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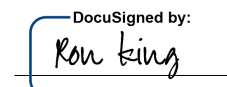
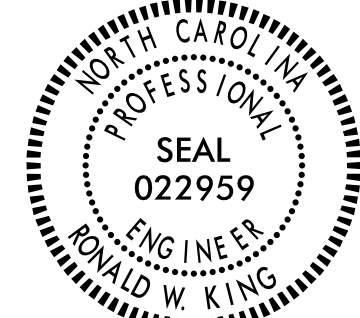
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**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

SIGNING PLAN

MECKLENBURG COUNTY

**LOCATION: I-485 CHARLOTTE OUTER LOOP INTERCHANGE WITH
SR 2042 (OAKDALE ROAD)**

PROJECT REFERENCE NO. <i>R-2248G</i>	SHEET NO. <i>SIGN-1</i>
APPROVED:  13E7AF788AA4448...	
DATE: 3/2/2015	
SEAL 	

T.I.P.: R-2248G

CONTRACT: C203590

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 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
901.80	SIGN MOUNTING DETAILS - FOR TYPE A AND TYPE B SIGNS
903.10	GROUND MOUNTED SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.20	SECONDARY SIGN MOUNTING
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

PROJECT NOTES

- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- DISPOSAL OF SIGN, A OR B (OVERHEAD)
- SIGN ERECTION, TYPE A (OVERHEAD)
- SIGN ERECTION, TYPE B (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.
- 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.
- 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.
- 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.

SUMMARY OF QUANTITIES

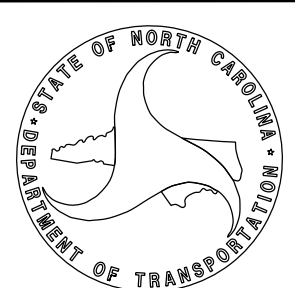
ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4054000000	902	PLAIN CONCRETE SIGN FOUNDATION	1	C.Y.
4057000000	SP	OVERHEAD FOOTING	20	C.Y.
4060000000	903	SUPPORTS, BREAKAWAY STEEL BEAM	443	LB.
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	982	L.F.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE @ STA. 896+32+-L-NB	1	L.S.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE @ STA. 935+68+-L-NB	1	L.S.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE @ STA. 1061+68+-L-SB	1	L.S.
4096000000	904	SIGN ERECTION, TYPE D	4	EA.
4102000000	904	SIGN ERECTION, TYPE E	44	EA.
4108000000	904	SIGN ERECTION, TYPE F	10	EA.
4109000000	904	SIGN ERECTION, TYPE A (OVERHEAD)	6	EA.
4109000000	904	SIGN ERECTION, TYPE B (OVERHEAD)	6	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	10	EA.
4234000000	907	DISPOSAL OF SIGN, A OR B (OVERHEAD)	1	EA.

INDEX

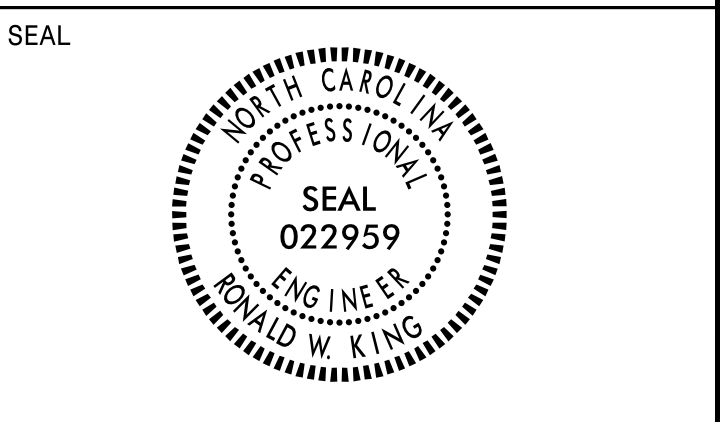
SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2-2B	SUPPORT INFORMATION
SIGN-3 & 3A	E AND F SHEETS
SIGN-4-4B	SIGN DESIGNS
SIGN-5-5E	OVERHEAD DETAILS
SIGN-6-15	SIGNING PLAN SHEETS

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

K. L. JORDAN SIGNING & DELINEATION REGIONAL ENGINEER
J. G. MARTINEZ SIGNING & DELINEATION PROJECT DESIGN ENGINEER



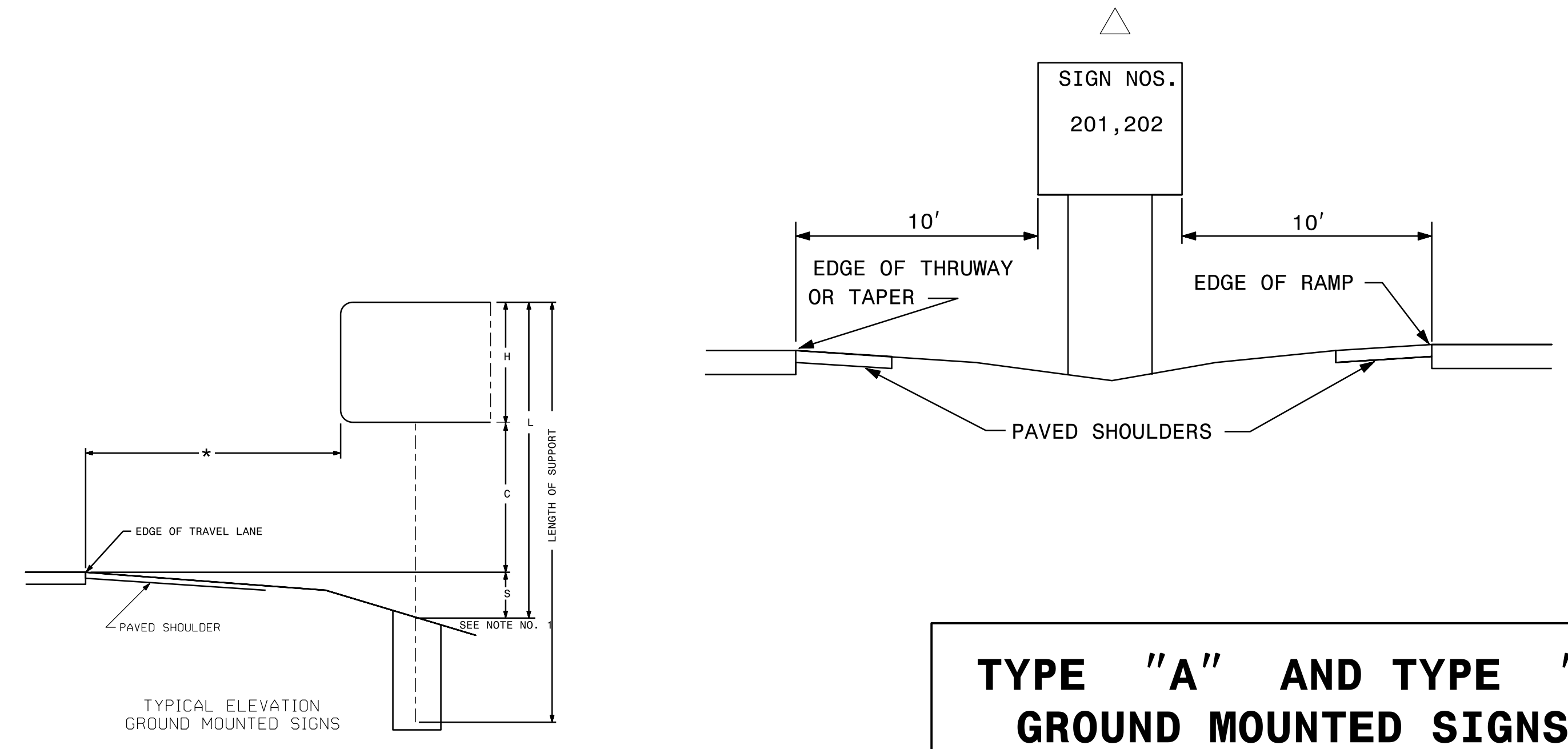
APPROVED: 
 DATE: 3/2/2015



SIGN NO.	SIGN TYPE	SIGN SIZE (in.)			ROADWAY STATION	NO. OF SUP.	BEAM SECTION	SUPPORT TYPE	ATTACH METHOD	MOUNTING METHOD	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.)	PLAIN FTGS. (c.y.)	FIELD VERIFIED SEE NOTE 2 (mm/dd/yy)		
		w	x	h							CLR. (ft.)	SNS HT (ft.)	MTG HT (ft.)	EMBED-MENT	S	L	TOTAL LENGTH	S	L	TOTAL LENGTH	S	L	TOTAL LENGTH									
201	A	78	X60		939+50 +- L	2	S3x5.7	BA	N/A	N/A	△	5.00	7.00	3.5	0.50	12.50	16.00	0.00	0.00	0.00	1.00	13.00	16.50	1	4	221.25	0.00	0.00	0.23			
202	A	78	X60		962+60 +- L	2	S3x5.7	BA	N/A	N/A	△	5.00	7.00	3.5	0.50	12.50	16.00	0.00	0.00	0.00	1.00	13.00	16.50	1	4	221.25	0.00	0.00	0.23			
																								TOTAL	TOTAL	TOTAL	TOTAL					
																								442.50	0.00	0.00	0.47					
																								USE:	443	0	0	1				

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

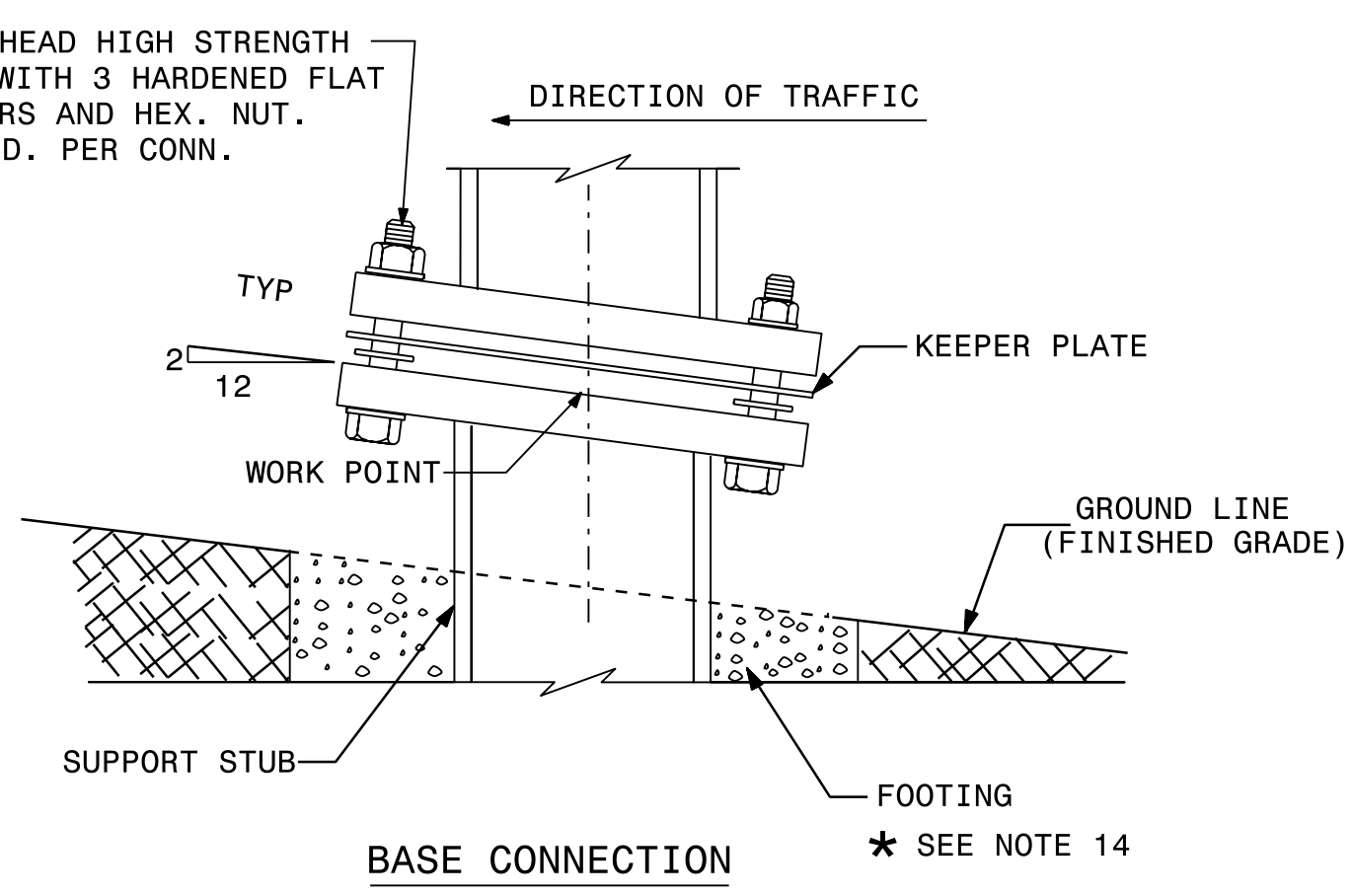
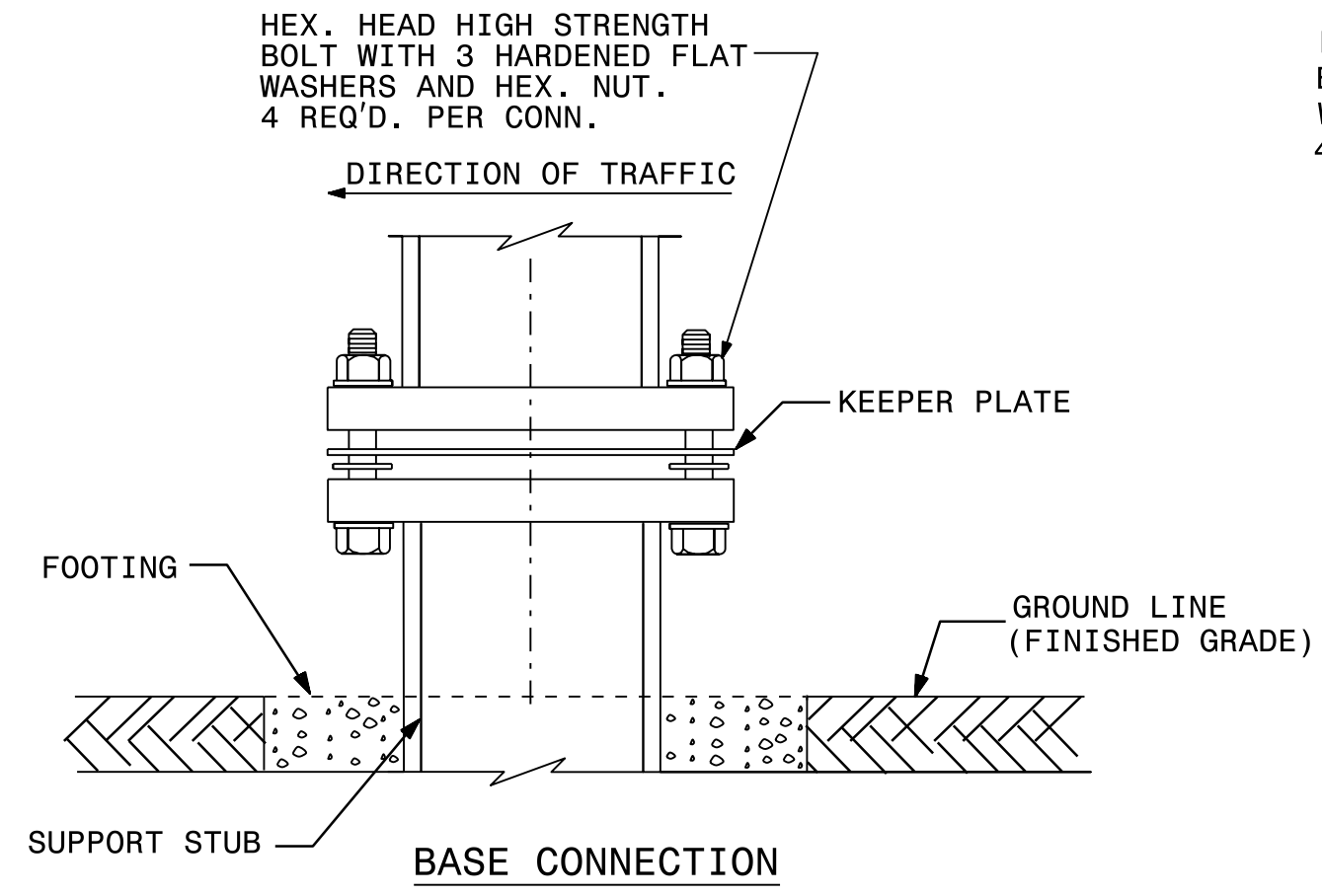
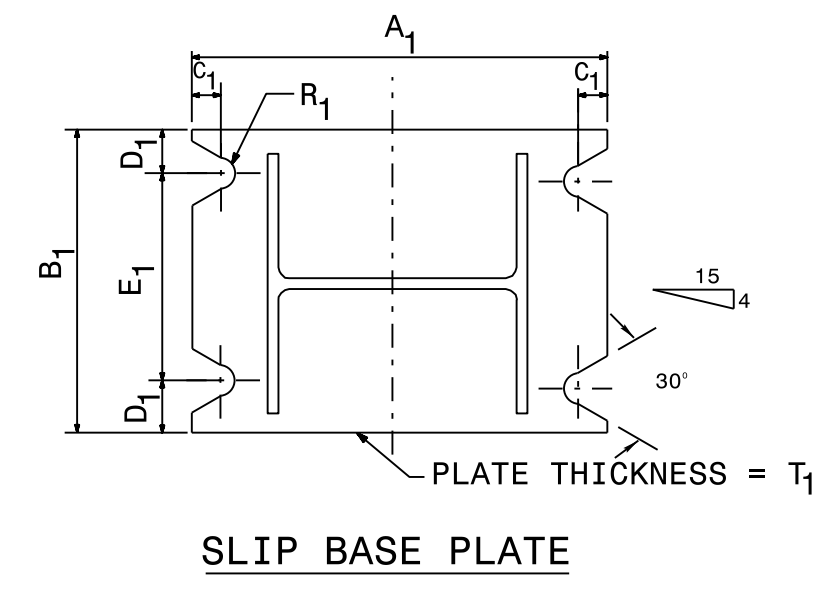
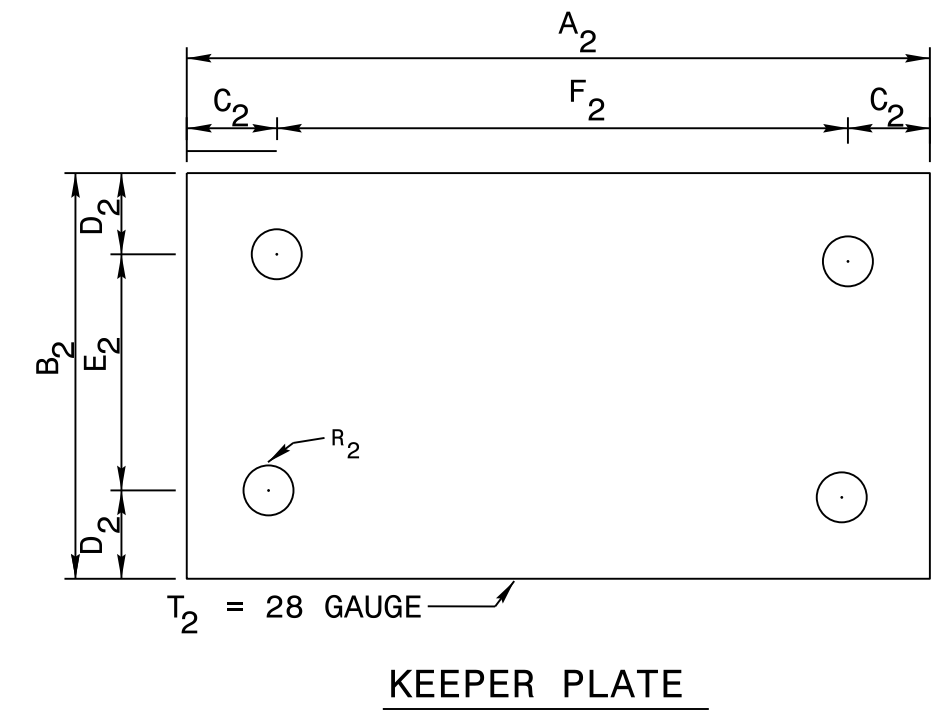
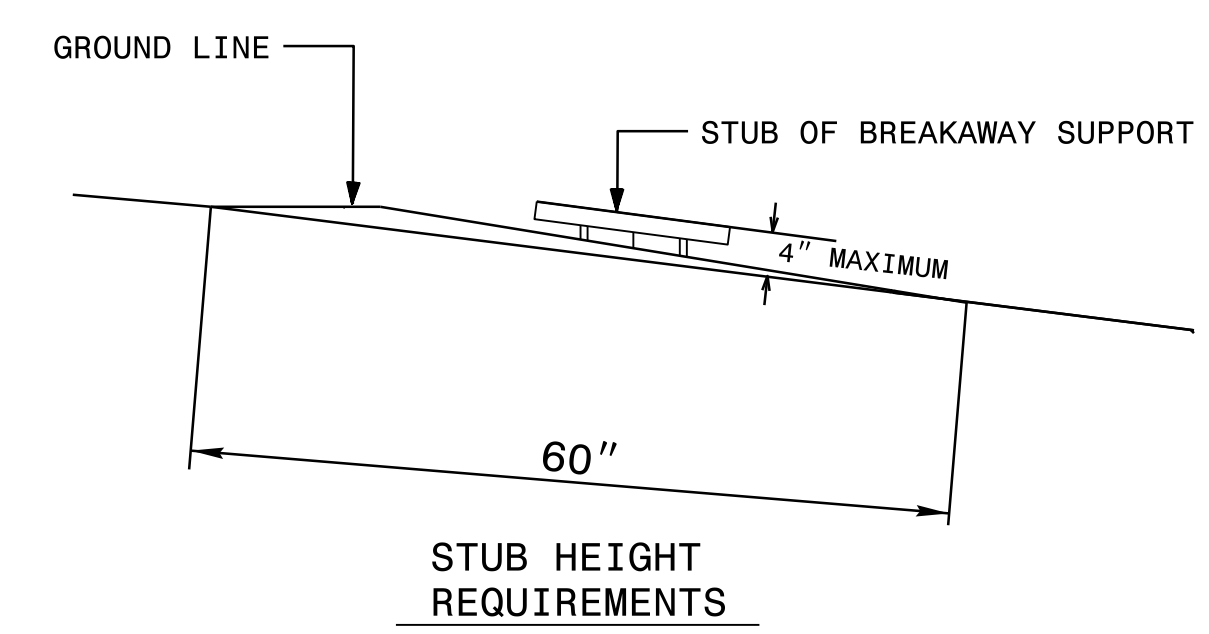
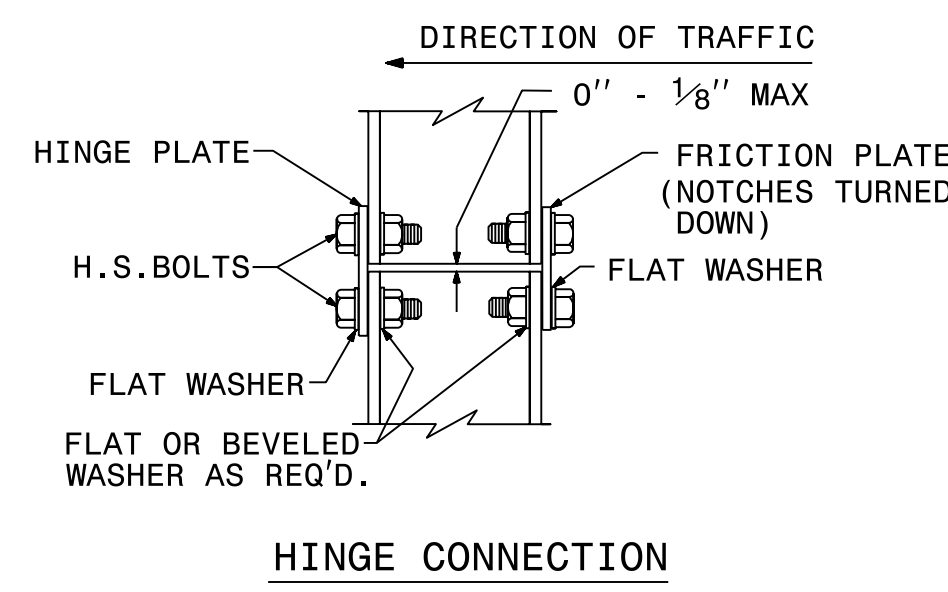
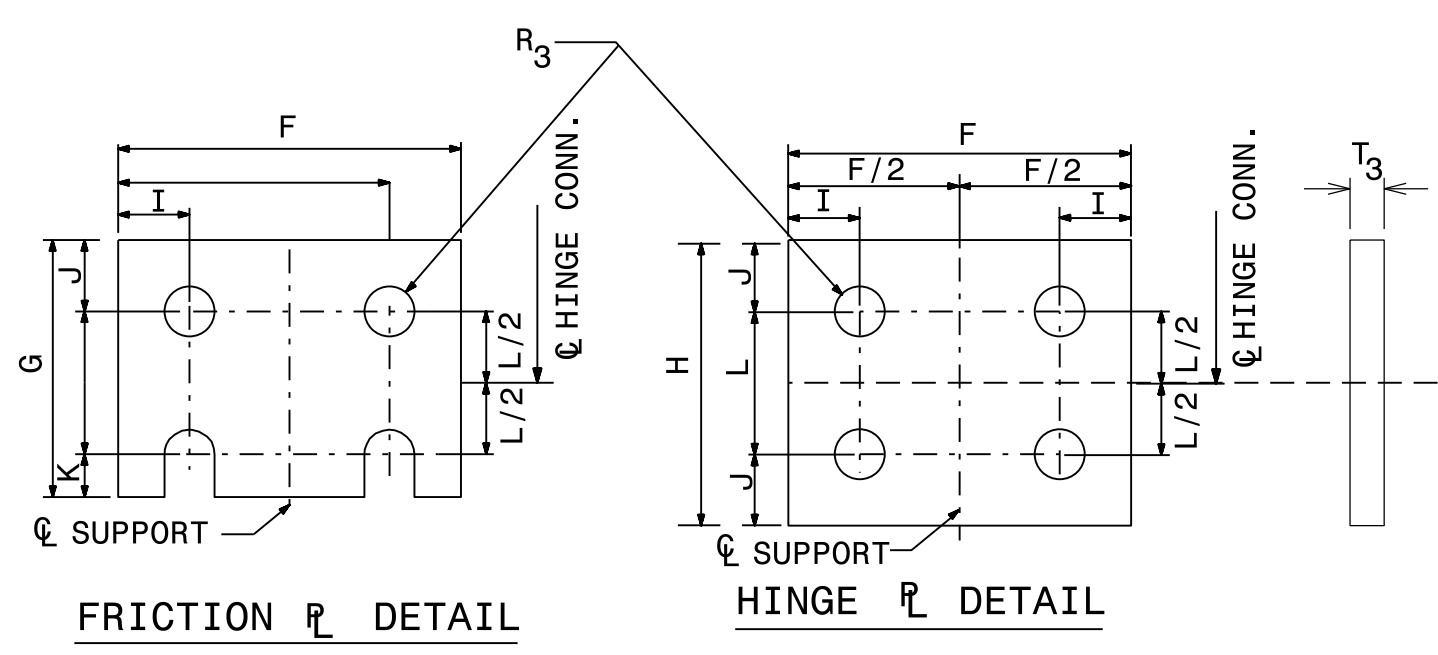
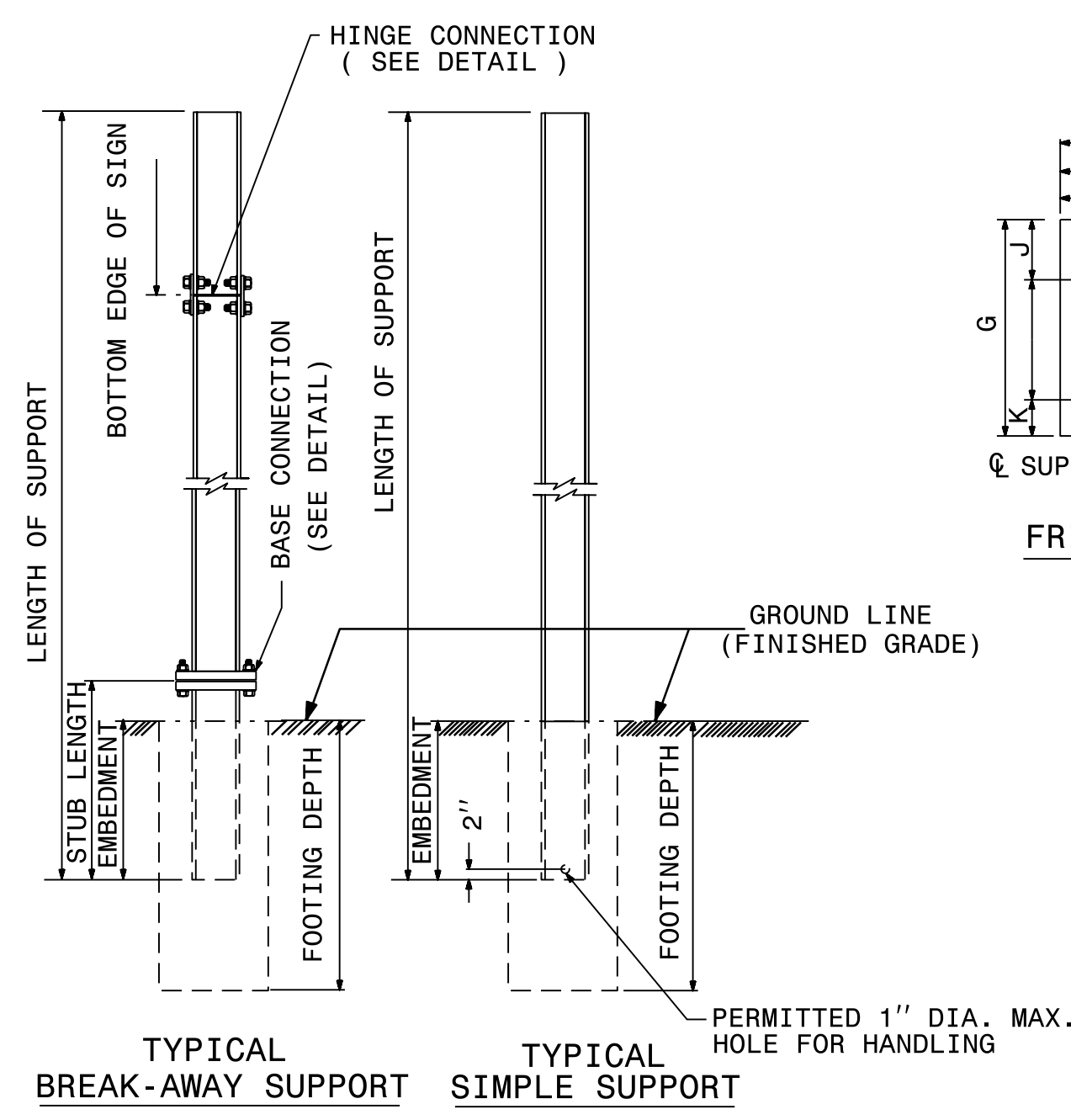
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STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR
GROUND MOUNTED SIGN SUPPORTS

SHEET 1 OF 3
903D10



SEE SHEET 2 OF 3 FOR
BASE CONNECTION DATA
HINGE CONNECTION DATA
& FOUNDATION DATA.
SEE SHEET 3 OF 3 FOR
GENERAL NOTES.

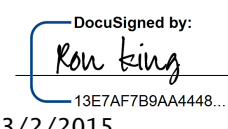

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR
GROUND MOUNTED SIGN SUPPORTS

SHEET 1 OF 3
903D10

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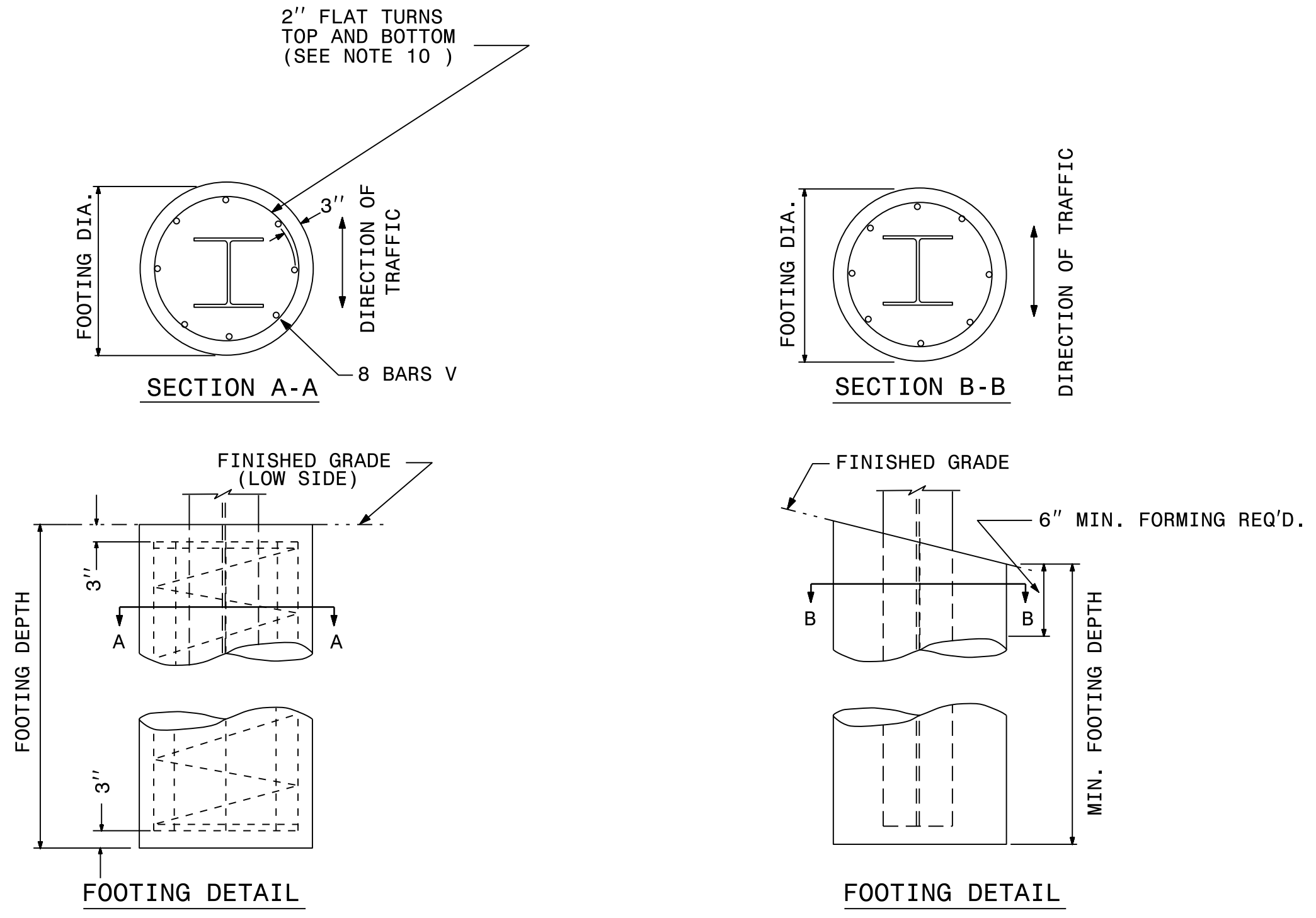
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APPROVED: 	
DATE: 3/2/2015	
SEAL	
	

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

ENGLISH DETAIL DRAWING FOR
GROUND MOUNTED SIGN SUPPORTS

SHEET 2 OF 3
903D10

BEAM SHAPE	BOLT SIZE	SLIP BASE PLATE DATA								KEEPER PLATE DATA								HINGE CONNECTION DATA								BREAK AWAY SUPPORT WEIGHT CONSTANT LBS.
		A ₁	B ₁	C ₁	D ₁	E ₁	T ₁	R ₁	A ₂	B ₂	C ₂	D ₂	E ₂	R ₂	T ₂	BOLT SIZE	F	G	H	I	J	K	L	R ₃	T ₃	
S3X5.7	1/2"DIA.X 3/4"	7"	4"	1"	3/4"	2 1/2"	1"	9/32"	7"	4"	1"	3/4"	2 1/2"	9/32"	28 GAUGE	1/2"DIA.X1 3/4"	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 3/4"	8"	4"	1"	3/4"	2 1/2"	1"	9/32"	8"	4"	1"	3/4"	2 1/2"	9/32"	28 GAUGE	1/2"DIA.X1 3/4"	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 3/4"	10"	5"	1"	3/4"	3 1/2"	1"	9/32"	10"	5"	1"	3/4"	3 1/2"	9/32"	28 GAUGE	1/2"DIA.X1 3/4"	4"	3 1/2"	4"	3/4"	1"	1 1/2"	2"	9/32"	3/8"	32
W6X12	5/8"DIA.X 4"	11"	5"	1 1/4"	7/8"	3 1/4"	1 1/4"	1 1/32"	11"	5"	1 1/4"	7/8"	3 1/4"	1 1/32"	28 GAUGE	5/8"DIA.X 2"	4"	4"	4 1/2"	3/4"	1 1/8"	5/8"	2 1/4"	1 1/32"	3/8"	39
W6X16	5/8"DIA.X 4 1/2"	12"	6"	1 1/4"	7/8"	4 1/4"	1 1/2"	1 1/32"	12"	6"	1 1/4"	7/8"	4 1/4"	1 1/32"	28 GAUGE	5/8"DIA.X2 1/4"	4"	4"	4 1/2"	3/4"	1 1/8"	5/8"	2 1/4"	1 1/32"	1/2"	47
W8X18	5/8"DIA.X 4 1/2"	13 1/2"	6 1/2"	1 1/4"	7/8"	4 3/4"	1 1/2"	1 1/32"	13 1/2"	6 1/2"	1 1/4"	7/8"	4 3/4"	1 1/32"	28 GAUGE	5/8"DIA.X2 1/4"	5 1/4"	4"	4 1/2"	1"	1 1/8"	5/8"	2 1/4"	1 1/32"	1/2"	70
W8X21	3/4"DIA.X 4 1/2"	14"	7"	1 1/2"	1"	5"	1 1/2"	1 3/32"	14"	7"	1 1/2"	1"	5"	1 3/32"	28 GAUGE	3/4"DIA.X2 1/2"	5 1/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	1 3/32"	1/2"	73
W10X22	3/4"DIA.X 4 1/2"	16"	8"	1 1/2"	1"	6"	1 1/2"	1 3/32"	16"	8"	1 1/2"	1"	6"	1 3/32"	28 GAUGE	3/4"DIA.X2 1/2"	5 3/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	1 3/32"	1/2"	119
W10X26	3/4"DIA.X 5 1/2"	16 1/2"	8"	1 1/2"	1"	6"	1 3/4"	1 3/32"	16 1/2"	8"	1 1/2"	1"	6"	1 3/32"	28 GAUGE	3/4"DIA.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.X 5 1/2"	18 1/2"	9"	1 1/2"	1"	7"	1 3/4"	1 3/32"	18 1/2"	9"	1 1/2"	1"	7"	1 3/32"	28 GAUGE	3/4"DIA.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 6"	22"	9"	2"	1 1/2"	6"	2"	1 7/32"	22"	9"	2"	1 1/2"	6"	1 7/32"	28 GAUGE	1"DIA.X 3"	6 3/4"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	5/8"	205
W16X31	1"DIA.X 6"	24"	9"	2"	1 1/2"	6"	2"	1 7/32"	24"	9"	2"	1 1/2"	6"	1 7/32"	28 GAUGE	1"DIA.X 3"	5 1/2"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	3/4"	223
W18X35	1"DIA.X 6"	25"	9"	2"	1 1/2"	6"	2"	1 7/32"	25"	9"	2"	1 1/2"	6"	1 7/32"	28 GAUGE	1"DIA.X 3"	6"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	3/4"	243
W18X40	1"DIA.X 6 1/2"	26"	9"	2"	1 1/2"	6"	2 1/4"	1 7/32"	26"	9"	2"	1 1/2"	6"	1 7/32"	28 GAUGE	1"DIA.X3 1/2"	6"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	7/8"	278
W21X44	1"DIA.X 7"	29"	9"	2"	1 1/2"	6"	2 1/2"	1 7/32"	29"	9"	2"	1 1/2"	6"	1 7/32"	28 GAUGE	1"DIA.X3 1/2"	6 1/2"	7"	8"	1 1/4"	2"	1"	4"	1 7/32"	7/8"	310



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

* FOUNDATION DIMENSIONS ARE SHOWN IN PLANS

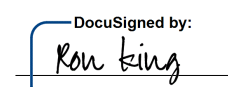

STATE OF
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RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
GROUND MOUNTED SIGN SUPPORTS

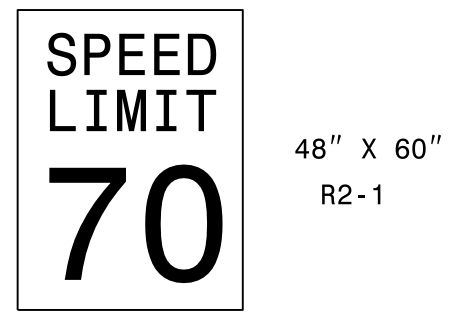
SHEET 2 OF 3
903D10

**REVISED SIGNING
ROADWAY STANDARD DRAWING**

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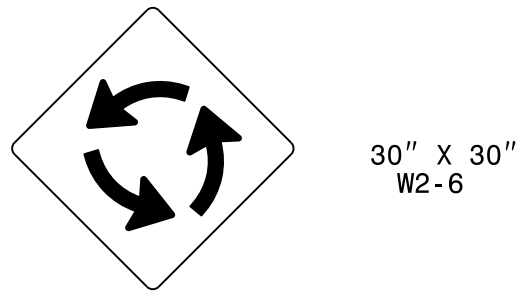
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APPROVED:  13E7AF7B8A4448	
DATE: 3/2/2015	
SEAL 	

401 QUANTITY REQ'D 2



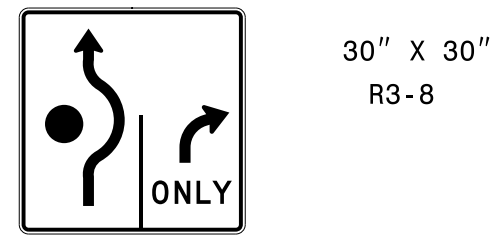
TWO "U" POSTS PER SIGN

406 QUANTITY REQ'D 2



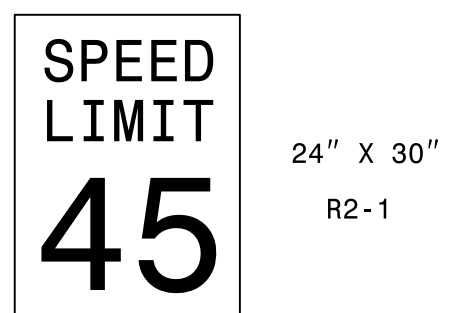
ONE "U" POST PER SIGN

411 QUANTITY REQ'D 1



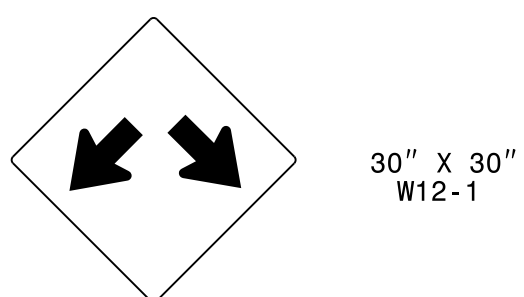
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402 QUANTITY REQ'D 3



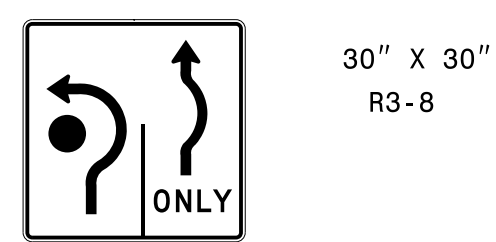
TWO "U" POSTS PER SIGN

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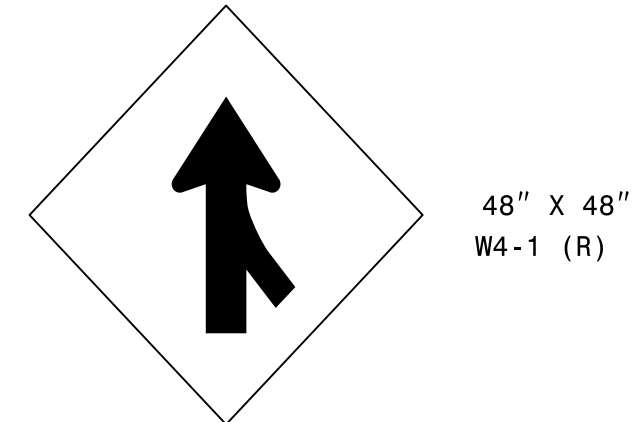
ONE "U" POST PER SIGN

412 QUANTITY REQ'D 1



ONE "U" POST PER SIGN

403 QUANTITY REQ'D 2



TWO "U" POSTS PER SIGN

408 QUANTITY REQ'D 4



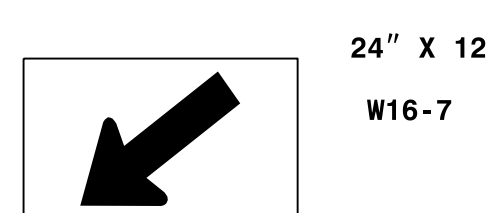
YELLOW/GREEN REFLECTIVE SHEETING
ONE "U" POST PER SIGN

404 QUANTITY REQ'D 14



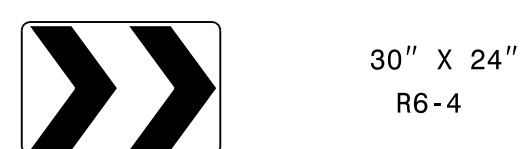
ONE "U" POST PER SIGN

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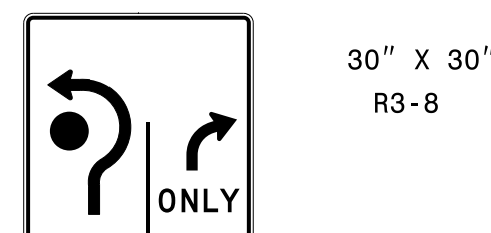
YELLOW/GREEN REFLECTIVE SHEETING
MOUNT BELOW SIGN 408
IN 4 INSTALLATIONS

405 QUANTITY REQ'D 9



ONE "U" POST PER SIGN

410 QUANTITY REQ'D 1



ONE "U" POST PER SIGN

TYPE "E" SIGNS

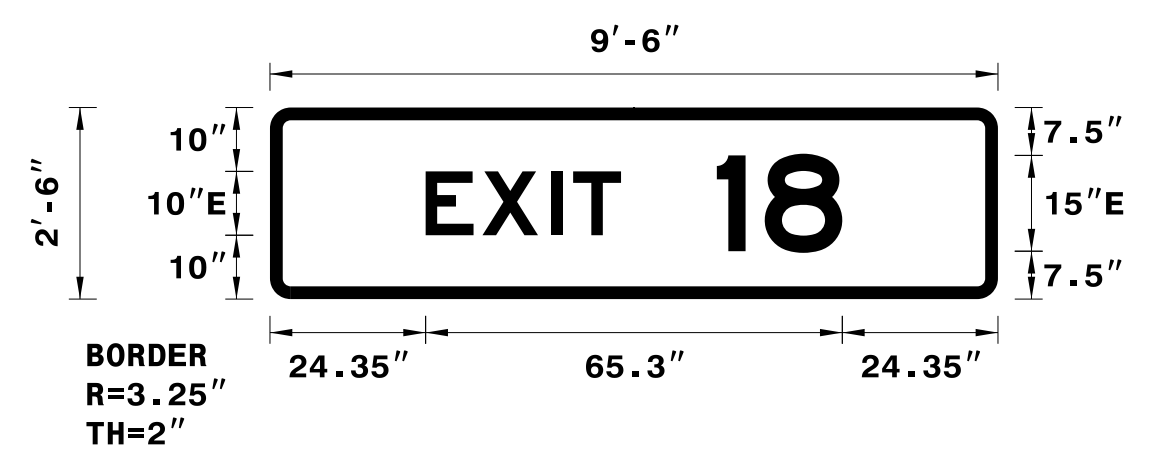
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 User: jk
 Plot: 1

APPROVED: *Ron King*
 DATE: 3/2/2015



SIGN NUMBER: 1A,2A,3A,4A,5A,6A BACKG COLOR: Green
 TYPE: B COPY COLOR: White
 QUANTITY: 6
 SIGN WIDTH: 9'-6"
 HEIGHT: 2'-6"
 TOTAL AREA: 23.8 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 3.25"
 NO. Z BARS: 2
 LENGTH: 106.0
 MAT'L: 0.125" (3.2 mm) ALUMINUM

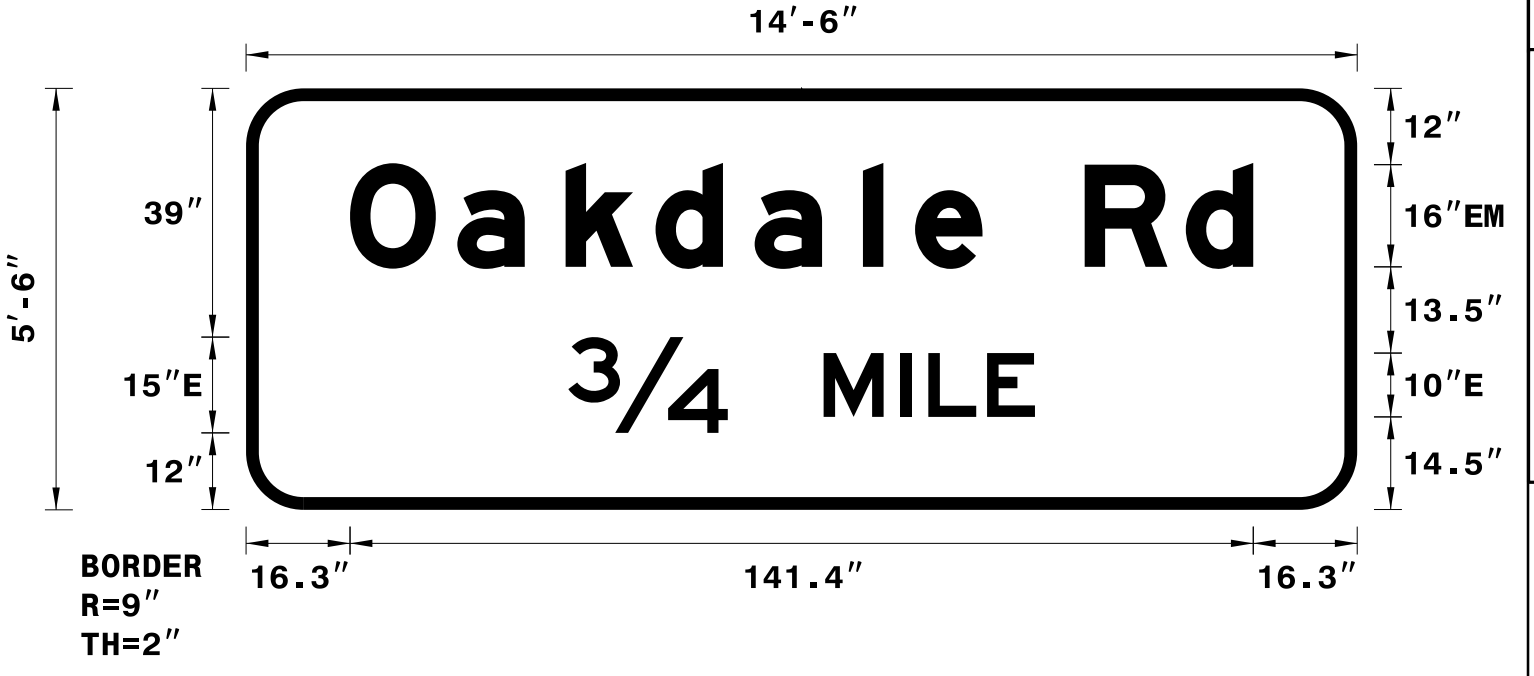
DESIGN BY: jgm CHECKED BY: DATE: Oct 03, 2014
 PROJECT ID: R-2248G DIV: 10



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

SIGN NUMBER: 2B BACKG COLOR: Green
 TYPE: A COPY COLOR: White
 QUANTITY: 1
 SIGN WIDTH: 14'-6"
 HEIGHT: 5'-6"
 TOTAL AREA: 79.8 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 9"
 NO. Z BARS: 2
 LENGTH: 166.0
 MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: jgm CHECKED BY: DATE: Nov 05, 2014
 PROJECT ID: R-2248G DIV: 10



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

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
E 2000	65.3
E 2000	65.3

FILENAME: R-2248G Sign Design NORTH CAROLINA D.O.T. SIGN DETAIL

LETTER POSITIONS

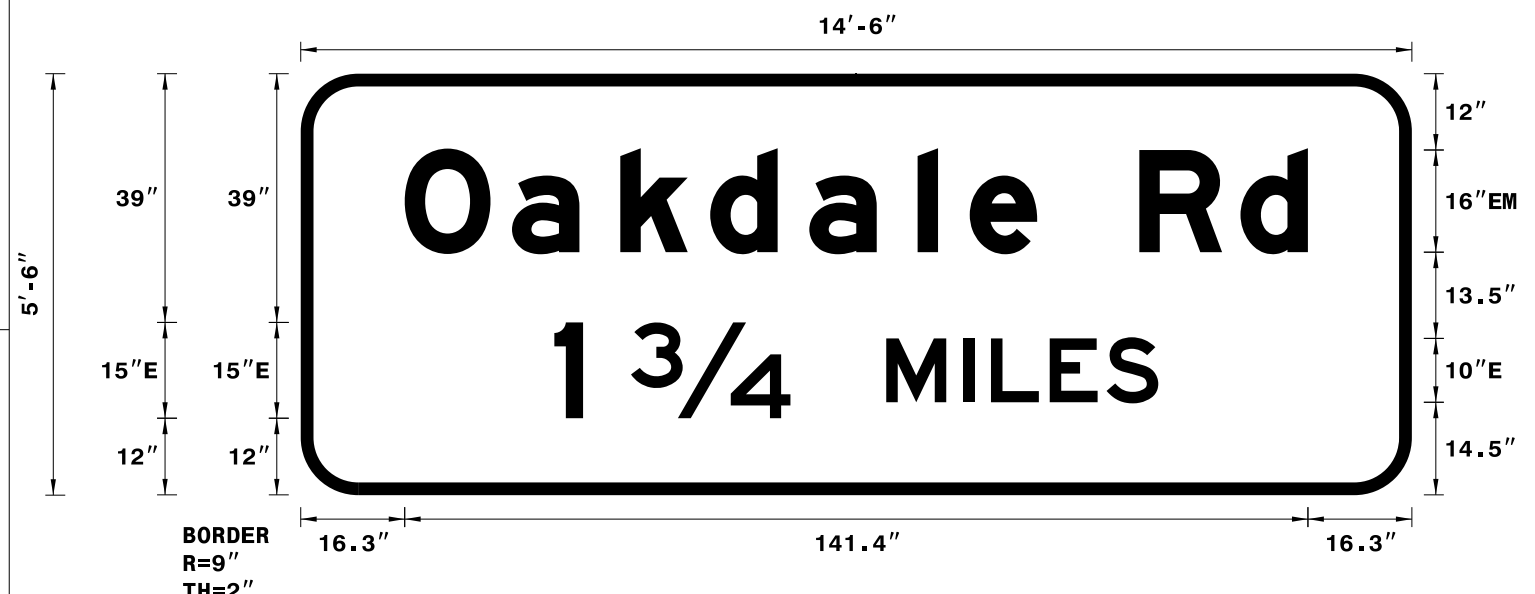
Letter spacings are to start of next letter

Series/Size	Text Length
EM 2000	141.4
E 2000	73.1

FILENAME: R-2248G Sign Design NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 1B,6B BACKG COLOR: Green
 TYPE: A COPY COLOR: White
 QUANTITY: 2
 SIGN WIDTH: 14'-6"
 HEIGHT: 5'-6"
 TOTAL AREA: 79.8 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 9"
 NO. Z BARS: 2
 LENGTH: 166.0
 MAT'L: 0.125" (3.2 mm) ALUMINUM

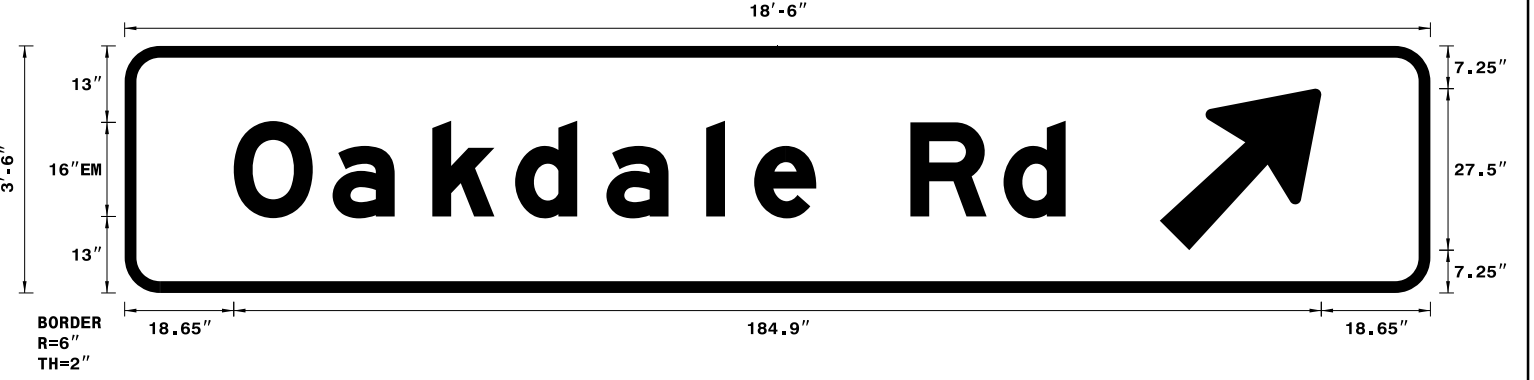
DESIGN BY: jgm CHECKED BY: DATE: Nov 05, 2014
 PROJECT ID: R-2248G DIV: 10



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

SIGN NUMBER: 3B,4B BACKG COLOR: Green
 TYPE: A COPY COLOR: White
 QUANTITY: 2
 SIGN WIDTH: 18'-6"
 HEIGHT: 3'-6"
 TOTAL AREA: 64.8 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 6"
 NO. Z BARS: 2
 LENGTH: 214.0
 MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: jgm CHECKED BY: DATE: Nov 05, 2014
 PROJECT ID: R-2248G DIV: 10



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

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
EM 2000	141.4
E 2000	94.6

FILENAME: R-2248G Sign Design NORTH CAROLINA D.O.T. SIGN DETAIL

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
EM 2000	141.4

FILENAME: R-2248G Sign Design NORTH CAROLINA D.O.T. SIGN DETAIL

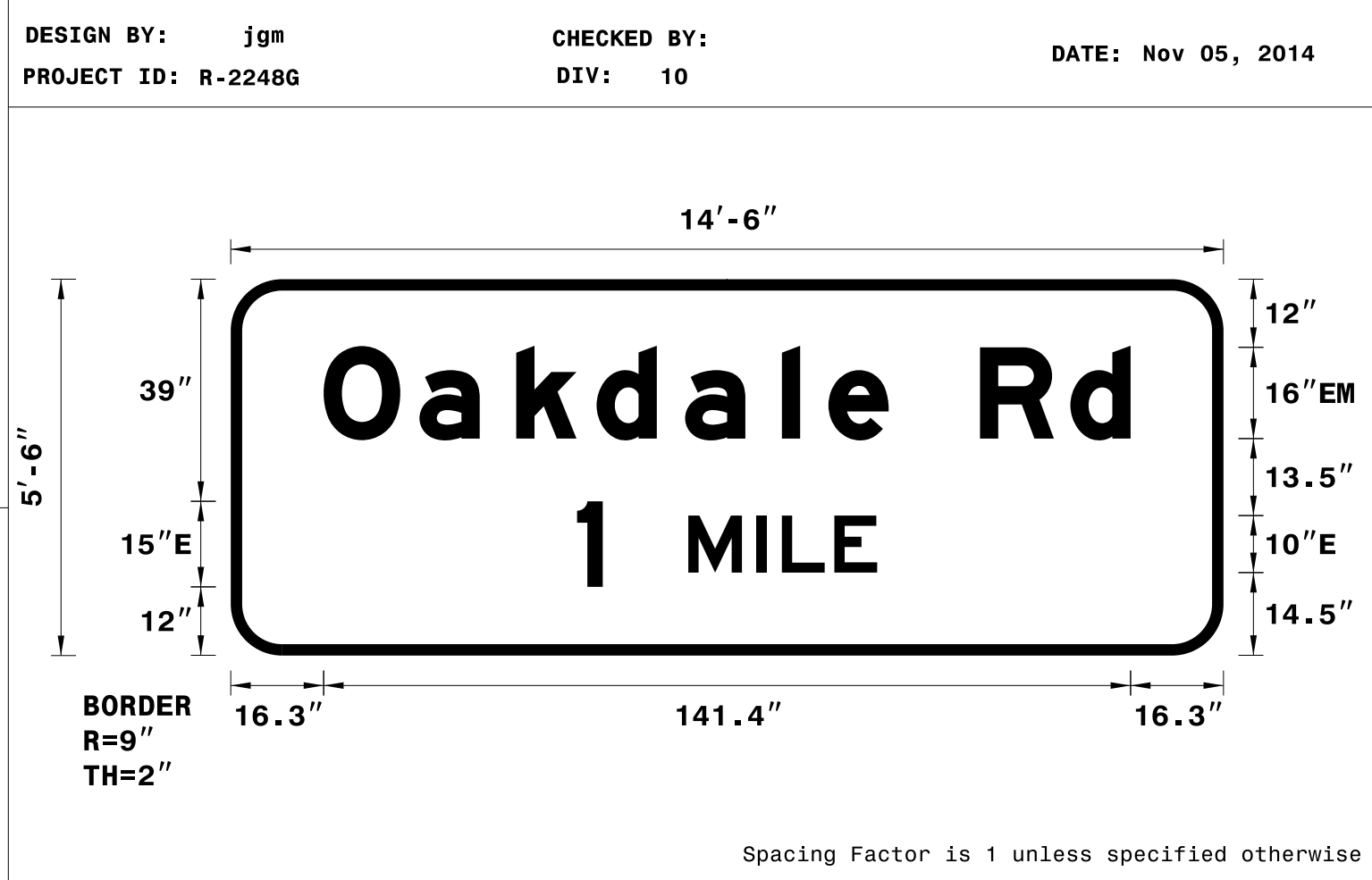
P:\MIS-2015\1158\Projects\2248G\Traffic\Signing\CADD\Quantities & CM Signs\R-2248G Tsht Outlines E&F.dgn
 11/11/2015 11:58 AM

SIGN NUMBER: 5B
 TYPE: A
 QUANTITY: 1
 SIGN WIDTH: 14'-6"
 HEIGHT: 5'-6"
 TOTAL AREA: 79.8 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 9"
 NO. Z BARS: 2
 LENGTH: 166.0

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
AR_Type A	49	6	18.3	29.3

MAT'L: 0.125" (3.2 mm) ALUMINUM



USE NOTES: 1,2

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

	O	a	k	d	a	l	e	R	d		Series/Size Text Length		
	16.3	16.8	17	14.1	15.5	17	8.2	10.6	16	15.8	10.6	16.3	EM 2000 141.4
	1	M	I	L	E								E 2000 52.6

FILENAME: R-2248G Sign Design

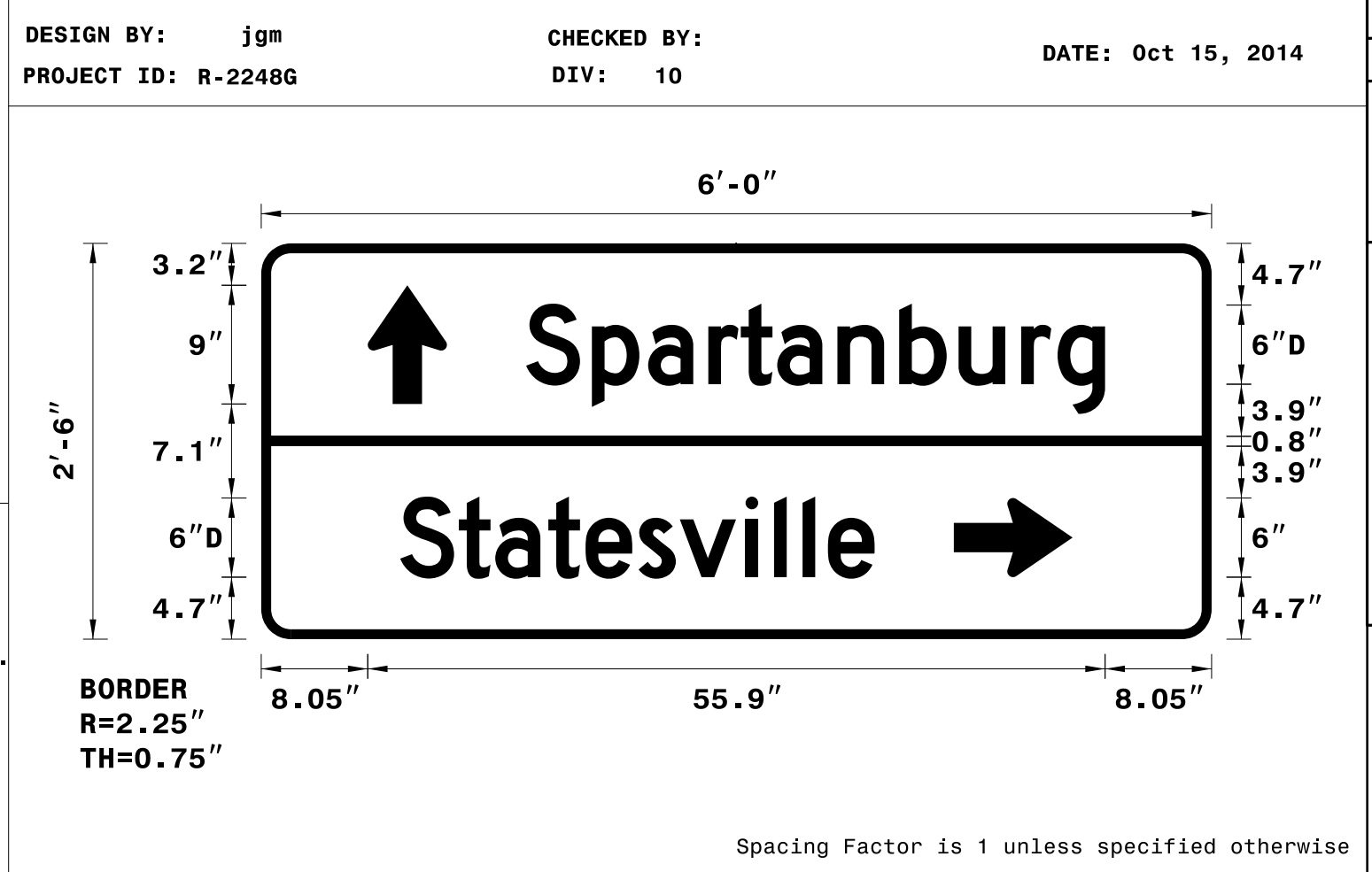
NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 301
 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: 2.25"
 NO. Z BARS:
 LENGTH:

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
AR_Type D	8.1	17.8	6	9
AR_Type D	52.5	4.7	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM



USE NOTES: 1,2,3

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

	S	p	a	r	t	a	n	b	u	r	g		Series/Size Text Length	
	20.1	5	4.3	4.6	2.5	2.8	4.6	4.7	4.5	4.7	2.8	3.6	8.1	D 2000 43.9
	10.5	4.4	2.8	4	2.8	4	3.1	5	2.2	2.2	1.9	3.5	25.5	D 2000 35.9

FILENAME: R-2248G Sign Design

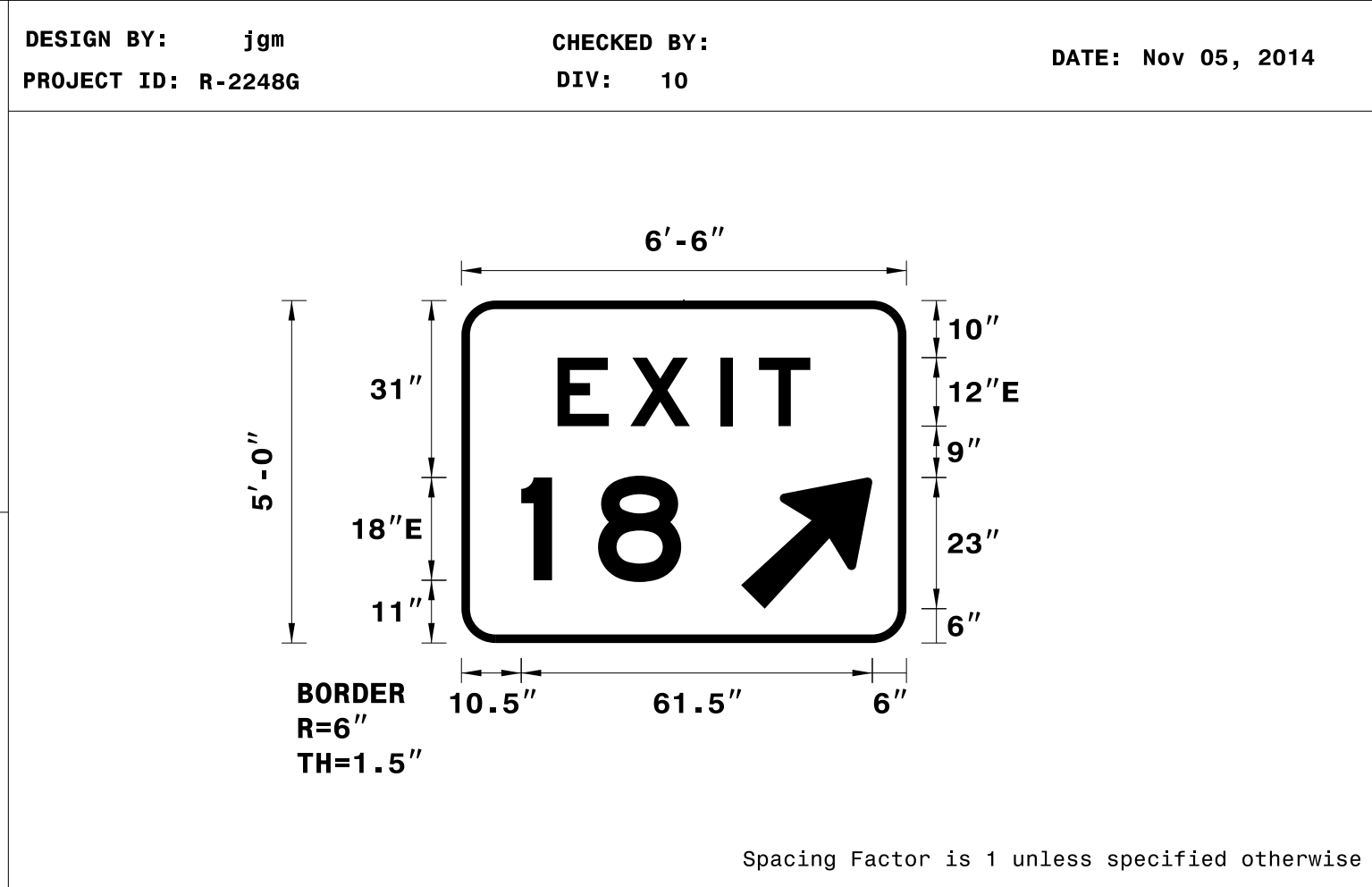
NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 201,202
 TYPE: A
 QUANTITY: 2
 SIGN WIDTH: 6'-6"
 HEIGHT: 5'-0"
 TOTAL AREA: 32.5 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 1.5"
 RADII: 6"
 NO. Z BARS: 2
 LENGTH: 70.0

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
AR_Type A	49	6	18.3	29.3

MAT'L: 0.125" (3.2 mm) ALUMINUM



USE NOTES: 1,2,3

- Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.
- Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
- 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		Series/Size Text Length	
	16.8	12.8	15.8	6.7	9	16.8	E 2000 44.3
	1	8					E 2000 28

FILENAME: R-2248G Sign Design

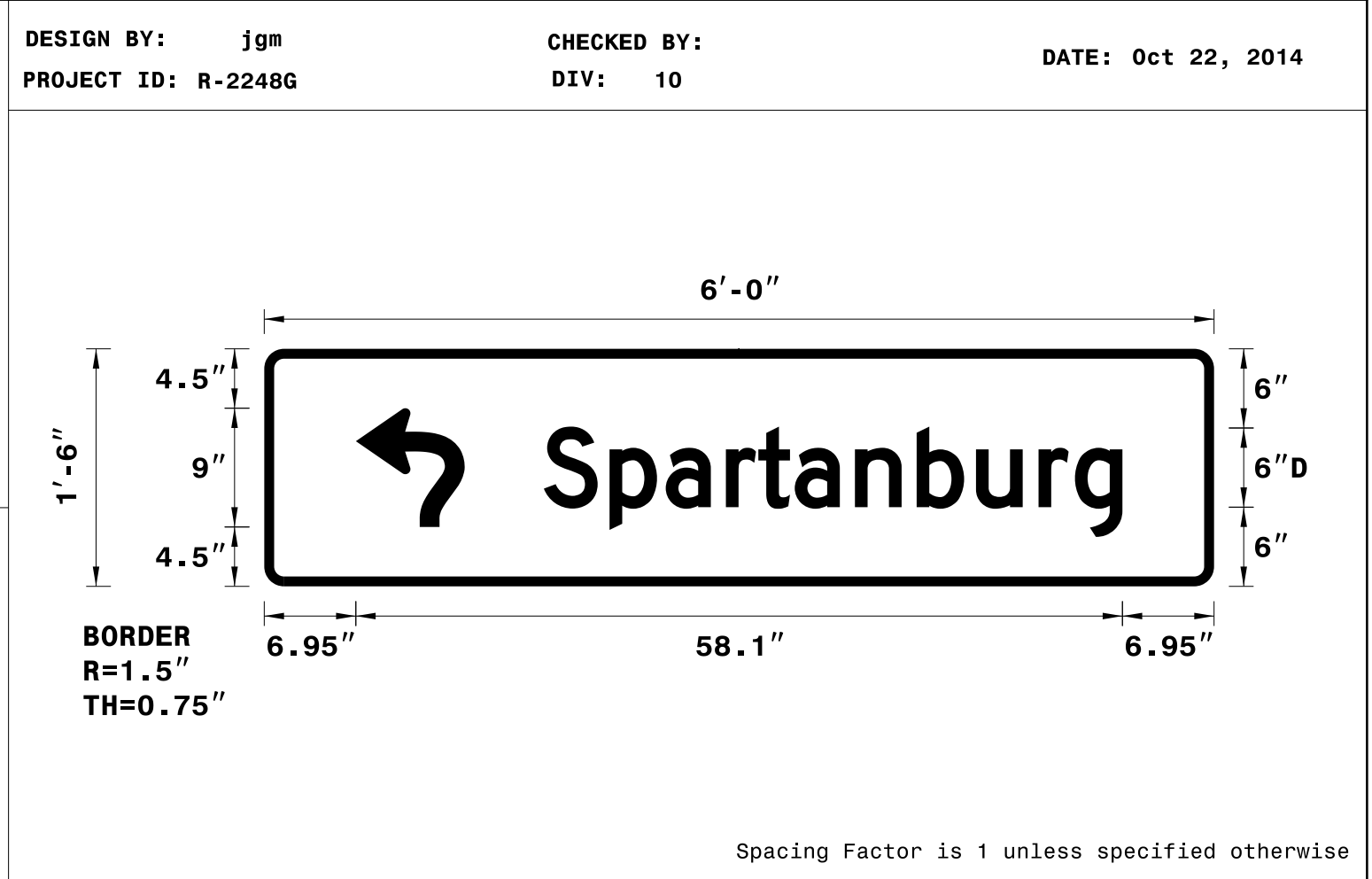
NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 302
 TYPE: D
 QUANTITY: 1
 SIGN WIDTH: 6'-0"
 HEIGHT: 1'-6"
 TOTAL AREA: 9.0 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 0.75"
 RADII: 1.5"
 NO. Z BARS:
 LENGTH:

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
AR_FISHOOK	6.9	4.5	8.3	9

MAT'L: 0.125" (3.2 mm) ALUMINUM



USE NOTES: 1,2,3

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

	S	p	a	r	t	a	n	b	u	r	g		Series/Size Text Length	
	21.2	5	4.3	4.6	2.5	2.8	4.6	4.7	4.5	4.7	2.8	3.6	6.9	D 2000 43.9

FILENAME: R-2248G Sign Design

NORTH CAROLINA D.O.T. SIGN DETAIL

PROJECT REFERENCE NO. R-2248G
 SHEET NO. SIGN-4A

APPROVED: *Ron King*
 DATE: 3/2/2015

SEAL

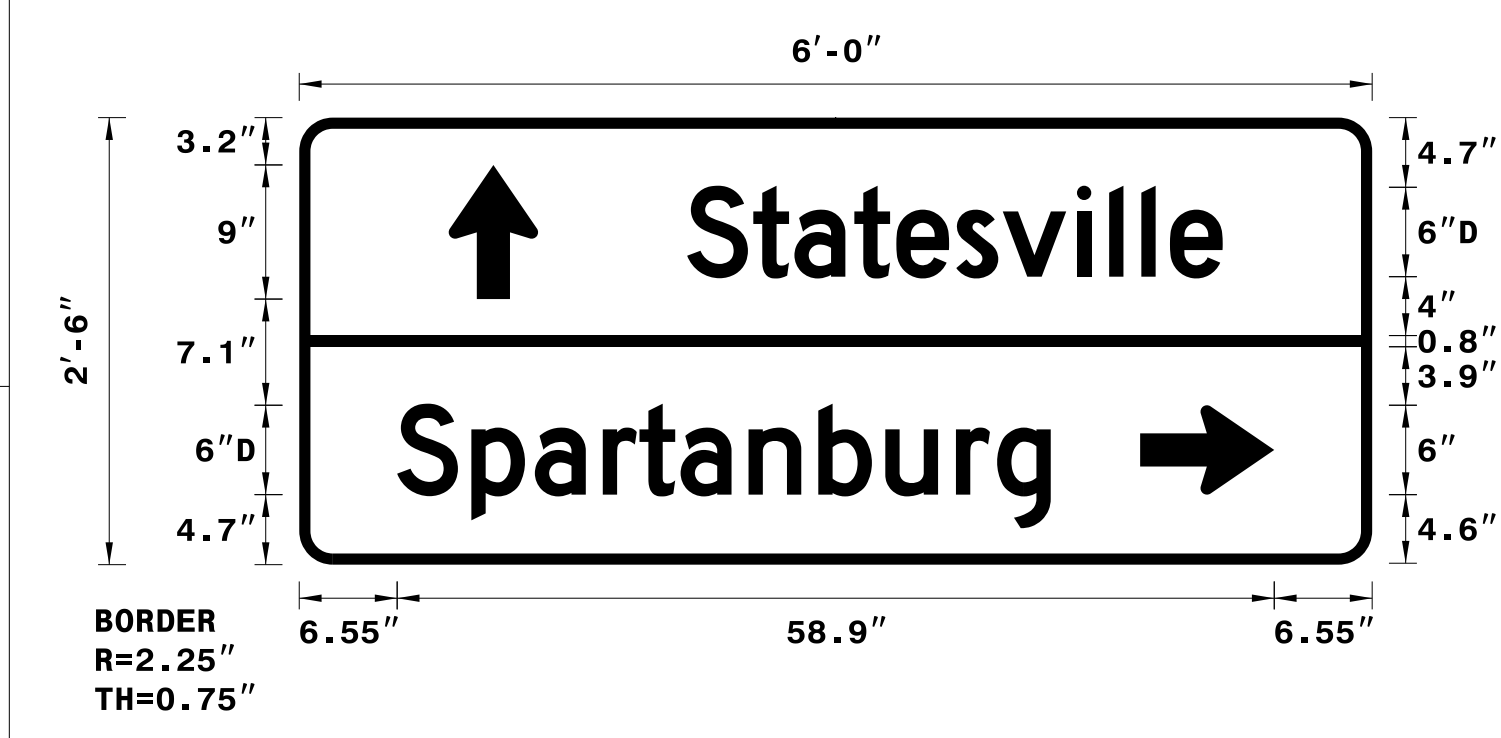
SIGN DESIGNS

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 11/5/14 11:59 AM

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: 2.25"
 NO. Z BARS:
 LENGTH:

SYMBOL	X	Y	WID	HT
AR_Type D	10	17.8	6	9
AR_Type D	56.4	4.7	6	9

DESIGN BY: jgm
 PROJECT ID: R-2248G
 CHECKED BY:
 DIV: 10
 DATE: Oct 22, 2014



BORDER R=2.25" TH=0.75"
 Spacing Factor is 1 unless specified otherwise

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

LETTER POSITIONS

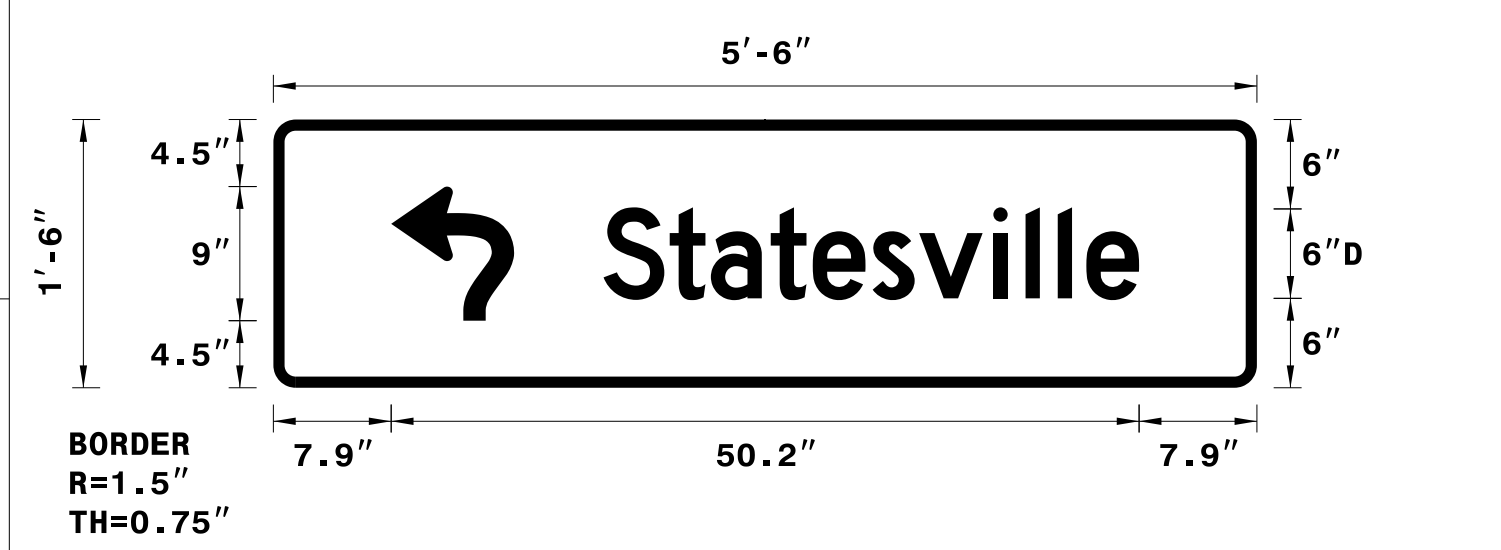
Letter spacings are to start of next letter													Series/Size	Text Length		
	S	t	a	t	e	s	v	i	l	l	e					
26	4.4	2.8	4	2.8	4	3.1	5	2.2	2.2	1.9	3.5	10			D 2000	35.9
	S	p	a	r	t	a	n	b	u	r	g				D 2000	43.9
6.6	5	4.3	4.6	2.5	2.8	4.6	4.7	4.5	4.7	2.8	3.6	21.6				

FILENAME: R-2248G Sign Design NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 304
 TYPE: D
 QUANTITY: 1
 SIGN WIDTH: 5'-6"
 HEIGHT: 1'-6"
 TOTAL AREA: 8.3 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 0.75"
 RADII: 1.5"
 NO. Z BARS:
 LENGTH:

SYMBOL	X	Y	WID	HT
AR_FISHOOK	7.9	4.5	8.3	9

DESIGN BY: jgm
 PROJECT ID: R-2248G
 CHECKED BY:
 DIV: 10
 DATE: Oct 22, 2014



BORDER R=1.5" TH=0.75"
 Spacing Factor is 1 unless specified otherwise

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

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size	Text Length		
	S	t	a	t	e	s	v	i	l	l	e					
22.2	4.4	2.8	4	2.8	4	3.1	5	2.2	2.2	1.9	3.5	7.9			D 2000	35.9

FILENAME: R-2248G Sign Design NORTH CAROLINA D.O.T. SIGN DETAIL

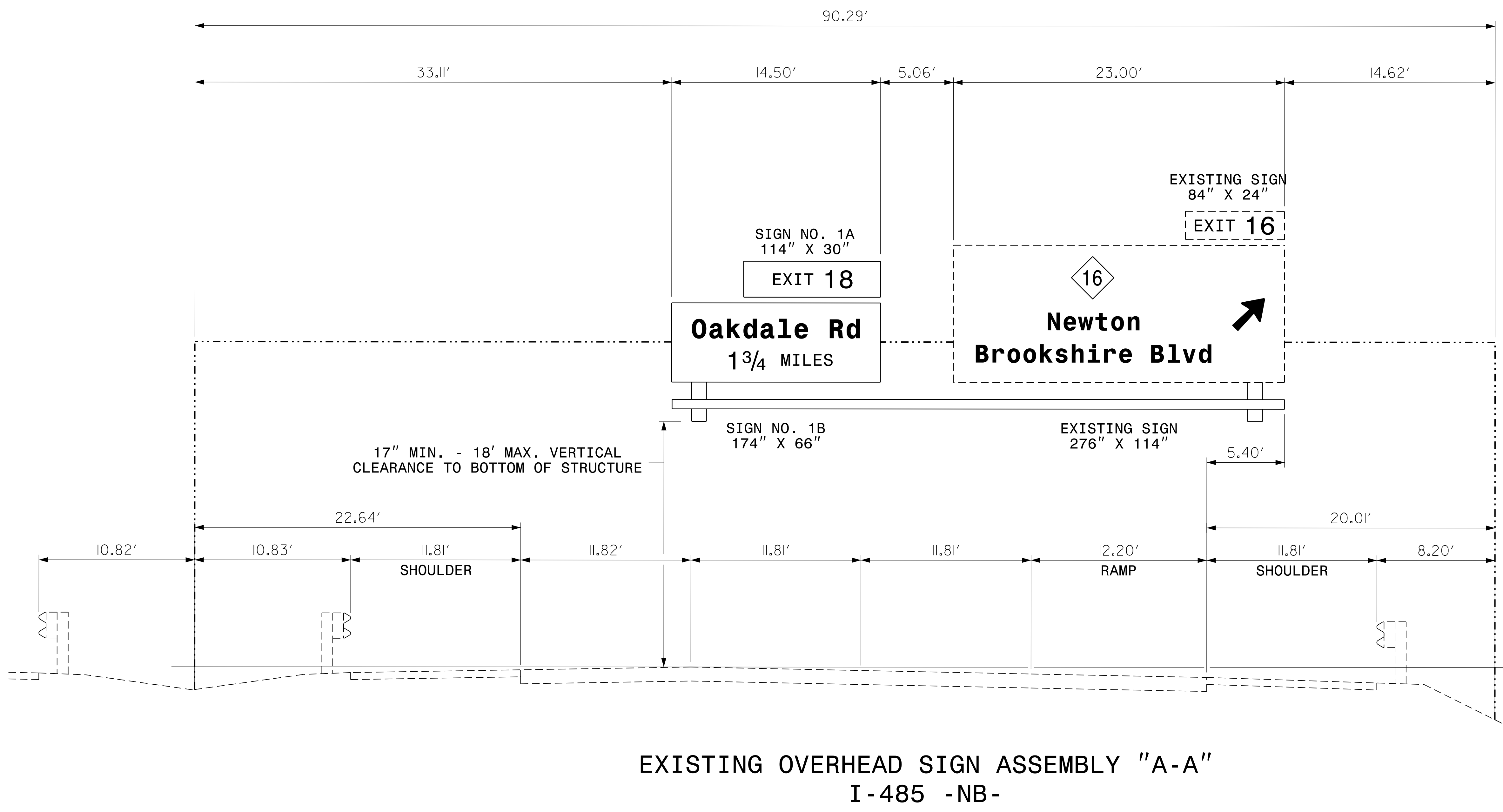
PROJECT REFERENCE NO. R-2248G SHEET NO. SIGN-4B

APPROVED: *Ronald W. King*
 DATE: 3/2/2015

SEAL

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 12/8/2015 12:08 PM

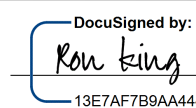
SIGN DESIGNS



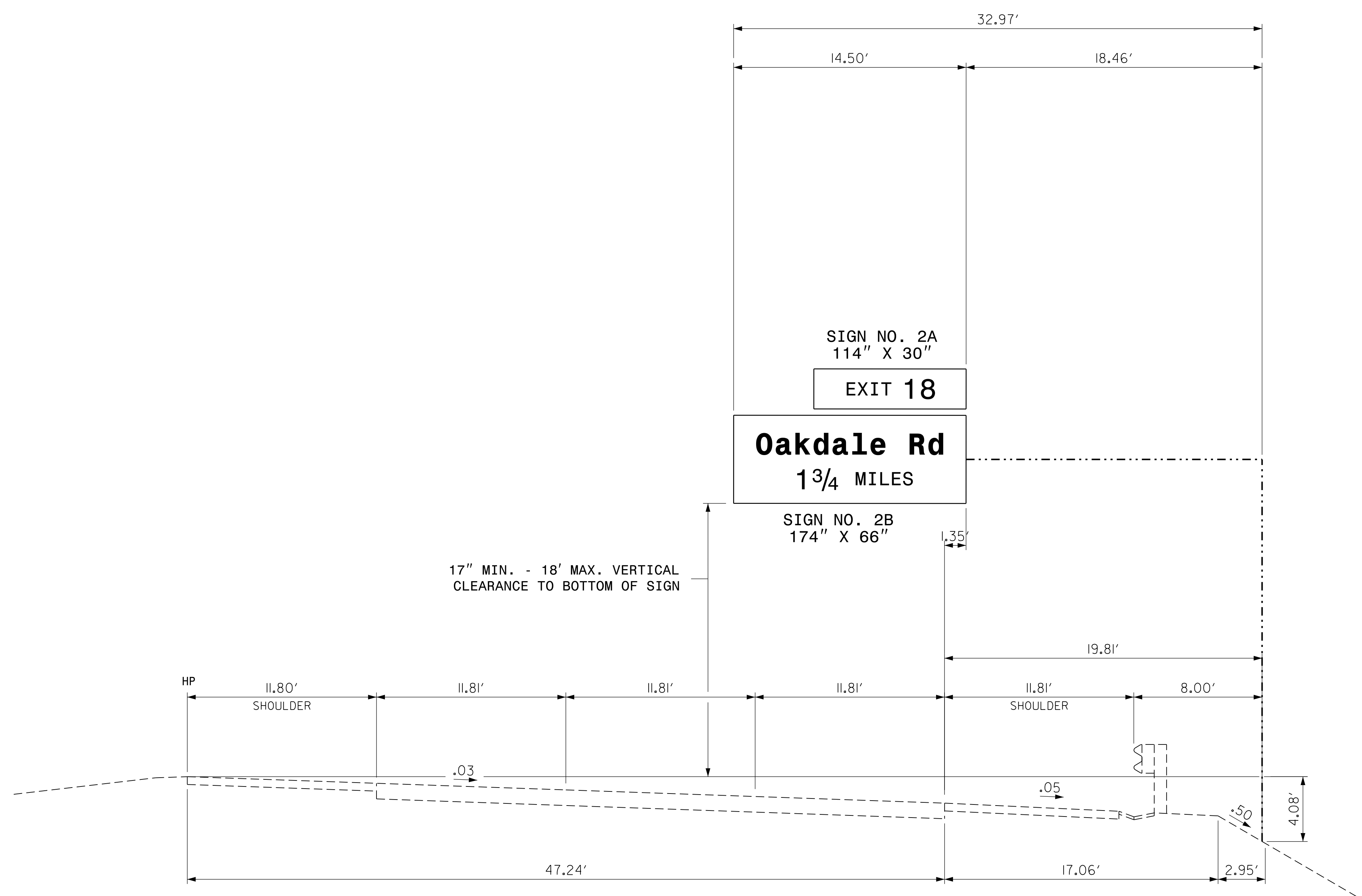
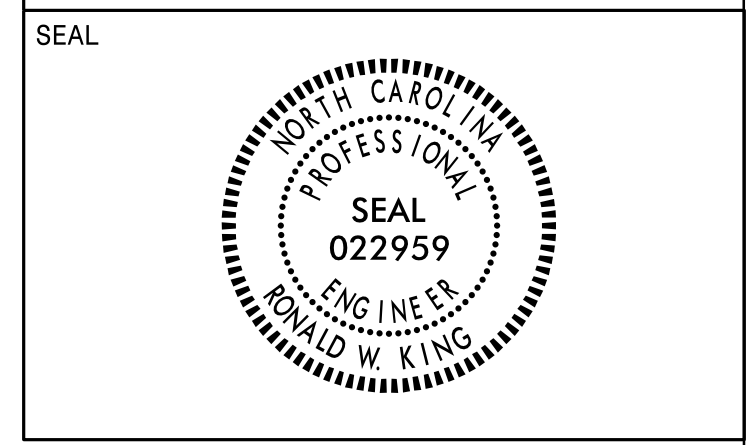
EXISTING OVERHEAD SIGN ASSEMBLY "A-A"
I-485 -NB-

EXISTING OH SIGN ASSEMBLY "A-A"
I-485 NBL

02-MAR-2015 14:42
 P:\Projects\I-485\2248G\Traffic\Signing\CADD\Overheads\R-2248G_Sgn_OHs.dgn
 jgmar-tme2

APPROVED: 
DocuSigned by:
 Ronald W. King
 13E7AF7B8AA4448...

DATE: 3/2/2015




OVERHEAD SIGN ASSEMBLY "A"
 +- 2010' FROM EXISTING OH SIGN ASSEMBLY
 (SEE SHEET SIGN-7)
 (STA. 896+32+-L-NB)

NOTES:

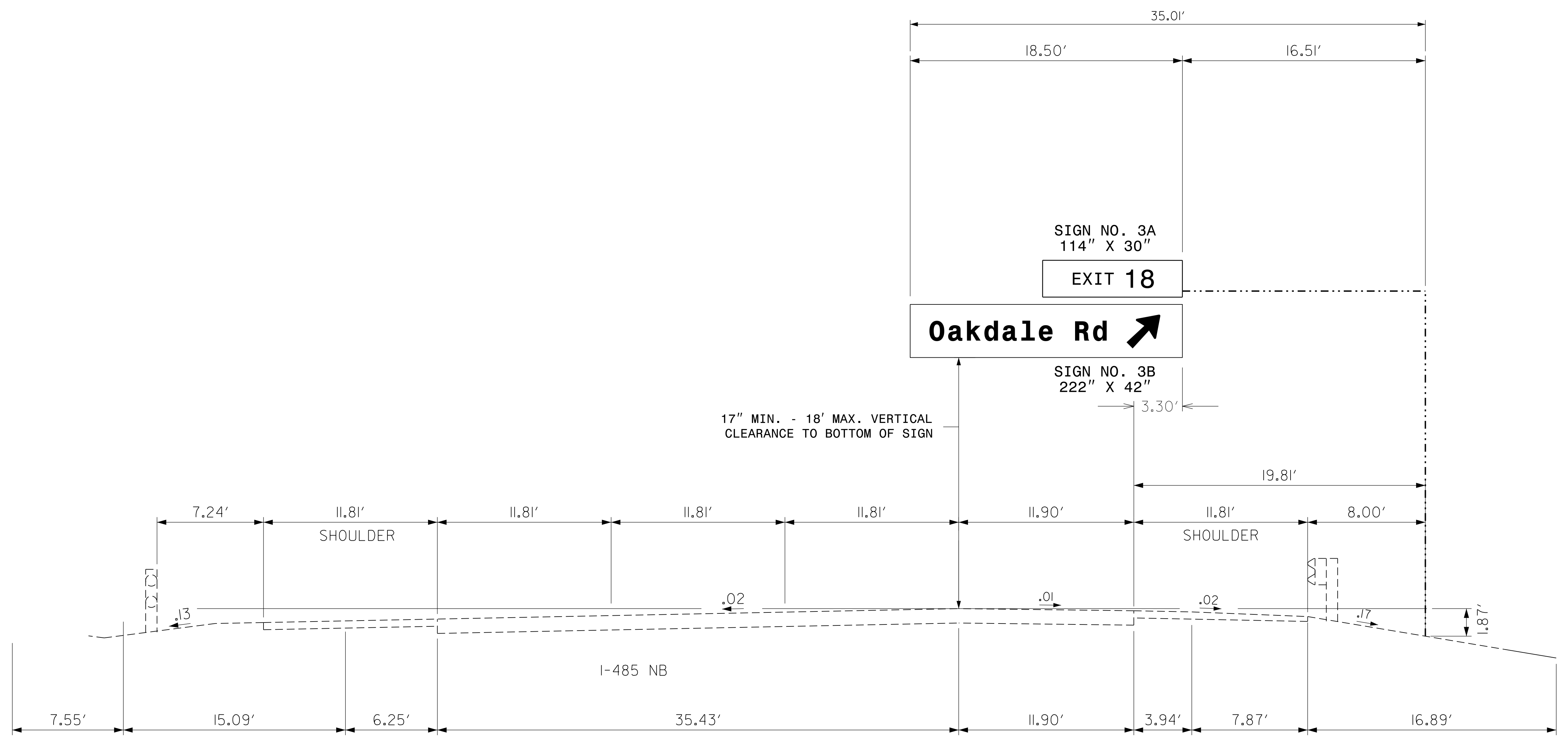
- IF THE CONTRACTOR BIDS ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
- MOUNT SIGNS VERTICALLY CENTERED ON HORIZONTAL MEMBER OF STRUCTURE.
- FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
- THE TOP OF THE FOOTING SHALL EXTEND AT LEAST 4 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
- SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THIS PLAN SHEET.
- DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 90 M.P.H.

OVERHEAD SIGN ASSEMBLY "A"
 I-485 NBL

02-MAR-2015 14:26
 P:\TIP\Projects\R-2248G\Traffic\Signing\CADD\Overheads\R-2248G_Sgn_OHs.dgn
 jgmar-tunez AT 1E274401

APPROVED: 
DocuSigned by:
 Ronald W. King
 13E7AF7B8A44448

DATE: 3/2/2015



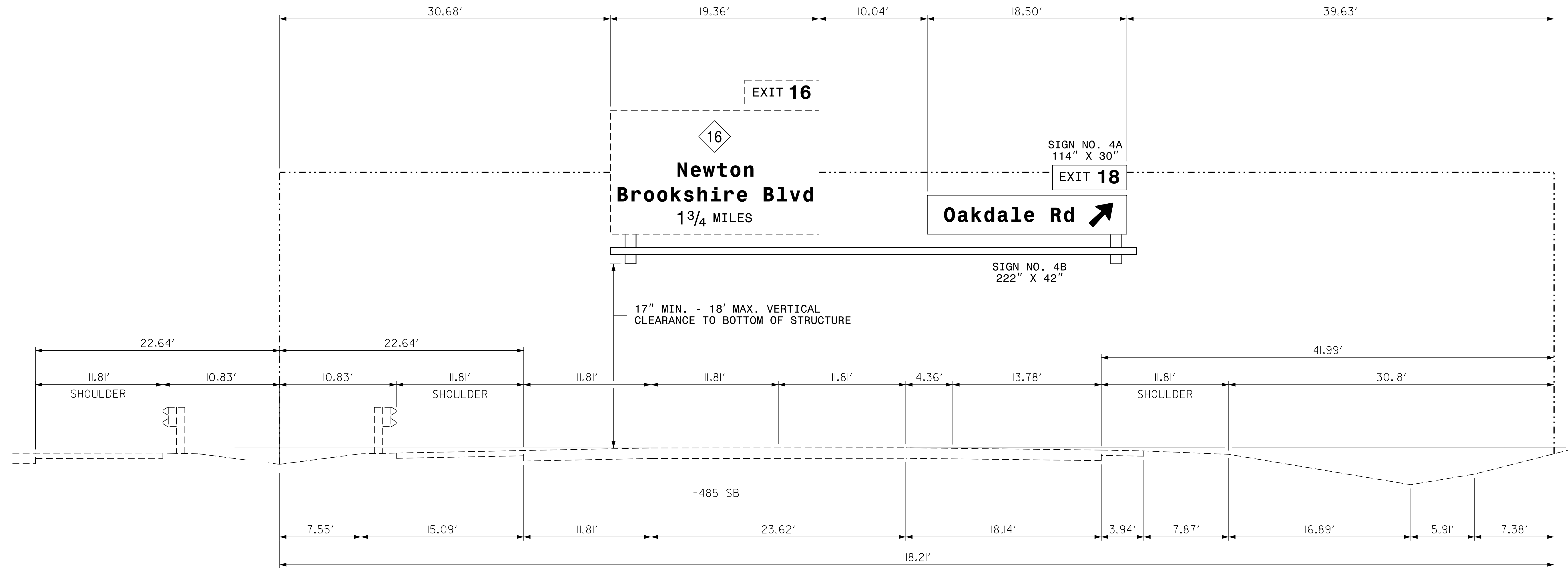
NOTES:

- 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. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
- THE TOP OF THE FOOTING SHALL EXTEND AT LEAST 4 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
- SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THIS PLAN SHEET.
- DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 90 M.P.H.

**OVERHEAD SIGN ASSEMBLY "B"
 STA. 935+68 -L- NB**

**OVERHEAD SIGN ASSEMBLY "B"
 I-485 NBL**

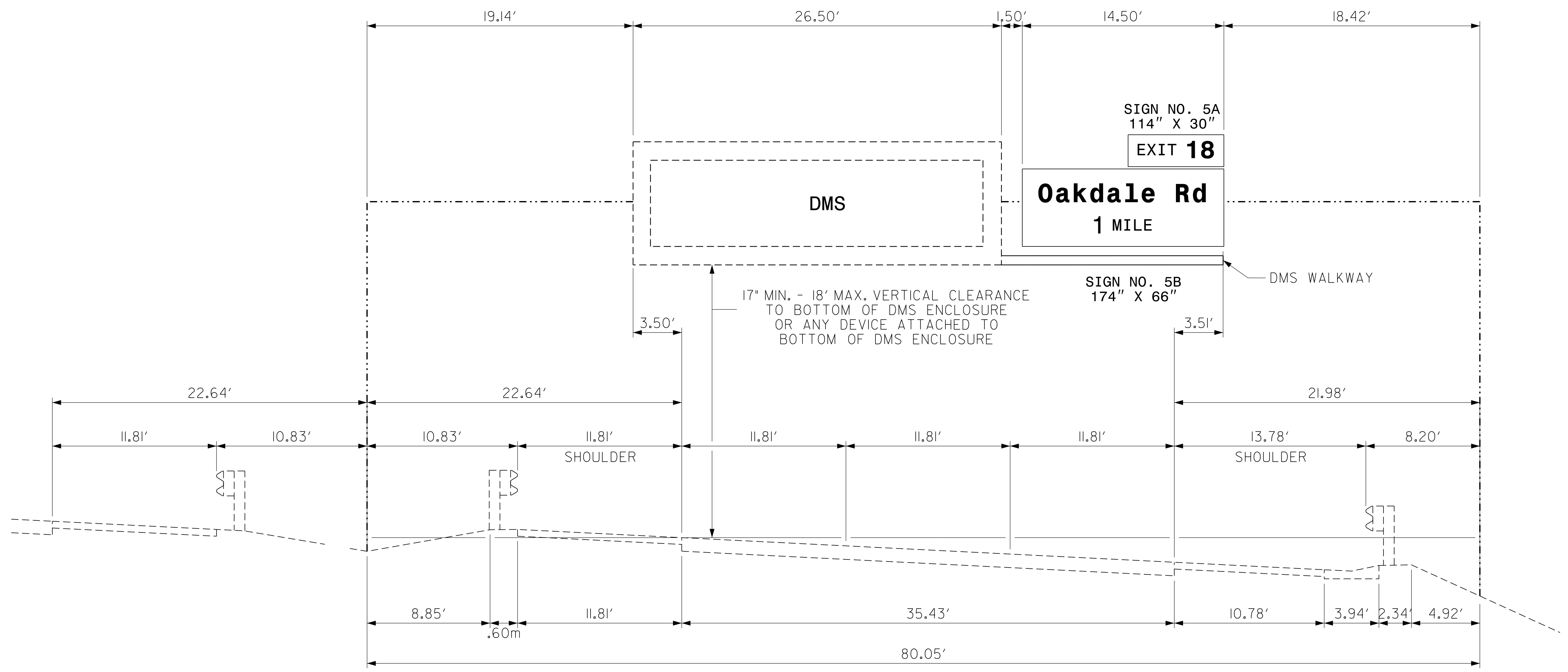
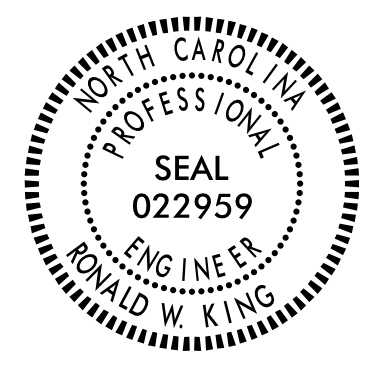
02-MAR-2015 14:28
 P:\Projects\2248G\Signing\CADD\Overheads\R-2248G_Sgn_OHs.dgn
 jgmar-tunez AT 1E274401



EXISTING OVERHEAD SIGN ASSEMBLY "B-B"
I-485 SBL

EXISTING OH SIGN ASSEMBLY "B-B"
I-485 SBL



02-MAR-2015 14:30
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 jgmar-tme2

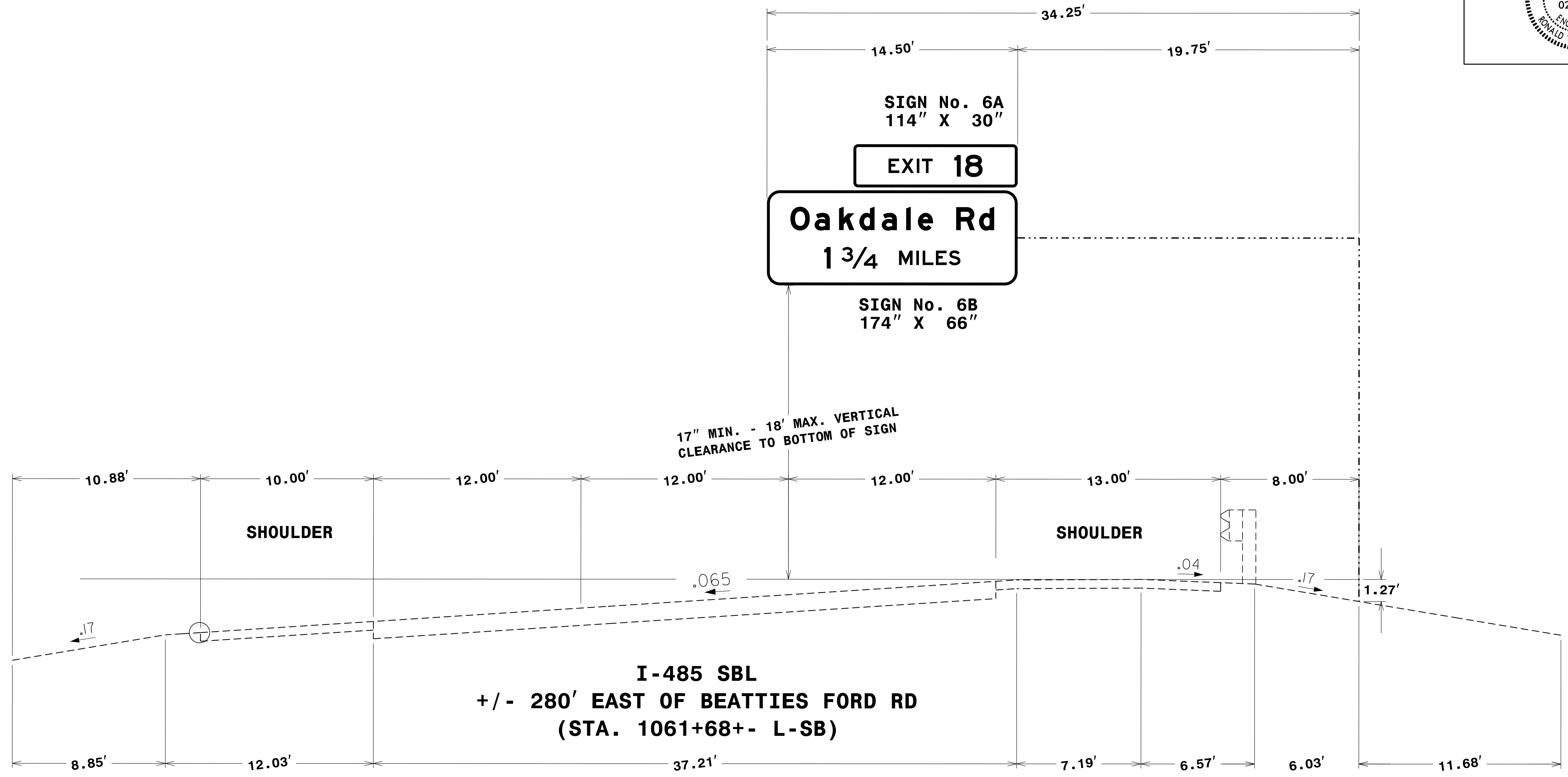


EXISTING OVERHEAD SIGN ASSEMBLY "C-C"
I-485 SBL

EXISTING OH SIGN ASSEMBLY "C-C"
I-485 SBL

02-MAR-2015 14:35
 P:\Projects\R-2248G\Traffic\Signing\CADD\Overheads\R-2248G_Sgn_OHs.dgn
 jgmar-tme-z AT TE274401

TIP NO. R-2248G	SHEET NO. SIGN-5E
APPROVED:  13E7AF7B8A44448	
DATE: 3/2/2015	
SEAL	
	

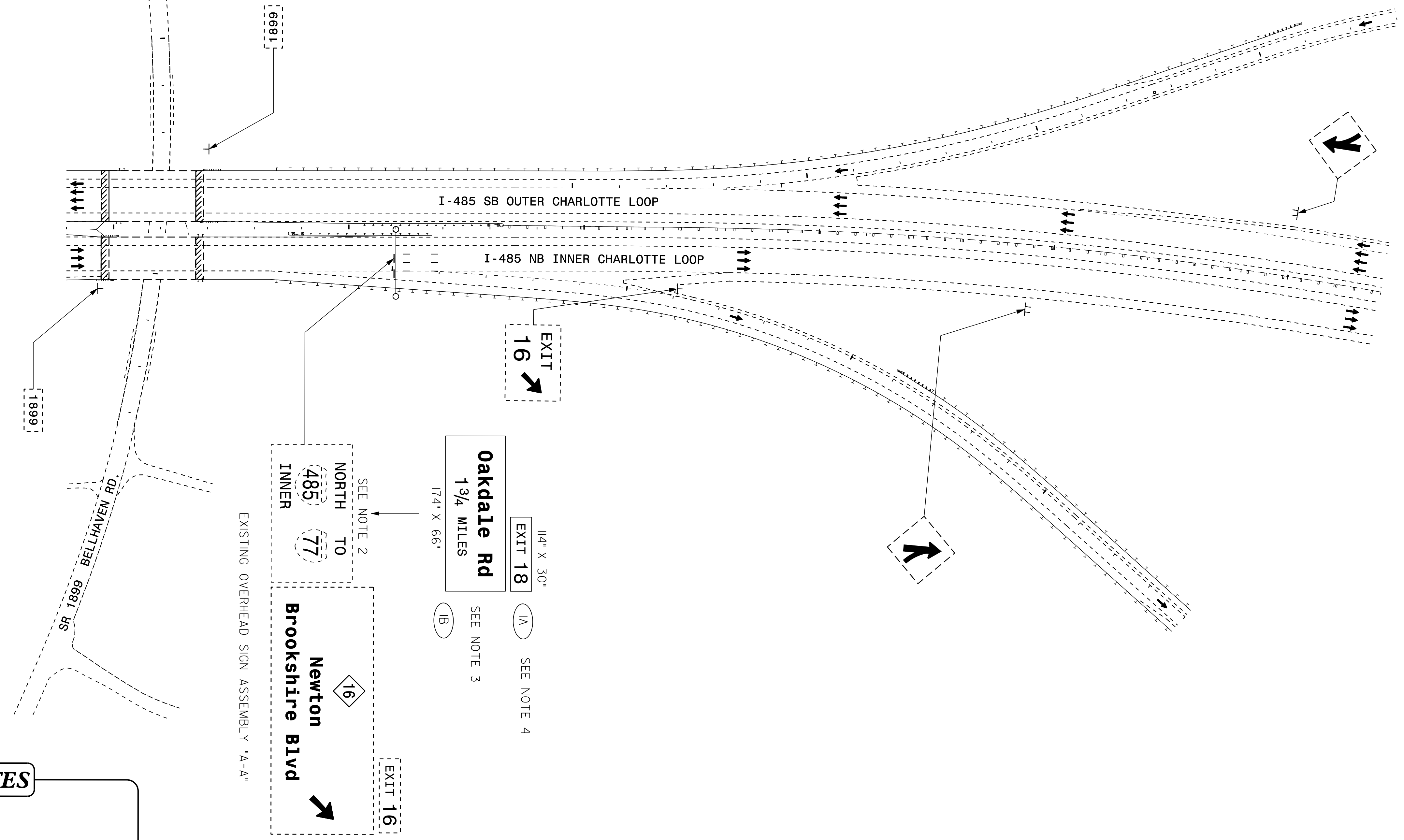


NOTES:

1. IF THE CONTRACTOR BIDS ALUMINUM 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. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
4. THE TOP OF THE FOOTING SHALL EXTEND AT LEAST 4 INCHES AND NOT MORE THAN 24 INCHES 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 THIS PLAN SHEET.
6. DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 90 M.P.H.

OVERHEAD SIGN ASSEMBLY "C"
+/- 280' EAST OF BEATTIES FORD RD

02-MAR-2015 14:34
 P:\Projects\2248G\Signing\CADD\Overheads\R-2248G_Sgn_OHs.dgn
 jgmar-tunez AT 1E274401



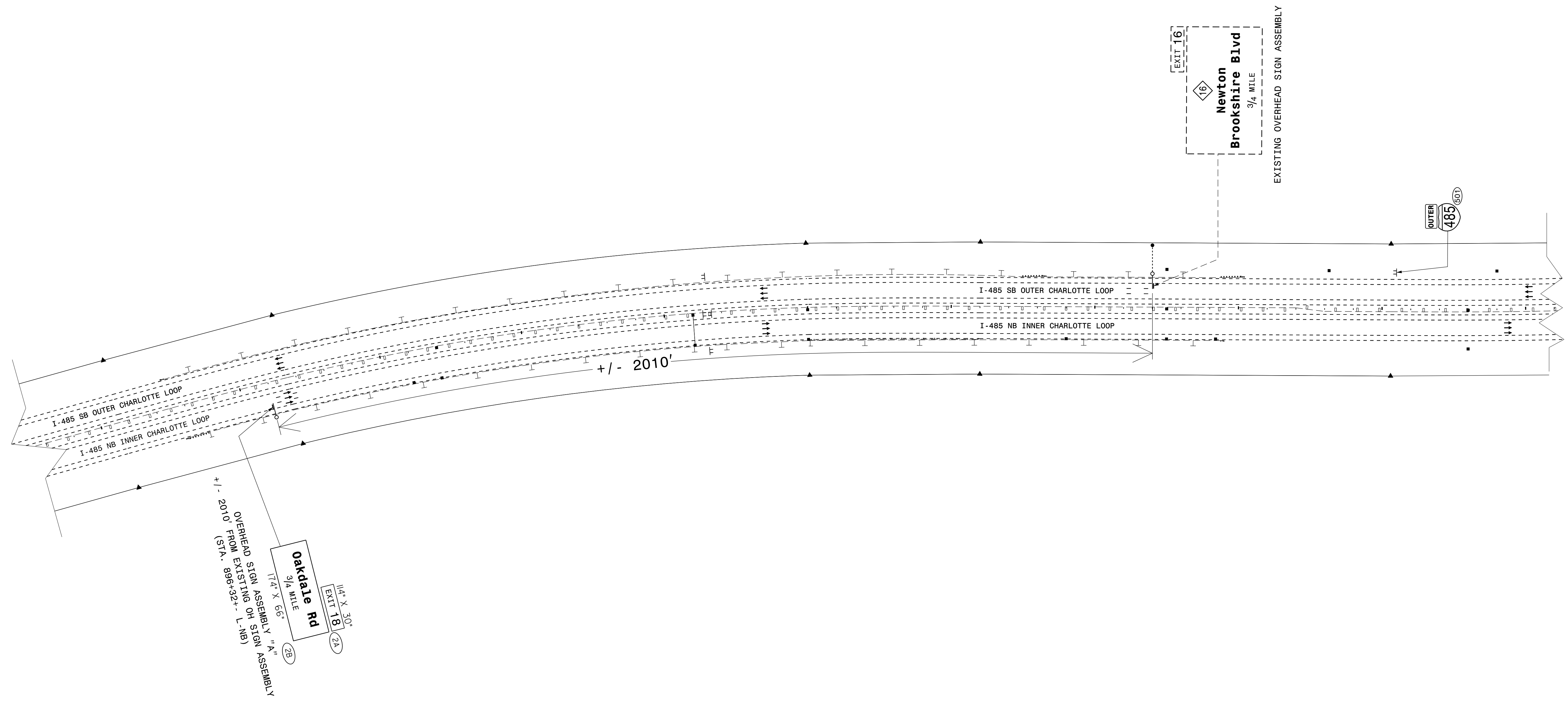
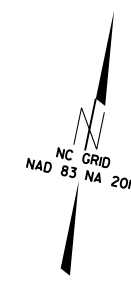
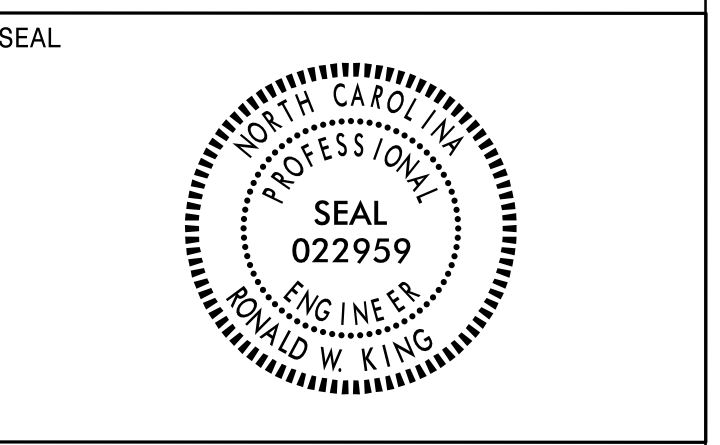
PROJECT NOTES

- 2 DISPOSAL OF SIGN, A OR B (OVERHEAD)
- 3 SIGN ERECTION, TYPE A (OVERHEAD)
- 4 SIGN ERECTION, TYPE B (OVERHEAD)

**I - 485
PROPOSED SIGNS**

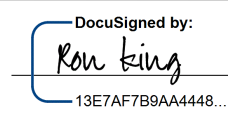
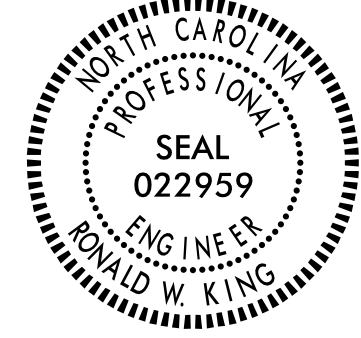
APPROVED: *Ron King*
DocuSigned by:
 13E7AF7B8A44448

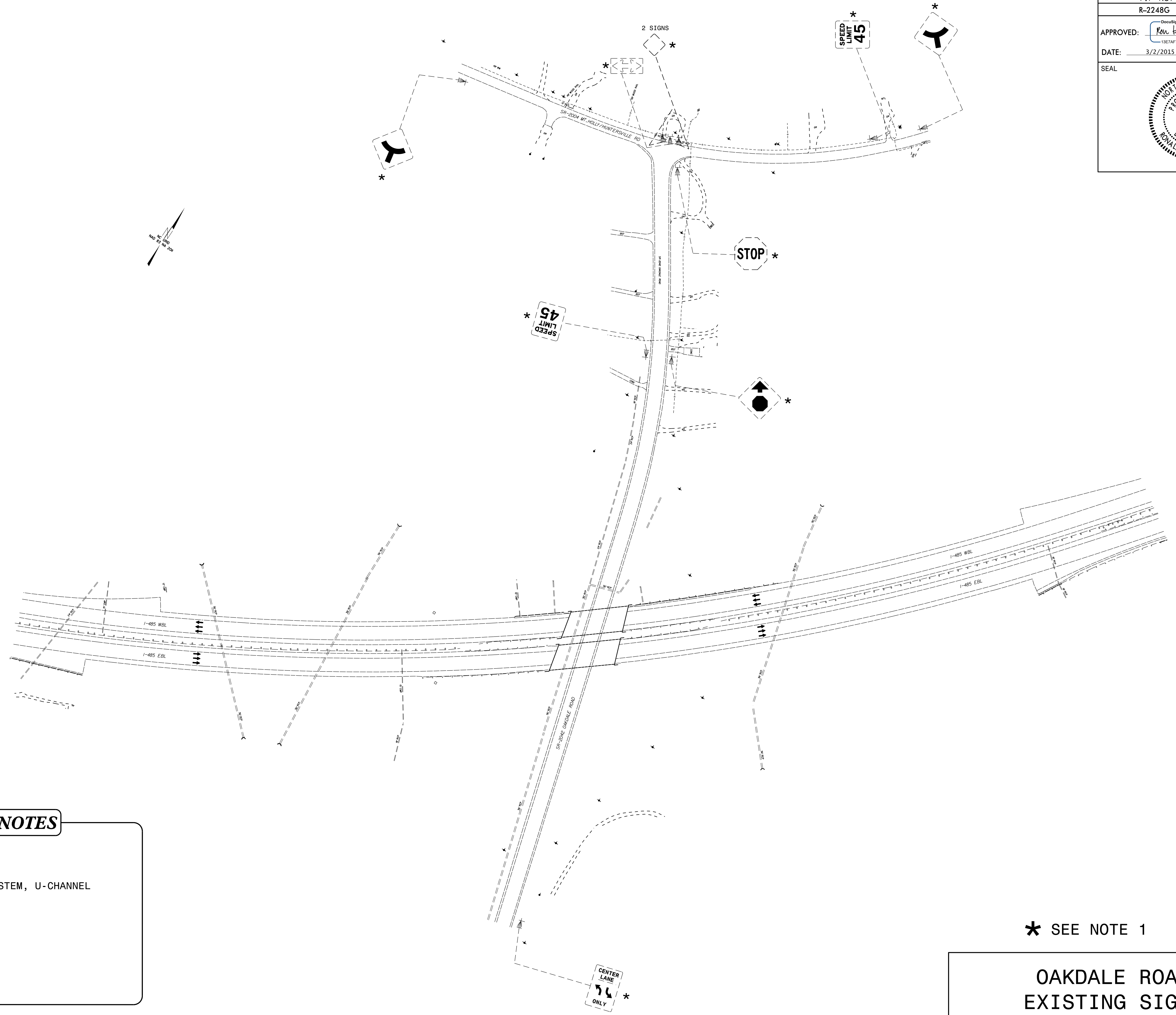
DATE: 3/2/2015



**I-485
 PROPOSED SIGNS**

02-MAR-2015 14:48
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 jgmer-tinez AT E274401

TIP NO. R-2248G	SHEET NO. SIGN-8
APPROVED:  13E7AF7B9A44448	
DATE: 3/2/2015	
SEAL 	



PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL

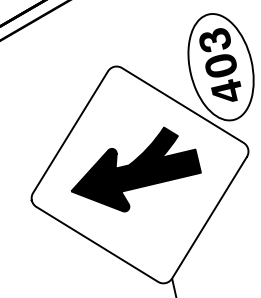
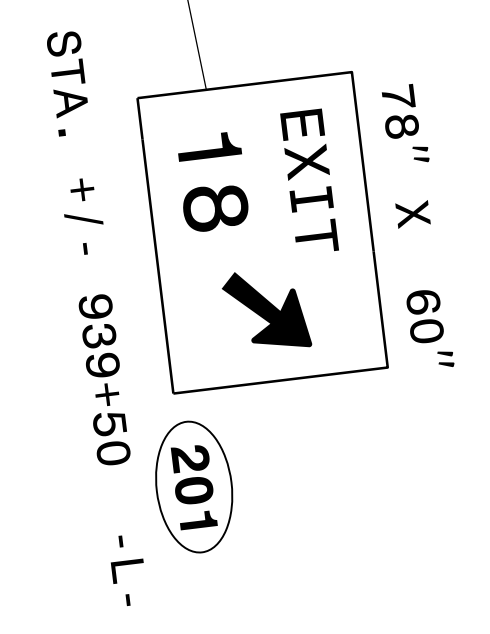
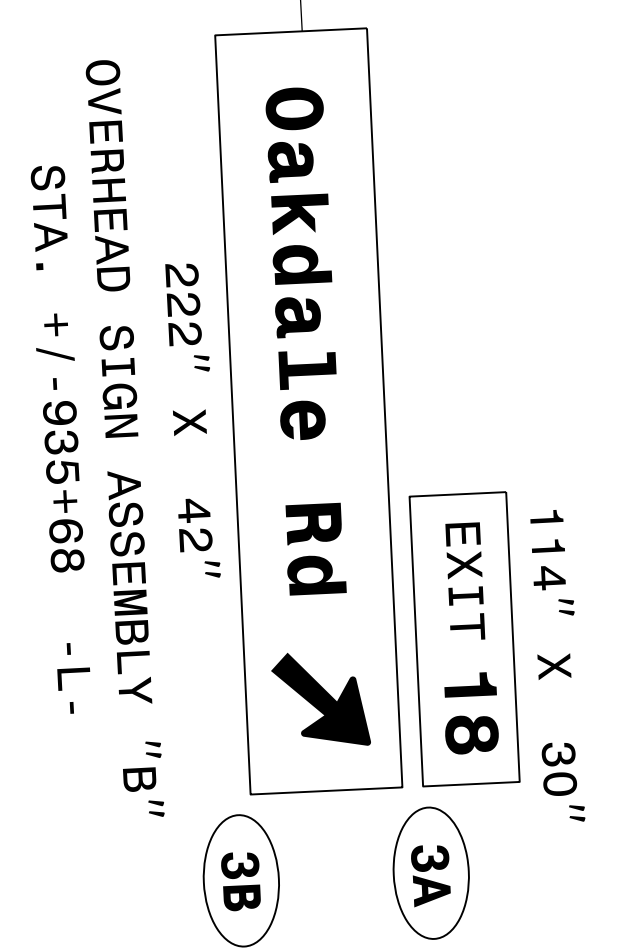
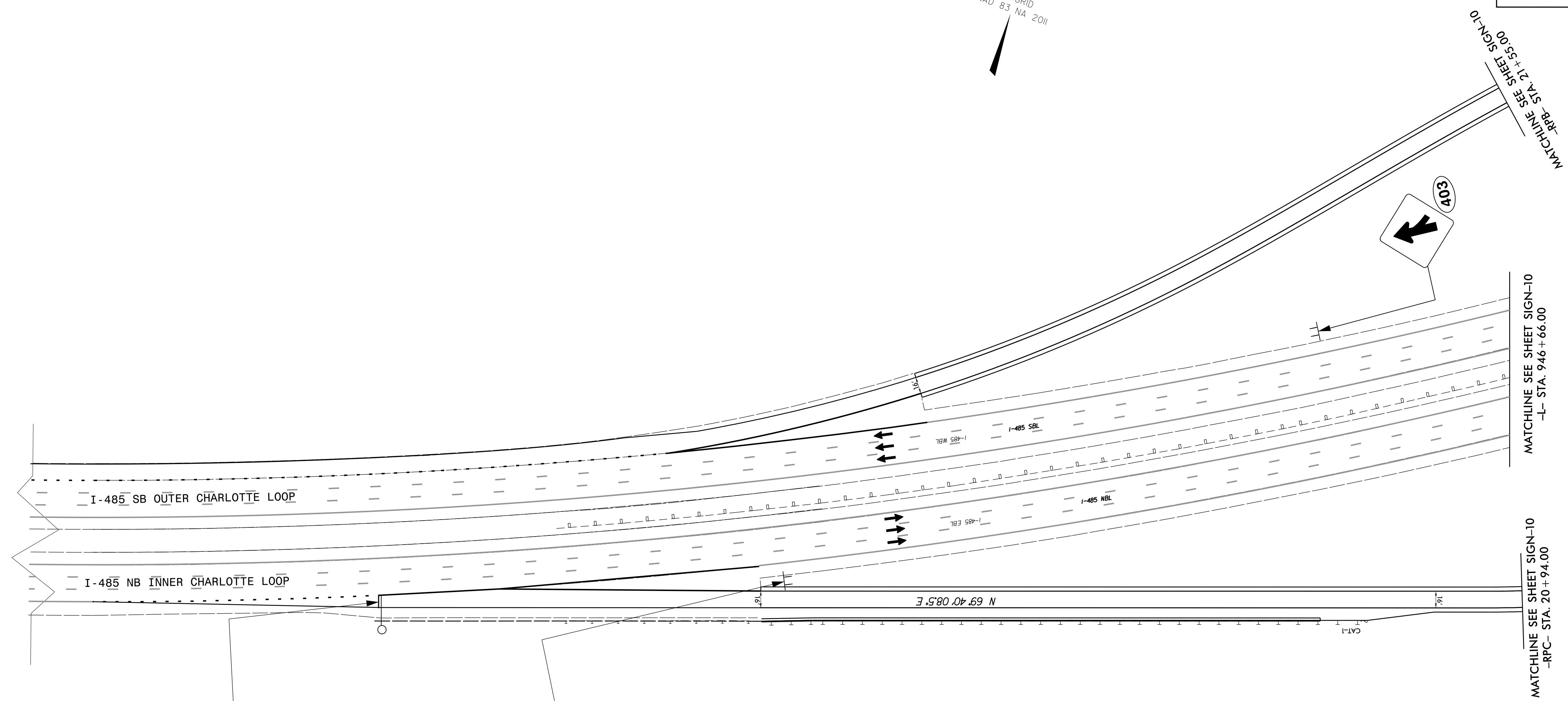
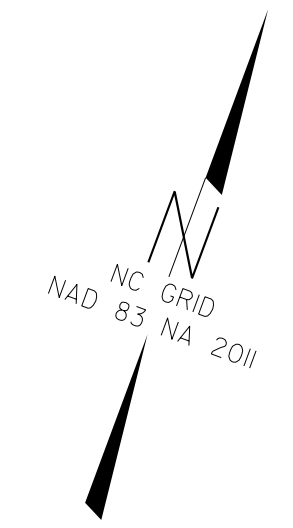
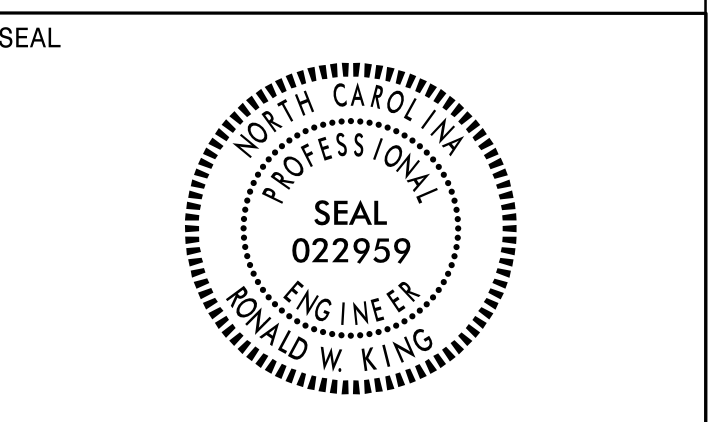
* SEE NOTE 1

**OAKDALE ROAD
EXISTING SIGNS**

02-MAR-2015 14:52
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 jgmar-tme2 AT TE274401

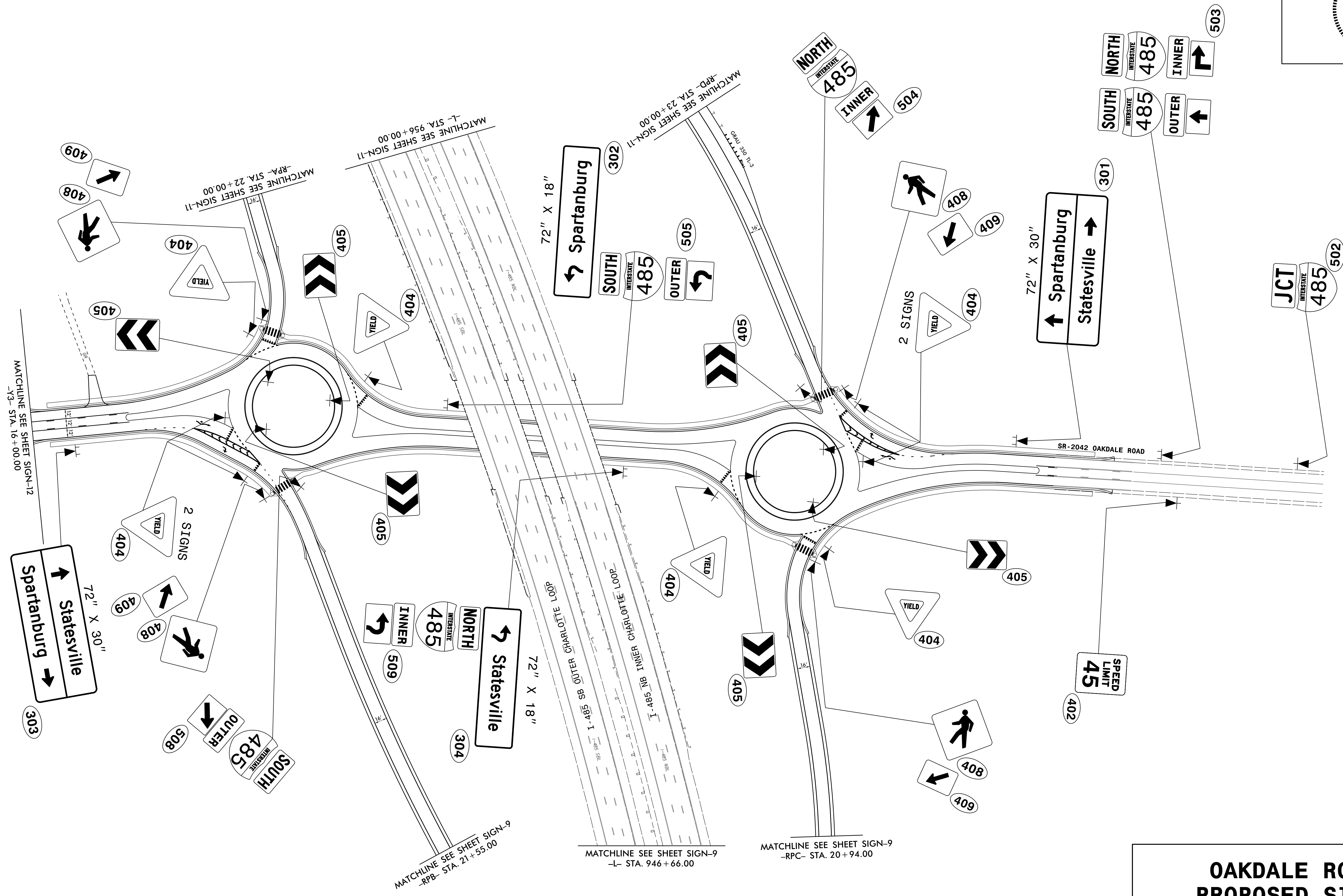
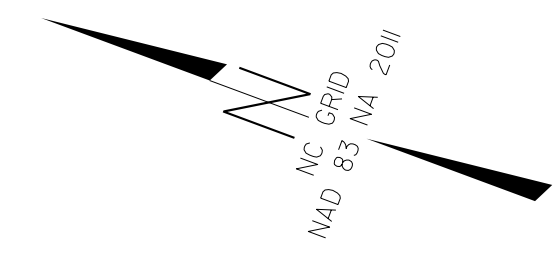
APPROVED: *Ron King*
DocuSigned by:
 13E7AF7B8A44448...

DATE: 3/2/2015



I-485 PROPOSED SIGNS

02-MAR-2015 14:55 R2248G:\Traffic\Signing\CADD\Signing Layout Plans\R-2248G_Prop_Signs_X4A.dgn
 P:\pp_projects\R-2248G\274401
 Jgmer-tinez AT



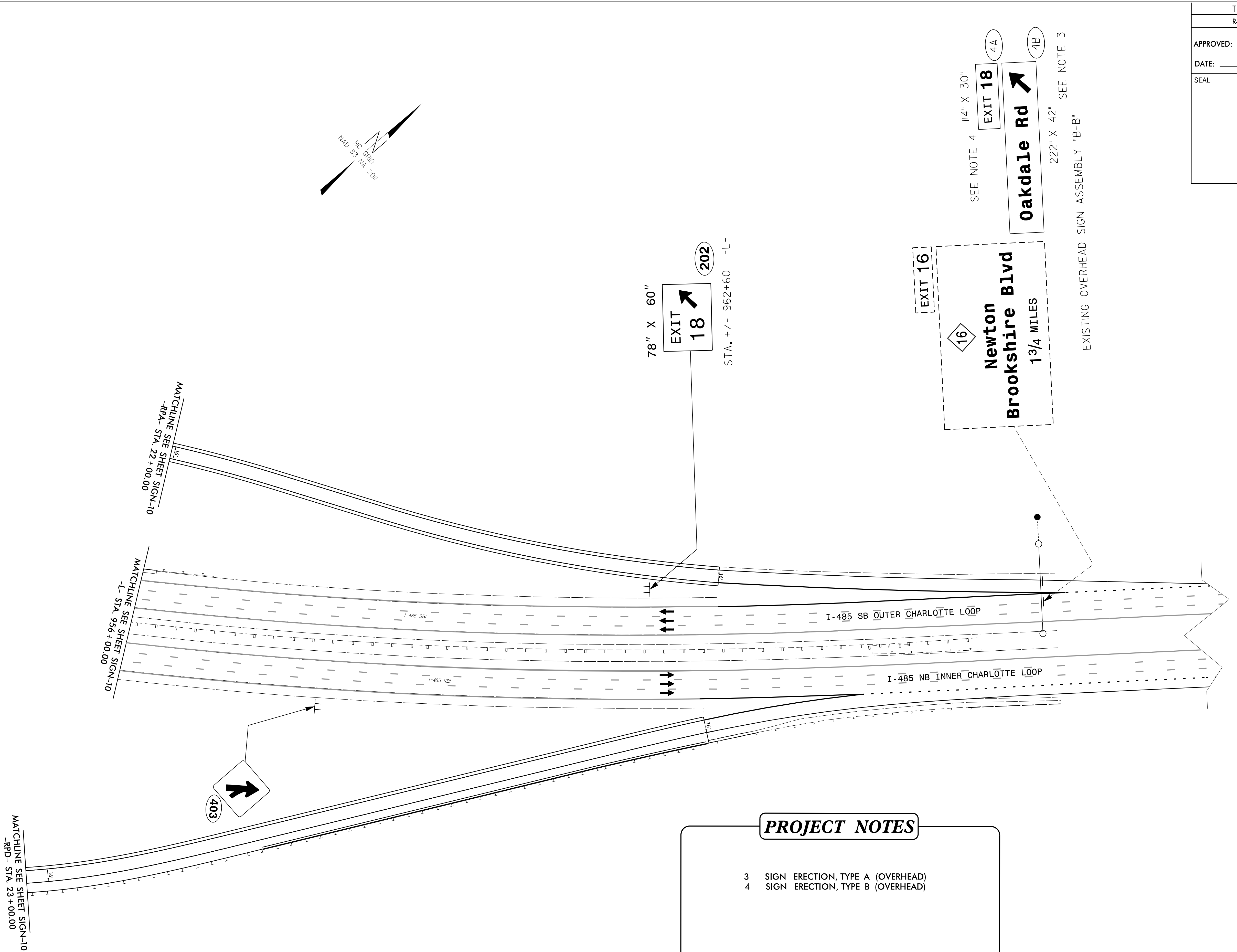
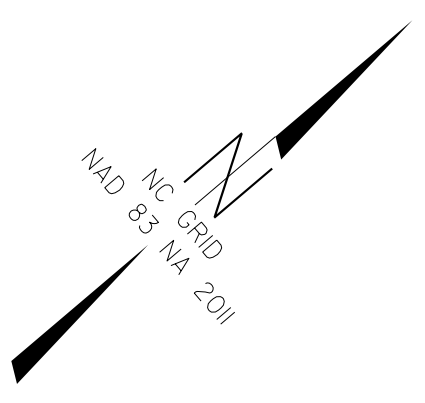
OAKDALE ROAD PROPOSED SIGNS

02-MAR-2015 14:58
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 jgmar-tme@ncdot.gov

APPROVED: 
DocuSigned by:
 Ron King
 13E7AF7B8A44448

DATE: 3/2/2015

SEAL



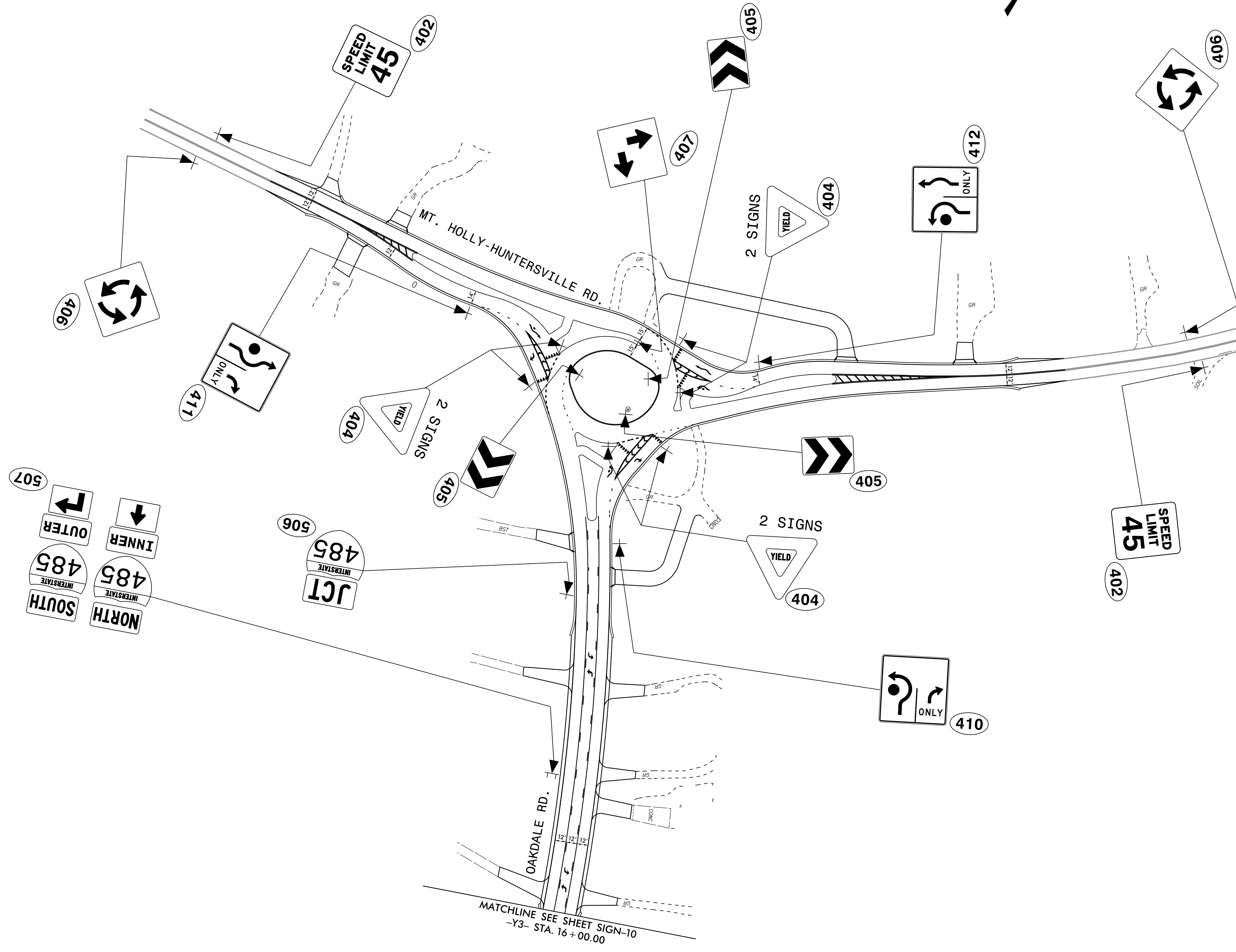
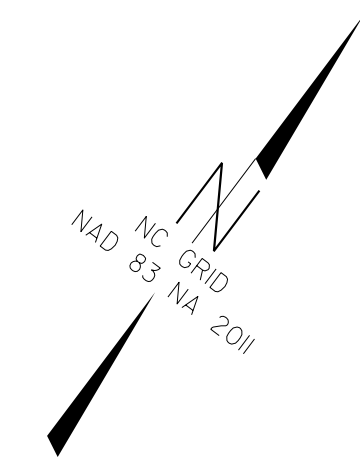
EXISTING OVERHEAD SIGN ASSEMBLY "B-B" SEE NOTE 3

PROJECT NOTES

- 3 SIGN ERECTION, TYPE A (OVERHEAD)
- 4 SIGN ERECTION, TYPE B (OVERHEAD)

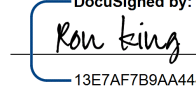
**I-485
PROPOSED SIGNS**

02-MAR-2015 15:00
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 jgmer-tinez AT [E27440]

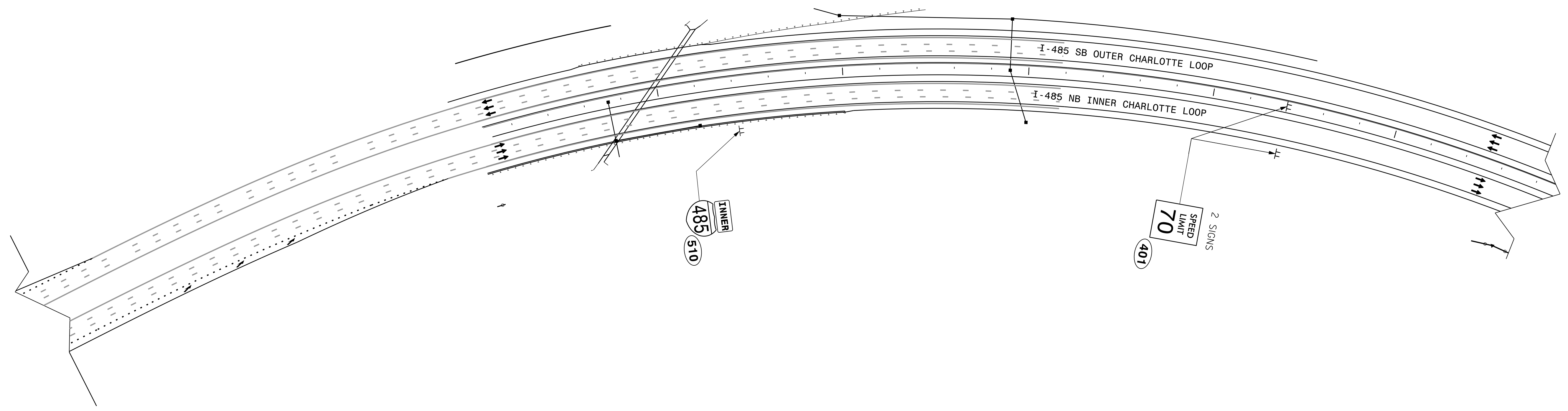
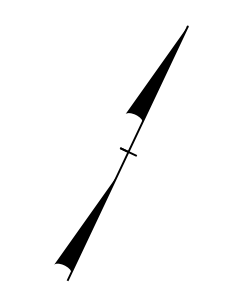


**MT. HOLLY-HUNTERSVILLE
AND OAKDALE ROAD
PROPOSED SIGNS**

02-MAR-2015 15:403
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 jgmar-tme2

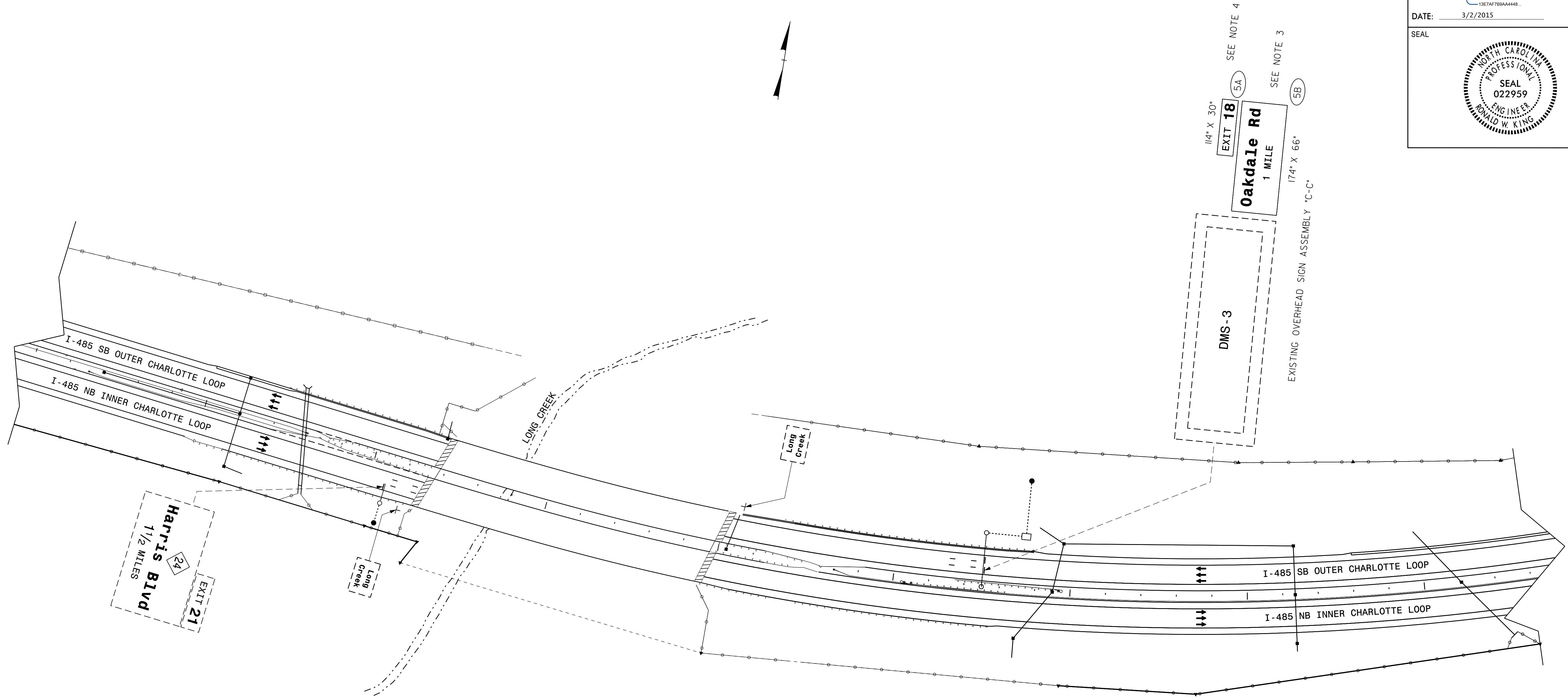
APPROVED: 
13E7AF7B8A44448
DATE: 3/2/2015

SEAL

02-MAR-2015 15:06
P:\Projects\R-2248G\Traffic\Signing\CADD\Signing Layout Plans\R-2248G.Prop_Signs.X5.dgn
jgmar-tme2

I-485
PROPOSED SIGNS



PROJECT NOTES

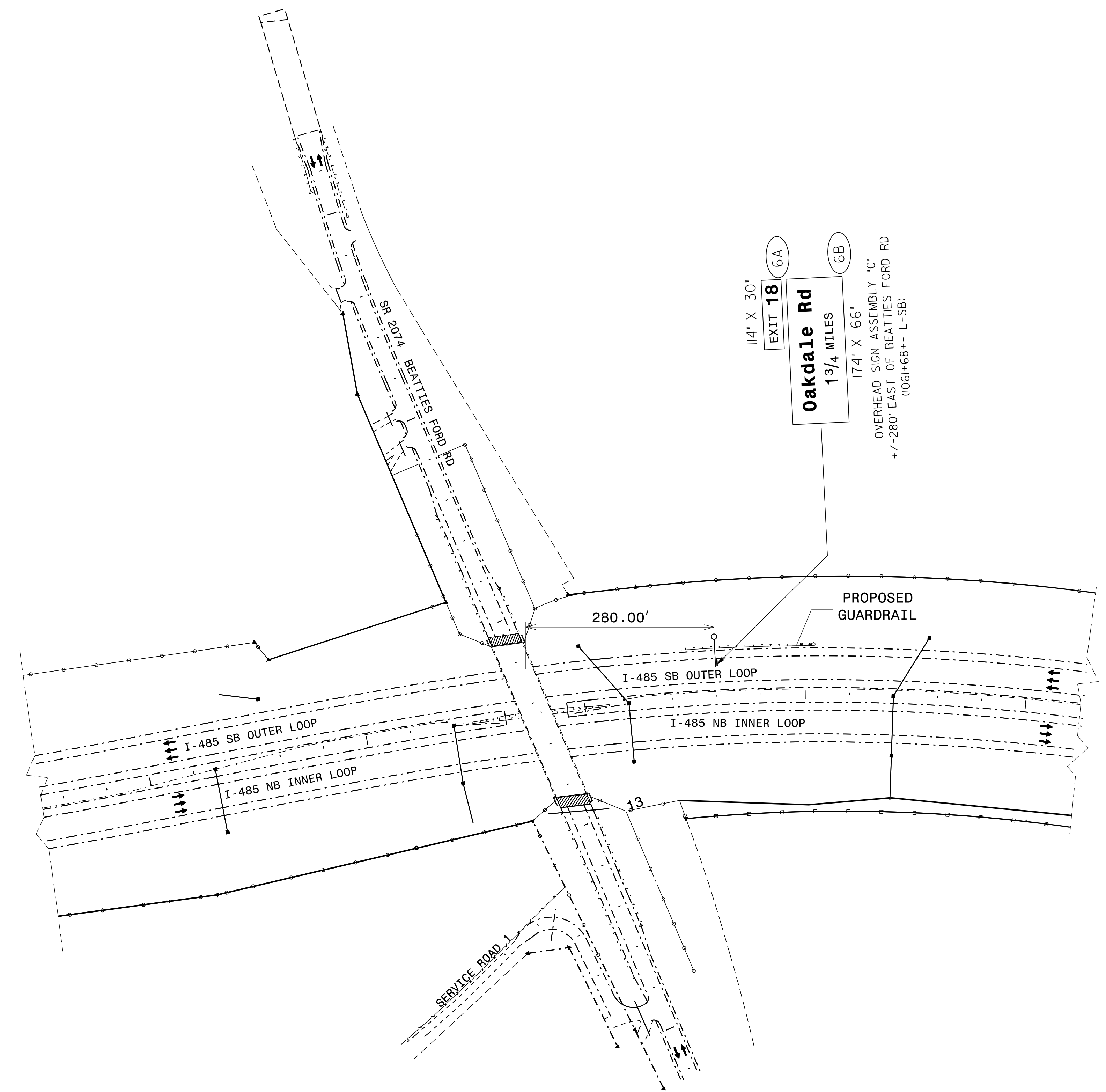
- 3 SIGN ERECTION, TYPE A (OVERHEAD)
- 4 SIGN ERECTION, TYPE B (OVERHEAD)

**I-485
PROPOSED SIGNS**

02-MAR-2015 15:40
 P:\TIP-projects\R-2248G\Traffic\Signing\CADD\Signing Layout Plans\R-2248G_Prop_Signs_X6.dgn
 jgmer-tinez AT E274401

APPROVED: 
DocuSigned by:
 Ronald W. King
 13E7AF7B8A44448

DATE: 3/2/2015



02-MAR-2015 15:42
 P:\TIP\Projects\R-2248G\Traffic\Signing\CADD\Signing Layout Plans\R-2248G_Prop_Signs_X7.dgn
 jgmer-tinez AT E274401

I - 485 PROPOSED SIGNS