

TIP PROJECT: 17BP.6.P.3

CONTRACT NO: C203012

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CUMBERLAND & HARNETT COUNTIES

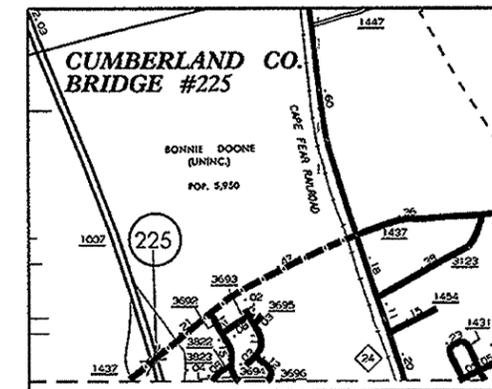
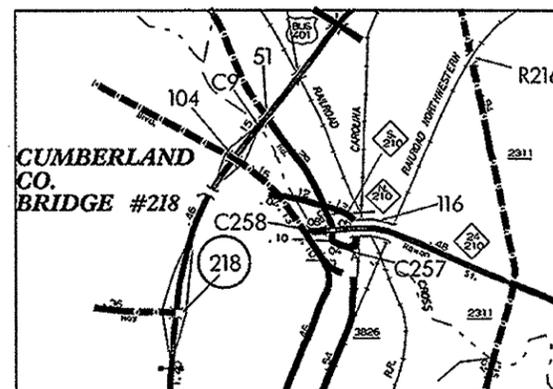
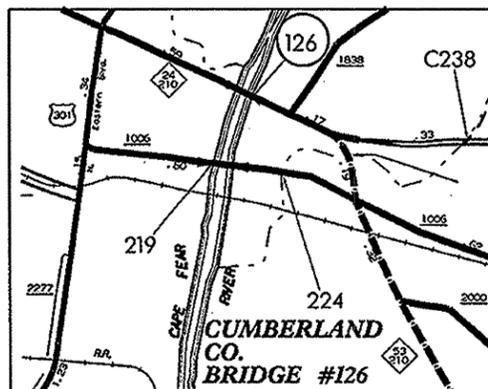
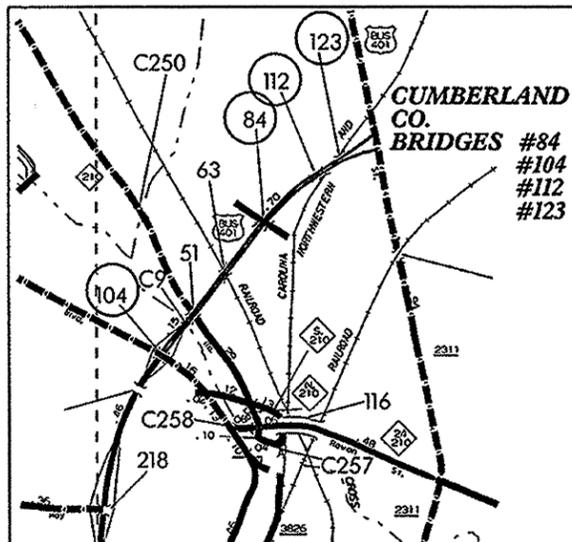
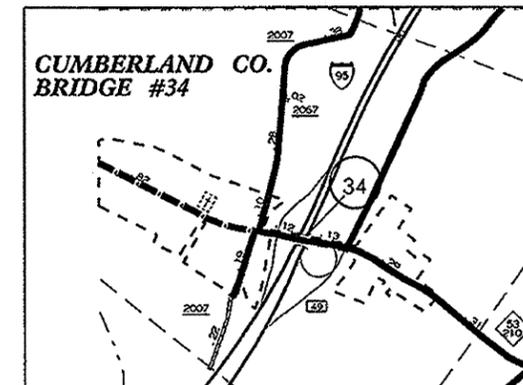
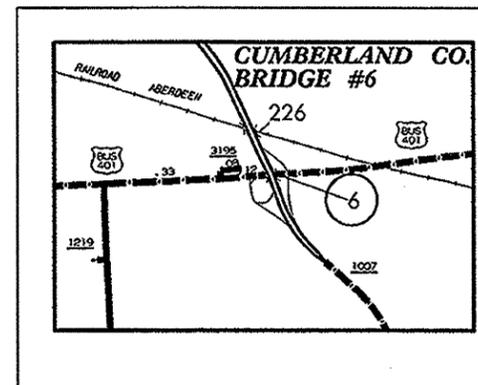
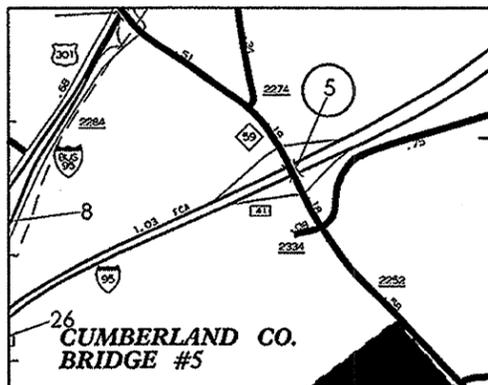
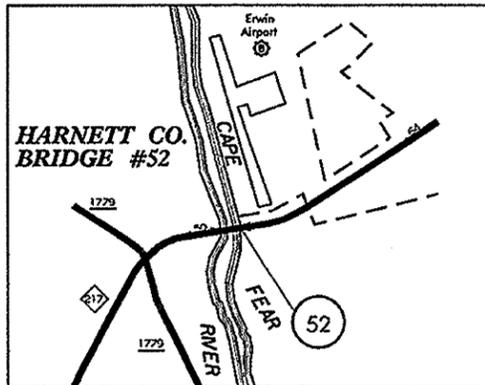


LOCATION: CUMBERLAND COUNTY:
 BRIDGE #5 ON NC 59 OVER US I-95
 BRIDGE #6 ON SR 1007, OVER US 401 BUS.
 BRIDGE #34 ON NC 53 OVER I-95
 BRIDGE #34 ON US 401 BUS. OVER CUMBERLAND ST.
 BRIDGE #104 ON NC 24 OVER US 401 BUS.
 BRIDGE #112 ON US 401 BUS. OVER HILLSBOROUGH ST.
 BRIDGE #123 ON US 401 BUS. NORFOLK SOUTHERN R.R.
 BRIDGE #126 ON NC 24 OVER THE CAPE FEAR RIVER
 BRIDGE #218 ON SR 1404 OVER SR 1007
 BRIDGE #225 ON SR 1437 OVER SR 1007

HARNETT COUNTY:
 BRIDGE #52 ON NC 217 OVER THE CAPE FEAR RIVER

TYPE OF WORK: BRIDGE PRESERVATION-BRIDGE DECK PRESERVATION WITH EPOXY OVERLAY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.6.P.3	1	
STATE PROJECT NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.6.P.3	N/A	PE	
17BP.6.P.3	N/A	CONSTR	



PROJECT LENGTH

LENGTH STRUCTURES STATE PROJECT = .625 MILE

Prepared in the Office of:

STRUCTURES MANAGEMENT UNIT
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

LETTING DATE:
MAY 15, 2012

ERIC NELSON, PE
PROJECT ENGINEER



FARZIN ASEFNIA, PE
PROJECT DESIGN ENGINEER

TIP PROJECT: 17BP.6.P.3

CONTRACT NO: 203012

**STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.6.P.3	1A	
STATE PROJECT NO.	F. A. PROJ. NO.	DESCRIPTION	
17BP.6.P.3	N/A	PE	
17BP.6.P.3	N/A	CONSTR	

LOCATION: CUMBERLAND COUNTY:
 BRIDGE #5 ON NC 59 OVER US I-95
 BRIDGE #218 ON SR 1404 OVER SR 1007
 BRIDGE #225 ON SR 1437 OVER SR 1007

HARNETT COUNTY:
 BRIDGE #52 ON NC 217 OVER THE CAPE FEAR RIVER

TYPE OF WORK: BRIDGE PRESERVATION-BRIDGE DECK PRESERVATION WITH EPOXY OVERLAY AND CRACK SEALANT.

LOCATION: CUMBERLAND COUNTY:
 BRIDGE #6 ON SR 1007, OVER US 401 BUS.
 BRIDGE #34 ON NC 53 OVER I-95
 BRIDGE #84 ON US 401 BUS. OVER CUMBERLAND ST.
 BRIDGE #104 ON NC 24 OVER US 401 BUS.
 BRIDGE #112 ON US 401 BUS. OVER HILLSBOROUGH ST.
 BRIDGE #126 ON NC 24 OVER THE CAPE FEAR RIVER

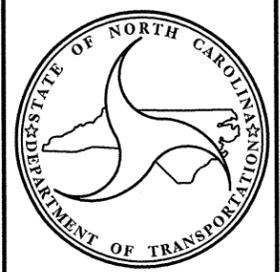
TYPE OF WORK: BRIDGE PRESERVATION-BRIDGE DECK PRESERVATION WITH EPOXY OVERLAY.

LOCATION: CUMBERLAND COUNTY:
 BRIDGE #123 ON US 401 BUS. NORFOLK SOUTHERN R.R.

TYPE OF WORK: BRIDGE PRESERVATION-BRIDGE DECK PRESERVATION WITH EPOXY OVERLAY AND SUBSTRUCTURE REPAIRS.

INDEX OF SHEETS

<u>SHT#</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
1A	INDEX OF SHEETS
2	SUMMARY OF QUANTITIES
S1 THRU S13	STRUCTURE PLANS
TMP-1 THRU TMP-14	TRAFFIC MANAGEMENT PLANS



Prepared In the Office of:

STRUCTURES MANAGEMENT UNIT
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

<p>LETTING DATE: MAY 15, 2012</p>	<p style="text-align: center;">ERIC NELSON, PE <small>PROJECT ENGINEER</small></p>
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FARZIN ASEFNIA, PE
PROJECT DESIGN ENGINEER

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

FOR PLACEMENT OF PRE-TREATMENT, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

THE INSTALLED FOAM JOINT SEALS SHALL BE INSTALLED WATERTIGHT.

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

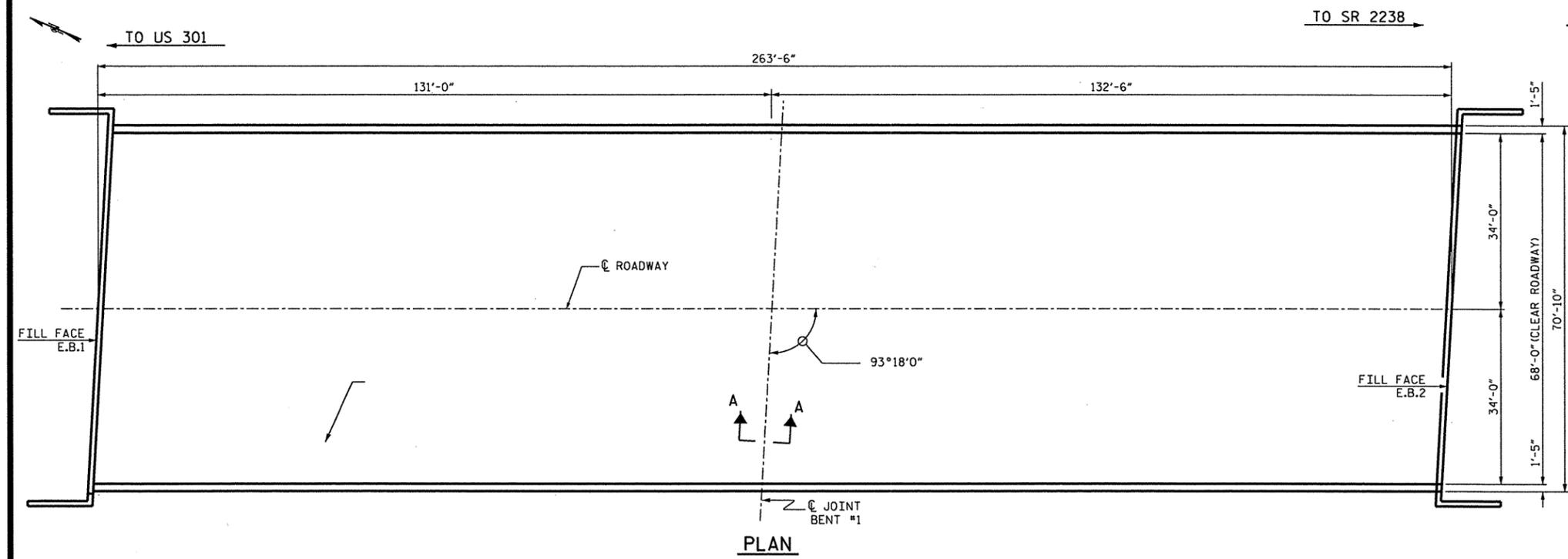
THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE SEAL IN LIEU OF SAWING THE JOINT.

FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

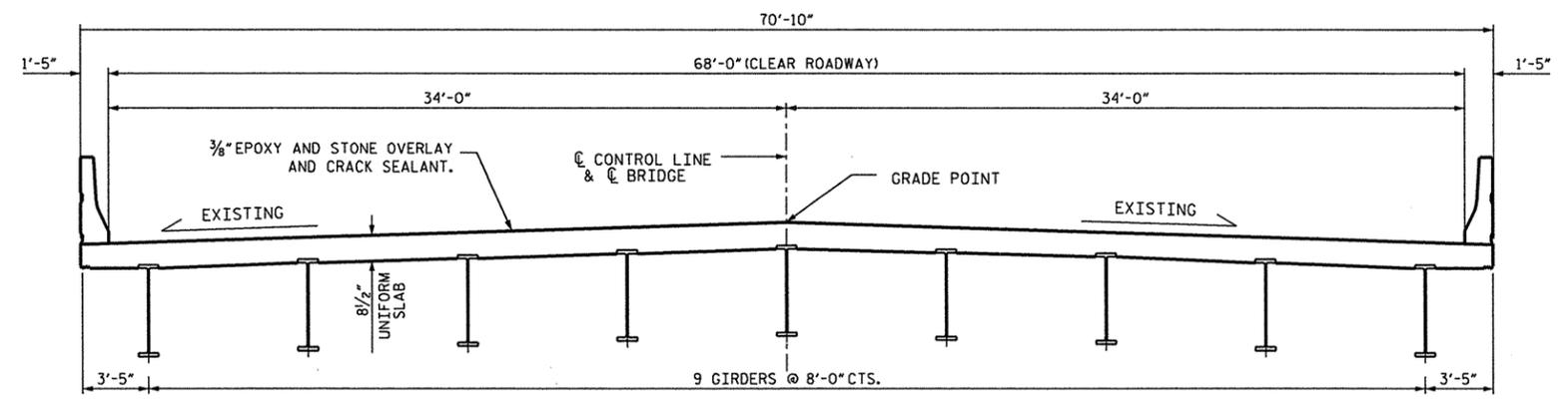
THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE $3\frac{3}{16}$ " AT BENT #1.

FOR OVER-SAWED JOINTS, THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE DETERMINED BY THE ENGINEER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.



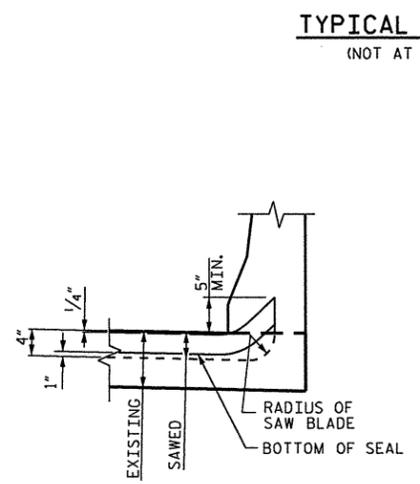
PLAN



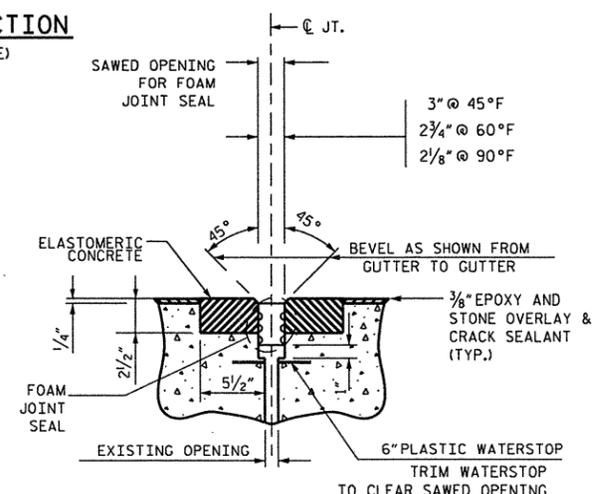
TYPICAL SECTION
(NOT AT SCALE)

TOTAL BILL OF MATERIAL			
FOR BRIDGE 5			
PLACEMENT OF PRE-TREATMENT	EPOXY/STONE OVERLAY	FOAM JOINT SEALS	* CLASS II DECK REPAIRS
SO.FT.	SO.FT.	LUMP SUM	SO.FT.
17918	17918	LUMP SUM	180

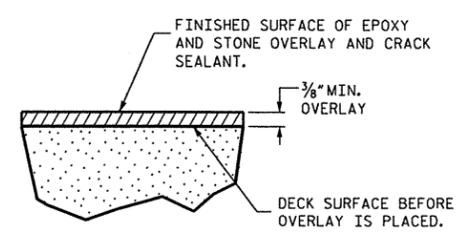
* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.



SEAL DETAILS @ RAIL



SECTION A-A
(PROPOSED FOAM JT. SEAL)



DETAIL FOR EPOXY AND STONE OVERLAY

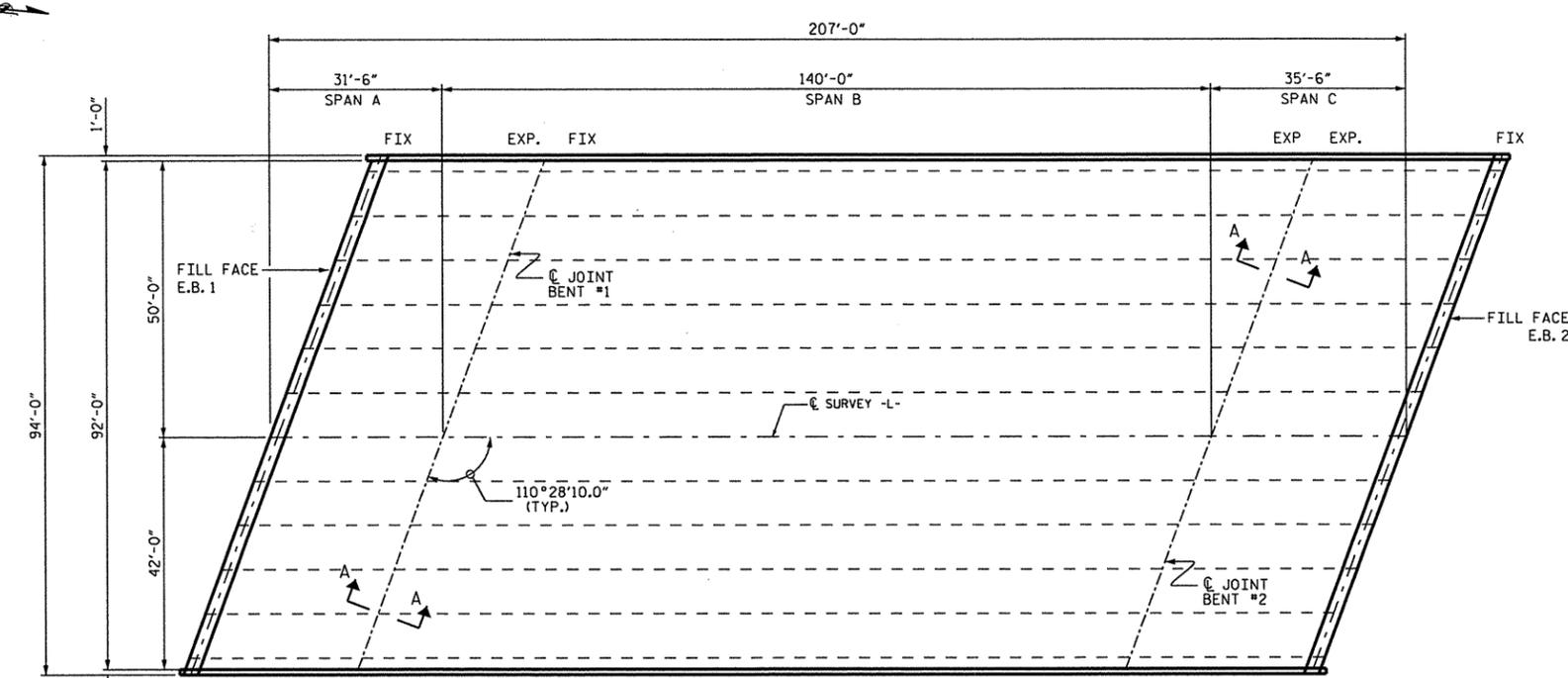
PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: No. 05

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
PLAN VIEW & DETAILS
 -BRIDGE NO. 05 ON NC59
 ACROSS I95-

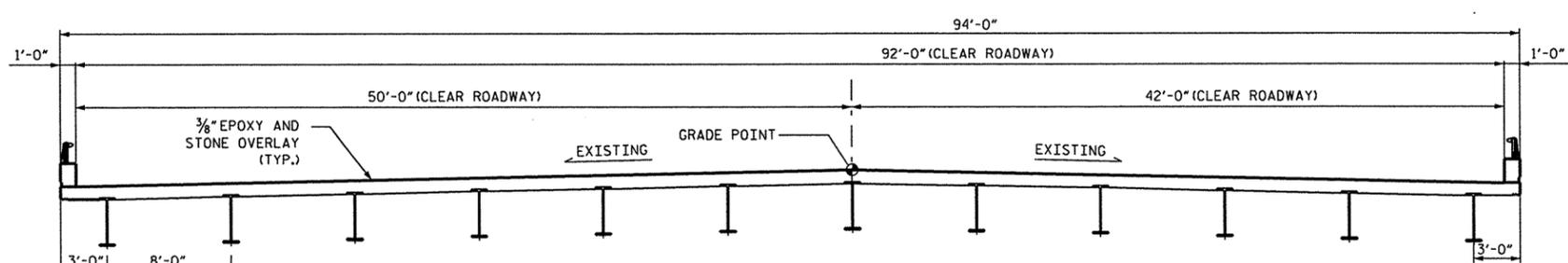
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-1
1			3			TOTAL SHEETS
2			4			

DRAWN BY: STS DATE: OCT./2011
 CHECKED BY: DCM DATE: MAY/2012

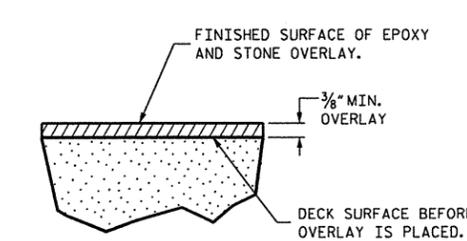
TO OWEN DR. TO FORT BRAGG



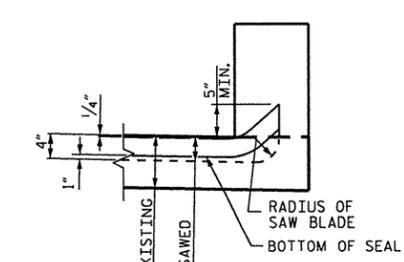
PLAN



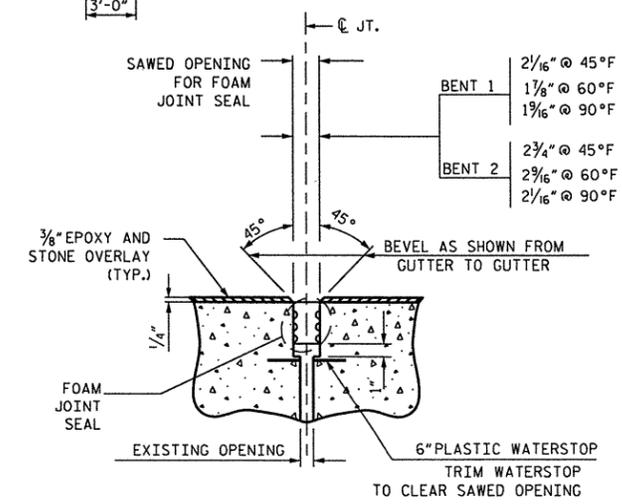
TYPICAL SECTION



DETAIL FOR EPOXY AND STONE OVERLAY



SEAL DETAILS @ RAIL



SECTION A-A (PROPOSED FOAM JT. SEAL)

JOINT DETAILS AT BENTS

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE 2 1/2" AT BENT #1 AND 3 7/16" AT BENT 2.

FOR OVER-SAWED JOINTS, THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE DETERMINED BY THE ENGINEER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

TOTAL BILL OF MATERIAL		
FOR BRIDGE 6		
EPOXY/STONE OVERLAY	FOAM JOINT SEALS	* CLASS II DECK REPAIRS
SO.FT.	LUMP SUM	SO.FT.
19044	LUMP SUM	190

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.

PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: 06

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
PLAN VIEW & DETAILS
 -BRIDGE NO. 06 ON SR1007
 ACROSS US401 BUS.
 (RAEFORD RD.)-

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

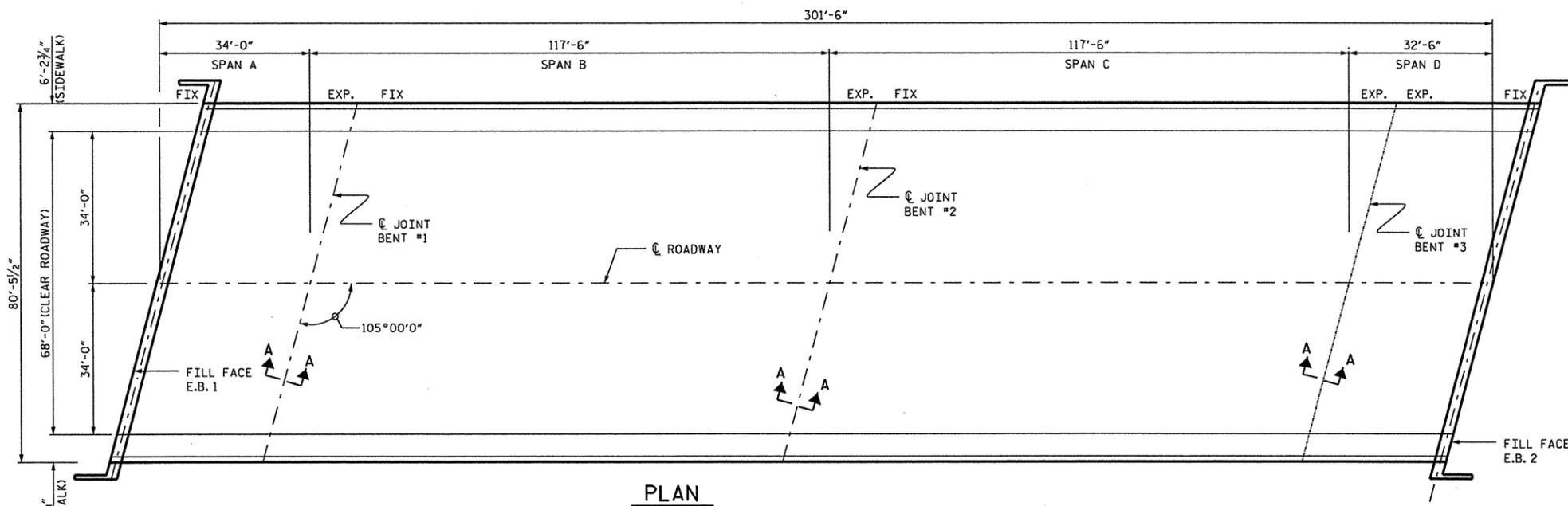
SHEET NO. S-2
TOTAL SHEETS

DRAWN BY: STS DATE: OCT./2011
 CHECKED BY: DCM DATE: MAY/2012

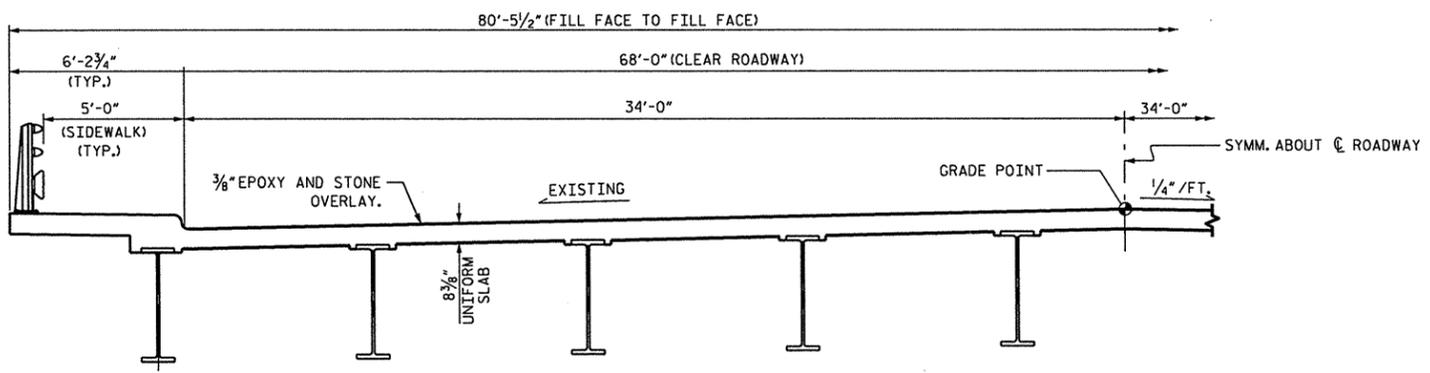
TO SR 2007

TO SR 2008

NOTES



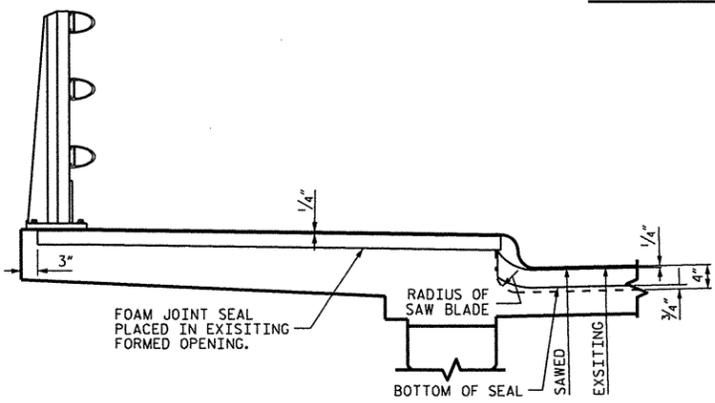
- EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.
- FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.
- FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.
- THE INSTALLED FOAM JOINT SEALS SHALL BE INSTALLED WATERTIGHT.
- FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.
- THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE SEAL IN LIEU OF SAWING THE JOINT.
- FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.
- THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE 2 1/2" AT BENTS.
- FOR OVER-SAWED JOINTS, THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE DETERMINED BY THE ENGINEER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.



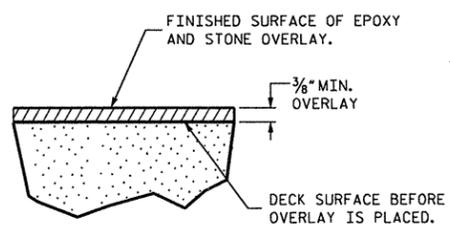
TOTAL BILL OF MATERIAL		
FOR BRIDGE 34		
EPOXY/STONE OVERLAY	FOAM JOINT SEALS	* CLASS II DECK REPAIRS
SO.FT.	LUMP SUM	SO.FT.
20502	LUMP SUM	200

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.

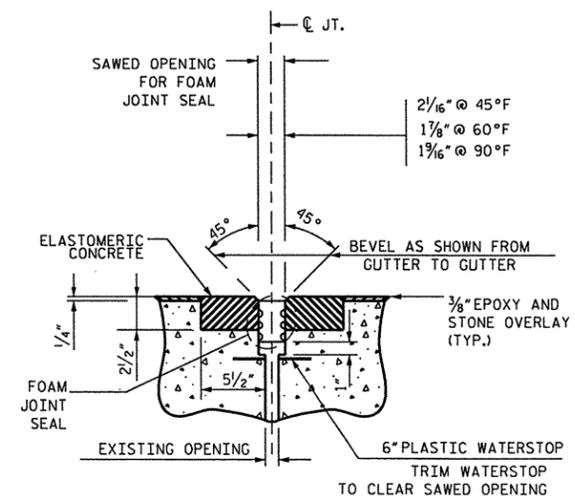
HALF TYPICAL SECTION



FOAM SEAL AT RAIL



DETAIL FOR EPOXY AND STONE OVERLAY



SECTION A-A (PROPOSED FOAM JT. SEAL)

PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: No. 34

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW & DETAILS
 -BRIDGE NO. 34 ON NC53
 ACROSS I95-

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-3
1			3			TOTAL SHEETS
2			6			

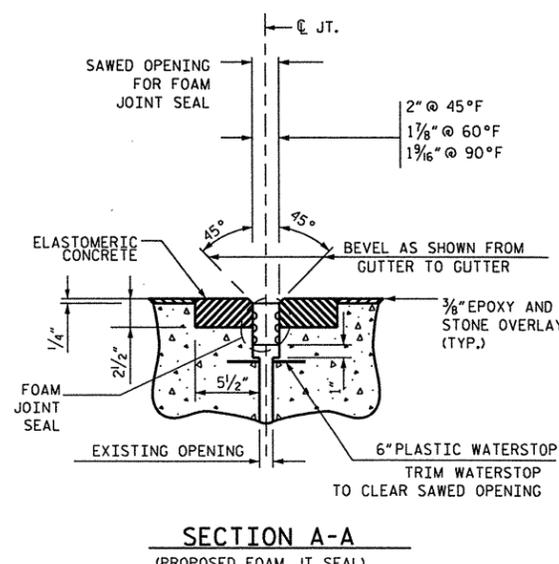
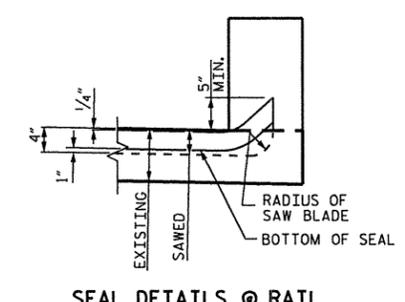
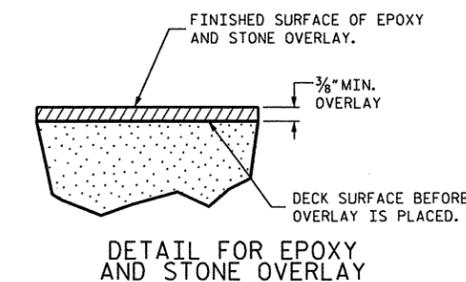
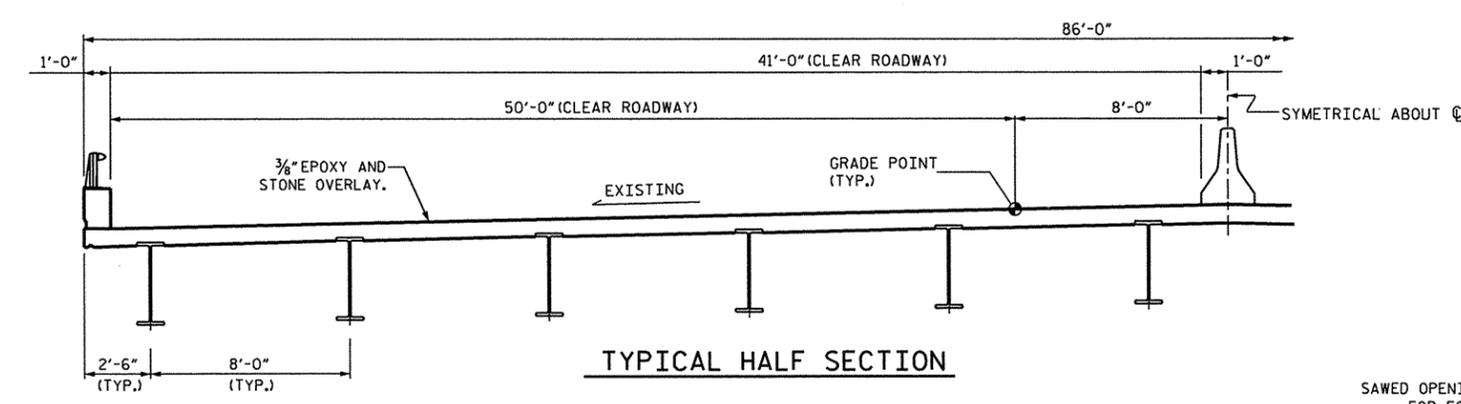
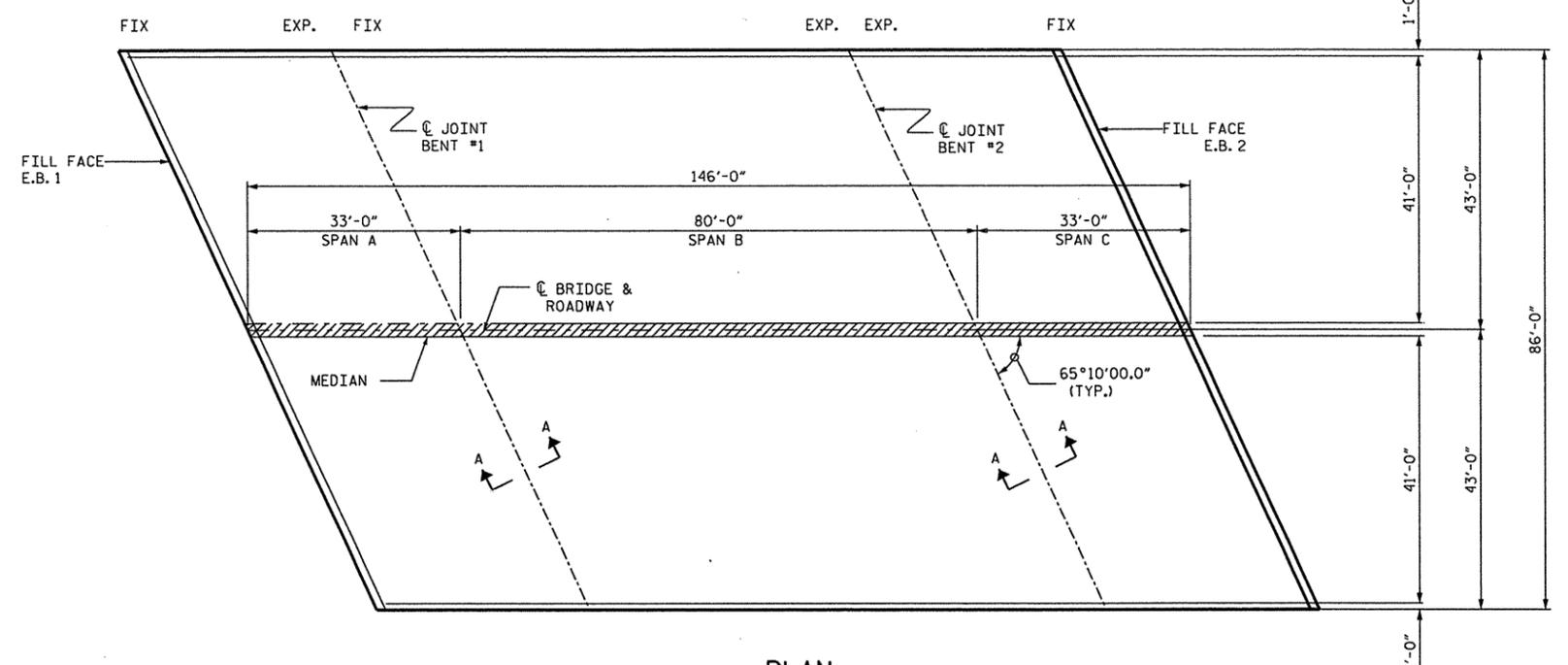
DRAWN BY: STS DATE: OCT./2011
 CHECKED BY: DCM DATE: MAY/2012

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14-MAR-2012 16:55

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← TO HAY STREET TO RAMSEY STREET →



NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

THE INSTALLED FOAM JOINT SEALS SHALL BE INSTALLED WATERTIGHT.

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE SEAL IN LIEU OF SAWING THE JOINT.

FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE 2 1/2" AT BENTS.

FOR OVER-SAWED JOINTS, THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE DETERMINED BY THE ENGINEER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

TOTAL BILL OF MATERIAL		
FOR BRIDGE 84		
EPOXY/STONE OVERLAY	FOAM JOINT SEALS	* CLASS II DECK REPAIRS
SO.FT.	LUMP SUM	SO.FT.
11972	LUMP SUM	120

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.

PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: 84

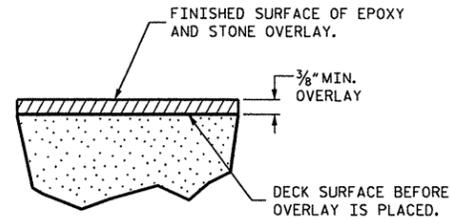
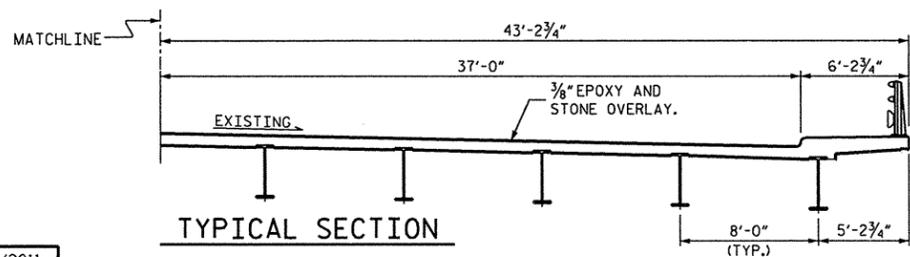
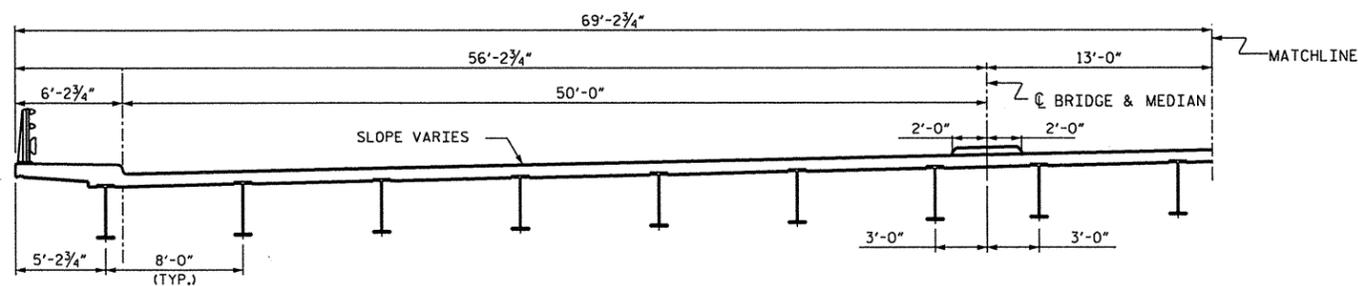
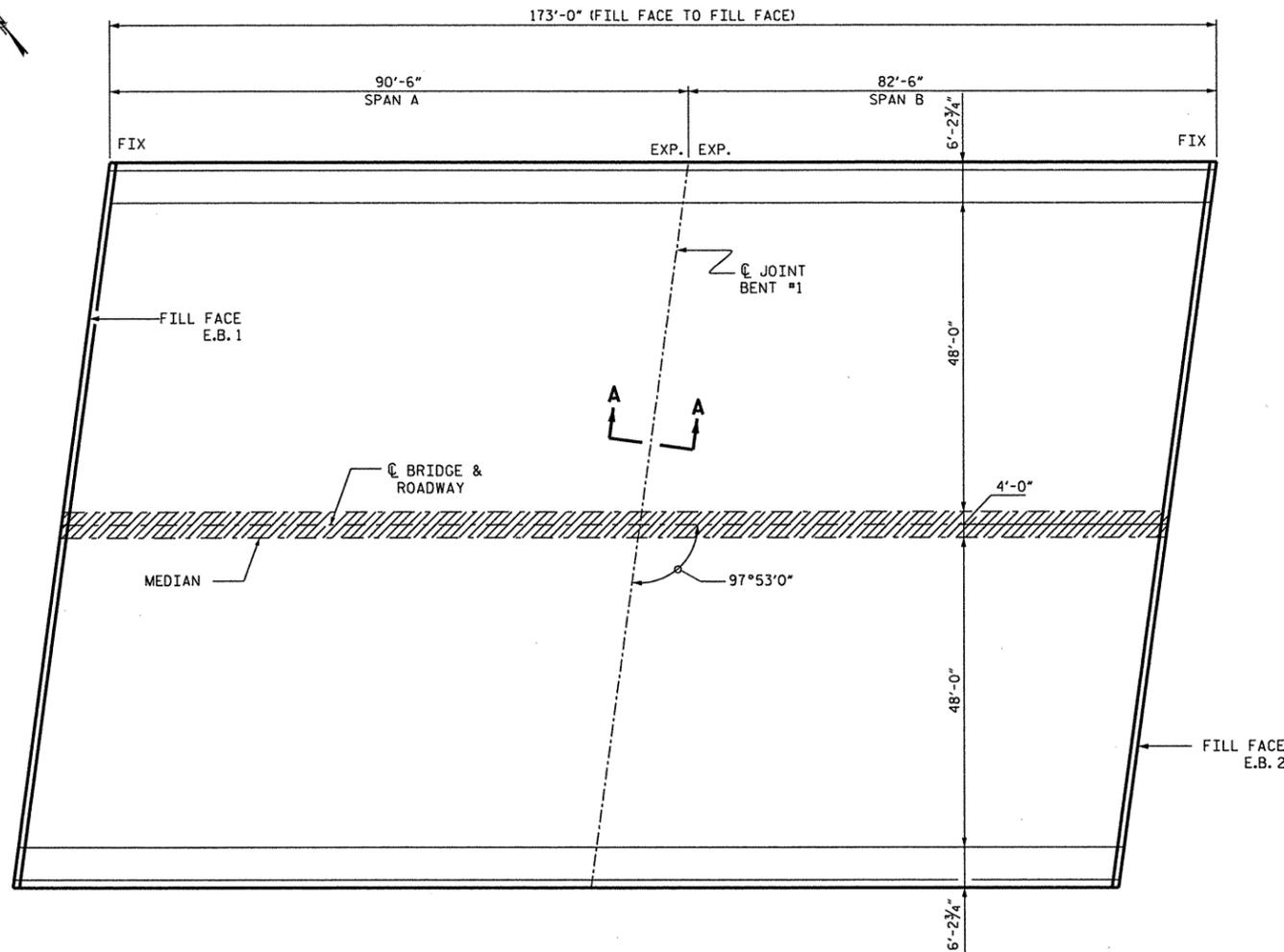
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
PLAN VIEW & DETAILS
 -BRIDGE NO. 84 ON US401 BUS
 CUMBERLAND ST. -

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-4
1			3			TOTAL SHEETS
2			4			

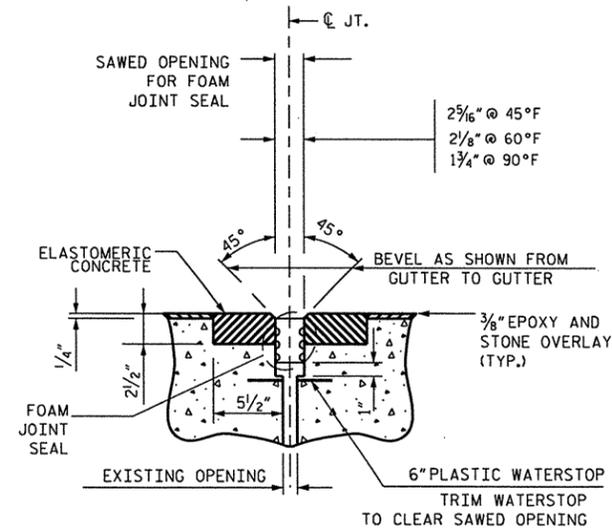
DRAWN BY: STS DATE: JULY/2011
 CHECKED BY: DCM DATE: MAY/2012

TO FORT BRAGG

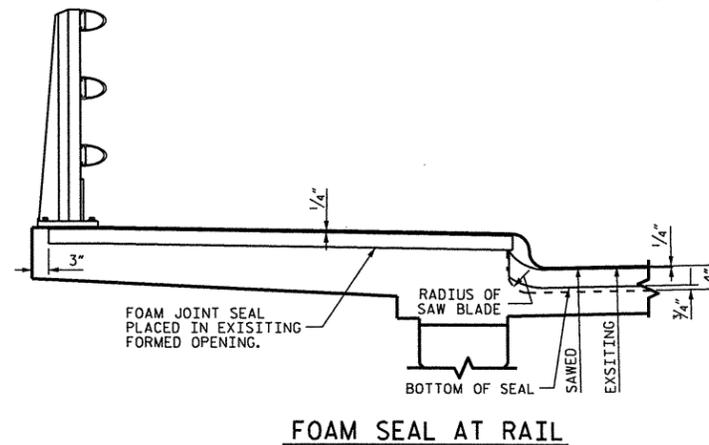
TO HAY STREET



DETAIL FOR EPOXY AND STONE OVERLAY



SECTION A-A (PROPOSED FOAM JT. SEAL)



NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

THE INSTALLED FOAM JOINT SEALS SHALL BE INSTALLED WATERTIGHTS.

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE SEAL IN LIEU OF SAWING THE JOINT.

FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE 2 1/2" AT BENTS.

FOR OVER-SAWED JOINTS, THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE DETERMINED BY THE ENGINEER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

TOTAL BILL OF MATERIAL

FOR BRIDGE 104

EPOXY/STONE OVERLAY	FOAM JOINT SEALS	* CLASS II DECK REPAIRS
SO.FT.	LUMP SUM	SO.FT.
16608	LUMP SUM	170

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.

PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: 104

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW & DETAILS
 -BRIDGE NO. 104 ON US BUS

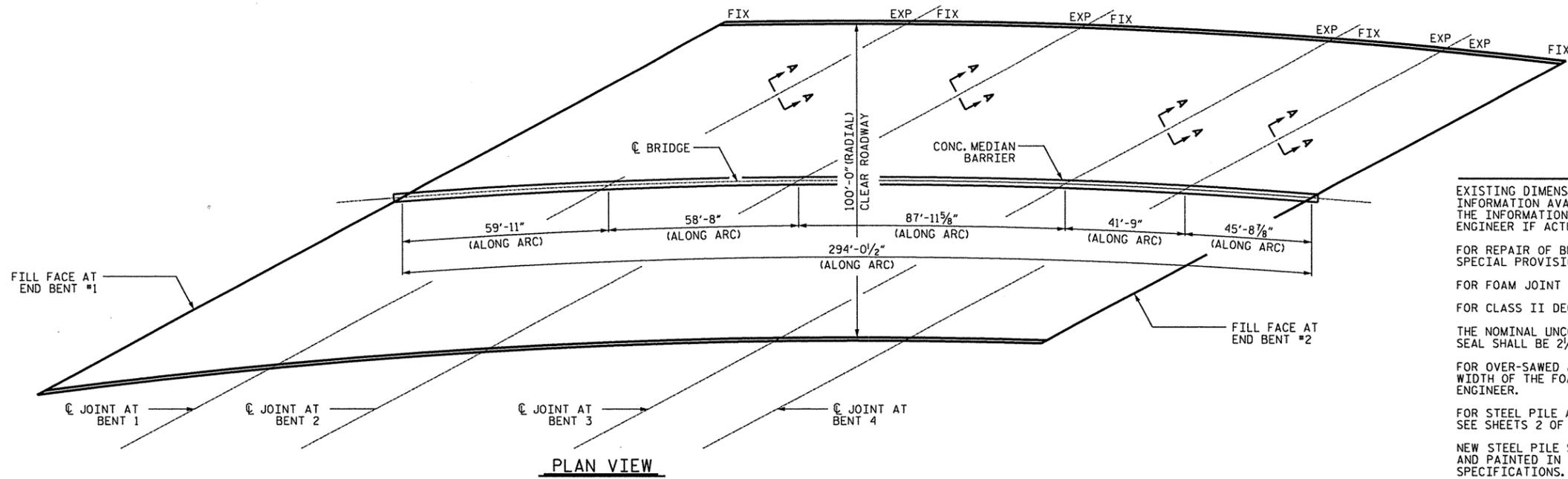
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-5
1			3			TOTAL SHEETS
2			4			

DRAWN BY: STS DATE: JULY/2011
 CHECKED BY: DCM DATE: MAY/2012

dmuller

14-MAR-2012 17:02

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NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

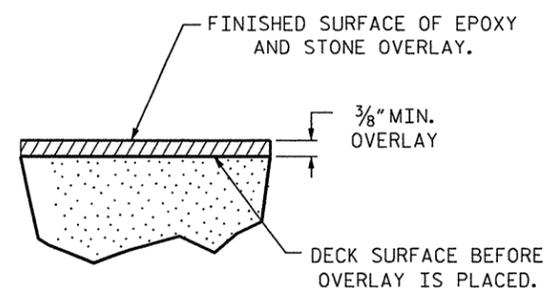
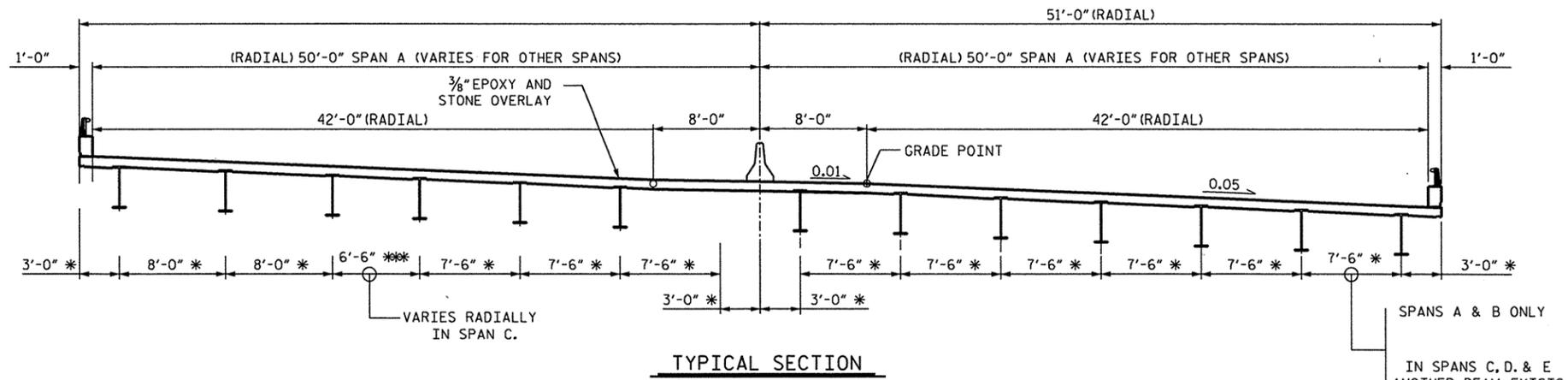
THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE 2 1/2" AT BENTS.

FOR OVER-SAWED JOINTS, THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE DETERMINED BY THE ENGINEER.

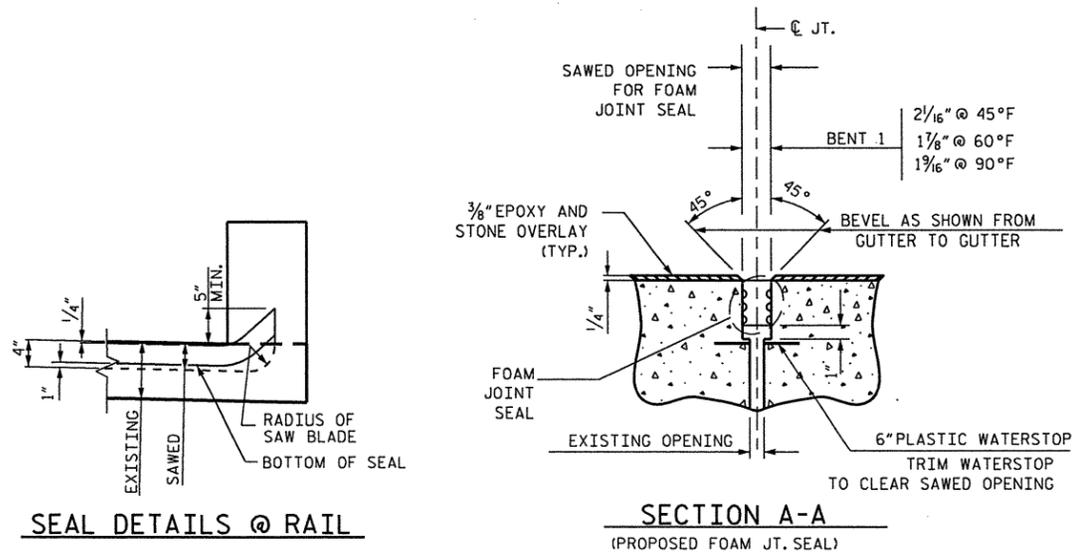
FOR STEEL PILE AND CONCRETE COLLAR REPAIRS TO BENT NO. 4, SEE SHEETS 2 OF 3 AND 3 OF 3.

NEW STEEL PILE SEGMENTS SHALL BE GRADE A36, SHOP PRIMED, AND PAINTED IN THE FIELD IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.



DETAIL FOR EPOXY AND STONE OVERLAY



TOTAL BILL OF MATERIAL					
FOR BRIDGE 123					
EPOXY/STONE OVERLAY	FOAM JOINT SEALS	* CLASS II DECK REPAIRS	STRUCTURAL STEEL **	REINFORCING STEEL **	CLASS A CONCRETE **
SQ.FT.	LUMP SUM	SQ.FT.	LBS.	LBS.	SQ. YDS.
28842	LUMP SUM	290	160	66	0.6

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.
 ** ESTIMATED QUANTITY. SEE SHEET 3 OF 3.

PROJECT NO. 17BP.6.P.3
 CUMBERLAND COUNTY
 BRIDGE NO: 123
 SHEET 1 OF 3

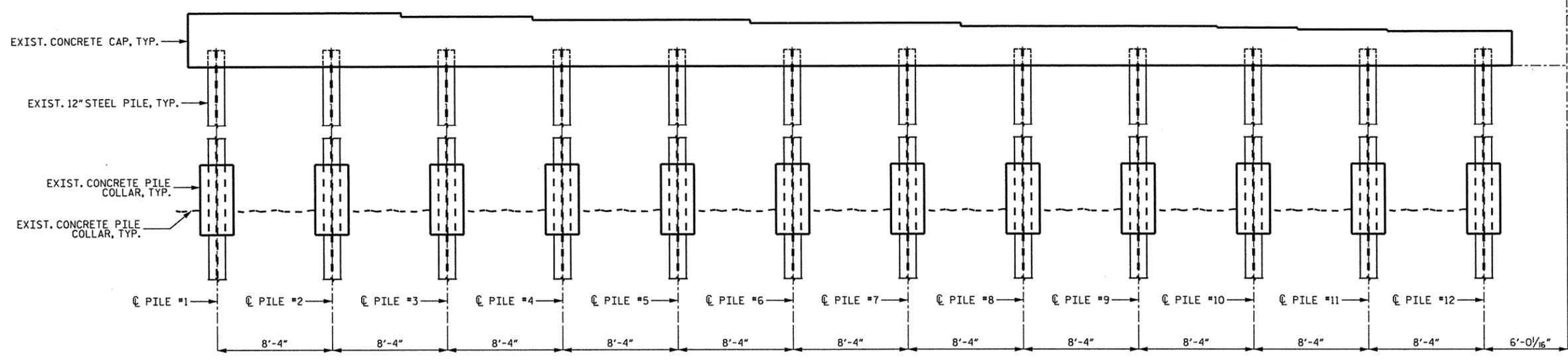
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW & DETAILS
 -BRIDGE NO.123 ON
 US401BUS ACROSS
 NORFOLK SOUTHERN R.R.-

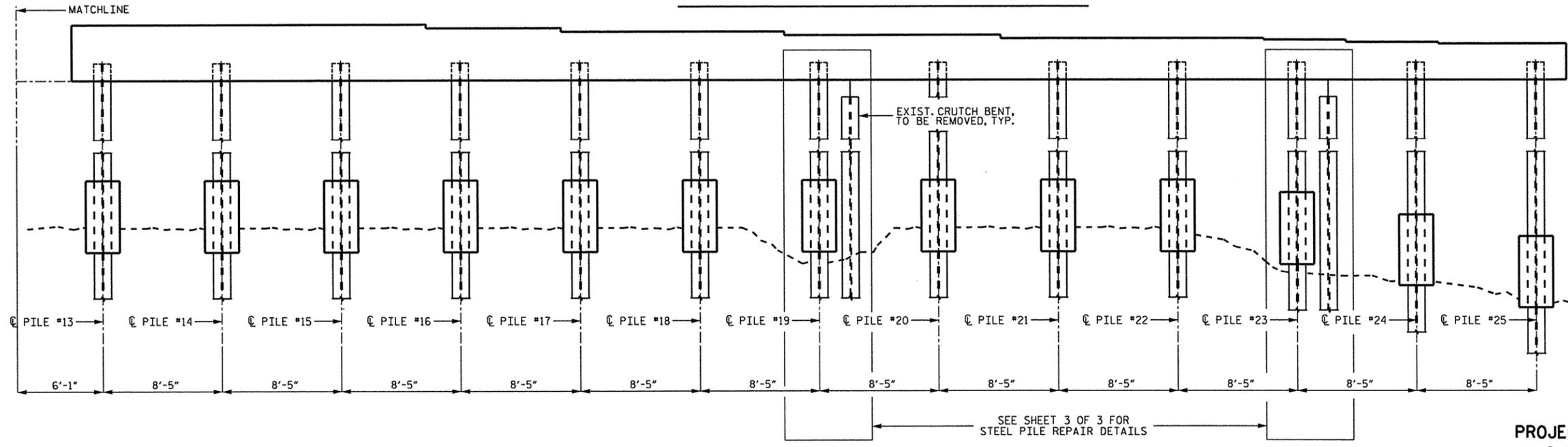
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S-7
 TOTAL SHEETS

DRAWN BY : D. MULLER DATE : 3/2012
 CHECKED BY : F. ASEFNIA DATE : 3/2012



BENT #4 ELEVATION - LEFT SIDE



BENT #4 ELEVATION - RIGHT SIDE

PROJECT NO. 17BP.6.P.3
CUMBERLAND COUNTY
 BRIDGE NO. 123

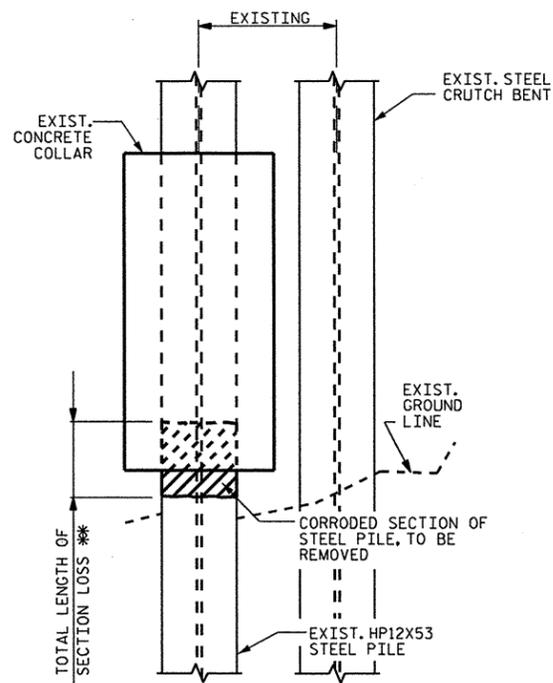
SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

BENT #4 ELEVATION
 (WEST ELEVATION SHOWN)

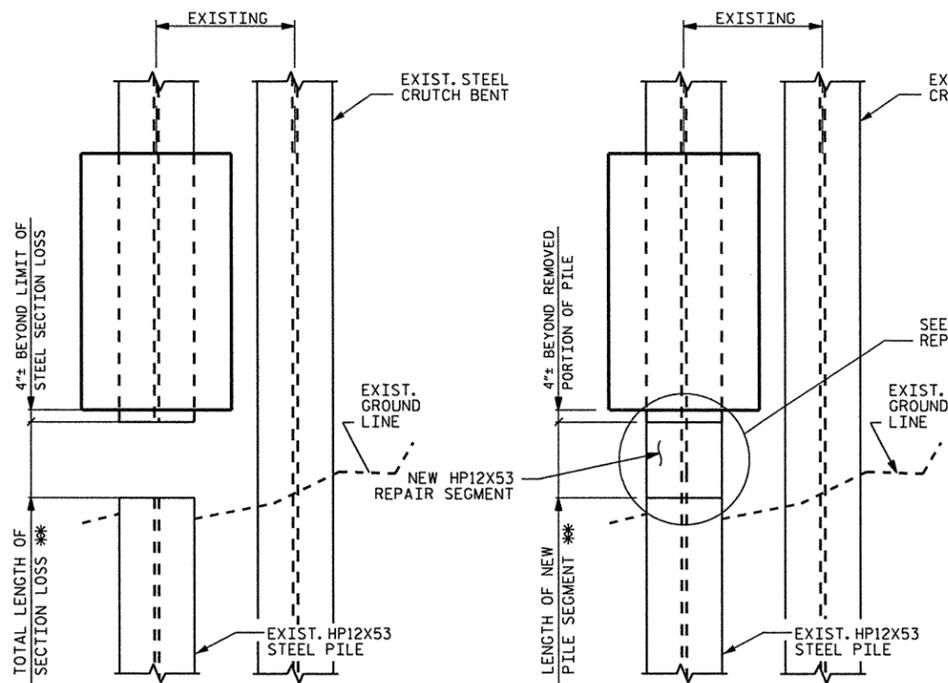
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			5-8
2			4			

DRAWN BY: D. MULLER DATE: 3/2012
 CHECKED BY: F. ASEFNIA DATE: 3/2012



EXISTING

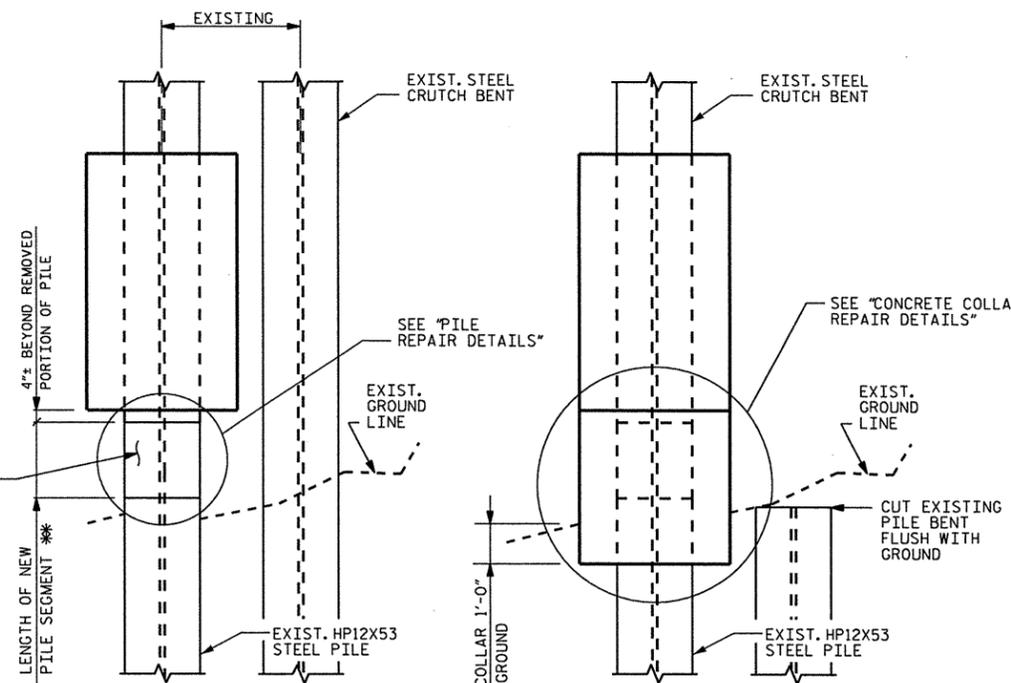
* LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER



STEP 1

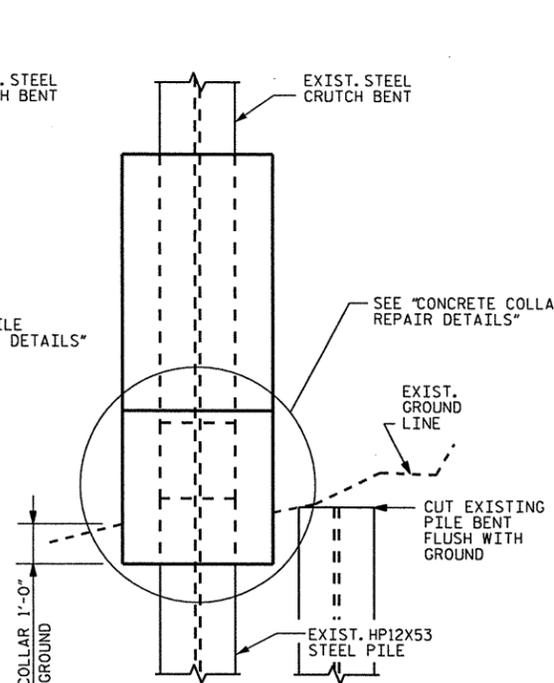
CONCRETE COLLAR DEMOLITION & REMOVAL OF DAMAGED PILE SECTION

* LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER



STEP 2

PILE REPAIR



STEP 3

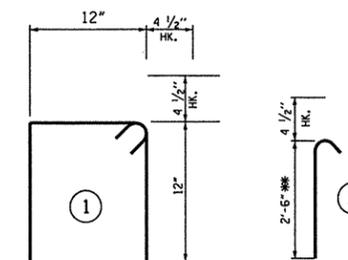
CONCRETE COLLAR REPAIR & REMOVAL OF CRUTCH BENT

APPROX. BILL OF MATERIAL FOR ONE PILE AND COLLAR REPAIR

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
S1	3**	#4	1	4'-9"	10
V1	12	#4	2	2'-10 1/2" **	23
REINFORCING STEEL =				33 lbs	
HP SECTION	NO.	LENGTH	WEIGHT		
HP12X53	1	1'-6" **	80		
STRUCTURAL STEEL =				80 lbs	
CLASS A CONCRETE				0.3 CY	

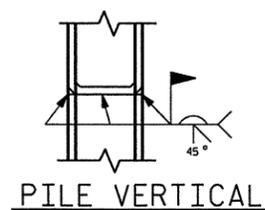
BAR TYPES

** LENGTH OF V1 BARS AND NUMBER OF S1 BARS AND NUMBER OF S1 BARS IS BASED ON AN ESTIMATED LENGTH OF 3'-0" FOR THE LENGTH OF THE CONCRETE COLLAR REPAIR.

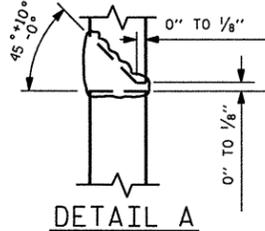


ALL BAR DIMENSIONS ARE OUT TO OUT.

PILE REPAIR SEQUENCE



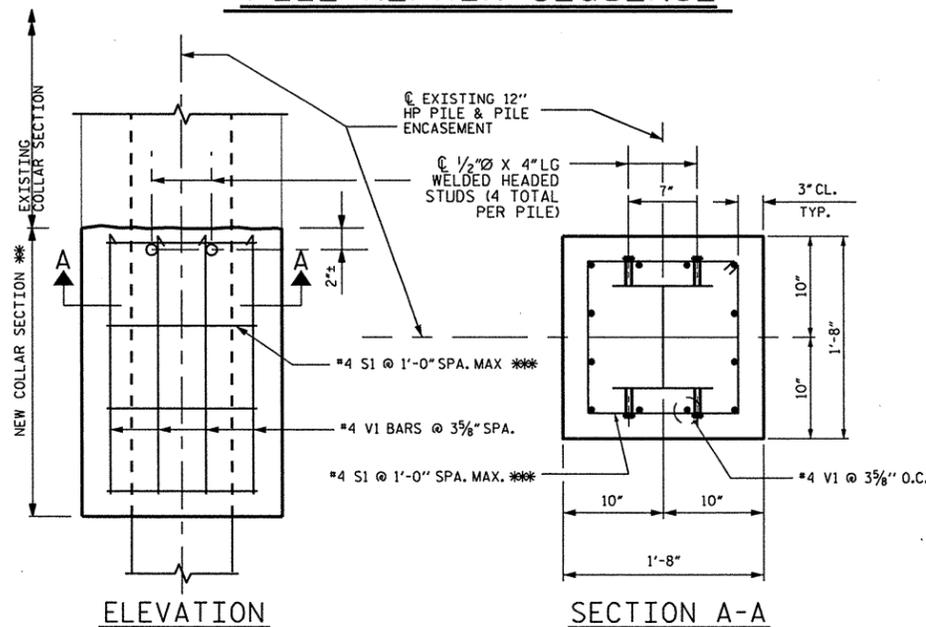
PILE VERTICAL



DETAIL A

NOTE: CLEAN THE COMPLETED WELD OF ALL DEBRIS, SLAG AND SPATTER PRIOR TO PRIMER REPAIR AND PAINTING.

PILE REPAIR DETAILS



ELEVATION

SECTION A-A

* LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER

** PLACE STIRRUPS AROUND LOWER PORTION OF EXISTING PILE PRIOR TO PLACEMENT OF NEW PILE SECTION.

CONCRETE COLLAR REPAIR DETAILS

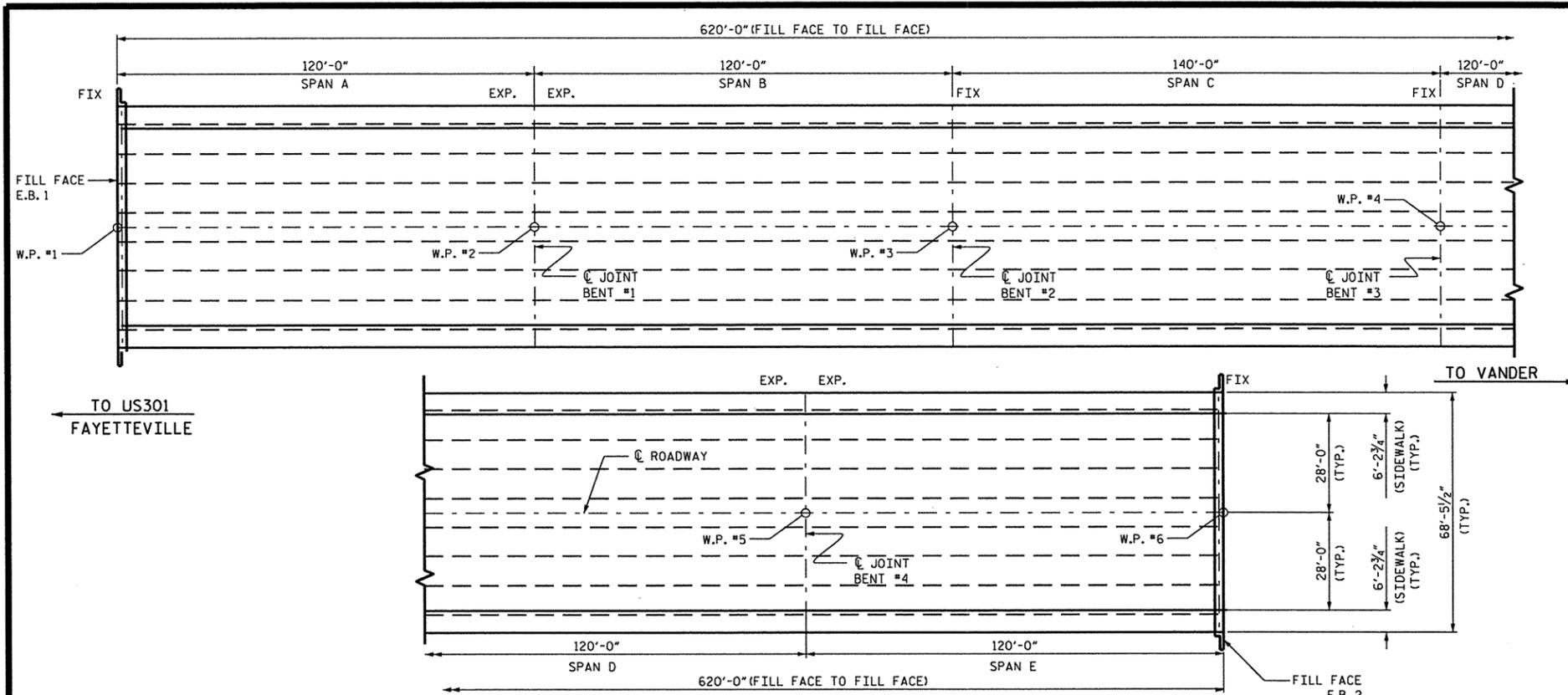
PROJECT NO. 17BP.6.P.3
CUMBERLAND COUNTY
 BRIDGE NO. 123

SHEET 3 OF 3

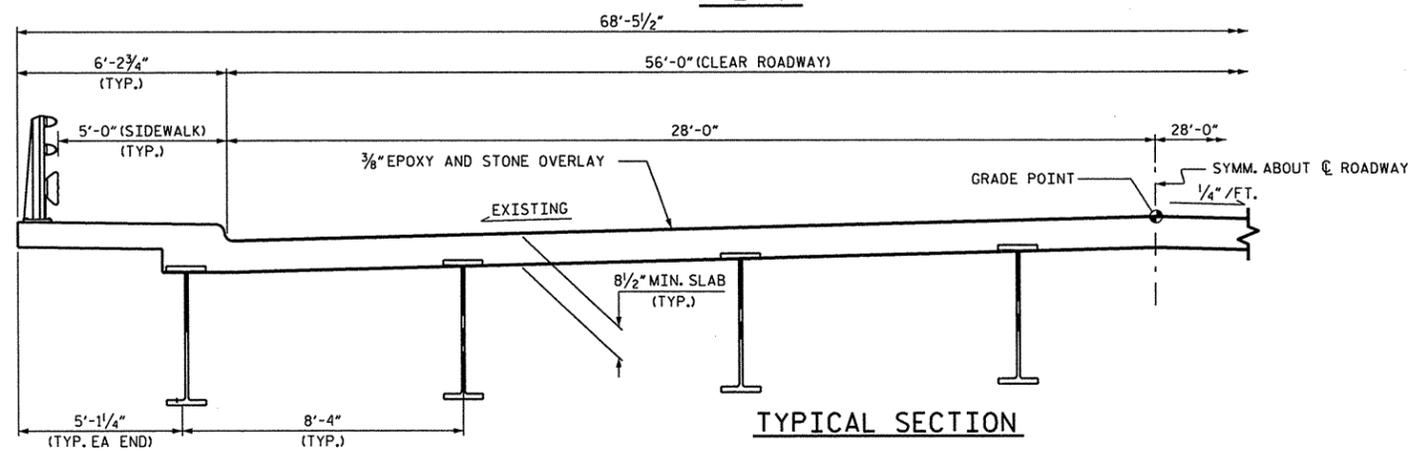
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
REPAIR DETAILS
 FOR
 STEEL PILES
 &
 CONCRETE COLLARS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S-9
2			4			

DRAWN BY : D. MULLER DATE : 3/2012
 CHECKED BY : F. ASEFNIA DATE : 3/2012



PLAN



TYPICAL SECTION

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

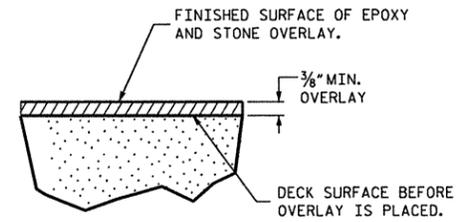
FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

TOTAL BILL OF MATERIAL	
FOR BRIDGE 126	
EPOXY/STONE OVERLAY	* CLASS II DECK REPAIRS
SQ.FT.	SQ.FT.
34720	340

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.



DETAIL FOR EPOXY AND STONE OVERLAY

PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: No. 126

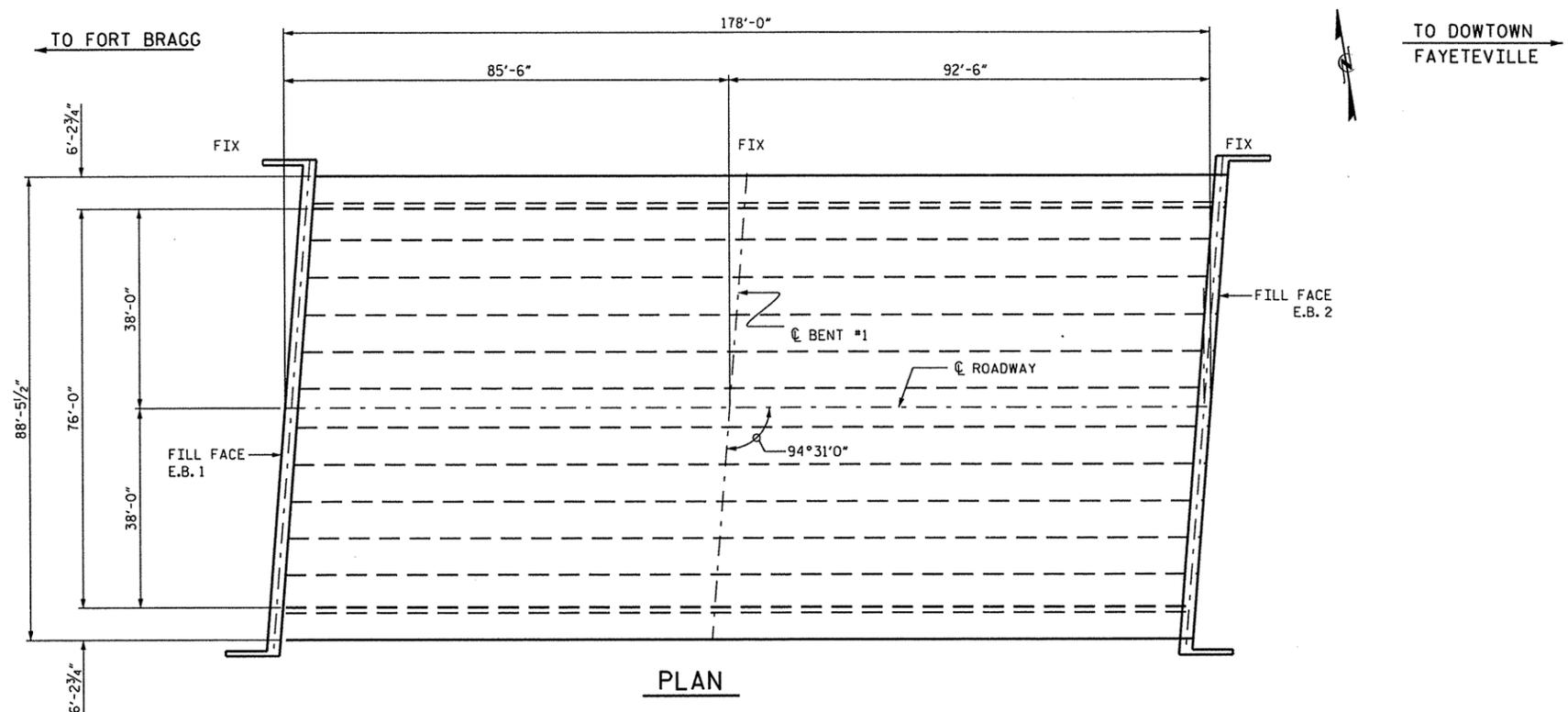
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN VIEW & DETAILS

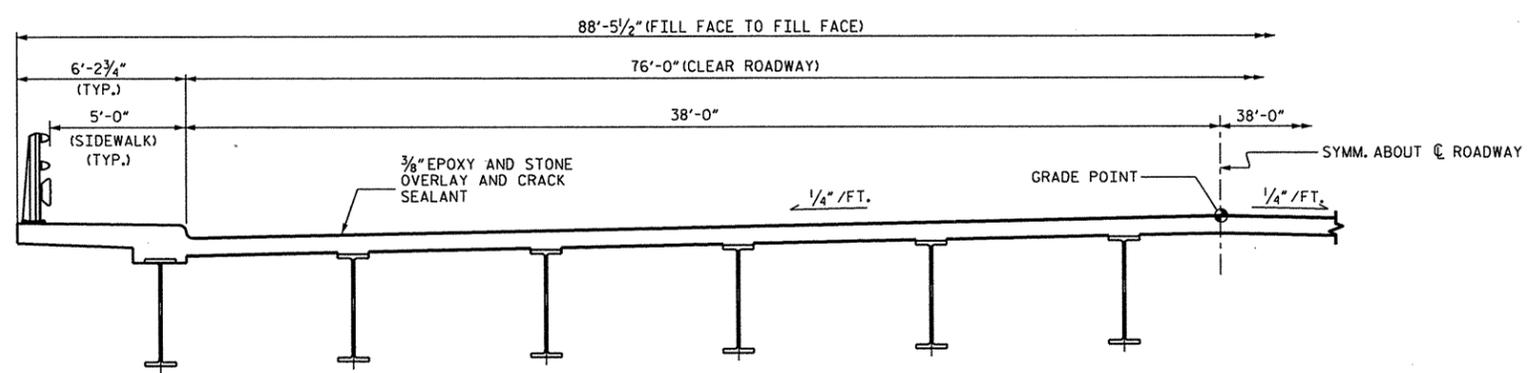
-BRIDGE NO. 126 ON NC24
 ACROSS CAPE FEAR RIVER-

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	TOTAL SHEETS
1			3			S-10
2			6			

DRAWN BY: STS DATE: OCT./2011
 CHECKED BY: DCM DATE: MAY/2011



PLAN



TYPICAL SECTION

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

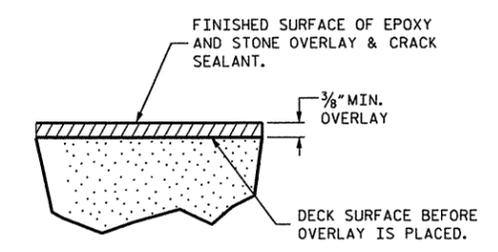
FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

FOR PLACEMENT OF PRE-TREATMENT, SEE SPECIAL PROVISIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

TOTAL BILL OF MATERIAL		
FOR BRIDGES 218		
PLACEMENT OF PRE-TREATMENT	EPOXY/STONE OVERLAY	* CLASS II DECK REPAIRS
SO.FT.	SO.FT.	SO.FT.
13528	13528	140

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.



DETAIL FOR EPOXY AND STONE OVERLAY

PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: No. 218

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW & DETAILS
 -BRIDGE NO.218 ON
 SR1404 ACROSS
 US 401BUS. -

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-11
1			3			TOTAL SHEETS
2			4			

DRAWN BY: STS DATE: OCT./2011
 CHECKED BY: DCM DATE: MAY/2012

TO YADKIN RD.

TO SHAW RD.
(TO NC24)

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

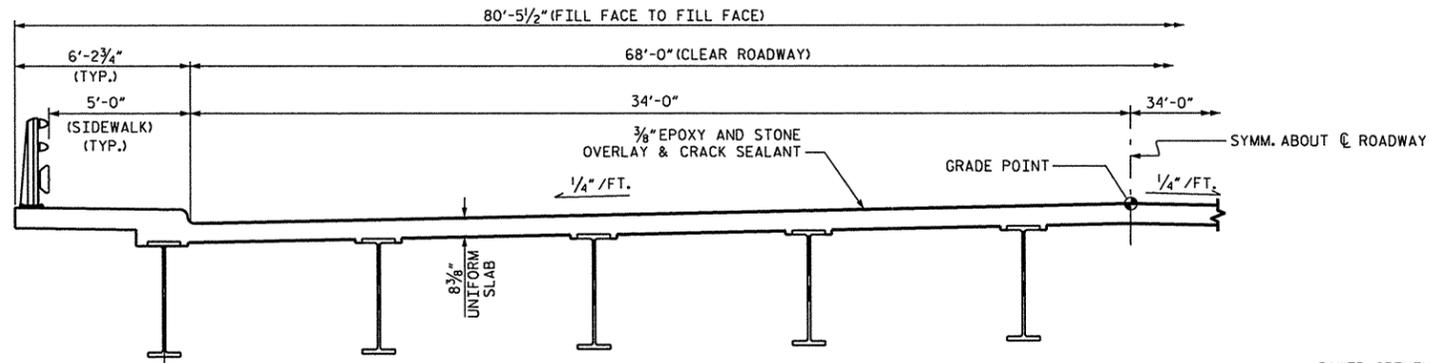
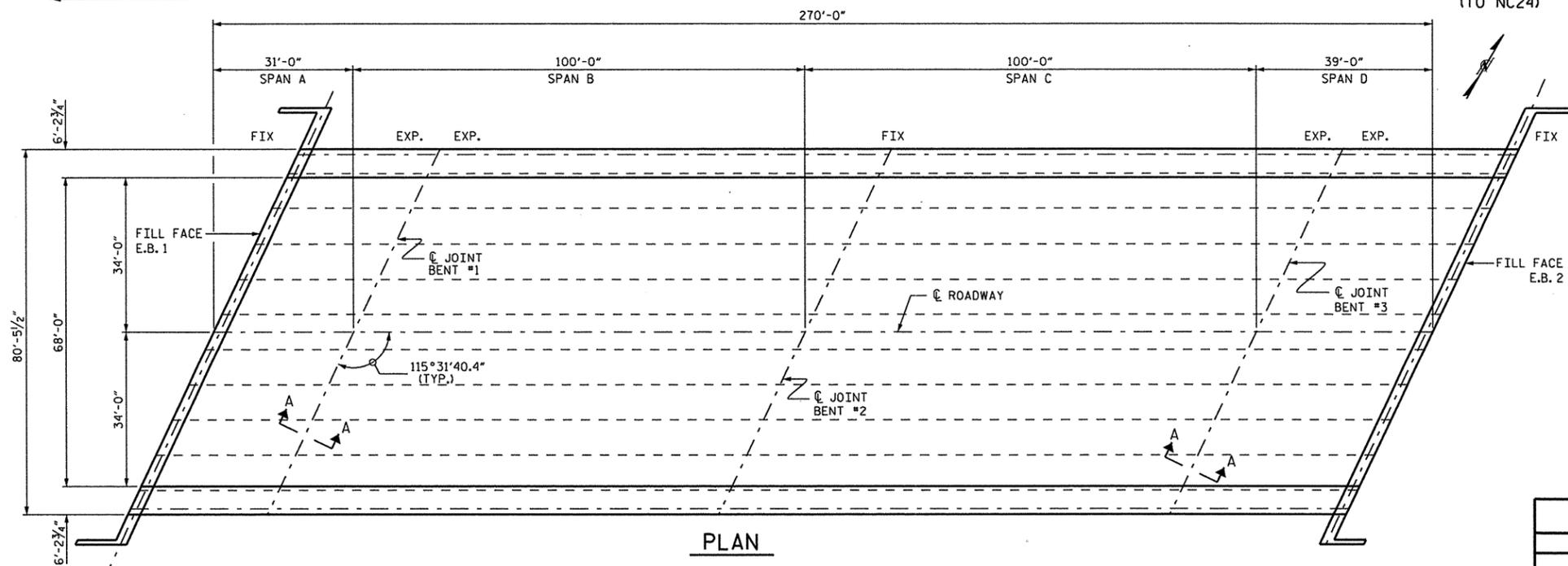
FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.

FOR PLACEMENT OF PRE-TREATMENT, SEE SPECIAL PROVISIONS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE 2 1/2" AT BENTS.

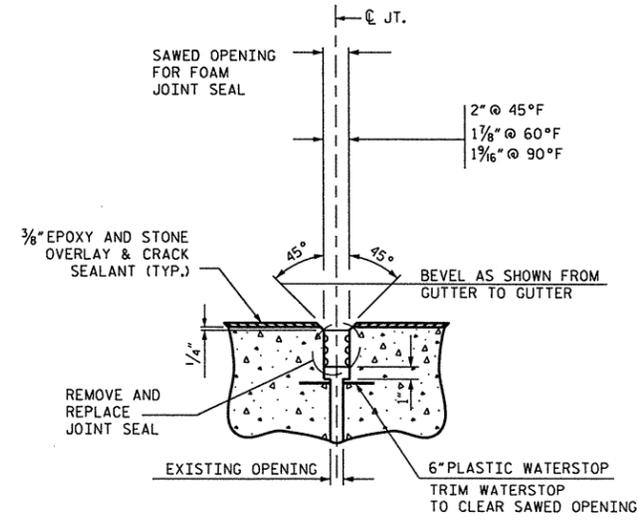
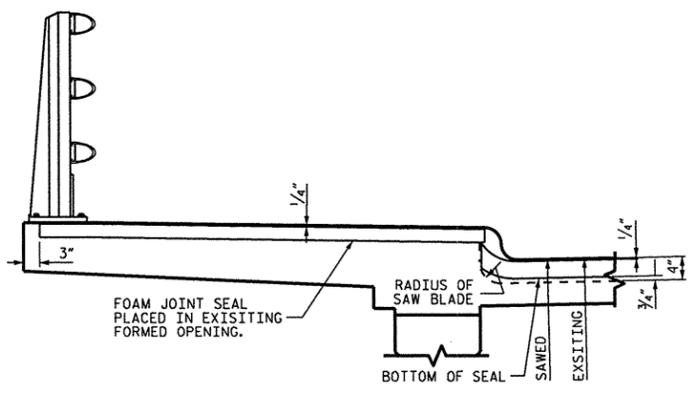
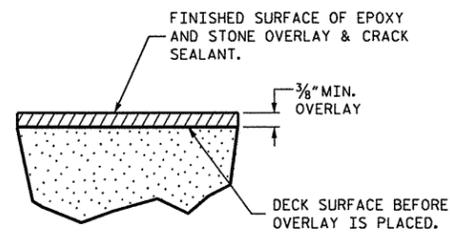
FOR OVER-SAWED JOINTS, THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE DETERMINED BY THE ENGINEER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.



TOTAL BILL OF MATERIAL			
FOR BRIDGE 225			
PLACEMENT OF PRE-TREATMENT	EPOXY/STONE OVERLAY	FOAM JOINT SEALS	* CLASS II DECK REPAIRS
SO.FT.	SO.FT.	LUMP SUM	SO.FT.
18360	18360	LUMP SUM	180

* ESTIMATED QUANTITY, SEE SPECIAL PROVISIONS.



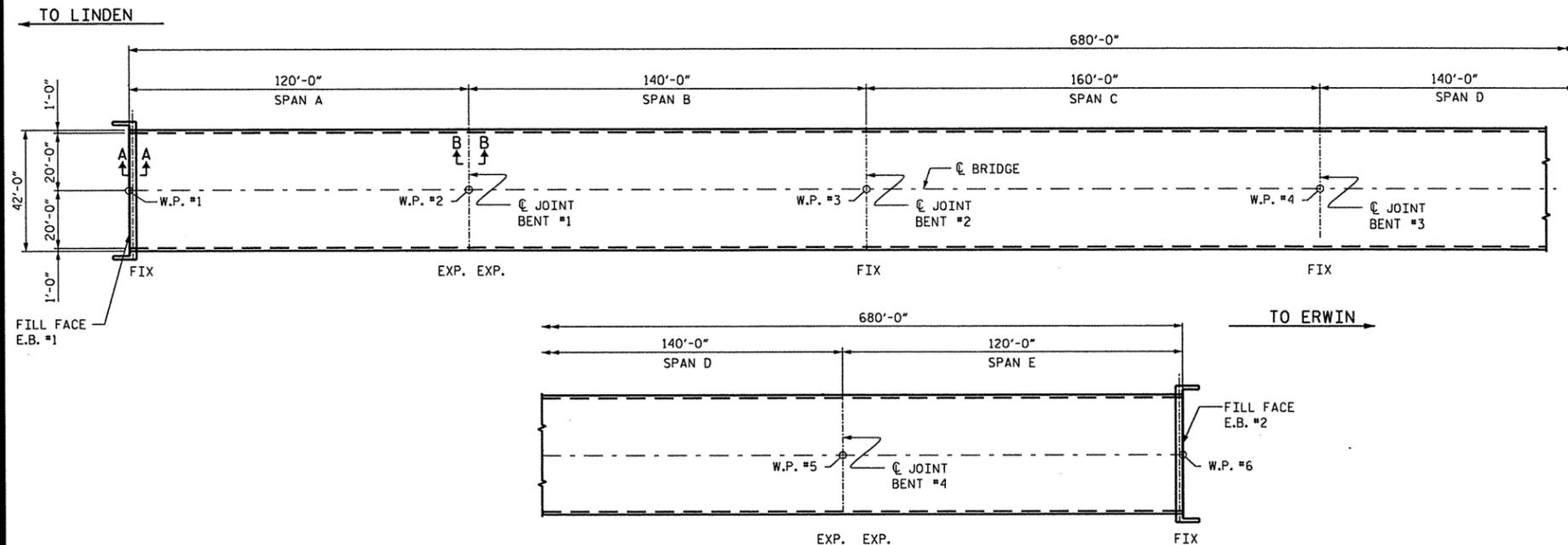
PROJECT NO. 17BP.6.P.3
 COUNTY: CUMBERLAND
 BRIDGE NO: 225

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
PLAN VIEW & DETAILS
 -BRIDGE NO.225 ON SR1437
 (ACROSS SR1007
 (OWEN DRIVE)-

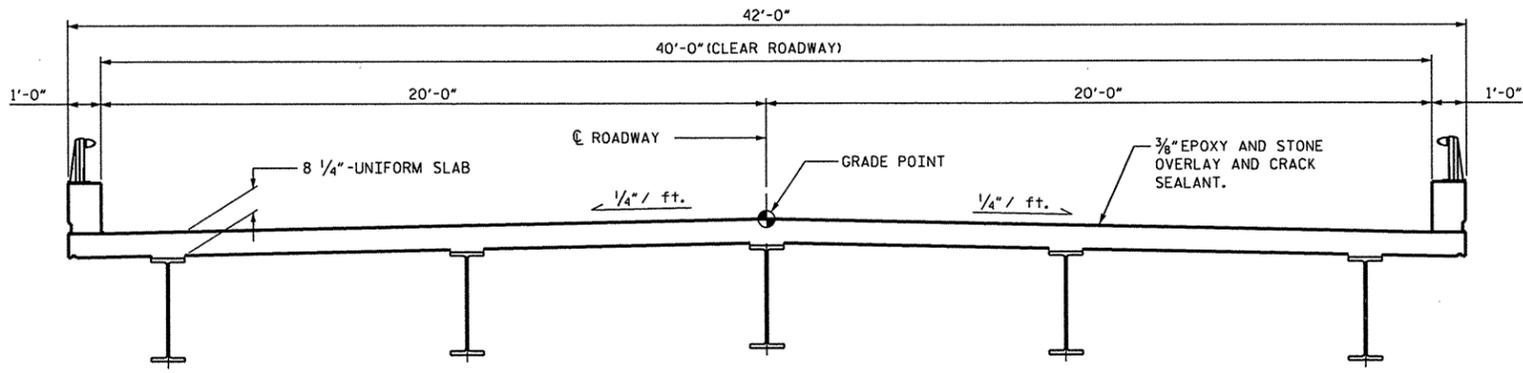
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			6		

SHEET NO. S-12
TOTAL SHEETS

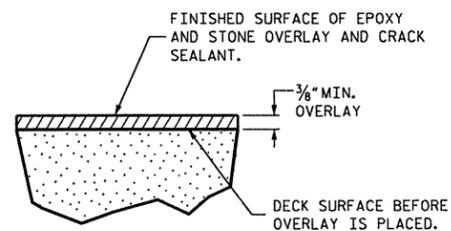
DRAWN BY: STS DATE: OCT./2011
 CHECKED BY: DCM DATE: MAY/2011



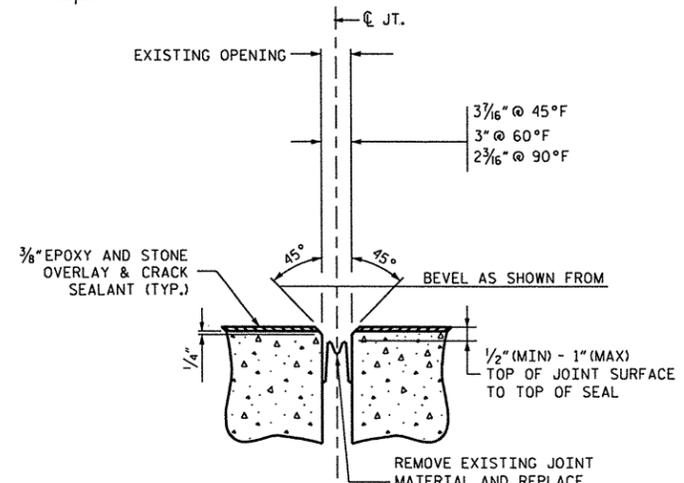
PLAN



TYPICAL SECTION
(NOT AT SCALE)



DETAIL FOR EPOXY AND STONE OVERLAY



** JOINT SEAL SHALL BE CAPABLE OF A MAX JOINT OPENING OF 4 1/2" AND A MIN JOINT OPENING OF 1 1/2".

SECTION A-A
(PROPOSED JT. SEAL)

NOTES

- EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.
- FOR PLACEMENT OF PRE-TREATMENT, SEE SPECIAL PROVISIONS.
- FOR REPAIR OF BRIDGE WITH EPOXY AND STONE OVERLAY, SEE SPECIAL PROVISIONS.
- FOR SYNTHETIC RUBBER EXPANSION JOINTS, SEE SPECIAL PROVISIONS.
- FOR CLASS II DECK REPAIRS, SEE SPECIAL PROVISIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

TOTAL BILL OF MATERIAL			
FOR BRIDGE 52			
PLACEMENT OF PRE-TREATMENT	EPOXY/STONE OVERLAY	SYNTHETIC RUBBER EXPANSION JOINT SEALS	* CLASS II DECK REPAIRS
SO.FT.	SO.FT.	LUMP SUM	SO.FT.
28560	28560	LUMP SUM	290

* ESTIMATED QUANTITY. SEE SPECIAL PROVISIONS.

PROJECT NO. 17BP.6.P.3
 COUNTY: HARNETT
 BRIDGE NO: No. 52

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
PLAN VIEW & DETAILS
 -BRIDGE NO. 52 ON NC217
 ACROSS CAPE FEAR RIVER-

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO.
S-13
TOTAL SHEETS

DRAWN BY: STS DATE: AUG./2011
 CHECKED BY: DCM DATE: MAY/2012

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

HARNETT & CUMBERLAND COUNTIES

DIVISION 6



HARNETT COUNTY

BRIDGE #52 – NC 217 over Cape Fear River

CUMBERLAND COUNTY

- BRIDGE #5 – NC 59 (Chicken Foot Rd.) over I-95**
- BRIDGE #6 – SR 1007 (All American Expressway) over US 401 Business**
- BRIDGE #34 – NC 53/NC 210 (Cedar Creek Rd.) over I-95**
- BRIDGE #84 – US 401 Business over Cumberland St.**
- BRIDGE #104 – NC 24/NC 87 (Bragg Blvd.) over US 401 Business**
- BRIDGE #112 – US 401 Business over Hillsborough St.**
- BRIDGE #123 – US 401 Business over Railroad**
- BRIDGE #126 – NC 24/NC 210 (Grove St.) over Cape Fear River**
- BRIDGE #218 – SR 1404 (Hay St.) over US 401 Business/NC 87**
- BRIDGE #225 – SR 1437 (Santa Fe Dr.) over NC 24/NC 87 (All American Expressway)**

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2	GENERAL NOTES
TMP-3	PHASING
TMP-4	CUMBERLAND 5 - NC 59 NORTHBOUND CLOSURE
TMP-5	CUMBERLAND 5 - NC 59 SOUTHBOUND CLOSURE
TMP-6	CUMBERLAND 6 - SR 1007 SOUTHBOUND RIGHT LANE CLOSURE
TMP-7	CUMBERLAND 34 - NC 53/NC 210 LEFT LANE CLOSURE
TMP 8,8A	CUMBERLAND 34 - NC 53/NC 210 RIGHT LANE CLOSURE
TMP-9	CUMBERLAND 104 - NC 24/NC 87 LEFT LANE CLOSURE
TMP-10,10A,10B	CUMBERLAND 104 - NC 24/NC 87 RIGHT LANE CLOSURE
TMP-11	CUMBERLAND 123 - US 401 BUS. SOUTHBOUND LEFT LANE CLOSURE
TMP-12	CUMBERLAND 123 - US 401 BUS. SOUTHBOUND RIGHT LANE CLOSURE
TMP-13	CUMBERLAND 218 - SR 1404 LEFT LANE CLOSURE
TMP-14	CUMBERLAND 218 - SR 1404 RIGHT LANE CLOSURE

SHEET NO.
TMP-1

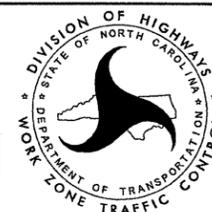
WBS 17BP.6.P.3

TRAFFIC MANAGEMENT STRATEGY

BRIDGE WORK WILL BE PERFORMED USING TIME RESTRICTED LANE CLOSURES.



PLAN PREPARED FOR NCDOT BRIDGE MANAGEMENT UNIT
RALEIGH, NC



PLAN PREPARED BY:
Stantec Consulting Services Inc.
801 Jones Franklin Road-Suite 300
Raleigh, NC 27606
Tel. 919.851.6866
Fax. 919.851.7024
www.stantec.com

BETSY L. WATSON, P.E. TRAFFIC ENGINEER
GEORGE KARAGEORGE TRANSPORTATION DESIGNER

APPROVED: *Betsy L. Watson*
DATE: 8/25/12



2/22/2012 11:41:00 AM C:\Users\jcarroll\Documents\Projects\17BP.6.P.3\17BP.6.P.3.TC.TMP_01.TITLE.dgn

LEGEND

GENERAL

← DIRECTION OF TRAFFIC FLOW

 WORK AREA

 NORTH ARROW

TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM  SKINNY DRUM  TUBULAR MARKER
-  TEMPORARY CRASH CUSHION
-  FLASHING ARROW PANEL (TYPE C)
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
-  CHANGEABLE MESSAGE SIGN (CMS)
-  PORTABLE CONCRETE BARRIER (PCB)

TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY

PAVEMENT MARKINGS

-  EXISTING PAVEMENT MARKING (GRAY)
-  SKIP LINES
-  MINI-SKIP LINES
-  SOLID LINES

PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS
-  EXISTING PAVEMENT MARKING SYMBOLS (HOLLOW)
-  ONLY PAVEMENT MARKING ALPHANUMERIC CHARACTERS

PAVEMENT MARKERS

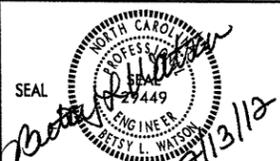
-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
-  YELLOW/YELLOW

ROADWAY STANDARD DRAWINGS

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
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT)

2/13/2012 UKYTrafficControl\WBS 17BP.6.P.3 Harnett Cumberland Preservation\TCP\Plan Sheets\WBS 17BP.6.P.3_TC_TMP_OA_RDWYSTDSLEGEND.dgn

 <p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>	<p>APPROVED: _____ DATE: _____</p> 		<p>ROADWAY STANDARD DRAWINGS & LEGEND</p>
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GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

LANE CLOSURE TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
ALL ROADS	6:00 A.M. - 7:00 P.M. MONDAY THRU SUNDAY (EVERYDAY) EXCEPT I-95

I-95	6:00 A.M. - 7:00 P.M. MONDAY THRU THURSDAY AND 6:00 A.M. FRIDAY - 7:00 P.M. SUNDAY
------	---------------------------------------------------------------------------------------

HOLIDAY & HOLIDAY WEEKEND LANE CLOSURE TIME RESTRICTIONS

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND HOLIDAY WEEKENDS AS FOLLOWS:

ROAD NAME
ALL ROADS

- 1) FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2) FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2nd. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- 3) FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- 5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY; THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- 6) FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- 7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8) FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- 9) ON I-95 FOR THE BIKE WEEK SPECIAL EVENTS AT MYRTLE BEACH AND DAYTONA 500, BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE THE EVENT AND 7:00 P.M. THE TUESDAY AFTER THE EVENT.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) LANE CLOSURES ARE REQUIRED WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN ANY PORTION OF A TRAVEL LANE. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- D) INSTALL ALL LANE CLOSURES ACCORDING TO THE PLANS, ROADWAY STANDARD DRAWINGS (1101.02), OR AS DIRECTED BY THE ENGINEER.
- E) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER. COVER OR LAY DOWN SIGNS, AND TURN OFF ARROW PANEL AND MESSAGE BOARDS.
- F) INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- J) UNLESS OTHERWISE SHOWN IN THE PLANS, PLACE ARROW PANELS ON THE ROADWAY SHOULDER. IF SHOULDERS DO NOT EXIST, PLACE ARROW PANELS WITHIN THE MERGE TAPER BEHIND THE CHANNELIZING DEVICES OF THE LANE CLOSURE. IF NEEDED, EXTEND LANE CLOSURES TO PROVIDE STOPPING SIGHT DISTANCE TO THE ARROW PANEL (REFER TO ROADWAY STANDARD DRAWING 1101.11 SHEET 2).
- K) PLACE LANE CLOSURE DRUMS IN TAPERS AT A MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT (MPH). ALONG BUFFER SPACES AND WORK AREAS SPACE DRUMS AT A MAXIMUM SPACING EQUAL IN FEET TO TWICE THE POSTED SPEED LIMIT (MPH). IN ALL CASES, CHANNELIZING DEVICES ARE TO BE SPACED IN SUCH A MANNER AS TO POSITIVELY ACHIEVE THE INTENDED VISUAL CHANNELIZATION. CHANNELIZING DEVICES SHOULD BE Laterally OFFSET 3 FT INSIDE THE CLOSED LANE AS ROOM PERMITS.
- L) WHENEVER TAPERS ARE TO BE USED IN CLOSE PROXIMITY TO AN INTERCHANGE RAMP, CROSSROADS, CURVES, OR OTHER INFLUENCING FACTORS, THE LENGTH OF THE TAPERS MAY BE ADJUSTED.

PAVEMENT MARKINGS AND MARKERS

- M) RECORD ALL LOCATIONS AND TYPES OF EXISTING PAVEMENT MARKINGS AS THEY WILL BE REPLACED IN THE SAME LOCATION ON THE NEW SURFACE.
- N) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- O) UPON COMPLETION OF ALL OTHER CONSTRUCTION OPERATIONS INSTALL POLYUREA PAVEMENT MARKINGS, COLD-APPLIED SYMBOLS AND PERMANENT RAISED PAVEMENT MARKERS ON THE FINAL SURFACE AT ALL BRIDGE LOCATIONS.
- P) REPLACE OBLITERATED PAVEMENT MARKINGS BEFORE RE-OPENING LANES TO TRAFFIC. PAINT MAY BE USED INITIALLY UNTIL FINAL MARKINGS ARE PLACED.

TRAFFIC SIGNALS

- Q) IF TRAFFIC SIGNALS ARE TO BE PLACED IN FLASH MODE COORDINATE WITH LAW ENFORCEMENT AND CONTACT FAYETTEVILLE TRAFFIC SERVICES AT 910-433-1660 IN ADVANCE.

MISCELLANEOUS

- R) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- S) ALL DIMENSIONS AND STATIONS IN THE TRAFFIC MANAGEMENT PLAN AND PHASING ARE APPROXIMATE (+/-); FIELD ADJUST AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- T) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.

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PHASING

DO NOT WORK SIMULTANEOUSLY ON BRIDGE NO.S 84, 112, 123 AND 218

USE LANE CLOSURES TO PERFORM THE BRIDGE WORK AS OUTLINED BELOW:

HARNETT COUNTY

BRIDGE NO. 52 - NC 217 OVER CAPE FEAR RIVER

USE FLAGGER CONTROLLED LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 1.

CUMBERLAND COUNTY

BRIDGE NO. 5 - NC 59 (CHICKEN FOOT RD.) OVER I-95

USE FLAGGER CONTROLLED LANE CLOSURES PER SHEETS TMP-4,5.

BRIDGE NO. 6 - SR 1007 (ALL AMERICAN EXPWY.) OVER US 401 BUSINESS

SR 1007 NB LANES
USE RIGHT/LEFT LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 3.

SR 1007 SB INSIDE LANE
USE LEFT LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 3.

SR 1007 SB OUTSIDE LANES
USE RIGHT LANE CLOSURES PER SHEET TMP-6.

BRIDGE NO. 34 - NC 53/NC 210 (CEDAR CREEK RD.) OVER I-95

USE RIGHT AND LEFT LANE CLOSURES PER SHEETS TMP-7,8,8A.

BRIDGE NO. 84 - US 401 BUSINESS OVER CUMBERLAND ST.

USE LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 3.

CUMBERLAND COUNTY

BRIDGE NO. 104 - NC 24/NC 87 (BRAGG BLVD.) OVER US 401 BUSINESS

USE RIGHT AND LEFT LANE CLOSURES PER TMP-9,10,10A,10B.

BRIDGE NO. 112 - US 401 BUSINESS OVER HILLSBOROUGH ST.

USE RIGHT AND LEFT LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 3.

BRIDGE NO. 123 - US 401 BUSINESS OVER RAILROAD

NORTHBOUND US 401 BUSINESS (MLK JR FREEWAY)-USE RIGHT AND LEFT LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 3.

SOUTHBOUND US 401 BUSINESS (MLK JR FREEWAY)-USE RIGHT AND LEFT LANE CLOSURES PER SHEETS TMP-11,12.

BRIDGE NO. 126 - NC 24/NC 210 (GROVE ST.) OVER CAPE FEAR RIVER

USE RIGHT AND LEFT LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 3.

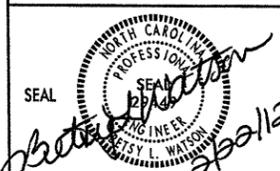
BRIDGE NO. 218 - SR 1404 (HAY ST.) OVER US 401 BUSINESS/NC 87

USE RIGHT AND LEFT LANE CLOSURES PER SHEETS TMP-13,14.

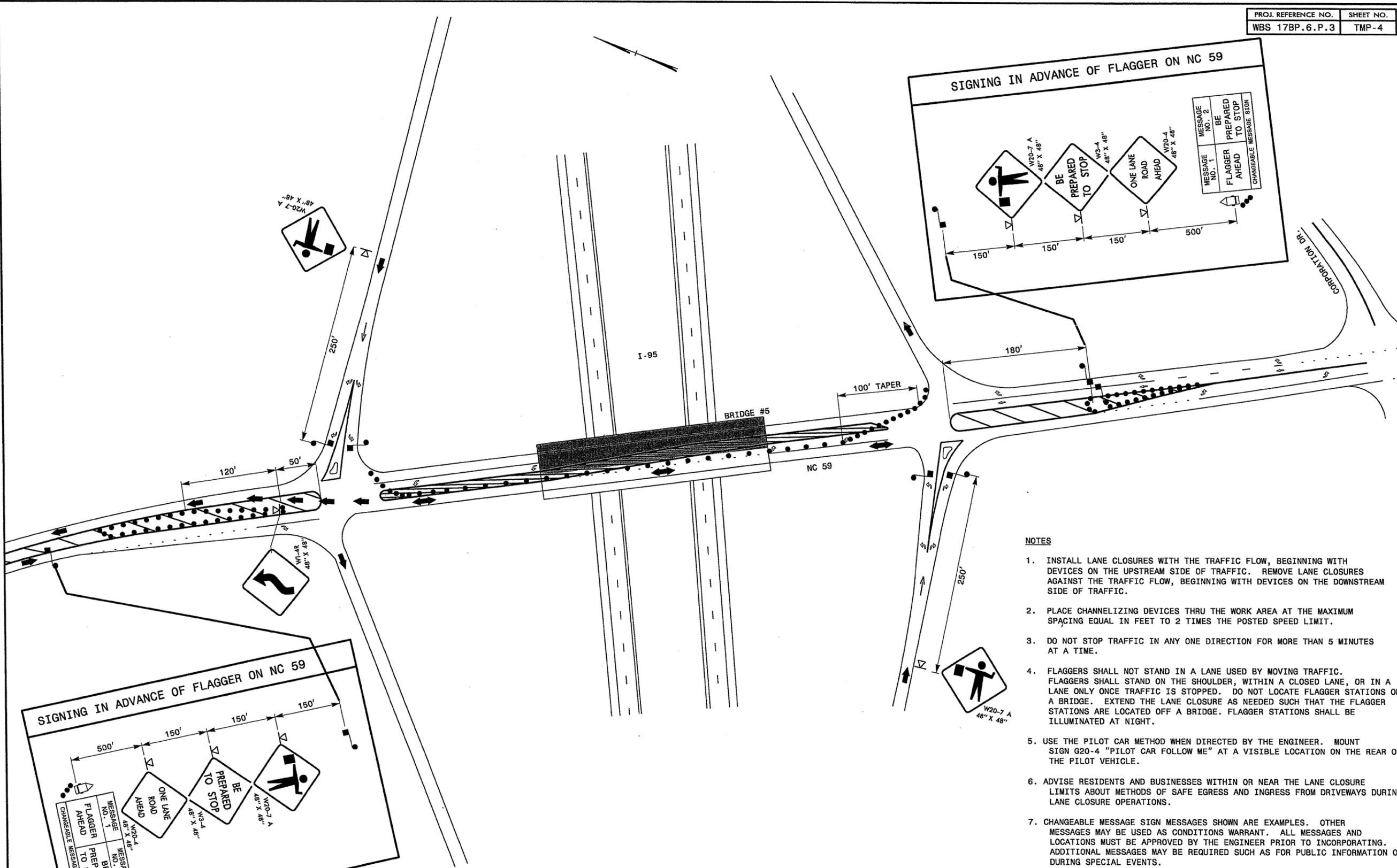
BRIDGE NO. 225-SR 1437(SANTA FE DR.) OVER NC 24/NC87(ALL AMERICAN EXPWY.)

USE RIGHT AND LEFT LANE CLOSURES PER ROADWAY STANDARD DRAWING 1101.02, SHEET 3.

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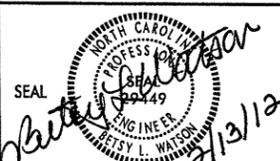
 Stantec	Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672	APPROVED: _____ DATE: _____ 		PHASING
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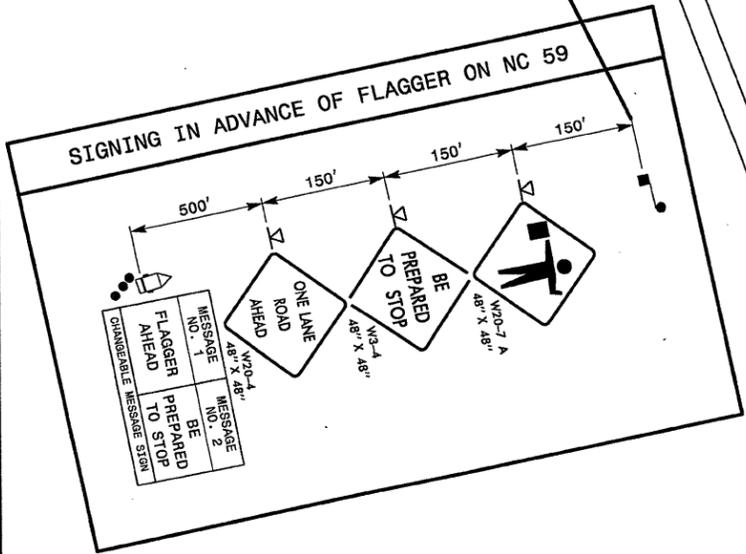
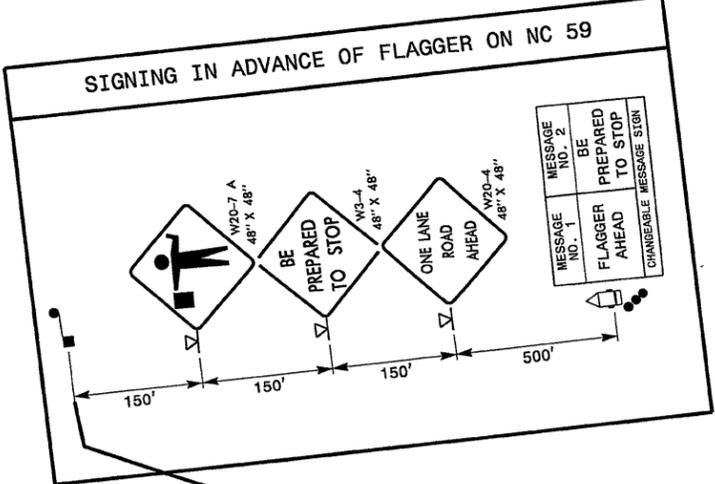
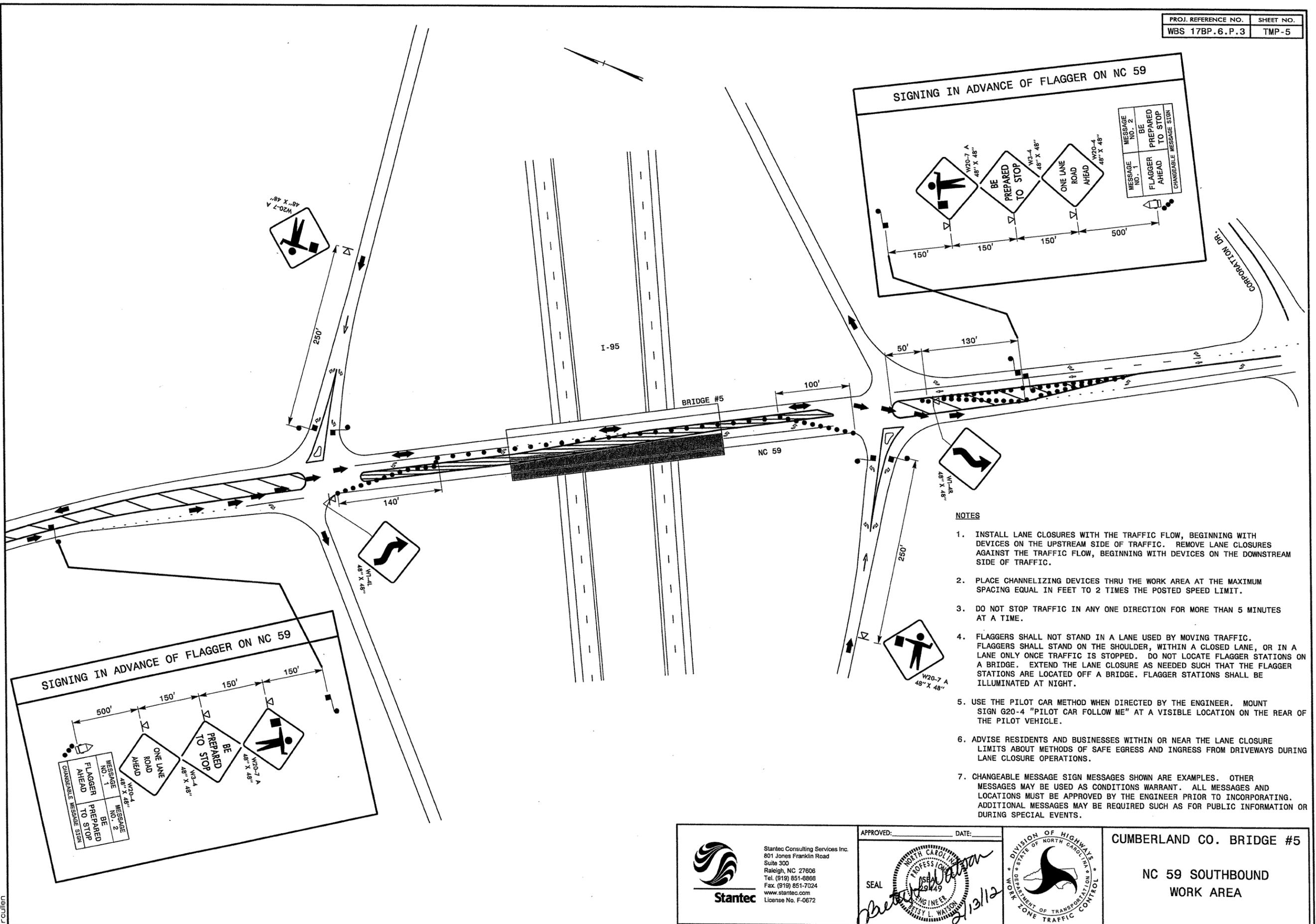


NOTES

1. INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
2. PLACE CHANNELIZING DEVICES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
3. DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
4. FLAGGERS SHALL NOT STAND IN A LANE USED BY MOVING TRAFFIC. FLAGGERS SHALL STAND ON THE SHOULDER, WITHIN A CLOSED LANE, OR IN A LANE ONLY ONCE TRAFFIC IS STOPPED. DO NOT LOCATE FLAGGER STATIONS ON A BRIDGE. EXTEND THE LANE CLOSURE AS NEEDED SUCH THAT THE FLAGGER STATIONS ARE LOCATED OFF A BRIDGE. FLAGGER STATIONS SHALL BE ILLUMINATED AT NIGHT.
5. USE THE PILOT CAR METHOD WHEN DIRECTED BY THE ENGINEER. MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A VISIBLE LOCATION ON THE REAR OF THE PILOT VEHICLE.
6. ADVISE RESIDENTS AND BUSINESSES WITHIN OR NEAR THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING LANE CLOSURE OPERATIONS.
7. CHANGEABLE MESSAGE SIGN MESSAGES SHOWN ARE EXAMPLES. OTHER MESSAGES MAY BE USED AS CONDITIONS WARRANT. ALL MESSAGES AND LOCATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO INCORPORATING. ADDITIONAL MESSAGES MAY BE REQUIRED SUCH AS FOR PUBLIC INFORMATION OR DURING SPECIAL EVENTS.

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	<p>SEAL</p> <p><i>Betsy L. Watson</i> 11/13/12</p>		

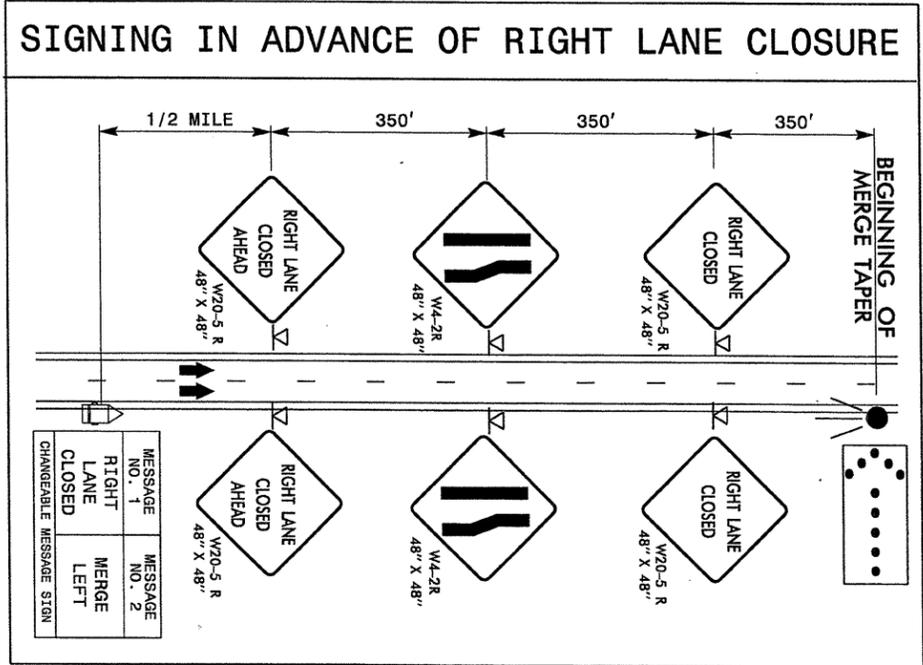
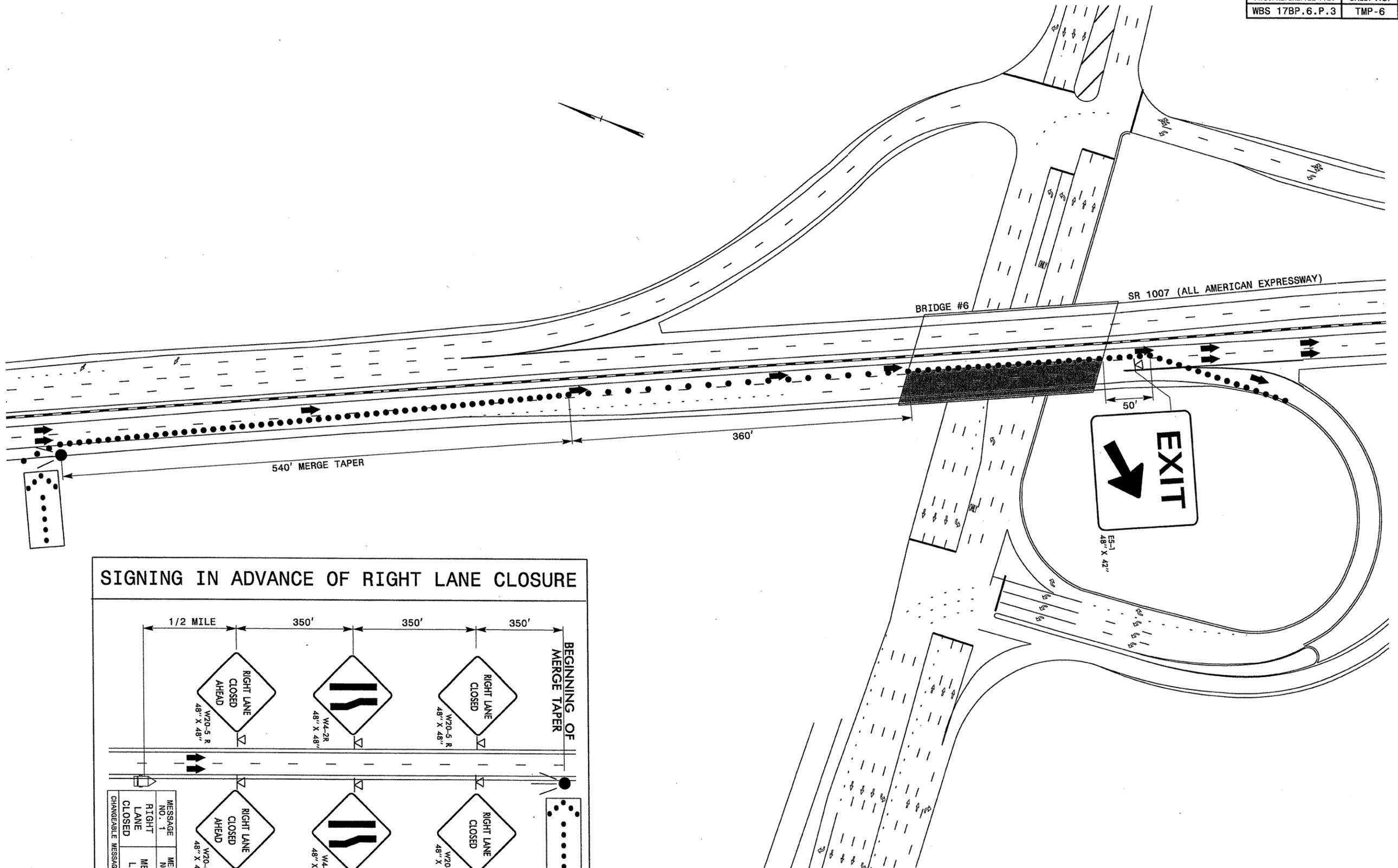
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NOTES

1. INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
2. PLACE CHANNELIZING DEVICES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
3. DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
4. FLAGGERS SHALL NOT STAND IN A LANE USED BY MOVING TRAFFIC. FLAGGERS SHALL STAND ON THE SHOULDER, WITHIN A CLOSED LANE, OR IN A LANE ONLY ONCE TRAFFIC IS STOPPED. DO NOT LOCATE FLAGGER STATIONS ON A BRIDGE. EXTEND THE LANE CLOSURE AS NEEDED SUCH THAT THE FLAGGER STATIONS ARE LOCATED OFF A BRIDGE. FLAGGER STATIONS SHALL BE ILLUMINATED AT NIGHT.
5. USE THE PILOT CAR METHOD WHEN DIRECTED BY THE ENGINEER. MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A VISIBLE LOCATION ON THE REAR OF THE PILOT VEHICLE.
6. ADVISE RESIDENTS AND BUSINESSES WITHIN OR NEAR THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING LANE CLOSURE OPERATIONS.
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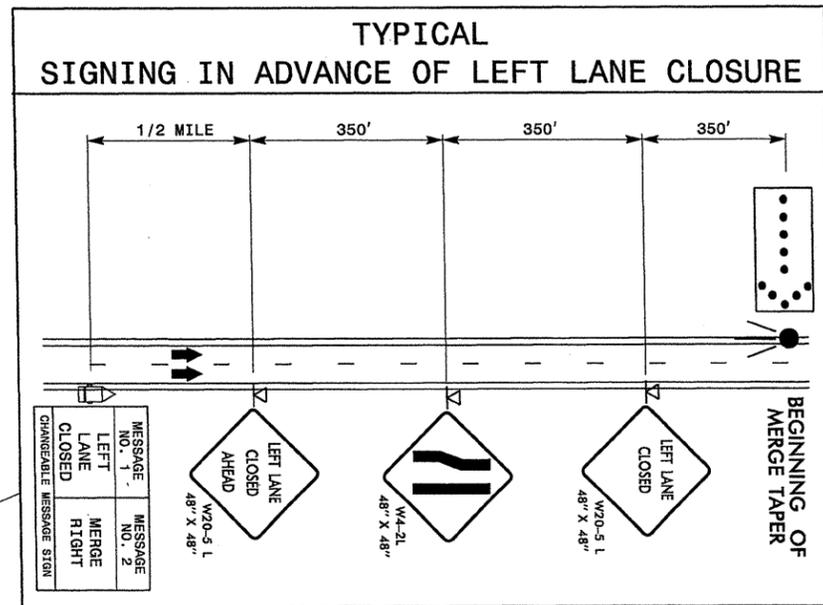
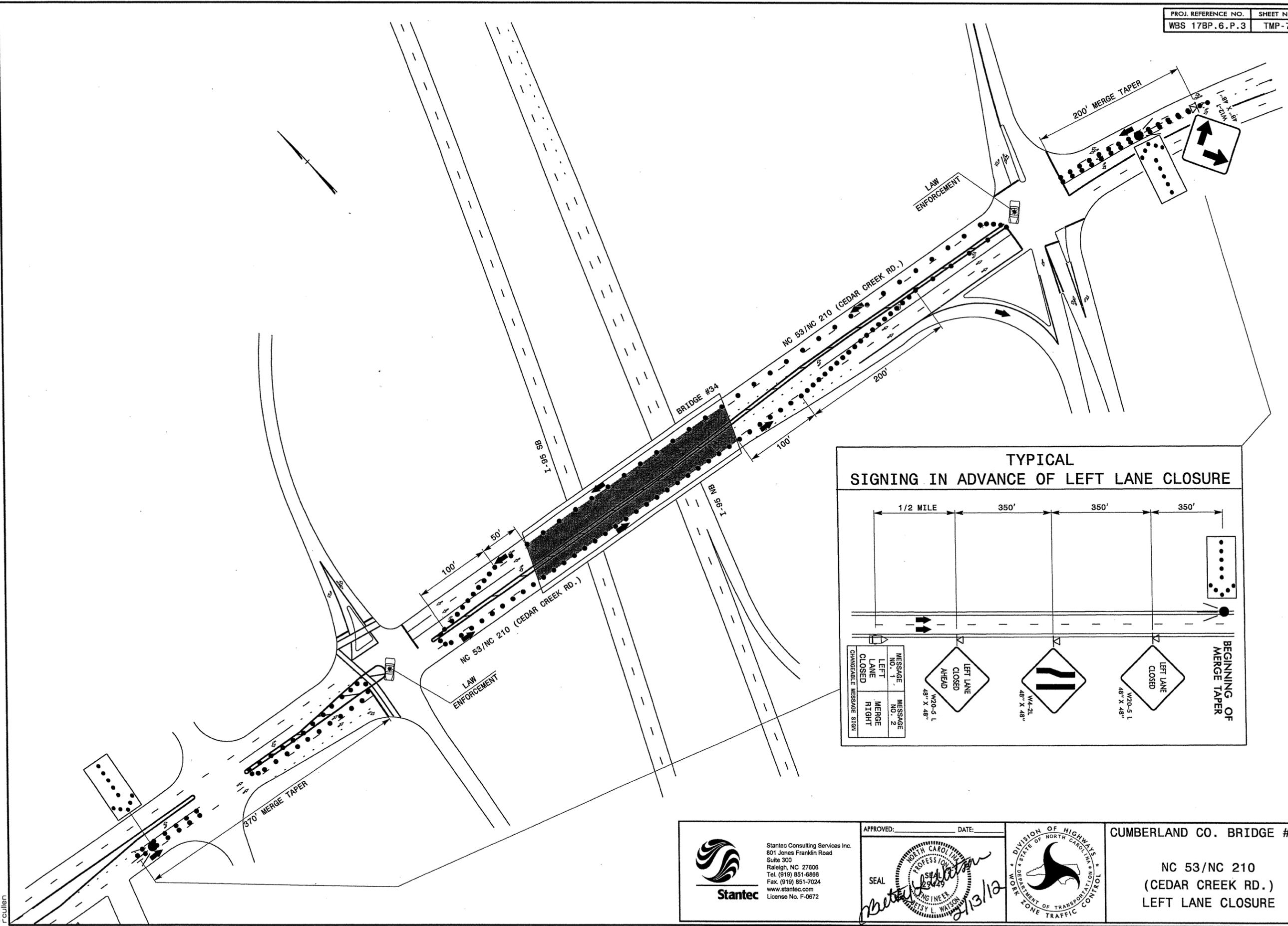
<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>	APPROVED: _____ DATE: _____ 	<p>DIVISION OF HIGHWAYS NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STATE ZONE TRAFFIC CONTROL</p>	<p>CUMBERLAND CO. BRIDGE #5</p> <p>NC 59 SOUTHBOUND WORK AREA</p>
	SEAL 		



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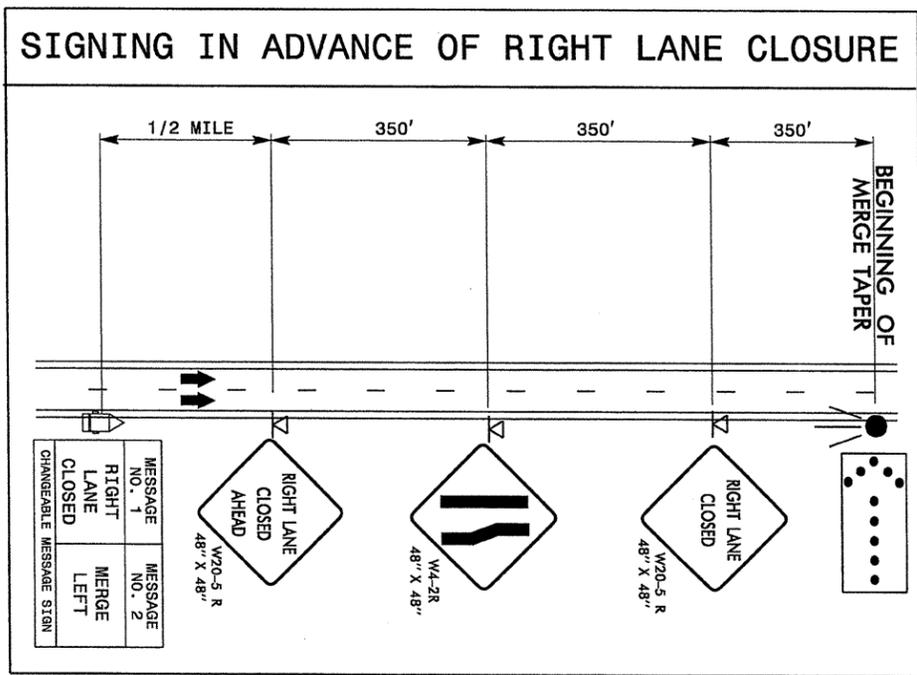
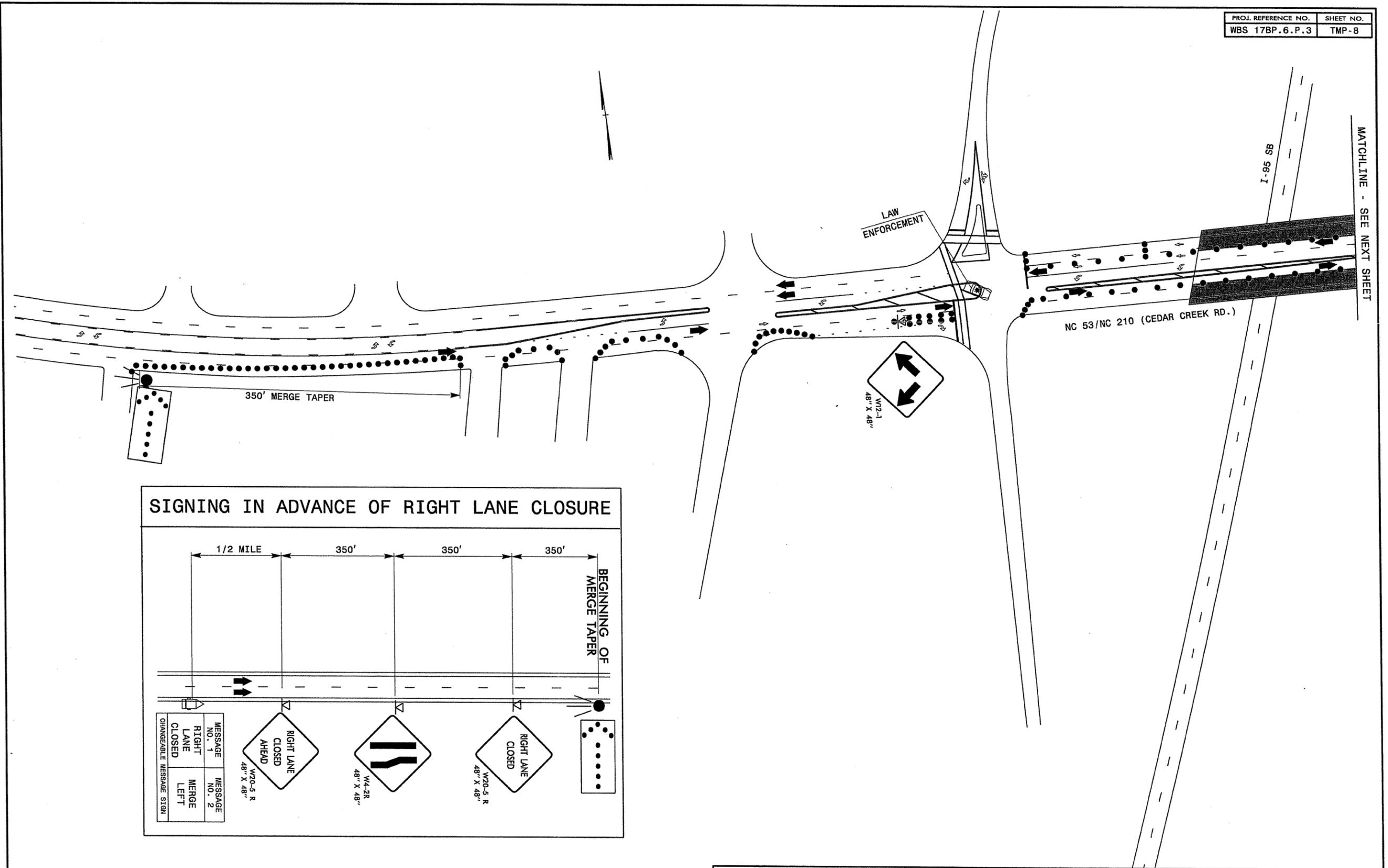
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SEAL

CUMBERLAND CO. BRIDGE #34

**NC 53/NC 210
(CEDAR CREEK RD.)
LEFT LANE CLOSURE**

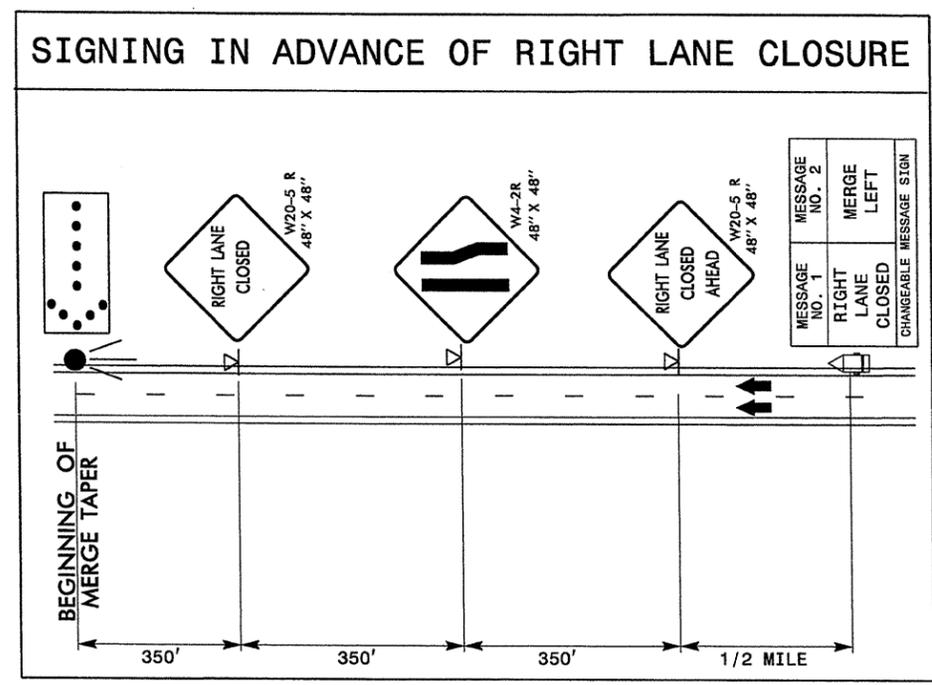
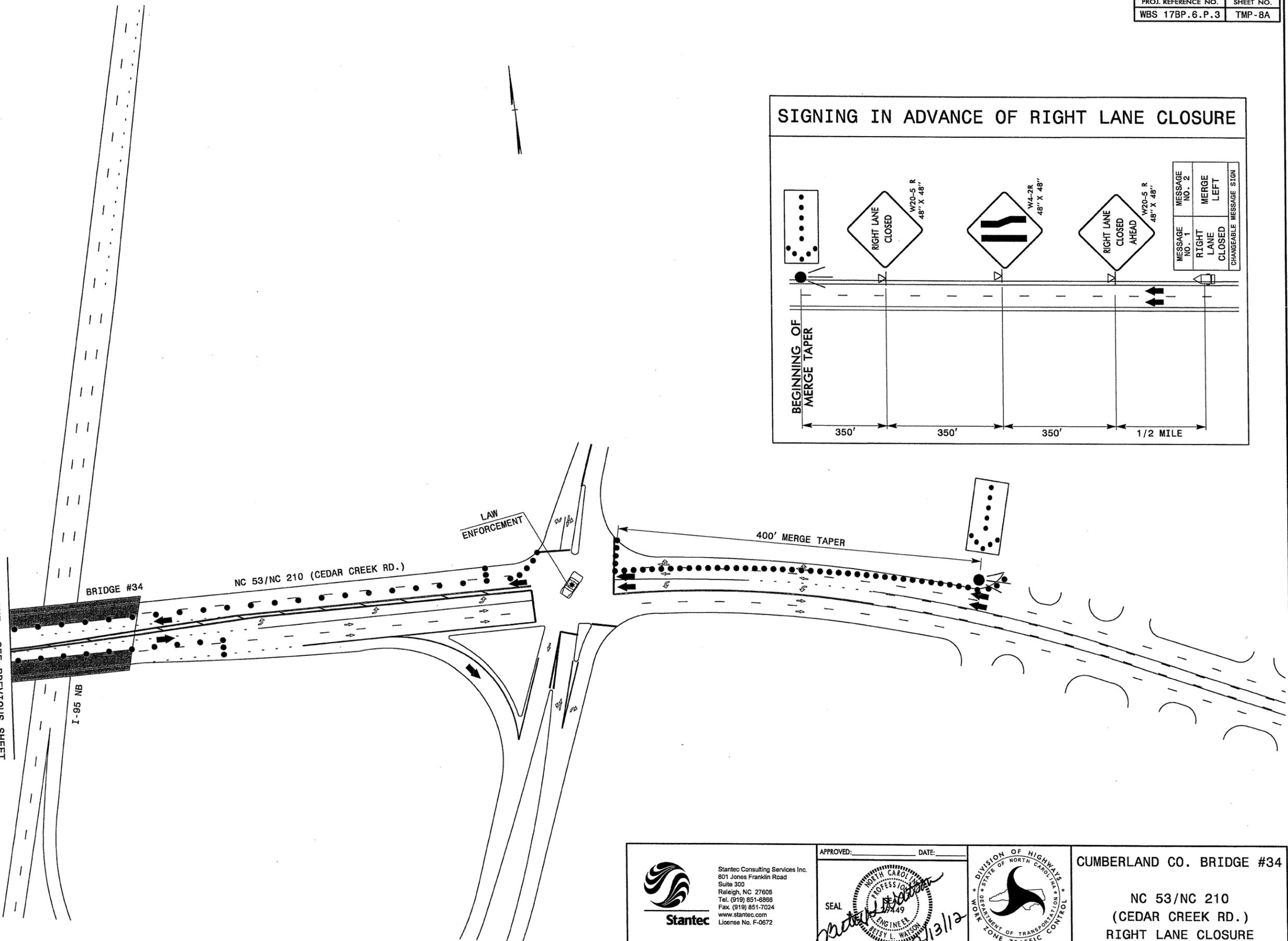
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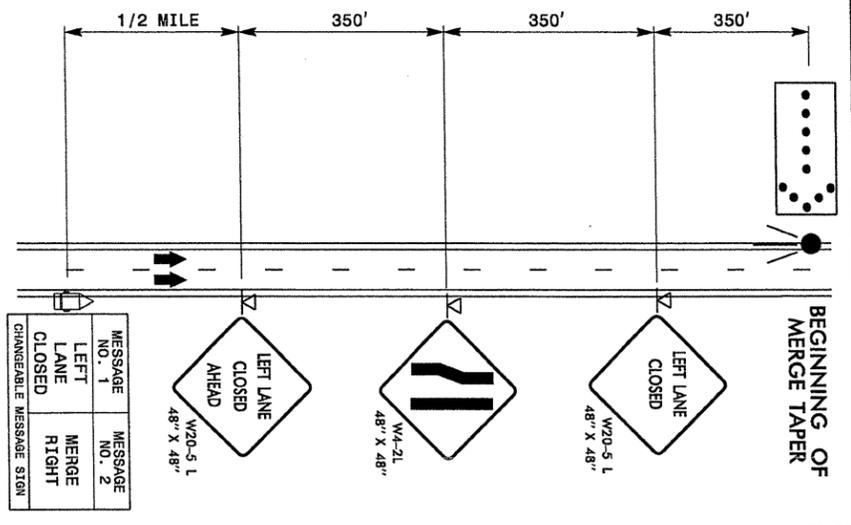
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MATCHLINE - SEE PREVIOUS SHEET

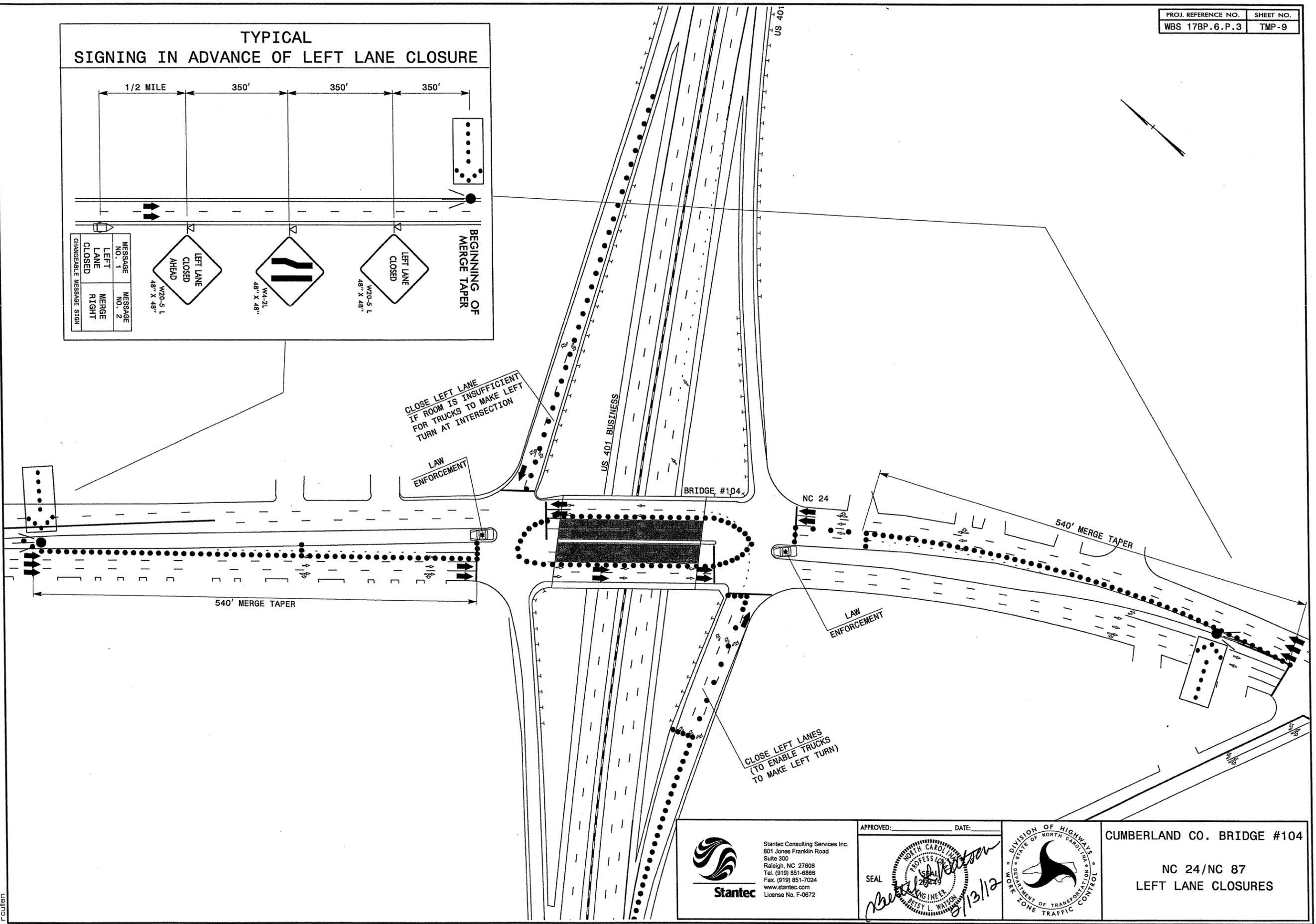


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**TYPICAL
SIGNING IN ADVANCE OF LEFT LANE CLOSURE**

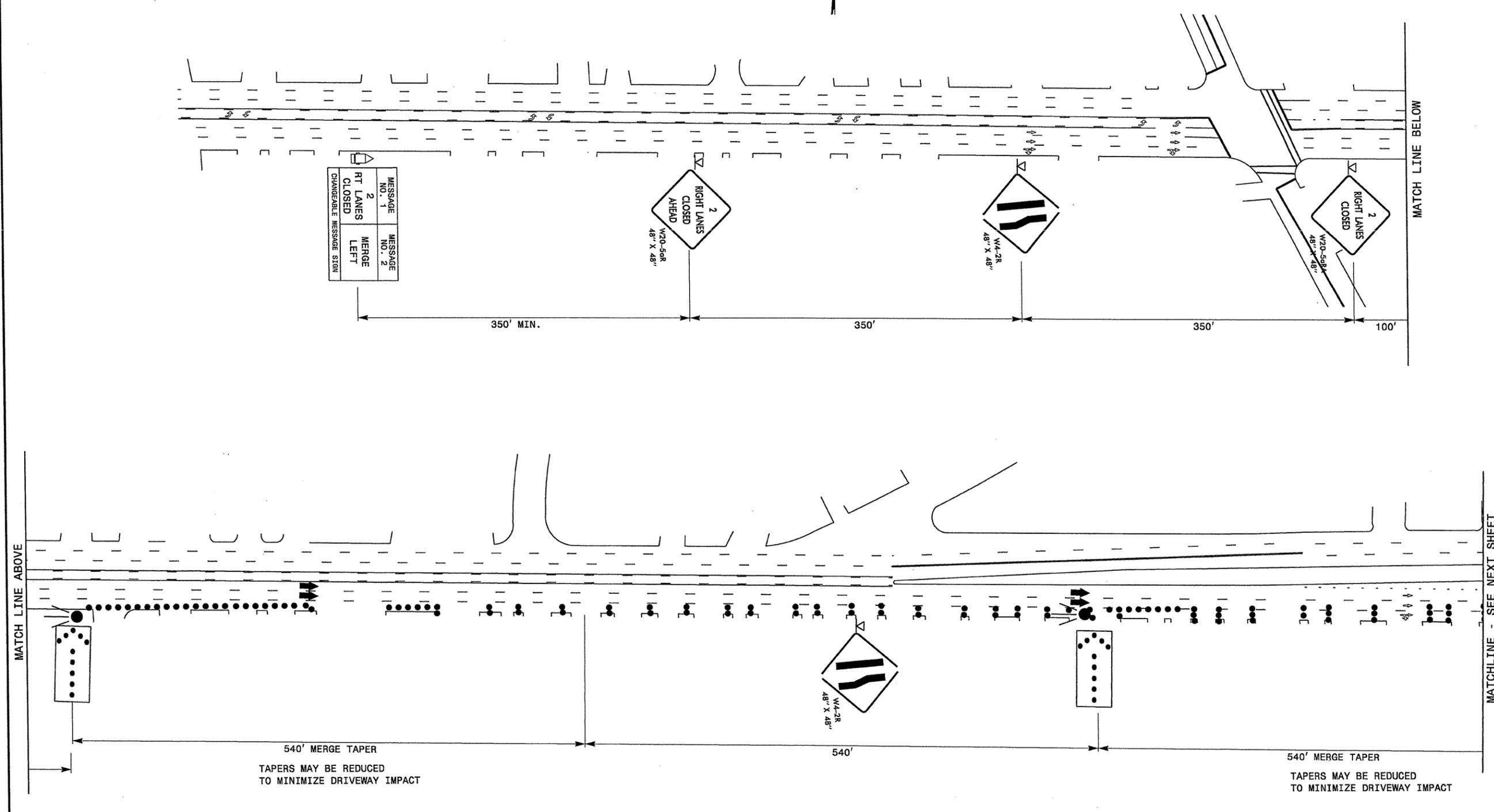


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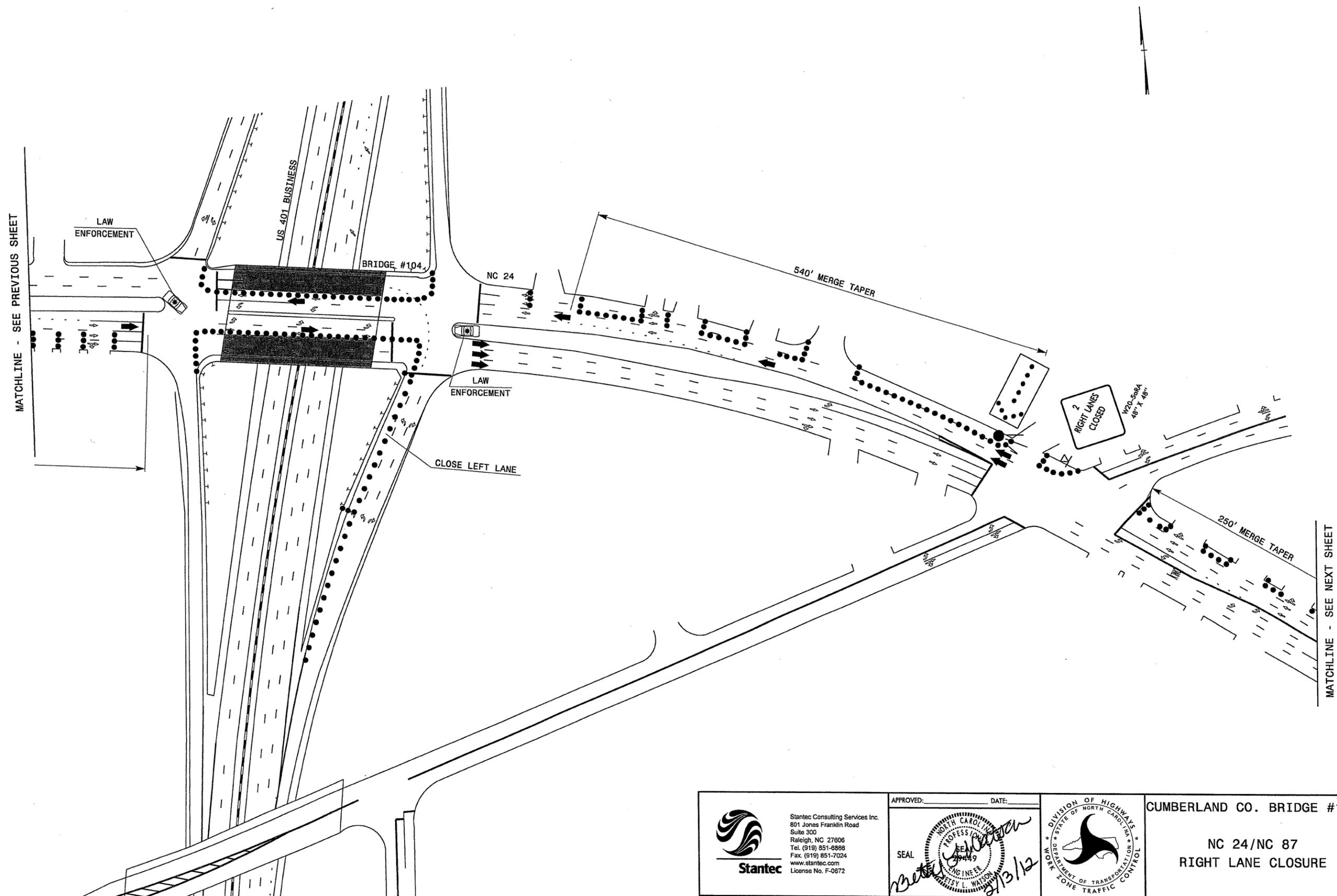
<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>	APPROVED: _____ DATE: _____ 		CUMBERLAND CO. BRIDGE #104 NC 24/NC 87 LEFT LANE CLOSURES
	SEAL: _____ 2/13/12		

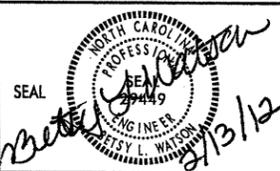
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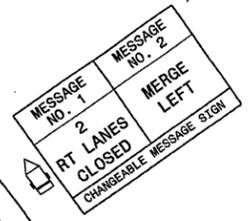
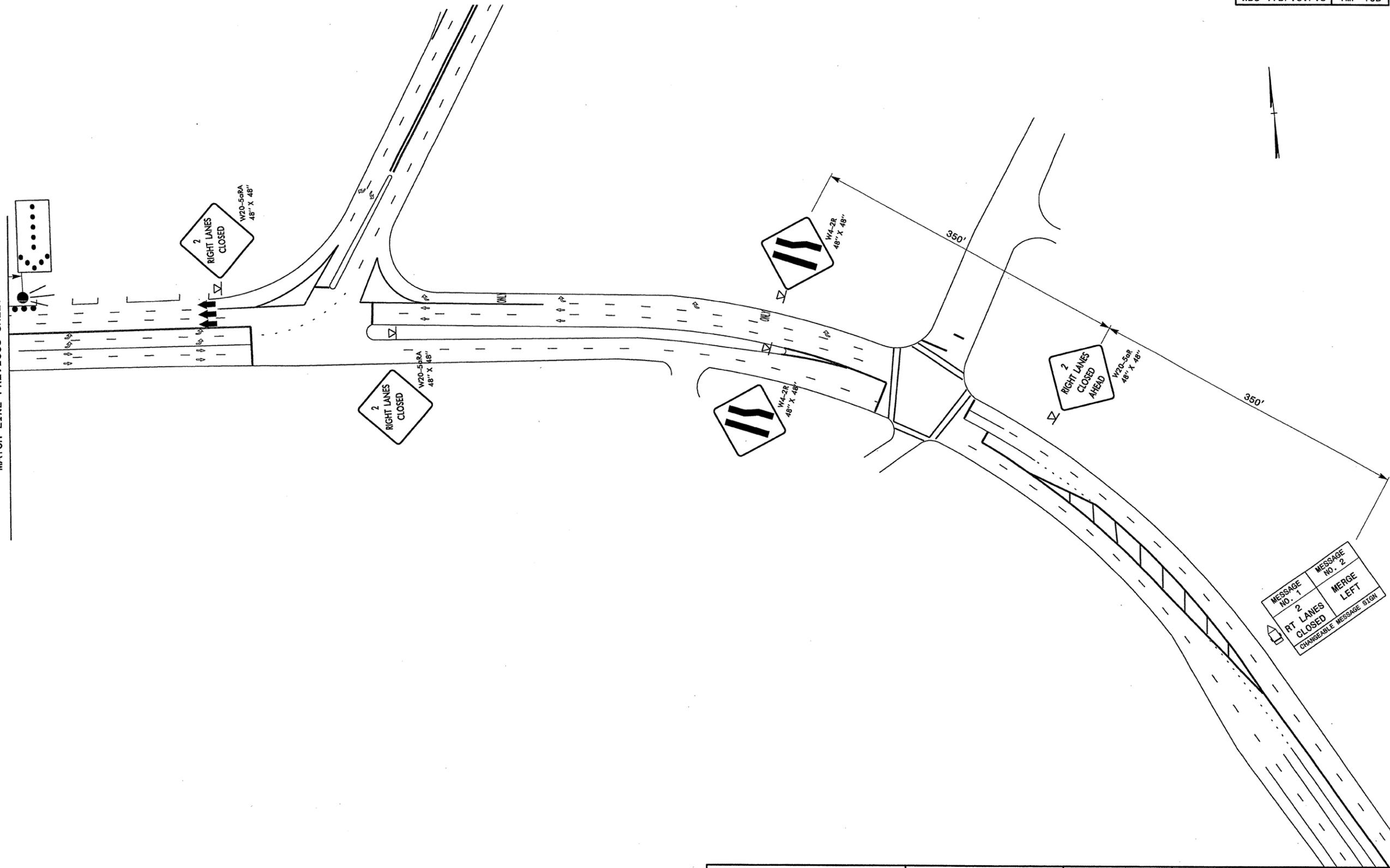
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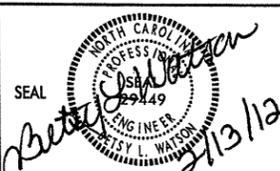


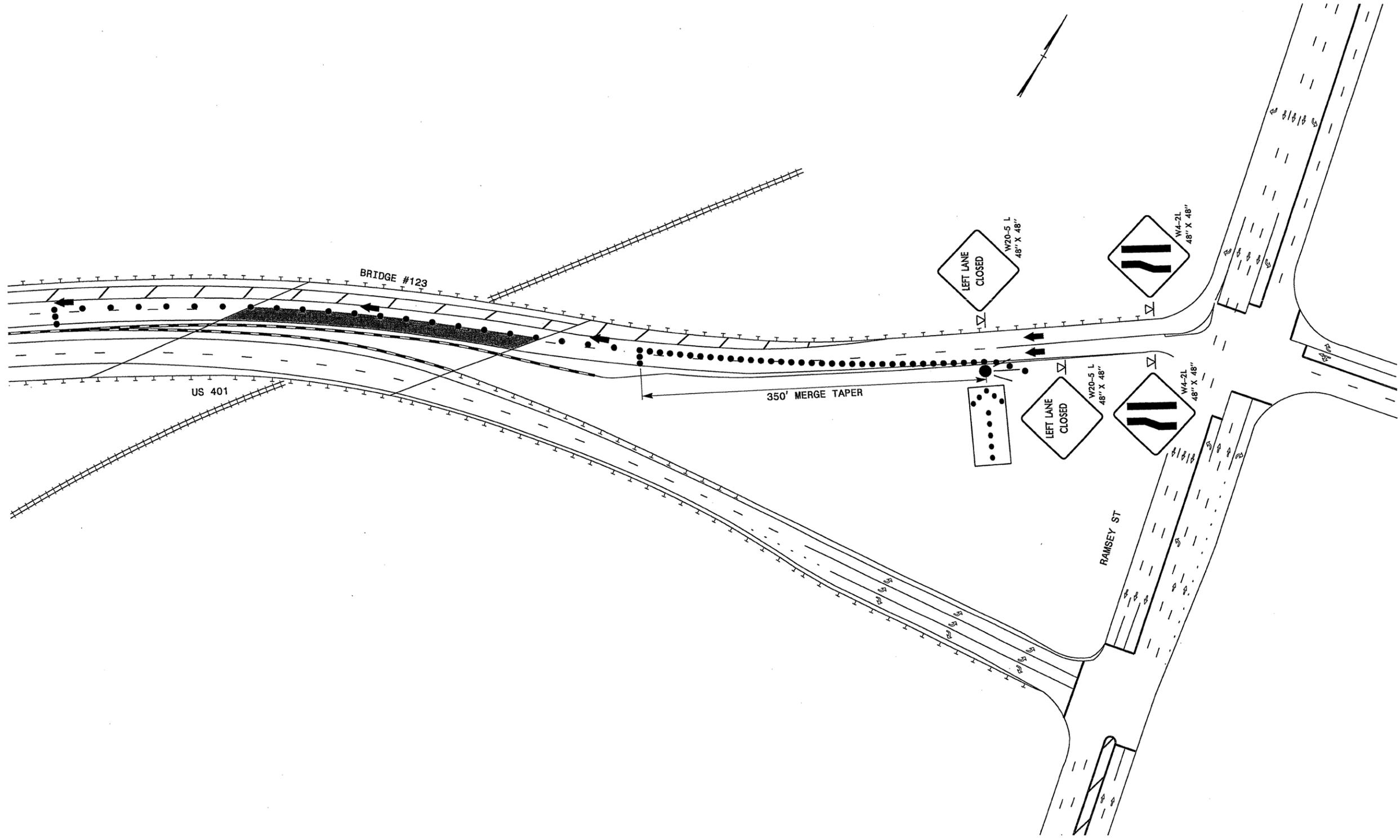
 Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6888 Fax. (919) 851-7024 www.stantec.com License No. F-0672	APPROVED: _____ DATE: _____ 		CUMBERLAND CO. BRIDGE #104 NC 24/NC 87 RIGHT LANE CLOSURE
	MATCHLINE - SEE PREVIOUS SHEET (left) / MATCHLINE - SEE NEXT SHEET (right)		

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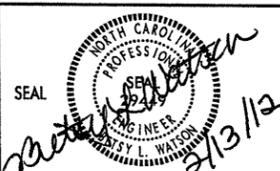
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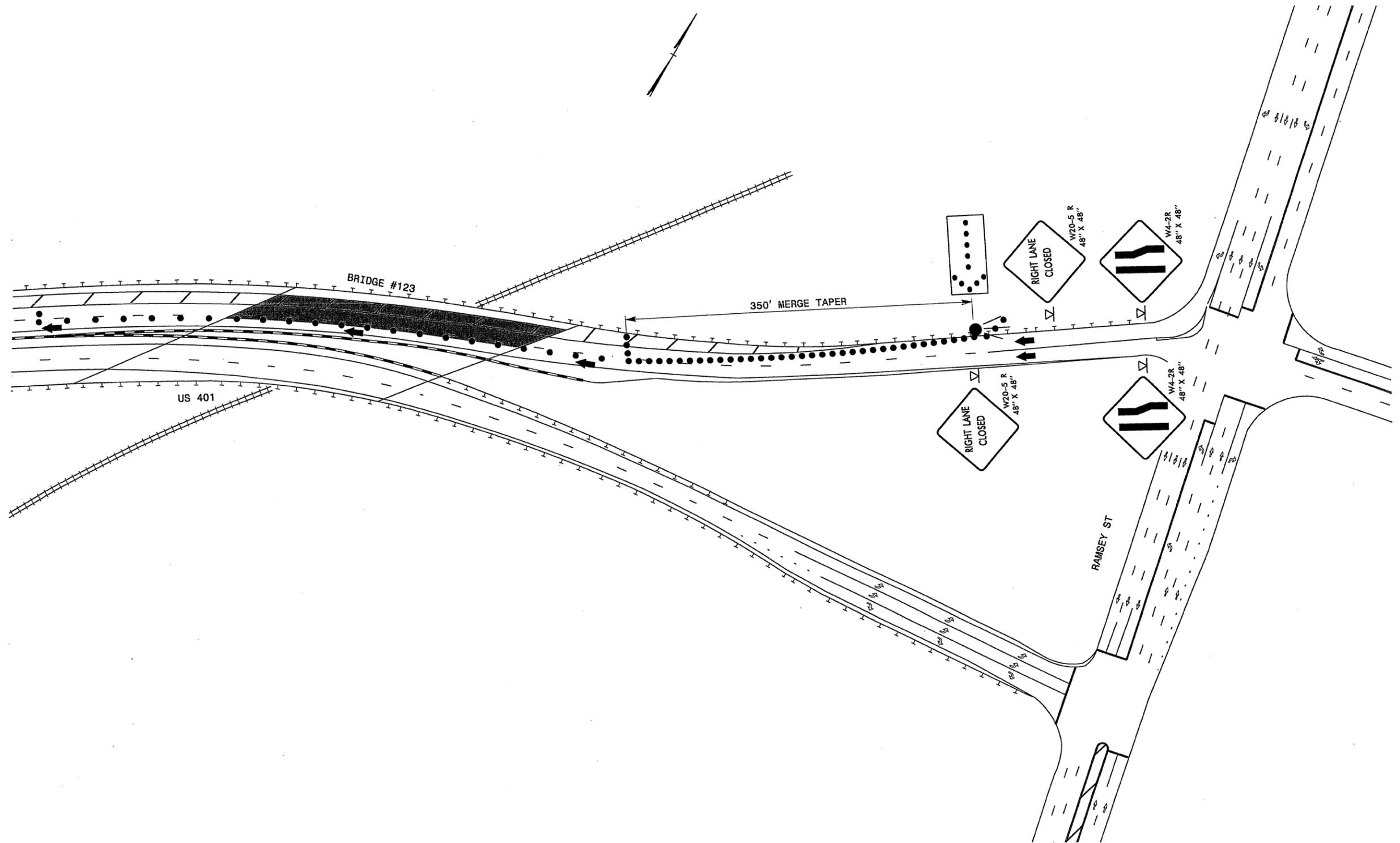


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	<p style="text-align: center;">SEAL</p> <p style="text-align: center;"><i>T. L. Watson</i> 2/13/12</p>		

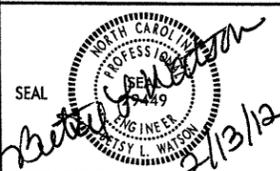


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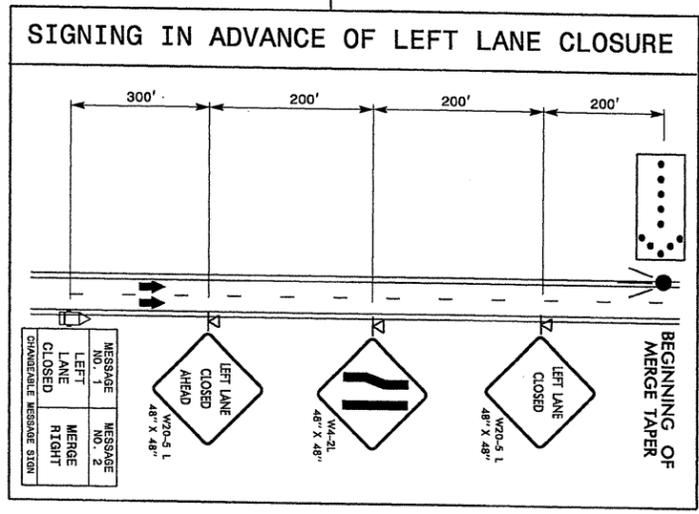
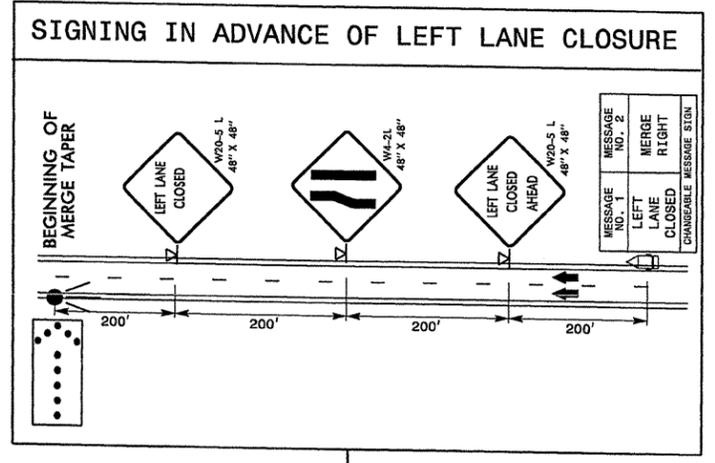
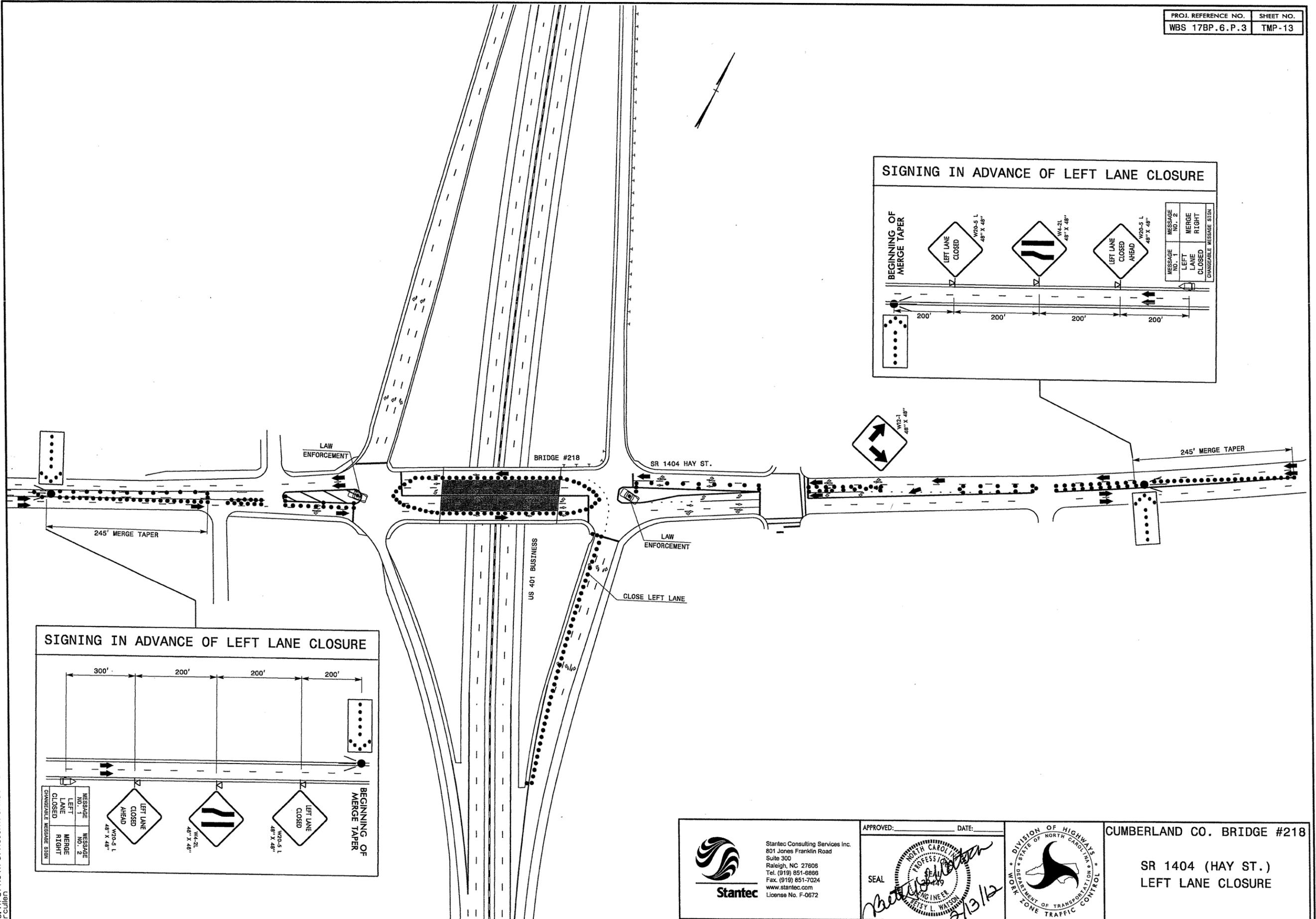
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 US 401 Traffic Control Plan
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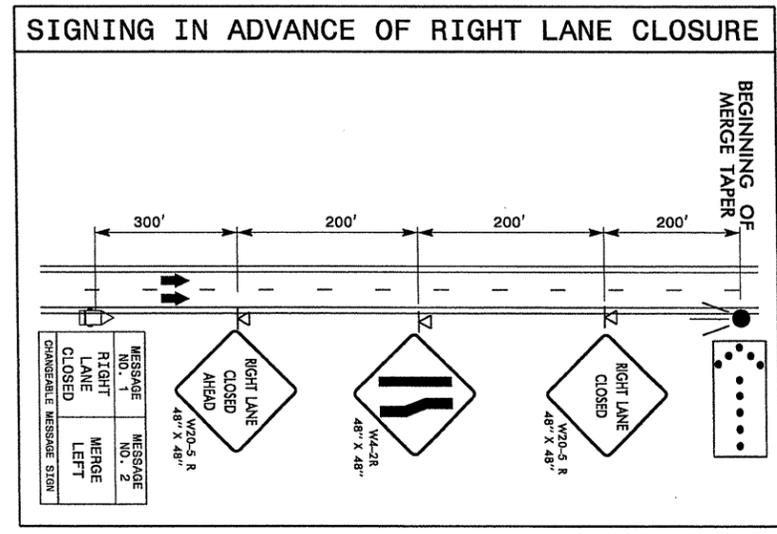
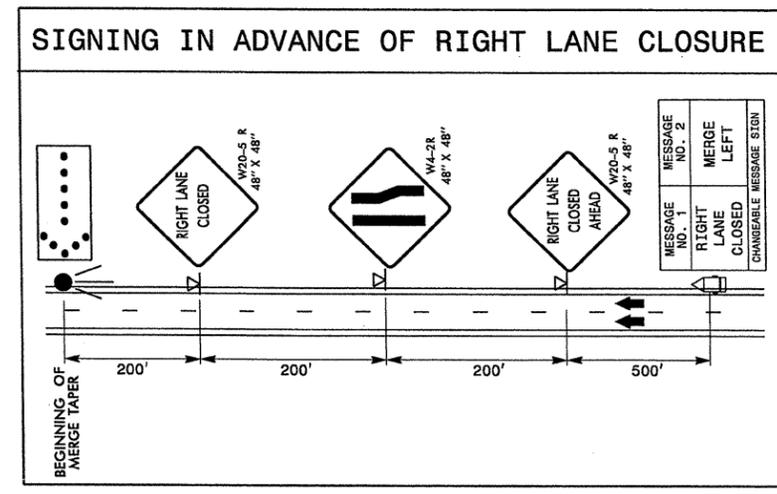
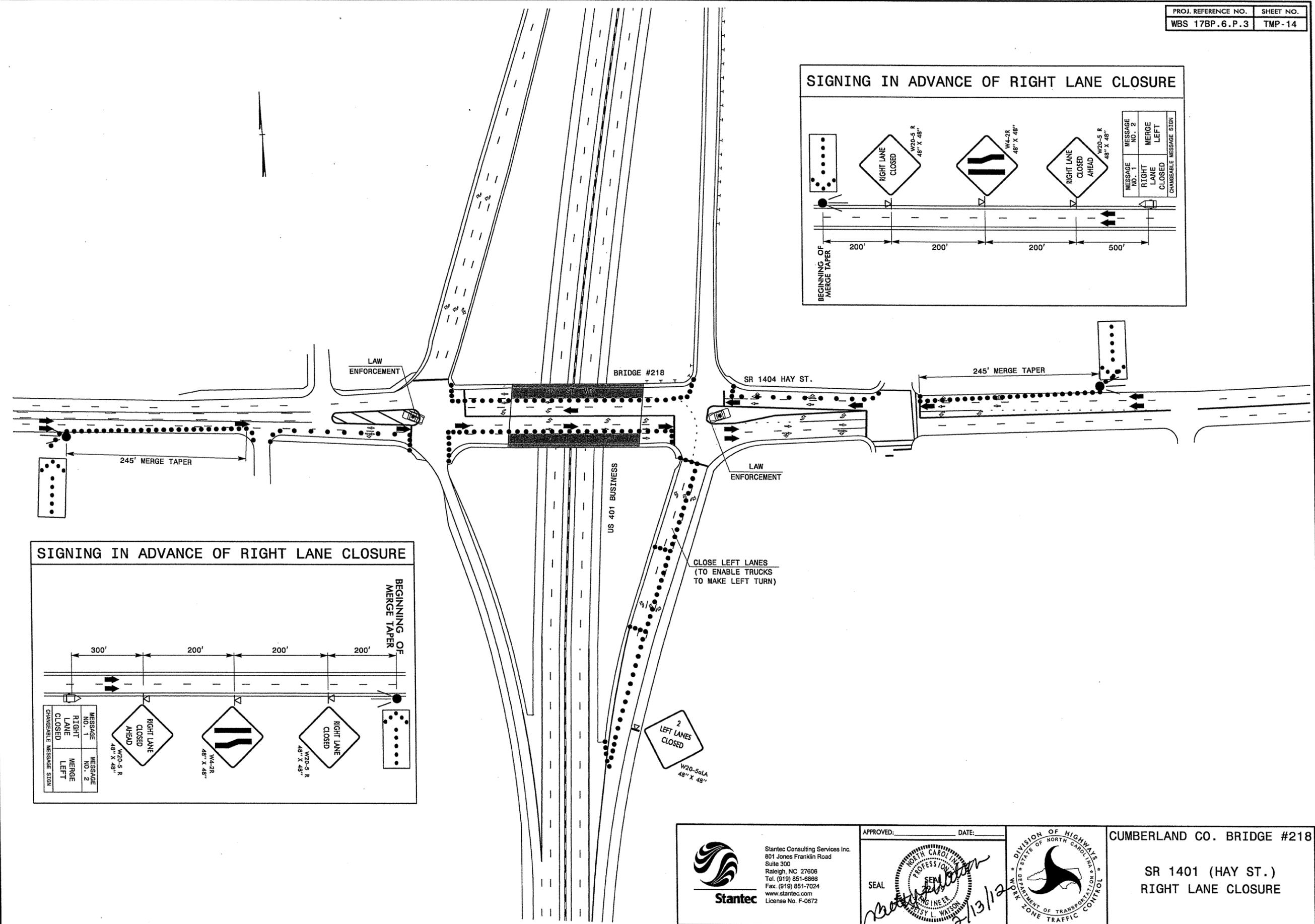
 <p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0572</p>	APPROVED: _____ DATE: _____ 		CUMBERLAND CO. BRIDGE #123 US 401 BUS. SOUTHBOUND RIGHT LANE CLOSURE
	Stantec Consulting Services Inc.		

2/13/2012
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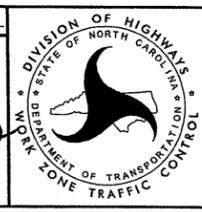
<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-8886 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>	APPROVED: _____ DATE: _____ 	<p>DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL</p>	CUMBERLAND CO. BRIDGE #218 SR 1404 (HAY ST.) LEFT LANE CLOSURE

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APPROVED: _____ DATE: _____



CUMBERLAND CO. BRIDGE #218

SR 1401 (HAY ST.)
 RIGHT LANE CLOSURE

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	-----	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	-----	SEE PLANS
IMPACT ALLOWANCE	-----	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF		
STRUCTURAL STEEL - AASHTO M270 GRADE 36	-	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	-	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	-	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION		
GRADE 60	--	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR		
UNTREATED - EXTREME FIBER STRESS	-----	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN		
OF TIMBER	-----	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	-----	30 LBS. PER CU. FT.
		(MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2006 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE. ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN, WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER, WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINISH AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

ENGLISH

JANUARY, 1990

STD. NO. 5N