

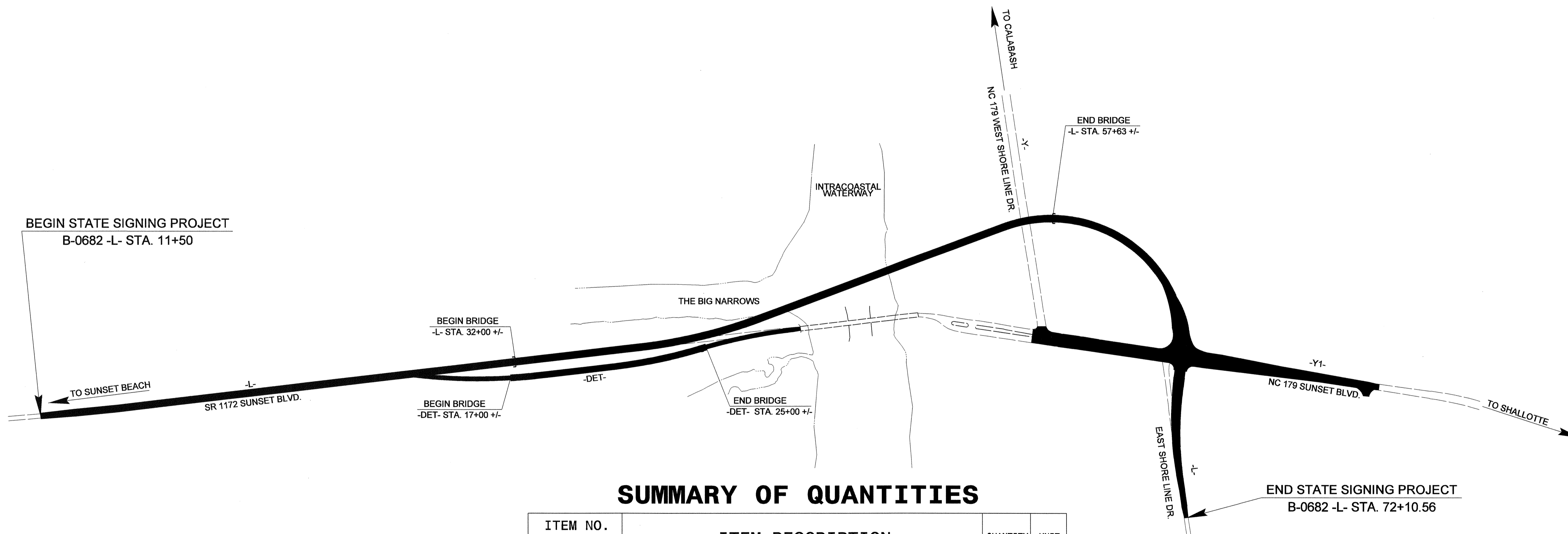
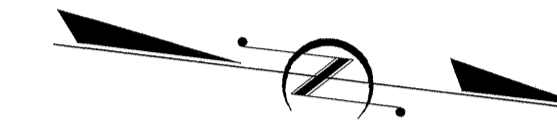
**CONTRACT NO.: C201616 T.I.P.: B-0682**

TIP NO. B-0682	SHEET NO. SIGN-1
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**STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLANS  
BRUNSWICK COUNTY**

**LOCATION: BRIDGE NO. 198 OVER THE INTRACOASTAL WATERWAY  
AND APPROACHES ON SR 1172 AT SUNSET BEACH**



**SUMMARY OF QUANTITIES**

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4025000000	901	CONTRACTOR FURNISHED, TYPE D SIGN .....	44	S.F.
4025000000	901	CONTRACTOR FURNISHED, TYPE E SIGN .....	281.06	S.F.
4025000000	901	CONTRACTOR FURNISHED, TYPE F SIGN .....	38.75	S.F.
4072000000	903	SUPPORTS, 3-LB STEEL U-CHANNEL .....	980	L.F.
4096000000	904	SIGN ERECTION, TYPE D .....	3	EA.
4102000000	904	SIGN ERECTION, TYPE E .....	59	EA.
4108000000	904	SIGN ERECTION, TYPE F .....	5	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE D .....	2	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE E .....	2	EA.
4141000000	907	DISPOSAL OF SUPPORT, WOOD .....	1	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL .....	41	EA.
4158000000	907	DISPOSAL OF SIGN SYSTEM, WOOD .....	10	EA.
4192000000	907	DISPOSAL OF SUPPORT, U-CHANNEL .....	1	EA.

**INDEX**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SIGN DESIGNS
3	TYPE "E" SIGNS
4	TYPE "F" SIGNS
5 - 9	EXISTING/PROPOSED ROADWAY

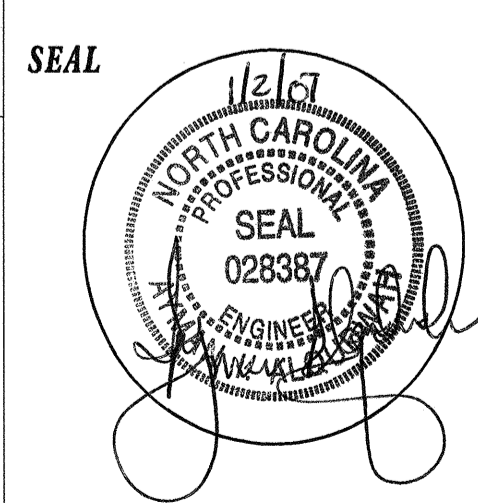
PLAN PREPARED BY: N.C.D.O.T. SIGNING SECTION

R. W. KING, P.E. SIGNING ENGINEER

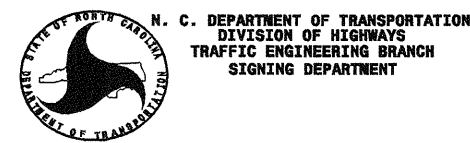
A. I. ALQUDWAH, P.E. SIGNING PROJECT ENGINEER

D. M. EATON SIGNING PROJECT DESIGN ENGINEER

R. R. HENNEIN SIGNING DESIGNER



ROADWAY STANDARD DRAWINGS  
APPLICABLE TO THESE SIGNING PLANS  
901.50 904.10 904.30 904.50

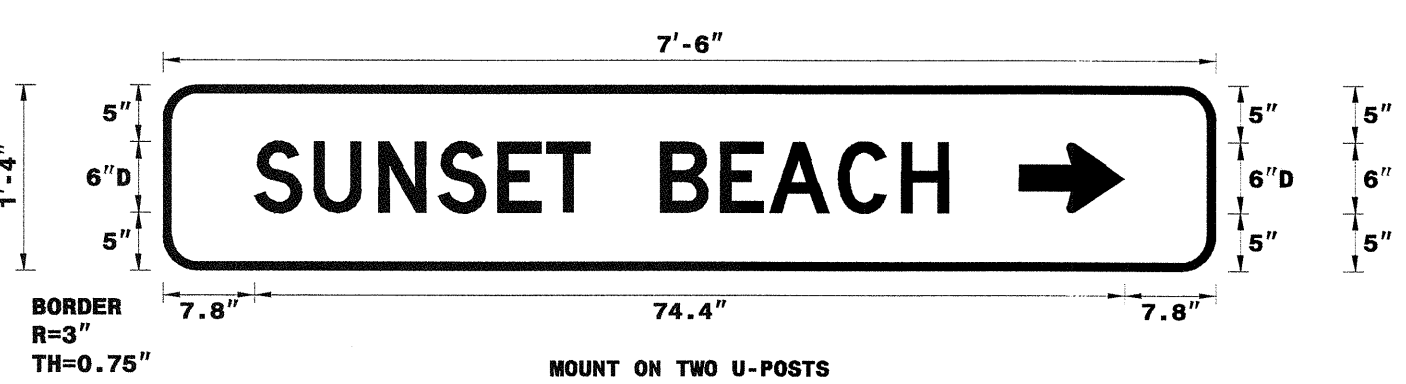


SIGN NUMBER: 301  
 TYPE: D  
 QUANTITY: 1  
 SIGN WIDTH: 90"  
 HEIGHT: 16"  
 TOTAL AREA: 10.0 Sq.Ft.  
 BORDER TYPE: FLUSH  
 RECESS: 0"  
 WIDTH: 0.75"  
 RADII: 3"  
 NO. Z BARS: 1  
 LENGTH:

BACKG COLOR: Green  
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	73.2	5	6	9

DESIGN BY: R. HENNEIN  
 CHECKED BY:  
 PROJECT ID: B-0682  
 DIV: 3  
 STD #: N/A  
 DATE: Nov 28, 2006



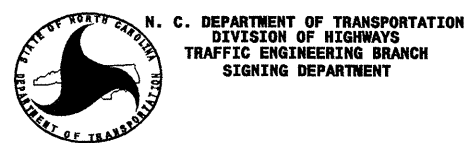
- USE NOTES:
- Legend and border shall be direct applied Type III reflective sheeting.
  - Background shall be Type III reflective sheeting.

LETTER POSITIONS

Letter spacings are to start of next letter

	S	U	N	S	E	T	B	E	A	C	H	Series/Size Text Length			
	7.8	5.1	5.5	5.1	5.1	4.2	3.7	6	5.1	4.2	5.9	5.4	4.1	22.8	D 2000 59.4

Spacing Factor is 1 unless specified otherwise  
 FILENAME: signdesign  
 NORTH CAROLINA D.O.T. SIGN DETAIL

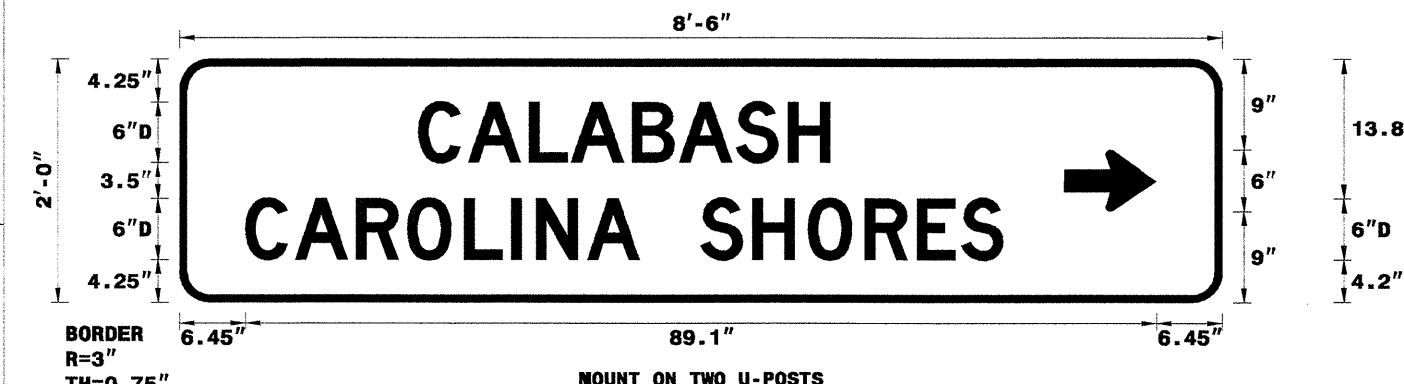


SIGN NUMBER: 302, 303  
 TYPE: D  
 QUANTITY: 2  
 SIGN WIDTH: 102"  
 HEIGHT: 24"  
 TOTAL AREA: 17.0 Sq.Ft.  
 BORDER TYPE: FLUSH  
 RECESS: 0"  
 WIDTH: 0.75"  
 RADII: 3"  
 NO. Z BARS: 1  
 LENGTH:

BACKG COLOR: Green  
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	86.5	9	6	9

DESIGN BY: R. HENNEIN  
 CHECKED BY:  
 PROJECT ID: B-0682  
 DIV: 3  
 STD #: N/A  
 DATE: Nov 28, 2006



- USE NOTES:
- Legend and border shall be direct applied Type III reflective sheeting.
  - Background shall be Type III reflective sheeting.

LETTER POSITIONS

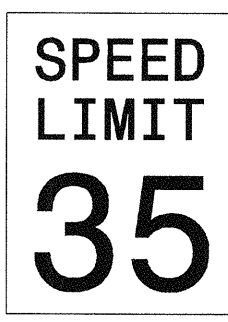



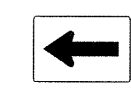
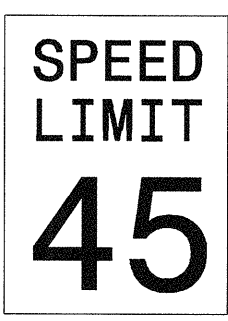

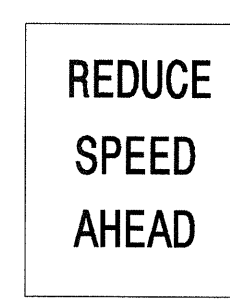
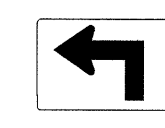
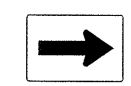
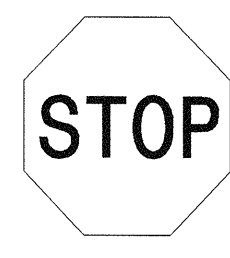
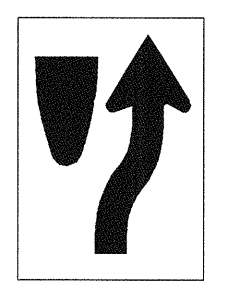
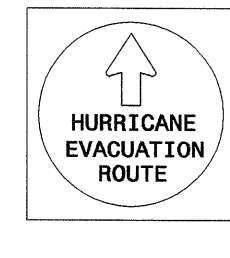


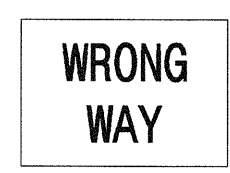
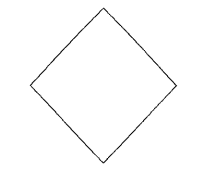
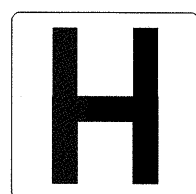
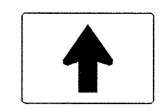
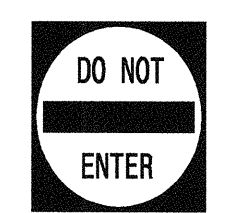
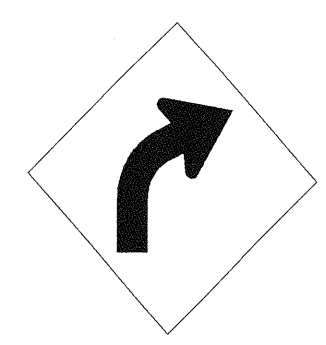
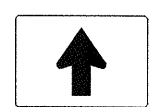
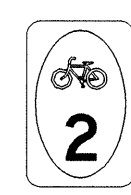
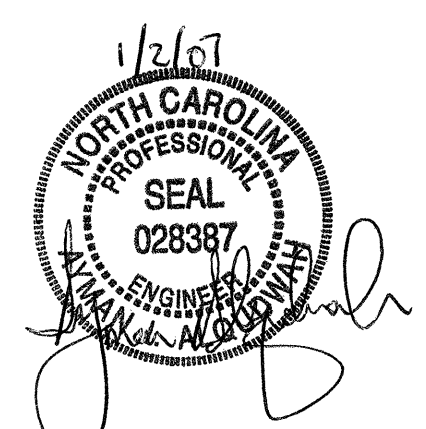
Letter spacings are to start of next letter

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	23.4	4.9	6	4.1	6	4.6	5.6	5.1	4.1	38.4													D 2000 40.3	
	6.4	4.9	6	5	5.6	4.6	2.4	5	5.1	6	5.1	5.4	5.6	5.1	4.3	4.1	21.5							D 2000 74.1

Spacing Factor is 1 unless specified otherwise  
 FILENAME: signdesign  
 NORTH CAROLINA D.O.T. SIGN DETAIL



# SIGN DESIGN

<p>403 QUANTITY REQ'D 5</p>  <p>24 X 30 R2-1</p> <p>ONE "U" POST PER SIGN</p>	<p>413 QUANTITY REQ'D 2</p>  <p>54 X 18 R6-1 (R)</p> <p>TWO "U" POSTS PER SIGN</p>	<p>462 QUANTITY REQ'D 1</p>  <p>30 X 30 W14-2</p> <p>ONE "U" POST PER SIGN</p>	<p>468 QUANTITY REQ'D 1</p>  <p>30 X 30 R20-6</p> <p>ONE "U" POST PER SIGN</p>	<p>473 QUANTITY REQ'D 1</p>  <p>12 X 9 M7-1</p> <p>MOUNT BELOW SIGN 472 IN 1 INSTALLATION</p>		
<p>404 QUANTITY REQ'D 1</p>  <p>24 X 30 R2-1</p> <p>ONE "U" POST PER SIGN</p>	<p>414 QUANTITY REQ'D 2</p>  <p>54 X 18 R6-1 (L)</p> <p>TWO "U" POSTS PER SIGN</p>	<p>463 QUANTITY REQ'D 1</p>  <p>24 X 30 R2-5</p> <p>ONE "U" POST PER SIGN</p>	<p>469 QUANTITY REQ'D 1</p>  <p>21 X 15 M5-1 (Interstate)</p> <p>MOUNT BELOW SIGN 466 IN 1 INSTALLATION</p>	<p>474 QUANTITY REQ'D 1</p>  <p>12 X 9 M7-1</p> <p>MOUNT BELOW SIGN 472 IN 1 INSTALLATION</p>		
<p>408 QUANTITY REQ'D 8</p>  <p>30 X 30 R1-1</p> <p>ONE "U" POST PER SIGN</p>	<p>416 QUANTITY REQ'D 8</p>  <p>24 X 30 R4-7</p> <p>ONE "U" POST PER SIGN</p>	<p>464 QUANTITY REQ'D 2</p>  <p>24 X 24 EM-1</p> <p>ONE "U" POST PER SIGN</p>	<p>470 QUANTITY REQ'D 1</p>  <p>30 X 48 I-11</p> <p>ONE "U" POST PER SIGN</p>	<p>475 QUANTITY REQ'D 1</p>  <p>30 X 30 W18-11</p> <p>ONE "U" POST PER SIGN</p>		
<p>410 QUANTITY REQ'D 4</p>  <p>36 X 24 R5-1a</p> <p>ONE "U" POST PER SIGN</p>	<p>417 QUANTITY REQ'D 8</p>  <p>18 X 18 W23-15</p> <p>MOUNT BELOW SIGN 416 IN 8 INSTALLATIONS</p>	<p>466 QUANTITY REQ'D 2</p>  <p>24 X 24 D9-2</p> <p>ONE "U" POST PER SIGN MOUNT BELOW SIGN 303 IN 1 INSTALLATION</p>	<p>471 QUANTITY REQ'D 1</p>  <p>21 X 15 M7-2</p> <p>MOUNT BELOW SIGN 470 IN 1 INSTALLATION</p>			
<p>411 QUANTITY REQ'D 4</p>  <p>30 X 30 R5-1</p> <p>ONE "U" POST PER SIGN</p>	<p>448 QUANTITY REQ'D 1</p>  <p>30 X 30 W1-2R</p> <p>ONE "U" POST PER SIGN</p>	<p>467 QUANTITY REQ'D 1</p>  <p>21 X 15 M6-3 (Interstate)</p> <p>MOUNT BELOW SIGN 466 IN 1 INSTALLATION</p>	<p>472 QUANTITY REQ'D 2</p>  <p>12 X 18 M1-8</p> <p>ONE "U" POST PER SIGN</p>	<p>NOTE: THIS DRAWING IS DIMENSIONED IN INCHES UNLESS OTHERWISE DEPICTED WITHIN THE DRAWING.</p> <div data-bbox="1818 1693 2160 1935"> <p>SEAL</p>  </div> <p><b>TYPE "E" SIGNS</b></p>		

501

503

BUSINESS 1 - 24 X 12

179 1 - 24 X 24

1 - 21 X 15

ONE "U" POST PER SIGN  
MOUNT UNDER SIGN 303  
IN 1 INSTALLATION

502

BUSINESS 1 - 24 X 12

179 1 - 24 X 24

1 - 21 X 15

MOUNT UNDER SIGN 302  
IN 1 INSTALLATION

504

BUSINESS 1 - 24 X 12

179 1 - 24 X 24

ONE "U" POST PER SIGN

505

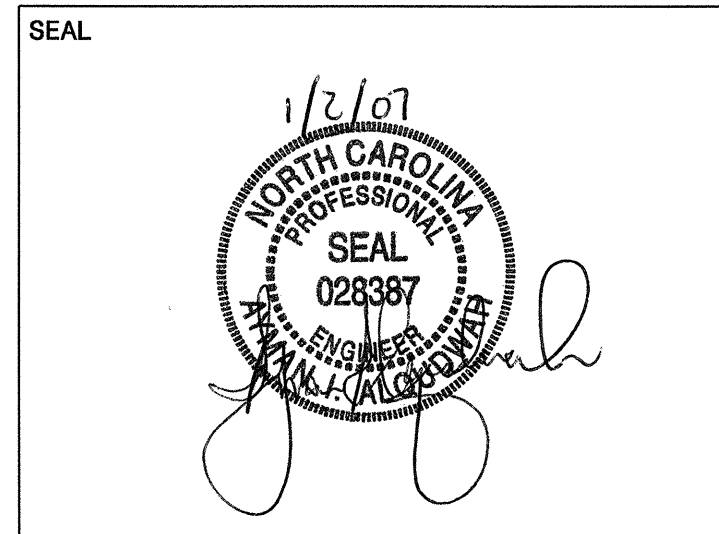
BUSINESS 1 - 24 X 12

179 1 - 24 X 24

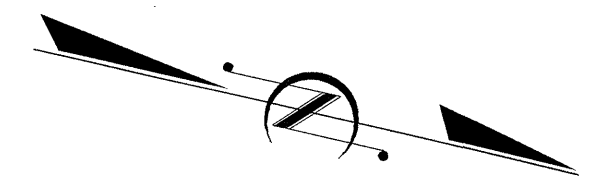
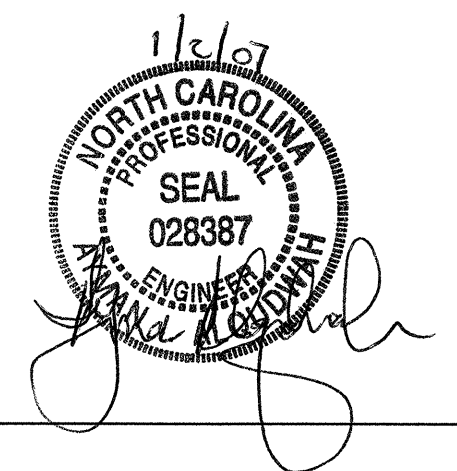
1 - 21 X 15

ONE "U" POST PER SIGN

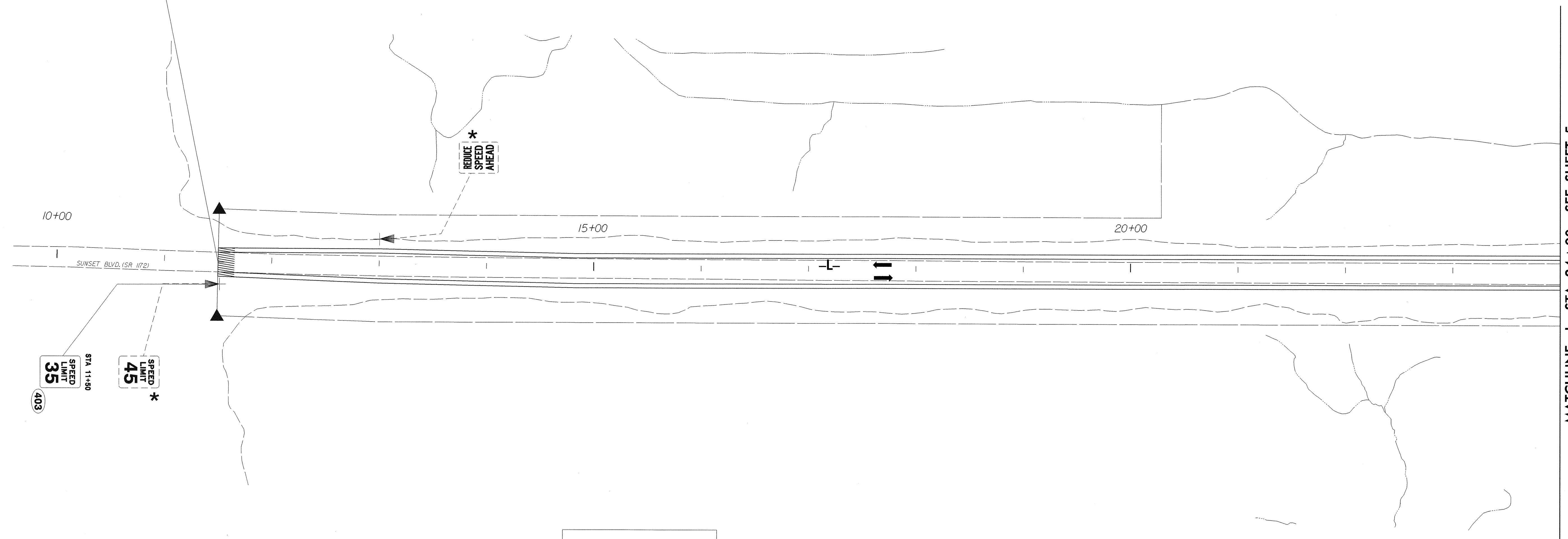
NOTE: THIS DRAWING IS DIMENSIONED  
IN INCHES UNLESS OTHERWISE  
DEPICTED WITHIN THE DRAWING.



**TYPE "F" SIGNS**



BEGIN STATE SIGNING PROJECT  
B-0682 -L- STATION 11+50  
BEGIN CONSTRUCTION



MATCHLINE -L- STA 24+00 SEE SHEET 5

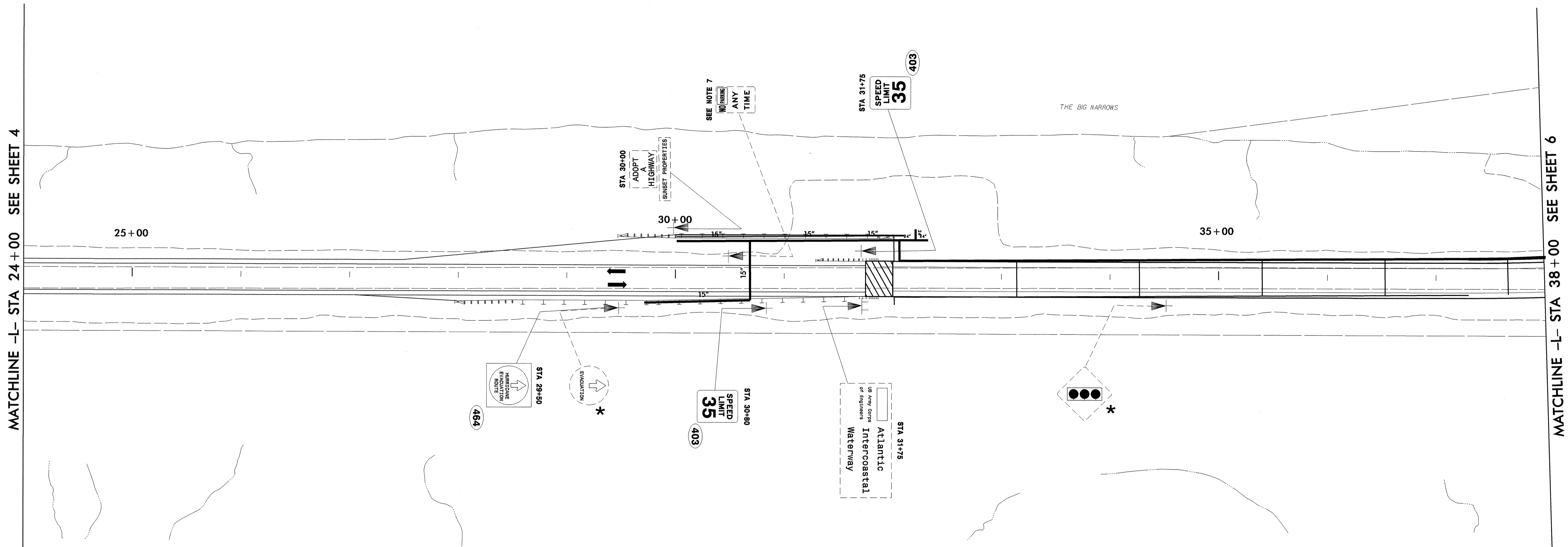
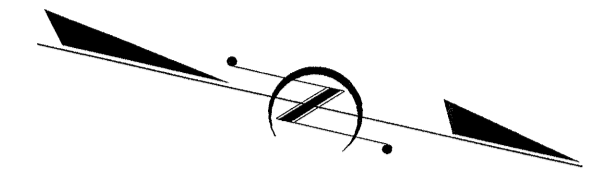
\* SEE NOTE 5

**WARNING SIGNS PLACEMENT CHART**

POSTED OR 85TH PERCENTILE SPEED MPH (KMH)	MUTCD DISTANCE FT (M)	SUGGESTED LOCATION FT (M)	SUGGESTED MAXIMUM FT (M)
30 (50)	450 (140)	475 (145)	575 (175)
35 (55)	550 (170)	575 (175)	675 (205)
40 (65)	650 (200)	675 (205)	775 (235)
45 (70)	750 (230)	775 (235)	875 (270)
50 (80)	850 (260)	875 (270)	975 (300)
55 (90)	950 (290)	975 (300)	1075 (330)
60 (95)	1100 (335)	1125 (345)	1225 (375)
65 (105)	1200 (365)	1225 (375)	1325 (405)
70 (115)	1250 (380)	1275 (390)	1375 (420)

1. SEE ROADWAY STANDARD NO. 904.50 FOR MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON 'U' CHANNEL POSTS.
2. SEE CHART FOR PLACEMENT OF WARNING SIGNS. DISTANCES SHOWN IN MINIMUM ROAD COLUMNS ARE FOR LEVEL ROADWAYS. MAKE CORRECTIONS FOR GRADES. IF 48-INCH (1219 MM) SIGNS ARE USED, THE LEGIBILITY DISTANCE MAY BE INCREASED TO 200 FEET (61 M). THIS WOULD ALLOW REDUCING THE CHART SPECIFIED DISTANCE BY 75 FEET (23 M).
3. IF THE BRIDGE IS OVER A MAJOR STREAM OR RIVER, A SIGN FOR THE NAME OF THE STREAM OR RIVER SHOULD BE INSTALLED AT EACH APPROACH. THESE DESIGNS WILL BE COMPLETED BY THE SIGNING SECTION UPON REQUEST.
4. SIGNS FURNISHED BY CONTRACTOR. BACKGROUND SHEETING SHALL BE TYPE III REFLECTIVE SHEETING.
5. DISPOSAL OF SIGN SYSTEM, U-CHANNEL.
6. SIGN ERECTION, RELOCATE SIGN TYPE D, E, OR F.
7. DISPOSAL OF SIGN SYSTEM, WOOD.
8. DISPOSAL OF SUPPORT, WOOD.
9. DISPOSAL OF SUPPORT, U-CHANNEL.

EXISTING/PROPOSED ROADWAY  
SR 1172  
STA 10+00 TO 24+00



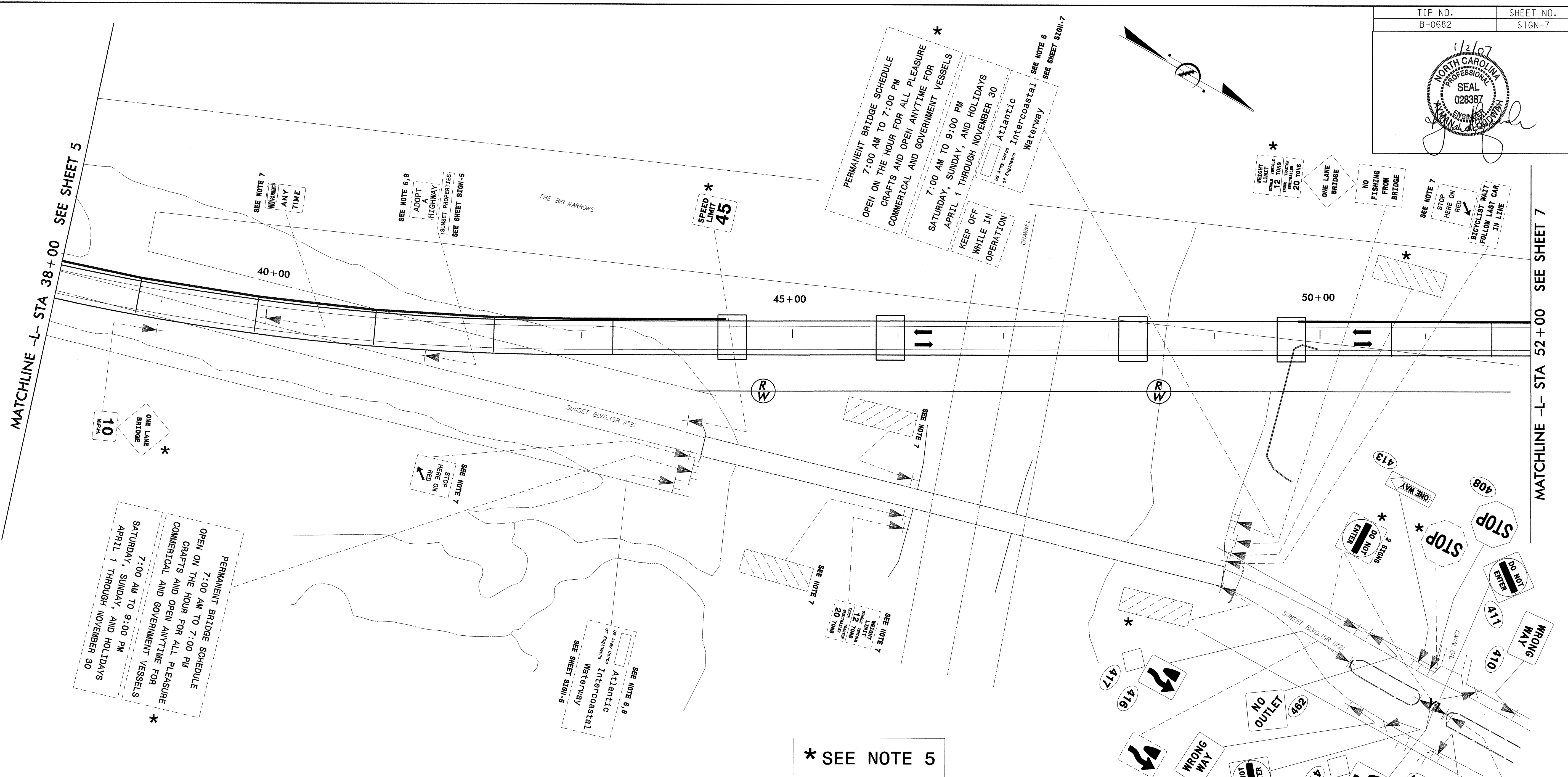
\* SEE NOTE 5

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6. SIGN ERECTION, RELOCATE SIGN TYPE D, E, OR F.
7. DISPOSAL OF SIGN SYSTEM, WOOD.
8. DISPOSAL OF SUPPORT, WOOD.
9. DISPOSAL OF SUPPORT, U-CHANNEL.

EXISTING/PROPOSED ROADWAY  
 SR 1172  
 STA 24+00 TO 38+00



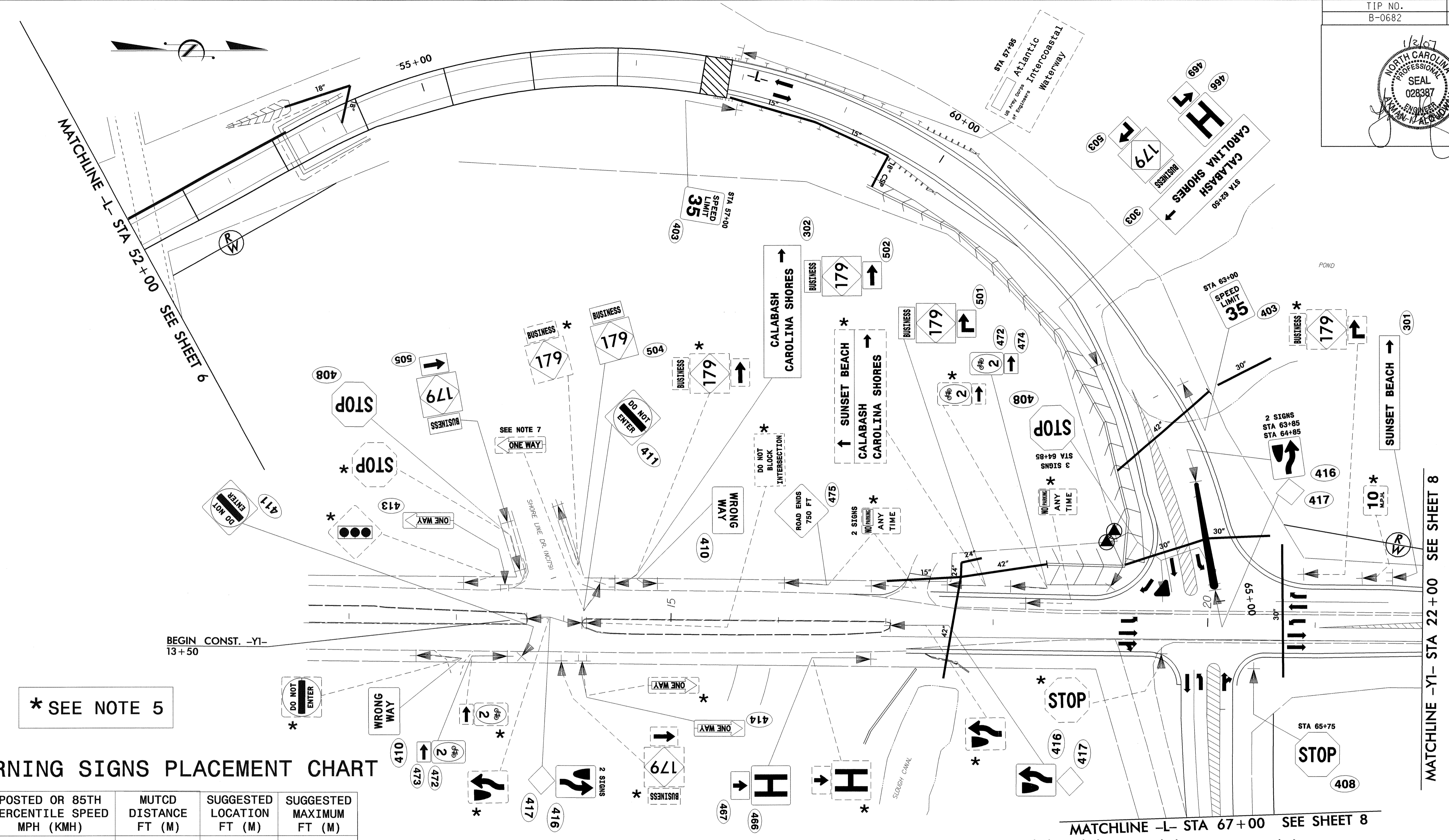
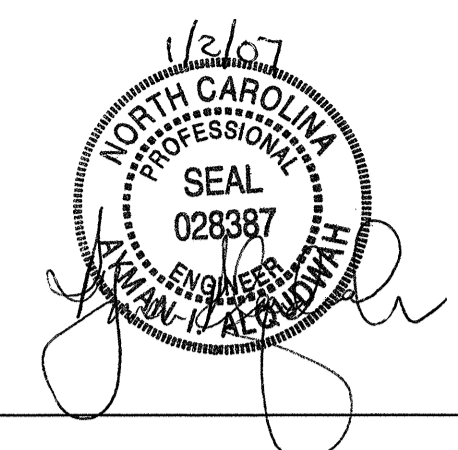
**WARNING SIGNS PLACEMENT CHART**

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7. DISPOSAL OF SIGN SYSTEM, WOOD.
8. DISPOSAL OF SUPPORT, WOOD.
9. DISPOSAL OF SUPPORT, U-CHANNEL.

EXISTING/PROPOSED ROADWAY  
 SR 1172  
 STA 38+00 TO 52+00

\* SEE NOTE 5



\* SEE NOTE 5

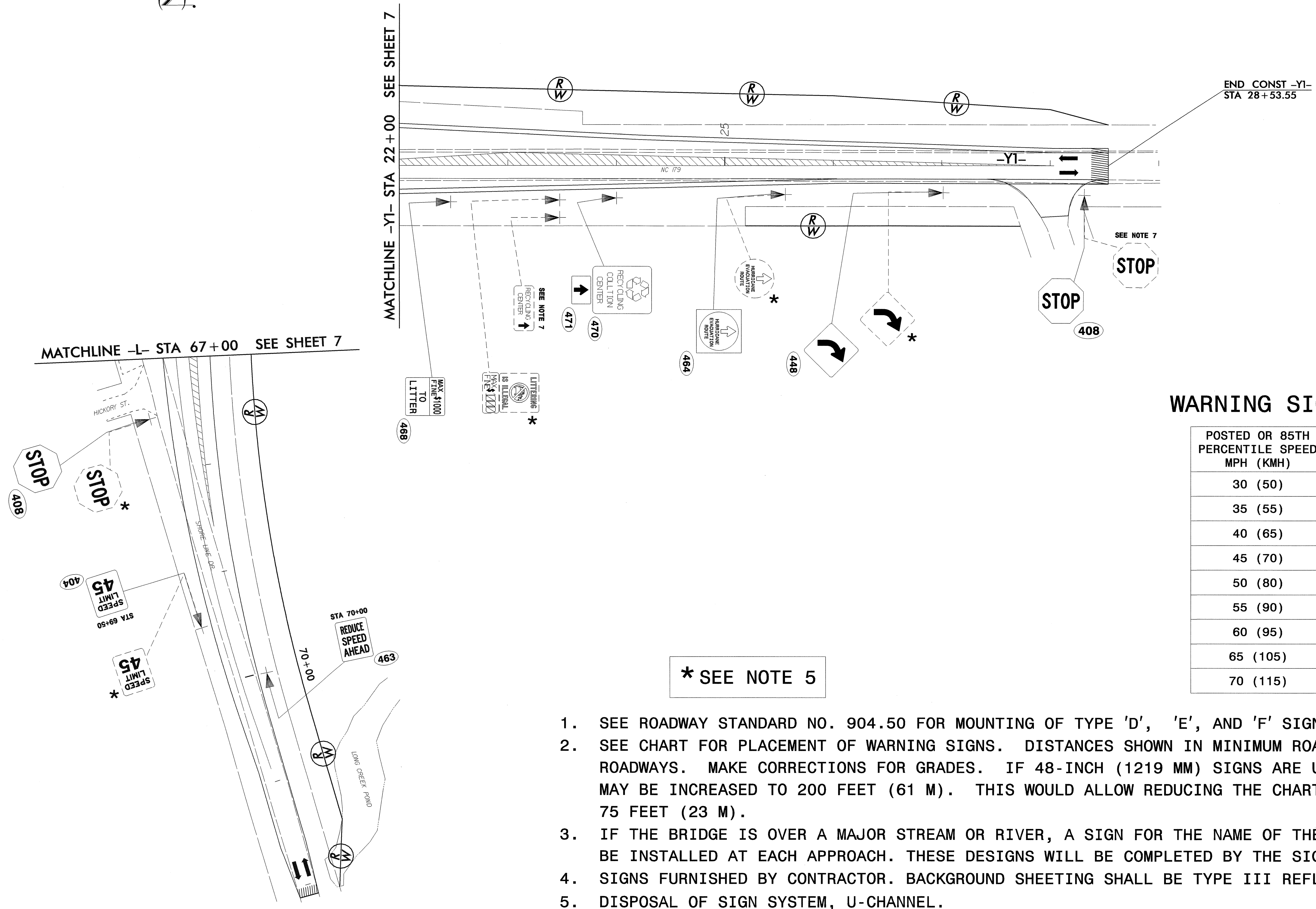
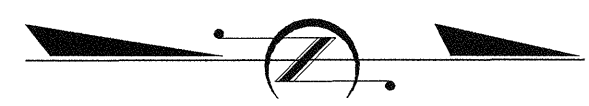
**WARNING SIGNS PLACEMENT CHART**

POSTED OR 85TH PERCENTILE SPEED MPH (KMH)	MUTCD DISTANCE FT (M)	SUGGESTED LOCATION FT (M)	SUGGESTED MAXIMUM FT (M)
30 (50)	450 (140)	475 (145)	575 (175)
35 (55)	550 (170)	575 (175)	675 (205)
40 (65)	650 (200)	675 (205)	775 (235)
45 (70)	750 (230)	775 (235)	875 (270)
50 (80)	850 (260)	875 (270)	975 (300)
55 (90)	950 (290)	975 (300)	1075 (330)
60 (95)	1100 (335)	1125 (345)	1225 (375)
65 (105)	1200 (365)	1225 (375)	1325 (405)
70 (115)	1250 (380)	1275 (390)	1375 (420)

1. SEE ROADWAY STANDARD NO. 904.50 FOR MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON 'U' CHANNEL POSTS.
2. SEE CHART FOR PLACEMENT OF WARNING SIGNS. DISTANCES SHOWN IN MINIMUM ROAD COLUMNS ARE FOR LEVEL ROADWAYS. MAKE CORRECTIONS FOR GRADES. IF 48-INCH (1219 MM) SIGNS ARE USED, THE LEGIBILITY DISTANCE MAY BE INCREASED TO 200 FEET (61 M). THIS WOULD ALLOW REDUCING THE CHART SPECIFIED DISTANCE BY 75 FEET (23 M).
3. IF THE BRIDGE IS OVER A MAJOR STREAM OR RIVER, A SIGN FOR THE NAME OF THE STREAM OR RIVER SHOULD BE INSTALLED AT EACH APPROACH. THESE DESIGNS WILL BE COMPLETED BY THE SIGNING SECTION UPON REQUEST.
4. SIGNS FURNISHED BY CONTRACTOR. BACKGROUND SHEETING SHALL BE TYPE III REFLECTIVE SHEETING.
5. DISPOSAL OF SIGN SYSTEM, U-CHANNEL.
6. SIGN ERECTION, RELOCATE SIGN TYPE D, E, OR F.
7. DISPOSAL OF SIGN SYSTEM, WOOD.
8. DISPOSAL OF SUPPORT, WOOD.
9. DISPOSAL OF SUPPORT, U-CHANNEL.

EXISTING/PROPOSED ROADWAY  
 SR 1172  
 STA 52+00 TO 67+00





**WARNING SIGNS PLACEMENT CHART**

POSTED OR 85TH PERCENTILE SPEED MPH (KMH)	MUTCD DISTANCE FT (M)	SUGGESTED LOCATION FT (M)	SUGGESTED MAXIMUM FT (M)
30 (50)	450 (140)	475 (145)	575 (175)
35 (55)	550 (170)	575 (175)	675 (205)
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70 (115)	1250 (380)	1275 (390)	1375 (420)

**\* SEE NOTE 5**

1. SEE ROADWAY STANDARD NO. 904.50 FOR MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON 'U' CHANNEL POSTS.
2. SEE CHART FOR PLACEMENT OF WARNING SIGNS. DISTANCES SHOWN IN MINIMUM ROAD COLUMNS ARE FOR LEVEL ROADWAYS. MAKE CORRECTIONS FOR GRADES. IF 48-INCH (1219 MM) SIGNS ARE USED, THE LEGIBILITY DISTANCE MAY BE INCREASED TO 200 FEET (61 M). THIS WOULD ALLOW REDUCING THE CHART SPECIFIED DISTANCE BY 75 FEET (23 M).
3. IF THE BRIDGE IS OVER A MAJOR STREAM OR RIVER, A SIGN FOR THE NAME OF THE STREAM OR RIVER SHOULD BE INSTALLED AT EACH APPROACH. THESE DESIGNS WILL BE COMPLETED BY THE SIGNING SECTION UPON REQUEST.
4. SIGNS FURNISHED BY CONTRACTOR. BACKGROUND SHEETING SHALL BE TYPE III REFLECTIVE SHEETING.
5. DISPOSAL OF SIGN SYSTEM, U-CHANNEL.
6. SIGN ERECTION, RELOCATE SIGN TYPE D, E, OR F.
7. DISPOSAL OF SIGN SYSTEM, WOOD.
8. DISPOSAL OF SUPPORT, WOOD.
9. DISPOSAL OF SUPPORT, U-CHANNEL.

EXISTING/PROPOSED ROADWAY  
SR 1172  
STA 67+00 TO 72+00