


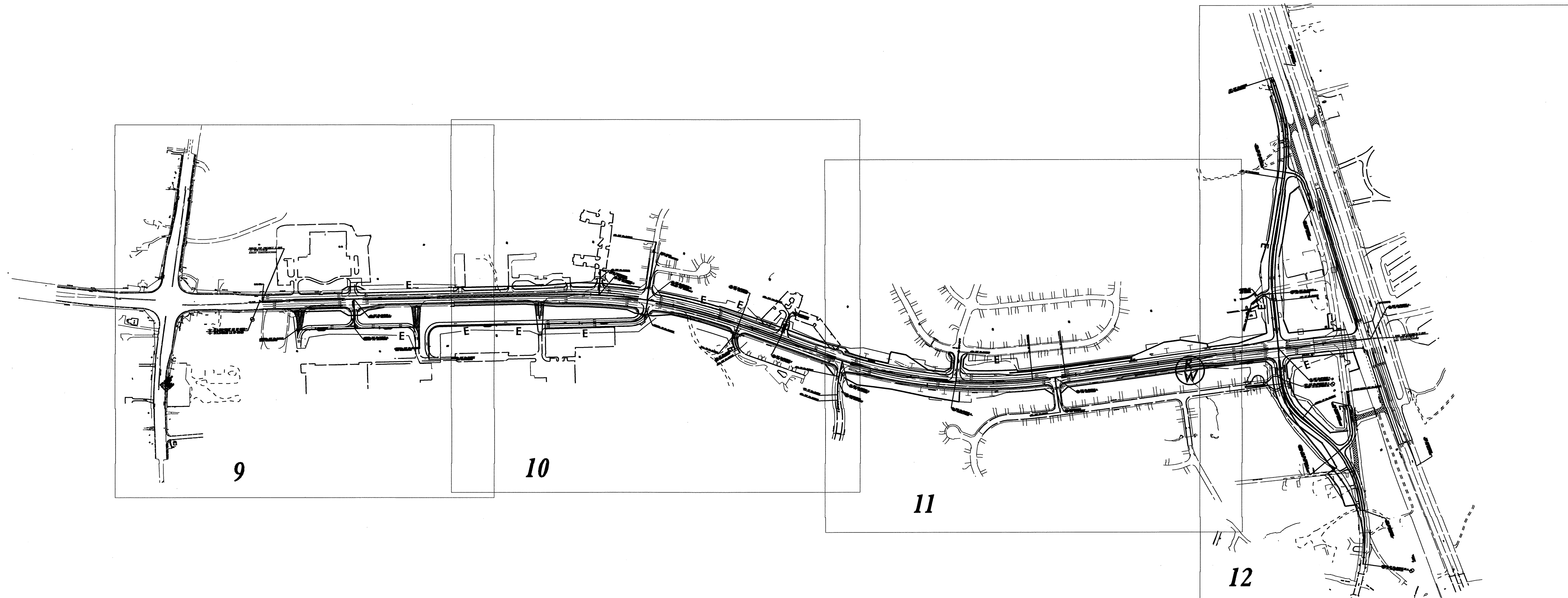
**T.I.P.: U-3849**

**STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLANS  
CUMBERLAND COUNTY**

**LOCATION: HOPE MILLS-SR 1363 (ELK ROAD) FROM SR 1132 (LEGION ROAD) TO US 301-95 BUSINESS**

TIP NO. U-3849	SHEET NO. SIGN-01
APPROVED: <i>[Signature]</i>	
DATE: 1/7/09	
SEAL	
	



**INDEX**

<b>SHEET NO.</b>	<b>DESCRIPTION</b>
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2	SUMMARY OF QUANTITIES & NOTES
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4	OVERHEAD SIGN DESIGNS
5-6	GROUND MOUNTED SIGN DESIGNS
7	E SHEET
8	F SHEET
9-12	SIGN ROADWAY SHEETS


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

RON KING, P.E. SIGNING ENGINEER

AYMAN ALQUDWAH, P.E. SIGNING PROJECT ENGINEER

D. M. EATON SIGNING PROJECT DESIGN ENGINEER

D. PILLAR SIGNING DESIGNER

TIP NO. U-3849	SHEET NO. SIGN-02
APPROVED: <i>Amr Alqudus</i>	
DATE: 11/7/09	
SEAL	
	

ITEM NO.		ITEM DESCRIPTION		
DESCRIPTION NO.	SECT. NO.			
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL .....	1810	L.F.
4102000000	904	SIGN ERECTION, TYPE E .....	143	EA.
4108000000	904	SIGN ERECTION, TYPE F .....	11	EA.
4096000000	904	SIGN ERECTION, TYPE D.....	6	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL .....	67	EA.
4057000000	SP	OVERHEAD FOOTING.....	13	C.Y.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE..... AT STATION "-L- STA. 69+50"	1	L.S.

Pay Item Notes:	
1	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2	FIELD ADJUST SIGN TO NEW CROSSWALK STRIPING
3	COORDINATE WITH D.O.T. DIVISON 6 FOR SIGN HANDLING INFORMATION

**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
- . 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 GRADE "C" REFLECTIVE SHEETING. SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

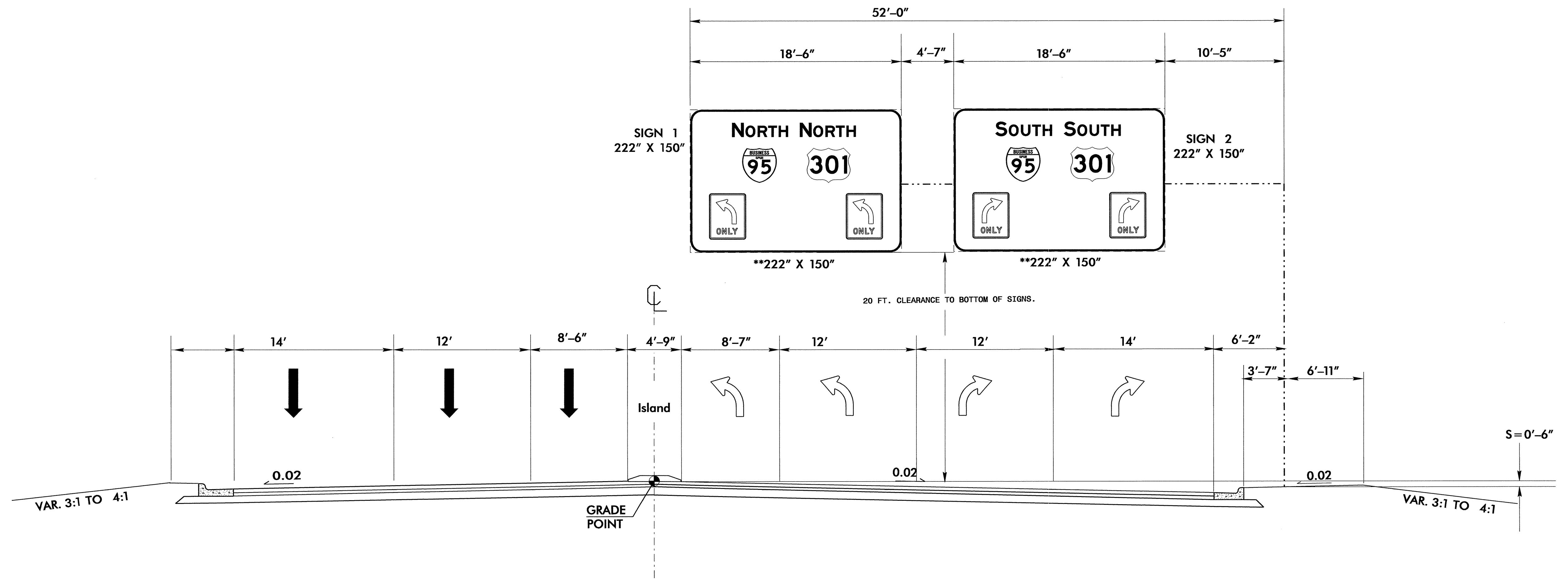
ROADWAY STANDARD DRAWINGS  
 APPLICABLE TO THESE SIGNING PLANS:  
 904.10, 904.50

**SUMMARY OF QUANTITIES  
 AND NOTES**

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 6" AND NOT MORE THAN 24" ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
5. SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THE PLANS, INCLUDING THOSE DESIGNATED AS "FUTURE".

\*\* THESE DIMENSIONS SHALL BE USED FOR WIND LOAD AND DEAD LOAD COMPUTATIONS IN DESIGN OF STRUCTURE AND FOOTINGS. DESIGN AND CONSTRUCT REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 110 MPH.



OVERHEAD ASSEMBLY AT  
-L- STA. 69+50.00

OVERHEAD SIGN ASSEMBLY AT  
-L- STA. 69+50.00

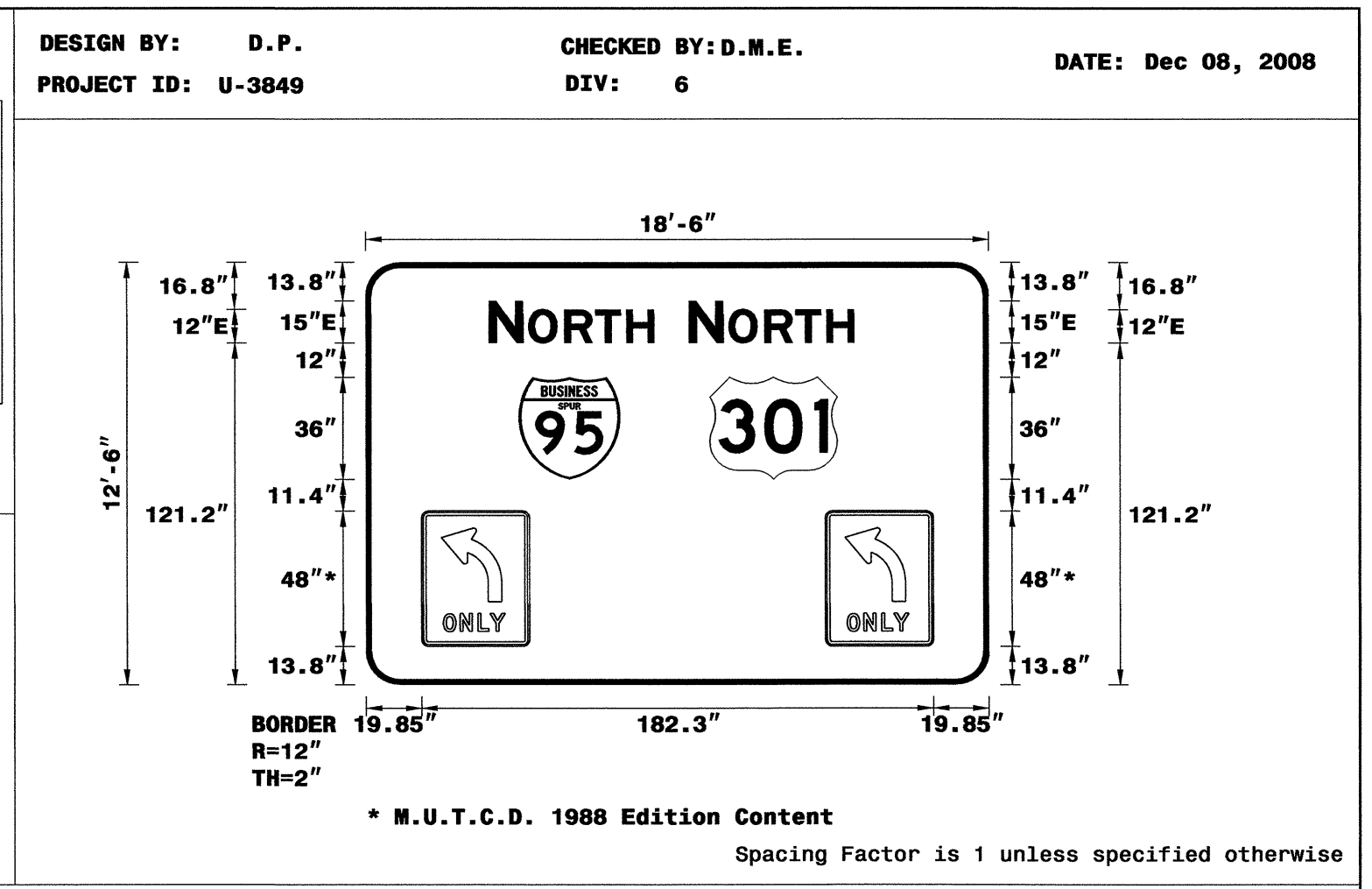
TIP NO. U-3849	SHEET NO. SIGN-04
APPROVED: <i>[Signature]</i>	
DATE: 11/7/09	
SEAL	
	

SIGN NUMBER: 1  
TYPE: A  
QUANTITY: 1  
SIGN WIDTH: 18'-6"  
HEIGHT: 12'-6"  
TOTAL AREA: 231.3 Sq.Ft.  
BORDER TYPE: FLUSH  
RECESS: 0"  
WIDTH: 2"  
RADII: 12"  
NO. Z BARS: 4  
LENGTH: 214.0

BACKG COLOR: Green  
COPY COLOR: White

SYMBOL	X	Y	WID	HT
M1_3	54.5	73.2	36	36
M1_4	122.6	73.2	45.4	36
	19.8	13.8	38.4	48
	163.7	13.8	38.4	48

MAT'L: 0.125" (3.2 mm) ALUMINUM



- USE NOTES: 1,2,4
- 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, 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

	N	O	R	T	H						Series/Size Text Length
	43.9	12.2	2	12.8	11	11	9.7	119.3			E 2000 58.8
		N	O	R	T	H					E 2000 58.8
	115.2	12.2	2	12.8	11	11	9.7	48			

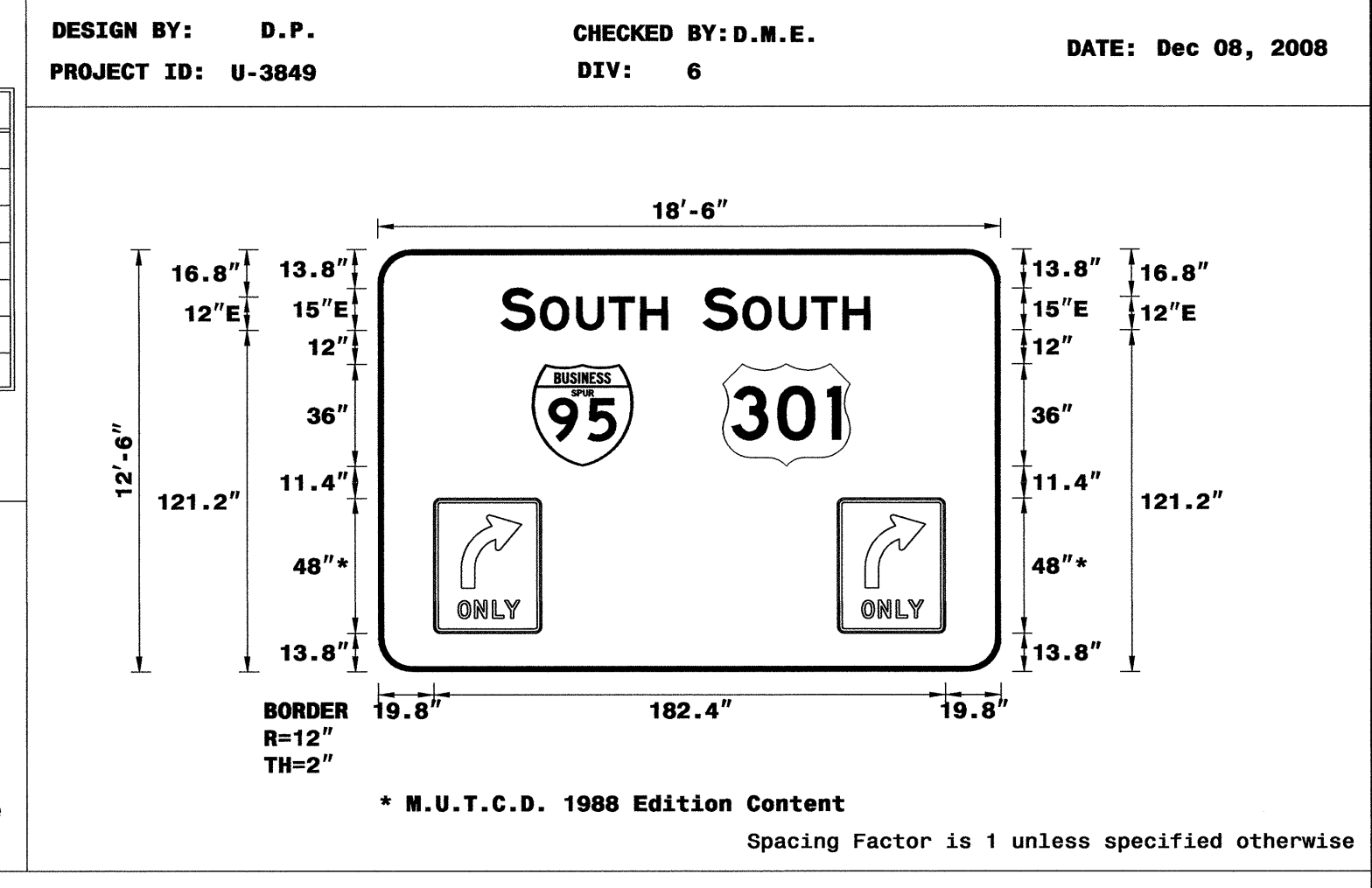
FILENAME: Guidesign\_English NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 2  
TYPE: A  
QUANTITY: 1  
SIGN WIDTH: 18'-6"  
HEIGHT: 12'-6"  
TOTAL AREA: 231.3 Sq.Ft.  
BORDER TYPE: FLUSH  
RECESS: 0"  
WIDTH: 2"  
RADII: 12"  
NO. Z BARS: 4  
LENGTH: 214.0

BACKG COLOR: Green  
COPY COLOR: White

SYMBOL	X	Y	WID	HT
M1_3	54.9	73.2	36	36
M1_4	122.9	73.2	45.4	36
	19.8	13.8	38.4	48
	163.8	13.8	38.4	48

MAT'L: 0.125" (3.2 mm) ALUMINUM



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LETTER POSITIONS

Letter spacings are to start of next letter

	S	O	U	T	H						Series/Size Text Length
	43.8	12.2	2	12.8	11.8	11	9.7	118.7			E 2000 59.5
		S <td>O <td>U <td>T <td>H</td> <td></td> <td></td> <td></td> <td></td> <td>E 2000 59.5</td> </td></td></td>	O <td>U <td>T <td>H</td> <td></td> <td></td> <td></td> <td></td> <td>E 2000 59.5</td> </td></td>	U <td>T <td>H</td> <td></td> <td></td> <td></td> <td></td> <td>E 2000 59.5</td> </td>	T <td>H</td> <td></td> <td></td> <td></td> <td></td> <td>E 2000 59.5</td>	H					E 2000 59.5
	116	12.2	2	12.8	11.8	11	9.7	46.5			

FILENAME: Guidesign\_English NORTH CAROLINA D.O.T. SIGN DETAIL

# OVERHEAD SIGN DESIGNS

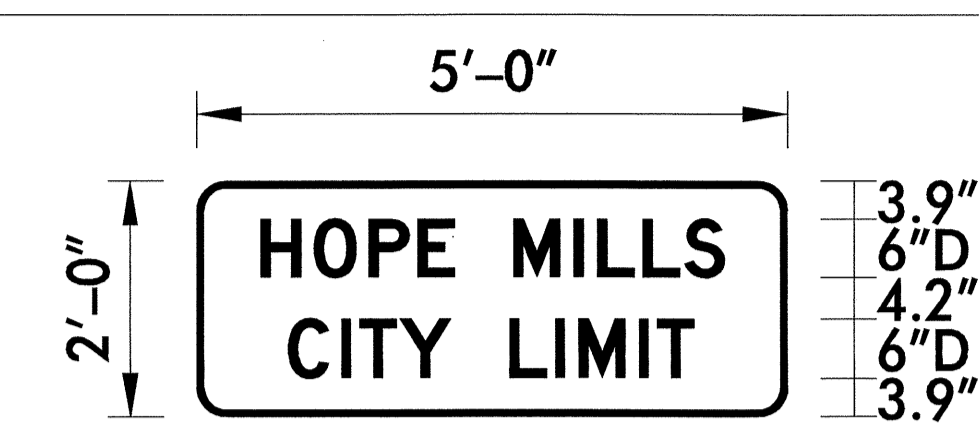
TIP NO. U-3849	SHEET NO. SIGN-05
APPROVED: <i>[Signature]</i>	
DATE: 1/7/09	
SEAL	
	

**SIGN NUMBER:** 301  
**TYPE:** D  
**QUANTITY:** 1  
**SIGN WIDTH:** 5'-0"  
**HEIGHT:** 2'-0"  
**TOTAL AREA:** 10.0 Sq.Ft.  
**BORDER TYPE:** FLUSH  
**RECESS:** 0"  
**WIDTH:** 0.75"  
**RADII:** 3"  
**NO. Z BARS:**  
**LENGTH:**

**BACKG COLOR:** Green  
**COPY COLOR:** White

SYMBOL	X	Y	WID	HT

**DESIGN BY:** D.P.  
**PROJECT ID:** U-3849  
**CHECKED BY:** D.M.E.  
**DIV:** 6  
**DATE:** Jan 05, 2009



**BORDER**  
R=3"  
TH=0.75"

Spacing Factor is 1 unless specified otherwise

**LETTER POSITIONS**

Letter spacings are to start of next letter											Series/Size	
											Text Length	
											D 2000	
6.5	5.4	5.6	5	3.7	6	6.1	2.4	4.6	4.2	4.1	6.4	47.1
												D 2000
9.3	5.4	1.9	4.1	5.2	6	4.6	2.4	6.1	1.9	3.7	9.5	41.2

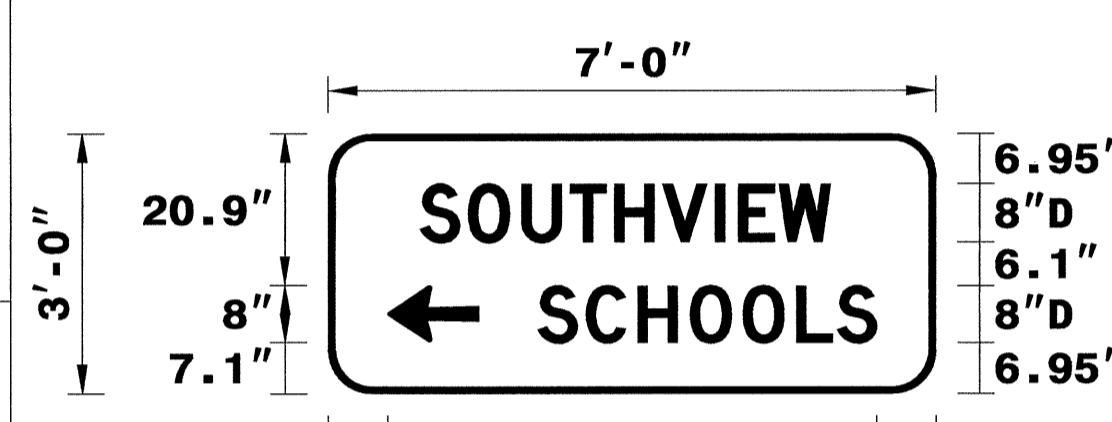
FILENAME: u3849signs NORTH CAROLINA D.O.T. SIGN DETAIL

**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:** 1"  
**RADII:** 6"  
**NO. Z BARS:**  
**LENGTH:**

**BACKG COLOR:** Green  
**COPY COLOR:** White

SYMBOL	X	Y	WID	HT
ARMED	8.2	7.1	8	12.6

**DESIGN BY:** D.P.  
**PROJECT ID:** U-3849  
**CHECKED BY:** D.M.E.  
**DIV:** 6  
**DATE:** Jan 05, 2009



**BORDER**  
R=6"  
TH=1"

Spacing Factor is 1 unless specified otherwise

**LETTER POSITIONS**

Letter spacings are to start of next letter											Series/Size
											Text Length
											D 2000
12.7	6.6	7.4	6.6	6.2	6.6	7.3	3.2	5.6	7.1	14.6	56.7
											D 2000
29	6.6	7.2	7.2	7.3	7.4	5.6	5.4	8.2			46.8

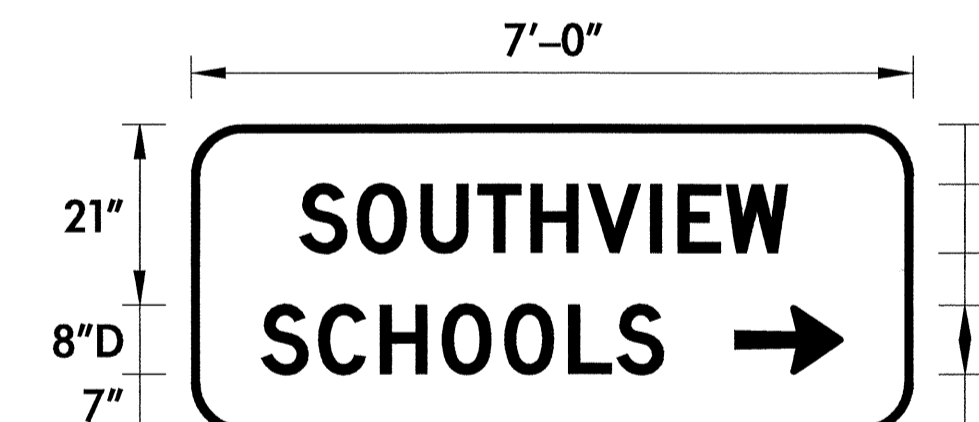
FILENAME: u3849signs NORTH CAROLINA D.O.T. SIGN DETAIL

**SIGN NUMBER:** 303  
**TYPE:** D  
**QUANTITY:** 1  
**SIGN WIDTH:** 7'-0"  
**HEIGHT:** 3'-0"  
**TOTAL AREA:** 21.0 Sq.Ft.  
**BORDER TYPE:** FLUSH  
**RECESS:** 0"  
**WIDTH:** 1"  
**RADII:** 6"  
**NO. Z BARS:**  
**LENGTH:**

**BACKG COLOR:** Green  
**COPY COLOR:** White

SYMBOL	X	Y	WID	HT
ARMED	63.2	6.9	8	12.6

**DESIGN BY:** D.P.  
**PROJECT ID:** U-3849  
**CHECKED BY:** D.M.E.  
**DIV:** 6  
**DATE:** Jan 05, 2009



**BORDER**  
R=6"  
TH=1"

Spacing Factor is 1 unless specified otherwise

**LETTER POSITIONS**

Letter spacings are to start of next letter											Series/Size
											Text Length
											D 2000
12.7	6.6	7.4	6.6	6.2	6.6	7.3	3.2	5.6	7.1	14.6	56.7
											D 2000
8.2	6.6	7.2	7.2	7.3	7.4	5.6	5.4	29			46.8

FILENAME: u3849signs NORTH CAROLINA D.O.T. SIGN DETAIL

**GROUND MOUNTED SIGN DESIGNS**



SIGN NUMBER: 304 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 4'-0" TOTAL AREA: 26.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 6" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT M1_3 8.3 5.8 24 24 M1_4 39.4 5.8 30.3 24	DESIGN BY: D.P. PROJECT ID: U-3849 CHECKED BY: D.M.E. DIV: 6 DATE: Jan 05, 2009
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Spacing Factor is 1 unless specified otherwise

Letter positions											
Letter spacings are to start of next letter											
	J	U	N	C	T	I	O	N			Series/Size Text Length
	13.7	7	7.4	7.2	6.5	6.2	3	7.4	5.4	14.1	D 2000 50.2

FILENAME: u3849signs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 306 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 4'-0" TOTAL AREA: 26.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 6" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT M1_3 8.3 5.8 24 24 M1_4 39.4 5.8 30.3 24	DESIGN BY: D.P. PROJECT ID: U-3849 CHECKED BY: D.M.E. DIV: 6 DATE: Jan 05, 2009
---	---	---

Spacing Factor is 1 unless specified otherwise

Letter positions											
Letter spacings are to start of next letter											
	S	O	U	T	H						Series/Size Text Length
	22	6.6	7.4	6.6	6.2	5.4	23.6				D 2000 32.3

FILENAME: u3849signs NORTH CAROLINA D.O.T. SIGN DETAIL


SIGN NUMBER: 305 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 4'-0" TOTAL AREA: 26.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 6" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT M1_3 8.3 5.8 24 24 M1_4 39.4 5.8 30.3 24	DESIGN BY: D.P. PROJECT ID: U-3849 CHECKED BY: D.M.E. DIV: 6 DATE: Jan 05, 2009
---	---	---

Spacing Factor is 1 unless specified otherwise

Letter positions											
Letter spacings are to start of next letter											
	N	O	R	T	H						Series/Size Text Length
	22	7.2	7.4	6.1	6.2	5.4	23.6				D 2000 32.3

FILENAME: u3849signs NORTH CAROLINA D.O.T. SIGN DETAIL

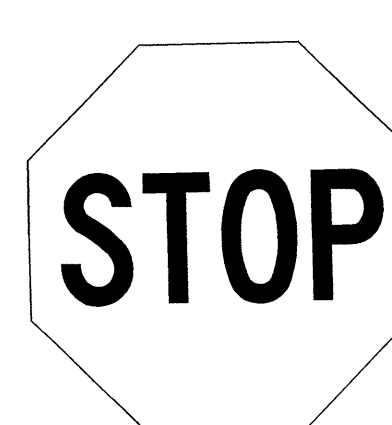
401 QUANTITY REQ'D 2



36 X 48  
R2-1

ONE "U" POST PER SIGN

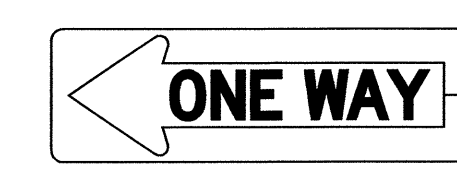
408 QUANTITY REQ'D 17



30 X 30  
R1-1

ONE "U" POST PER SIGN


414 QUANTITY REQ'D 1



36 X 12  
R6-1

TWO "U" POSTS PER SIGN


421 QUANTITY REQ'D 4



36 X 36  
S1-1

ONE "U" POST PER SIGN  
YELLOW/GREEN REFLECTIVE SHEETING

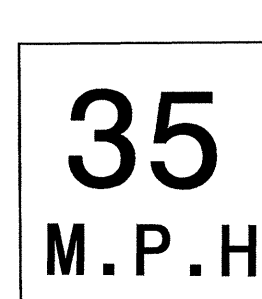
435 QUANTITY REQ'D 3



30 X 30

ONE "U" POST PER SIGN


445 QUANTITY REQ'D 1



18 X 18  
W13-1

MOUNT BELOW SIGN #444  
IN 1 INSTALLATION

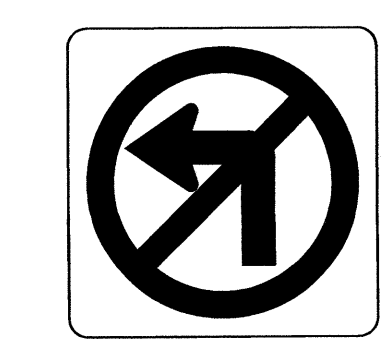
402 QUANTITY REQ'D 2



36 X 48  
R2-1

ONE "U" POST PER SIGN

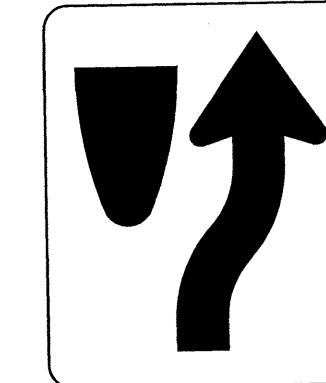
409 QUANTITY REQ'D 8



24 X 24  
W3-2

MOUNT BELOW SIGN #408  
IN 6 INSTALLATIONS

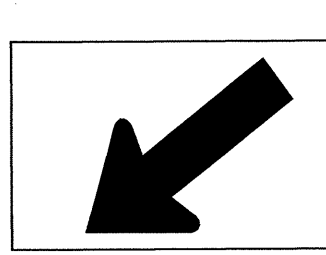
415 QUANTITY REQ'D 17



24 X 30  
R4-7

ONE "U" POST PER SIGN

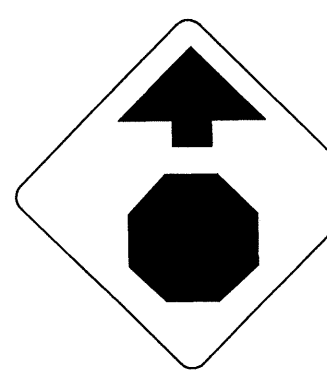
423 QUANTITY REQ'D 2



30 X 18  
W16-7

MOUNT BELOW SIGN #421  
IN 2 INSTALLATION

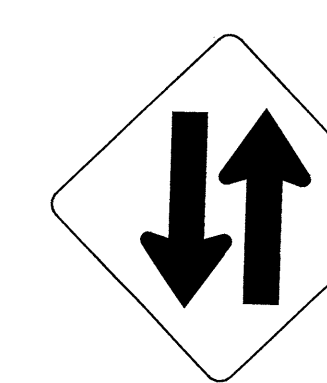
439 QUANTITY REQ'D 1



36 X 36  
W3-1a

ONE "U" POST PER SIGN


452 QUANTITY REQ'D 2



36 X 36  
W6-3

ONE "U" POST PER SIGN

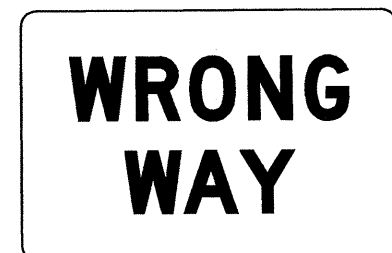
403 QUANTITY REQ'D 2



36 X 48  
R2-1

ONE "U" POST PER SIGN

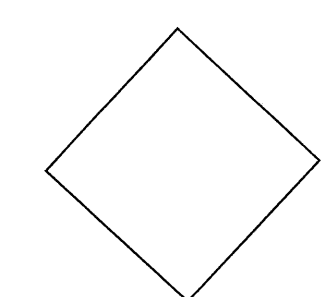
410 QUANTITY REQ'D 20



36 X 24  
R5-1A

ONE "U" POST PER SIGN

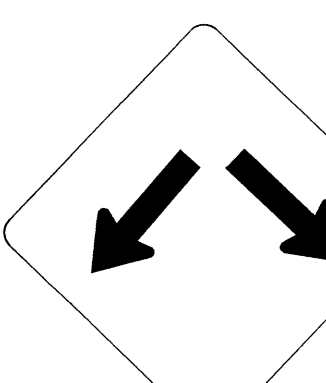
416 QUANTITY REQ'D 17



18 X 18  
OM1-3

MOUNT BELOW SIGN #415  
IN 16 INSTALLATION  
(YELLOW BACKGROUND)

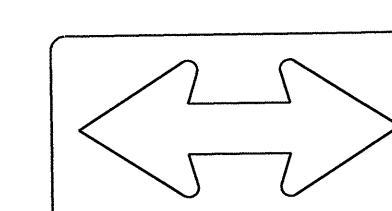
424 QUANTITY REQ'D 3



36 X 36  
W12-1

ONE "U" POST PER SIGN


440 QUANTITY REQ'D 2



60 X 30  
W1-7

TWO "U" POSTS PER SIGN

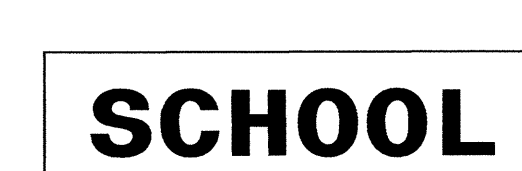
455 QUANTITY REQ'D 5



30 X 30  
R3-7

ONE "U" POST PER SIGN


404 QUANTITY REQ'D 2



30 X 8  
S4-3

MOUNT ABOVE SIGN #403  
IN 2 INSTALLATION  
(FLOURECENT YELLOW GREEN/BLACK COPY)


411 QUANTITY REQ'D 12



30 X 30  
R5-1

ONE "U" POST PER SIGN

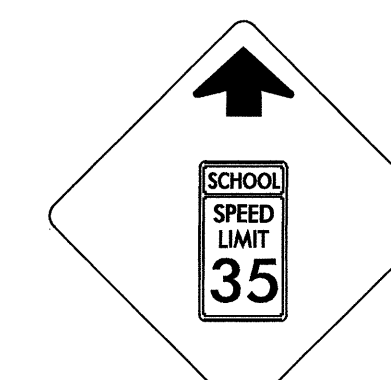
419 QUANTITY REQ'D 2



24 X 12  
W16-9p

MOUNT BELOW SIGN #421  
IN 2 INSTALLATION

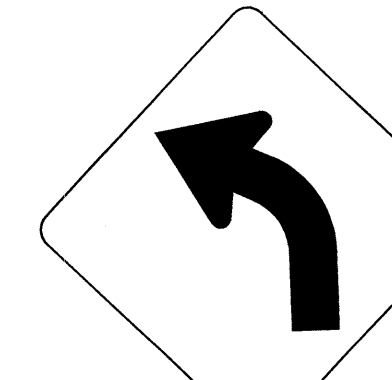
425 QUANTITY REQ'D 1



36 X 36  
S4-5

ONE "U" POST PER SIGN  
YELLOW/GREEN REFLECTIVE SHEETING

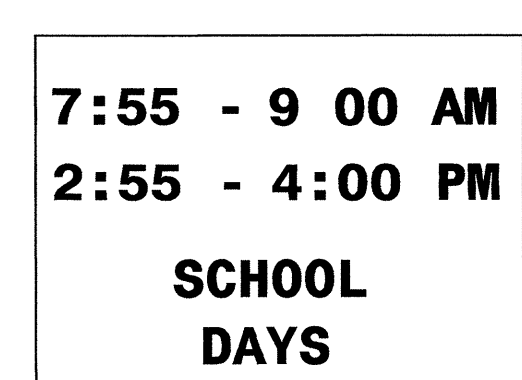
443 QUANTITY REQ'D 1



36 X 36  
W1-2(L)

ONE "U" POST PER SIGN

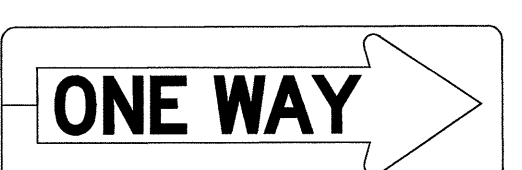
405 QUANTITY REQ'D 2



24 X 24  
S4-1a

MOUNT BELOW SIGN #403  
IN 2 INSTALLATION

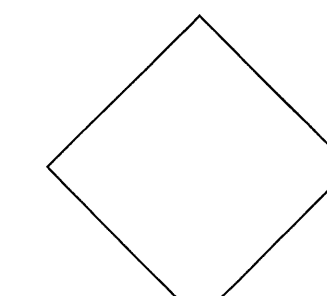
413 QUANTITY REQ'D 6



36 X 12  
R6-1

TWO "U" POSTS PER SIGN


420 QUANTITY REQ'D 6



18 X 18  
OM4-3

ONE "U" POST PER SIGN  
(RED BACKGROUND)

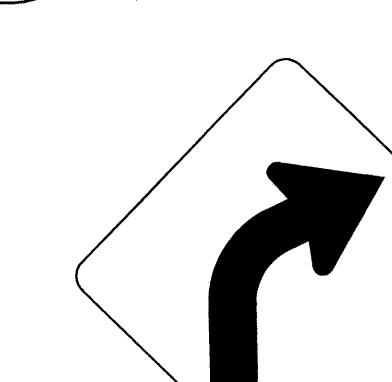
426 QUANTITY REQ'D 1



36 X 36  
W11-2

ONE "U" POST PER SIGN  
YELLOW/GREEN REFLECTIVE SHEETING

444 QUANTITY REQ'D 1



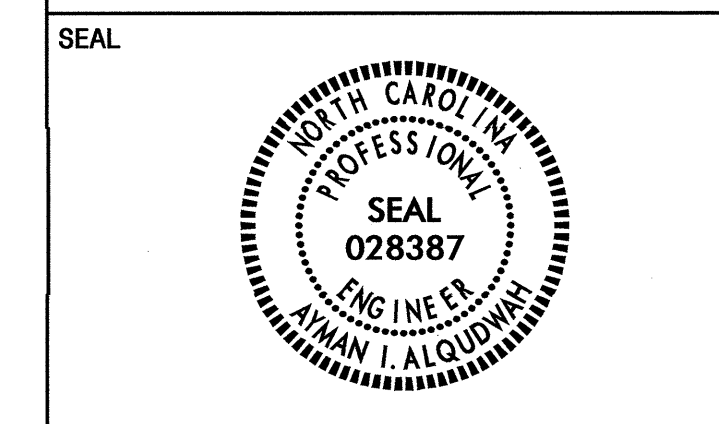
36 X 36  
W1-2(L)

ONE "U" POST PER SIGN

NOTE: THIS DRAWING IS DIMENSIONED  
IN INCHES UNLESS OTHERWISE  
DEPICTED WITHIN THE DRAWING.

**TYPE "E" SIGNS**

APPROVED: *[Signature]*  
DATE: 11/7/09



501

EAST 1-24 X 12

162 1-24 X 24

ONE "U" POST PER SIGN

506

JCT 1-30 X 15

507

162 1-36 X 36

ONE "U" POST PER SIGN

502

END 1-24 X 12

162 1-24 X 24

ONE "U" POST PER SIGN

508

WEST 1-30 X 15

162 1-36 X 36

← 1-21 X 15

ONE "U" POST PER SIGN

503

WEST 1-24 X 12

509

WEST 1-30 X 15

162 1-36 X 36

← 1-21 X 15

ONE "U" POST PER SIGN

504

WEST EAST 2-24 X 12

162 162 2-24 X 24

← → 2-21 X 15

TWO "U" POSTS PER SIGN

510

WEST 1-30 X 15

162 1-36 X 36

→ 1-21 X 15

ONE "U" POST PER SIGN

505

EAST WEST 2-24 X 12

162 162 2-24 X 24

← → 2-21 X 15

TWO "U" POSTS PER SIGN

511

WEST 1-30 X 15

162 1-36 X 36

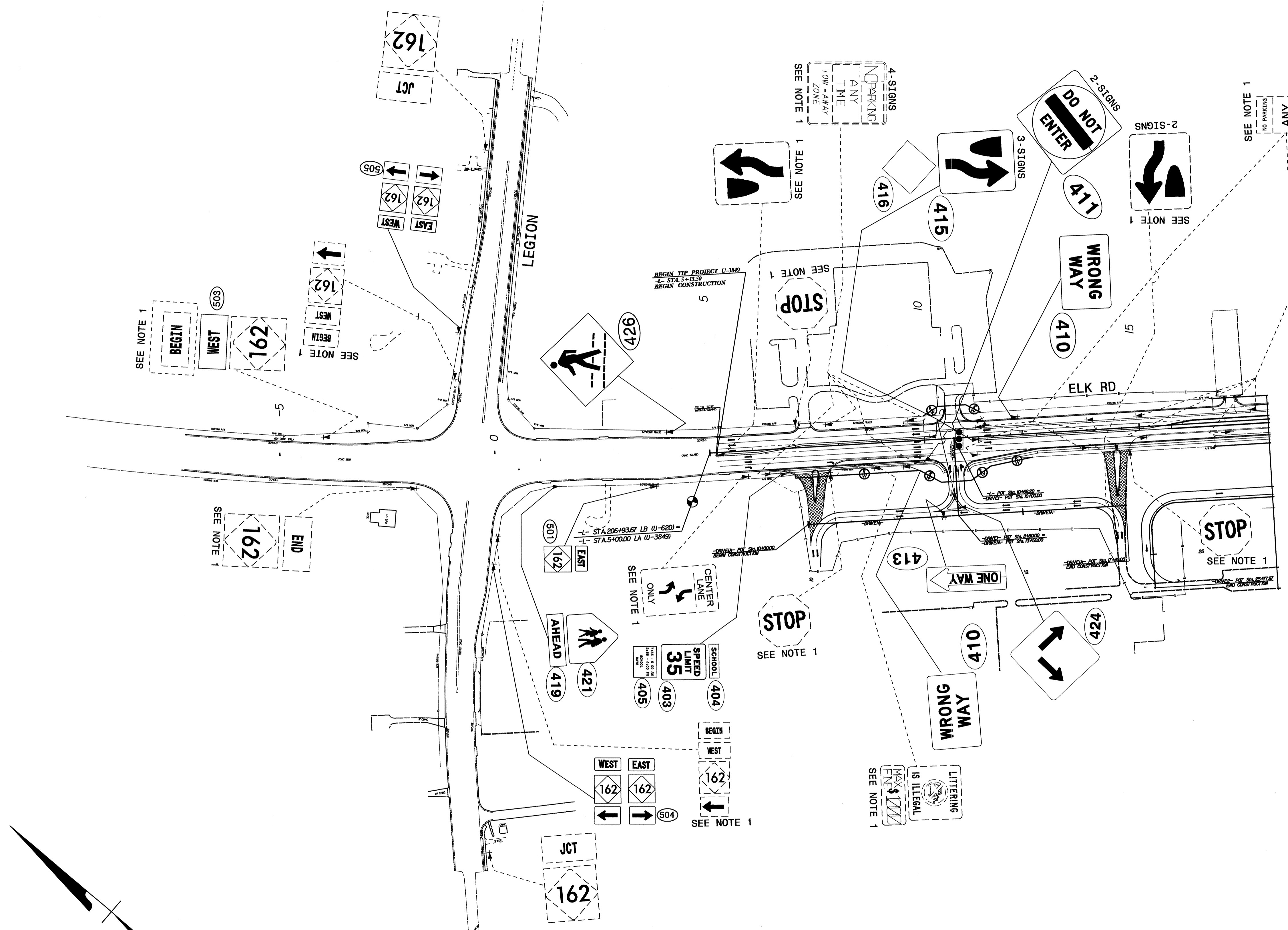
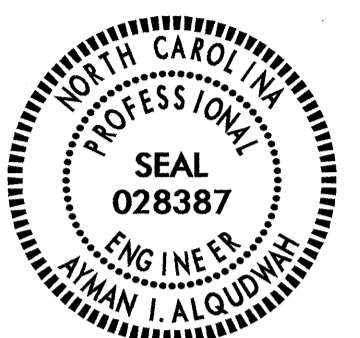
↪ 1-21 X 15

ONE "U" POST PER SIGN

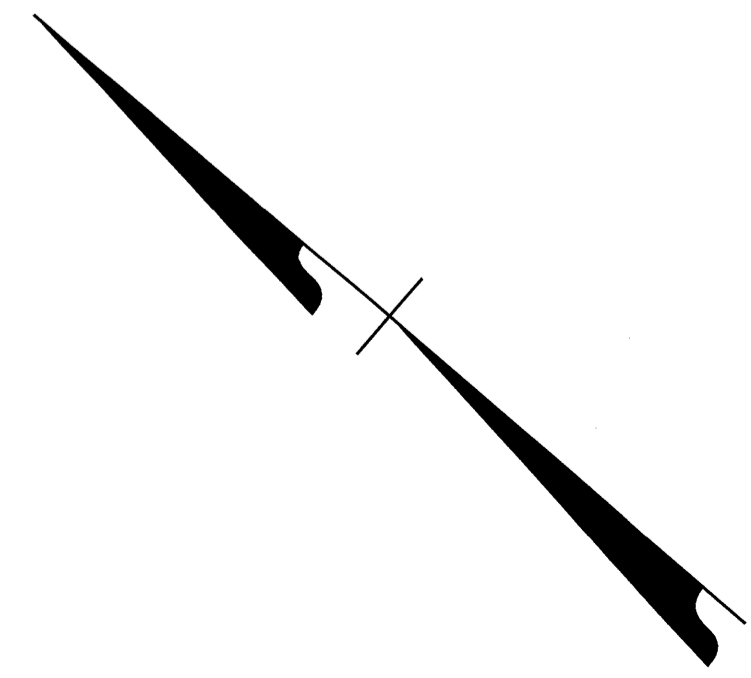
NOTE: THIS DRAWING IS DIMENSIONED IN INCHES UNLESS OTHERWISE DEPICTED WITHIN THE DRAWING.

**TYPE "F" SIGNS**

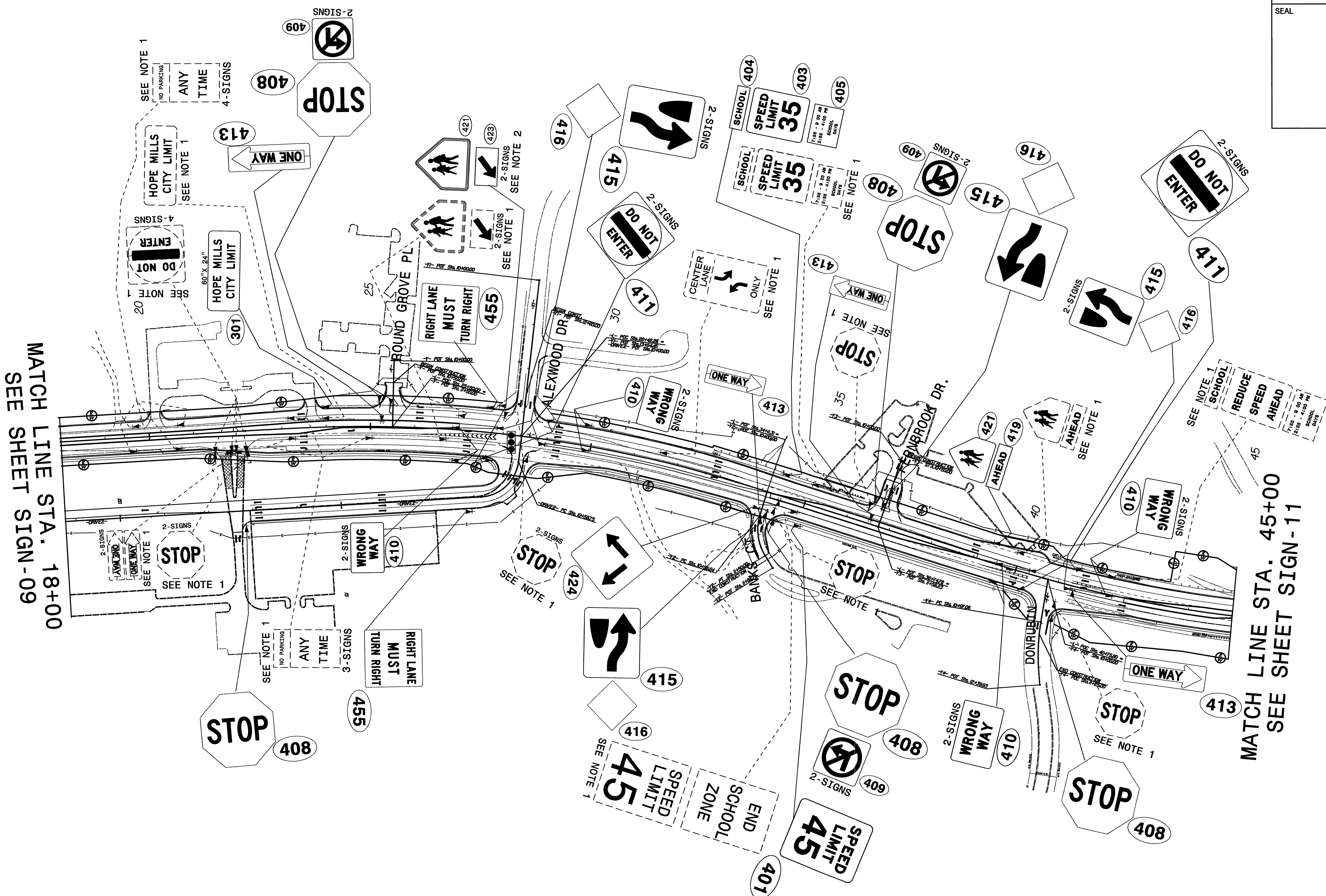





MATCH LINE STA. 18+00  
SEE SHEET SIGN-10

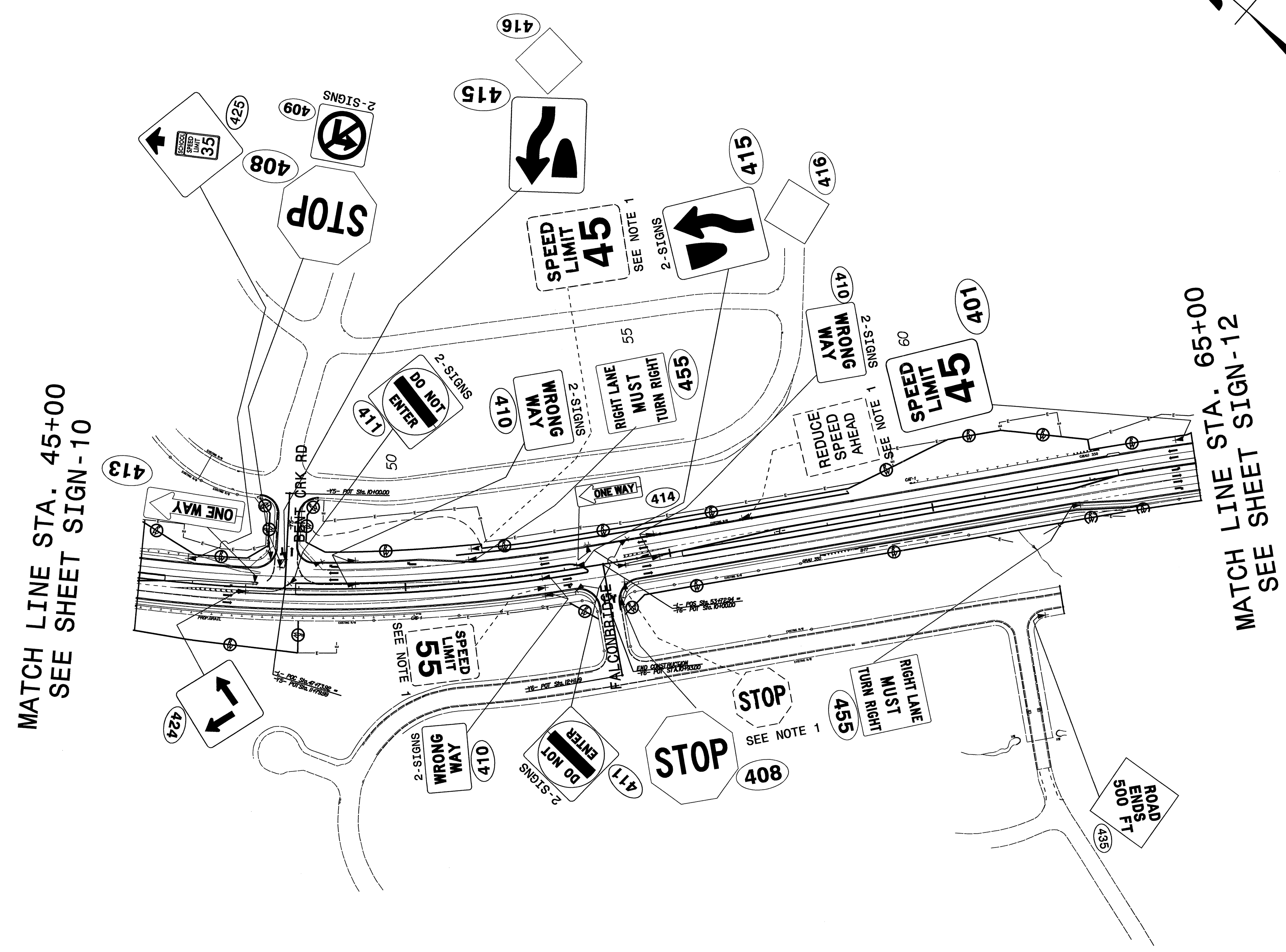
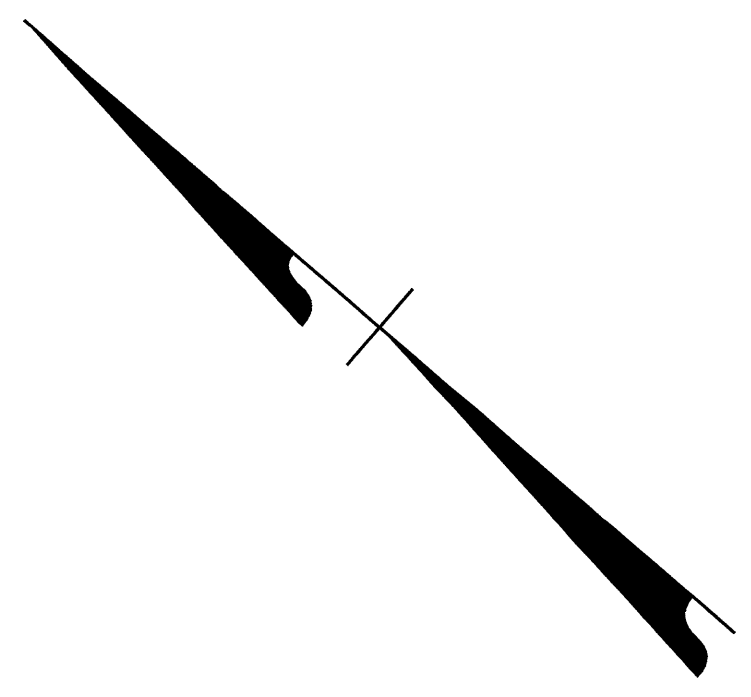


EXIST AND PROPOSED SIGNS  
-L- STA. -5+00 TO STA 18+00



EXIST AND PROPOSED SIGNS  
-L- STA. 18+00 TO STA 45+00

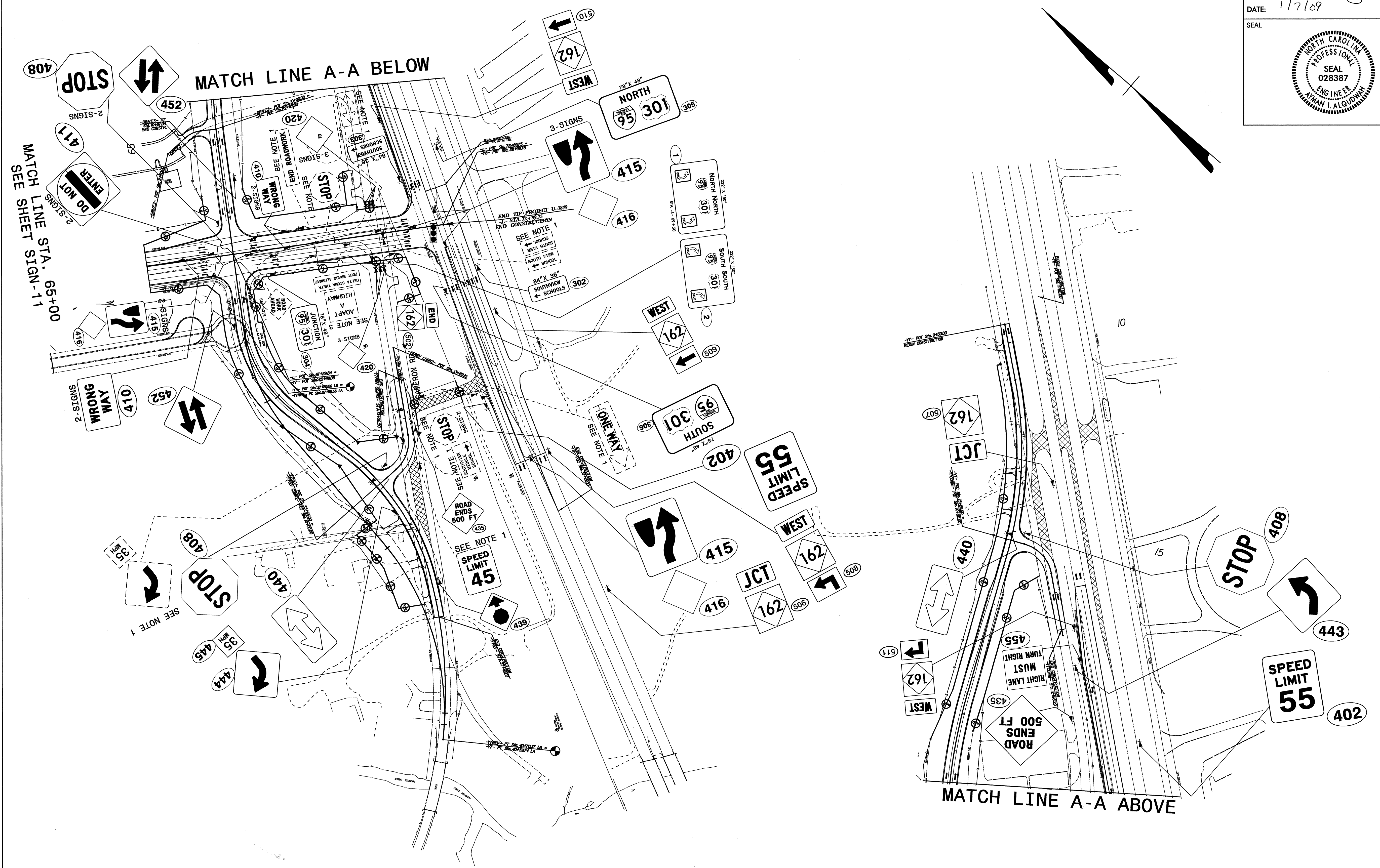
TIP NO. U-3849	SHEET NO. SIGN-11
APPROVED: <i>[Signature]</i>	
DATE: 11/7/09	
SEAL	
	



MATCH LINE STA. 45+00  
SEE SHEET SIGN-10

MATCH LINE STA. 65+00  
SEE SHEET SIGN-12

EXIST AND PROPOSED SIGNS  
-L- STA. 45+00 TO STA 65+00



EXIST AND PROPOSED SIGNS  
 -L- STA. 65+00 TO STA 72+89  
 -Y8- STA. 11+65 TO STA 37+15