

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

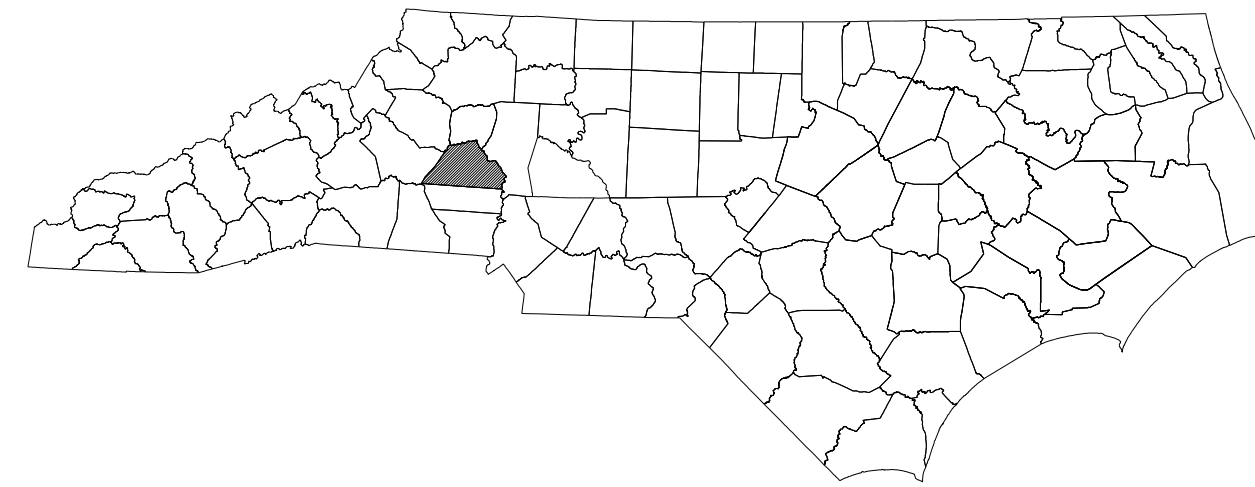
**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

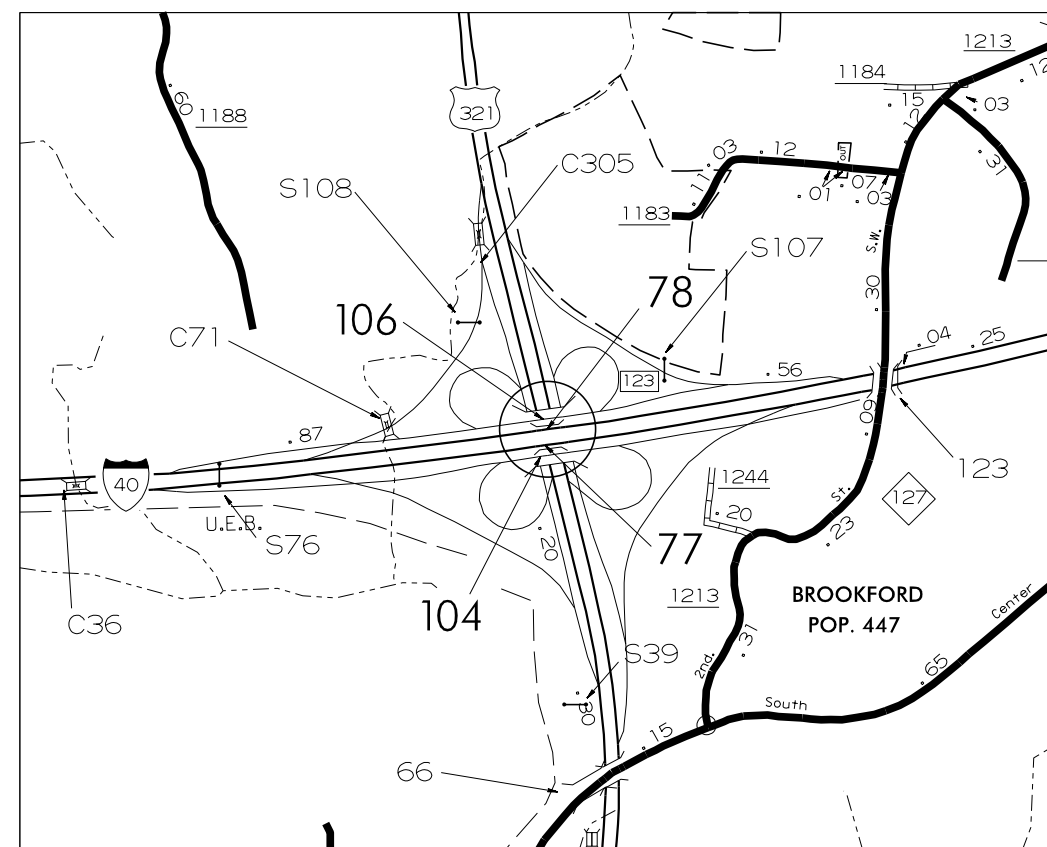
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

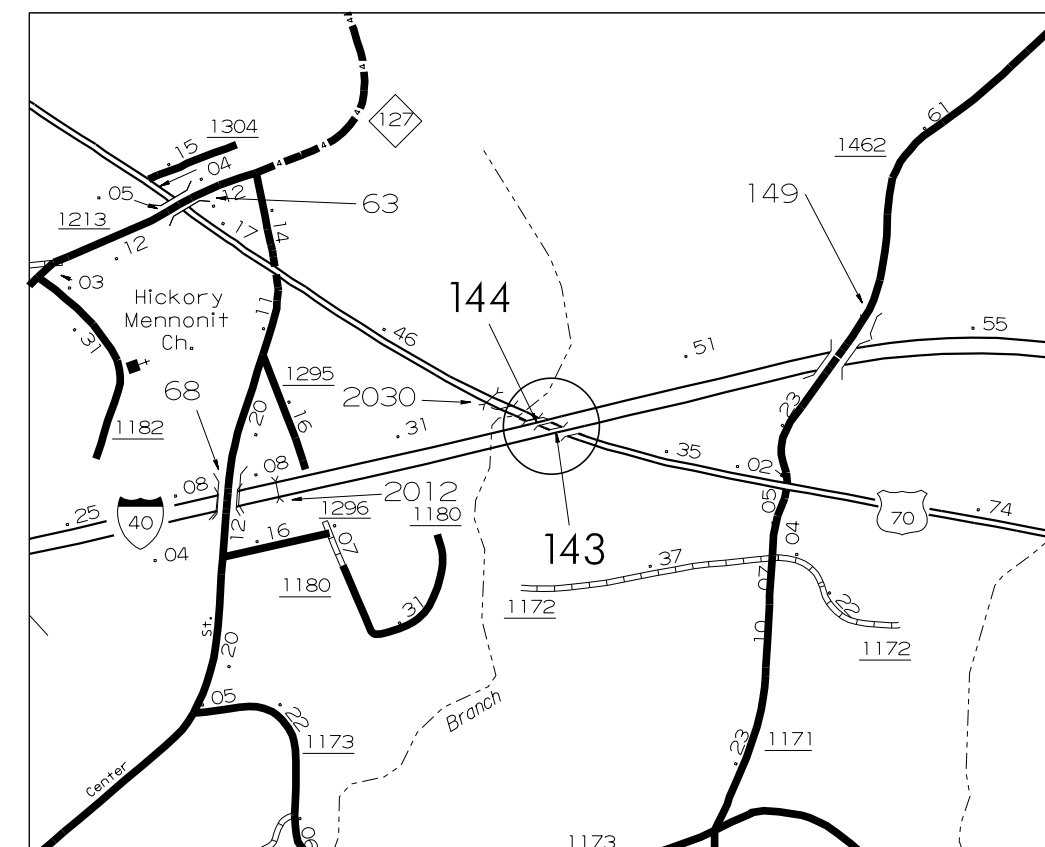
CATAWBA COUNTY



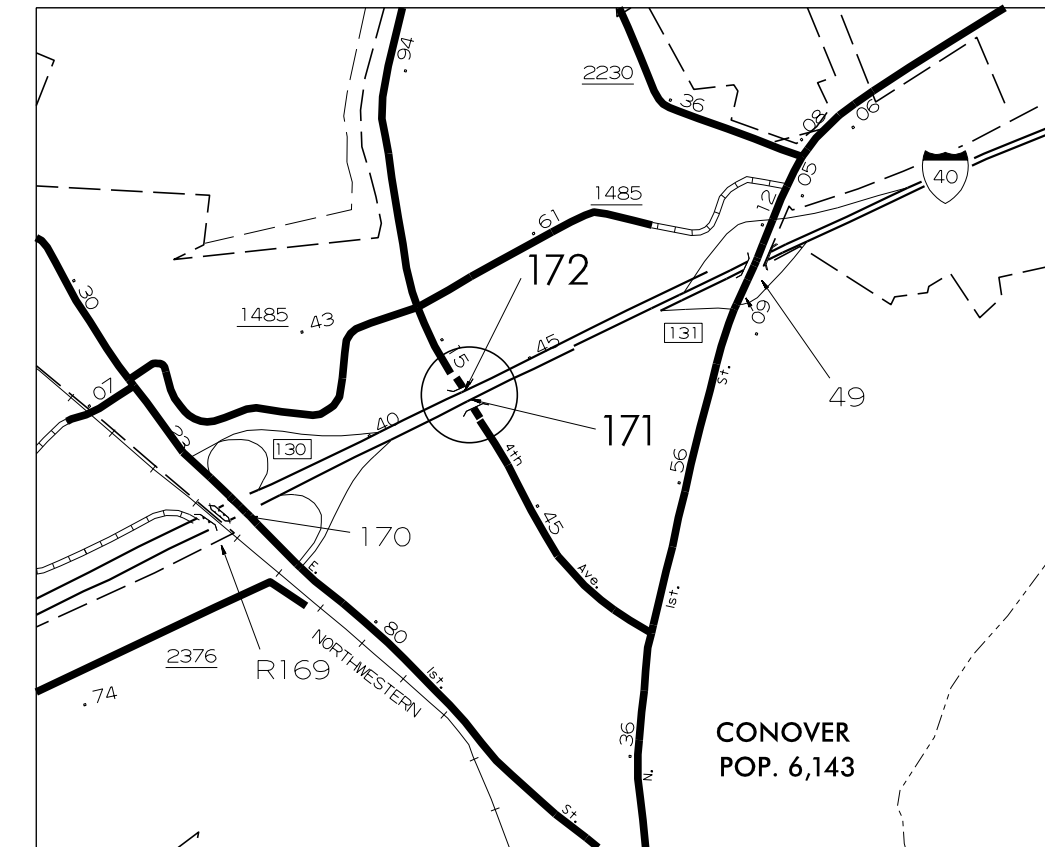
LOCATION: CATAWBA COUNTY:
BRIDGE #77 ON INTERSTATE 40 EAST BOUND OVER US 321
BRIDGE #78 ON INTERSTATE 40 WEST BOUND OVER US 321
BRIDGE #104 ON INTERSTATE 40 EAST BOUND COLLECTOR OVER US 321
BRIDGE #106 ON INTERSTATE 40 WEST BOUND COLLECTOR OVER US 321
BRIDGE #143 ON INTERSTATE 40 EAST BOUND OVER US 70
BRIDGE #144 ON INTERSTATE 40 WEST BOUND OVER US 70
BRIDGE #171 ON INTERSTATE 40 EAST BOUND OVER SR 1484 (COUNTY HOME ROAD)
BRIDGE #172 ON INTERSTATE 40 WEST BOUND OVER SR 1484 (COUNTY HOME ROAD)



VICINITY MAP - CATAWBA CO.



VICINITY MAP - CATAWBA CO.



VICINITY MAP - CATAWBA CO.

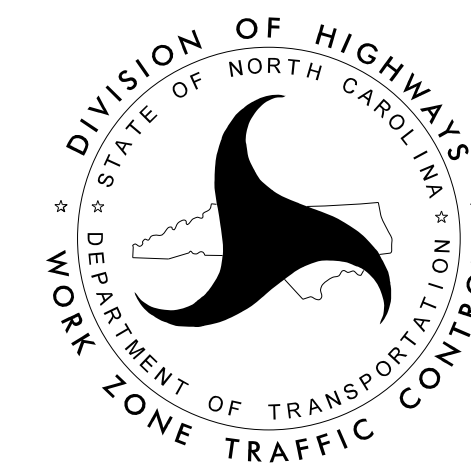
| SHEET NO. | TITLE |
|-----------|---|
| TMP-1 | TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS |
| TMP-1A | LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND TEMPORARY TRAFFIC CONTROL PHASING |
| TMP-1B | TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES) |
| TMP-2 | PROJECT OVERVIEW |
| TMP-3 | BRIDGES NO. 77, 78, 104 & 106 AT US 321 - DETOURS FOR THE CLOSURE OF US 321 NORTH COLLECTOR |
| TMP-4 | BRIDGES NO. 77, 78, 104 & 106 AT US 321 - DETOURS FOR THE CLOSURE OF US 321 SOUTH COLLECTOR |
| TMP-5 | DETOUR RAMP CLOSURE INSETS |
| TMP-6 | TEMPORARY SHOULDER CLOSURES |
| TMP-7 | TEMPORARY LANE CLOSURE - 2-LANE, 2-WAY ROADWAY - 1 LANE CLOSED |
| TMP-8 | TEMPORARY LANE CLOSURE - UNDIVIDED MULTI-LANE ROADWAY - CENTER LANES CLOSED |
| TMP-9 | TEMPORARY LANE CLOSURE - UNDIVIDED MULTI-LANE ROADWAY - OUTSIDE LANES CLOSED |
| TMP-10 | TEMPORARY LANE CLOSURE - DIVIDED MULTI-LANE ROADWAY - 1 LANE CLOSED |

8/17/2015 P:\TIP\Projects-BP\BP55000\TrafficControl\TCP\BP-55000_TC_TMP_01 Title.dgn User:idsfouchko



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
 1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
 750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
 PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
 J. W. WOOLARD, P.E. TRAFFIC CONTROL PROJECT ENGINEER
 L. D. STOUCHKO, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER
 TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: *Lori Stouchko*
902C8D18918148C

DATE: 8/17/2015

SEAL

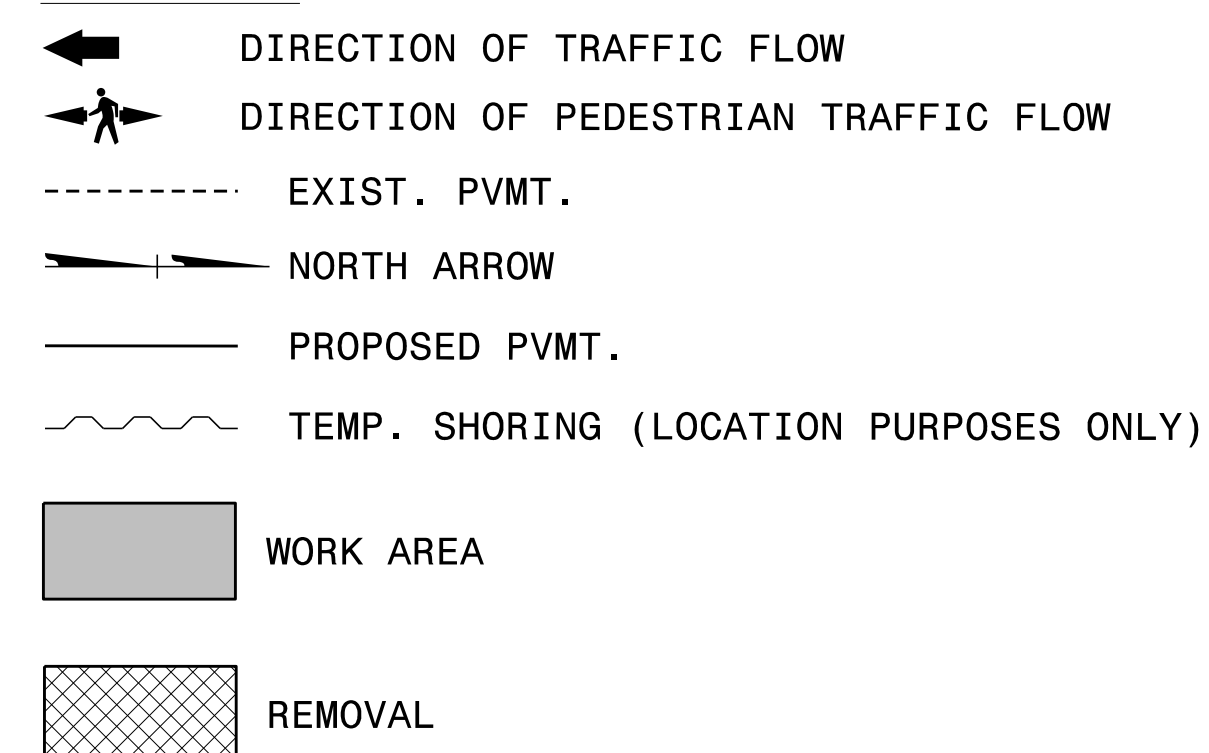
ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN 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:

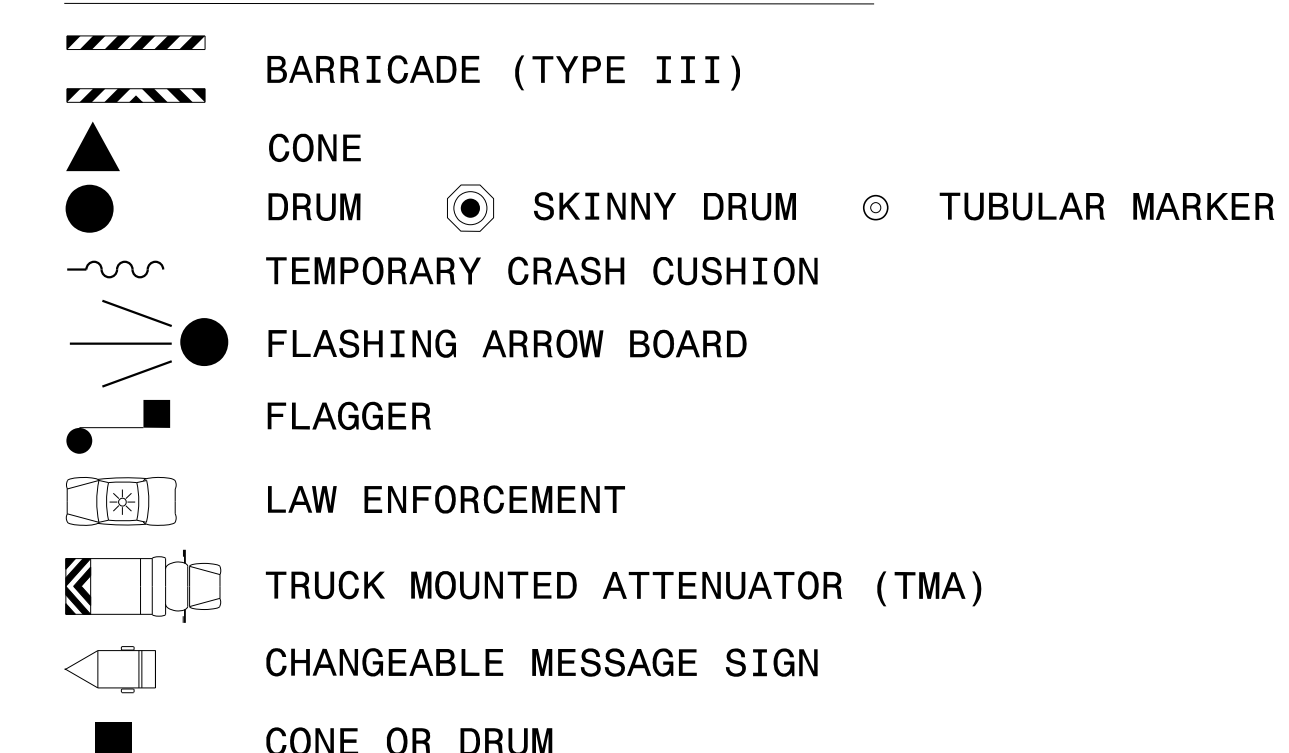
| <u>STD. NO.</u> | <u>TITLE</u> |
|-----------------|---|
| 1101.01 | WORK ZONE ADVANCE WARNING SIGNS |
| 1101.02 | TEMPORARY LANE CLOSURES |
| 1101.03 | TEMPORARY ROAD CLOSURES |
| 1101.04 | TEMPORARY SHOULDER CLOSURES |
| 1101.05 | WORK ZONE VEHICLE ACCESSES |
| 1101.11 | TRAFFIC CONTROL DESIGN TABLES |
| 1110.01 | STATIONARY WORK ZONE SIGNS |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1115.01 | FLASHING ARROW BOARDS |
| 1130.01 | DRUM |
| 1135.01 | CONES |
| 1145.01 | BARRICADES |
| 1150.01 | FLAGGING DEVICES |
| 1165.01 | WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION |
| 1180.01 | SKINNY-DRUM |

LEGEND

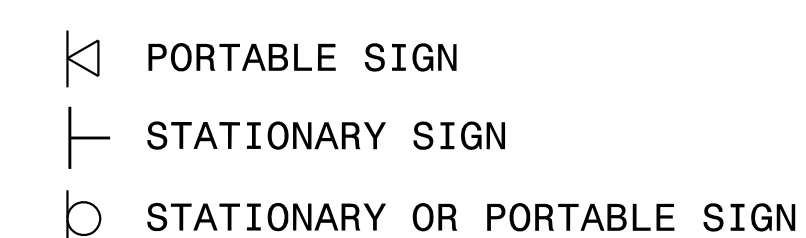
GENERAL



TRAFFIC CONTROL DEVICES



TEMPORARY SIGNING



PHASING

STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JANUARY 2012" AND USING THE FOLLOWING TMP SHEETS AS REQUIRED:

TMP-3 TMP-5 TMP-7 TMP-9
TMP-4 TMP-6 TMP-8 TMP-10

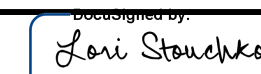

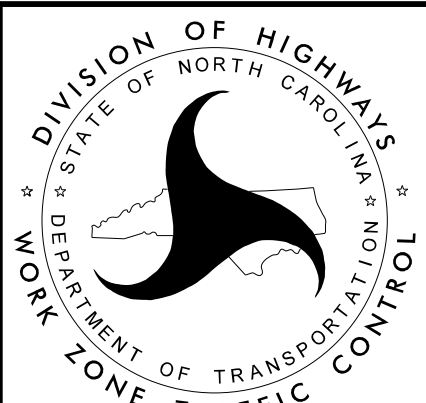
NOTE: COORDINATE THE CLOSURE OF RAMPS TO COMPLETE PROPOSED WORK OF BRIDGES OVER US 321 COLLECTORS IN SUCH A WAY THAT SUCH CLOSURE DOES NOT IMPEDE OR CONFLICT WITH DETOURS ASSOCIATED WITH RAMP CLOSURES REQUIRED IN THE TRANSPORTATION MANAGEMENT PLAN OF TIP BP-5500E.

NOTE: DO NOT INSTALL DETOURS SHOWN ON TMP-3 AND TMP-4 SIMULTANEOUSLY.

NOTE: INSTALL CHANGEABLE MESSAGE SIGNS IN ADVANCE OF THE PORTABLE WORK ZONE AS SHOWN IN THE TRANSPORTATION MANAGEMENT PLANS, OR AS DIRECTED BY THE ENGINEER, ONE WEEK PRIOR TO THE ROADWAY BEING CLOSED TO INFORM THE TRAVELING PUBLIC OF THE IMPENDING CLOSURE AND NIGHTLY STATUS.

NOTE: CONTRACTOR SHALL NOT PERFORM WORK FROM THE STRUCTURE.

STEP 2: UPON COMPLETION OF THE PROJECT, REMOVE ALL TRAFFIC CONTROL DEVICES.

| | | | |
|--|---|---|---|
| APPROVED:  <small>902CB01B918146C</small> DATE: 8/17/2015 SEAL |  |  | <h3>ROADWAY STANDARD DRAWINGS & LEGEND</h3> |
|--|---|---|---|

MANAGEMENT STRATEGIES

THE PROJECT WILL BE COMPLETED USING A COMBINATION OF LANE CLOSURES, AND RAMP CLOSURES.

GENERAL NOTES

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 UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

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

TIME RESTRICTIONS

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

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|----------------------------------|---|
| US 70 & SR 1484 (COUNTY HOME RD) | MONDAY THRU SUNDAY 6:00 A.M. - 8:00 P.M |
| US 321 S | MONDAY THRU SUNDAY 6:00 A.M. - 8:00 P.M. OR DURING US 321 S COLLECTOR RAMP DETOUR (TMP-4) |
| US 321 N | MONDAY THRU SUNDAY 6:00 A.M. - 8:00 P.M. OR DURING US 321 N COLLECTOR RAMP DETOUR (TMP-3) |

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

US 321, US 70 AND SR 1484 (COUNTY HOME RD)

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 8:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 8:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:00 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 8:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 8:00 P.M. TUESDAY.
 - FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 8:00 P.M. MONDAY.
 - FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- C) DO NOT CLOSE ROADS AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|--|--|
| I-40 W EXIT 123A TO US 321 S AND US 321 S EXIT 43A TO I-40 E (TMP-4) | MONDAY THRU SUNDAY 6:00 A.M - 8:00 P.M. |
| I-40 E EXIT 123B TO US 321 N AND US 321 N EXIT 43B TO I-40 W (TMP-3) | |

LANE AND SHOULDER CLOSURE REQUIREMENTS

- 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.
- 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.
- 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 USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- 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 USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

TRAFFIC PATTERN ALTERATIONS

- NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

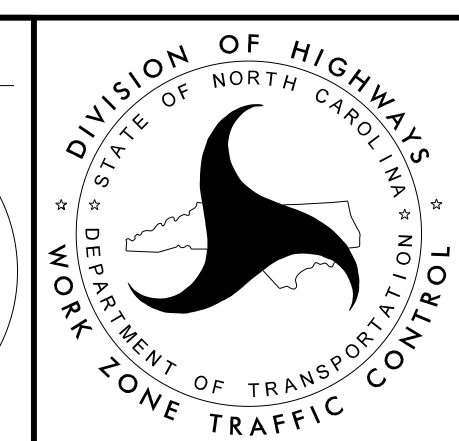
- WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

MISCELLANEOUS

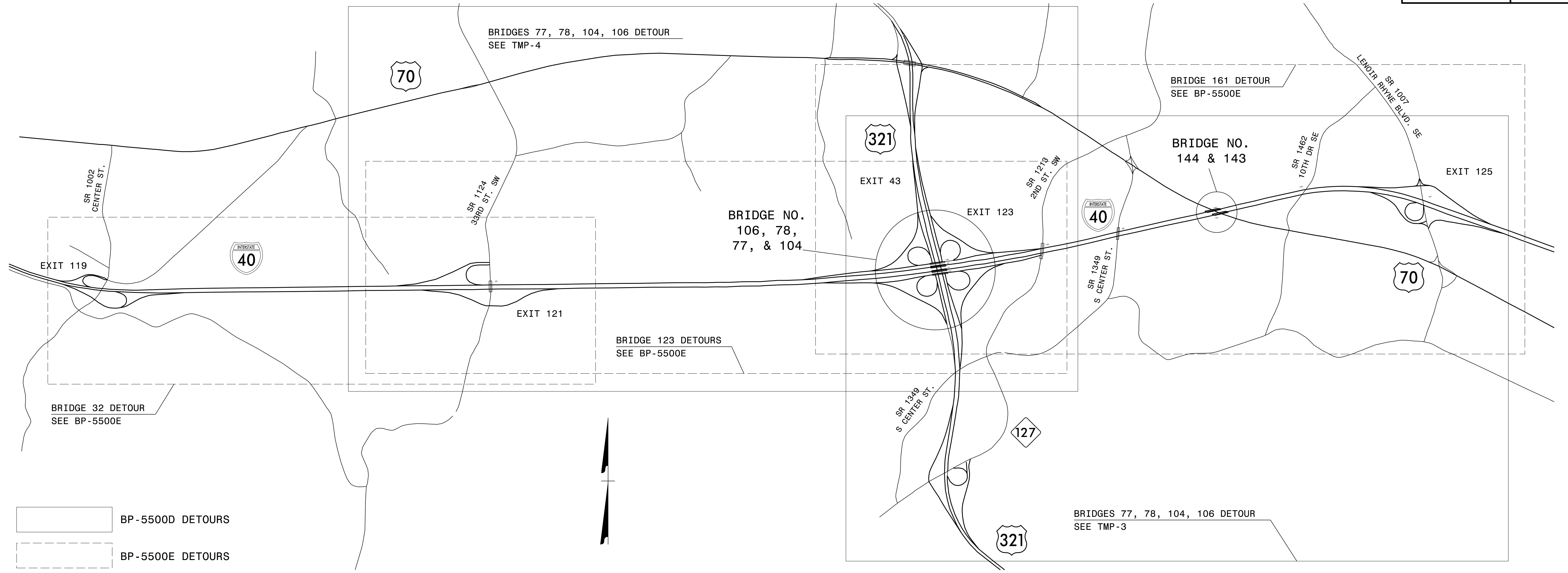
- LAW ENFORCEMENT SHALL BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

APPROVED: *Lori Stouchka*
2020010818140C

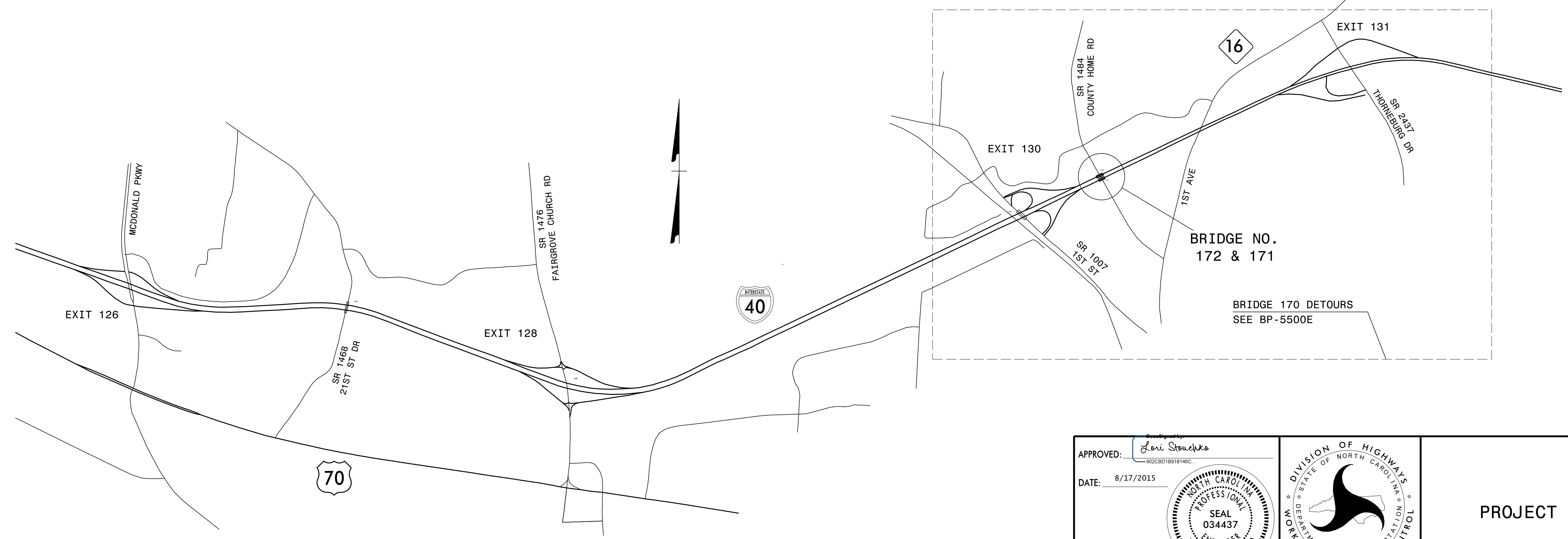
DATE: 8/17/2015



TRANSPORTATION OPERATIONS PLAN

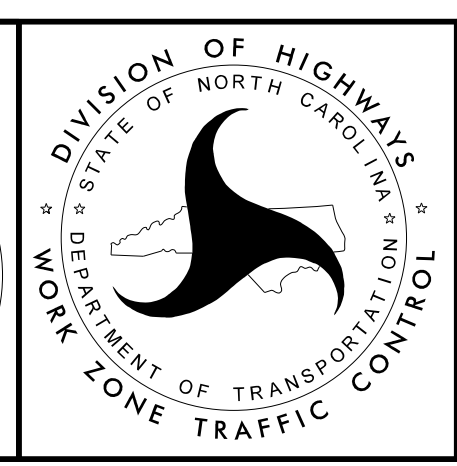


BP-5500D DETOURS
 BP-5500E DETOURS



APPROVED: *Lori Stouchka*
032CR018518140C

DATE: 8/17/2015



PROJECT OVERVIEW

| MESSAGE NO. 1 | MESSAGE NO. 2 |
|----------------------------|--------------------------|
| US 321 N USE EXIT 42 | US 321 N THIS EXIT |

CHANGEABLE MESSAGE SIGN
LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER.

1

| MESSAGE NO. 1 | MESSAGE NO. 2 |
|--------------------|---------------|
| US 321 N DETOUR | KEEP RIGHT |

CHANGEABLE MESSAGE SIGN
LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER.

2

| MESSAGE NO. 1 | MESSAGE NO. 2 |
|------------------|---------------|
| I 40 W DETOUR | KEEP RIGHT |

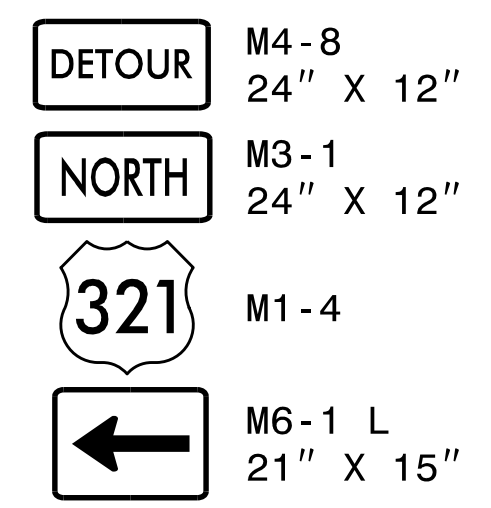
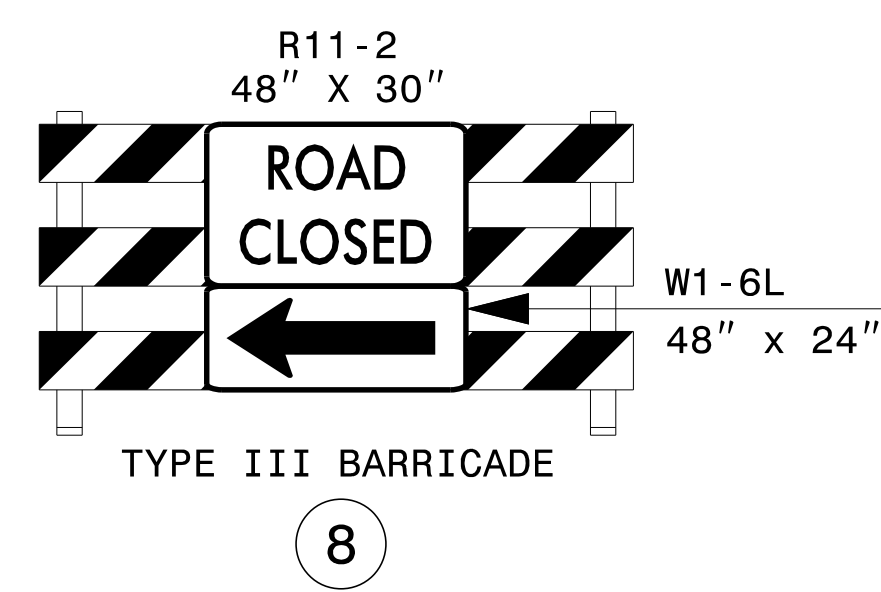
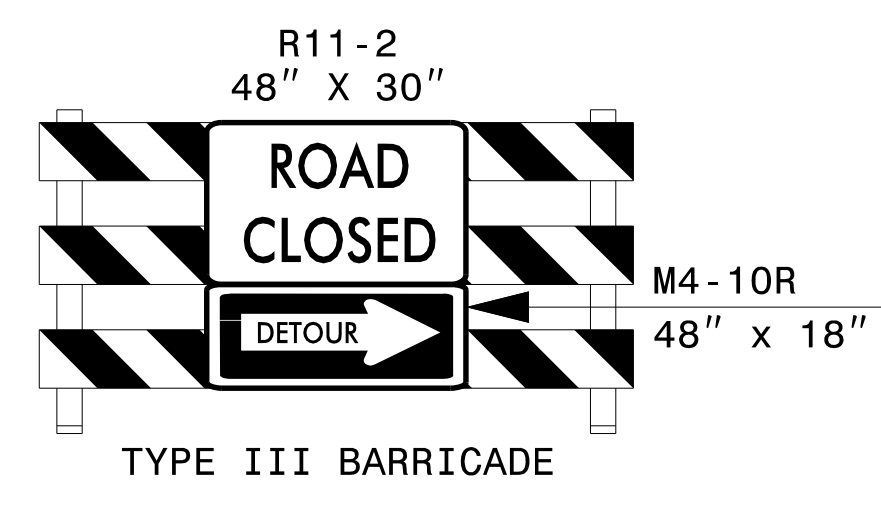
CHANGEABLE MESSAGE SIGN
LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER.

3

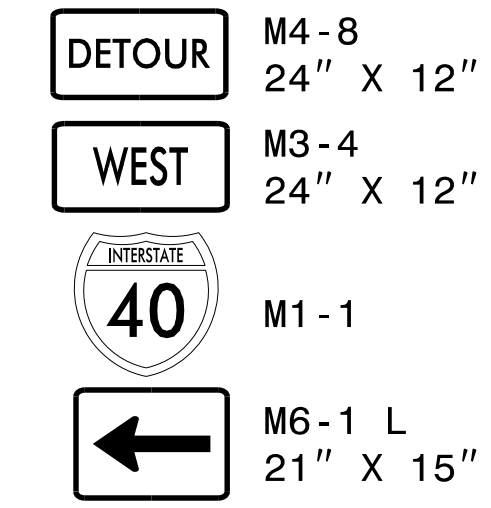
| MESSAGE NO. 1 | MESSAGE NO. 2 |
|---------------------------|------------------------|
| I 40 W USE EXIT 125 | I 40 W THIS EXIT |

CHANGEABLE MESSAGE SIGN
LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER.

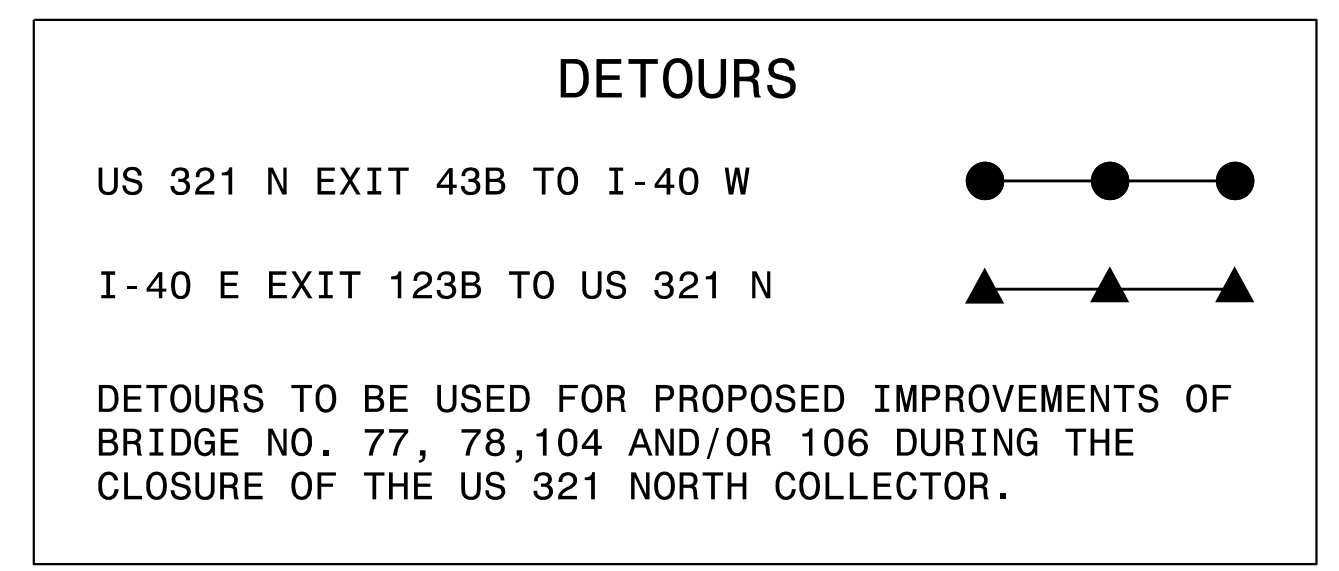
4



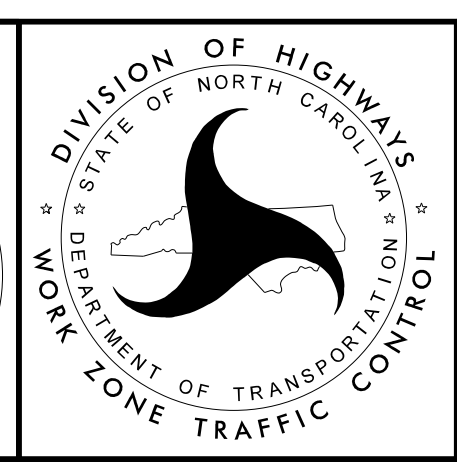
5



6



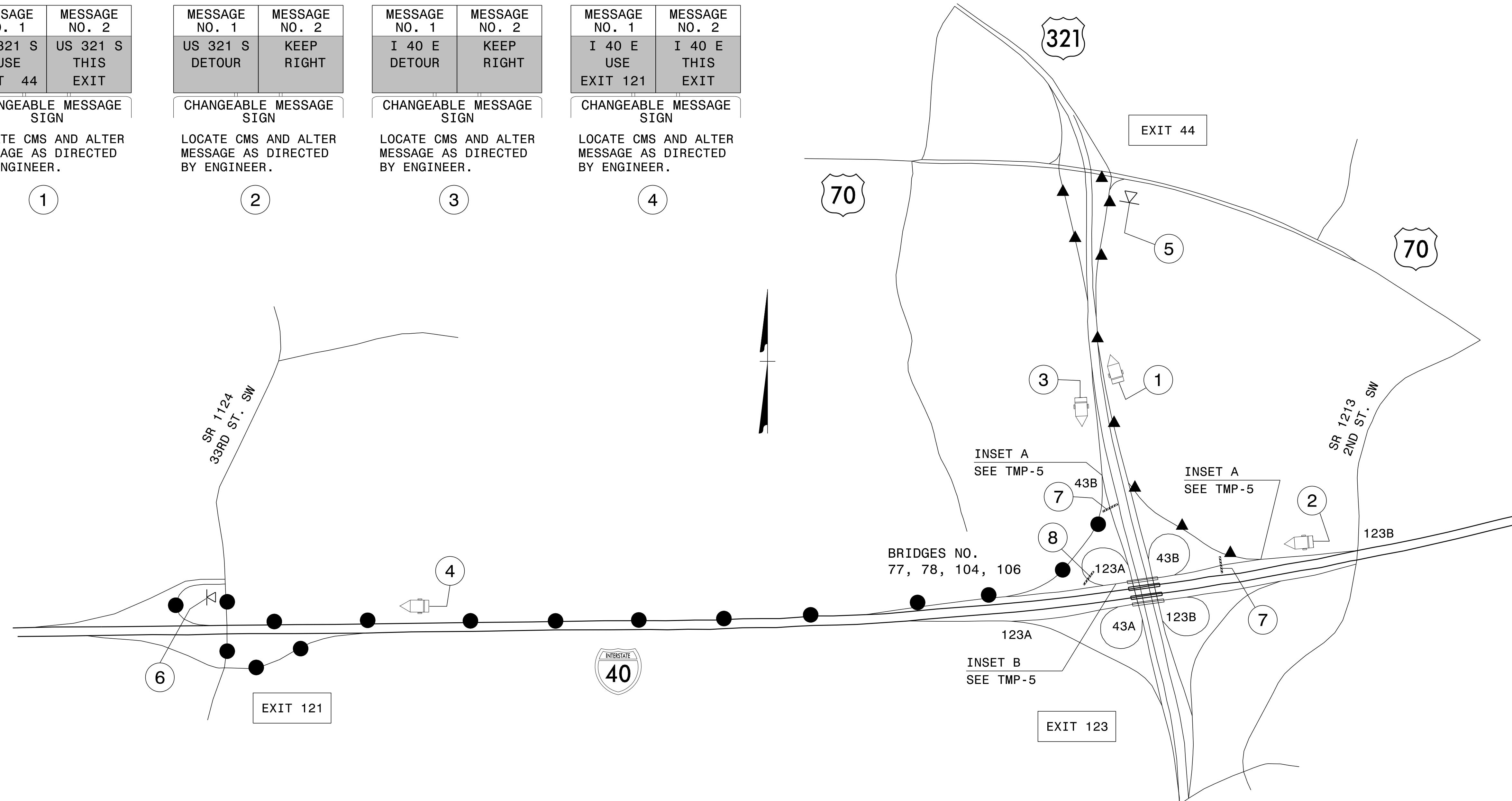
APPROVED: *Lori Stouchka*
DATE: 8/17/2015



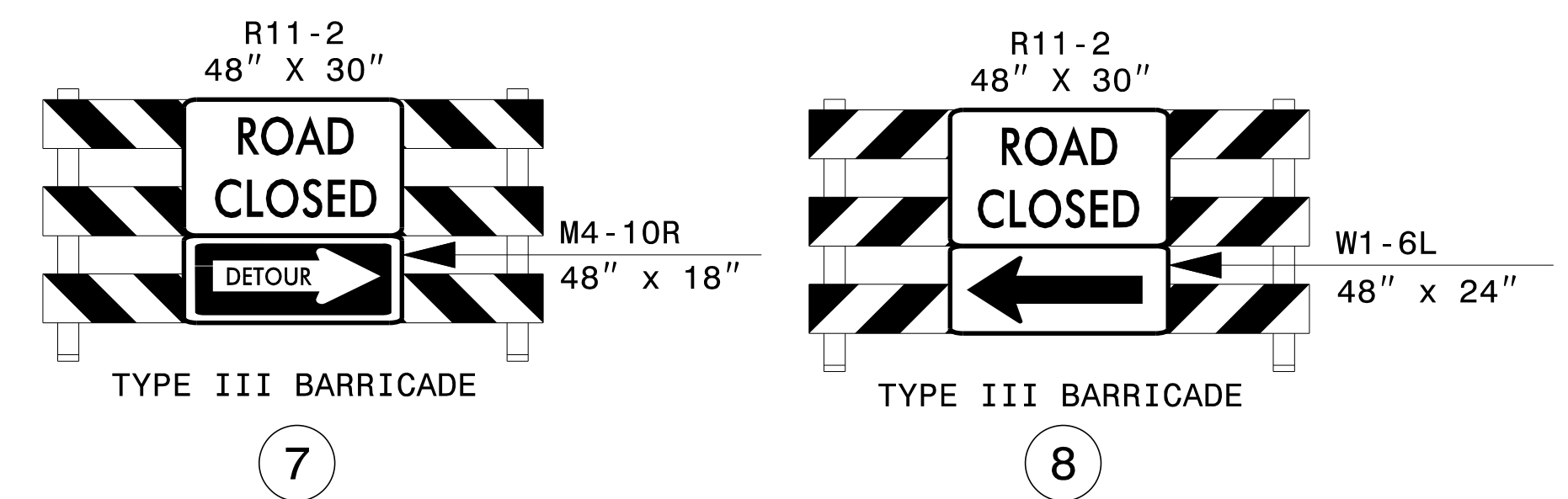
**BRIDGES NO. 77, 78,
104 & 106
DETOURS OF US 321 N
EXIT 43B & I-40 E
EXIT 123B**

8/17/2015 P:\TIP\Projects-BP\BP5500D\TrafficControl\TCP\BP-5500D_TC_TMP-03_bridg 77 detour US 321N.dgn User:idsfouchko

| | | | | | | | |
|---|---------------|---|---------------|---|---------------|---|---------------|
| MESSAGE NO. 1 | MESSAGE NO. 2 | MESSAGE NO. 1 | MESSAGE NO. 2 | MESSAGE NO. 1 | MESSAGE NO. 2 | MESSAGE NO. 1 | MESSAGE NO. 2 |
| US 321 S | US 321 S | US 321 S | KEEP RIGHT | I 40 E | KEEP RIGHT | I 40 E | I 40 E |
| USE EXIT 44 | USE THIS EXIT | DETOUR | RIGHT | DETOUR | RIGHT | USE EXIT 121 | USE THIS EXIT |
| CHANGEABLE MESSAGE SIGN | | CHANGEABLE MESSAGE SIGN | | CHANGEABLE MESSAGE SIGN | | CHANGEABLE MESSAGE SIGN | |
| LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER. | | LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER. | | LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER. | | LOCATE CMS AND ALTER MESSAGE AS DIRECTED BY ENGINEER. | |
| 1 | | 2 | | 3 | | 4 | |



| | | | |
|--------|---------------------|--------|---------------------|
| DETOUR | M4-8 24" X 12" | DETOUR | M4-8 24" X 12" |
| SOUTH | M3-3 24" X 12" | EAST | M3-2 24" X 12" |
| 321 | M1-4 | 40 | M1-1 |
| ← | M6-1 L 21" X 15" | → | M6-1 R 21" X 15" |
| 5 | | 6 | |



DETOURS

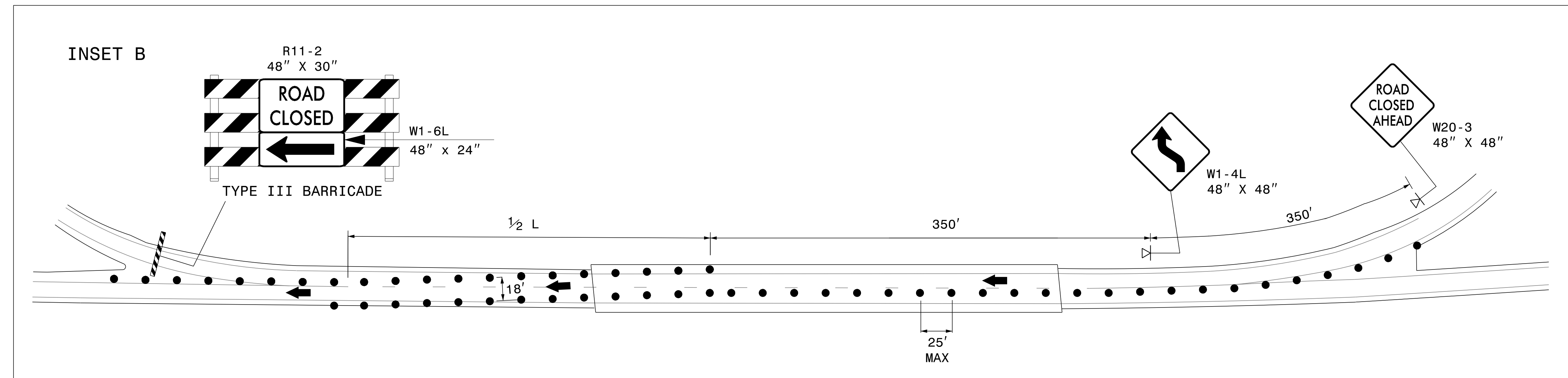
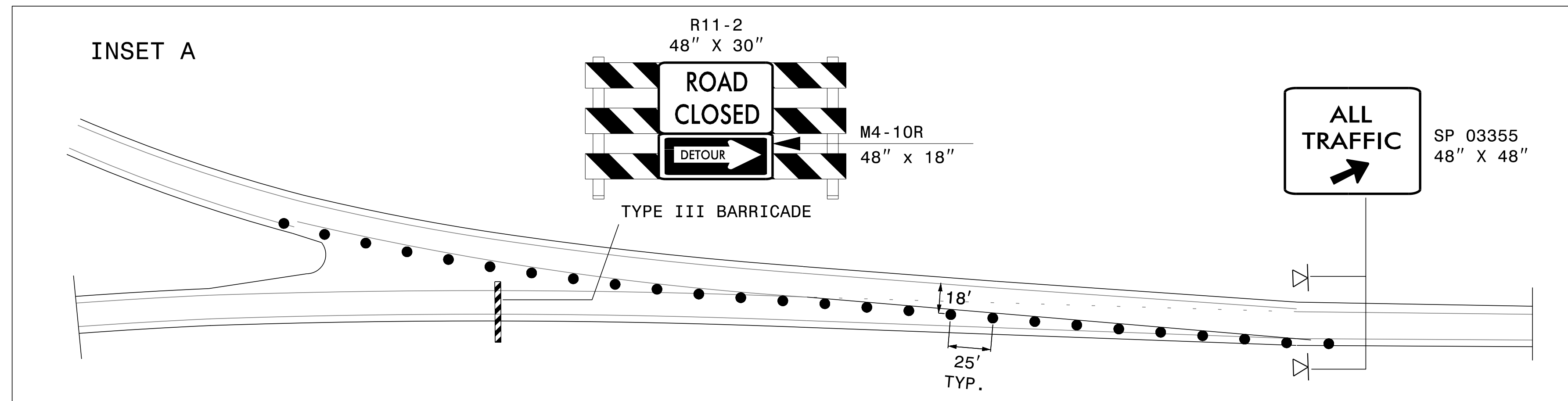
US 321 S EXIT 43A TO I-40 E

I-40 W EXIT 123A TO US 321 S

DETOURS TO BE USED FOR PROPOSED IMPROVEMENTS OF BRIDGE NO. 77, 78, 104 AND/OR 106 DURING THE CLOSURE OF THE US 321 SOUTH COLLECTOR.

| | | |
|---|--|--|
| APPROVED: <i>Lori Stouchka</i> DATE: 8/17/2015 | | BRIDGES NO. 77, 78, 104 & 106 DETOURS OF US 321 S EXIT 43A & I-40 W EXIT 123A |
|---|--|--|

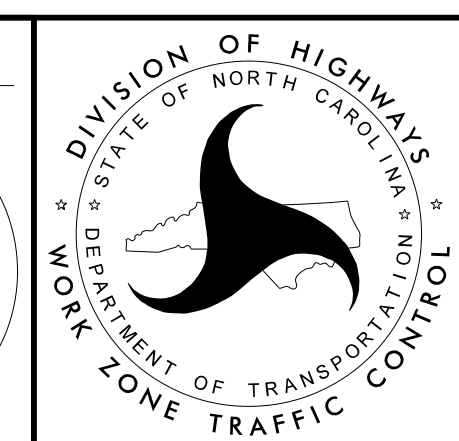
8/17/2015
 P:\TIP\Projects-BP\BP5500D\TrafficControl\TCP\BP-5500D_TC_TMP-04_bridg_77_detour_US_321_S.dgn
 User:idsfouchko



8/17/2015
 P:\TIP\Projects-BP\BP5500D\TrafficControl\TCP\BP-5500D_TC_TMP-05_DETOUR_INSETS.dgn
 User:idsfouchko

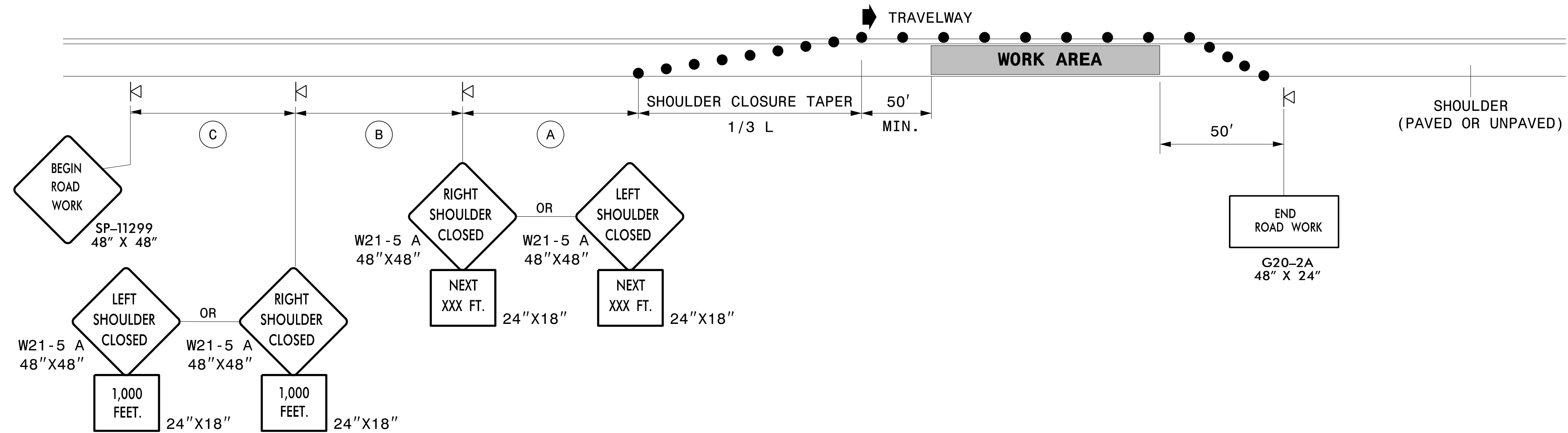
APPROVED: *Lori Stouckko*
032CR018818140C

DATE: 8/17/2015

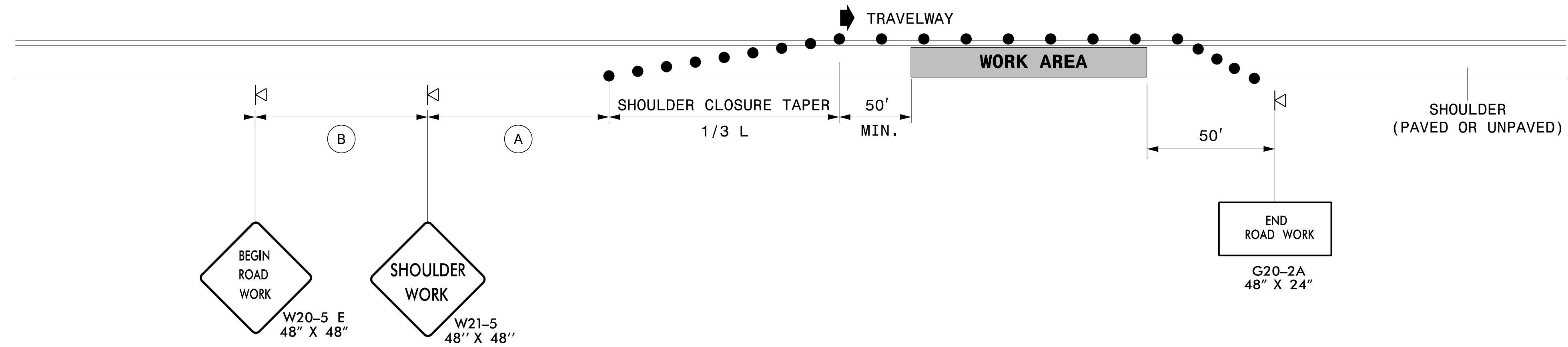


RAMP CLOSURE INSETS

SHOULDER CLOSURE ON DIVIDED FACILITIES - < 55 MPH



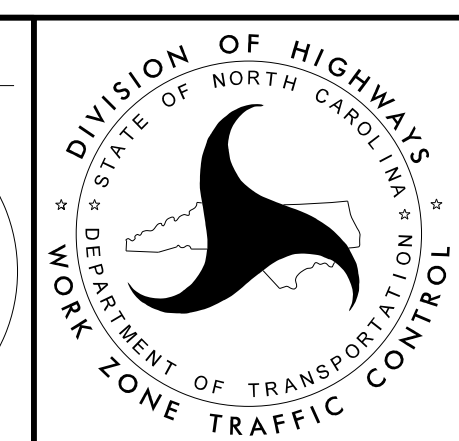
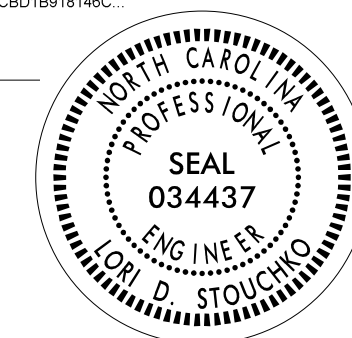
SHOULDER CLOSURE ON UNDIVIDED ROADWAYS



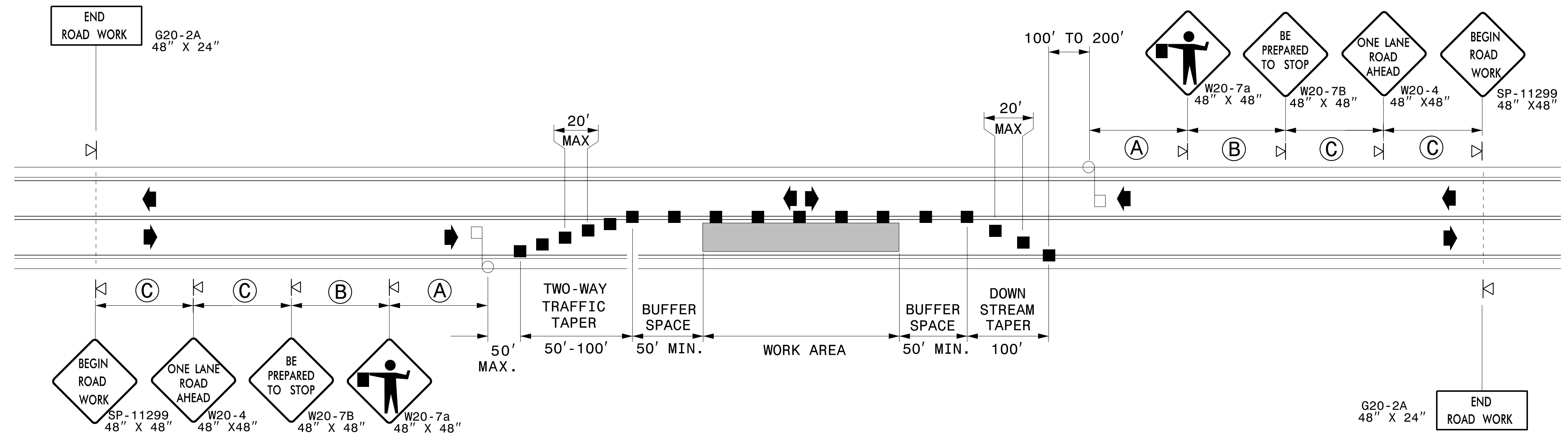
NOTES

- PLACE SHOULDER CLOSED SIGNS ON THE SAME SIDE AS THE SHOULDER THAT IS CLOSED.
- PLACE DRUMS IN THE SHOULDER TAPER AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. THE MAXIMUM SPACING OF DRUMS ALONG THE WORK AREA IS EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- REFER TO STD. 1101.11 SHEET 1 FOR "L" DISTANCE.
- REFER TO STD. 1101.11 SHEET 4 FOR SIGN SPACING.

APPROVED: *Lori Stouchka*
0320018518140C
 DATE: 8/17/2015



TEMPORARY SHOULDER CLOSURES

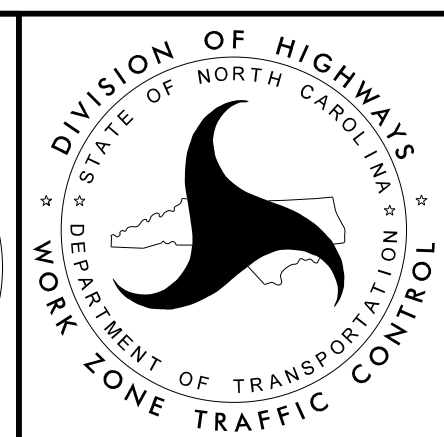


NOTES

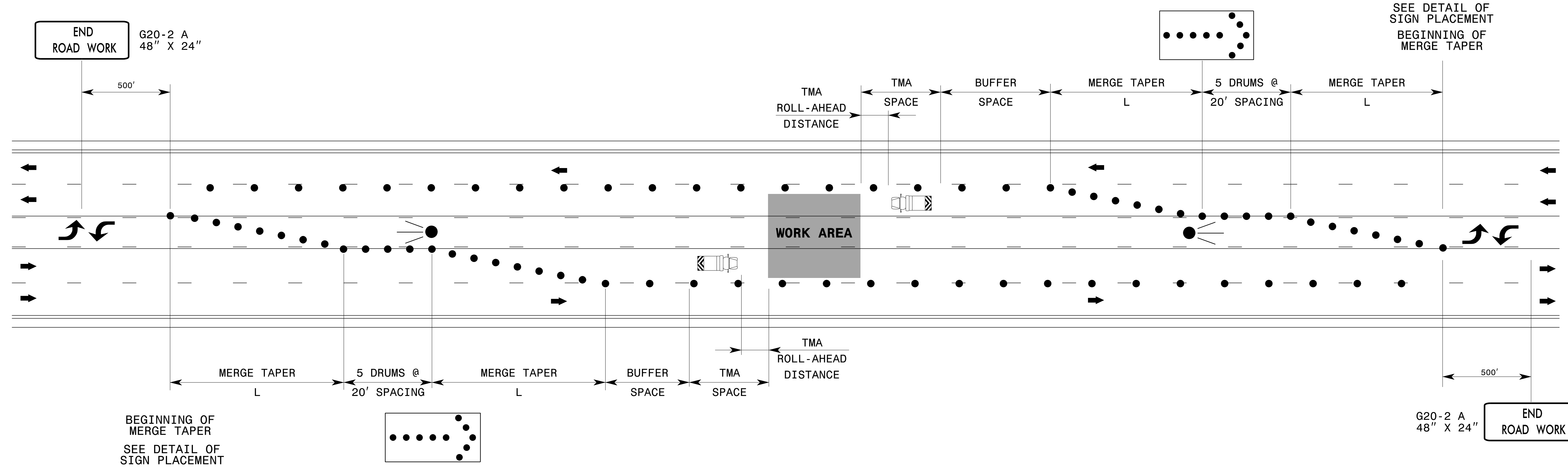
- REFER TO STD. DWG. 1101.11-SHEET 4, FOR SIGN SPACING.
- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- PLACE CONES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER. (REFER TO STD. DWG. 1101.11-SHEET 2).
- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. ACCOMPANY FLAGGERS UTILIZED AT INTERSECTIONS WITH FLAGGER AHEAD SIGNS (W20-7a) PLACED APPROXIMATELY 250 FT. IN ADVANCE OF THE FLAGGER. WHERE INTERSECTIONS ARE SIGNALIZED, PLACE SIGNALS IN THE FLASH MODE.

8/17/2015
 P:\TIP\Projects-BP\BP5500D\TrafficControl\TCP\BP-5500D_TC_TMP-07 Flaggng Lane Closure.dgn
 User:idsfouchko

APPROVED: *Lori Stouchko*
032C8D18818146C
 DATE: 8/17/2015

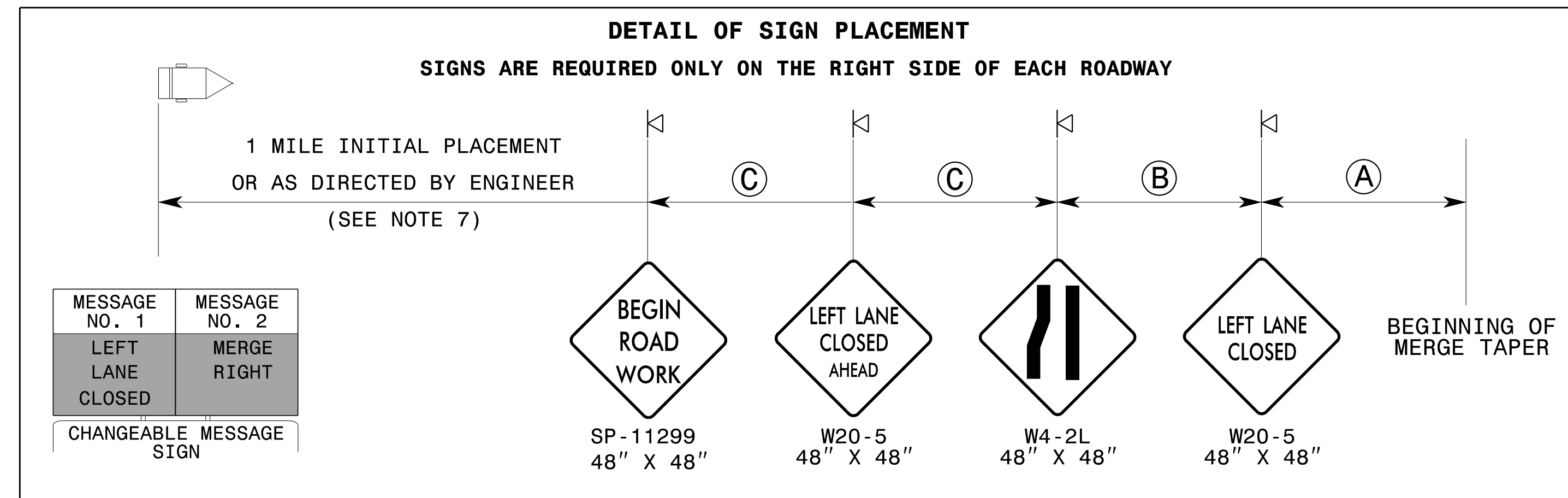


TEMPORARY LANE CLOSURES
 2-LANE, 2-WAY
 ROADWAY-1 LANE CLOSED



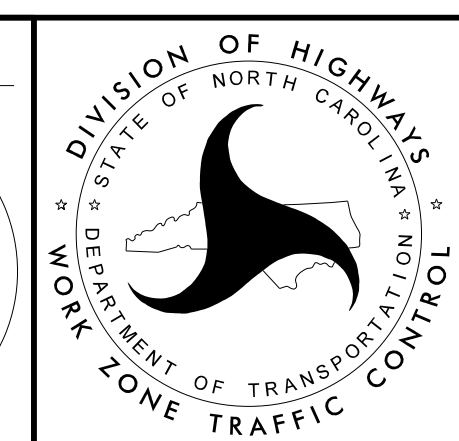
NOTES

- 1- RIGHT LANE CLOSURES ON UNDIVIDED ROADWAYS ARE THE SAME AS FOR DIVIDED ROADWAYS AS SHOWN ON TMP ---, WITH THE EXCEPTION THAT THE APPROACH WARNING SIGNS ARE NOT REQUIRED TO BE MOUNTED ON THE LEFT SIDE OF THE ROADWAY.
- 2- PLACE ARROW BOARDS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW BOARDS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW BOARD LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW BOARD IS MET (SEE STD. 1101.11 SHEET 2).
- 3- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 4- REFER TO STD. 1101.11 FOR "L" DISTANCE, SIGN SPACING, AND BUFFER SPACE.
- 5- 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.
- 6- POSITION THE TMA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER AND CONTINUOUSLY ADVANCE TMA'S AS WORK PROGRESSES.
- 7- PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS APPROXIMATELY 1 MILE IN ADVANCE OF THE W20-5 SIGNS OR AS DIRECTED BY ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC, MOVE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP.
- 8- DURING EMERGENCY SITUATIONS, ADJUSTMENTS TO THIS STANDARD MAY BE NECESSARY TO ACCOMMODATE THE ACTIVE SCENE BEING WORKED BY LAW ENFORCEMENT, TOWING SERVICES, AND OTHER EMERGENCY SERVICES PERSONNEL.

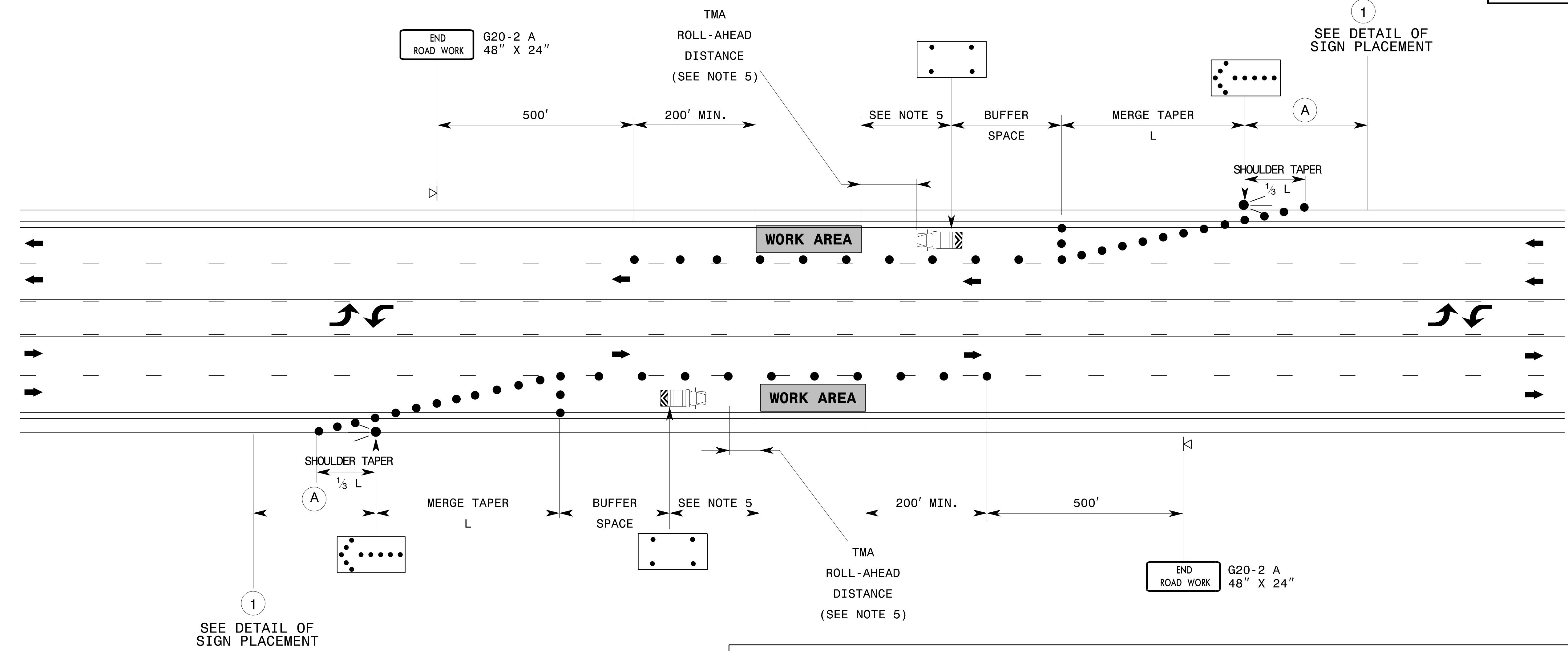


APPROVED: *Lori Stouchka*
DATE: 8/17/2015

PROFESSIONAL SEAL
034437
ENGINEER
LORI D. STOUCHKA



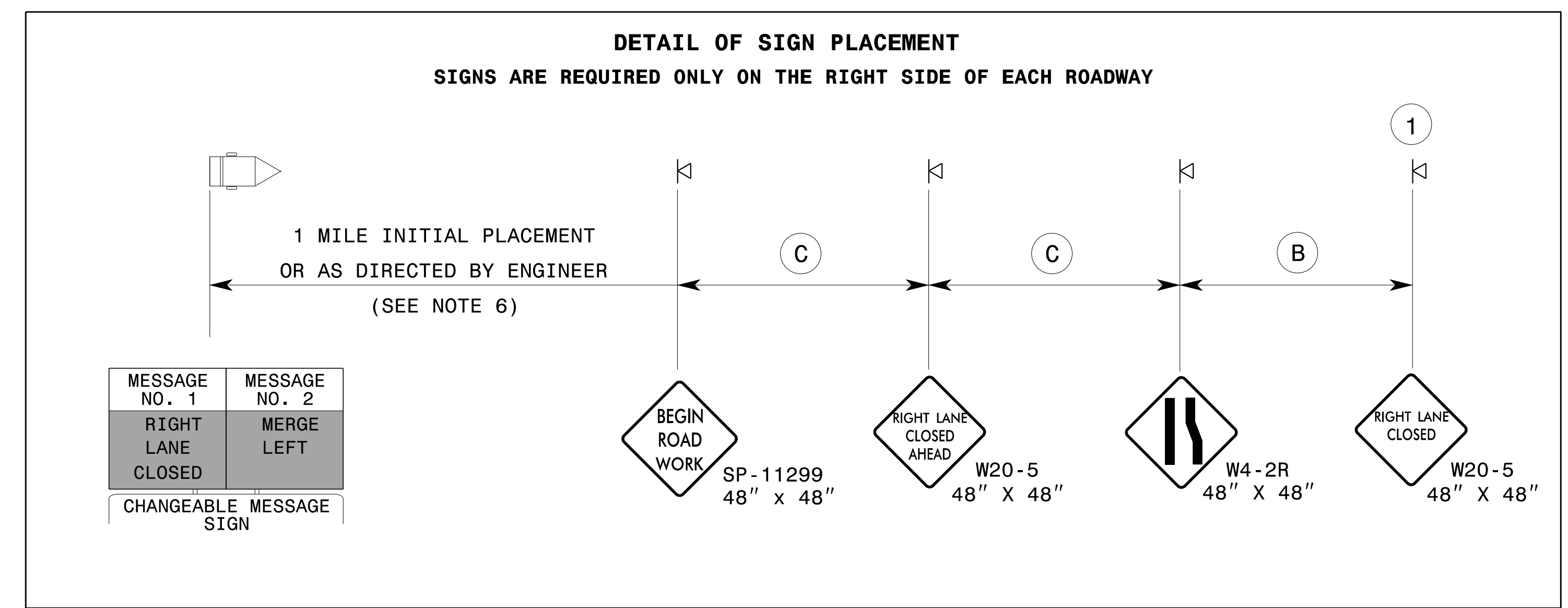
**TEMPORARY LANE CLOSURES
UNDIVIDED MULTI-LANE
ROADWAY CENTER LANES
CLOSED**



1
SEE DETAIL OF SIGN PLACEMENT

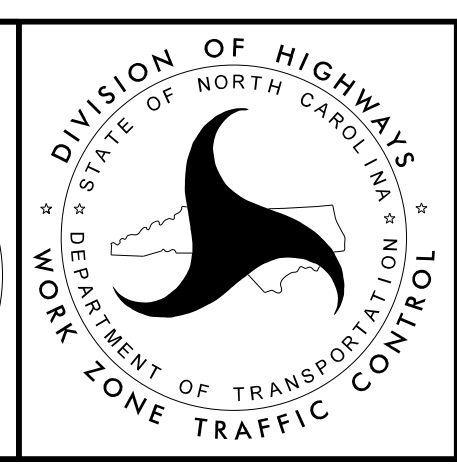
NOTES

- 1- PLACE ARROW BOARDS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW BOARDS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW BOARD LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW BOARD IS MET (SEE STD. 1101.11 SHEET 2).
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- REFER TO STD. 1101.11 FOR "L" DISTANCE, SIGN SPACING, AND BUFFER SPACE.
- 4- 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.
- 5- POSITION THE TMA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER AND CONTINUOUSLY ADVANCE TMA'S AS WORK PROGRESSES.
- 6- PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS APPROXIMATELY 1 MILE IN ADVANCE OF THE W20-5 SIGNS OR AS DIRECTED BY ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC, MOVE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP.
- 7- DURING EMERGENCY SITUATIONS, ADJUSTMENTS TO THIS STANDARD MAY BE NECESSARY TO ACCOMMODATE THE ACTIVE SCENE BEING WORKED BY LAW ENFORCEMENT, TOWING SERVICES, AND OTHER EMERGENCY SERVICES PERSONNEL.



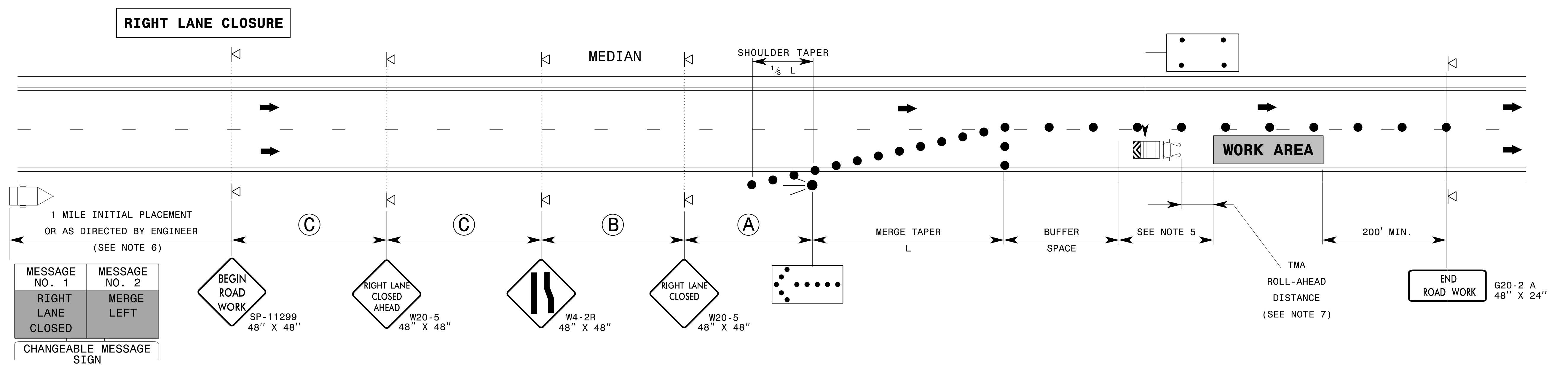
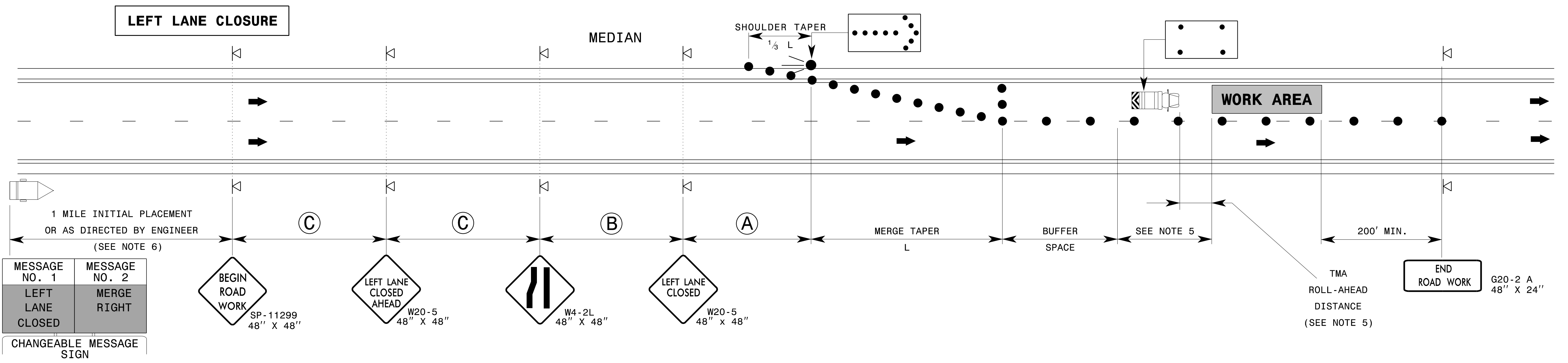
APPROVED: *Lori Stouchka*
DATE: 8/17/2015

PROFESSIONAL SEAL
034437
ENGINEER
LORI D. STOUCHKA



TEMPORARY LANE CLOSURES
UNDIVIDED MULTI-LANE
ROADWAY OUTER LANES
CLOSED < 60 MPH

8/17/2015 P:\TIP\Projects-BP\BP5500D\TrafficControl\TCP\BP-5500D_TC_TMP-09_5 Lane Closure outside lanes.dgn User:idsfouchko



NOTES

- 1- PLACE ARROW BOARDS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW BOARDS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW BOARD LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW BOARD IS MET (SEE STD. 1101.11 SHEET 2).
- 2- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- REFER TO STD. 1101.11 FOR "L" DISTANCE, SIGN SPACING, AND BUFFER SPACE.
- 4- 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.
- 5- POSITION THE TMA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER AND CONTINUOUSLY ADVANCE TMA'S AS WORK PROGRESSES.
- 6- PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS APPROXIMATELY 1 MILE IN ADVANCE OF THE W20-5 SIGNS, OR AS DIRECTED BY ENGINEER IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED. RELOCATE CMS 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC, MOVE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP.
- 7- DURING EMERGENCY SITUATIONS, ADJUSTMENTS TO THIS STANDARD MAY BE NECESSARY TO ACCOMMODATE THE ACTIVE SCENE BEING WORKED BY LAW ENFORCEMENT, TOWING SERVICES, AND OTHER EMERGENCY SERVICES PERSONNEL.

8/17/2015 P:\TIP\Projects-BP\BP5500D\TrafficControl\TCP\BP-5500D_TC_TMP-10 Divided Lane Closure Under 60.dgn User:idsfouchko

| | | |
|---|--|---|
| APPROVED: <i>Lori Stouchko</i> DATE: 8/17/2015 | | <p>TEMPORARY LANE CLOSURES</p> <p>DIVIDED MULTI-LANE ROADWAY</p> <p>1 LANE CLOSED</p> <p>(FOR ROADWAYS < 60 MPH)</p> |
|---|--|---|