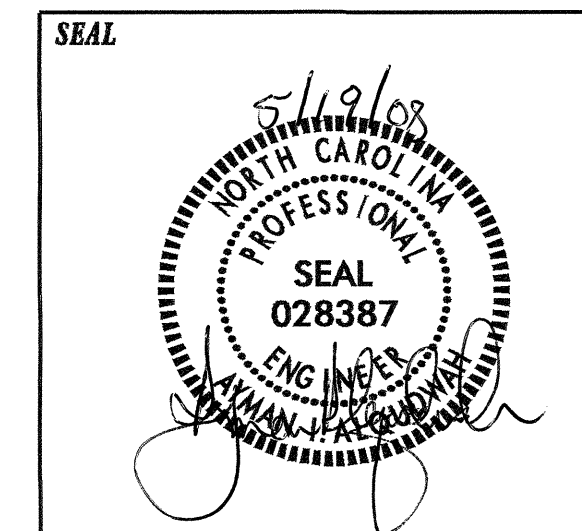


NOTES

1. NAMEPLATE SHALL READ (1) "MAIN", (2) "LIGHTS", (3) "CONTROL".
2. CAULK ALL ENDS OF CONDUIT UNDERGROUND WITH A CAULKING COMPOUND APPROVED BY THE ENGINEER.
3. LABEL THREE POSITION SELECTOR SWITCH "MANUAL", "OFF", AND "AUTO".
4. STRAPS SHALL BE STAINLESS STEEL MATERIAL UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL VERIFY THE LENGTH OF UNDERGROUND RUN ("H" DISTANCE) AND RE CALCULATE WIRE SIZE (UF WIRE) ACCORDING TO THE NEC (NOT MORE THAN 3% VOLTAGE DROP) FOR EACH OVERHEAD LIGHTING SYSTEM. THESE MEASUREMENTS AND WIRE SIZES SHALL BE SUBMITTED WITH THE CATALOG CUTS FOR APPROVAL.
6. THE CONTRACTOR SHALL PROVIDE AND INSTALL LIGHTING SYSTEM FOR ALL SIGNS, INCLUDING FUTURE SIGNS.
7. ALL UNDERGROUND DUCT SHALL BE INSTALLED BY THE CONTRACTOR USING MINIMUM 2" DIAMETER RIDGED GALVANIZED STEEL OR RIDGED PVC HEAVY WALL CONDUIT.
8. TEST SYSTEM GROUNDING USING AN APPROVED METHOD. SYSTEM SHOULD MEASURE LESS THAN TWENTY (20) OHMS.
9. ALL ASSEMBLIES AND COMPONENTS SHALL BE UL APPROVED. INSTALLATION SHALL MEET NEC REQUIREMENTS AND ALL APPLICABLE LOCAL AND STATE CODES.
10. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH ONLY THE APPROPRIATE NUMBER OF BREAKERS AND WIRE THAT IS REQUIRED IN ACCORDANCE WITH THE NUMBER OF CIRCUITS LISTED FOR A GIVEN LIGHTING SYSTEM.


The following Overhead Assemblies will use this lighting system:

- Overhead Assembly A
- Overhead Assembly B
- Overhead Assembly C

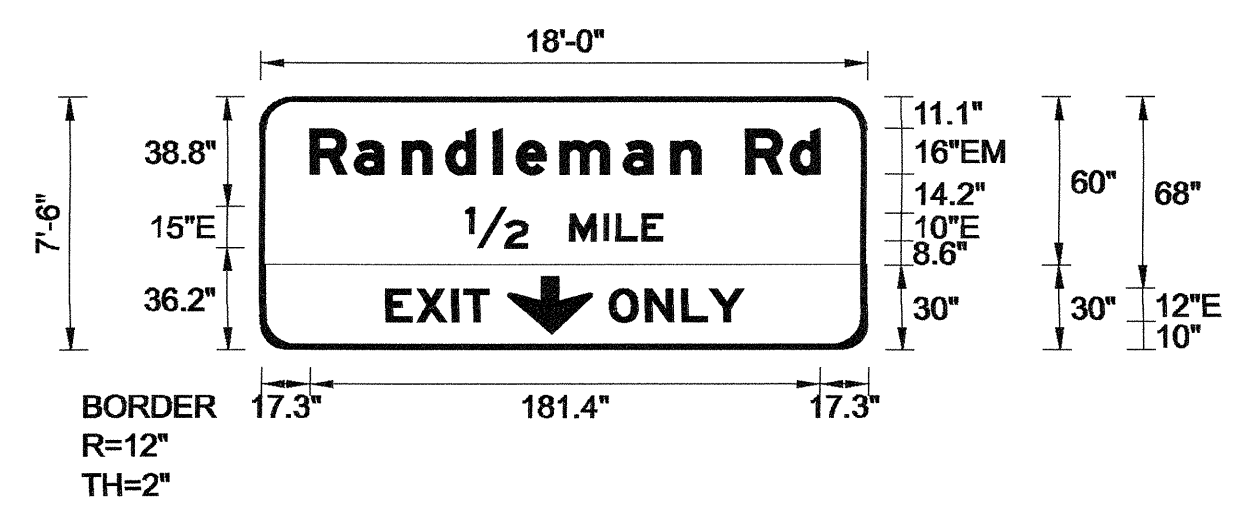


LIGHTING SYSTEM FOR OVERHEAD SIGN ASSEMBLIES WITH LUMITRAK (SHEET 2 OF 2)

SCALE	NONE	N. C. DEPARTMENT OF TRANSPORTATION	REVISIONS
DATE	01-25-05	DIVISION OF HIGHWAYS	
SIGNING TECHNICIAN		TRAFFIC ENGINEERING	
SIGNING ELECTRICAL ENG	M. HOVIOUS	BRANCH	
SIGNING PROJECT ENG	A. ALQUDWAH		

TIP NO. B-4534	SHEET NO. SIGN-12
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	
	

SIGN NUMBER: 1B TYPE: A QUANTITY: 1 SIGN WIDTH: 18'-0" HEIGHT: 7'-6" TOTAL AREA: 135.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12" NO. Z BARS: 3 LENGTH: 208.0	BACKG COLOR: Green COPY COLOR: White <table border="1"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> <tr> <td>ARNDOWN</td> <td>88</td> <td>5.7</td> <td>30</td> <td>20.6</td> </tr> </table>	SYMBOL	X	Y	WID	HT	ARNDOWN	88	5.7	30	20.6	DESIGN BY: G. TERLIZZI PROJECT ID: B-4534 CHECKED BY: CHECKED DIV: 7 DATE: May 13, 2008
SYMBOL	X	Y	WID	HT								
ARNDOWN	88	5.7	30	20.6								

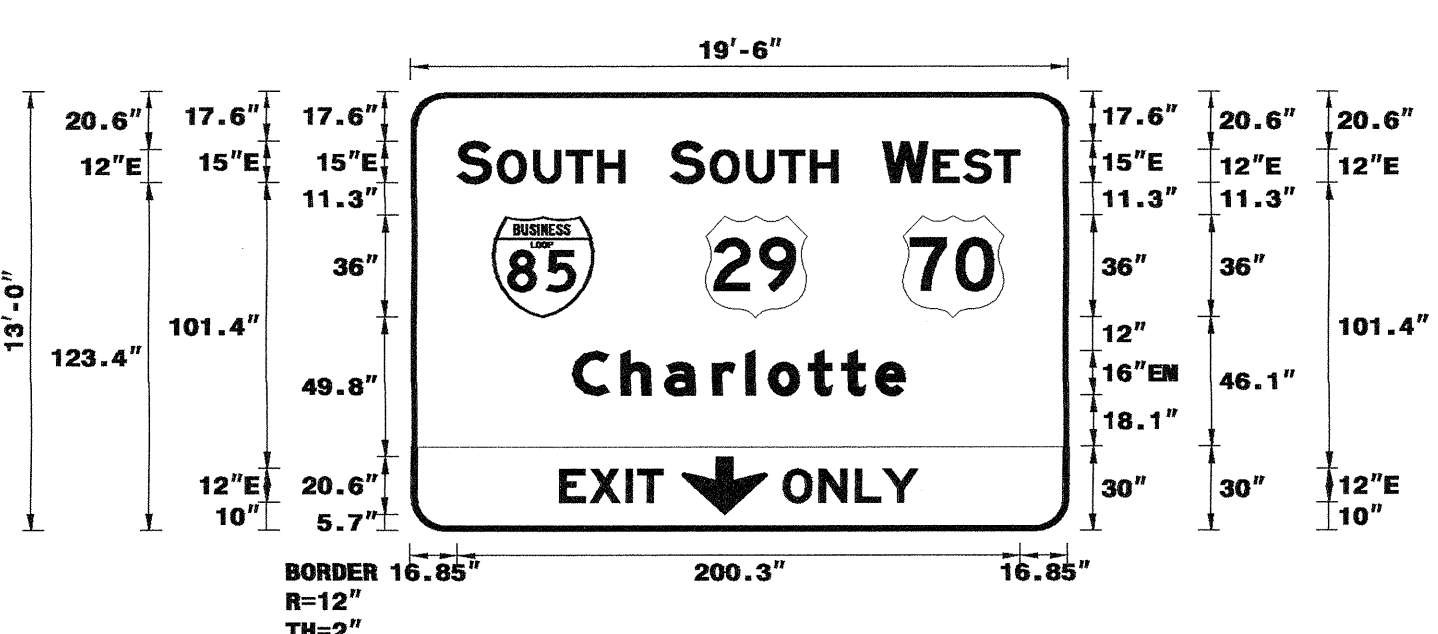


Spacing Factor is 1 unless specified otherwise

Letter positions												Series/Size		
Letter spacings are to start of next letter												Text Length		
R	a	n	d	l	e	m	a	n	R	d			E 2000	
17.3	15.8	17	15.5	17	8.2	15.5	22.6	17	10.6	16	15.8	10.6	17.3	181.4
1/2	M	I	L	E										E 2000
73	22	15	12	4.4	9.2	7.5	73							70.1
E	X	I	T											E 2000
44.5	10.7	12.8	4.2	9	134.8									36.7
O	N	L	Y											E 2000
124	12.8	12.8	10	12.2	44.2									47.9

FILENAME: guide1sign_english NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 2B TYPE: A QUANTITY: 1 SIGN WIDTH: 19'-6" HEIGHT: 13'-0" TOTAL AREA: 253.5 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12" NO. Z BARS: 4 LENGTH: 226.0	BACKG COLOR: Green COPY COLOR: White <table border="1"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> <tr> <td>N1_2</td> <td>28.7</td> <td>76.1</td> <td>36</td> <td>36</td> </tr> <tr> <td>N1_4</td> <td>104.5</td> <td>76.1</td> <td>36</td> <td>36</td> </tr> <tr> <td>N1_4</td> <td>174.8</td> <td>76.1</td> <td>36</td> <td>36</td> </tr> <tr> <td>ARNDOWN</td> <td>96.8</td> <td>5.7</td> <td>30</td> <td>20.6</td> </tr> </table>	SYMBOL	X	Y	WID	HT	N1_2	28.7	76.1	36	36	N1_4	104.5	76.1	36	36	N1_4	174.8	76.1	36	36	ARNDOWN	96.8	5.7	30	20.6	DESIGN BY: G. TERLIZZI PROJECT ID: B-4534 CHECKED BY: CHECKED DIV: 7 DATE: May 14, 2008
SYMBOL	X	Y	WID	HT																							
N1_2	28.7	76.1	36	36																							
N1_4	104.5	76.1	36	36																							
N1_4	174.8	76.1	36	36																							
ARNDOWN	96.8	5.7	30	20.6																							



Spacing Factor is 1 unless specified otherwise

Letter positions												Series/Size	
Letter spacings are to start of next letter												Text Length	
S	O	U	T	H									E 2000
16.8	12.2	2.2	12.8	11.8	11	9.7	157.4						59.8
S	O	U	T	H									E 2000
92.6	12.2	2.2	12.8	11.8	11	9.7	81.6						59.8
W	E	S	T										E 2000
168.4	15.9	2.2	10.7	11	9	16.8							48.8
C	h	a	r	l	o	t	t	e					E 2000
57.7	17.4	15.5	17	11.8	8.2	14.2	11.8	12	10.6	57.7			118.6
E	X	I	T										E 2000
53.3	10.7	12.8	4.2	9	144								36.7
O	N	L	Y										E 2000
132.8	12.8	12.8	10	12.2	53.3								47.9

FILENAME: guide1sign_english NORTH CAROLINA D.O.T. SIGN DETAIL

I6-MAY-2008 14:42
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 gterlizz1 AT 10:02:21:636

'A' & 'B' SHEETS

TIP NO. B-4534 SHEET NO. SIGN-13
 APPROVED: *[Signature]*
 DATE: 5/19/08
 SEAL

SIGN NUMBER: 3B BACKG COLOR: Green TYPE: A QUANTITY: 1
 SIGN WIDTH: 18'-0" HEIGHT: 5'-6" TOTAL AREA: 99.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9"
 NO. Z BARS: 2 LENGTH: 208.0
 MAT'L: 0.063" (1.6 mm) ALUMINUM, 0.090" (2.0 mm) ALUMINUM, 0.125" (3.2 mm) ALUMINUM

DESIGN BY: G. Terlizzi CHECKED BY: CHECKED PROJECT ID: B-4534 DIV: 7 DATE: May 13, 2008

Letter spacings are to start of next letter

Letter	R	a	n	d	l	e	n	a	n	R	d	Series/Size		
17.3	15.8	17	15.5	17	8.2	15.5	22.6	17	10.6	16	15.8	10.6	17.3	EM 2000
		E	X	I	T									161.4
44.3	10.7	12.8	4.2	9	135									E 2000
		O	N	L	Y									36.7
123.8	12.8	12.8	10	12.2	44.3									E 2000
														47.9

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

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

SIGN NUMBER: 5B BACKG COLOR: Green TYPE: A QUANTITY: 1
 SIGN WIDTH: 23'-0" HEIGHT: 13'-0" TOTAL AREA: 299.0 Sq.Ft.
 BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12"
 NO. Z BARS: 4 LENGTH: 268.0
 MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: G. TERLIZZI CHECKED BY: CHECKED PROJECT ID: B-4534 DIV: 7 DATE: Mar 20, 2008

Letter spacings are to start of next letter

Letter	S	O	U	T	H	Series/Size								
16.1	12.2	2.2	12.8	11.8	11	9.7	200.1	E 2000						
		S	O	U	T	H		59.8						
91.9	12.2	2.2	12.8	11.8	11	9.7	124.4	E 2000						
		W	E	S	T			59.8						
167.6	15.9	2.2	10.7	11	9	59.6		E 2000						
		C	h	a	r	l	o	t	t	e				EM 2000
57	17.4	15.5	17	11.8	8.2	14.2	11.8	12	10.6	100.5				118.6
		E	X	I	T	O	N	L	Y					E 2000
89.7	10.7	12.8	4.2	9.5	11.5	12.8	12.8	10	12.2	89.7				96.6

Spacing Factor is 1 unless specified otherwise


LETTER POSITIONS

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

'A' & 'B' SHEETS

16-MAY-2008 14:42
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 gterlizzi AT TEC221636

TIP NO. B-4534	SHEET NO. SIGN-14
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	



SIGN NUMBER: 6B
TYPE: A
QUANTITY: 1
SIGN WIDTH: 21'-6"
HEIGHT: 6'-6"
TOTAL AREA: 139.8 Sq.Ft.

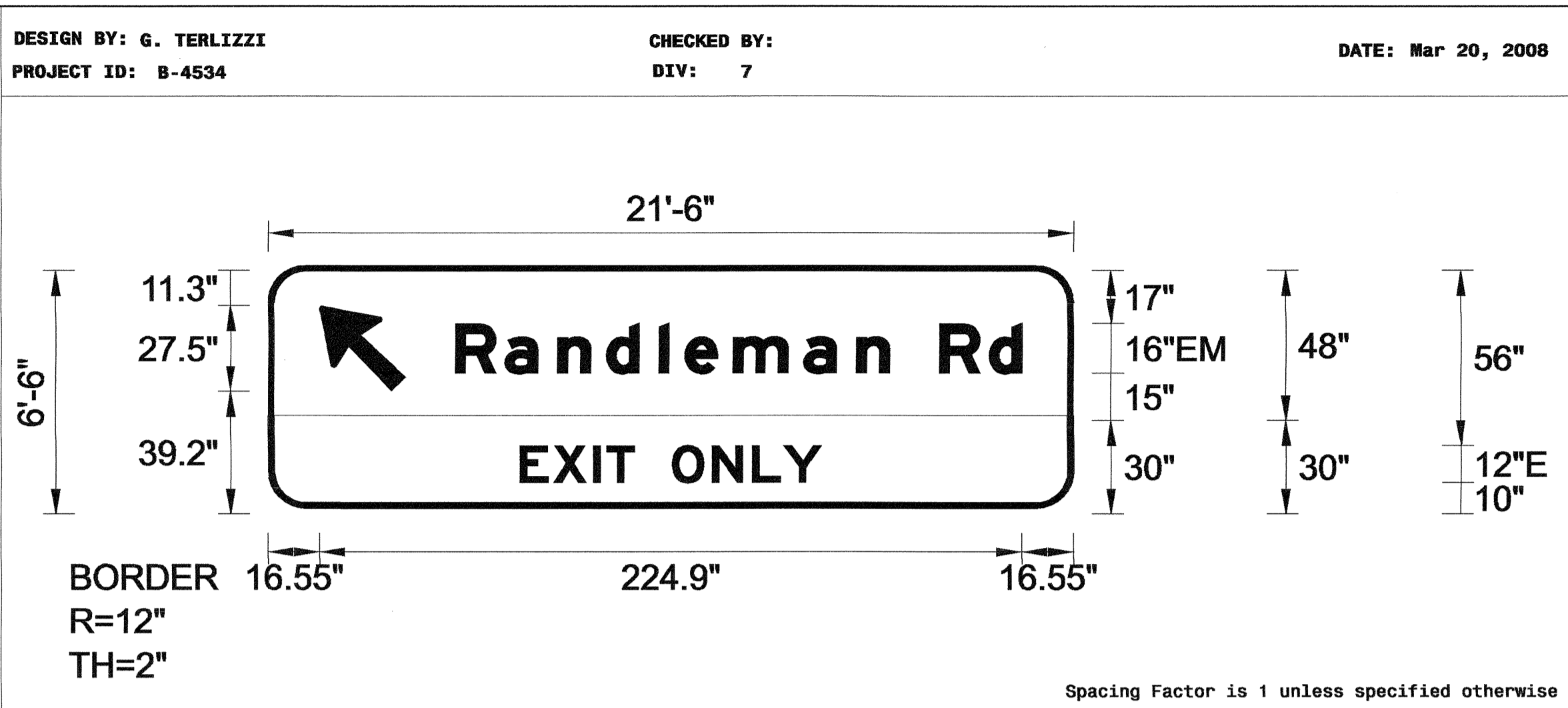
BACKG COLOR: Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARMED	16.5	39.3	22.4	35.3

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

NO. Z BARS: 2
LENGTH: 250.0

MAT'L: 0.125" (3.2 mm) ALUMINUM



USE NOTES: 1,2

- Legend and border shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A sheeting.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is: 250" X 26"

LETTER POSITIONS

Letter spacings are to start of next letter

	R	a	n	d	l	e	m	a	n	R	d		Series/Size Text Length	
60	15.8	17	15.5	17	8.2	15.5	22.6	17	10.6	16	15.8	10.6	16.5	EM 2000 181.4
	E	X	I	T		O	N	L	Y					E 2000 96.6
80.7	10.7	12.8	4.2	9.5	11.5	12.8	12.8	10	12.2	80.7				

FILENAME: Guidesign_English

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 4,7,8
TYPE: A
QUANTITY: 3
SIGN WIDTH: 19'-6"
HEIGHT: 19'-0"
TOTAL AREA: 370.5 Sq.Ft.

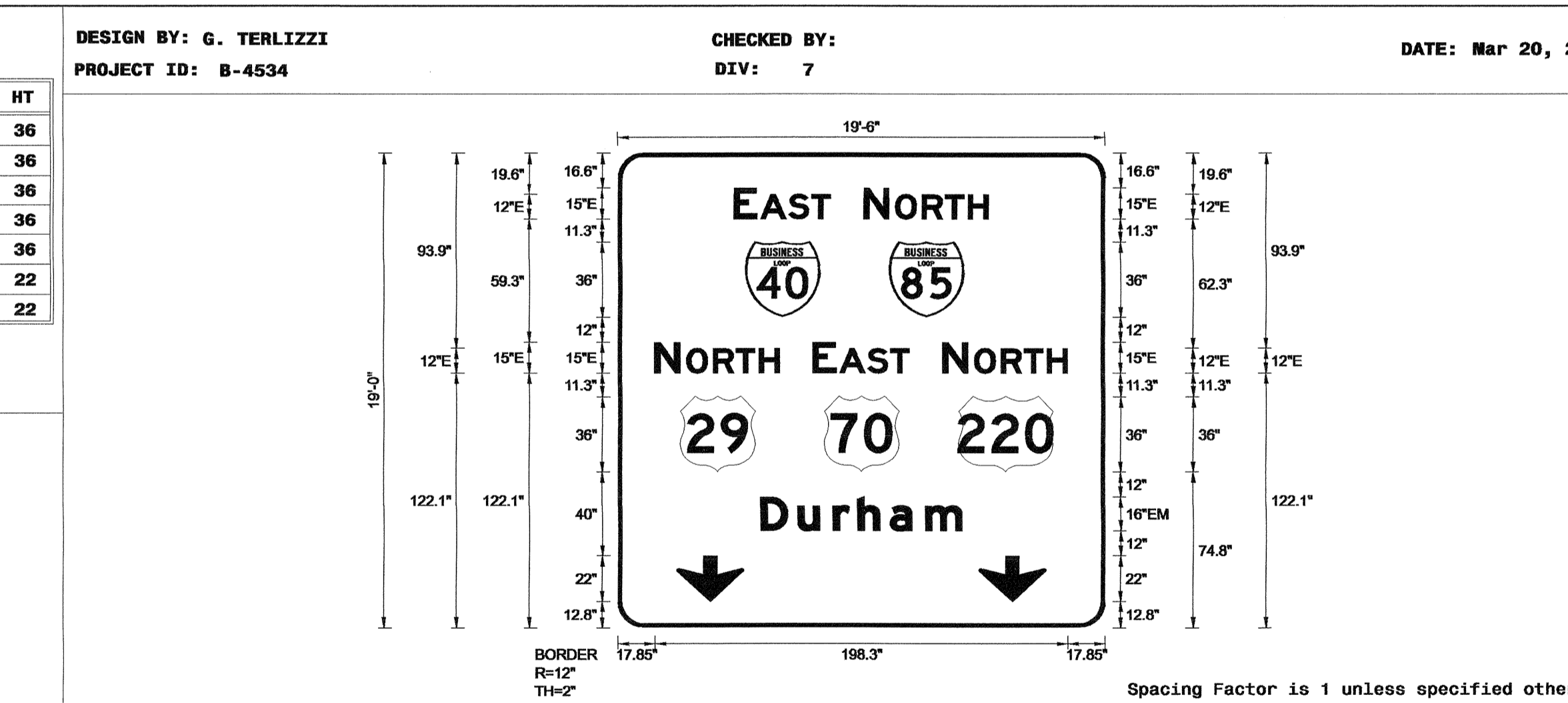
BACKG COLOR: Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
M1_2	61	149.1	36	36
M1_2	130.2	149.1	36	36
M1_4	29.8	74.8	36	36
M1_4	99	74.8	36	36
M1_4	163.3	74.8	45.8	36
ARDOWN	28.4	12.7	32.1	22
ARDOWN	173.5	12.7	32.1	22

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

NO. Z BARS: 6
LENGTH: 226.0

MAT'L: 0.125" (3.2 mm) ALUMINUM



USE NOTES: 1,2,3,4

- Legend and border shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A sheeting.
- 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

	E	A	S	T		Series/Size Text Length		
55.8	11.3	1.5	13.6	11	9	131.8	E 2000 46.4	
118.2	12.2	3.1	12.8	11	11	9.7	55.8	E 2000 59.9
17.9	12.2	3.1	12.8	11	11	9.7	156.2	E 2000 59.9
93.8	11.3	1.5	13.6	11	9	93.8	E 2000 46.4	
156.2	12.2	3.1	12.8	11	11	9.7	17.9	E 2000 59.9
68.7	17.8	17	11.8	15.5	17	17.6	68.7	EM 2000 96.6

FILENAME: Guidesign_English

NORTH CAROLINA D.O.T. SIGN DETAIL

'A' & 'B' SHEETS

I9-MAY-2008 10:46
 p:\tpp\p-jec\p-jec\B-4534\tr\eff\c\signing\Layout\Plans\Engsecd.dgn
 Guterlizzi AI TELC221636

TIP NO. B-4534	SHEET NO. SIGN-15
APPROVED: <i>Simon Terlizzi</i>	
DATE: 5/19/08	
SEAL	

SIGN NUMBER: 1A, 3A, 6A TYPE: B QUANTITY: 3 SIGN WIDTH: 8'-6" HEIGHT: 2'-6" TOTAL AREA: 21.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 6" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: G. TERLIZZI PROJECT ID: B-4534	CHECKED BY: DIV: 7	DATE: Mar 20, 2008
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BORDER R=6" TH=2"

Spacing Factor is 1 unless specified otherwise

USE NOTES: 1,2

- Legend and border shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A sheeting.
- 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

	E	X	I	T	3	6															Series/Size Text Length
	13.8	8.9	10.7	3.5	7.5	17	14.7	12.1	13.8												E 2000 74.4

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

SIGN NUMBER: 2A, 5A TYPE: B QUANTITY: 2 SIGN WIDTH: 8'-0" HEIGHT: 2'-6" TOTAL AREA: 20.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 6" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: G. TERLIZZI PROJECT ID: B-4534	CHECKED BY: DIV: 7	DATE: Mar 20, 2008
--	---	--	-----------------------	--------------------

BORDER R=6" TH=2"

Spacing Factor is 1 unless specified otherwise

USE NOTES: 1,2

- Legend and border shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade A sheeting.
- 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

	E	X	I	T	3	1															Series/Size Text Length
	14.6	8.9	10.7	3.5	7.5	17	14.7	4.5	14.6												E 2000 66.8

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

'A' & 'B' SHEETS

I6-MAY-2008 14:43
 p:\tppr\projects-b\4534\tr\refr\c\signing\layout\plans\Engsead.dgn
 gterlizzi AT TEC221636

TIP NO. B-4534	SHEET NO. SIGN-16
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	
	

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

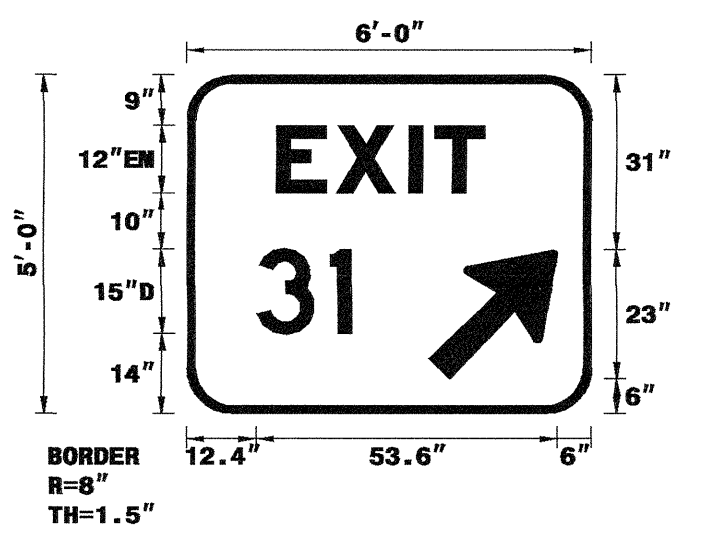
SYMBOL	X	Y	WID	HT
ARMED	43	6	18.8	29.5

SIGN WIDTH: 6'-0"
 HEIGHT: 5'-0"
 TOTAL AREA: 30.0 Sq.Ft.

BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 1.5"
 RADII: 8"

NO. Z BARS: 2 MAT'L: 0.125" (3.2 mm) ALUMINUM
 LENGTH: 64.0

DESIGN BY: G. TERLIZZI CHECKED BY:
 PROJECT ID: B-4534 DIV: 7 DATE: Mar 25, 2008



- USE NOTES: 1,2
- Legend and border shall be direct applied Grade B sheeting.
 - Background shall be Grade C reflective sheeting.
 - Shields shall be on 0.032" (0.8mm) aluminum and demountable.
 - Shields shall be Grade B sheeting.

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		EM 2000
16	10.6	13	4.6	8.9	19.1	37
	3	1				D 2000
12.4	13.2	3.8	42.7			17

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

SIGN NUMBER: 202 BACKG COLOR: Green
 TYPE: A COPY COLOR: White
 QUANTITY: 1

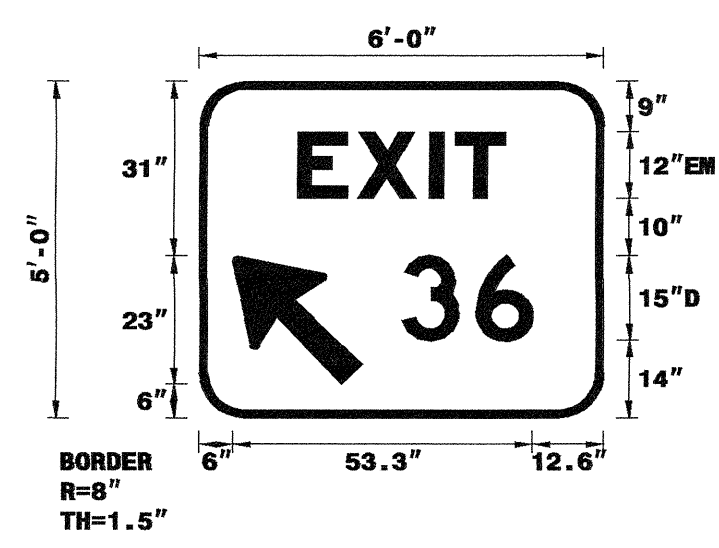
SYMBOL	X	Y	WID	HT
ARMED	6	6	18.8	29.5

SIGN WIDTH: 6'-0"
 HEIGHT: 5'-0"
 TOTAL AREA: 30.0 Sq.Ft.

BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 1.5"
 RADII: 8"

NO. Z BARS: 2 MAT'L: 0.125" (3.2 mm) ALUMINUM
 LENGTH: 64.0

DESIGN BY: G. TERLIZZI CHECKED BY:
 PROJECT ID: B-4534 DIV: 7 DATE: Mar 25, 2008



- USE NOTES: 1,2
- Legend and border shall be direct applied Grade B sheeting.
 - Background shall be Grade C reflective sheeting.
 - Shields shall be on 0.032" (0.8mm) aluminum and demountable.
 - Shields shall be Grade B sheeting.

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		EM 2000
17.5	10.6	13	4.6	8.9	17.5	37
	3	6				D 2000
36	13.2	10.2	12.6			23.4

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

I6-MAY-2008 14:45
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 Gterlizz1 A1 1ECC221636

'A' & 'B' SHEETS

TIP NO. B-4534	SHEET NO. SIGN-17
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	

SIGN NUMBER: 101 TYPE: A QUANTITY: 1 SIGN WIDTH: 11'-0" HEIGHT: 6'-0" TOTAL AREA: 66.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9" NO. Z BARS: 2 LENGTH: 124.0	BACKG COLOR: Brown COPY COLOR: White SYMBOl: [Table with columns X, Y, WID, HT] MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: G. TERLIZZI PROJECT ID: B-4534 CHECKED BY: DIV: 7 DATE: Apr 01, 2008
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USE NOTES: 1,2

- Legend and border shall be direct applied Grade B sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade B sheeting.

LETTER POSITIONS

Letter spacings are to start of next letter

		Letter Spacing															Series/Size		
		G	u	i	l	f	o	r	d										Text Length
34.9	11.1	10.6	6	5	6.4	9.9	6.5	6.6	35										EM 2000
		B a t t l e g r o u n d																	EM 2000
14.4	10	9.6	7.4	8.4	5.1	8.8	10.6	6.5	9.9	10.6	9.7	6.6	14.4				103.2		
		E X I T 3 6																	E 2000
39.8	7.1	8.6	2.8	6	10	9.8	8.1	39.8											52.4

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

SIGN NUMBER: 102 TYPE: A QUANTITY: 1 SIGN WIDTH: 9'-0" HEIGHT: 10'-0" TOTAL AREA: 90.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0.75" WIDTH: 1.25" RADII: 3" NO. Z BARS: 3 LENGTH: 100.0	BACKG COLOR: Yellow/White/Yellow COPY COLOR: Black SYMBOl: [Table with columns X, Y, WID, HT] MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: G. TERLIZZI PROJECT ID: B-4534 CHECKED BY: DIV: 7 DATE: Mar 25, 2008
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USE NOTES: 1,2

- Legend and border shall be direct applied Grade B sheeting.
- Background shall be Grade C reflective sheeting.
- Shields shall be on 0.032" (0.8mm) aluminum and demountable.
- Shields shall be Grade B sheeting.

LETTER POSITIONS


Letter locations are panel edge to lower left corner

		Letter Location															Series/Size		
		B	U	S	I	-	8	5										Text Length	
15.7	27.8	40	49.7	61.7	65.8	71.2	82.6										E 2000		
		N O T R U C K S																	E 2000
10.9	21.3	29.7	39.7	48.9	59	69.4	79.8	89.1										86.3	
		3 A X L E S																	E 2000
20.9	29	39	50.3	61	70.2	79.1										66.3			
		O R M O R E																	E 2000
18.4	29.1	37.2	47.2	58.9	69.6	79.7										68.8			
		L E F T L A N E																	E 2000
12.8	22	31.5	39.8	47.3	57.3	65.6	77.5	88.2										82.9	
		2 M I L E S A H E A D																	E 2000, D 2000
9.8	27.5	35.7	38.9	45	50.8	56.2	64.2	72.2	79.6	85.2	93.2					88.8			

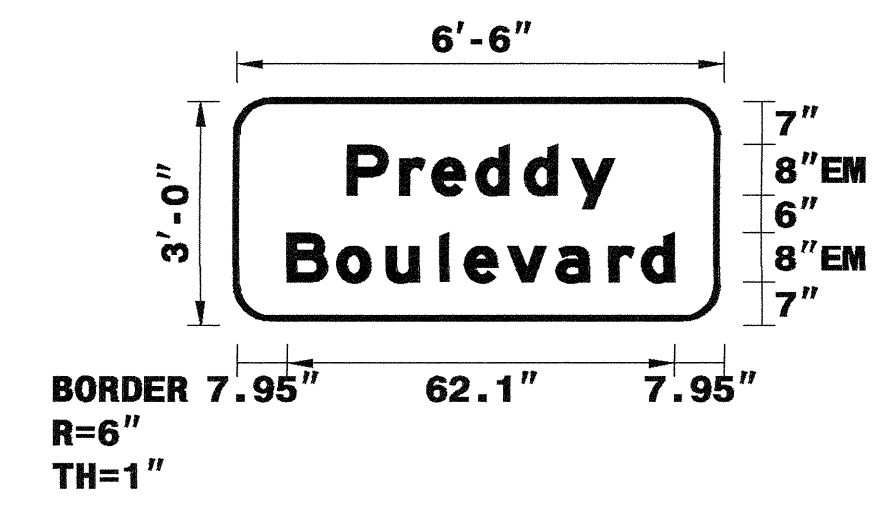
FILENAME: guidsign_english NORTH CAROLINA D.O.T. SIGN DETAIL

'A' & 'B' SHEETS

I6-MAY-2008 14:46 p:\tpp\projects\B-4534\tr\offic\signing\layout\plans\Engseed.dgn gverlizzzi - AT - 100221636

TIP NO. B-4534	SHEET NO. SIGN-18
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	
	

SIGN NUMBER: 301 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 3'-0" TOTAL AREA: 19.5 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 6" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White <table border="1"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>	SYMBOL	X	Y	WID	HT																																				DESIGN BY: G. TERLIZZI PROJECT ID: B-4534 CHECKED BY: CHECKED DIV: 7 DATE: May 13, 2008
SYMBOL	X	Y	WID	HT																																						



BORDER 7.95" 62.1" 7.95"
R=6"
TH=1"

Spacing Factor is 1 unless specified otherwise

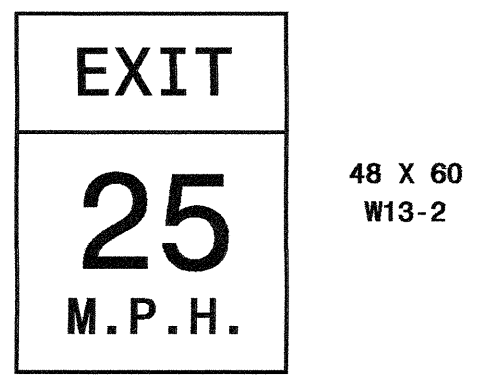
LETTER POSITIONS												Series/Size
Letter spacings are to start of next letter												Text Length
P	r	e	d	d	y							EM 2000
17.6	8.4	5.2	7	7.8	7.6	6.8	17.6					42.8
B	o	u	i	e	v	a	r	d				EM 2000
8	8	7.9	8.5	4.1	6.9	7.8	8.5	5.2	5.3	8		62.1

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

I6-MAY-2008 14:46
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 G. Terlizzi - AI - TELC221638

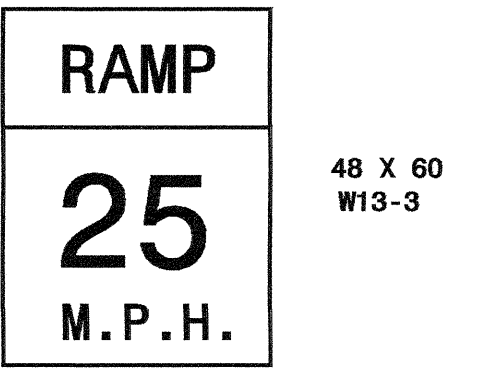
'D' SHEET

401 QUANTITY REQ'D 1



TWO "U" POSTS PER SIGN

402 QUANTITY REQ'D 1



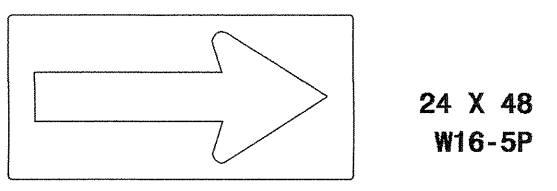
TWO "U" POSTS PER SIGN

403 QUANTITY REQ'D 2



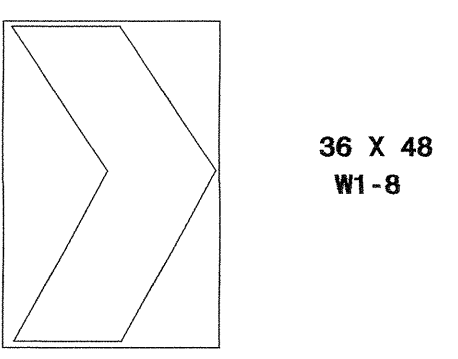
TWO "U" POSTS PER SIGN

404 QUANTITY REQ'D 2



TWO "U" POSTS PER SIGN

405 QUANTITY REQ'D 5



TWO "U" POSTS PER SIGN

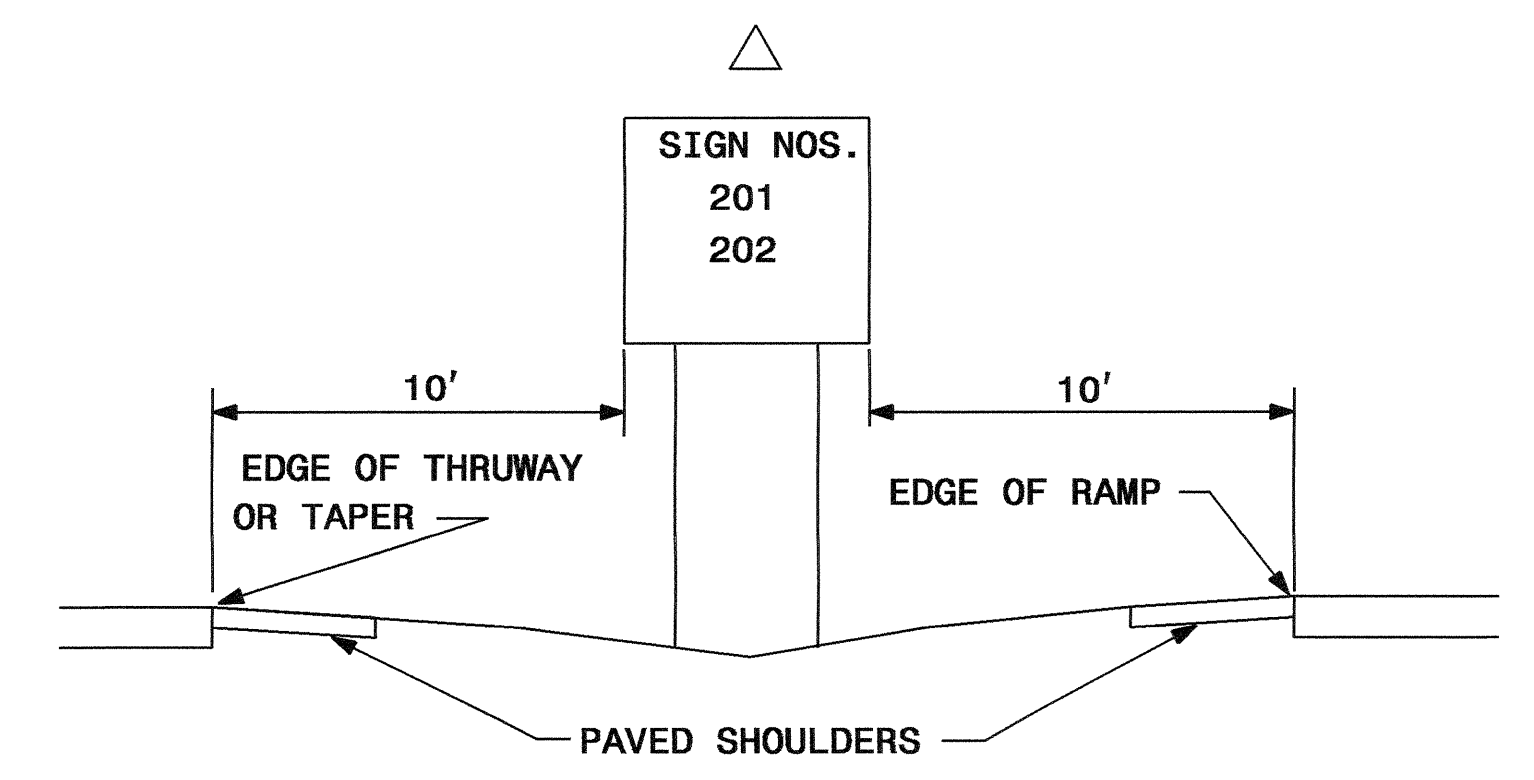
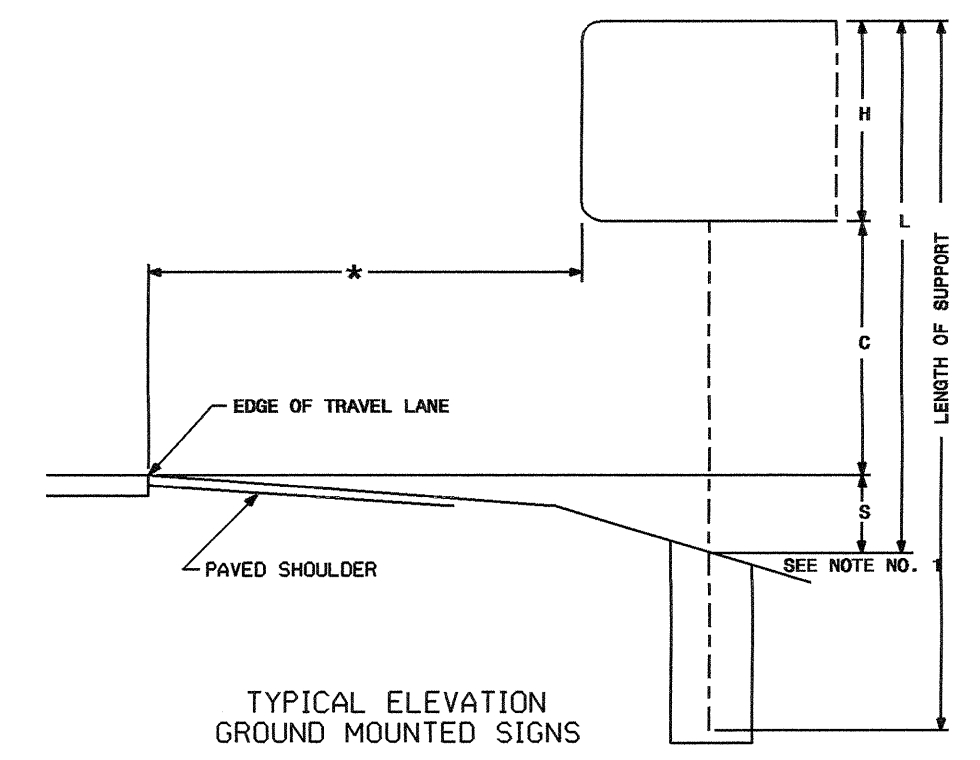
TYPE "E" SIGNS

TIP NO. B-4534	SHEET NO. SIGN-20
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	

SIGN NO.	SIGN TYPE	SIGN SIZE (in.)		ROADWAY STATION	NO. OF SUP.	BEAM SECTION	SUPPORT TYPE BA or S	ATTACH METHOD	MOUNTING METHOD	HORIZ. CLR.* (ft.)	LENGTH (ft)			LEFT SUPPORT (ft)			CENTER SUPPORT (ft)			RIGHT SUPPORT (ft)			FOOTING DIAMETER (ft.)	FOOTING DEPTH (ft.)	B/A SUPPORT WEIGHTS (lbs.)	SIMPLE SUPPORT WEIGHTS (lbs.)	REINF. FTGS. (c.y.)	FIELD VERIFIED SEE NOTE 2 (mm/dd/yy)																							
		w	x								h	SNS H	HT C	MTG HT	EMBED-MENT	S	L	TOTAL LENGTH	S	L	TOTAL LENGTH	S							L	TOTAL LENGTH																					
101	A	132	X	72	24+25-L-+/-	2	W6x9	S	N/A	N/A	30.00	6.00	7.00	4.5	4.01	17.01	21.51	0.00	0.00	0.00	2.79	15.79	20.29	1.5	5	0.00	376.20	0.65																							
102	A	108	X	120	27+00-Y-+/-	2	W6x9	S	N/A	N/A	30.00	10.00	7.00	4.5	0.94	17.94	22.44	0.00	0.00	0.00	0.77	17.77	22.27	1.5	5	0.00	402.39	0.65																							
201	A	72	X	60	25+20-L-+/-	2	S3x5.7	BA	N/A	N/A	△	5.00	7.00	3.5	0.16	12.16	15.66	0.00	0.00	0.00	0.27	12.27	15.77	1	4	214.68	0.00	0.23																							
202	A	72	X	60	41+30-L-+/-	2	S3x5.7	BA	N/A	N/A	△	5.00	7.00	3.5	0.31	12.31	15.81	0.00	0.00	0.00	0.31	12.31	15.81	1	4	215.77	0.00	0.23																							
																							TOTAL	430.45	TOTAL	778.59	TOTAL	1.77																							
USE:																							431	779	2																										

NOTES

- DIMENSION "S" REPRESENTS AN INCREASE (+), OR A DECREASE (-) IN POLE LENGTH, RELATIVE TO THE ELEVATION OF THE EDGE OF PAVEMENT.
- 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.

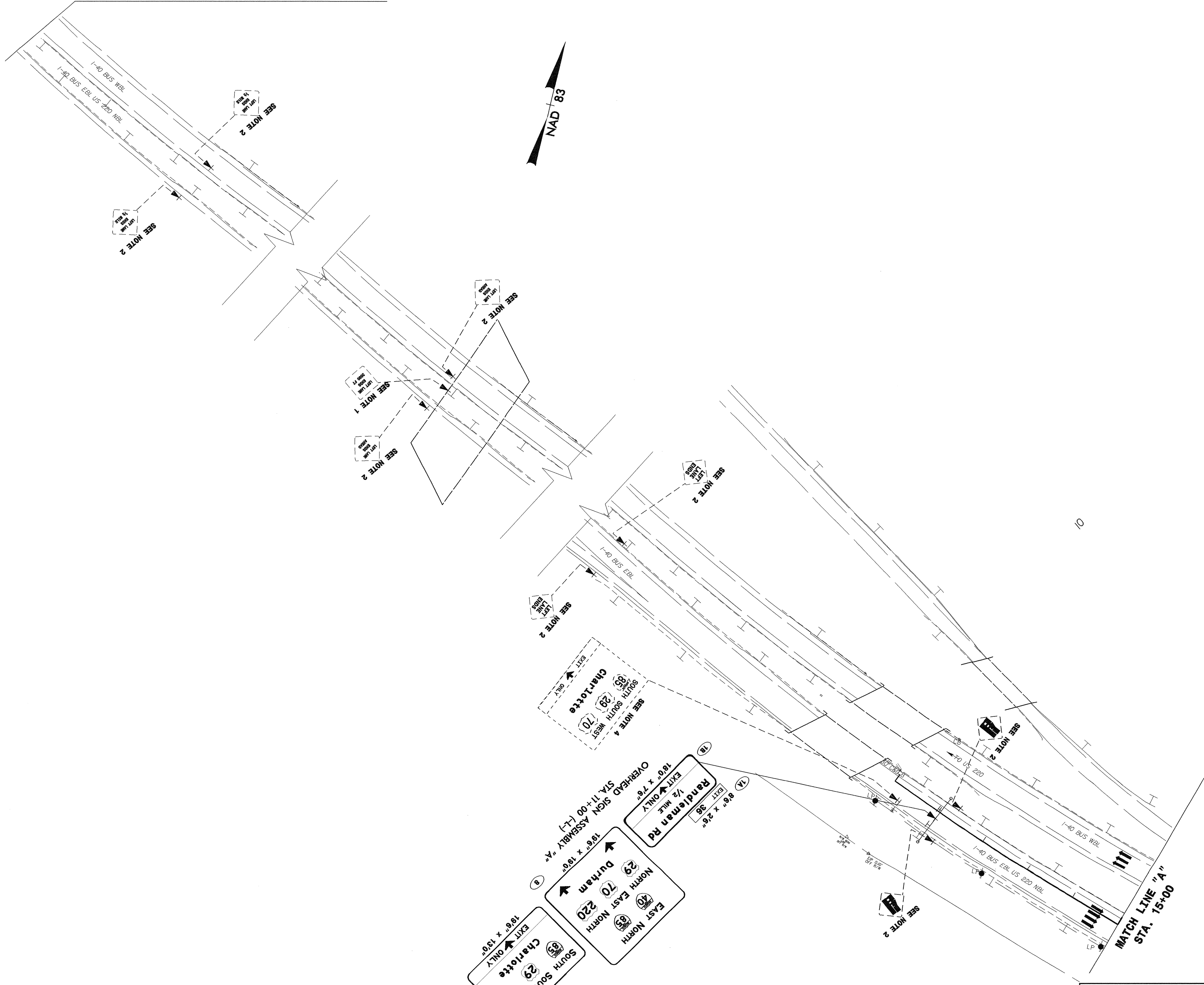


TYPE "A" AND TYPE "B" GROUND MOUNTED SIGNS

I6-MAY-2008 14:47
 p:\projects\B-4534\signing\cadd\signing layout plans\Engseed.dgn
 p:\projects\B-4534\signing\cadd\signing layout plans\Engseed.dgn
 p:\projects\B-4534\signing\cadd\signing layout plans\Engseed.dgn

TIP NO. B-4534	SHEET NO. SIGN-21
APPROVED: <i>Yman Alquodmani</i>	
DATE: 5/19/08	
SEAL	

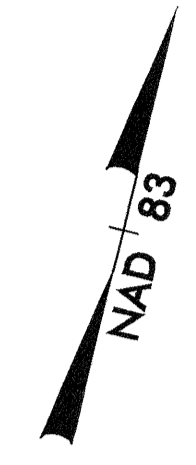
BEGIN OF SIGNING PROJECT B-4534



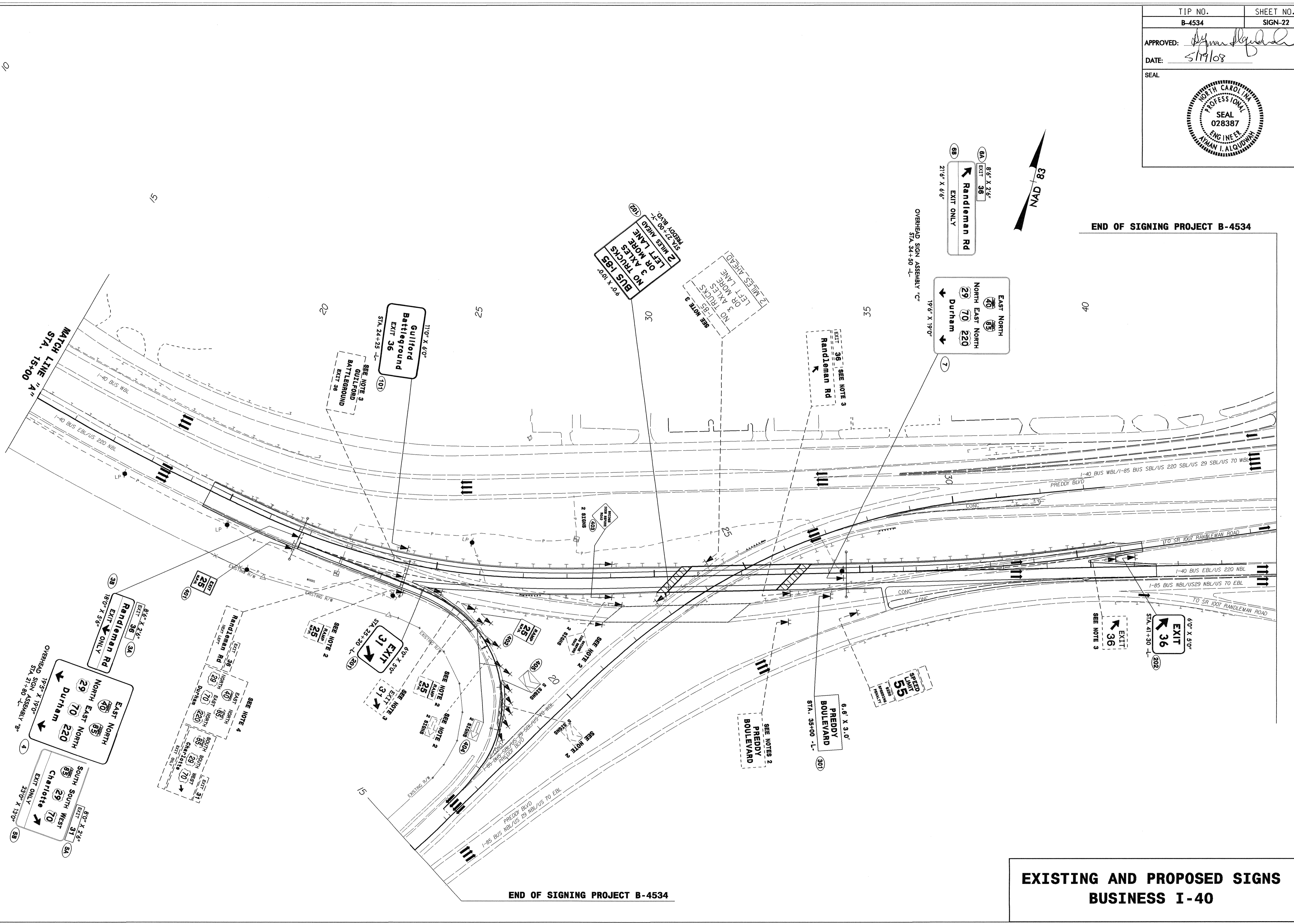
**EXISTING AND PROPOSED SIGNS
BUSINESS I-40**

19-MAY-2008 10:48
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 gsterlizzi - All - EC221636

TIP NO. B-4534	SHEET NO. SIGN-22
APPROVED: <i>[Signature]</i>	
DATE: 5/19/08	
SEAL	



END OF SIGNING PROJECT B-4534



**EXISTING AND PROPOSED SIGNS
BUSINESS I-40**

END OF SIGNING PROJECT B-4534

16-MAY-2008 14:53
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 gsterlizz1 AT 11:00:221636