

CONTRACT C203216 PROJECT 17BP.10.P.4

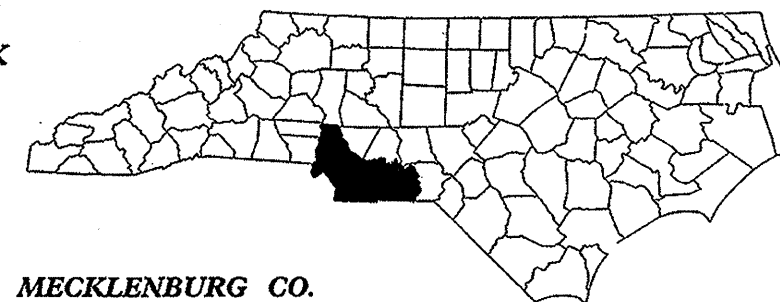
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG, UNION & ANSON COUNTIES

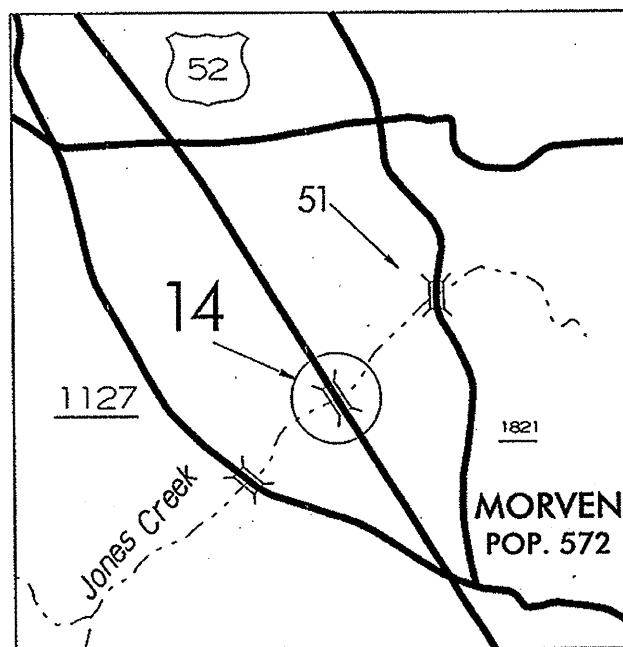
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	WBS.17BP.10.P.4	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.10.P.4	N/A	P.E.	
17BP.10.P.4	N/A	CONST	

LOCATION: BRIDGE #14, ANSON CO., US52 OVER SOUTH FORK JONES CREEK
 BRIDGE #153, MECKLENBURG CO., LA SALLE STREET OVER I-77/US21
 BRIDGE #176, MECKLENBURG CO., US21 OVER SR 2004
 BRIDGE #215, MECKLENBURG CO., I-77 RAMP OVER IRWIN CREEK
 BRIDGE #283, MECKLENBURG CO., I-77 SOUTHBOUND LANE OVER ANDRILL TERRACE AND IRWIN CREEK
 BRIDGE #363, MECKLENBURG CO., NC16 NORTHBOUND LANE OVER CATAWBA RIVER
 BRIDGE #460, MECKLENBURG CO., US52 SOUTH BOUND LANE OVER US74/US29
 BRIDGE #34, UNION CO., CONCORD AVENUE OVER US-74

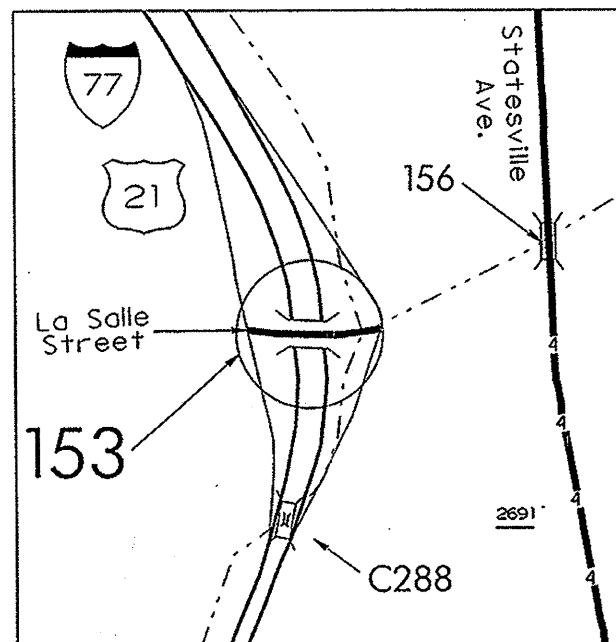
TYPE OF WORK: BRIDGE PRESERVATION- CLEANING & PAINTING
OF EXISTING STRUCTURES



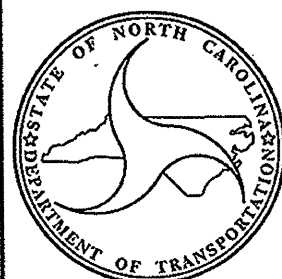
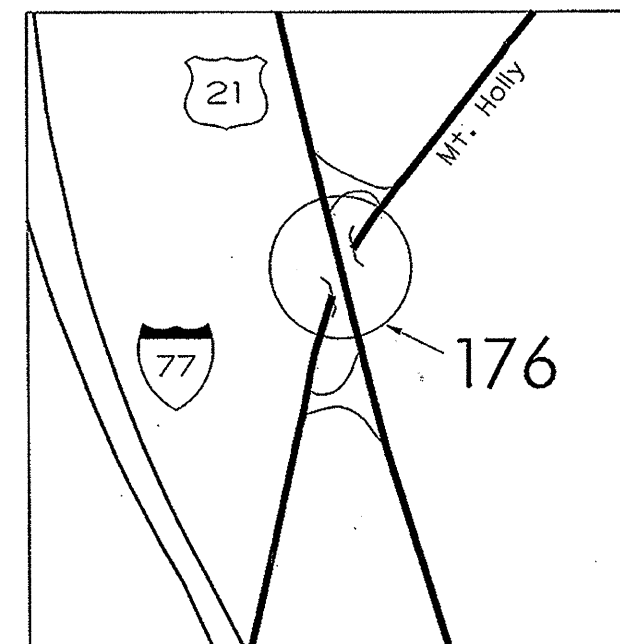
ANSON CO.
BRIDGE #14



MECKLENBURG CO.
BRIDGE #153



MECKLENBURG CO.
BRIDGE #176



DESIGN DATA

ANSON	
#14 ADT 2009 =	4100
MECKLENBURG	
#153 ADT 1982 =	8600
#176 ADT 2006 =	14000
#215 ADT 2009 =	19625
#283 ADT 2000 =	5400
#363 ADT 2008 =	11000
#460 ADT 2008 =	24000
UNION	
#34 ADT 2002 =	3200

PROJECT LENGTH

BRIDGE #14 =	0.02 MILE
BRIDGE #153 =	0.05 MILE
BRIDGE #176 =	0.03 MILE
BRIDGE #215 =	0.06 MILE
BRIDGE #283 =	0.06 MILE
BRIDGE #363 =	0.2 MILE
BRIDGE #460 =	0.04 MILE
BRIDGE #34 =	0.03 MILE

Prepared in the Office of:
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURES MANAGEMENT UNIT - PRESERVATION & REPAIR GROUP
1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610

RICK NELSON, P.E.
PROJECT ENGINEER

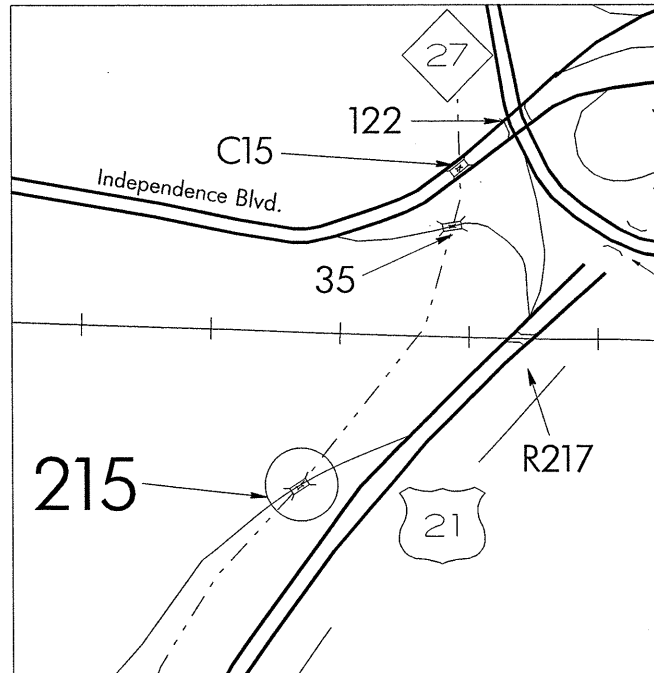
LETTING DATE: JANUAURY 15, 2013

ENGINEER
TIMOTHY M. SHERRILL
PROJECT DESIGN ENGINEER
10/30/12

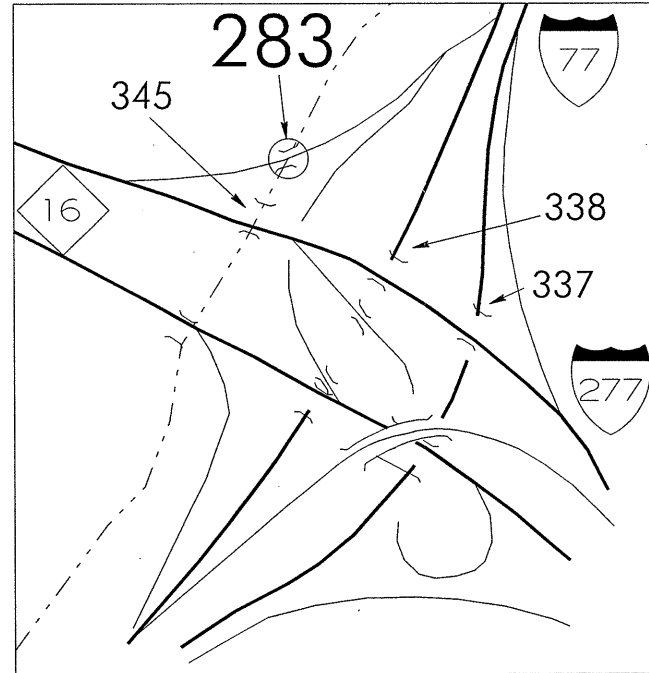
CONTRACT C203216 PROJECT 17BP.10.P.4

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	WBS.17BP.10.P.4	1A	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.10.P.4	N/A	P.E.	
17BP.10.P.4	N/A	CONST	

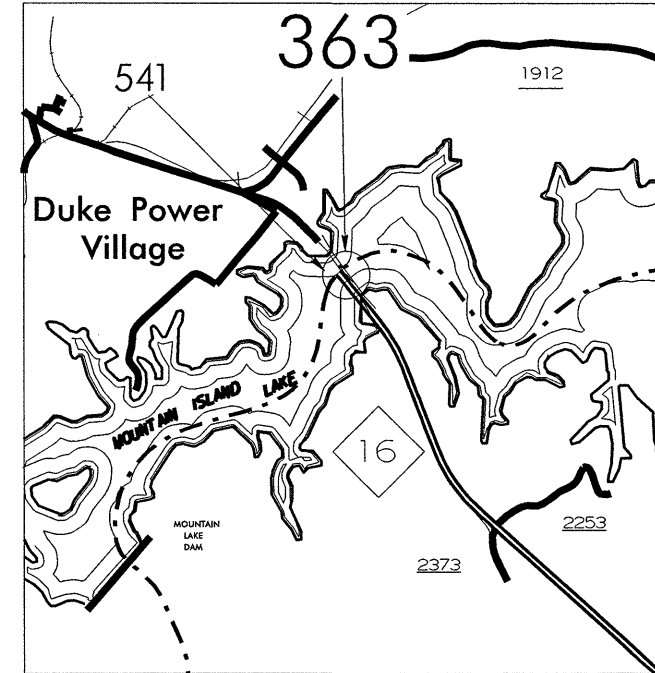
**MECKLENBURG CO.
BRIDGE #215**



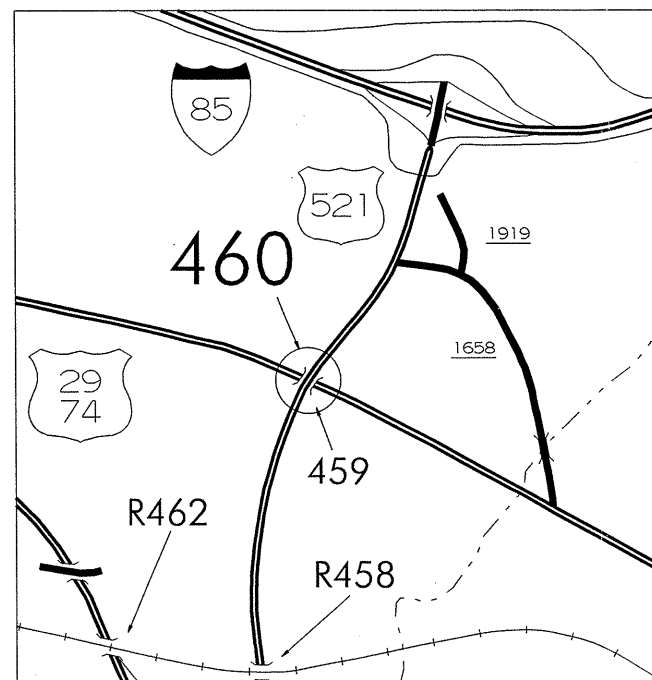
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BRIDGE #283**



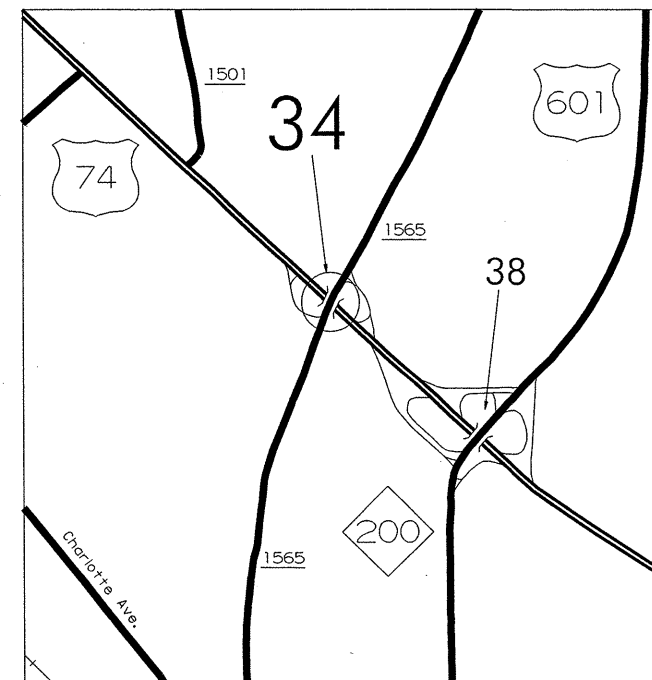
**MECKLENBURG CO.
BRIDGE #363**



**MECKLENBURG CO.
BRIDGE #460**



**UNION CO.
BRIDGE #34**



CONTRACT C203216 PROJECT 17BP.10.P.4

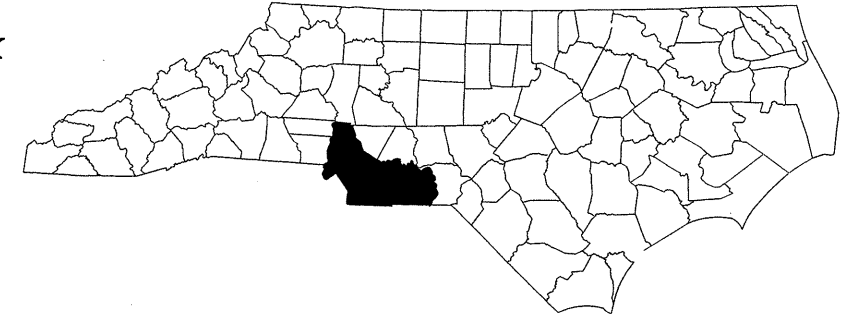
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG, UNION & ANSON COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	WBS.17BP.10.P.4	1B	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.10.P.4	N/A	P.E.	
17BP.10.P.4	N/A	CONST	

LOCATION: BRIDGE #14, ANSON CO., US52 OVER SOUTH FORK JONES CREEK
 BRIDGE #153, MECKLENBURG CO., LA SALLE STREET OVER I-77/US21
 BRIDGE #176, MECKLENBURG CO., US21 OVER SR 2004
 BRIDGE #215, MECKLENBURG CO., I-77 RAMP OVER IRWIN CREEK
 BRIDGE #283, MECKLENBURG CO., I-77 SOUTHBOUND LANE OVER ANDRILL TERRACE AND IRWIN CREEK
 BRIDGE #363, MECKLENBURG CO., NC16 NORTHBOUND LANE OVER CATAWBA RIVER
 BRIDGE #460, MECKLENBURG CO., US521 SOUTH BOUND LANE OVER US74/US29
 BRIDGE #34, UNION CO., CONCORD AVENUE OVER US-74

**TYPE OF WORK: BRIDGE PRESERVATION- CLEANING & PAINTING
OF EXISTING STRUCTURES**



INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
1 AND 1A	TITLE SHEETS
1B	INDEX OF SHEETS
TMP-1 THRU TMP-10B	TRAFFIC MANAGEMENT PLANS

SUMMARY OF QUANTITIES - 17BP.10.P.4

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203216

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
4400000000-E	1110	192	SF	WORK ZONE SIGNS (STATIONARY)
4405000000-E	1110	1,494	SF	WORK ZONE SIGNS (PORTABLE)
4410000000-E	1110	10	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4415000000-N	1115	5	EA	FLASHING ARROW BOARD
4420000000-N	1120	4	EA	PORTABLE CHANGEABLE MESSAGE SIGN
4430000000-N	1130	500	EA	DRUMS
4435000000-N	1135	100	EA	CONES
4445000000-E	1145	40	LF	BARRICADES (TYPE III)
4450000000-N	1150	104	HR	FLAGGER
4480000000-N	1165	3	EA	TMA
4510000000-N	SP	768	HR	LAW ENFORCEMENT
8296000000-N	442	Lump Sum		POLLUTION CONTROL
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #14
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #153
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #176
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #215
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #283
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #34
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #363

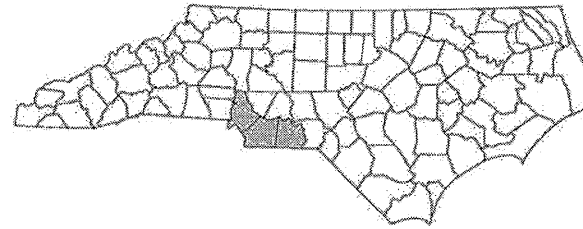
ItemNumber	Sec #	Quantity	Unit	Description
8860000000-N	SP	Lump Sum		GENERIC STRUCTURE ITEM CLEANING & REPAINTING BRIDGE #460

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ANSON, MECKLENBURG, AND UNION COUNTIES

DIVISION 10



BRIDGE PAINTING

ANSON BRIDGE #14 – US 52 OVER JONES CREEK

MECKLENBURG BRIDGE #153 – LASALLE STREET OVER I-77/US 21

MECKLENBURG BRIDGE #176 – US 21 (STATESVILLE RD.) OVER SR 2004

MECKLENBURG BRIDGE #215 – I-77 RAMP OVER IRWIN CREEK

MECKLENBURG BRIDGE #283 – I-77 SOUTHBOUND RAMP OVER CREEK

MECKLENBURG BRIDGE #363 – NC 16 NORTHBOUND OVER CATAWBA RIVER

MECKLENBURG BRIDGE #460 – BILLY GRAHAM PKWY SOUTHBOUND OVER US 29/US 74

UNION BRIDGE #34 – SR 1565 (CONCORD AVE.) OVER US 74

INDEX OF SHEETS

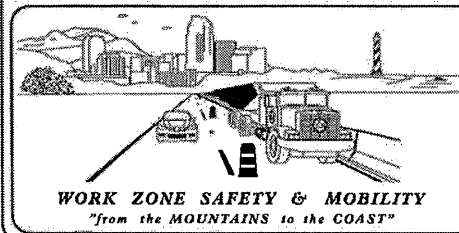
SHEET NO.	TITLE
TMP-1	TITLE SHEET AND INDEX OF SHEETS
TMP-1A	LEGEND AND LIST OF ROADWAY STANDARD DRAWINGS
TMP-2	GENERAL NOTES
TMP-3	PHASING
TMP 4-4D	MECKLENBURG CO. BRIDGE #153 - I-77/US 21 SBL LEFT 3 LANE WORK AREA
TMP 5-5B	MECKLENBURG CO. BRIDGE #153 - I-77/US 21 SBL RIGHT 2 LANE WORK AREA
TMP-6	MECKLENBURG CO. BRIDGE #153 - TEMPORARY LANE CLOSURES DIVIDED MULTI-LANE ROADWAY 3 LEFT LANES CLOSED
TMP-7	MECKLENBURG CO. BRIDGE #215 - I-77 SBL RAMP WORK AREA
TMP-8	MECKLENBURG CO. BRIDGE #283 - I-77 SBL RAMP WORK AREA
TMP-9	MECKLENBURG CO. BRIDGE #460 US 29/74 LEFT & RIGHT LANE WORK AREAS
TMP 10-10B	UNION CO. BRIDGE #34 US 74 LEFT & RIGHT LANE WORK AREAS

SHEET NO.
TMP-1

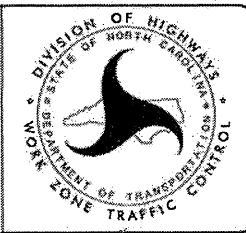
TRAFFIC MANAGEMENT STRATEGY

BRIDGE PAINTING OPERATIONS WILL BE ACCOMPLISHED USING TIME RESTRICTED LANE CLOSURES. REFER TO SHEET TMP-3 FOR PHASING.

10/24/2012 D:\Tr of fct\Tr of fct\Control\WBS 17BP.10.P.4 Anson Mecklenburg Union\TCP\Plan Sheets\17BP.10.P.4_TC_TMP_01.TITLE.dgn



PLAN PREPARED FOR NCDOT STRUCTURES MANAGEMENT UNIT
RALEIGH, NC



PLAN PREPARED BY:
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Stantec

BETSY L. WATSON, P.E. TRAFFIC ENGINEER




































GEORGE KARAGEORGE SR. TRANSPORTATION DESIGNER

APPROVED: *Betsy L. Watson*
DATE: *October 25, 2012*

SEAL

WBS 17BP.10.P.4

LEGEND

-  DIRECTION OF TRAFFIC FLOW
 -  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
 -  WORK AREA
 -  PAVEMENT REMOVAL
 -  NORTH ARROW
 -  TYPE III BARRICADE
 -  CONE
 -  DRUM
 -  SKINNY DRUM
 -  TUBULAR MARKER
 -  CHANGEABLE MESSAGE SIGN (CMS)
 -  FLAGGER
 -  AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)
 -  FLASHING ARROW BOARD (TYPE C)
 -  LAW ENFORCEMENT
 -  TRUCK MOUNTED ATTENUATOR (TMA)
 -  PORTABLE CONCRETE BARRIER (PCB)
 -  TEMPORARY CRASH CUSHION
 -  TEMPORARY SHORING
 -  WORK ZONE SIGN-PORTABLE
 -  WORK ZONE SIGN-STATIONARY
 -  WORK ZONE SIGN-STATIONARY OR PORTABLE
- 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)
 -  PAVEMENT MARKING ALPHANUMERIC CHARACTERS
- PAVEMENT MARKERS**
-  CRYSTAL / CRYSTAL
 -  CRYSTAL / RED
 -  YELLOW / YELLOW

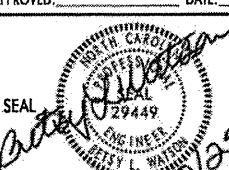
ROADWAY STANDARD DRAWINGS


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
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION

10/24/2012 11:45:11 AM TrafficControl\NBS 17BP.10.P.4 Anson Mecklenburg Union\TCP\Plan Sheets\17BP.10.P.4.TC.TMP.1A.RDWTSTDSLEGEND.dgn


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 Suite 300
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 www.stantec.com
 License No. F-0572

APPROVED: _____ DATE: _____

 SEAL
 10/25/12


 DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

LEGEND
 &
 ROADWAY STANDARD DRAWINGS

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 UNDESIRABLE 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 A LANE OF TRAFFIC DURING THE FOLLOWING TIME RESTRICTIONS:

ROAD NAME	COUNTY	BRIDGE NUMBER
US 74	UNION	34
I-77 SBL RAMP	MECKLENBURG	215/283
NC 16/BROOKSHIRE BLVD	MECKLENBURG	363
US 29/74 (WILKINSON BLVD)	MECKLENBURG	460

DAY AND TIME RESTRICTIONS

6:00 A.M.-9:00 P.M. MONDAY THRU FRIDAY
9:00 A.M.-9:00 P.M. SATURDAY & SUNDAY

ROAD NAME	COUNTY	BRIDGE NUMBER
US 52	ANSON	14
MT HOLLY/HUNTERSVILLE RD	MECKLENBURG	176

DAY AND TIME RESTRICTIONS

6:00 A.M.-9:00 A.M. MONDAY THRU FRIDAY
3:00 P.M.-7:00 P.M. MONDAY THRU FRIDAY

ROAD NAME	COUNTY	BRIDGE NUMBER
LASALLE STREET	MECKLENBURG	153

DAY AND TIME RESTRICTIONS

6:00 A.M.-7:00 P.M. MONDAY THRU FRIDAY

ROAD NAME	COUNTY	BRIDGE NUMBER
I-77/US 21	MECKLENBURG	153

DAY AND TIME RESTRICTIONS

1ST LANE 6:00 A.M.-9:00 P.M. MONDAY THRU FRIDAY
2ND LANE 6:00 A.M.-10:00 P.M. MONDAY THRU FRIDAY
3RD LANE 6:00 A.M.-11:00 P.M. MONDAY THRU FRIDAY

1ST LANE 6:00 A.M.-10:00 P.M. SATURDAY & SUNDAY
2ND LANE 6:00 A.M.-11:00 P.M. SATURDAY & SUNDAY
3RD LANE 6:00 A.M.-11:59 P.M. (MIDNIGHT) SATURDAY & 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 9:00 P.M. JANUARY 2nd. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
- 3) FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
- 4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
- 5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 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 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- 6) FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 9:00 P.M. TUESDAY.
- 7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
- 8) FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CLOSE OR NARROW TRAVEL LANES DURING SPECIAL EVENTS AS FOLLOWS:

ROAD NAME ALL ROADS IN MECKLENBURG COUNTY

- 1) FOR ANY NASCAR EVENT AT THE LOWES MOTOR SPEEDWAY, BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE THE WEEK OF THE EVENT UNTIL 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE EVENT.
- 2) FOR ANY CAROLINA PANTHERS FOOTBALL GAME IN CHARLOTTE AND ANY GAMES AT THE BOBCATS ARENA, FOR THREE HOURS BEFORE THE GAME UNTIL THREE HOURS AFTER THE GAME.
- 3) FOR ANY EVENT AT THE BANK OF AMERICA STADIUM, CHARLOTTE CONVENTION CENTER AND/OR ANY OTHER ARENAS, BETWEEN 6:00AM THE FRIDAY BEFORE THE EVENT AND 9:00PM THE MONDAY AFTER THE EVENT.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) 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.
- E) INSTALL ALL LANE CLOSURES ACCORDING TO THE PLANS, ROADWAY STANDARD DRAWINGS (1101.02), OR AS DIRECTED BY THE ENGINEER.


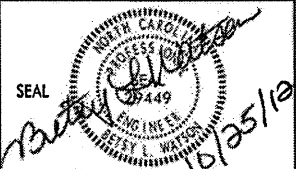

LANE AND SHOULDER CLOSURE REQUIREMENTS (CONTINUED)

- F) 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 BOARDS AND MESSAGE SIGNS.
- G) 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.
- H) 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.
- I) 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.
- J) 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.
- K) UNLESS OTHERWISE SHOWN IN THE PLANS, PLACE ARROW BOARDS ON THE ROADWAY SHOULDER. IF SHOULDERS DO NOT EXIST, PLACE ARROW BOARDS 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 BOARD (REFER TO ROADWAY STANDARD DRAWING 1101.11 SHEET 2).
- L) 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.
- M) WHENEVER TAPERS ARE TO BE USED IN CLOSE PROXIMITY TO AN INTERCHANGE RAMP, CROSSROADS, CURVES, OR OTHER INFLUENCING FACTORS, THE LENGTH OF STANDARD TAPERS MAY BE ADJUSTED.

MISCELLANEOUS

- N) USE LAW ENFORCEMENT TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS SHOWN IN THE PLAN OR AS DIRECTED BY THE ENGINEER. LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE AND MAY BE REVISED AS THE OFFICER OR THE ENGINEER DEEM NECESSARY.
- O) ALL DIMENSIONS AND STATIONS IN THE TRAFFIC MANAGEMENT PLAN AND PHASING ARE APPROXIMATE (+/-); FIELD ADJUST AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- P) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.
- Q) 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.
- R) DO NOT PERFORM WORK FROM THE ROADWAY ON TOP OF ANY BRIDGE, UNLESS SPECIFICALLY ALLOWED IN THE PLAN OR BY THE ENGINEER.

10/24/2022 10:24:20 AM C:\Users\jacob\OneDrive\Documents\17BP.10.P.4.TC.TMP.02.GENERAL NOTES.dgn

 Stantec Consulting Services Inc. 501 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6896 Fax. (919) 851-7024 www.stantec.com License No. F-0572	APPROVED: _____ DATE: _____ 		<h2 style="margin: 0;">GENERAL NOTES</h2>
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PHASING

USE THE FOLLOWING TRAFFIC CONTROL METHODS DURING BRIDGE PAINTING OPERATIONS:

ANSON COUNTY

BRIDGE #14 - US 52 OVER JONES CREEK
USE FLAGGING OPERATION, ON US 52, AS NEEDED. SEE ROADWAY STANDARD DRAWING 1101.02 SHEET 1.

MECKLENBURG COUNTY

BRIDGE #153 - LASALLE STREET OVER I-77
FOR I-77/US 21 NORTHBOUND LEFT 3 LANES WORK AREA, USE SHEET TMP-6.

FOR I-77/US 21 NORTHBOUND RIGHT LANE WORK AREA, USE RIGHT LANE CLOSURE, ROADWAY STANDARD DRAWING 1101.02 SHEET 4.

FOR I-77/US 21 SOUTHBOUND LEFT 3 LANES WORK AREA, USE SHEETS TMP-4, 4A, 4B, 4C, AND 4D.

FOR I-77/US 21 SOUTHBOUND RIGHT 2 LANES WORK AREA, USE SHEETS TMP-5, 5A AND 5B.

BRIDGE #176 - US 21 (STATESVILLE RD) OVER SR 2004 (MT. HOLLY / HUNTERSVILLE RD)
USE FLAGGING OPERATIONS ON MT. HOLLY / HUNTERSVILLE RD, PER ROADWAY STANDARD DRAWING 1101.02 SHEET 1.

BRIDGE #215 - I-77 RAMP OVER IRWIN CREEK
FOR WORK AREA ON I-77 SBL RAMP, CLOSE THE RIGHT SHOULDER OF THE RAMP PER SHEET TMP-7.

BRIDGE #283 - I-77 SOUTHBOUND RAMP OVER ANDRILL TERRACE AND IRWIN CREEK
FOR WORK AREA ON I-77 SBL RAMP, CLOSE THE RIGHT SHOULDER OF THE RAMP PER SHEET TMP-8.


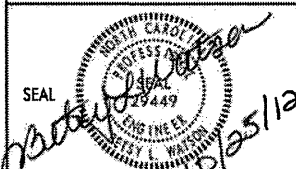

BRIDGE #363 - NC 16 NORTHBOUND OVER CATAWBA RIVER
FOR LEFT AND RIGHT LANE WORK AREA ON NC 16, SEE ROADWAY STANDARD DRAWING 1101.02 SHEET 3.

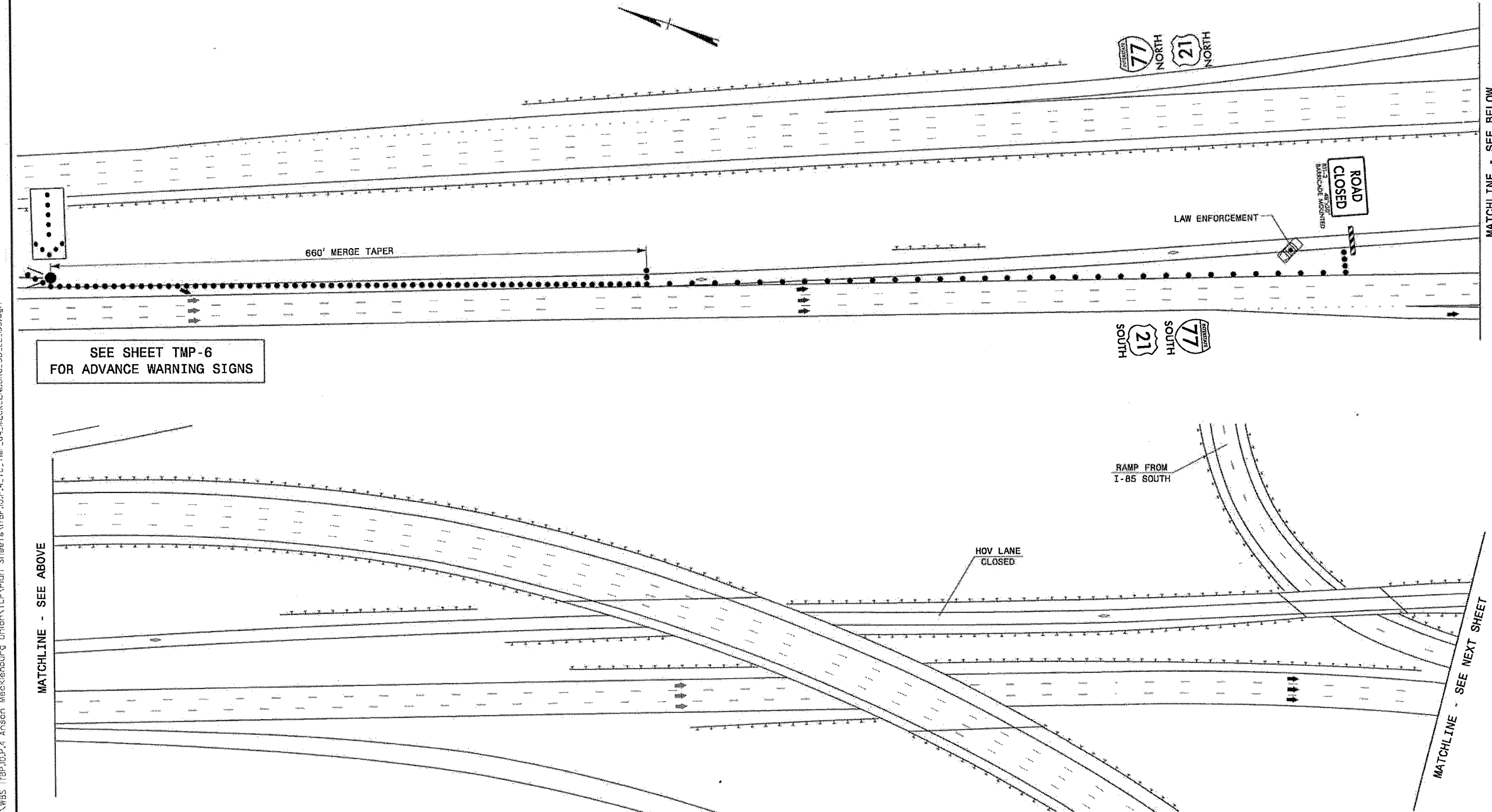
BRIDGE #460 - US 521 SOUTHBOUND OVER US 29/US 74
USE LANE CLOSURES, PER SHEET TMP-9.

UNION COUNTY

BRIDGE #34 - SR 1565 (CONCORD AVE) OVER US 74
USE LANE CLOSURES PER SHEETS TMP-10, 10A AND 10B.

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 Stantec Stantec Consulting Services Inc 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-8800 Fax. (919) 851-7024 www.stantec.com License No. F-0572	APPROVED: _____ DATE: _____ 		<h1 style="margin: 0;">PHASING</h1>
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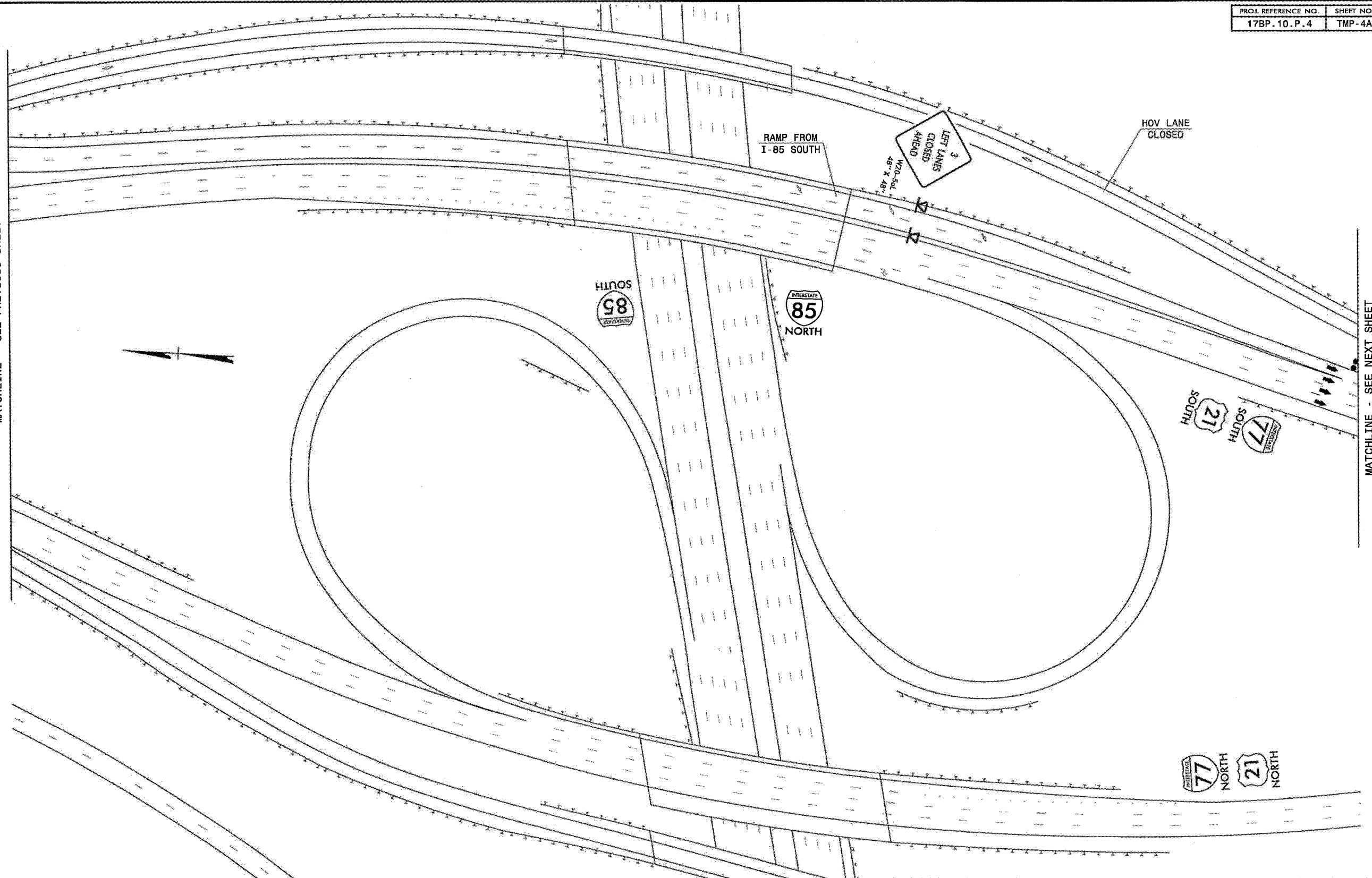
SEE SHEET TMP-6
FOR ADVANCE WARNING SIGNS

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 shcar@stg.org



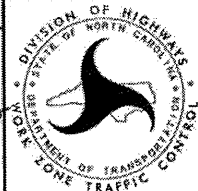
<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 500 Raleigh, NC 27606 Tel: (919) 851-6866 Fax: (919) 851-7024 www.stantec.com License No. F-0672</p>	APPROVED: _____ DATE: _____ 	<p>DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL</p>	MECKLENBURG BRIDGE #153 I-77/US 21 SOUTHBOUND LEFT 3 LANE WORK AREA
	10/25/12		

MATCHLINE - SEE PREVIOUS SHEET

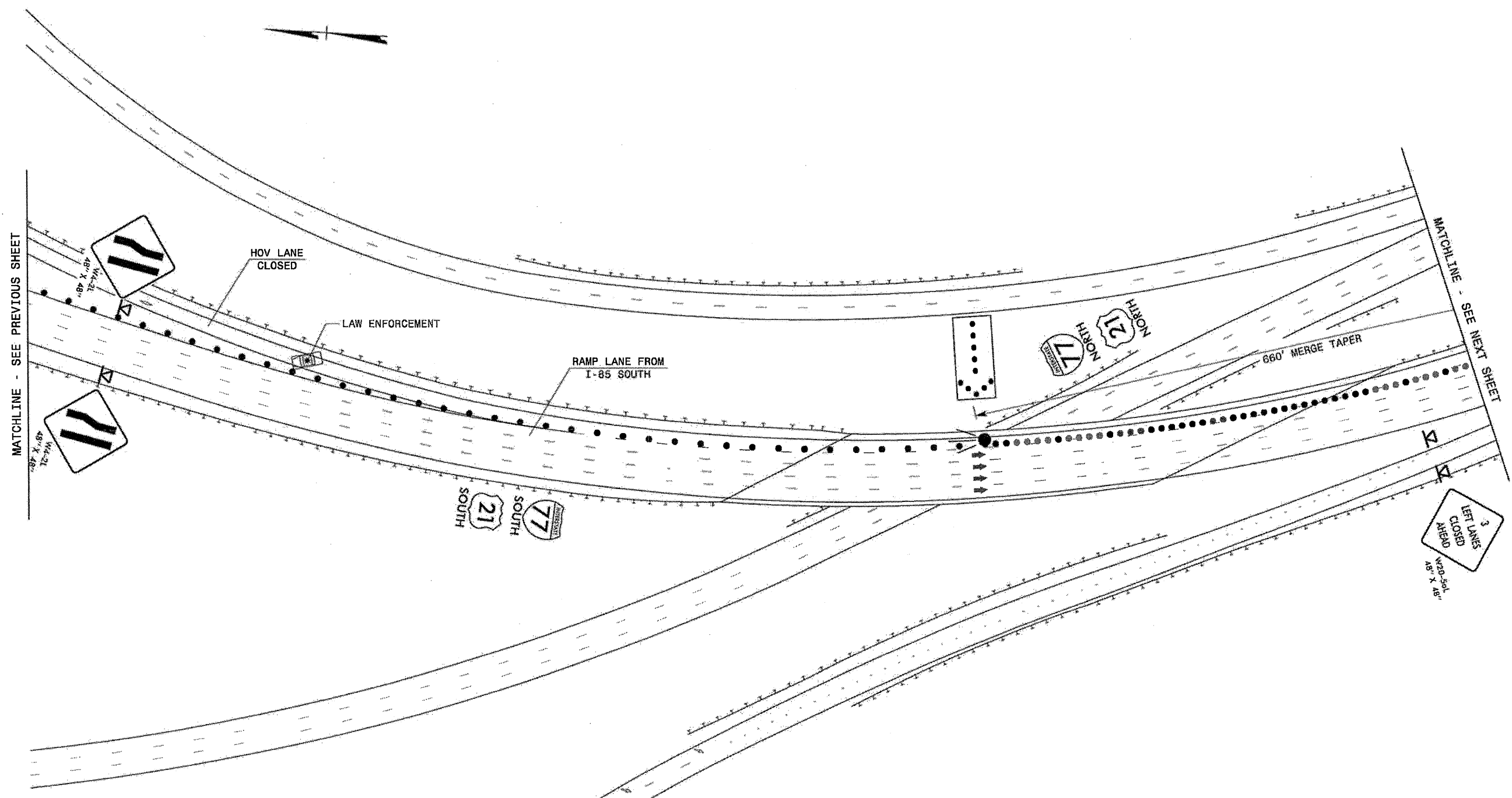
MATCHLINE - SEE NEXT SHEET


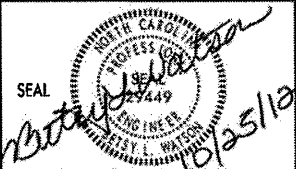



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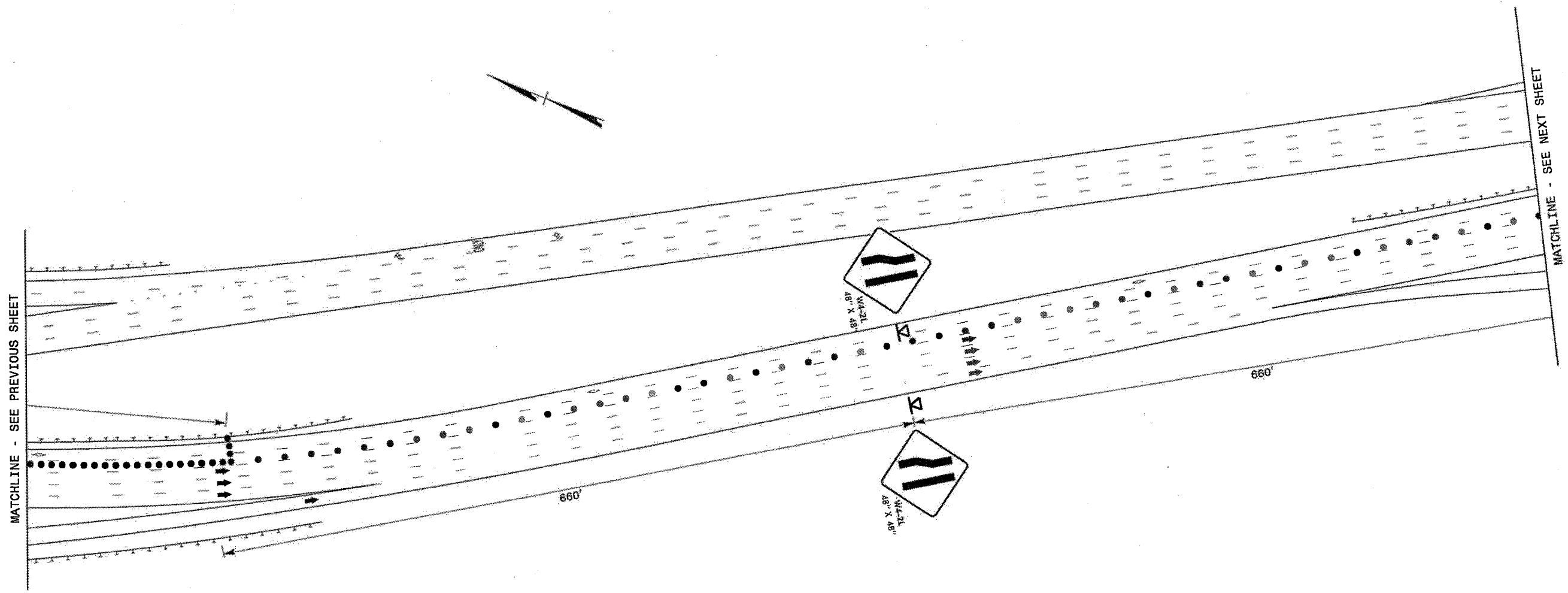
 <p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 306 Raleigh, NC 27606 Tel. (919) 651-6868 Fax. (919) 651-7024 www.stantec.com License No. F-0672</p>	APPROVED: _____ DATE: _____ 		MECKLENBURG BRIDGE #153 I-77/US 21 SOUTHBOUND LEFT 3 LANE WORK AREA
	SEAL <i>Gregory L. Watson</i> 10/25/12		



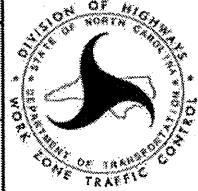
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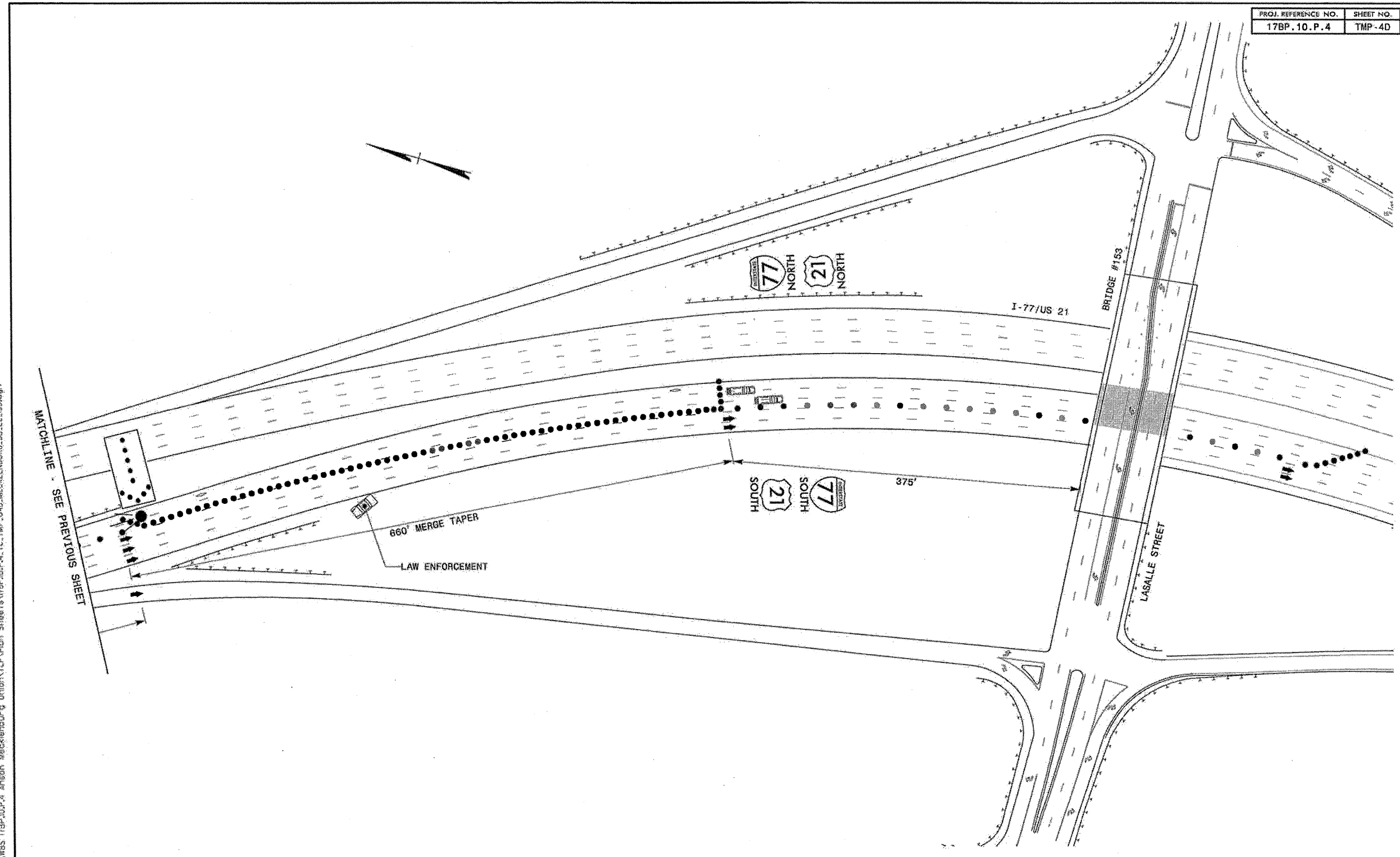
 Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6686 Fax. (919) 851-7024 www.stantec.com License No. F-0572	APPROVED: _____ DATE: _____ 		MECKLENBURG BRIDGE #153 I-77/US 21 SOUTHBOUND LEFT 3 LANE WORK AREA
	SEAL: <i>Robert Watson</i> / <i>blas11a</i>		

10/24/2012
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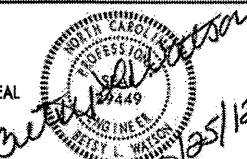
 Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-8866 Fax. (919) 851-7024 www.stantec.com License No. F-0672	APPROVED: _____ DATE: _____  <i>Betsy L. Watson</i> 10/25/12		MECKLENBURG BRIDGE #153 I-77/US 21 SOUTHBOUND LEFT 3 LANE WORK AREA

PROJ. REFERENCE NO.	SHEET NO.
17BP.10.P.4	TMP-4D



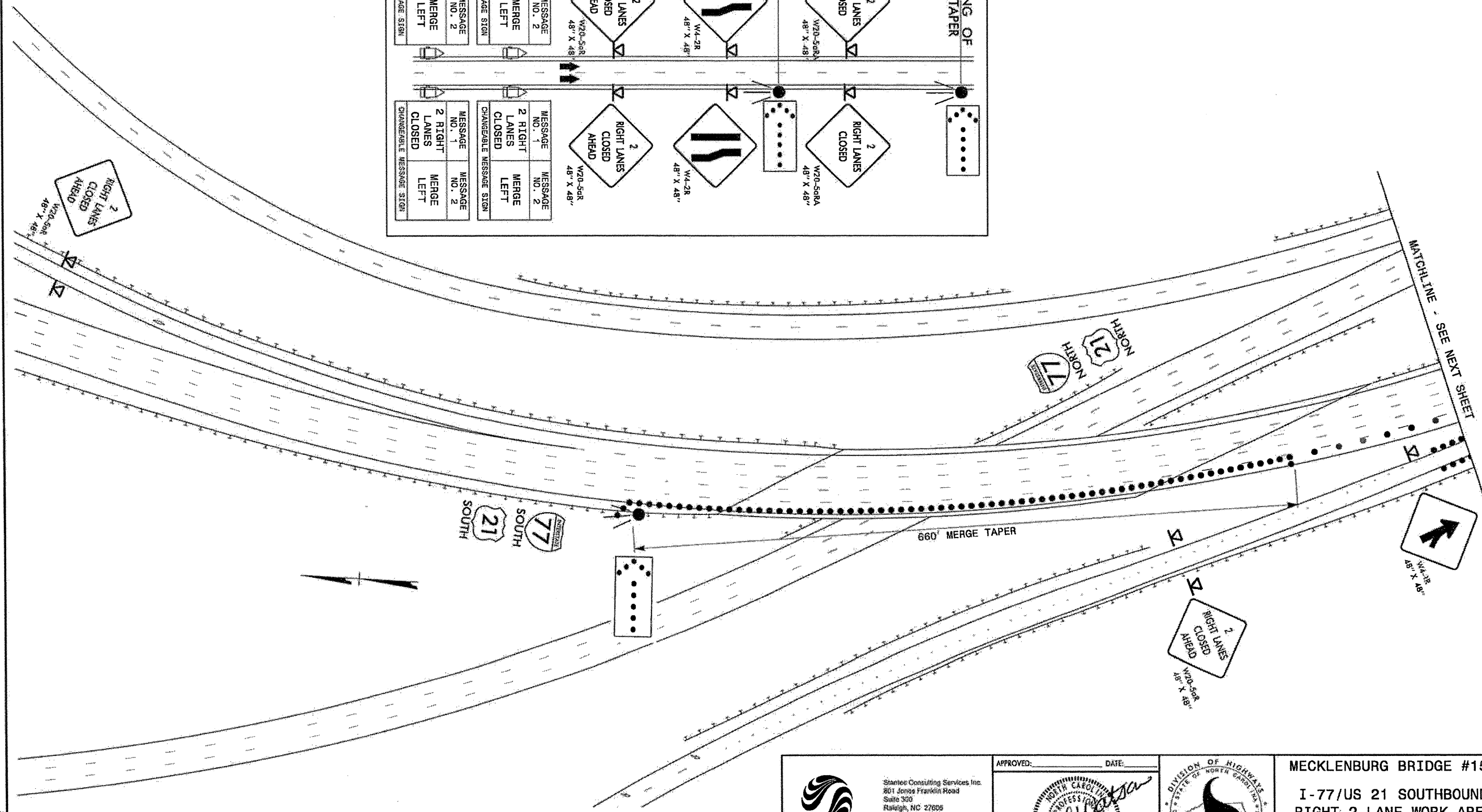
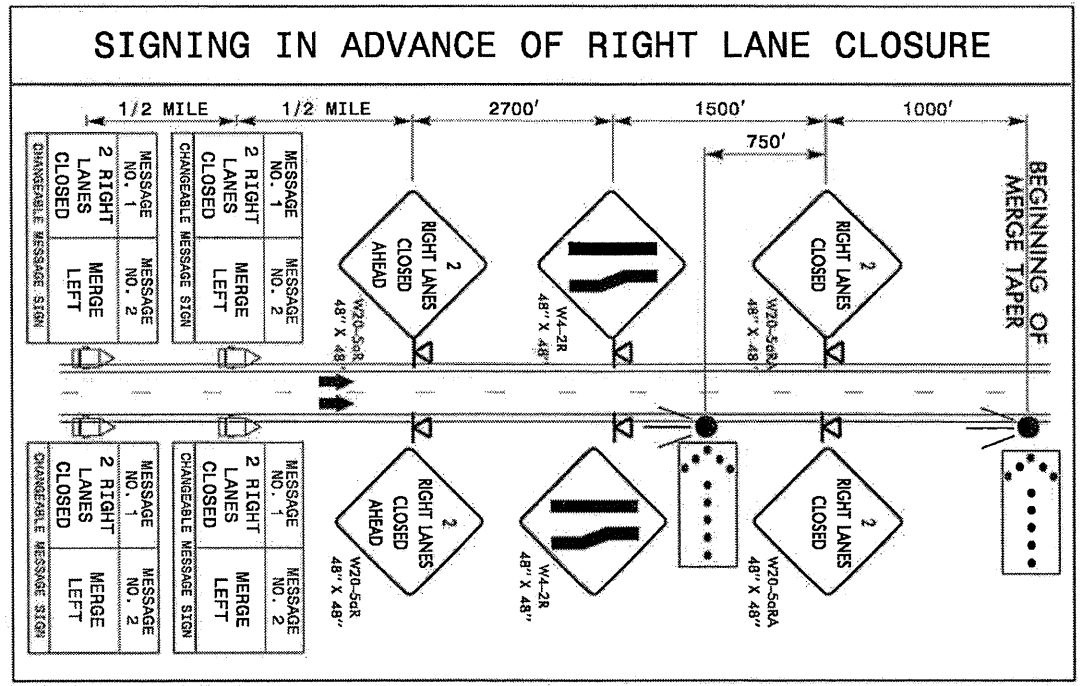
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APPROVED: _____ DATE: _____


DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

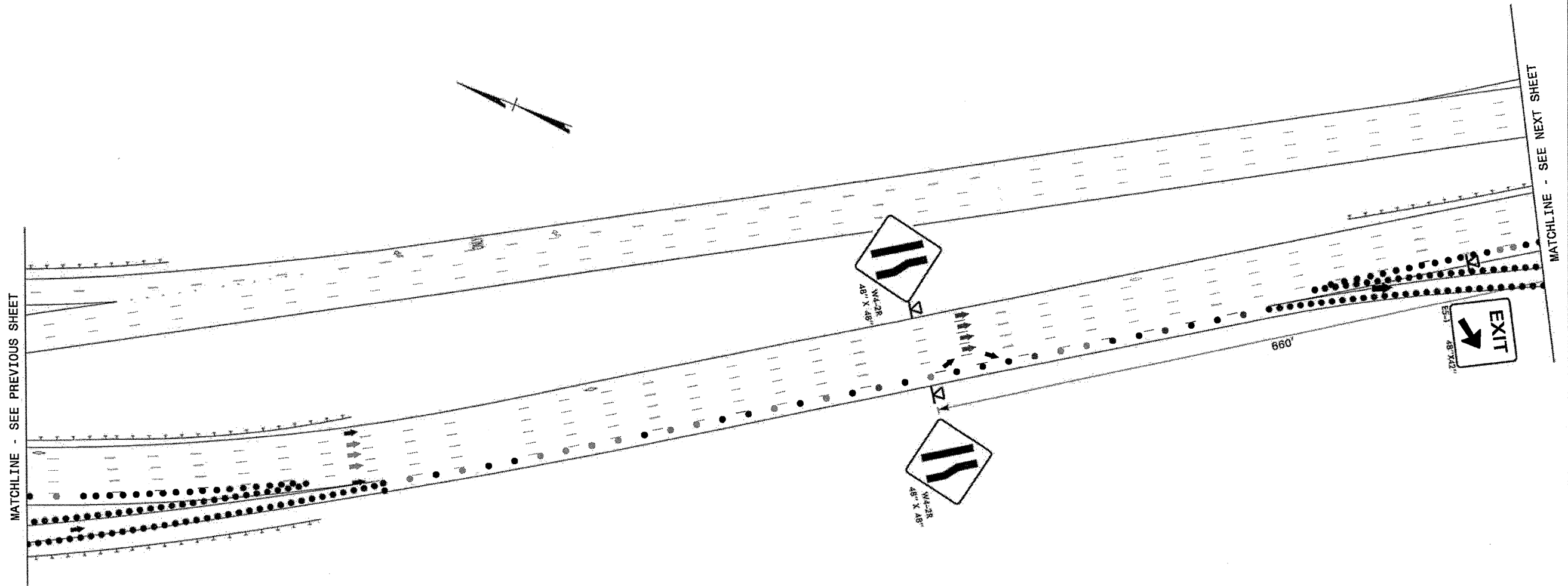
MECKLENBURG BRIDGE #153
I-77/US 21 SOUTHBOUND
LEFT 3 LANE WORK AREA




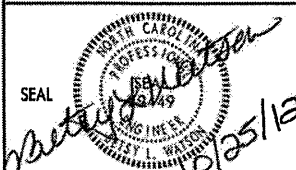

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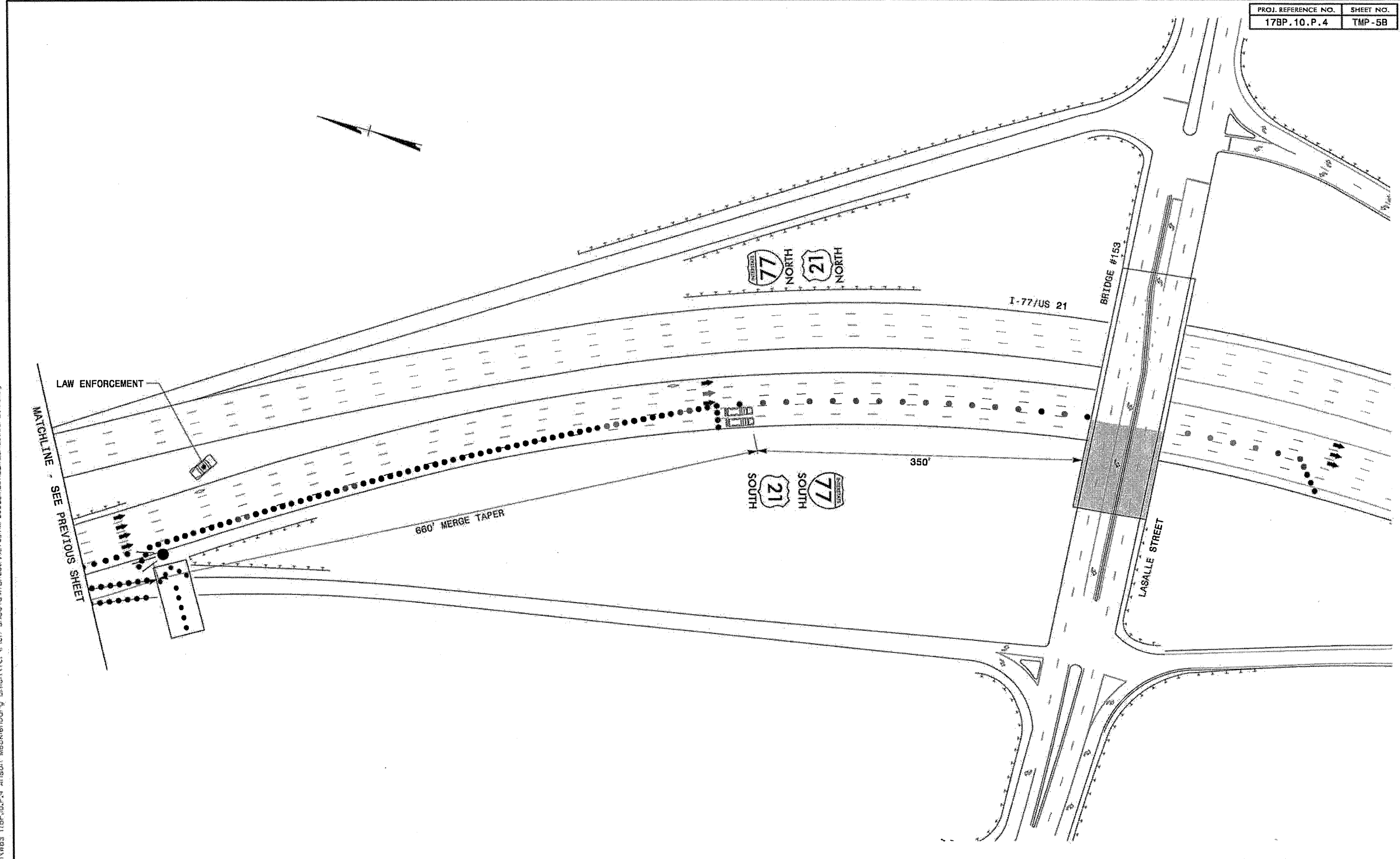
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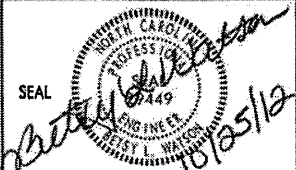

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 Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27609 Tel. (919) 851-8866 Fax. (919) 851-7024 www.stantec.com License No. F-0872	APPROVED: _____ DATE: _____  <i>Gregory L. Watson</i> 10/25/12		MECKLENBURG BRIDGE #153 I-77/US 21 SOUTHBOUND RIGHT 2 LANE WORK AREA

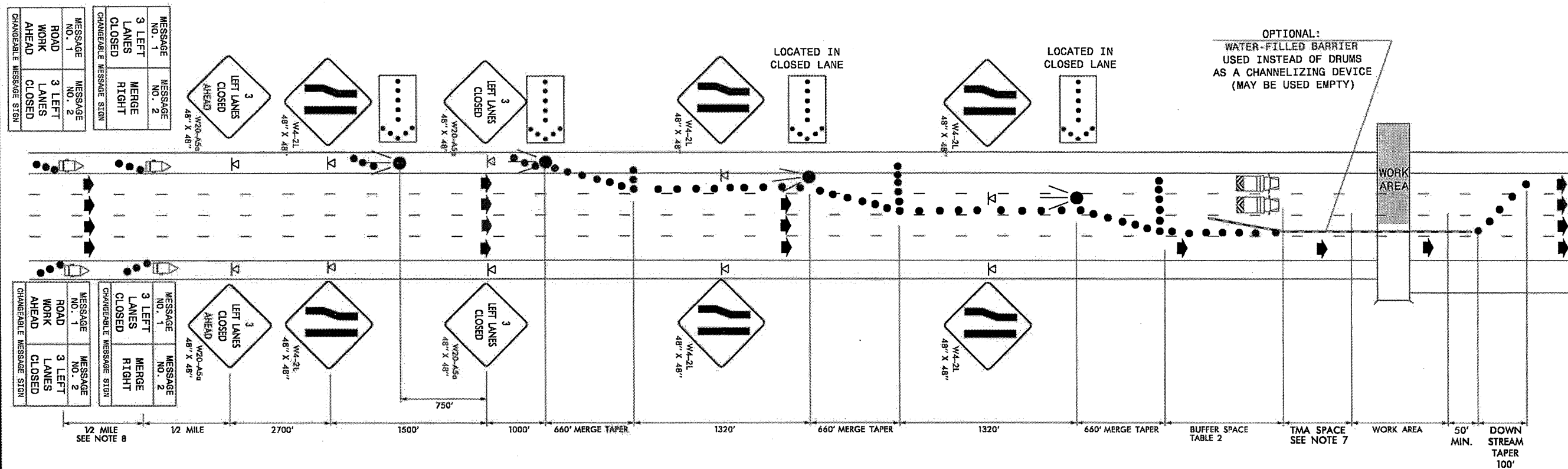
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 <p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27608 Tel: (919) 851-6866 Fax: (919) 851-7024 www.stantec.com License No. F-0672</p>	APPROVED: _____ DATE: _____ 	 <p>DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ZONE TRAFFIC CONTROL</p>	MECKLENBURG BRIDGE #153 I-77/US 21 SOUTHBOUND RIGHT 2 LANE WORK AREA
	SEAL <i>R. L. Watson</i> 10/25/12		

CLOSURE OF LEFT THREE LANES



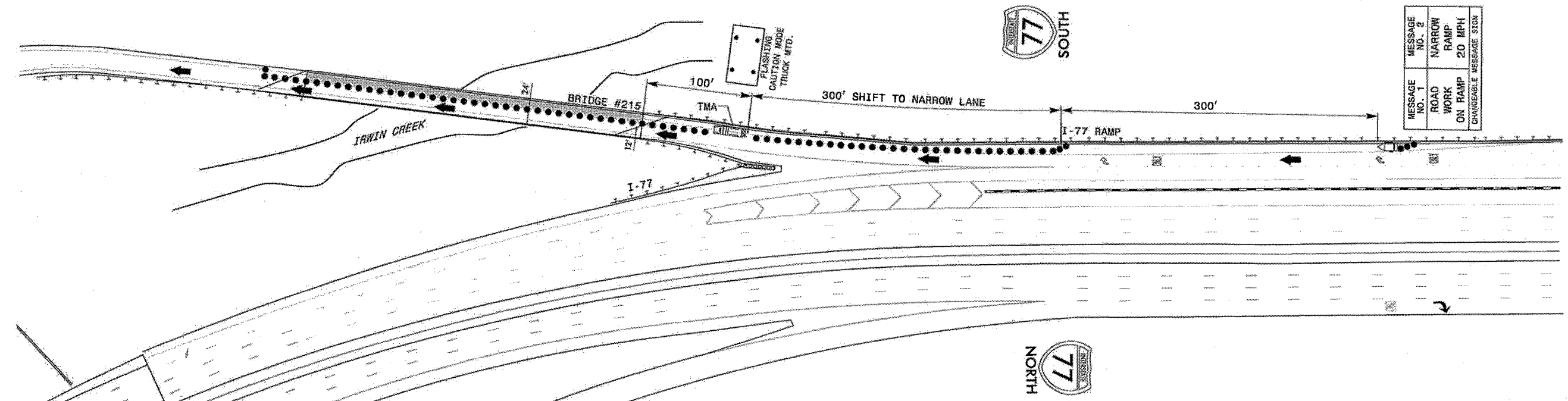
OPTIONAL:
WATER-FILLED BARRIER
USED INSTEAD OF DRUMS
AS A CHANNELIZING DEVICE
(MAY BE USED EMPTY)

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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. WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, REMOVE LANE CLOSURE DEVICES, REMOVE COVER OR LAY DOWN SIGNS, AND TURN OFF ARROW BOARDS AND CHANGEABLE MESSAGE SIGNS.
3. STATIONARY SIGNS SHOULD BE USED IF THE LANE CLOSURE WILL BE IN PLACE FOR LONGER THAN 3 CONSECUTIVE DAYS.
4. SIGNS ARE NOT REQUIRED ON THE LEFT SIDE OF THE ROADWAY WHEN THERE IS NOT ENOUGH ROOM FOR PLACEMENT. AT CONCRETE BARRIER LOCATIONS CLAMP ATTACHMENTS AND SMALLER SIGNS MAY BE USED.
5. PLACE ARROW BOARDS ON THE SHOULDER. IF SHOULDERS DO NOT EXIST, PLACE ARROW BOARDS 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 BOARD (TABLE 2).
6. 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.
7. POSITION TMA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
8. PLACE CHANGEABLE MESSAGE SIGNS ON THE SHOULDER OR OUTSIDE OF THE TRAVELWAY, OR AS SHOWN IN THE PLANS. INITIALLY, PLACE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF THE W20-5 SIGNS AS ROOM PERMITS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE FROM ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC AND MOVE CMS APPROXIMATELY 1/2 MILE IN CONJUNCTION WITH ANTICIPATED BACKUP.

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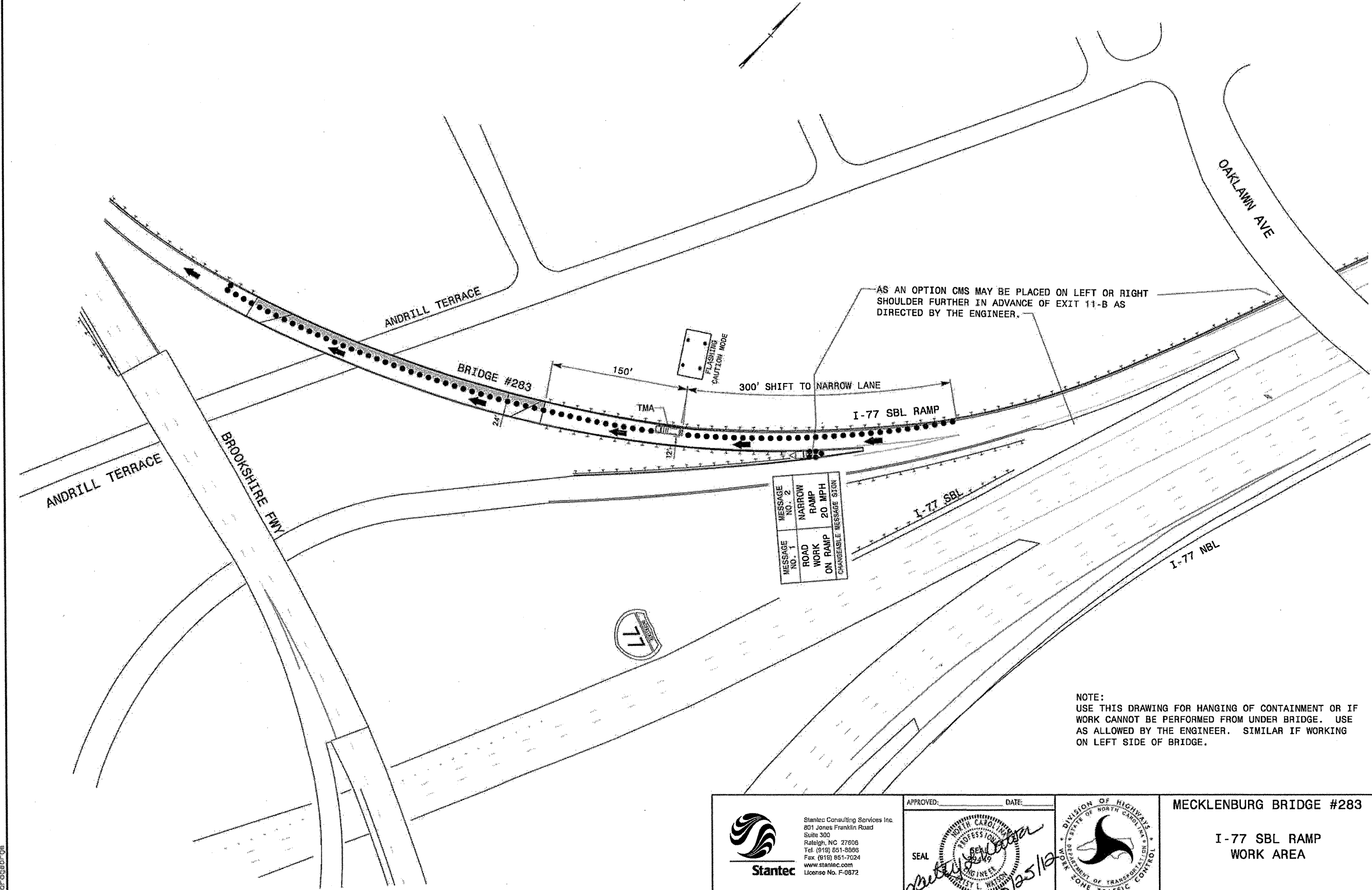


MESSAGE NO. 1	ROAD RAMP ON RAMP
MESSAGE NO. 2	NARROW RAMP 20 MPH
CHANGEABLE MESSAGE SIGN	

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 saka\egor@stg

NOTE:
 USE THIS DRAWING FOR HANGING OF CONTAINMENT OR IF WORK CANNOT BE PERFORMED FROM UNDER BRIDGE. USE AS ALLOWED BY THE ENGINEER. SIMILAR IF WORKING ON LEFT SIDE OF BRIDGE.

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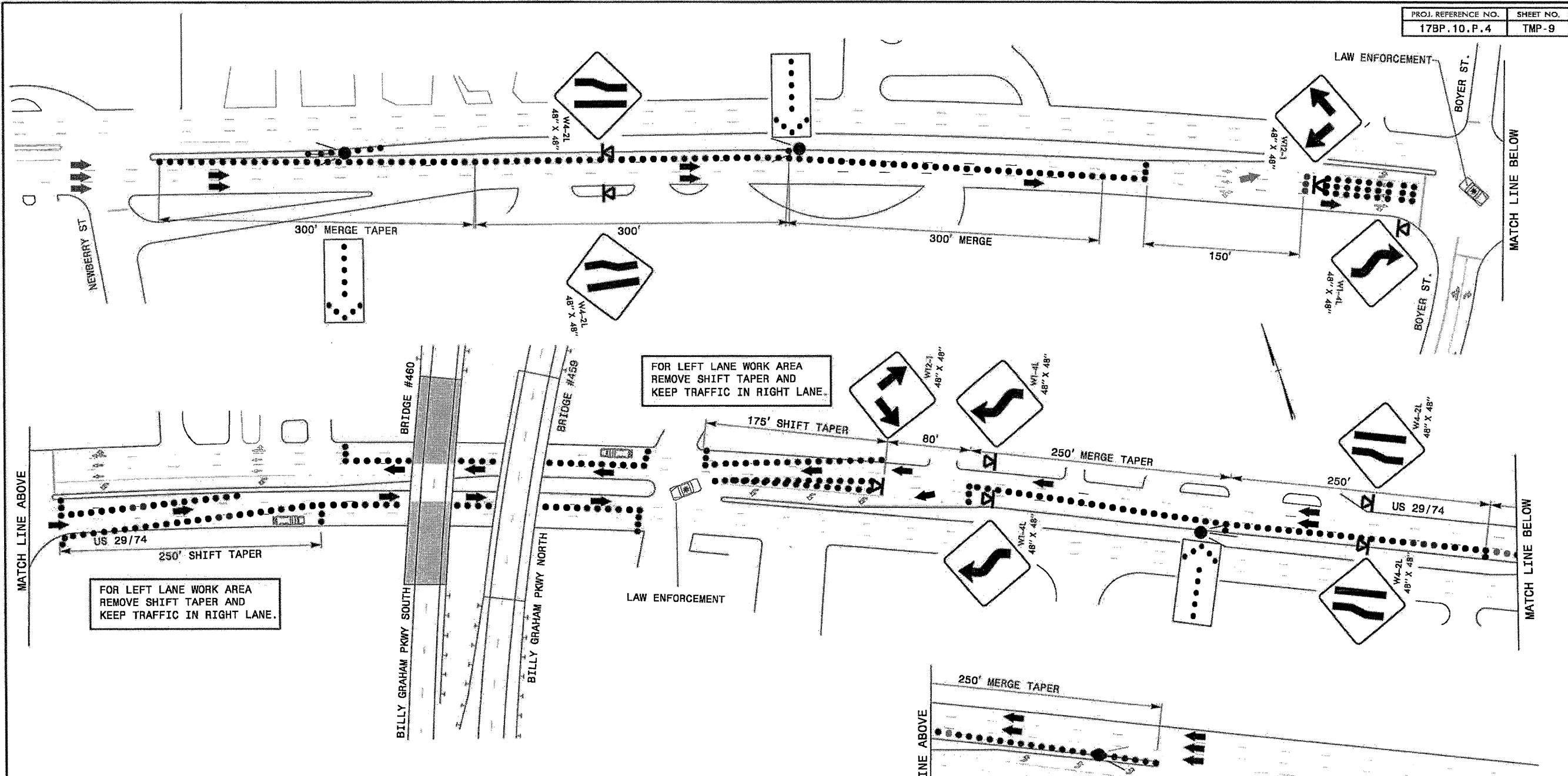
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MESSAGE NO. 1	ROAD WORK ON RAMP
MESSAGE NO. 2	NARROW RAMP 20 MPH

CHANGEABLE MESSAGE SIGN

NOTE:
 USE THIS DRAWING FOR HANGING OF CONTAINMENT OR IF WORK CANNOT BE PERFORMED FROM UNDER BRIDGE. USE AS ALLOWED BY THE ENGINEER. SIMILAR IF WORKING ON LEFT SIDE OF BRIDGE.

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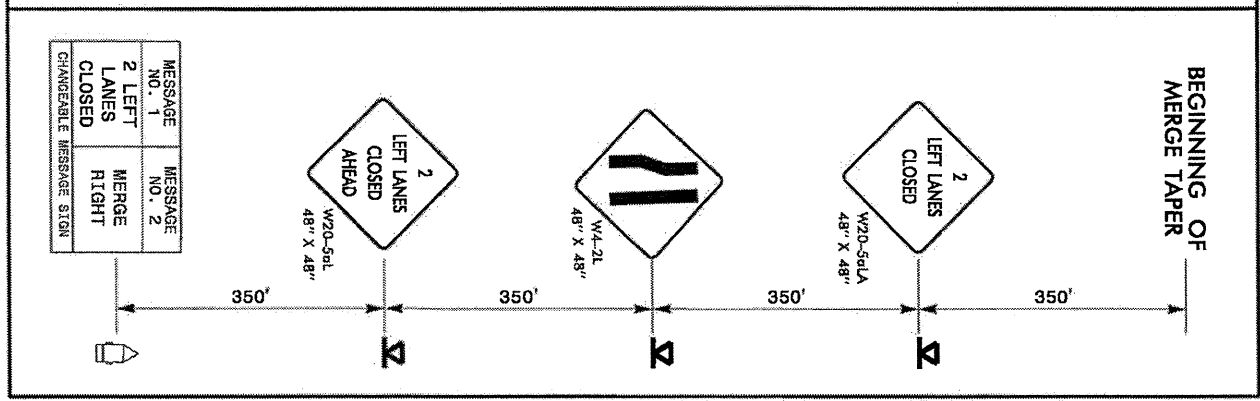


FOR LEFT LANE WORK AREA
REMOVE SHIFT TAPER AND
KEEP TRAFFIC IN RIGHT LANE.

FOR LEFT LANE WORK AREA
REMOVE SHIFT TAPER AND
KEEP TRAFFIC IN RIGHT LANE.

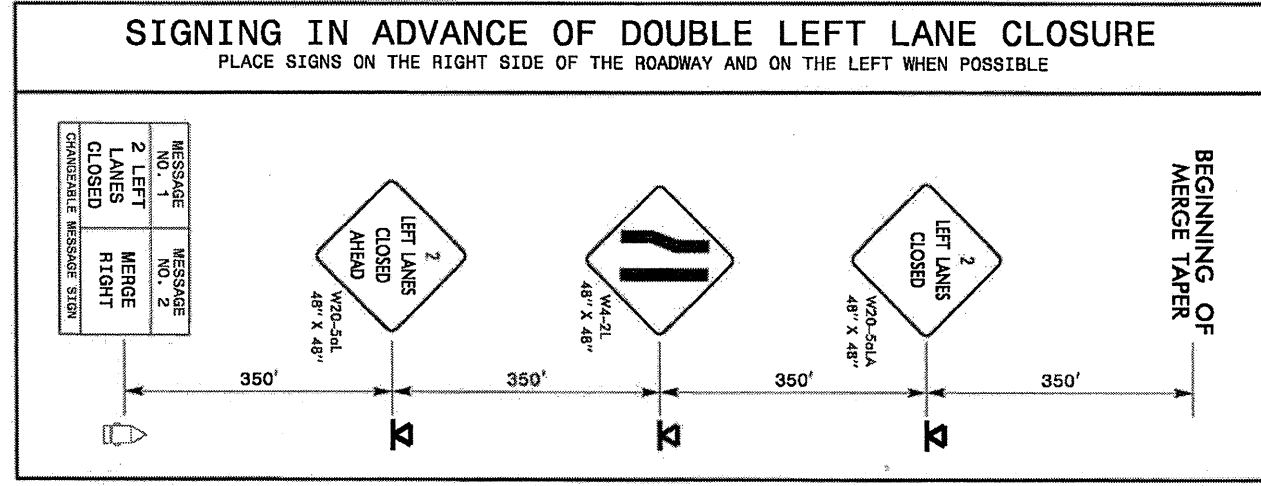
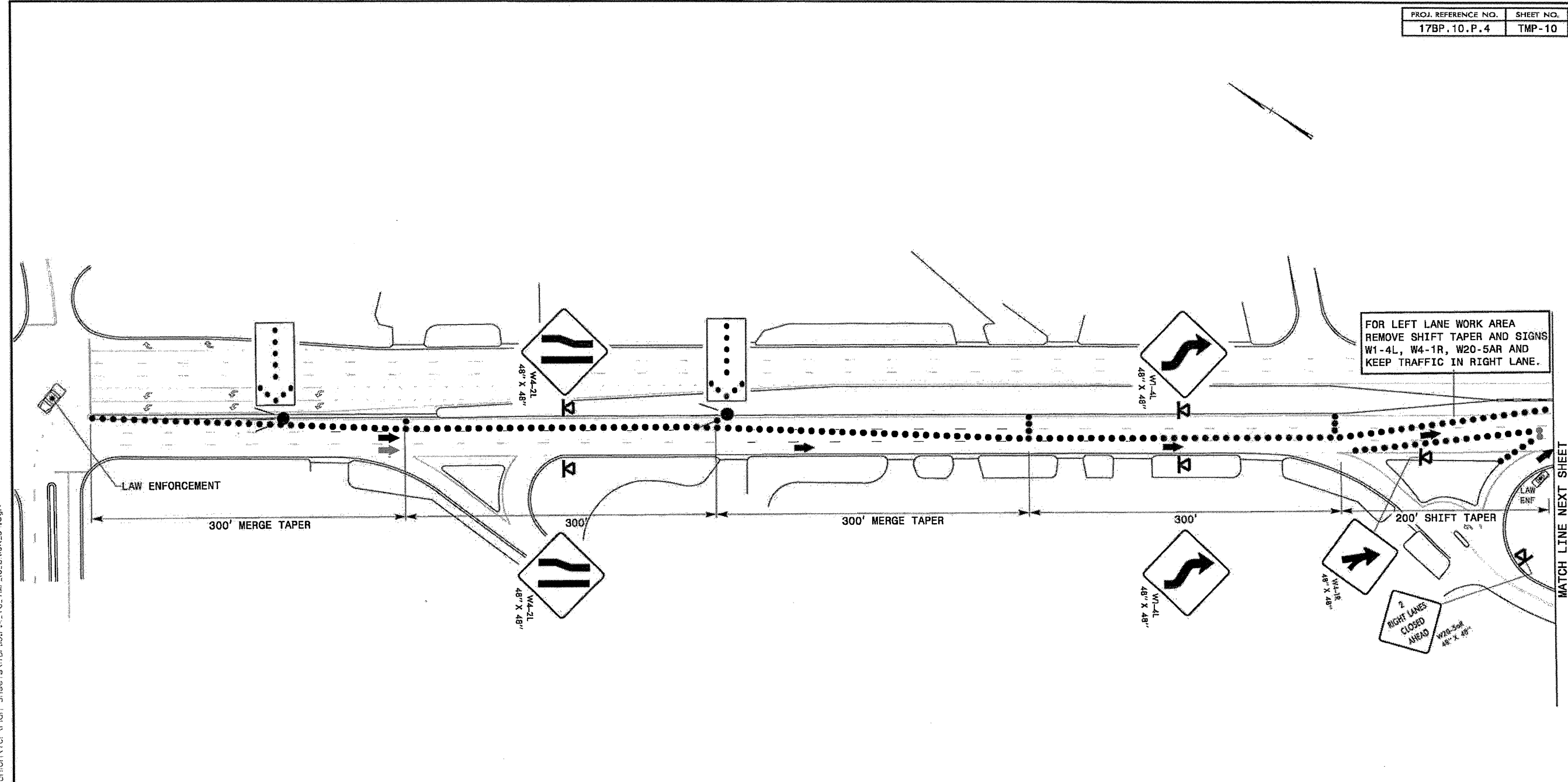
SIGNING IN ADVANCE OF DOUBLE LEFT LANE CLOSURE

PLACE SIGNS ON THE RIGHT SIDE OF THE ROADWAY AND ON THE LEFT WHEN POSSIBLE



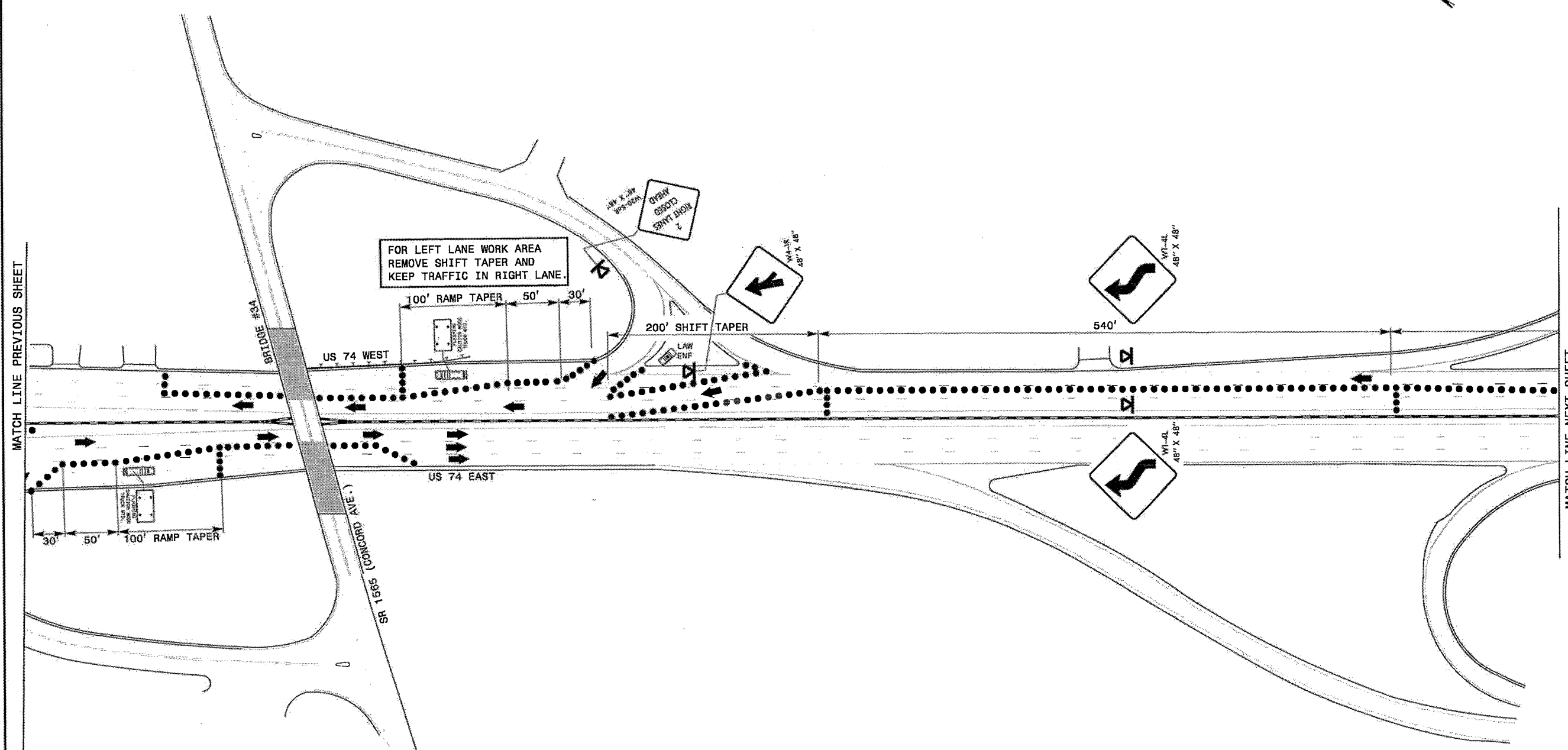
<p>Stantec</p>	Stantec Consulting Services Inc. 851 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-8860 Fax. (919) 851-7924 www.stantec.com License No. F-0972	APPROVED: _____ DATE: _____ 		MECKLENBURG BRIDGE #460 US 29/74 LEFT & RIGHT LANE WORK AREAS
	10/25/12			

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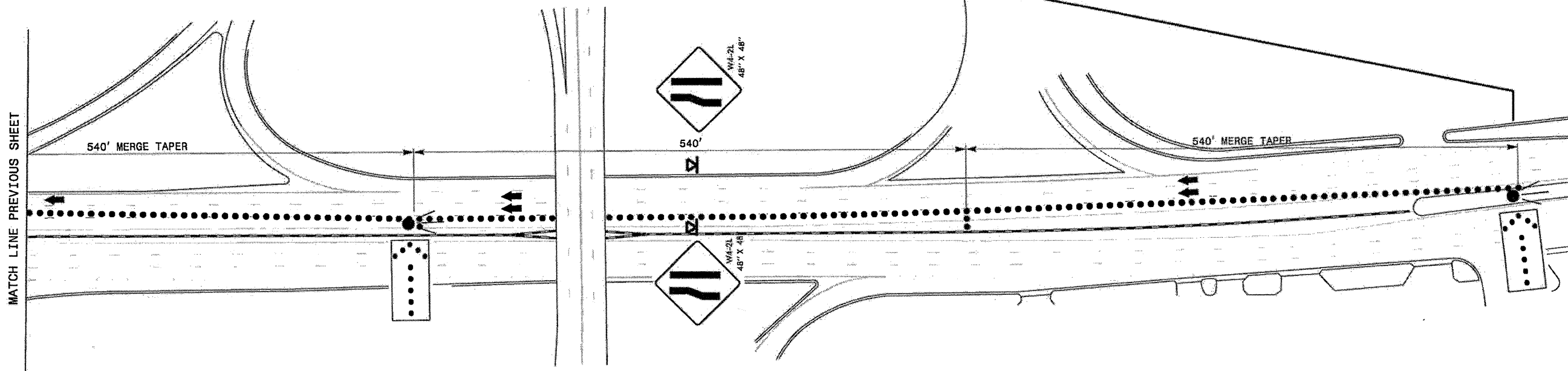
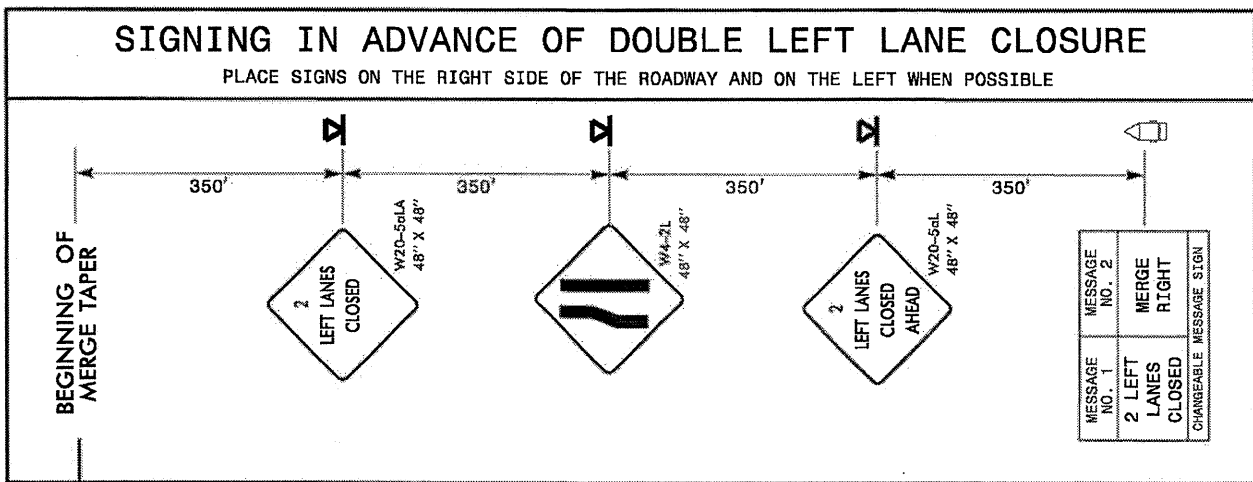
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 Stantec	Stantec Consulting Services Inc. 801 James Franklin Road Suite 300 Raleigh, NC 27605 Tel. (919) 851-6666 Fax. (919) 851-7624 www.stantec.com License No. F-0672	APPROVED: _____ DATE: _____ SEAL Gregory L. Watson 10/25/12	 DIVISION OF HIGHWAYS NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STATE TRAFFIC CONTROL
UNION BRIDGE #34 US 74 LEFT & RIGHT LANE WORK AREAS			



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<p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27605 Tel: (919) 851-8888 Fax: (919) 851-7024 www.stantec.com License No. F-0872</p>	APPROVED: _____ DATE: _____ 		UNION BRIDGE #34 US 74 LEFT & RIGHT LANE WORK AREAS
	SEAL 		



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<p>Stantec Consulting Services Inc. 601 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 651-6863 Fax. (919) 651-7024 www.stantec.com License No. F-0572</p>	<p>APPROVED: _____ DATE: _____</p>		<p>UNION BRIDGE #34</p> <p>US 74</p> <p>LEFT & RIGHT LANE</p> <p>WORK AREAS</p>
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