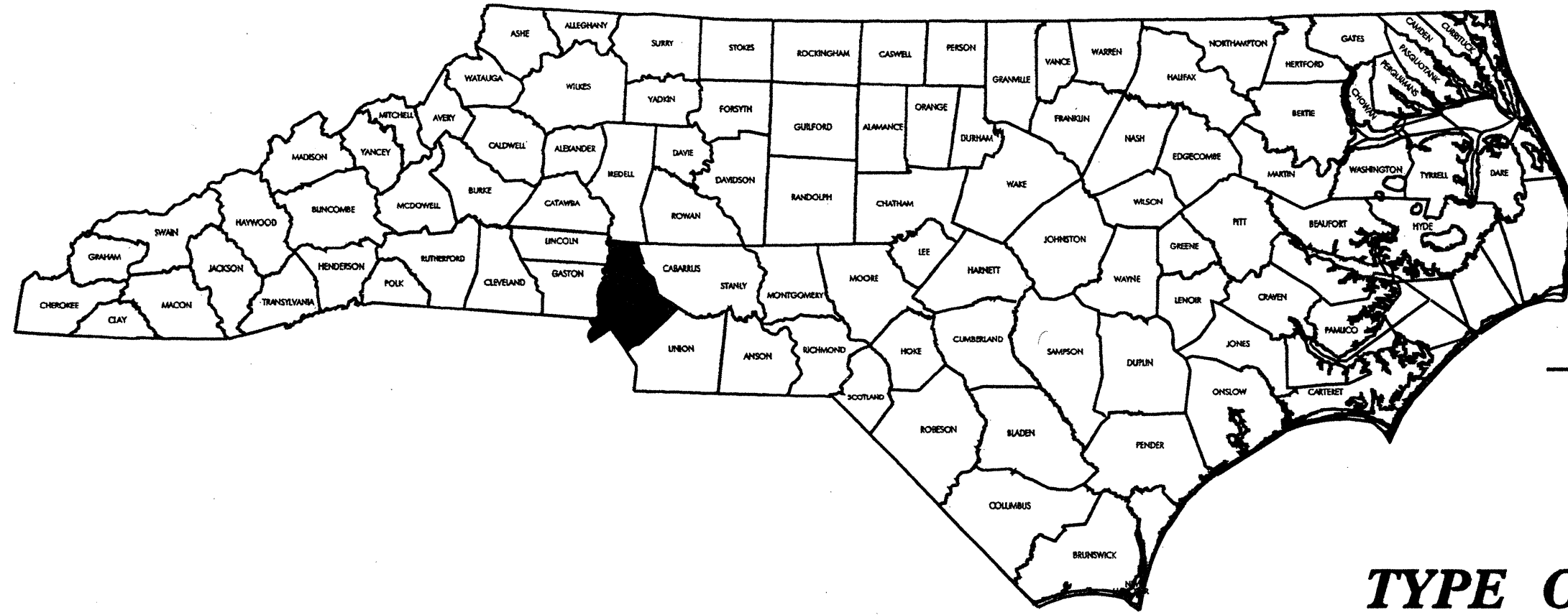


**TIP PROJECT: B-4700AU**

**CONTRACT NO. C202567**

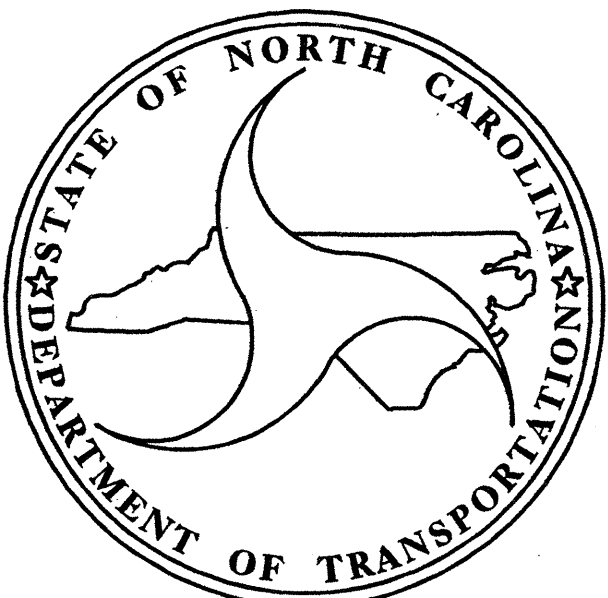
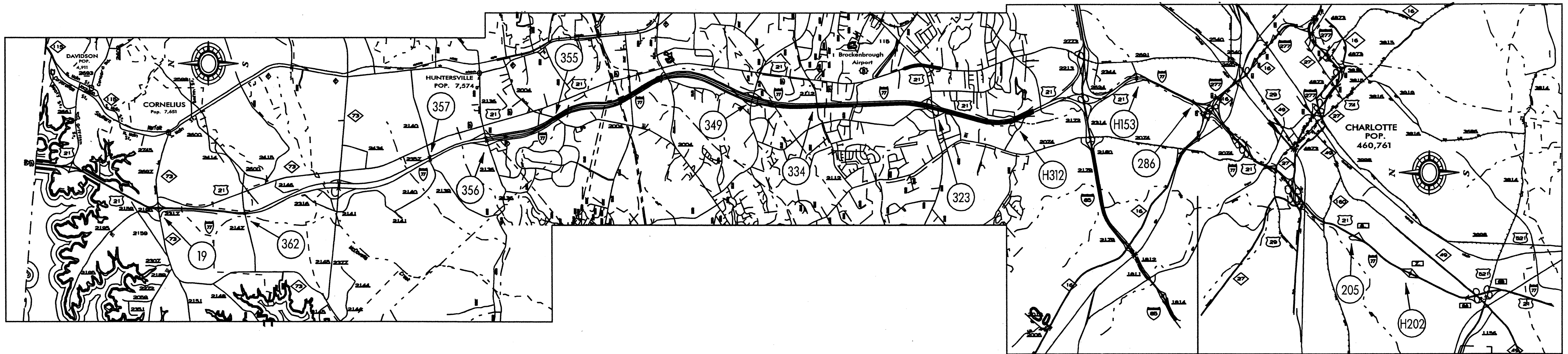


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**MECKLENBURG COUNTY**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4700AU	1	1
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
36727.1.1	BRNHS-000S(504)	P.E.	
36727.3.41	BRNHS-000S(370)	CONST	

**LOCATION: I-77**  
**TYPE OF WORK: BRIDGE PRESERVATION: CLEANING AND PAINTING OF EXISTING STRUCTURES. TRAFFIC CONTROL.**  
**BRIDGES #202, #205, #286, #153, #312, #323, #334, #349 #355, #356, #357, #362 AND #19 IN MECKLENBURG COUNTY.**



**DESIGN DATA**

**PROJECT LENGTH**

LENGTH STRUCTURE PROJECT = 9.00 MILE

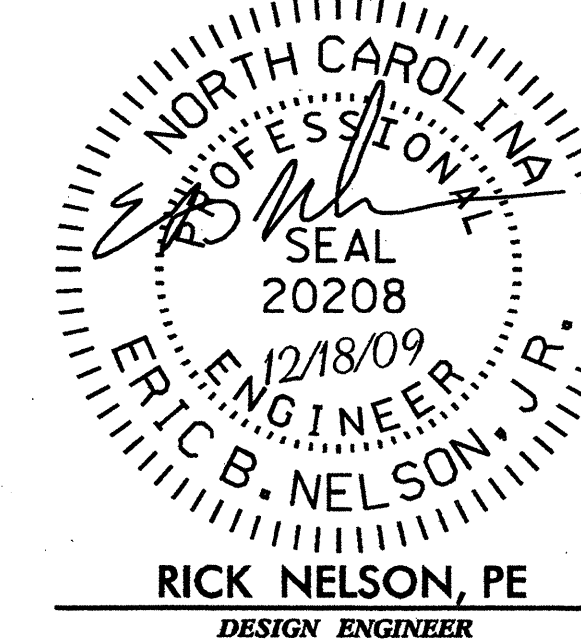
Prepared in the Office of:  
**BRIDGE MANAGEMENT UNIT**  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

LETTING DATE:  
 MARCH 16, 2010

DAN HOLDERMAN, PE  
STATE BRIDGE  
 MANAGEMENT ENGINEER

MIKE SUMMERS  
BRIDGE MANAGEMENT  
 PROJECT MANAGER



RICK NELSON, PE  
DESIGN ENGINEER

**TIP PROJECT: B-4700AU**

**CONTRACT NO. C202567**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

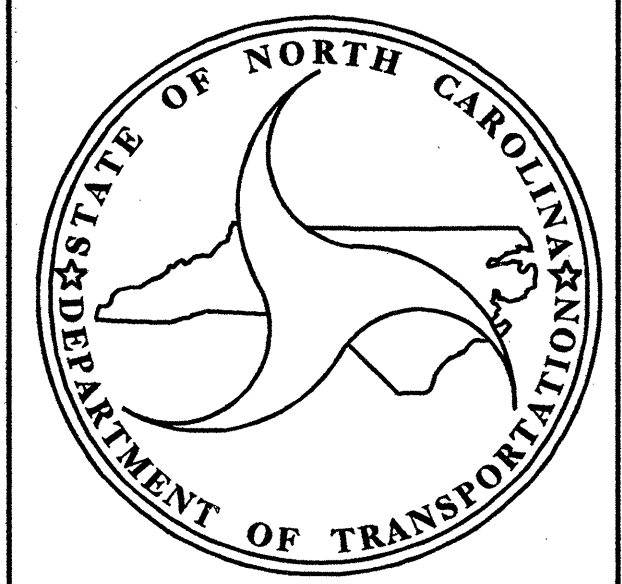
**MECKLENBURG COUNTY**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
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STATE PROJECT NO.	F.A. PROJ. NO.	DESCRIPTION	
36727.1.1	BRNHS-000S(604)	PE	
36727.3.41	BRNHS-000S(370)	CONSTR	

**LOCATION: I-77**  
**TYPE OF WORK: BRIDGE PRESERVATION: CLEANING AND PAINTING OF EXISTING STRUCTURES. TRAFFIC CONTROL.**  
**BRIDGES #202, #205, #286, #153, #312, #323, #334, #349 #355, #356, #357, #362 AND #19 IN MECKLENBURG COUNTY.**

INDEX OF SHEETS

1	TITLE SHEET
1A	INDEX OF SHEET
2	SUMMARY OF QUANTITIES
TCP-1 THRU TCP-21B	TRAFFIC CONTROL PLANS



*Prepared in the Office of:*  
**BRIDGE MANAGEMENT UNIT**  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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2006 STANDARD SPECIFICATIONS

<p><b>LETTING DATE:</b> <b>MARCH 16, 2010</b></p>	<p><b>DAN HOLDERMAN, PE</b> <small>STATE BRIDGE MANAGEMENT ENGINEER</small></p>
---	---

**MIKE SUMMERS**  
BRIDGE MANAGEMENT  
PROJECT MANAGER

**RICK NELSON, PE**  
DESIGN ENGINEER



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.	SHEET NO.
B - 4 7 0 0 A U	TCP-1

**PLAN FOR PROPOSED  
TRAFFIC CONTROL, MARKING & DELINEATION  
MECKLENBURG COUNTY**

**ROADWAY STANDARD DRAWINGS**

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION-RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUMS
1145.01	BARRICADES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1180.01	SKINNY DRUMS

**INDEX OF SHEETS**

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-2	GENERAL NOTES
TCP-3 & TCP-4	PLAN OVERVIEWS
TCP-5 & TCP-6	THESE SHEETS INTENTIONALLY LEFT BLANK
TCP-7A THRU TCP-7D	BRIDGE #H202 (CLANTON RD.)
TCP-8A THRU TCP-8D	BRIDGE #H205 (REMOUNT AVE.)
TCP-9A THRU TCP-9M	BRIDGE #H286 (OAKLAWN AVE.)
TCP-10A THRU TCP-10H	BRIDGE #H153 (LASALLE ST.)
TCP-11A THRU TCP-11G	BRIDGE #H312 (SR 2169/CINDY LN.)
TCP-12A THRU TCP-12H	BRIDGE #323 (US 21/SUNSET RD.)
TCP-13A THRU TCP-13D	BRIDGE #334 (SR 2485/2112/LAKEVIEW RD.)
TCP-14A THRU TCP-14D	BRIDGE #355 (SR 2004/MT. HOLLY-HUNTERSVILLE RD.)
TCP-15A THRU TCP-15C	BRIDGE #356 (SR 2136/GILEAD RD.)
TCP-16A THRU TCP-16C	BRIDGE #357 (SR 2140/STUMPTOWN RD.)
TCP-17A THRU TCP-17C	BRIDGE #362 (SR 2147/WESTMORELAND RD.)
TCP-18A THRU TCP-18D	BRIDGE #19 (US 21/CATAWBA AVE.)
TCP-19A THRU TCP-19K	BRIDGE #349 (WEST W.T. HARRIS BLVD.)
TCP-20	SHOULDER CLOSURE
TCP-21A THRU TCP-21B	SPECIAL SIGN DETAILS

**LEGEND**

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - NORTH ARROW
- TRAFFIC CONTROL DEVICES**
- TYPE III BARRICADE
  - DRUM
  - FLASHING ARROW PANEL (TYPE C)
  - STATIONARY SIGN
  - PORTABLE SIGN
  - CHANGEABLE MESSAGE SIGN
  - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

PROJECT: B-4700AU

PROJECT: B-4700AU

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APPROVED: DATE:	PLAN PREPARED BY: N.C.D.O.T. WORK ZONE TRAFFIC CONTROL UNIT
SEAL	J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
	G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER
	JESSE GILSTRAP TRAFFIC CONTROL PROJECT DESIGN ENGINEER
	SHEENA GREEN TRAFFIC CONTROL DESIGN ENGINEER

# GENERAL NOTES

PROJ. REFERENCE NO. B-4700AU	SHEET NO. TCP-2
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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 AS DIRECTED BY THE ENGINEER.

### TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
1. ONE LANE ON I-77, SOUTH OF THE I-85 & I-77 INTERCHANGE	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 10:00AM TO 9:00PM
2. TWO OR MORE LANES ON I-77, SOUTH OF THE I-85 & I-77 INTERCHANGE	MONDAY TO FRIDAY, 6:00AM TO 11:00PM SATURDAY & SUNDAY, 10:00AM TO 11:00PM
3. ONE LANE ON I-77, NORTH OF THE I-85 & I-77 INTERCHANGE	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 9:00AM TO 9:00PM
4. TWO OR MORE LANES ON I-77, NORTH OF THE I-85 & I-77 INTERCHANGE	MONDAY TO FRIDAY, 6:00AM TO 11:00PM SATURDAY & SUNDAY, 9:00AM TO 11:00PM

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

ROAD NAME	HOLIDAY
1. I-77 AND ASSOCIATED RAMPS & LOOPS	
	<p>1. FOR ANY EVENT WHICH CREATES HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.</p> <p>2. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY TO 9:00PM TUESDAY.</p> <p>3. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00AM THE DAY BEFORE INDEPENDENCE DAY AND 9:00PM THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A SATURDAY OR SUNDAY, THEN BETWEEN THE HOURS OF 6:00AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00PM THE TUESDAY AFTER INDEPENDENCE DAY.</p> <p>4. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00AM FRIDAY TO 9:00PM TUESDAY.</p> <p>5. FOR THANKSGIVING, BETWEEN THE HOURS OF 6:00AM TUESDAY TO 9:00PM MONDAY.</p> <p>6. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00PM THE FOLLOWING MONDAY AFTER THE WEEK OF CHRISTMAS.</p> <p>7. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00AM DECEMBER 31TH TO 9:00PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A SATURDAY OR A SUNDAY, THEN UNTIL 9:00PM THE FOLLOWING TUESDAY.</p> <p>8. FOR EASTER, BETWEEN THE HOURS OF 6:00AM THURSDAY AND 9:00PM MONDAY.</p> <p>9. FOR ANY NASCAR EVENT AT THE LOWES MOTOR SPEEDWAY, BETWEEN THE HOURS OF 6:00AM THE THURSDAY BEFORE THE WEEK OF THE EVENT UNTIL 9:00PM THE FOLLOWING MONDAY AFTER THE RACE.</p> <p>10. FOR ANY CAROLINA PANTHERS FOOTBALL GAME IN CHARLOTTE AND ANY GAMES AT THE BOBCATS ARENA, FOR THREE HOURS BEFORE THE GAME UNTIL 3 HOURS AFTER THE GAME.</p> <p>11. FOR ANY EVENT AT 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.</p>

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. I-77	ANYTIME
2. CLANTON RD.	ANYTIME
3. REMOUNT RD.	ANYTIME
4. OAKLAWN AVE.	ANYTIME

C) DO NOT CLOSE ROADS AS FOLLOWS: (CONT.)

ROAD NAME	DAY AND TIME RESTRICTIONS
5. ON-RAMP FROM I-277 NB TO I-77 NB, SOUTH OF OAKLAWN AVE. & ON-RAMP FROM LASALLE ST. TO I-77 SB.	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 10:00AM TO 9:00PM
6. LASALLE ST.	ANYTIME
7. ON-RAMP FROM I-85 NB TO I-77 SB, NORTH OF LASALLE ST.	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 10:00AM TO 9:00PM
8. SR 2169/CINDY LN.	ANYTIME
9. ON-RAMP FROM I-85 NB TO I-77 NB, SOUTH OF CINDY LN.	MONDAY TO FRIDAY, 6:00AM TO 11:00PM SATURDAY & SUNDAY, 9:00AM TO 11:00PM
10. US 21/SUNSET RD.	ANYTIME
11. US 21/SUNSET RD. LOOPS.	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 9:00AM TO 9:00PM
12. SR 2485/SR 2112/LAKEVIEW RD.	ANYTIME
13. SR 2004/ MT. HOLLY-HUNTERSVILLE RD	ANYTIME
14. SR 2136/GILEAD RD.	ANYTIME
15. SR 2140/STUMPTOWN RD.	ANYTIME
16. SR 2147/WESTORELAND RD.	ANYTIME
17. US 21/CATAWBA AVE.	ANYTIME
18. WEST W.T. HARRIS BLVD.	ANYTIME
19. WEST W.T. HARRIS BLVD. LOOPS	MONDAY TO FRIDAY, 6:00AM TO 9:00PM SATURDAY & SUNDAY, 9:00AM TO 9:00PM

D) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. ALL ROADS AND RAMPS & LOOPS	ANYTIME

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR OTHERWISE DIRECTED BY THE ENGINEER.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- 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.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING SHEET TCP-20 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.

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.

I) 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 OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

### LANE AND SHOULDER CLOSURE REQUIREMENTS (CONT.)

- J) 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.
- K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON I-77.

### TRAFFIC PATTERN ALTERATIONS

L) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

### SIGNING

- M) PROVIDE DETOUR SIGNING WITH IN AND OFF THE PROJECT LIMITS.
- N) COVER OR REMOVE ALL DETOUR SIGNS WITH IN AND OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

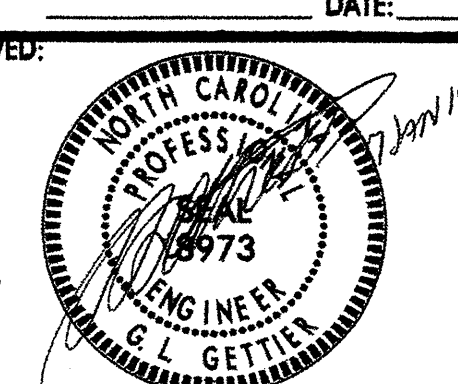
### TRAFFIC CONTROL DEVICES

- P) 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, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- Q) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- R) PLACE SETS OF THREE CHANNELIZING DEVICES (DRUMS OR SKINNY DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

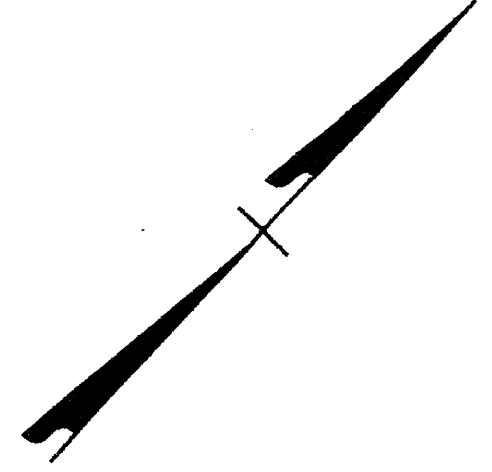
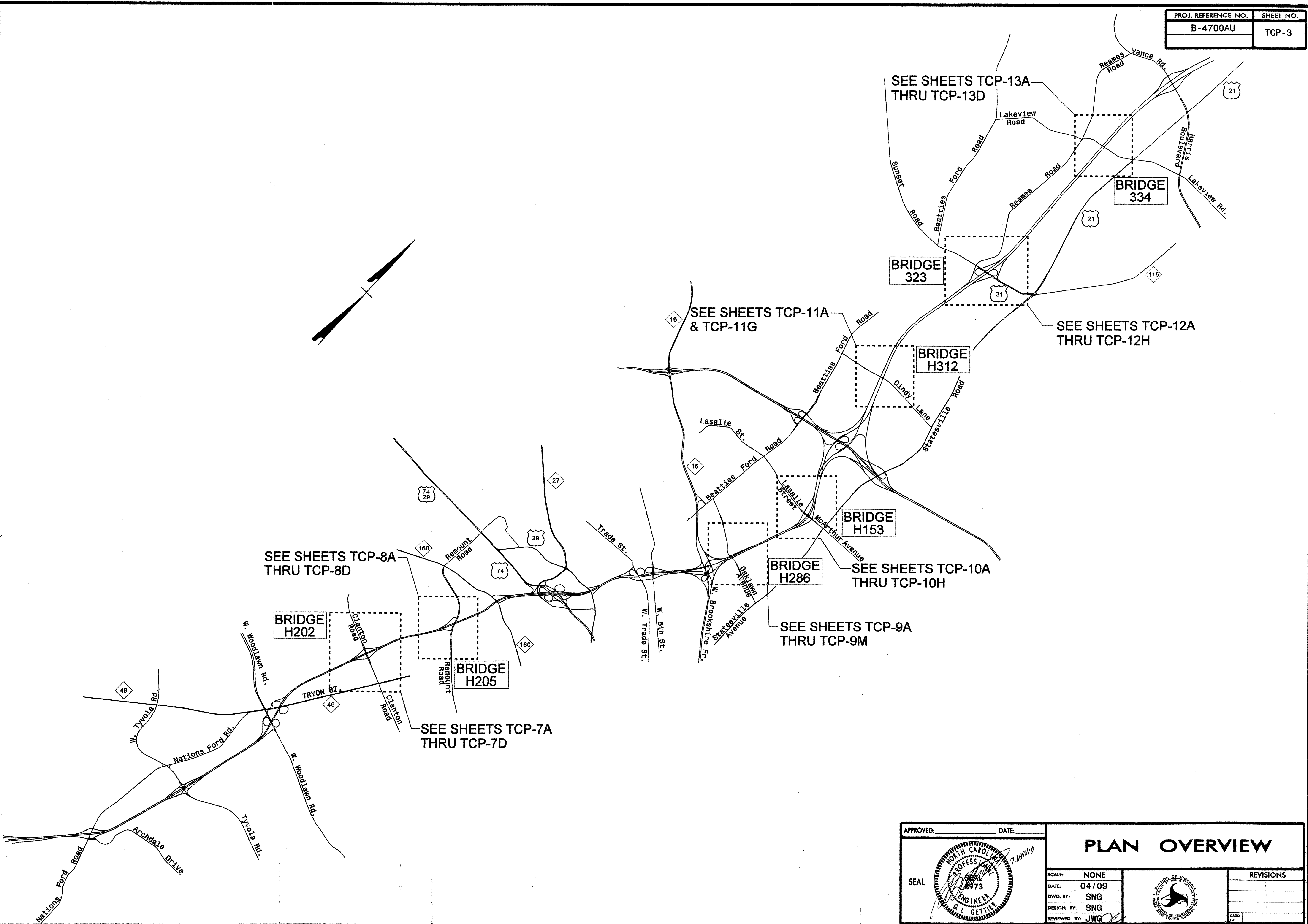
### MISCELLANEOUS

- S) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY THE ENGINEER.
- T) COORDINATE WITH THE ENGINEER TO UTILIZE OVERHEAD DYNAMIC MESSAGE SIGNS (DMS), IF AVAILABLE, FOR ADVANCE WARNING TO MOTORIST OF: "ROAD WORK AHEAD AT MP XXX", "LEFT/RIGHT (NUMBER) LANES CLOSED AHEAD AT MP XXX", "(ROAD NAME) EXIT XXX CLOSED USE EXIT XXX". INCLUDE INTERSTATE DESIGNATION IN MESSAGES IF DMS IS LOCATED ON MULTI-ROUTE INTERSTATES.
- U) INSTALL CHANGEABLE MESSAGE SIGNS IN ADVANCE OF THE PORTABLE WORK ZONE AS SHOWN ON THE TCP SHEETS OR AS DIRECTED BY THE ENGINEER.
- V) RETURN TRAFFIC TO ITS EXISTING LANE/TRAFFIC CONFIGURATION AT THE END OF EACH WORK PERIOD.
- W) DO NOT PERFORM WORK FROM THE ROADWAY ON TOP OF THE STRUCTURE.
- X) UPON COMPLETION OF THE WORK AT EACH BRIDGE LOCATION, REMOVE ALL TRAFFIC CONTROL DEVICES.
- Y) EXISTING SHOULDER MOUNTED ROADWAY SIGNS THAT CONFLICT WITH THE DETOUR SIGNING SHALL BE COVERED AS APPROVED AND DIRECTED BY THE ENGINEER AT NO EXPENSE TO THE DEPARTMENT.

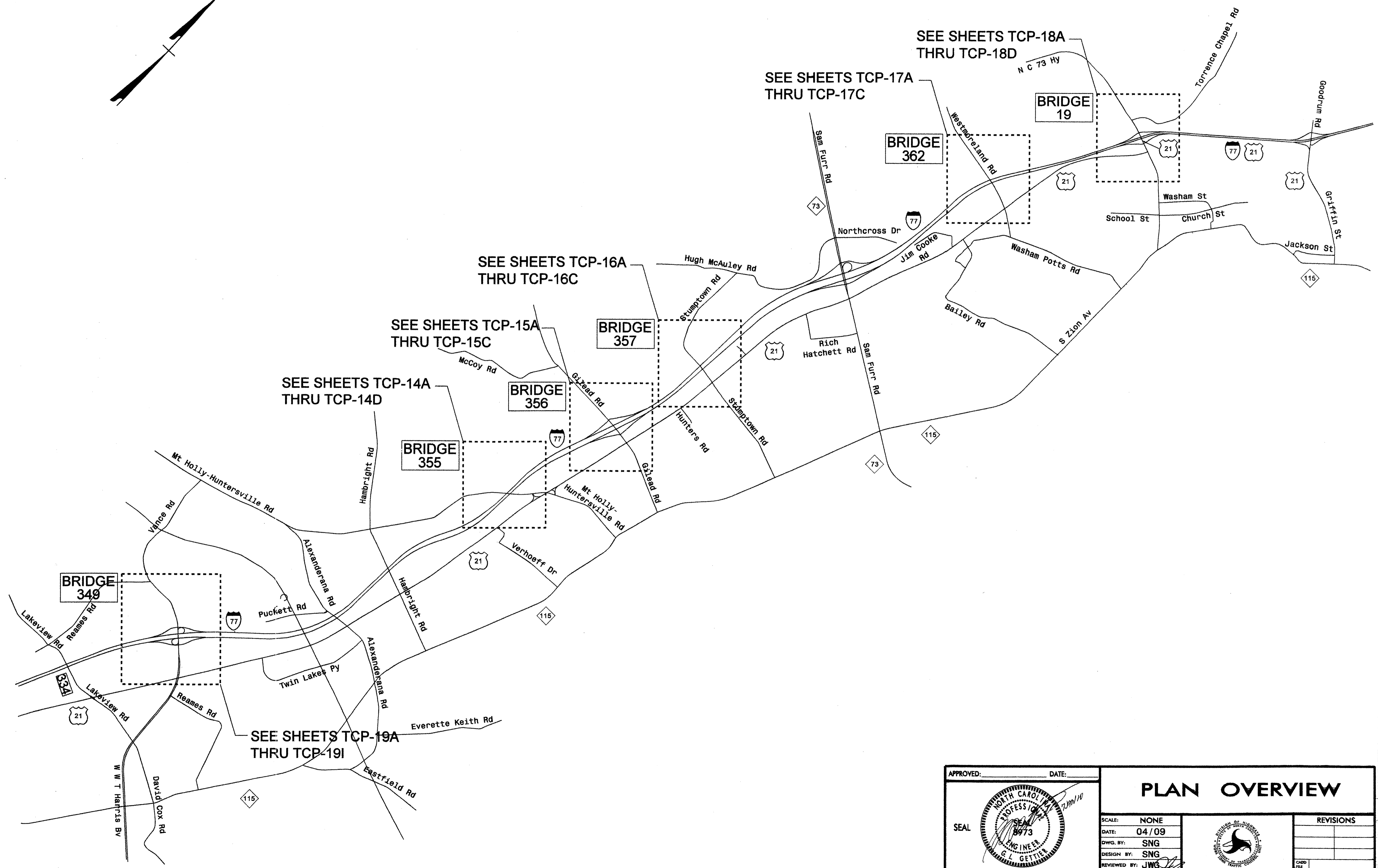
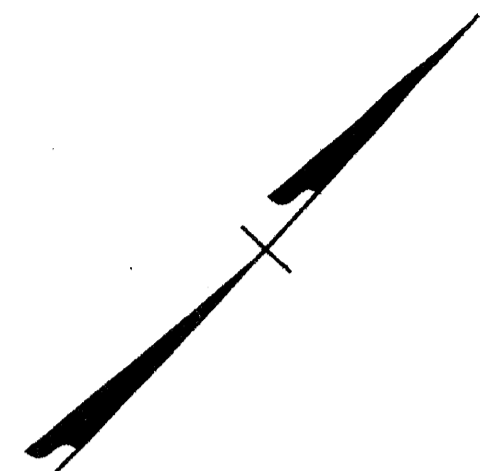
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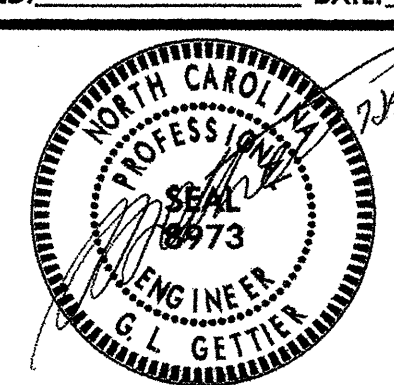
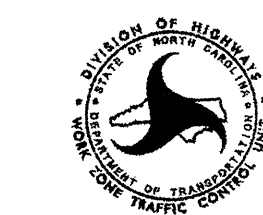
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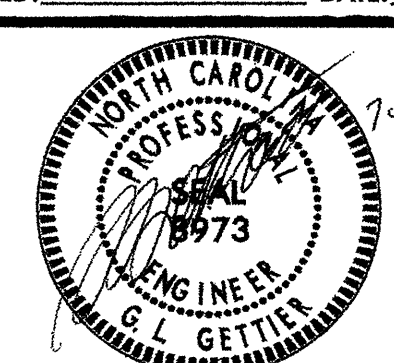

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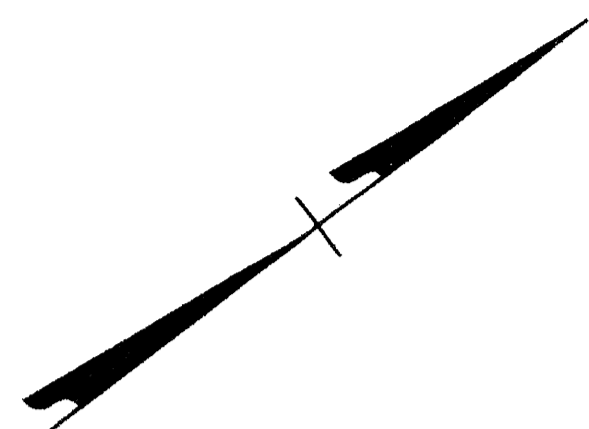
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	DESIGN BY: SNG		
REVIEWED BY: JWG			

PROJ. REFERENCE NO.	SHEET NO.
B-4700AU	TCP-7A



**PHASING**

**PHASE 1**

**CLANTON RD.**

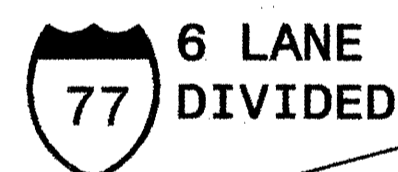
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-7A - TCP-7D.

- CLOSE INSIDE/OUTSIDE LANE: SEE SHEETS TCP-7B, TCP-7D.
- CLOSE BOTH INSIDE LANES: SEE SHEET TCP-7C.

**BRIDGE H202**

CLOSE RIGHT LANE USING SHEET TCP-7B AND TCP-7D

CLOSE LEFT ONE OR TWO LANES USING SHEET TCP-7C



LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	STATIONARY OR PORTABLE SIGN
	TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN	

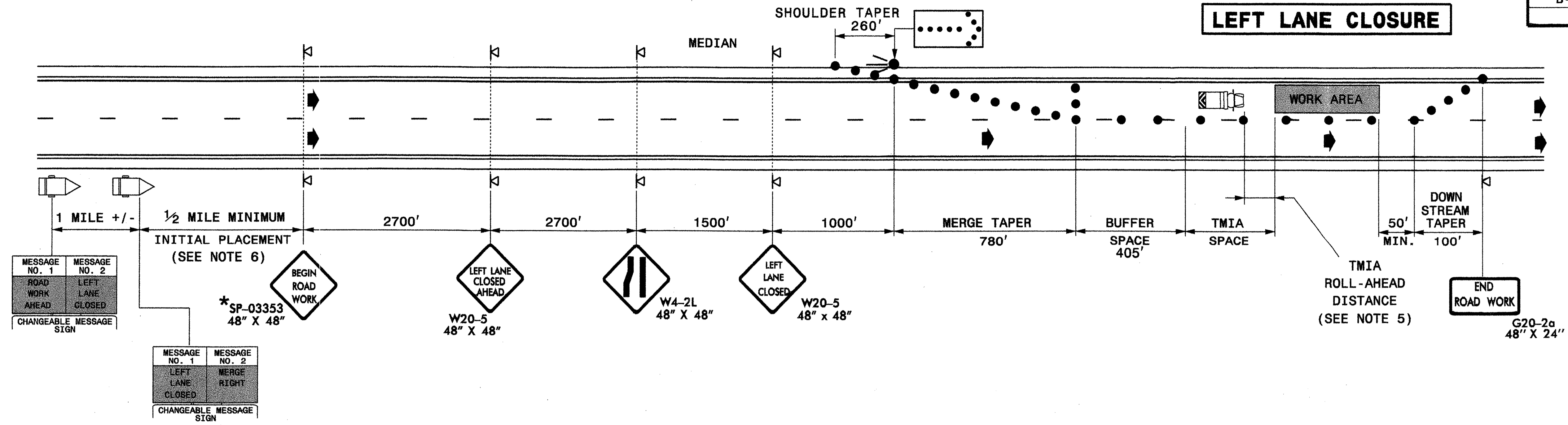
**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

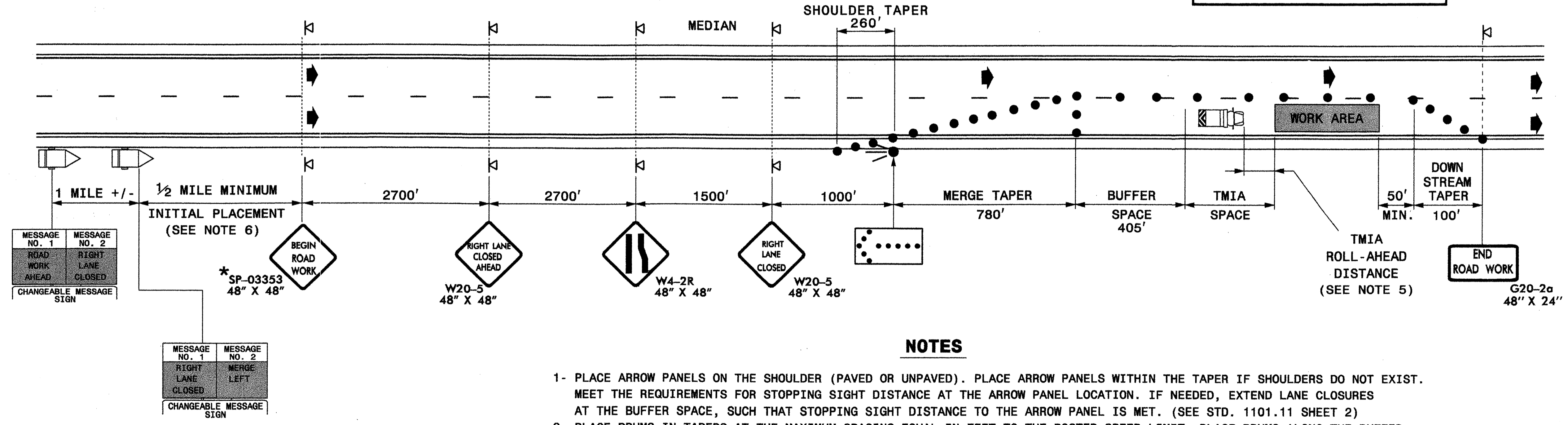
APPROVED: _____ DATE: _____	<b>BRIDGE #H202 CLANTON RD. DETAIL PLAN</b>			REVISIONS
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06-JAN-2010 14:20  
 \DOT\DFSROOT\GROUPS\WZTC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHL.T-BRDG REPAINT-TCP7A.dgn  
 sngreen AT WZTC24733

### LEFT LANE CLOSURE



### RIGHT LANE CLOSURE



#### NOTES

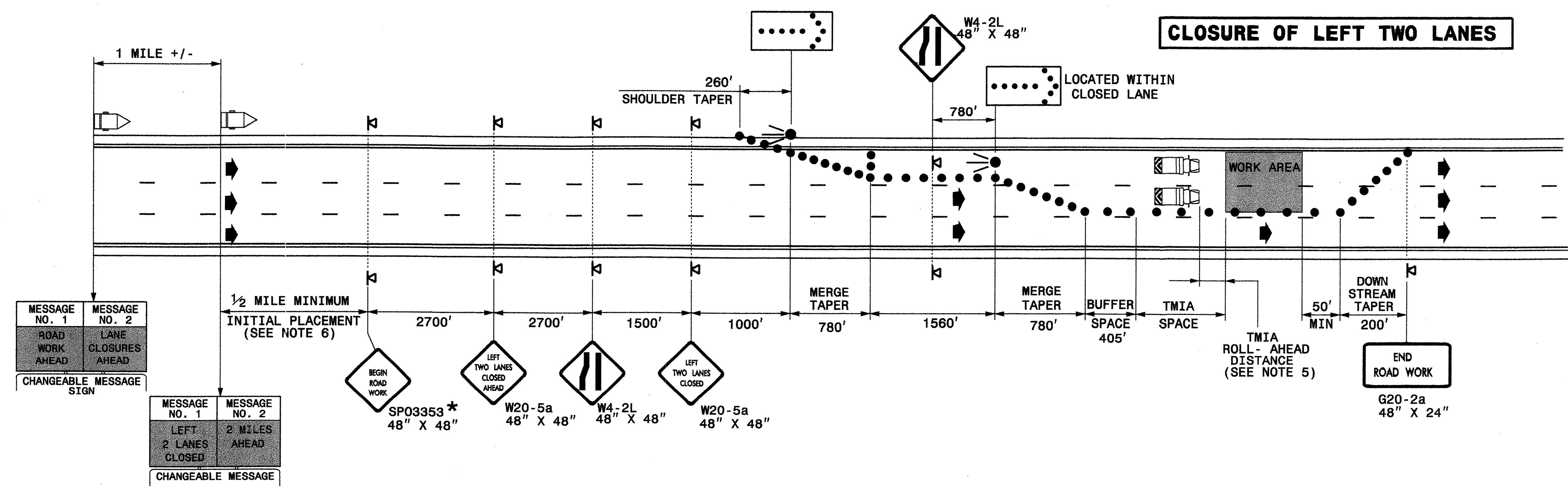
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- SEE SHEET TCP-7D FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.
- 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- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 6- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

#### LEGEND

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ⚡ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>CLANTON RD./BRIDGE #H202 TEMPORARY LANE CLOSURE INSIDE OR OUTSIDE LANE CLOSED</b>							
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CADD	FILE							
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 AT WZTC24733  
 sngreen



MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	LANE CLOSURES AHEAD

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1	MESSAGE NO. 2
LEFT 2 LANES CLOSED	2 MILES AHEAD

CHANGEABLE MESSAGE

**GENERAL NOTES**

1-REFER TO NOTES ON SHEET TCP-7B

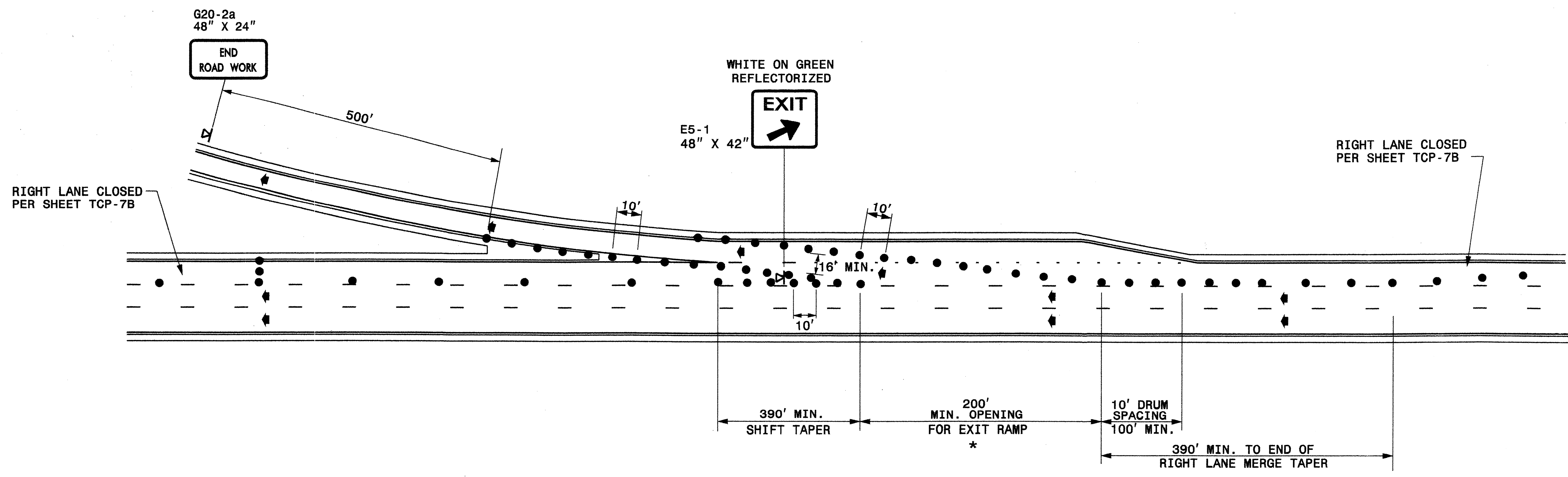
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	<b>CLANTON RD./BRIDGE #H202 TEMPORARY LANE CLOSURES INSIDE TWO LANES CLOSED</b>	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
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DESIGN BY: SNG									
REVIEWED BY: JWS									

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 sngreen AT WZTC244733

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 sngreen AT WZTC24733



\* NOTE:  
 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

LEGEND	
●	DRUM
⊠	PORTABLE SIGN
↔	DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
 1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____	DATE: _____	<b>CLANTON RD./BRIDGE #H202          TEMPORARY LANE CLOSURES          THRU EXIT RAMPS</b>	
SCALE: NONE	DATE: 04/09		
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

PROJ. REFERENCE NO.	SHEET NO.
B-4700AU	TCP-8A

**PHASING**

**PHASE 1**

**REMOUNT RD.**

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 - JULY 2006" AND USING SHEETS TCP-8A - TCP-8D.

- CLOSE INSIDE/OUTSIDE LANE: SEE SHEETS TCP-8B, TCP-8D.
- CLOSE BOTH INSIDE LANES: SEE SHEET TCP-8C.

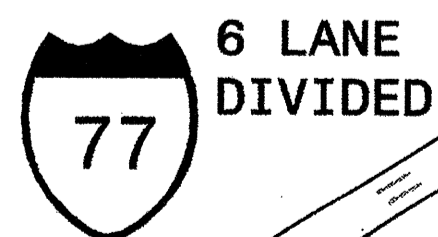
**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

CLOSE RIGHT LANE USING SHEET TCP-8B AND TCP-8D

CLOSE LEFT ONE OR TWO LANES USING SHEET TCP-8C

**BRIDGE H205**

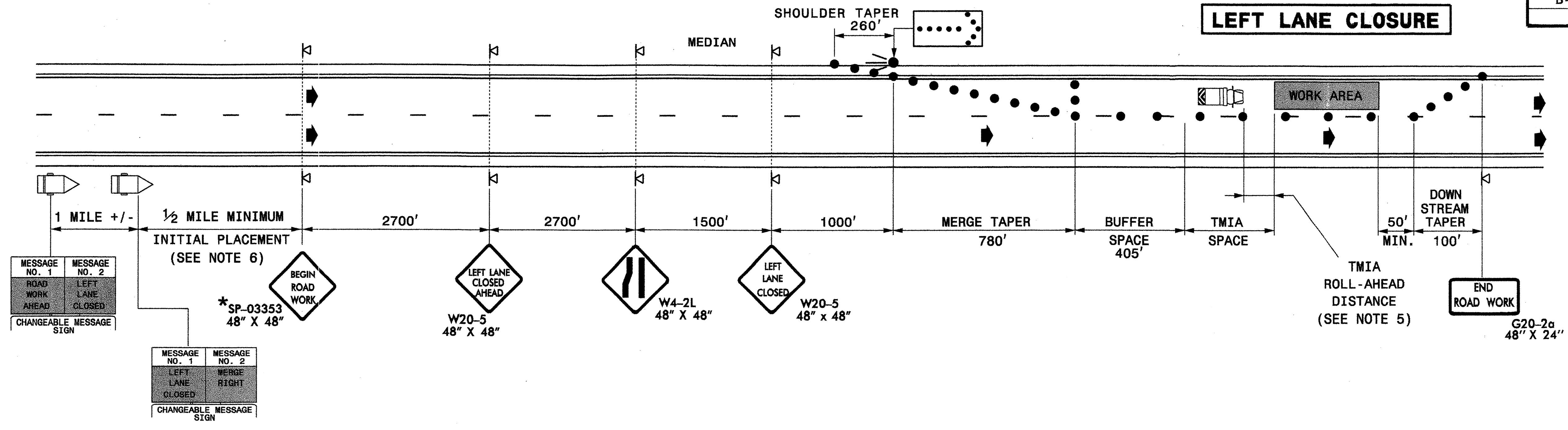


LEGEND	
	TYPE III BARRICADE
	DRUM
	FLASHING ARROW PANEL (TYPE C)
	STATIONARY SIGN
	PORTABLE SIGN
	STATIONARY OR PORTABLE SIGN
	TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN	

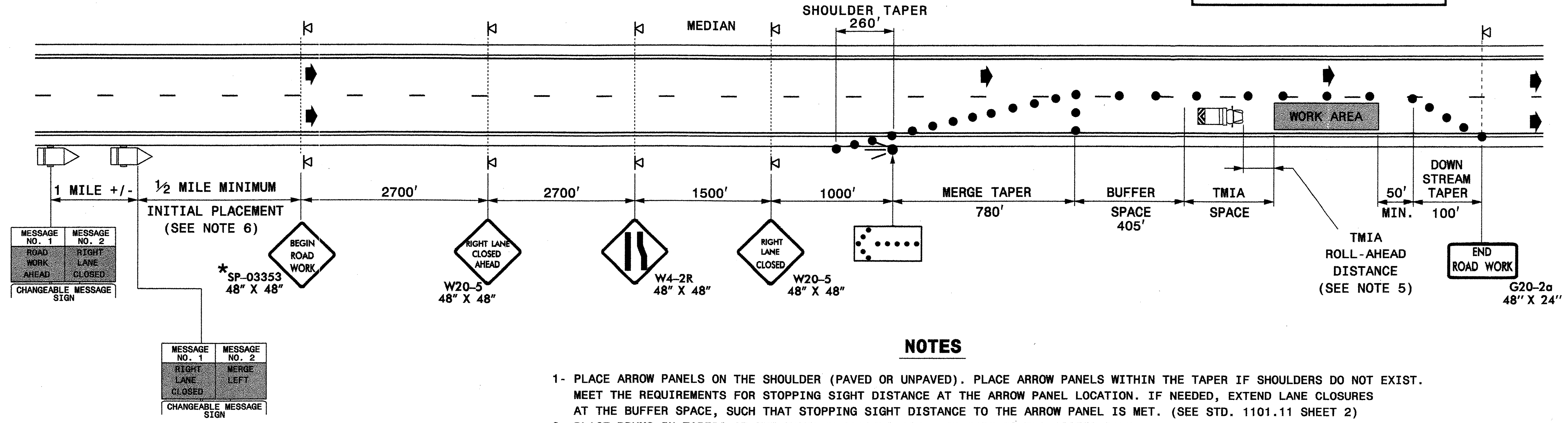
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APPROVED: _____ DATE: _____	<b>BRIDGE #H205 REMOUNT RD. DETAIL PLAN</b>		REVISIONS	
			SCALE: NONE	
	DATE: 04/09			
	DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG			

### LEFT LANE CLOSURE



### RIGHT LANE CLOSURE



#### NOTES

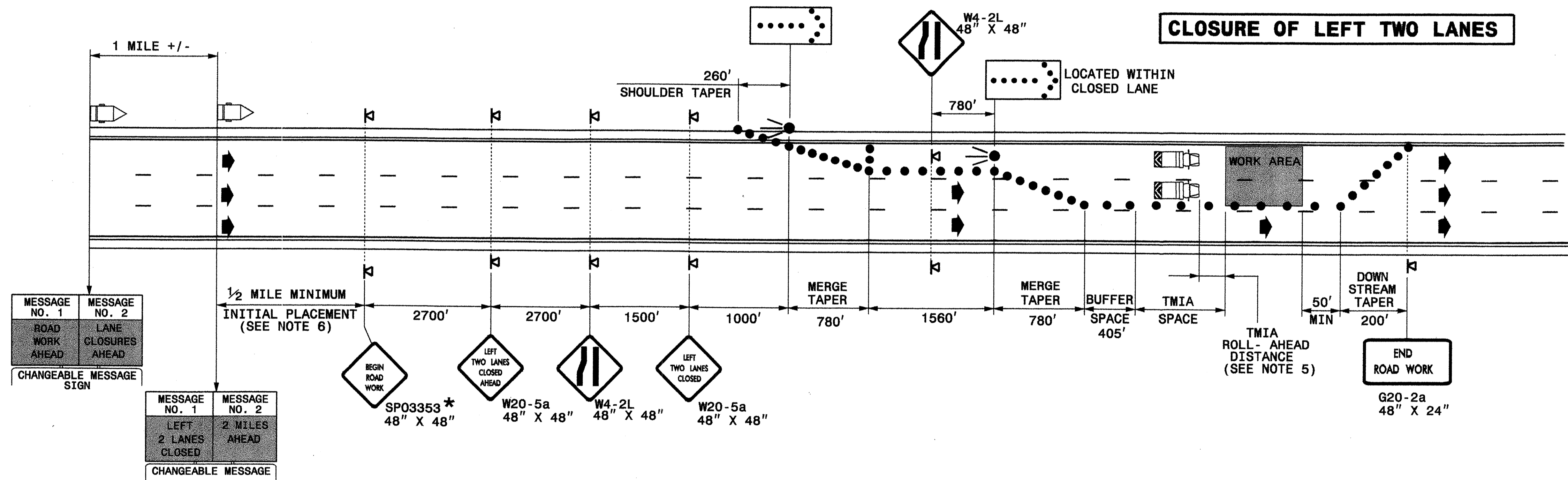
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- SEE SHEET TCP-8D FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.
- 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- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 6- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

#### LEGEND

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ▵ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>REMOUNT RD./BRIDGE #H205 TEMPORARY LANE CLOSURE INSIDE OR OUTSIDE LANE CLOSED</b>							
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 sngreen AT WZTC24733



**GENERAL NOTES**

1-REFER TO NOTES ON SHEET TCP-8B

**LEGEND**

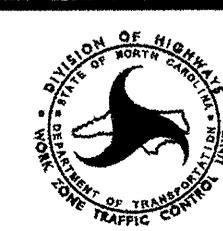
- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

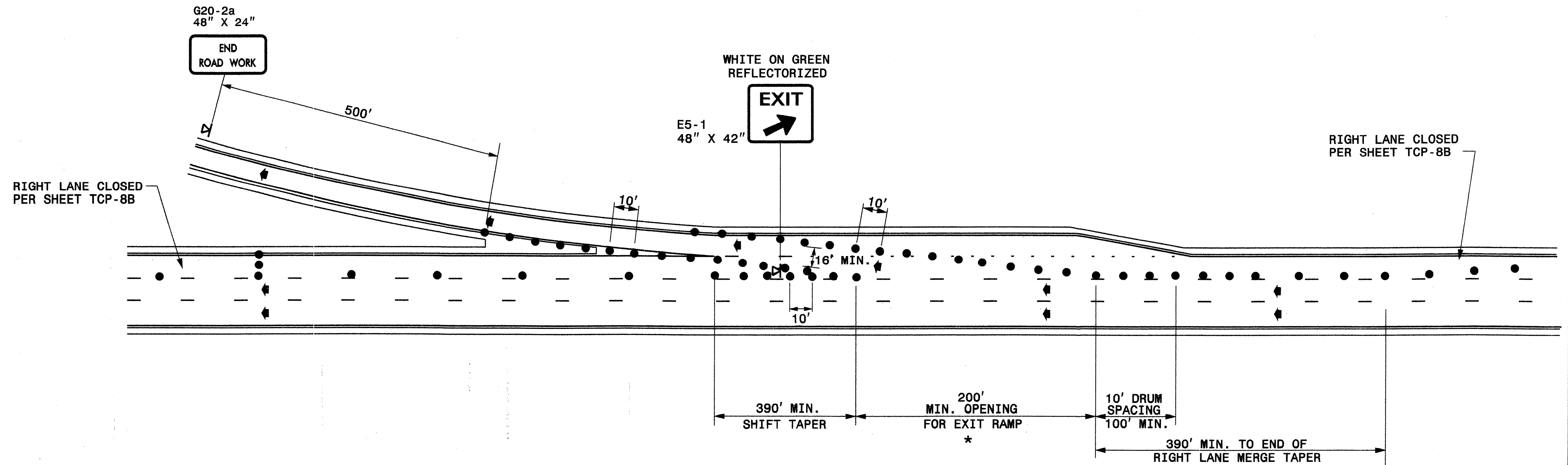
**REMOUNT RD./BRIDGE #205  
TEMPORARY LANE CLOSURES  
INSIDE TWO LANES CLOSED**

SCALE: NONE  
DATE: 04/09  
DWG. BY: SNG  
DESIGN BY: SNG  
REVIEWED BY: JWG



REVISIONS



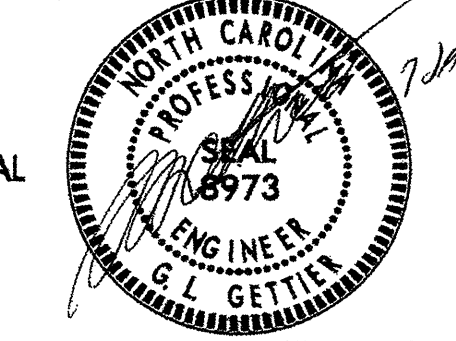



**\* NOTE:**  
 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

LEGEND	
●	DRUM
⊠	PORTABLE SIGN
↔	DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**

1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	<b>REMOUNT RD./BRIDGE #H205          TEMPORARY LANE CLOSURES          THRU EXIT RAMPS</b>									
										
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REVIEWED BY: JWG		<small>CADD FILE</small>								

06-JAN-2010 14:33  
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 sngrgreen AT WZTCC244733

PHASE 1

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 - JULY 2006" AND USING SHEETS TCP-9A THRU TCP-9L.

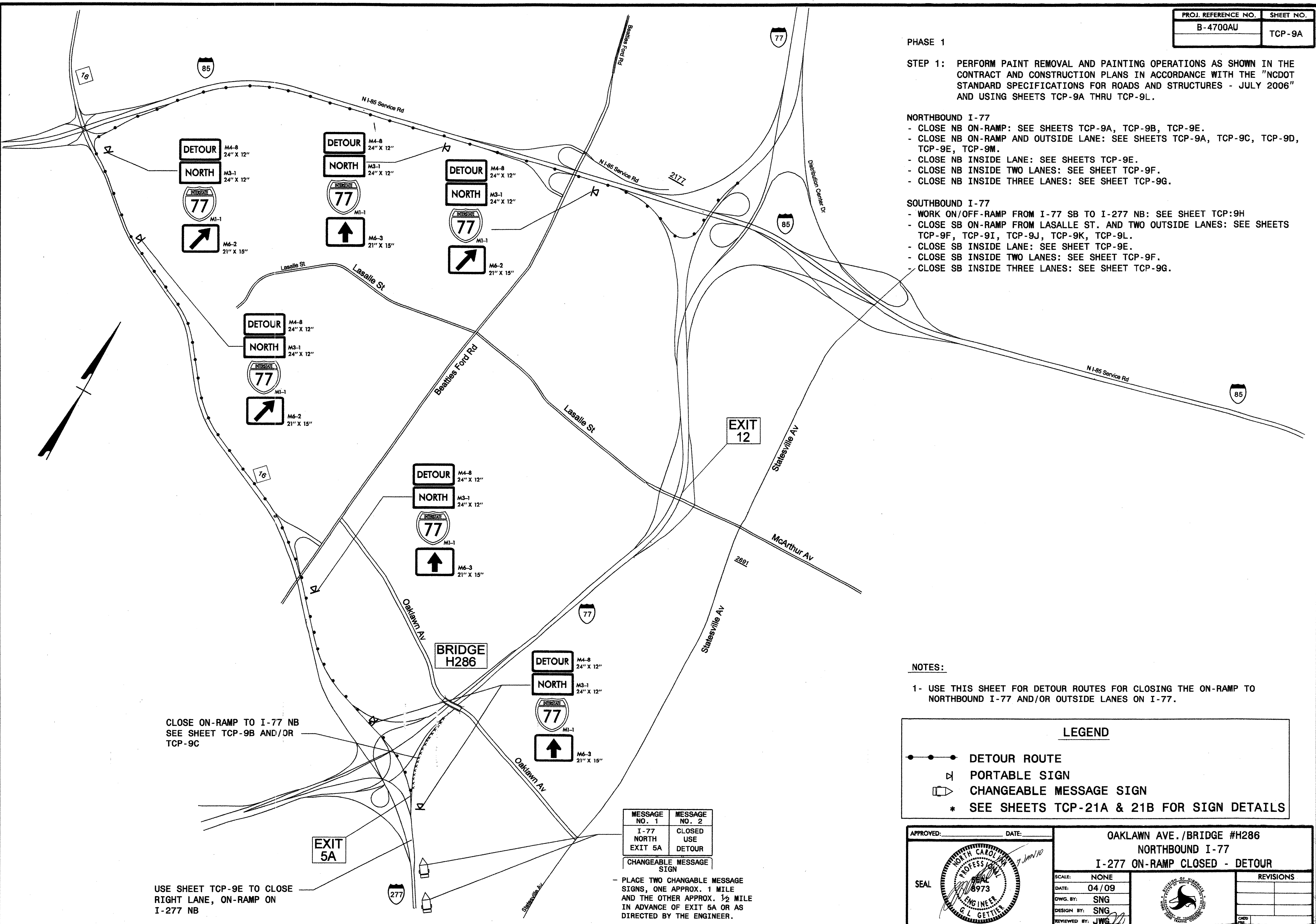
**NORTHBOUND I-77**

- CLOSE NB ON-RAMP: SEE SHEETS TCP-9A, TCP-9B, TCP-9E.
- CLOSE NB ON-RAMP AND OUTSIDE LANE: SEE SHEETS TCP-9A, TCP-9C, TCP-9D, TCP-9E, TCP-9M.
- CLOSE NB INSIDE LANE: SEE SHEETS TCP-9E.
- CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-9F.
- CLOSE NB INSIDE THREE LANES: SEE SHEET TCP-9G.

**SOUTHBOUND I-77**

- WORK ON/OFF-RAMP FROM I-77 SB TO I-277 NB: SEE SHEET TCP:9H
- CLOSE SB ON-RAMP FROM LASALLE ST. AND TWO OUTSIDE LANES: SEE SHEETS TCP-9F, TCP-9I, TCP-9J, TCP-9K, TCP-9L.
- CLOSE SB INSIDE LANE: SEE SHEET TCP-9E.
- CLOSE SB INSIDE TWO LANES: SEE SHEET TCP-9F.
- CLOSE SB INSIDE THREE LANES: SEE SHEET TCP-9G.

06-JAN-2010 14:33 \\DOT\DFSROOT\TOI\GROUPS\WZTCCC\WZTC\DesignGroup3\SpecialProjects\Bridges\Painting\B-4700AU - Last 13 Bridges\CHLT-BRCD REPAINT-TCP9A.dgn sngreen AT WZTC244733



CLOSE ON-RAMP TO I-77 NB  
SEE SHEET TCP-9B AND/OR  
TCP-9C

USE SHEET TCP-9E TO CLOSE  
RIGHT LANE, ON-RAMP ON  
I-277 NB

MESSAGE NO. 1	MESSAGE NO. 2
I-77 NORTH EXIT 5A	CLOSED USE DETOUR
CHANGEABLE MESSAGE SIGN	

- PLACE TWO CHANGEABLE MESSAGE SIGNS, ONE APPROX. 1 MILE AND THE OTHER APPROX. 1/2 MILE IN ADVANCE OF EXIT 5A OR AS DIRECTED BY THE ENGINEER.

NOTES:

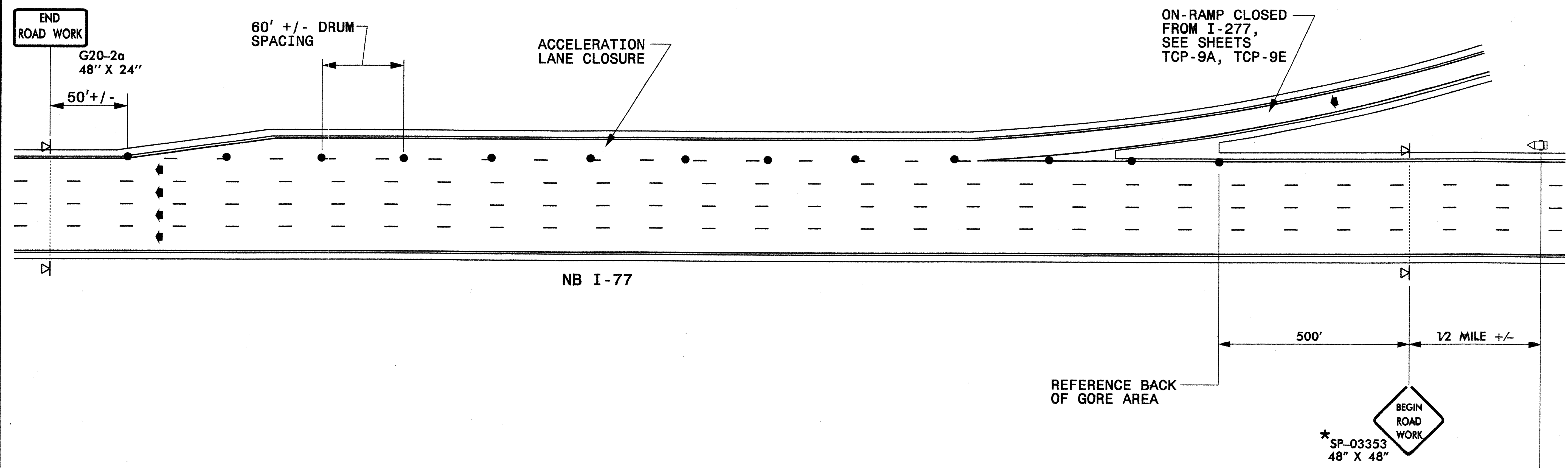
1- USE THIS SHEET FOR DETOUR ROUTES FOR CLOSING THE ON-RAMP TO NORTHBOUND I-77 AND/OR OUTSIDE LANES ON I-77.

**LEGEND**

- DETOUR ROUTE
- ⊠ PORTABLE SIGN
- ◀ CHANGEABLE MESSAGE SIGN
- \* SEE SHEETS TCP-21A & 21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>OAKLAWN AVE./BRIDGE #H286 NORTHBOUND I-77 I-277 ON-RAMP CLOSED - DETOUR</b>	
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	DATE: 04/09	
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REVIEWED BY: JWG		

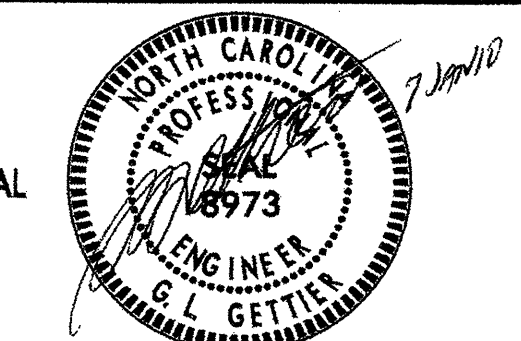

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 AT WZTC244733  
 sngreen



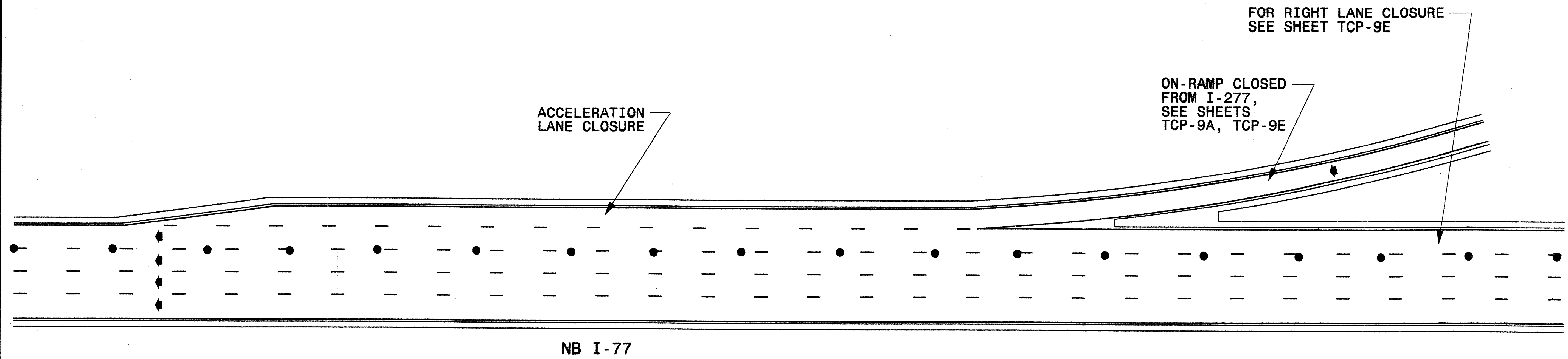
MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	PLEASE STAY ALERT
CHANGEABLE MESSAGE SIGN	

**LEGEND**


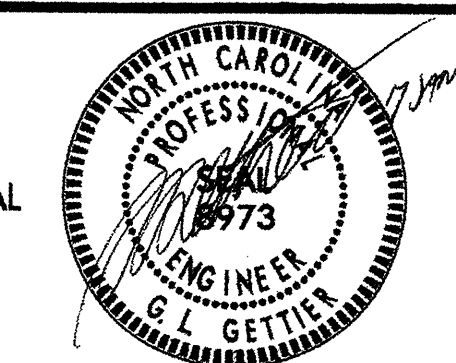
- DRUM
- ◄ DIRECTION OF TRAFFIC FLOW
- ▽ PORTABLE SIGN
- ◁ CHANGEABLE MESSAGE SIGN
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

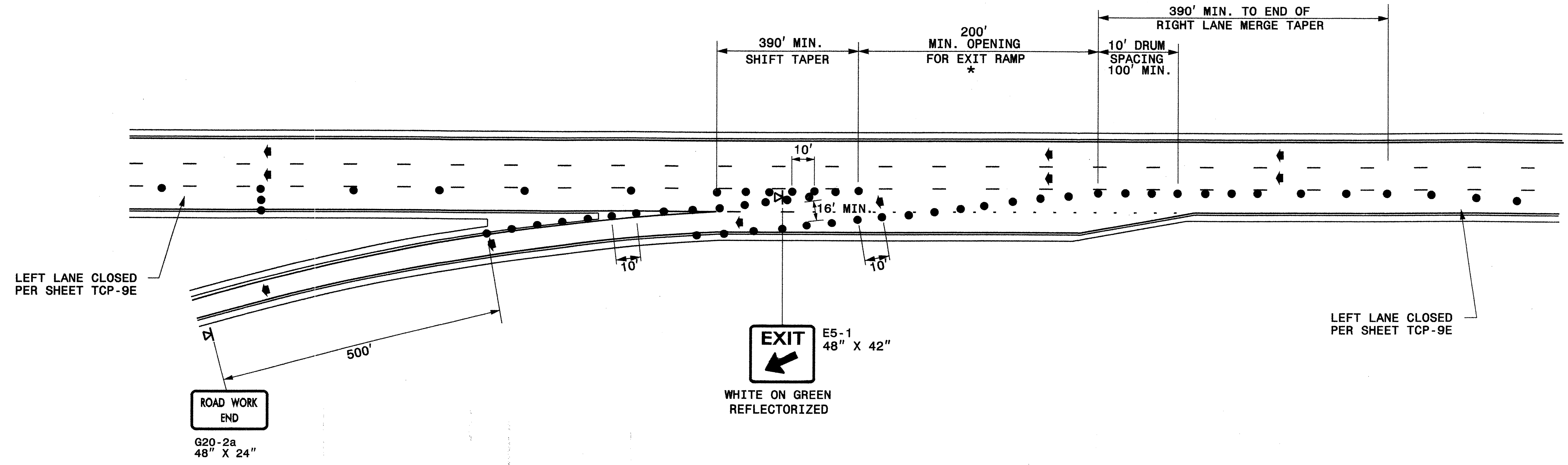
APPROVED:	DATE:	<b>OAKLAWN AVE./BRIDGE #H286</b> <b>TEMPORARY</b> <b>ACCELERATION LANE CLOSED</b>							
									
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 sngreen AT WZTC244733



LEGEND	
●	DRUM
➔	DIRECTION OF TRAFFIC FLOW
▽	PORTABLE SIGN
◻	CHANGEABLE MESSAGE SIGN
*	SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	<b>OAKLAWN AVE./BRIDGE #H286</b> <b>TEMPORARY LANE CLOSURE AND</b> <b>ACCELERATION LANE CLOSED</b>		<table border="1"> <thead> <tr> <th>REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </tbody> </table>	REVISIONS				
REVISIONS									
	SCALE: NONE DATE: 04/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG	CARD FILE							



LEFT LANE CLOSED PER SHEET TCP-9E

LEFT LANE CLOSED PER SHEET TCP-9E

ROAD WORK END  
G20-2a  
48" X 24"

EXIT  
E5-1  
48" X 42"  
WHITE ON GREEN  
REFLECTORIZED

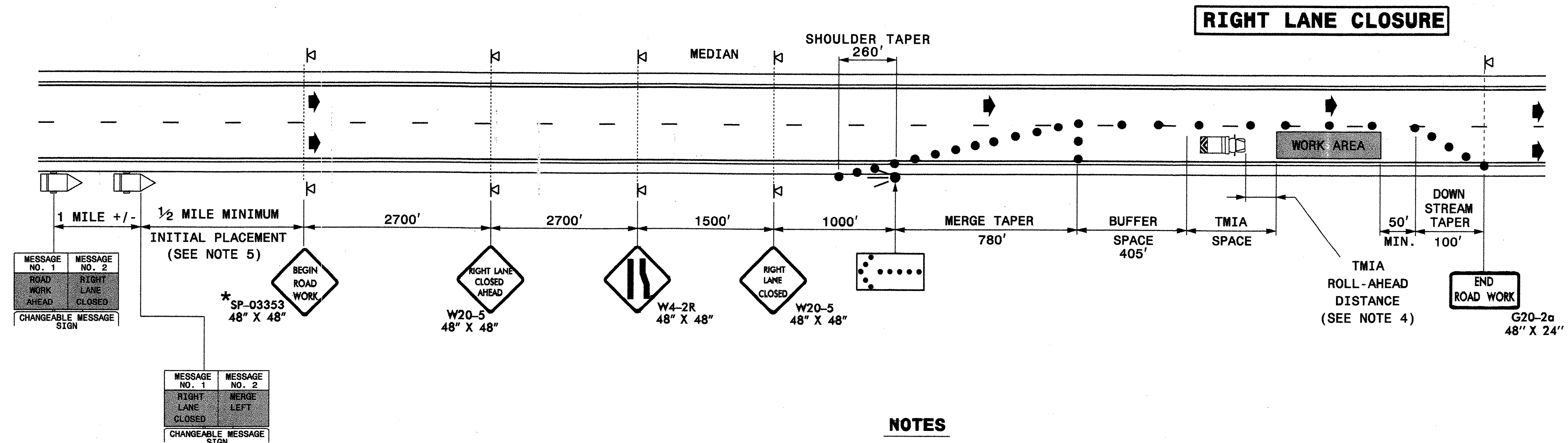
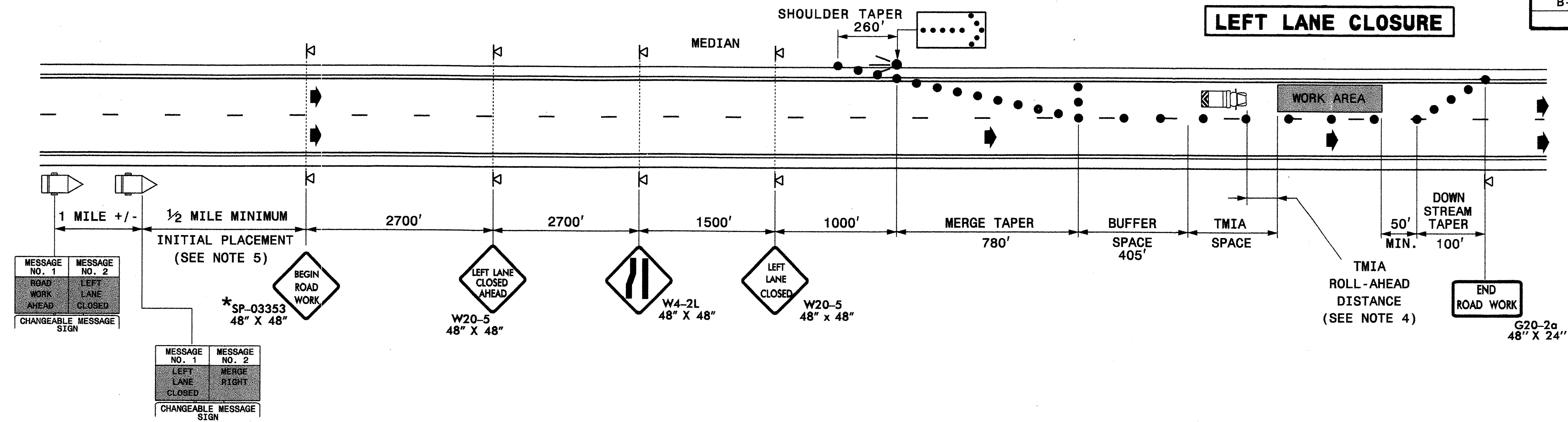
**\* NOTE:**  
1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

**LEGEND**  
● DRUM  
◀ PORTABLE SIGN  
◀ DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	<b>OAKLAWN AVE./BRIDGE #H286 TEMPORARY LANE CLOSURE THRU EXIT RAMPS</b>									
	SCALE: NONE	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS							
	REVISIONS									
DATE: 04/09										
DWG. BY: SNG										
DESIGN BY: SNG REVIEWED BY: JWG										

06-JAN-2010 4:36  
 \NOT\DFSR00101\GROUPS-WZTC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Painting\Bridges\Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP9D.dgn  
 sngreen AT WZTC244733



**NOTES**

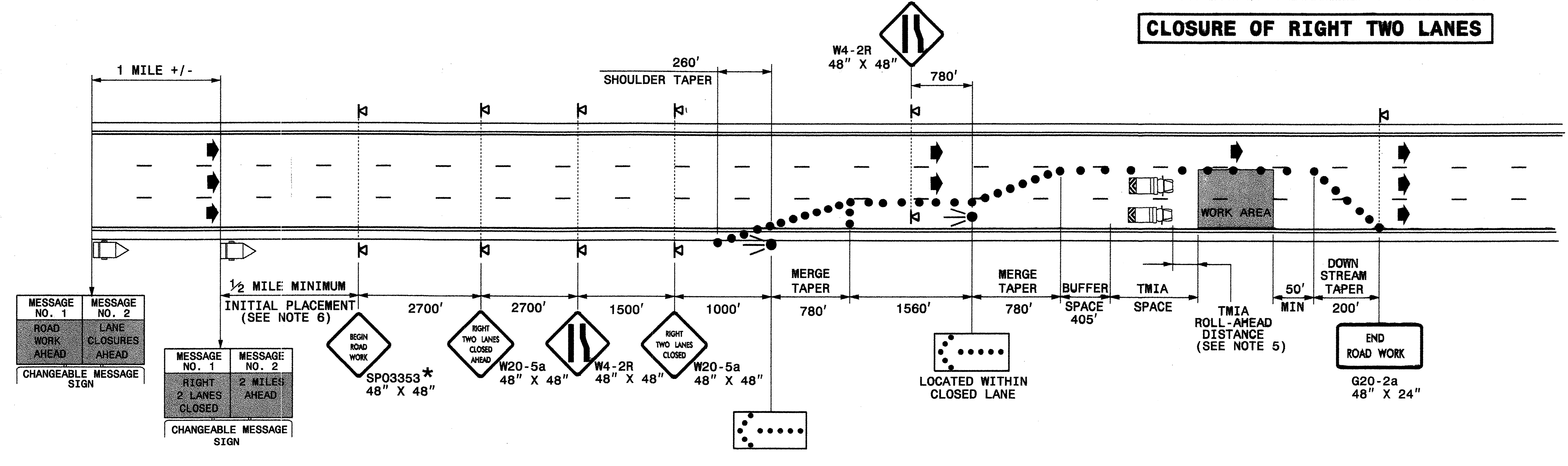
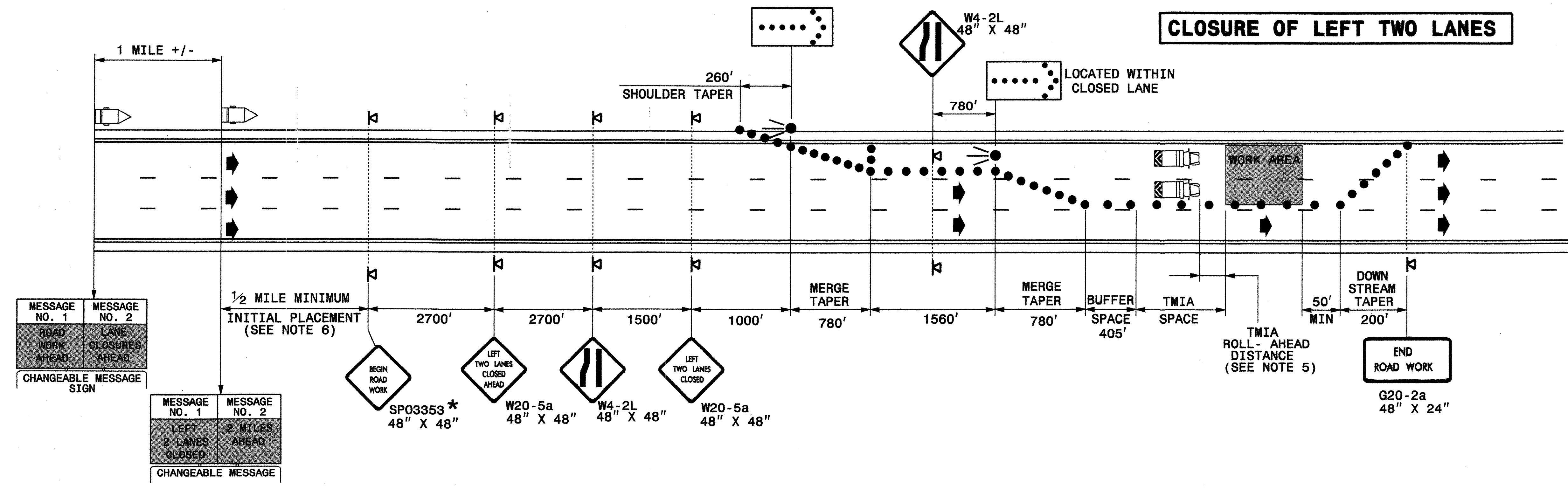
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- 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.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-9D FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED IMPACT ATTENUATOR(TMIA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ▽ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	OAKLAWN AVE./BRIDGE #H286 TEMPORARY LANE CLOSURE ONE LANE CLOSED	
SEAL		
SCALE: NONE	DATE: 04/09	
DWG. BY: SNG	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

06-JAN-2010 14:39 \\DOT\DOTSPROD\GROUPS-WZTCC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Painting\Charlotte-Bridge\Painting\B-4700AU - Last 13 Bridges\CHLT-BRDC REPAINT-TCP9E.dgn



**NOTES**  
1-REFER TO NOTES ON SHEET TCP-9E.

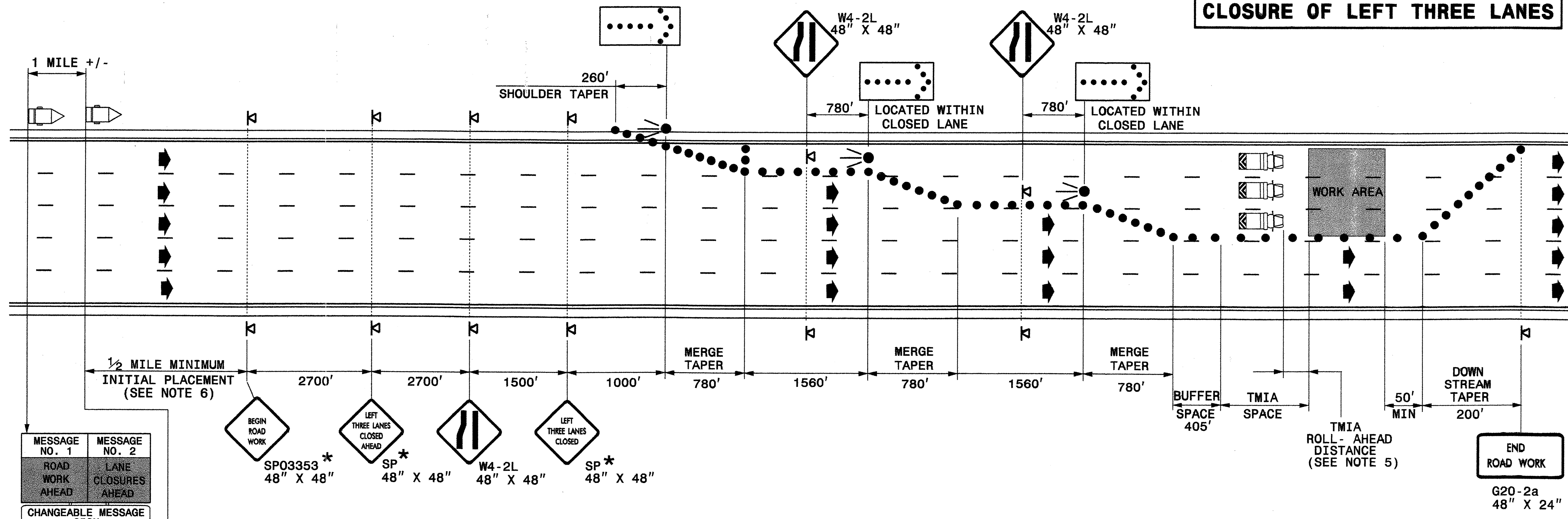
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	<b>OAKLAWN AVE. / BRIDGE #H286</b> <b>TEMPORARY LANE CLOSURES</b> <b>INSIDE TWO LANES CLOSED</b>	<b>REVISIONS</b> <table border="1" style="width: 100%; height: 50px;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						
			<table border="1" style="width: 100%;"> <tr> <td>SCALE: NONE</td> <td>DATE: 04/09</td> </tr> <tr> <td>DWG. BY: SNG</td> <td>DESIGN BY: SNG</td> </tr> <tr> <td>REVIEWED BY: JWG</td> <td> </td> </tr> </table>	SCALE: NONE	DATE: 04/09	DWG. BY: SNG	DESIGN BY: SNG	REVIEWED BY: JWG	
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DWG. BY: SNG	DESIGN BY: SNG								
REVIEWED BY: JWG									

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 AT WZTC244733  
 sngrreen

### CLOSURE OF LEFT THREE LANES



MESSAGE NO. 1 ROAD WORK AHEAD	MESSAGE NO. 2 LANE CLOSURES AHEAD
----------------------------------	--------------------------------------

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1 LEFT 3 LANES CLOSED	MESSAGE NO. 2 2 MILES AHEAD
--------------------------------------	--------------------------------

CHANGEABLE MESSAGE SIGN

**GENERAL NOTES**  
1-REFER TO NOTES ON SHEET TCP-9E.

**LEGEND**

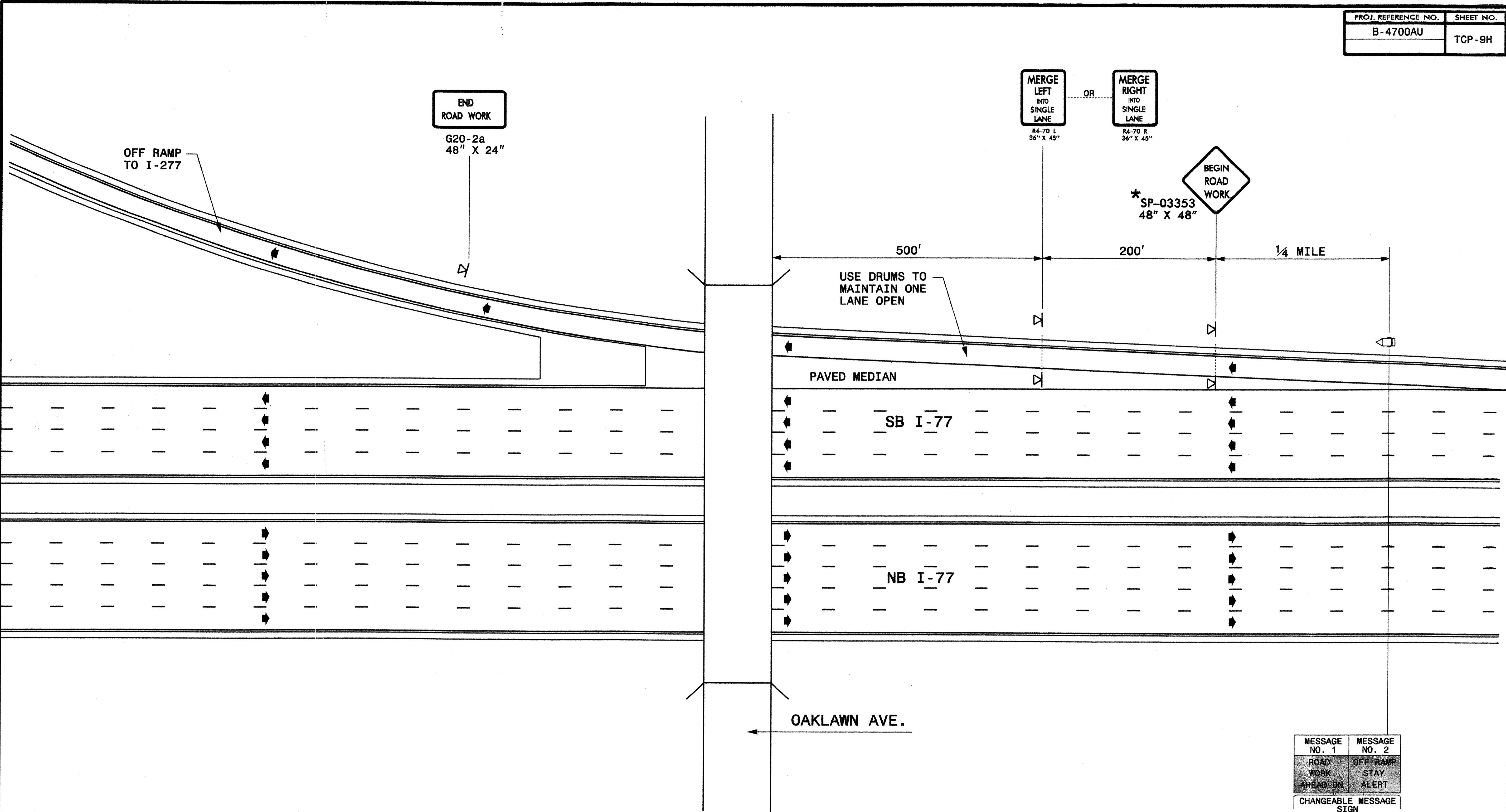
- FLASHING ARROW PANEL (TYPE C)
- ▣ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- ⚡ PORTABLE SIGN
- ◀ CHANGEABLE MESSAGE SIGN (CMS)
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	OAKLAWN AVE./BRIDGE #H286 TEMPORARY LANE CLOSURE INSIDE THREE LANES CLOSED							
SEAL								
	SCALE: NONE DATE: 04/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG	REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						

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06-JAN-2010 14:41  
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 sngreen AT WZTCC244733



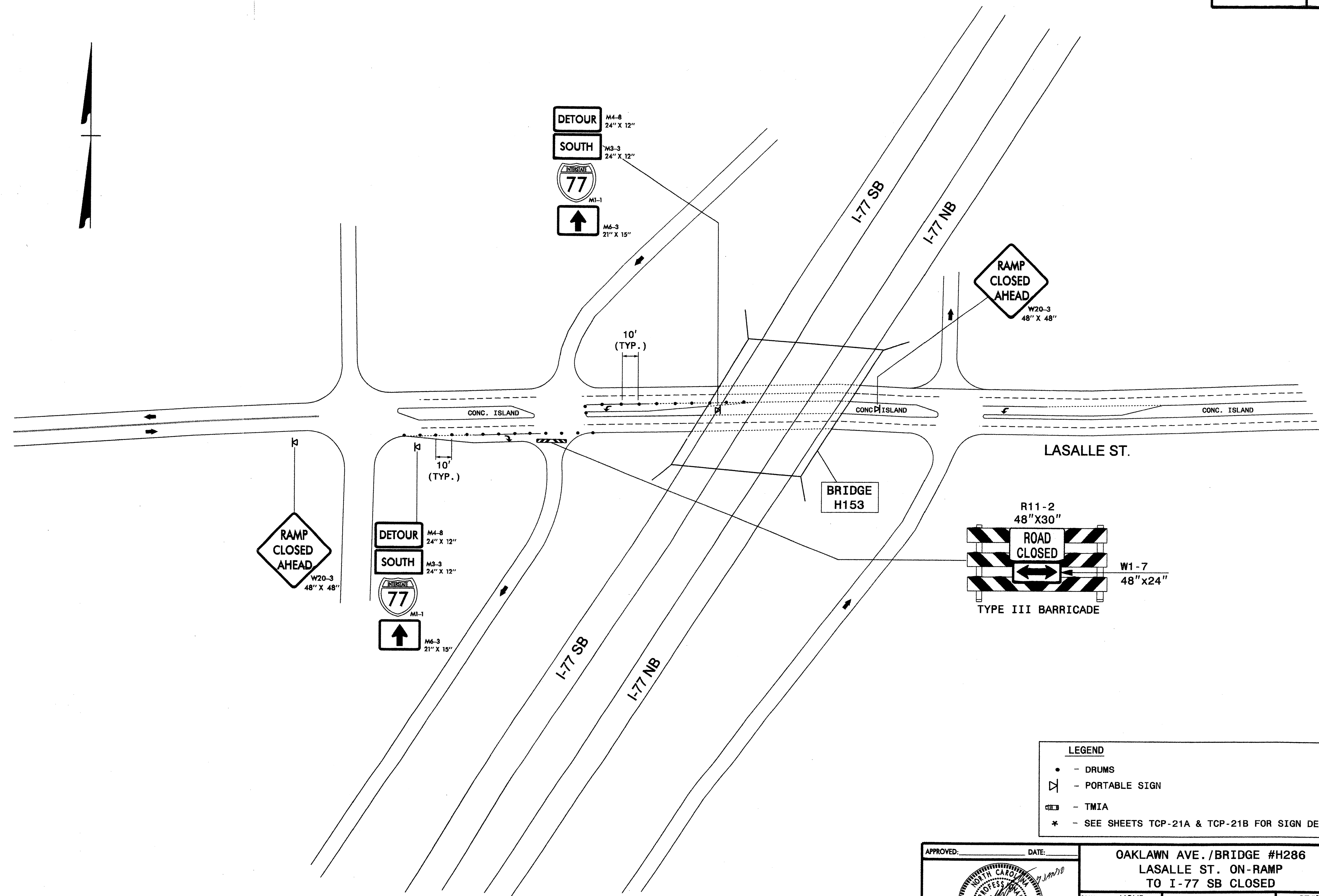
MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD ON	OFF-RAMP STAY ALERT
CHANGEABLE MESSAGE SIGN	

**LEGEND**

- DRUM
- ➔ DIRECTION OF TRAFFIC FLOW
- ▽ PORTABLE SIGN
- ◻ CHANGEABLE MESSAGE SIGN
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	<b>OAKLAWN AVE. / BRIDGE #H286</b> <b>I-77 SOUTHBOUND</b> <b>WORK ON OFF-RAMP TO I-277</b>									
	SCALE: NONE										
	DATE: 04/09										
	DWG. BY: SNG										
	DESIGN BY: SNG										
REVIEWED BY: JWG		<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		REVISIONS							
REVISIONS											





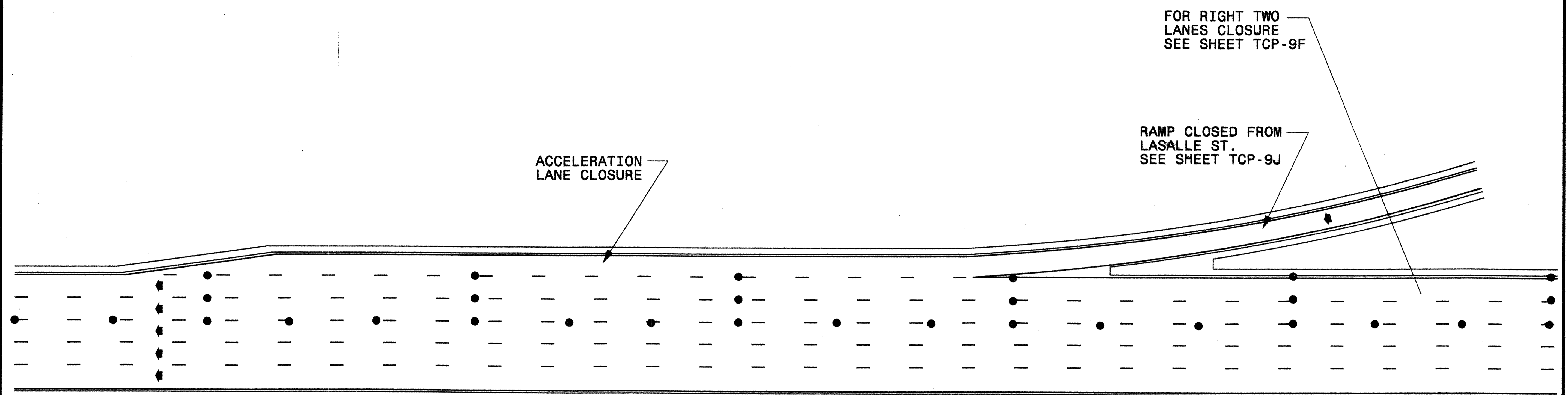
**LEGEND**

- - DRUMS
- ◻ - PORTABLE SIGN
- ▩ - TMIA
- \* - SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN

06-JAN-2010 14:42  
 \\DOT\DFSROOT\GROUPS\WZTC\DesignGroup3\Squad3B\SpecialProjects\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP9J.dgn  
 sngreen AT WZTC244733

APPROVED: _____	DATE: _____	<b>OAKLAWN AVE./BRIDGE #H286          LASALLE ST. ON-RAMP          TO I-77 SB CLOSED</b>												
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REVISIONS														
DESIGN BY: SNG	REVIEWED BY: JWG	CADD FILE												

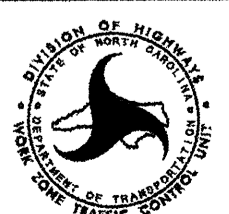
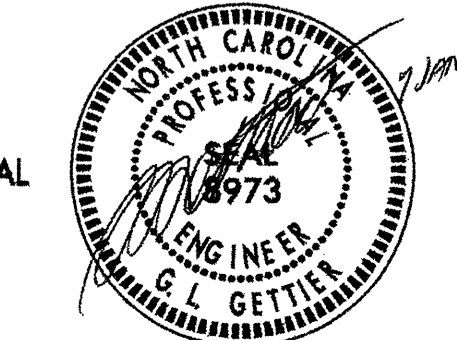
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 AT WZTC244733  
 sngreen

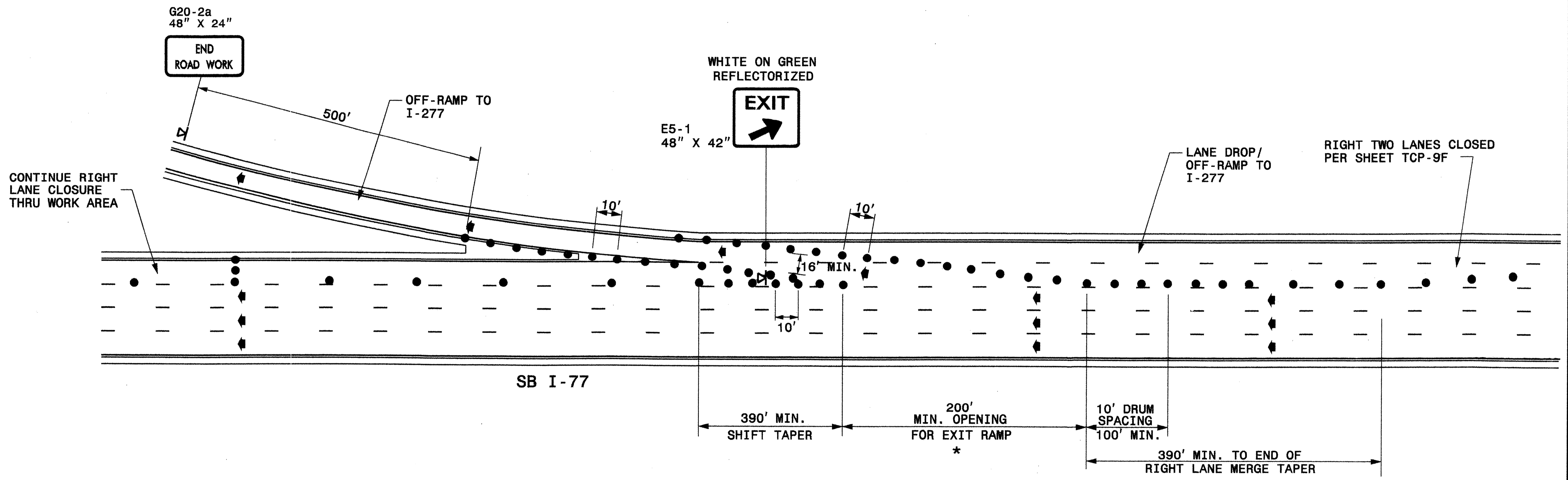


SB I-77

**LEGEND**

- DRUM
- ◄ DIRECTION OF TRAFFIC FLOW
- ◻ PORTABLE SIGN
- ◻ CHANGEABLE MESSAGE SIGN

APPROVED:	DATE:	<b>OAKLAWN AVE. / BRIDGE #H286          LASALLE ST. ON-RAMP AND          ACCELERATION LANE TEMPORARY CLOSED</b>		<table border="1"> <tr><th colspan="2">REVISIONS</th></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>	REVISIONS									
REVISIONS														
	SCALE: NONE													
	DATE: 04/09													
	DWG. BY: SNG													
	DESIGN BY: SNG													
REVIEWED BY: JWG														



**\* NOTE:**  
 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

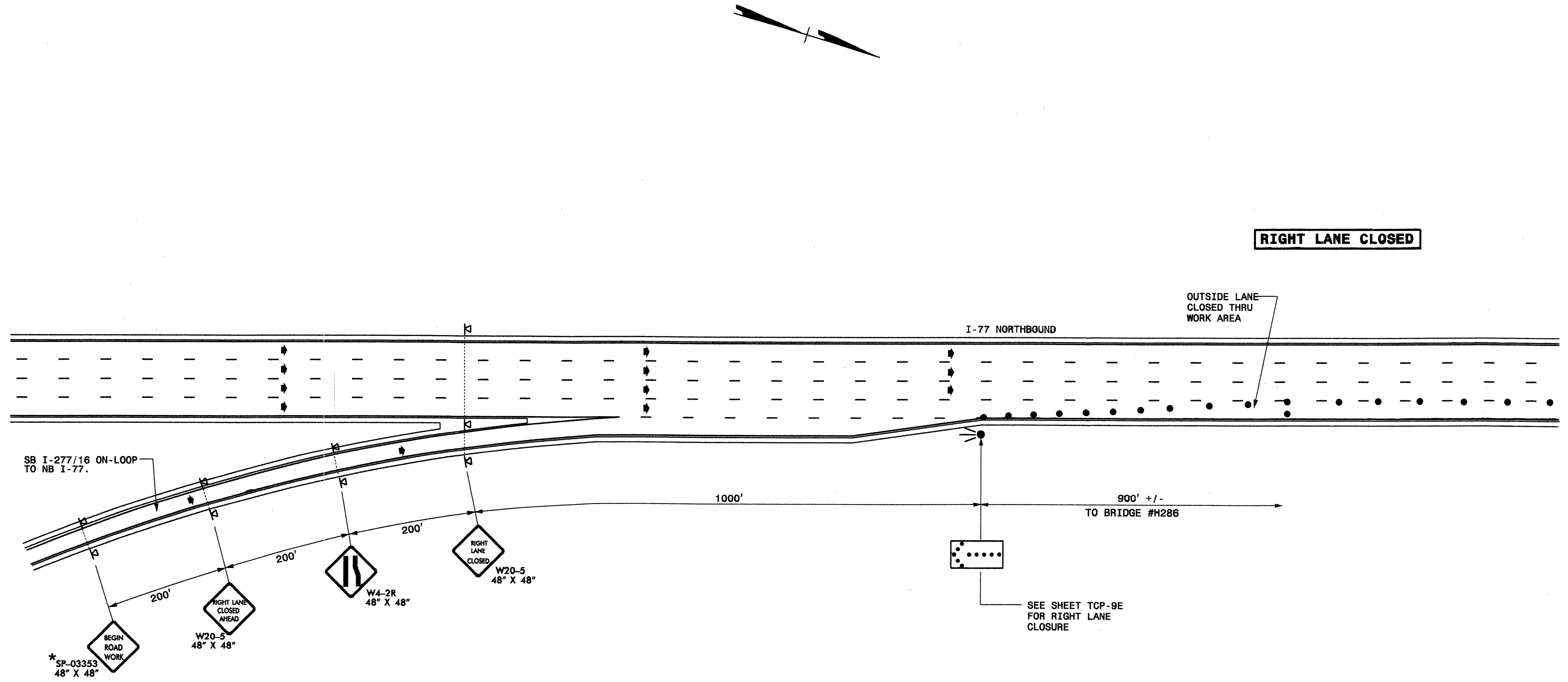
LEGEND	
●	DRUM
⊞	PORTABLE SIGN
➔	DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
 1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	OAKLAWN AVE. / BRIDGE #H286 TEMPORARY TWO LANE CLOSURE THRU EXIT RAMPS		
	SCALE: NONE		
	DATE: 04/09		REVISIONS
	DWG. BY: SNG		
	DESIGN BY: SNG		
REVIEWED BY: JWG			

06-JAN-2010 14:43  
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 sngreen AT WZTC244733

06-JAN-2010 14:44  
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 sngreen AT WZTC24733



**NOTES**

- 1- REFER TO NOTES ON SHEET TCP-9E.
- 2- MOUNT SIGNS SHOWN A MINIMUM OF 5 FEET ABOVE THE PAVEMENT ELEVATION.

**LEGEND**

- ◻ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ▤ PORTABLE SIGN
- ◄ FLASHING ARROW PANEL
- ◆ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGNS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

OAKLAWN AVE./BRIDGE #H286  
NORTHBOUND I-77  
OUTSIDE LANE CLOSED

SCALE: NONE	REVISIONS
DATE: 04/09	
DWG. BY: SNG	
DESIGN BY: SNG	
REVIEWED BY: JWG	

PHASE 1

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 - JULY 2006" AND USING SHEETS TCP-10A THRU TCP-10H.

NORTHBOUND I-77

- CLOSE NB OUTSIDE LANE: SEE SHEET TCP-10B, TCP-10E.
- CLOSE NB INSIDE LANE: SEE SHEET TCP-10B.
- CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-10C
- CLOSE NB INSIDE THREE LANES: SEE SHEET TCP-10D.

SOUTHBOUND I-77

- CLOSE OFF-RAMP FROM I-85NB AND ONE OUTSIDE LANE: SEE SHEETS TCP-10A, TCP-10B, TCP-10E.
- CLOSE OFF-RAMP FROM I-85NB AND TWO OUTSIDE LANES: SEE SHEETS TCP-10A, TCP-10C, TCP-10E.
- CLOSE SB HOV LANE NORTH OF SPLIT: SEE SHEET TCP-10B, TCP-10F.
- CLOSE SB HOV LANE AND INSIDE LANE: SEE SHEET TCP-10C, TCP-10G.
- CLOSE SB HOV LANE AND TWO INSIDE LANES: SEE SHEET TCP-10D, TCP-10H.

NOTES:

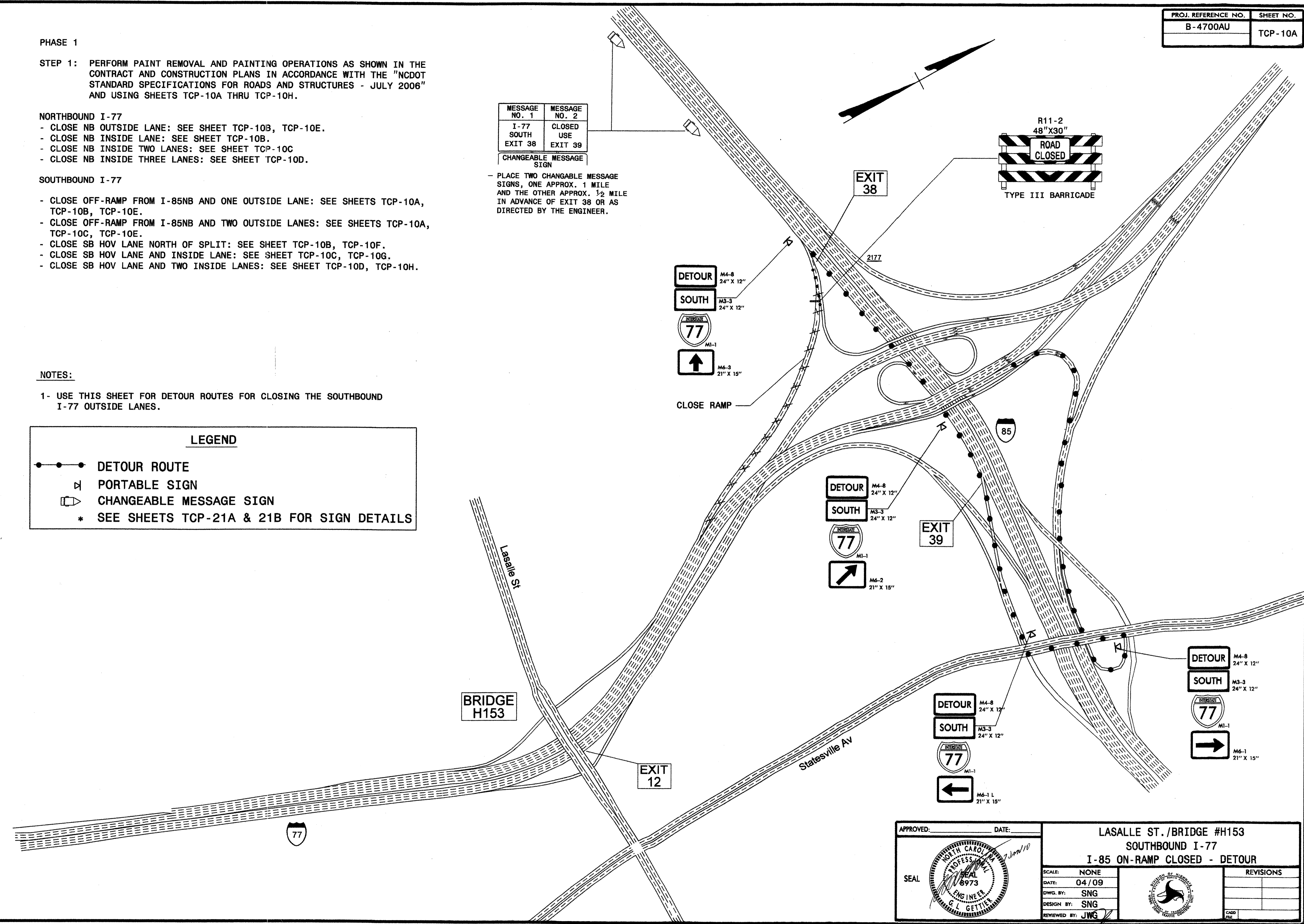
- 1- USE THIS SHEET FOR DETOUR ROUTES FOR CLOSING THE SOUTHBOUND I-77 OUTSIDE LANES.

LEGEND	
	DETOUR ROUTE
	PORTABLE SIGN
	CHANGEABLE MESSAGE SIGN
*	SEE SHEETS TCP-21A & 21B FOR SIGN DETAILS

MESSAGE NO. 1	MESSAGE NO. 2
I-77 SOUTH EXIT 38	CLOSED USE EXIT 39

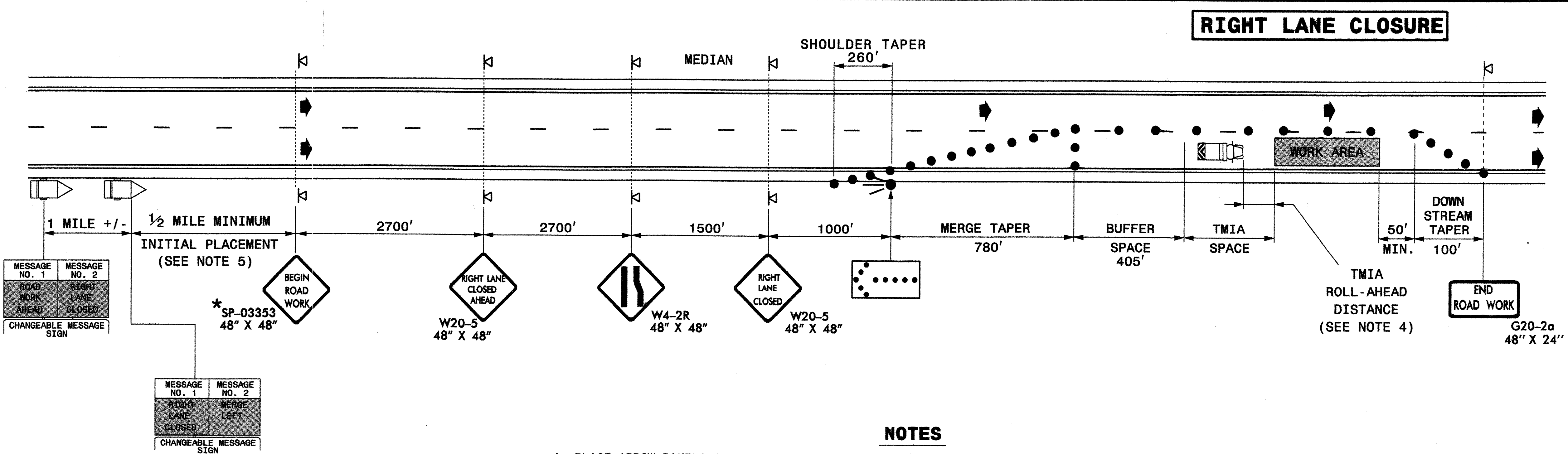
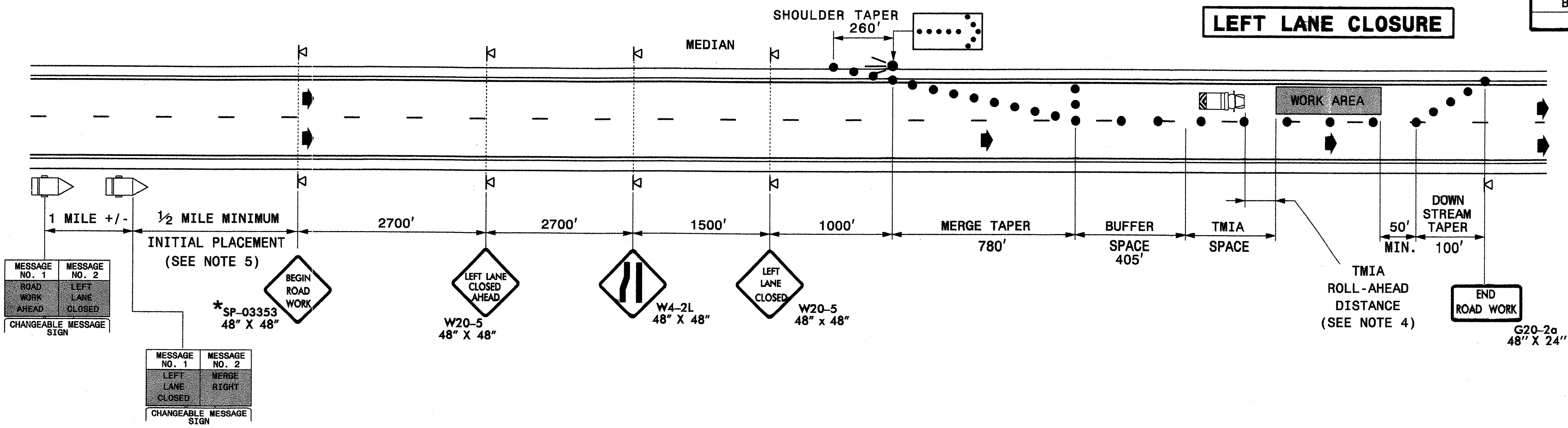
CHANGEABLE MESSAGE SIGN

PLACE TWO CHANGABLE MESSAGE SIGNS, ONE APPROX. 1 MILE AND THE OTHER APPROX. 1/2 MILE IN ADVANCE OF EXIT 38 OR AS DIRECTED BY THE ENGINEER.



06-JAN-2010 14:45  
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 sngreen AT WZTC244733

APPROVED: _____ DATE: _____	<b>LASALLE ST./BRIDGE #H153</b> <b>SOUTHBOUND I-77</b> <b>I-85 ON-RAMP CLOSED - DETOUR</b>	
	SCALE: NONE	
	DATE: 04/09	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	



**NOTES**

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- 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.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-10E FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

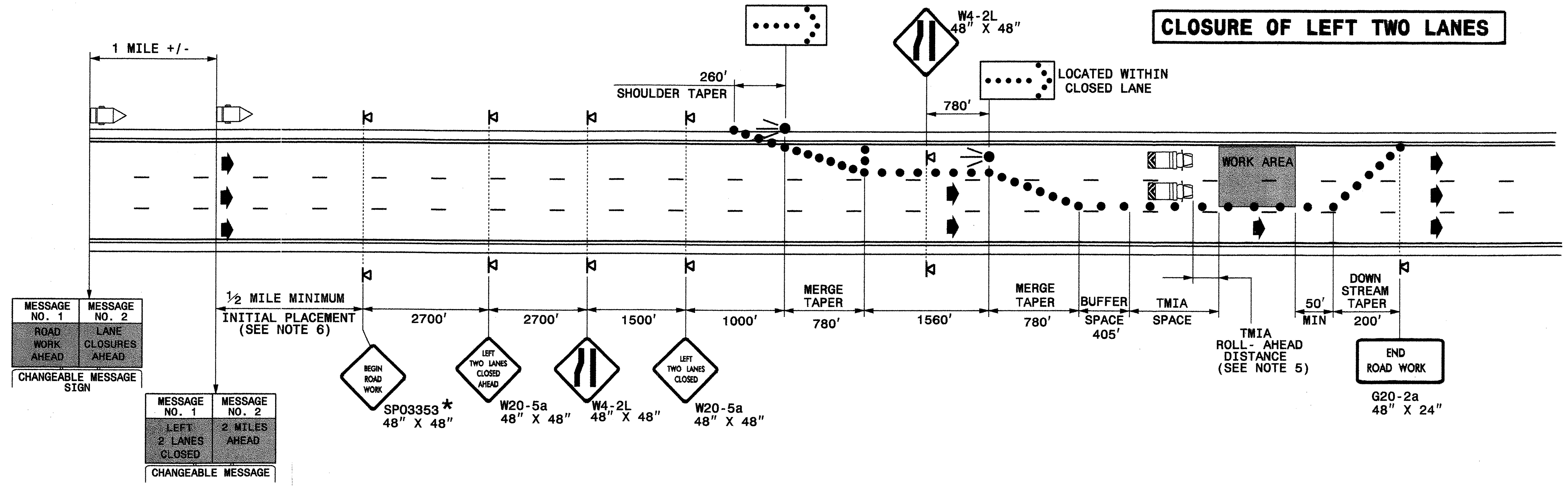
- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- △ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<p><b>LASALLE ST./BRIDGE #H153</b>  <b>TEMPORARY LANE CLOSURE</b>  <b>INSIDE/OUTSIDE LANE CLOSED</b></p>		REVISIONS			
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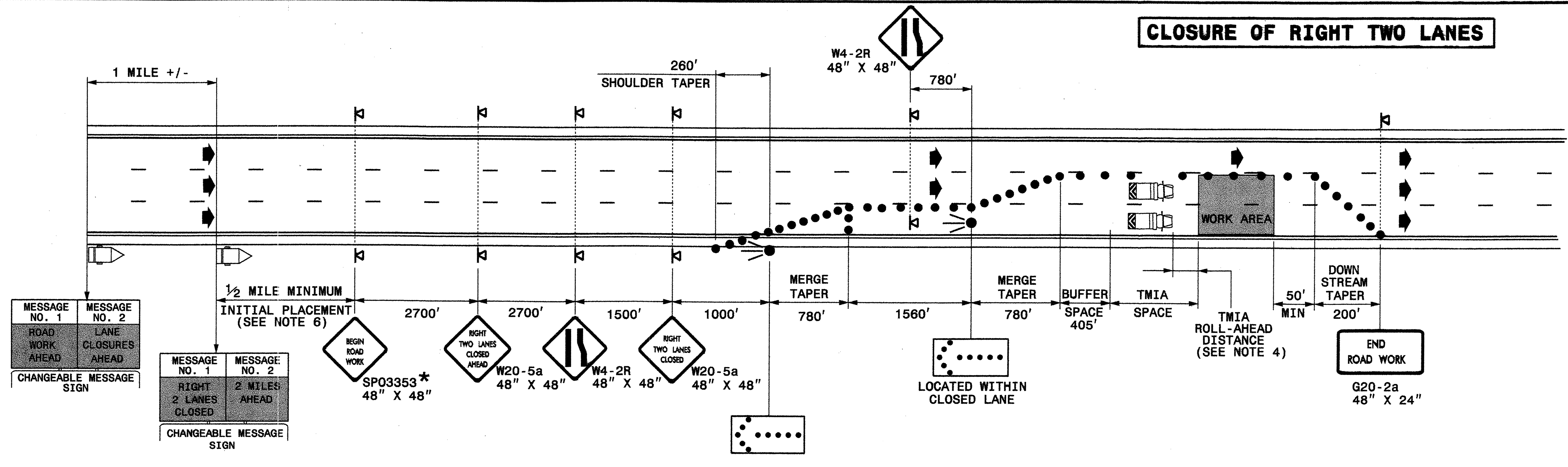
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 sngreen AT WZTC244733



### CLOSURE OF LEFT TWO LANES



### CLOSURE OF RIGHT TWO LANES



**NOTES**  
1-REFER TO NOTES ON SHEET TCP-10B.

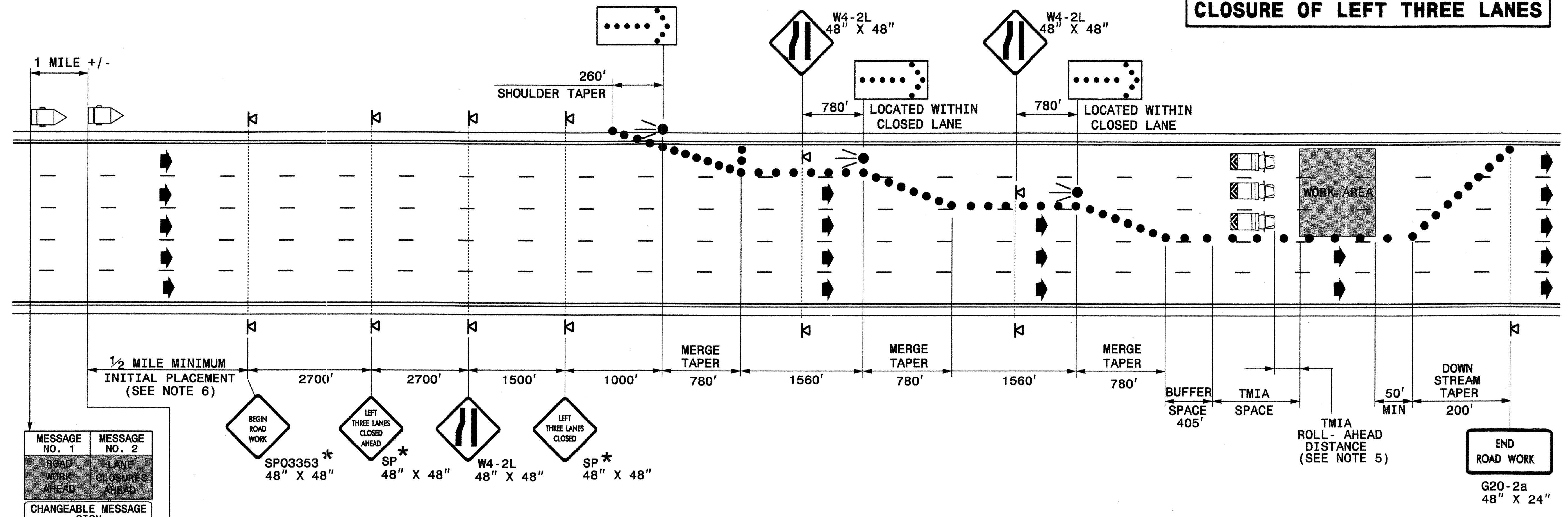
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<p>LASALLE ST./BRIDGE #H153 TEMPORARY LANE CLOSURES TWO LANES CLOSED</p>	SCALE: NONE		REVISIONS
		DATE: 04/09		DESIGN BY: SNG
		DESIGNED BY: SNG		REVISIONS
		REVIEWED BY: JWG		REVISIONS

06-JAN-2010 16:01 \\DOT\DFSROOT\GROUPOPS-WZT\CCC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Painting\Bridges\Charlotte\Bridg Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP10C.dgn

### CLOSURE OF LEFT THREE LANES



MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	LANE CLOSURES AHEAD

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1	MESSAGE NO. 2
LEFT 3 LANES CLOSED	2 MILES AHEAD

CHANGEABLE MESSAGE SIGN

#### GENERAL NOTES

1-REFER TO NOTES ON SHEET TCP-10B.

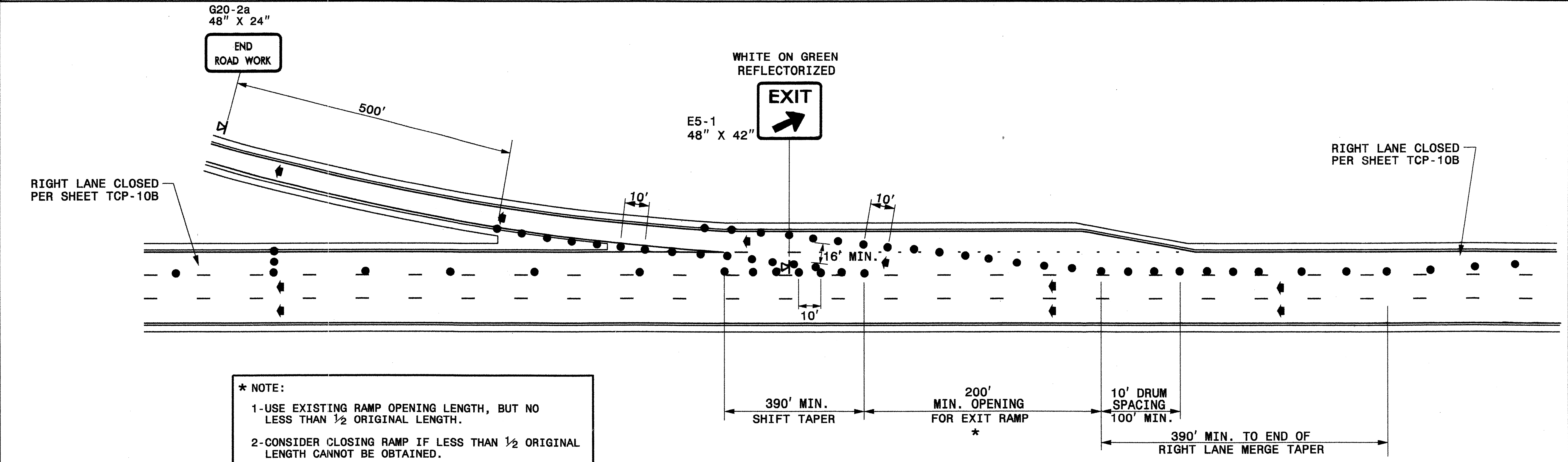
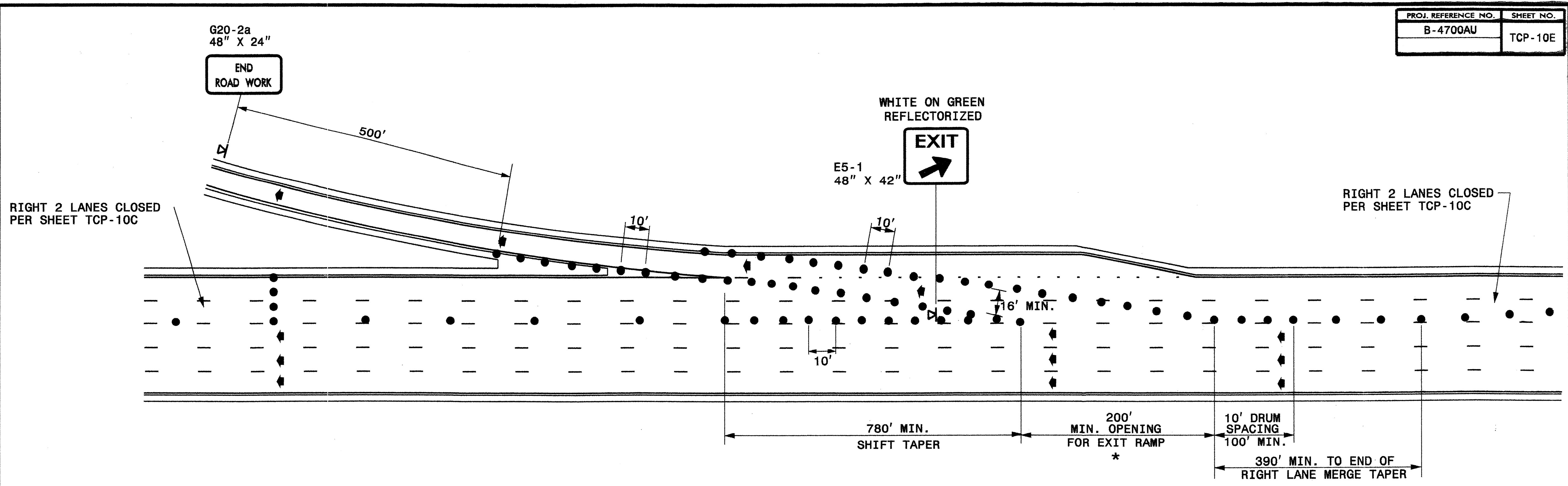
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	<b>LASALLE ST./BRIDGE #H153 TEMPORARY LANE CLOSURE INSIDE THREE LANES CLOSED</b>							
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	DATE: 04/09								
	DWG. BY: SNG								
	DESIGN BY: SNG								
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REVISIONS									

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 sngreen AT WZTC244733



**\* NOTE:**

- 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.
- 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

**LEGEND**

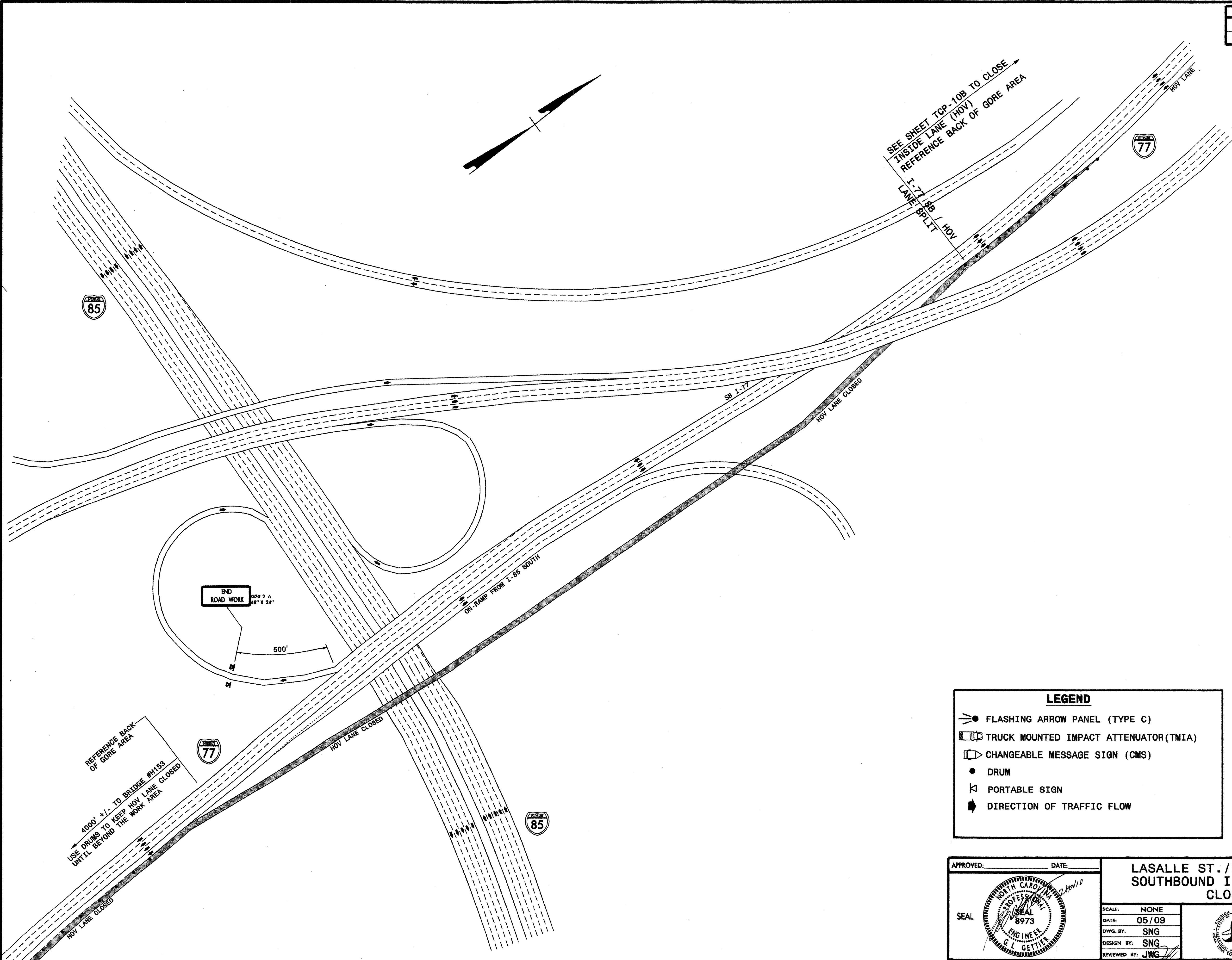
- DRUM
- ◀ PORTABLE SIGN
- ◀ DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**

1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED:	DATE:	<b>LASALLE ST./BRIDGE #H153          TEMPORARY LANE CLOSURES          THRU EXIT RAMPS</b>	<table border="1"> <tr> <td>SCALE:</td> <td>NONE</td> </tr> <tr> <td>DATE:</td> <td>04/09</td> </tr> <tr> <td>DWG. BY:</td> <td>SNG</td> </tr> <tr> <td>DESIGN BY:</td> <td>SNG</td> </tr> <tr> <td>REVIEWED BY:</td> <td>JWG</td> </tr> </table>	SCALE:	NONE	DATE:	04/09	DWG. BY:	SNG	DESIGN BY:	SNG	REVIEWED BY:	JWG
SCALE:	NONE												
DATE:	04/09												
DWG. BY:	SNG												
DESIGN BY:	SNG												
REVIEWED BY:	JWG												
		REVISIONS											

06-JAN-2010 14:49  
 \YDOT\JDFSR0010\GROUPS-WZTCCC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP10F.dgn  
 AT WZTC244733  
 sngrean

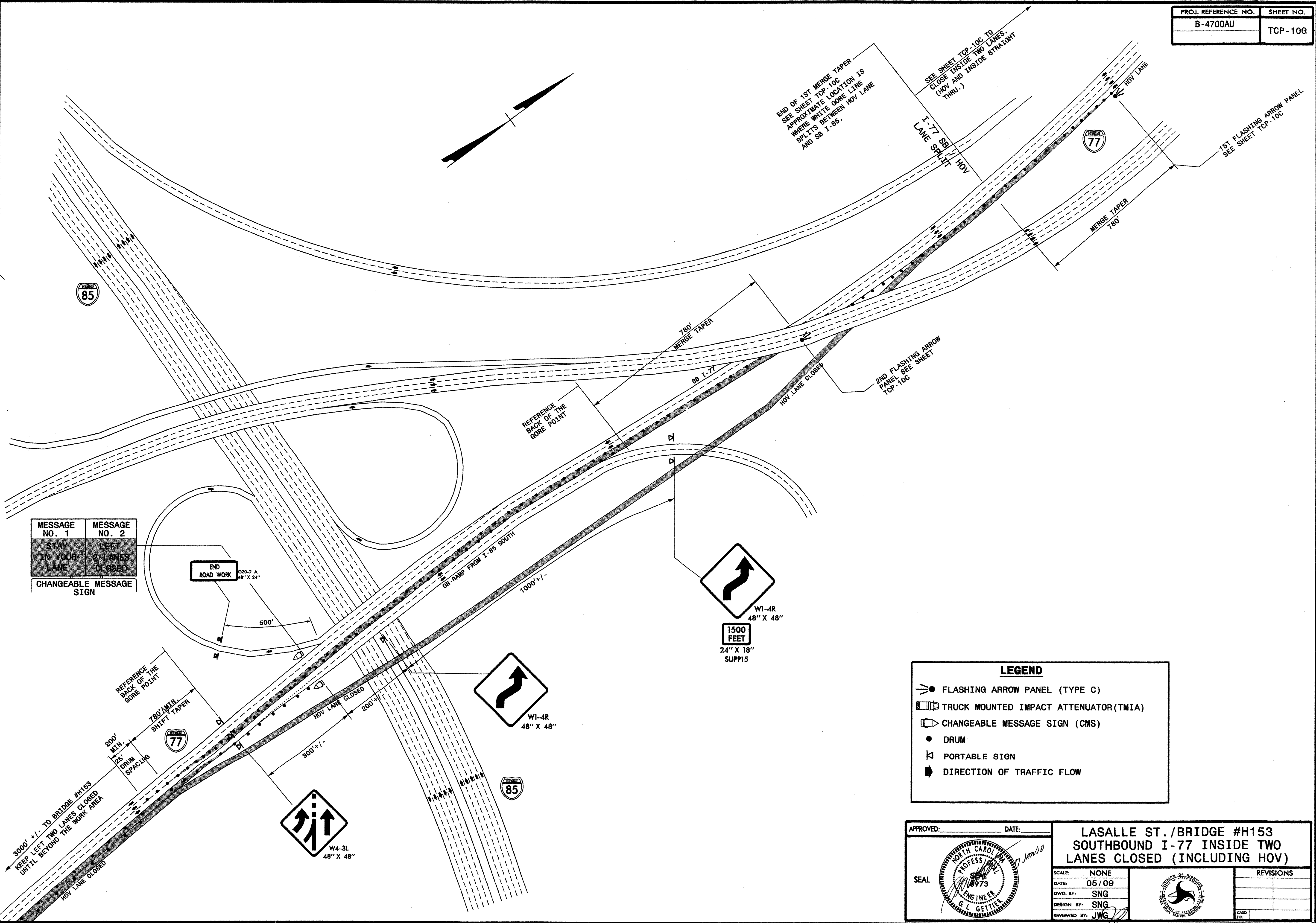


**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW

APPROVED: _____ DATE: _____	<b>LASALLE ST./BRIDGE #H153 SOUTHBOUND I-77 HOV LANE CLOSED</b>			REVISIONS
				SCALE: NONE
	DATE: 05/09			
	DWG. BY: SNG			
	DESIGN BY: SNG			
	REVIEWED BY: JWG			

06-JAN-2010 14:49  
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 sngreen AT WZTC244733

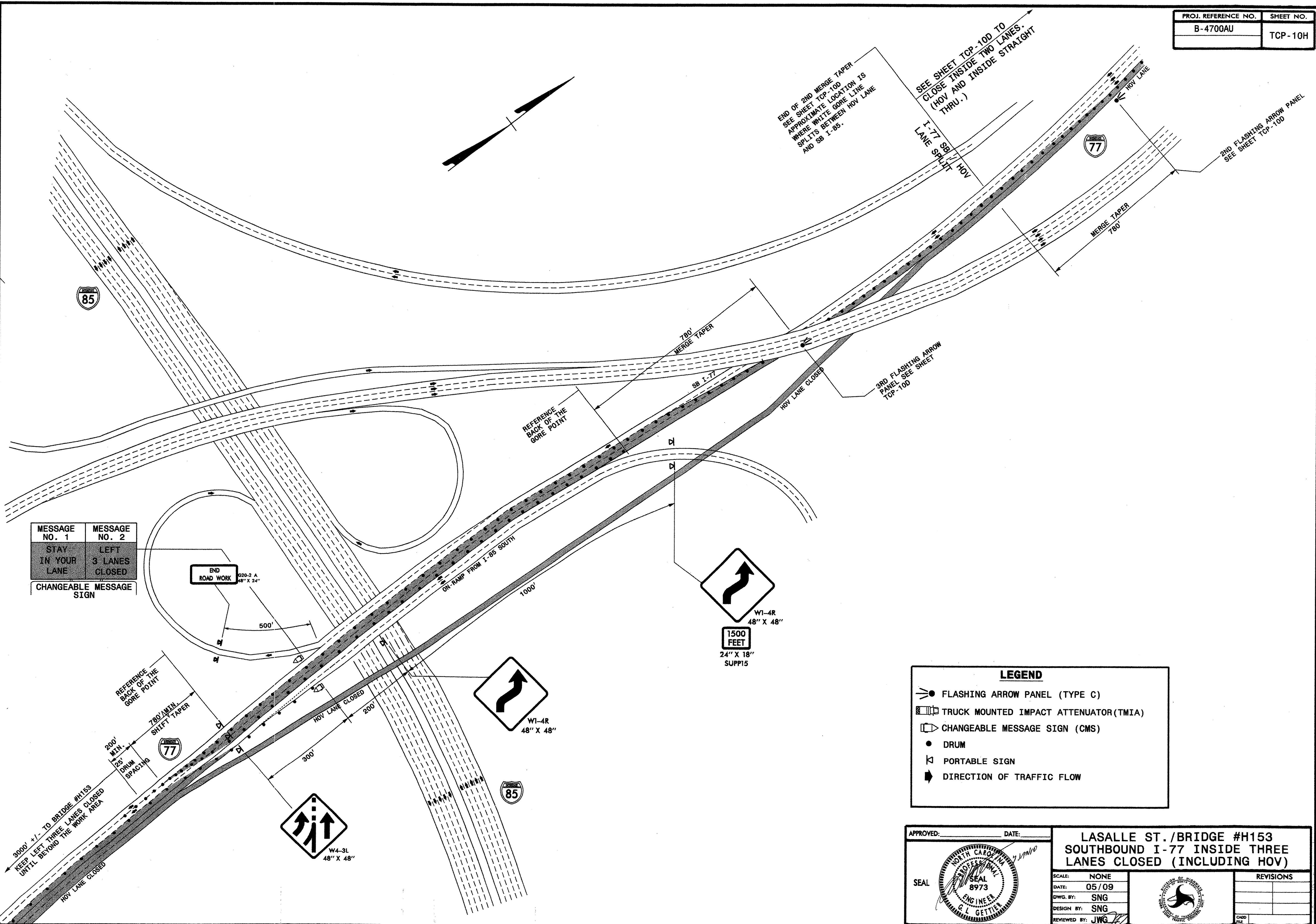


MESSAGE NO. 1	MESSAGE NO. 2
STAY IN YOUR LANE	LEFT 2 LANES CLOSED
CHANGEABLE MESSAGE SIGN	

LEGEND	
	FLASHING ARROW PANEL (TYPE C)
	TRUCK MOUNTED IMPACT ATTENUATOR(TMIA)
	CHANGEABLE MESSAGE SIGN (CMS)
	DRUM
	PORTABLE SIGN
	DIRECTION OF TRAFFIC FLOW

APPROVED: _____ DATE: _____	<b>LASALLE ST./BRIDGE #H153</b> <b>SOUTHBOUND I-77 INSIDE TWO LANES CLOSED (INCLUDING HOV)</b>	SCALE: NONE		REVISIONS
		DATE: 05/09		DESIGN BY: SNG
		DESIGNED BY: SNG		
		REVIEWED BY: JWG		

06-JAN-2010 14:50  
 \\DOT\DFSR001\GROUPS\WZTC\WZTC\DesignGroup3\Squad38\Special Projects\Charlottesville-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BRDC REPAINT-TCP10H.dgn  
 sngreen AT WZTC244733



MESSAGE NO. 1	MESSAGE NO. 2
STAY IN YOUR LANE	LEFT 3 LANES CLOSED
CHANGEABLE MESSAGE SIGN	

END ROAD WORK  
G20-2 A  
48" X 24"

W1-4R  
48" X 48"  
1500 FEET  
24" X 18" SUPP15

W1-4R  
48" X 48"

W4-3L  
48" X 48"

LEGEND	
	FLASHING ARROW PANEL (TYPE C)
	TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
	CHANGEABLE MESSAGE SIGN (CMS)
	DRUM
	PORTABLE SIGN
	DIRECTION OF TRAFFIC FLOW

APPROVED: _____ DATE: _____	<b>LASALLE ST./BRIDGE #H153</b> <b>SOUTHBOUND I-77 INSIDE THREE LANES CLOSED (INCLUDING HOV)</b>	SCALE: NONE		REVISIONS	
		DATE: 05/09		<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	
SEAL	DESIGN BY: SNG	REVIEWED BY: JWG		CARD FILE	

**PHASE 1**

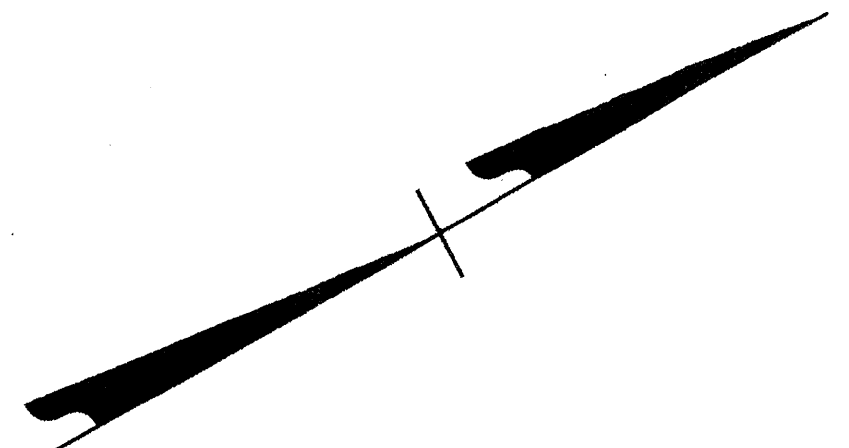
**STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-11A THRU TCP-11G.**

**NORTHBOUND I-77**

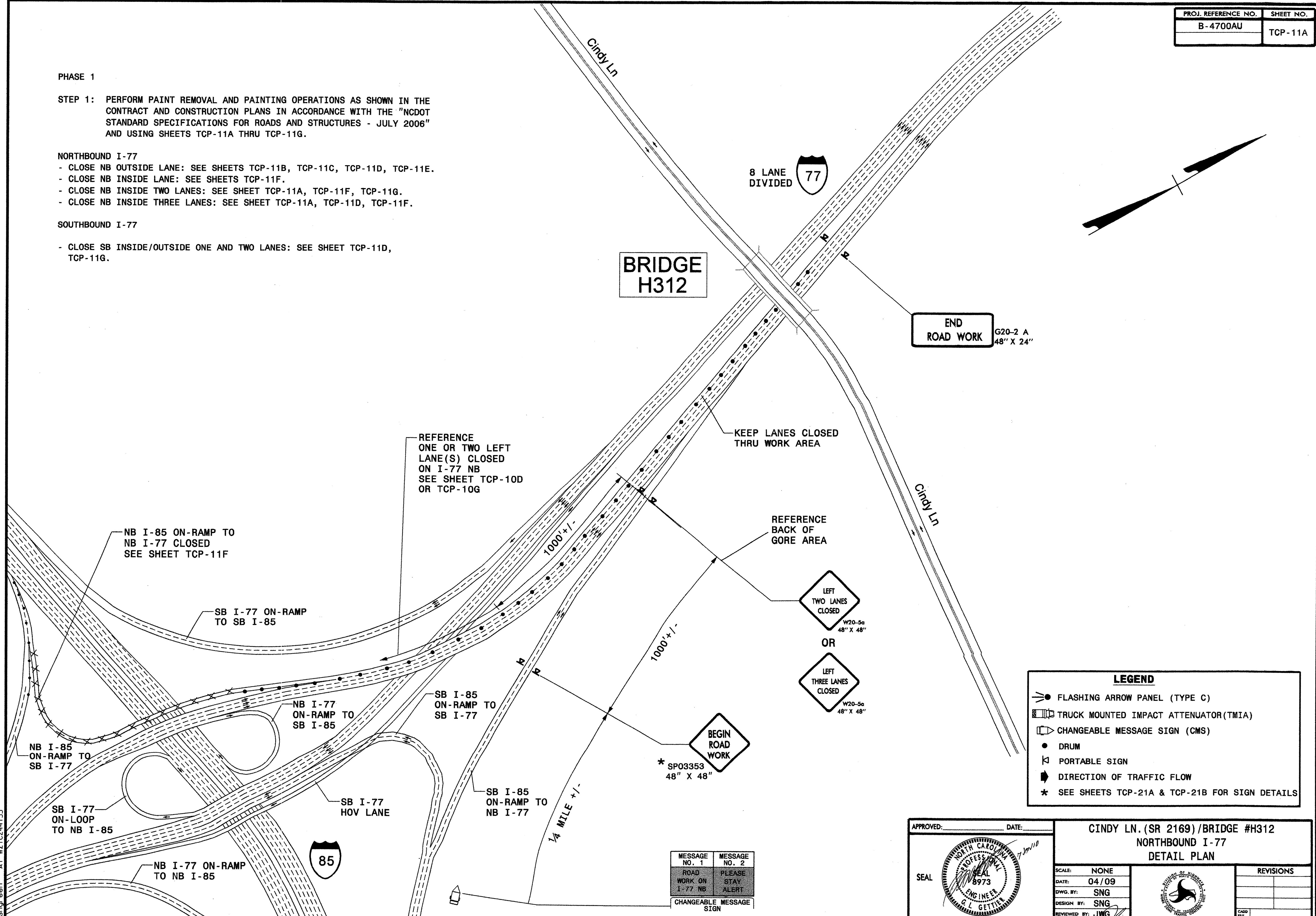
- CLOSE NB OUTSIDE LANE: SEE SHEETS TCP-11B, TCP-11C, TCP-11D, TCP-11E.
- CLOSE NB INSIDE LANE: SEE SHEETS TCP-11F.
- CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-11A, TCP-11F, TCP-11G.
- CLOSE NB INSIDE THREE LANES: SEE SHEET TCP-11A, TCP-11D, TCP-11F.

**SOUTHBOUND I-77**

- CLOSE SB INSIDE/OUTSIDE ONE AND TWO LANES: SEE SHEET TCP-11D, TCP-11G.



06-JAN-2010 14:50 \\DOT\OFF-SRDOT\GROUPS\WZTCCC\WZTC\Design\oup3\Squad3B\SpecialProjects\Bridges\Painting\B-4700AU - Last 13 Bridges\CHL.T-BRDG REPAINT-TCP11A.dgn



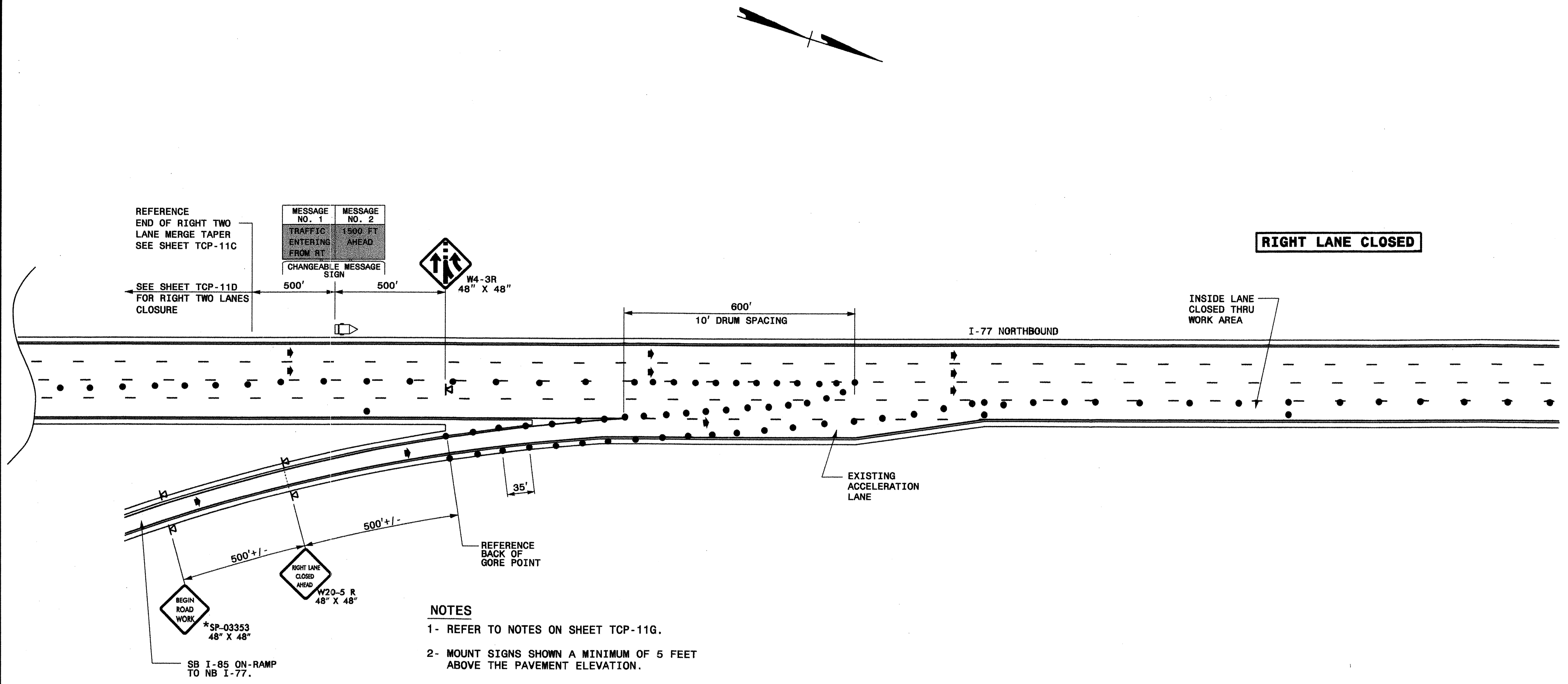
LEGEND	
	FLASHING ARROW PANEL (TYPE C)
	TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
	CHANGEABLE MESSAGE SIGN (CMS)
	DRUM
	PORTABLE SIGN
	DIRECTION OF TRAFFIC FLOW
	SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK ON I-77 NB	PLEASE STAY ALERT
CHANGEABLE MESSAGE SIGN	

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

CINDY LN. (SR 2169)/BRIDGE #H312	
NORTHBOUND I-77	
DETAIL PLAN	
SCALE: NONE	REVISIONS
DATE: 04/09	
DWG. BY: SNG	
DESIGN BY: SNG	
REVIEWED BY: JWG	

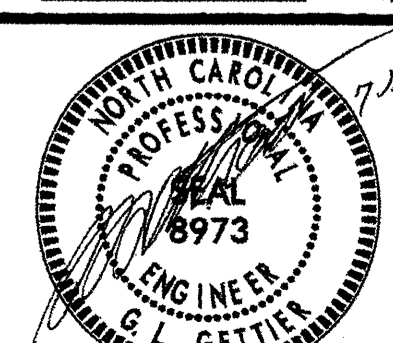
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 sngreen AT WZTC244733



- NOTES**
- 1- REFER TO NOTES ON SHEET TCP-11G.
  - 2- MOUNT SIGNS SHOWN A MINIMUM OF 5 FEET ABOVE THE PAVEMENT ELEVATION.

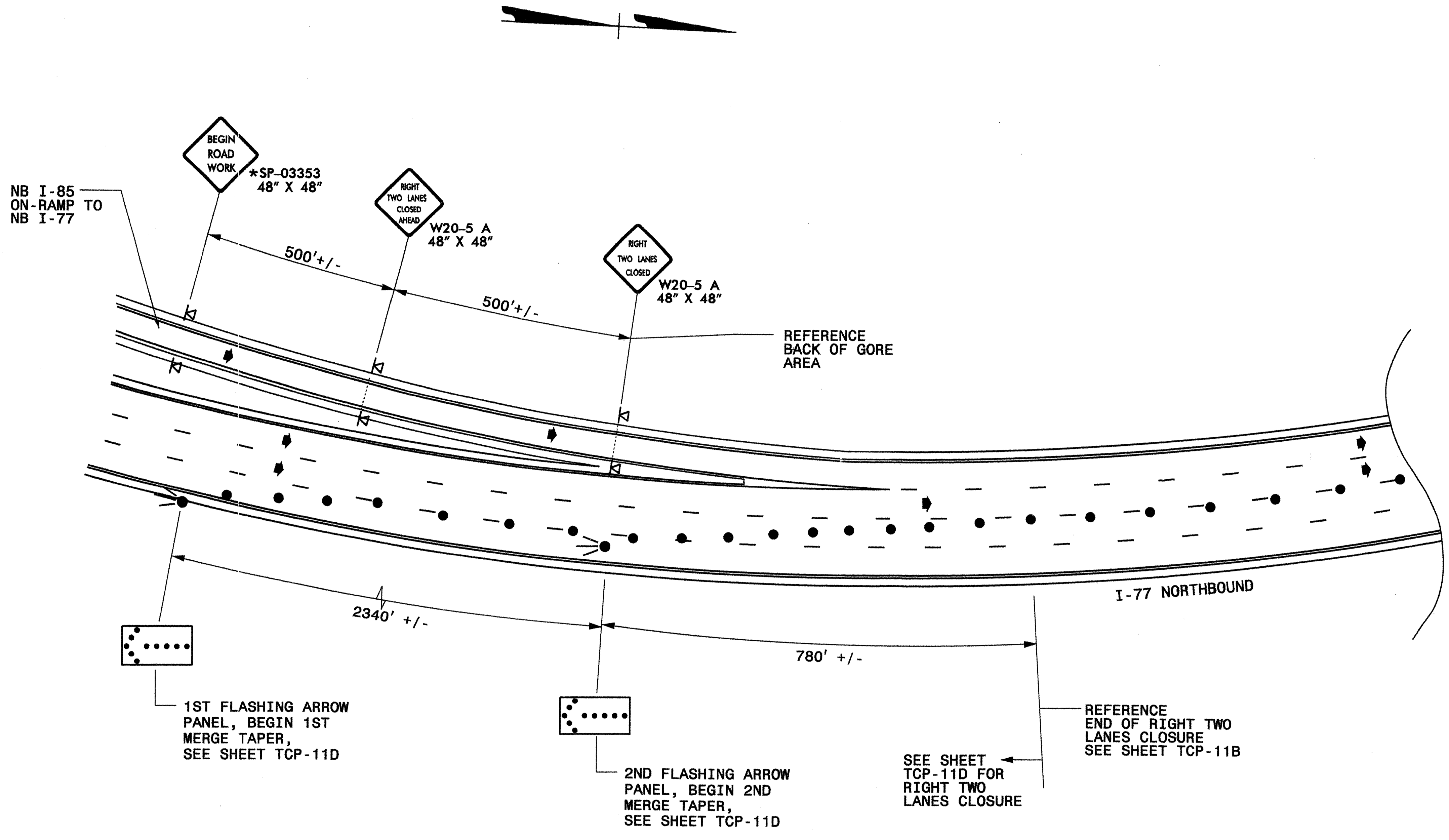
**LEGEND**

- ◻ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ▣ PORTABLE SIGN
- ⚡ FLASHING ARROW PANEL
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGNS

APPROVED: _____	DATE: _____	CINDY LN. (SR 2169) / BRIDGE #H312 NORTHBOUND I-77 OUTSIDE LANE CLOSED	
			
		DATE: 04/09	REVISIONS
DWG. BY: SNG			
DESIGN BY: SNG			
REVIEWED BY: JWG			



**RIGHT TWO LANES CLOSED**

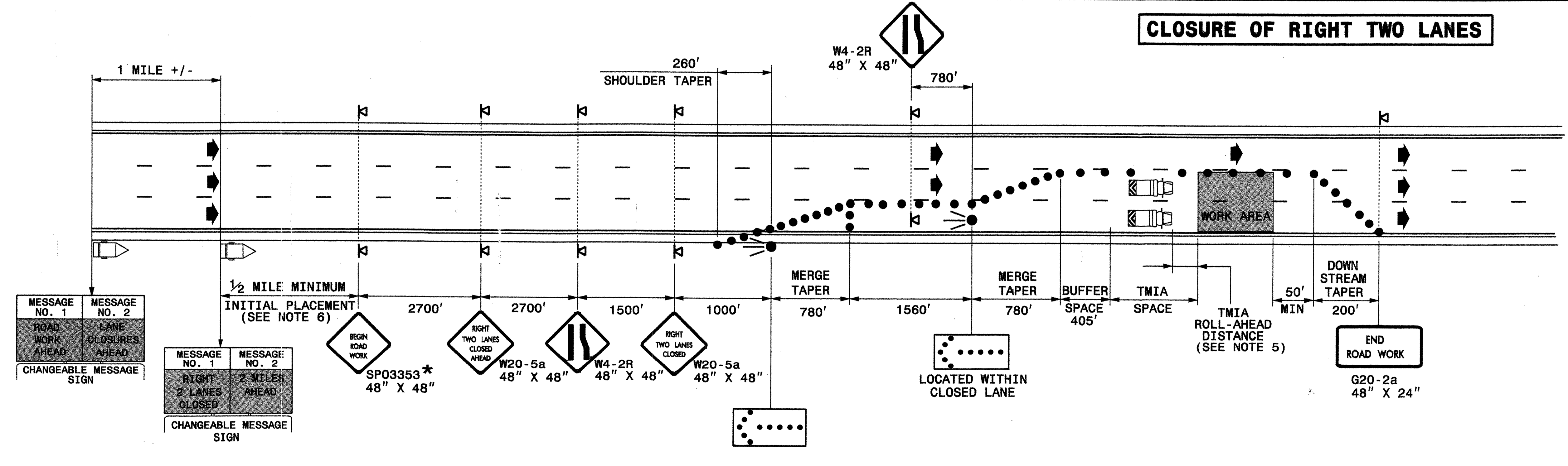
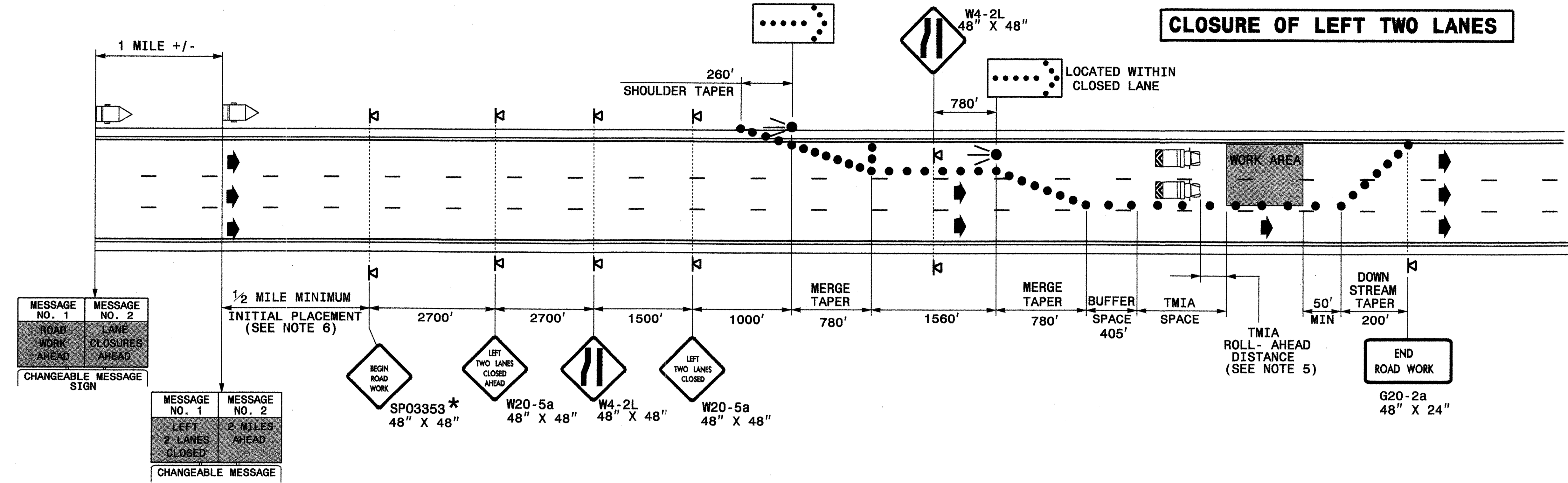


**LEGEND**

- ◻ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ◀ PORTABLE SIGN
- FLASHING ARROW PANEL
- ▶ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGNS

APPROVED: _____ DATE: _____	<p align="center"><b>CINDY LN. (SR 2169)/BRIDGE #H312</b>  <b>NORTHBOUND I-77</b>  <b>OUTSIDE TWO LANES CLOSED</b></p>	SCALE: NONE		REVISIONS		
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SEAL						

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 sngrreen AT WZTCCC244733



**NOTES**  
1-REFER TO NOTES ON SHEET TCP-11G.

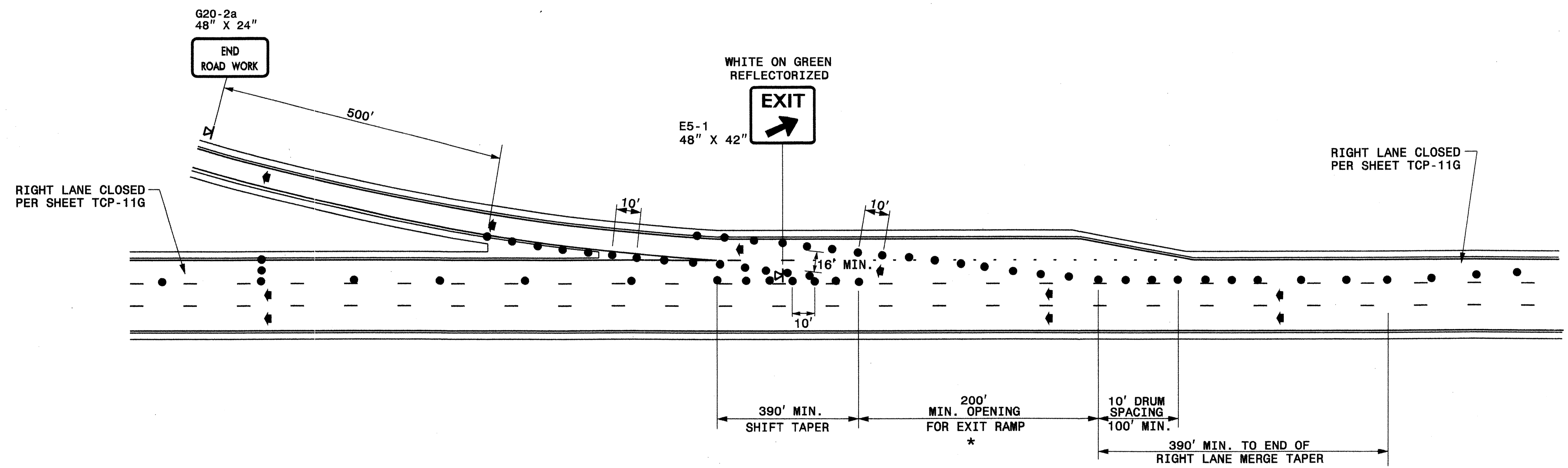
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	CINDY LN. (SR 2169)/BRIDGE #H312 TEMPORARY LANE CLOSURES TWO LANES CLOSED	
	SCALE: NONE		
	DATE: 04/09		
	DWG. BY: SNG		
DESIGN BY: SNG	REVISIONS		
REVIEWED BY: JWG			

06-JAN-2010 15:05 \\DOT\DFSRO01\GROUPS-WZ\TCCC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Painting\Projects\Charlotte-Bridge\Painting\B-4700AU - Last 13 Bridges\CHLT-BROG REPAINT-TCP11D.dgn

05-JAN-2010 15:05  
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 sngreen AT WZTCC24733



**\* NOTE:**

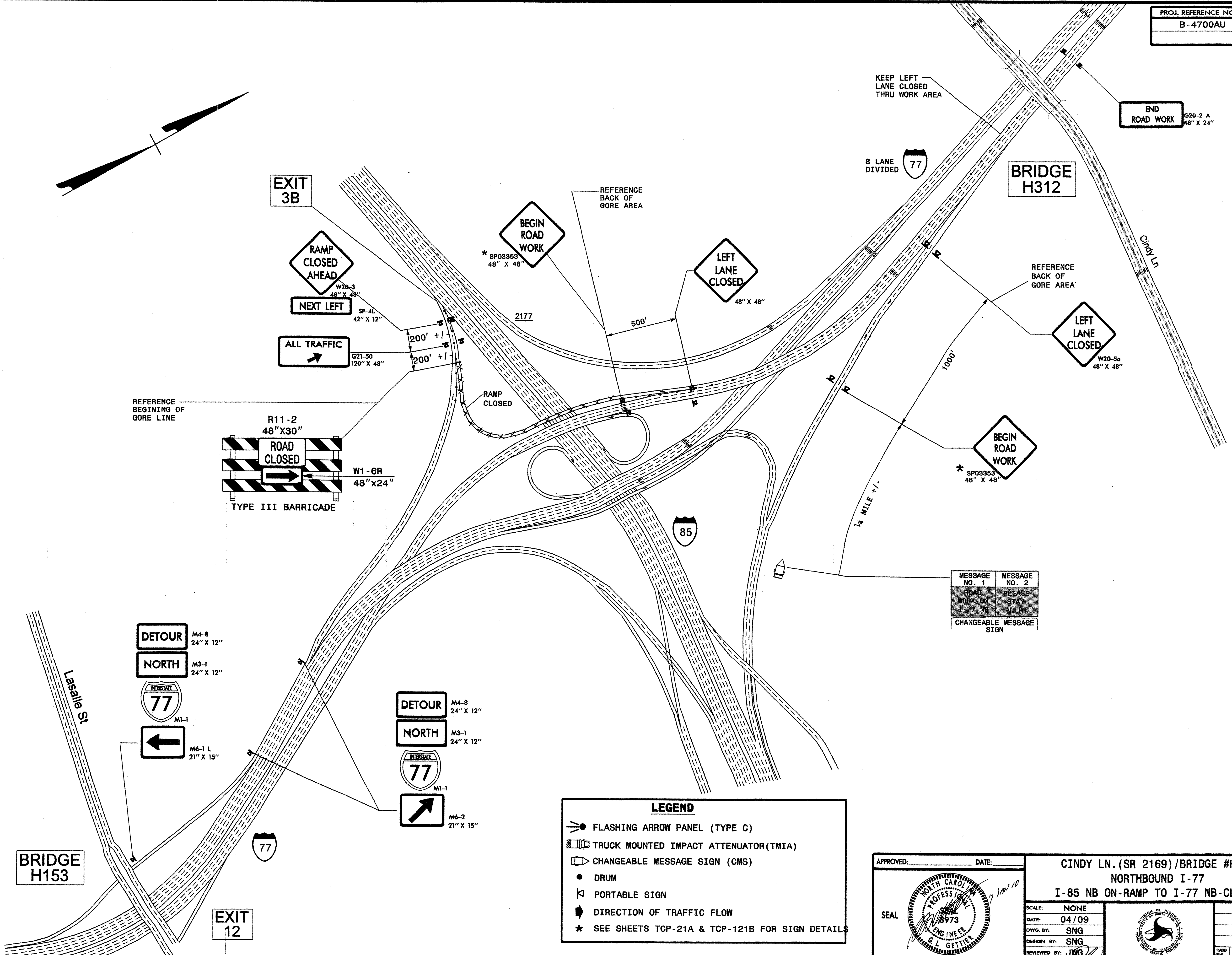
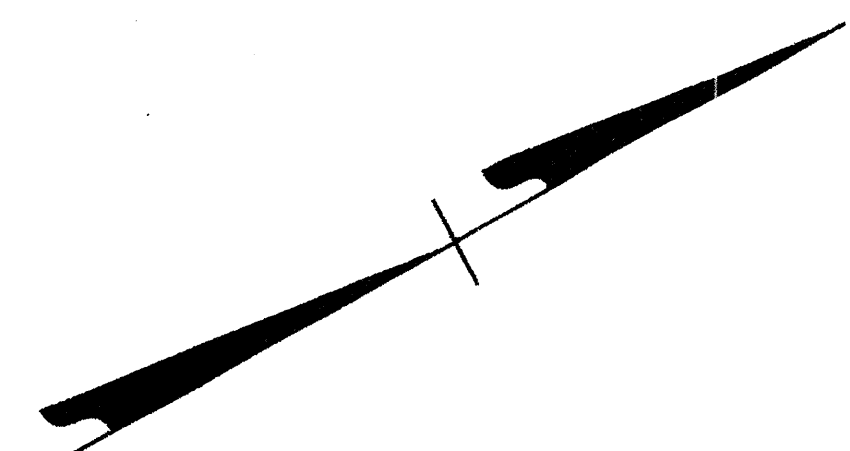
- 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.
- 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

LEGEND	
●	DRUM
⚡	PORTABLE SIGN
↔	DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**

1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

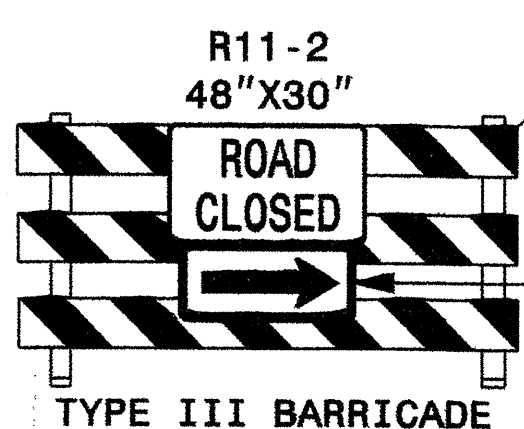
APPROVED: _____	DATE: _____	<b>CINDY LN. (SR 2169) / BRIDGE #H312</b>	
		<b>TEMPORARY LANE CLOSURES</b>	
		<b>THRU EXIT RAMPS</b>	
		SCALE: NONE	REVISIONS
		DATE: 04/09	
DWG. BY: SNG			
DESIGN BY: SNG			
REVIEWED BY: JWG			



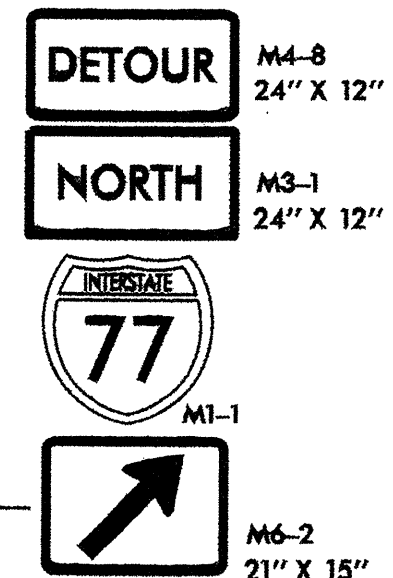
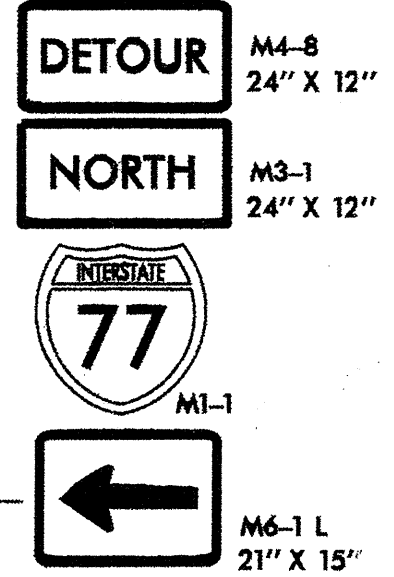
REFERENCE BEGINNING OF GORE LINE

REFERENCE BACK OF GORE AREA

REFERENCE BACK OF GORE AREA



MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK ON I-77 NB	PLEASE STAY ALERT
CHANGEABLE MESSAGE SIGN	



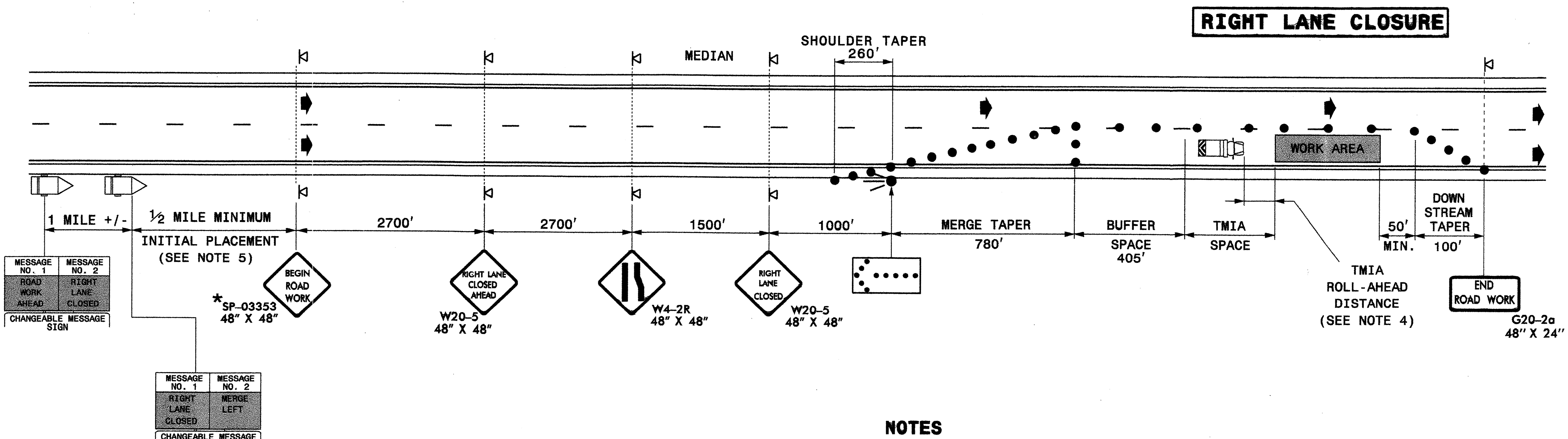
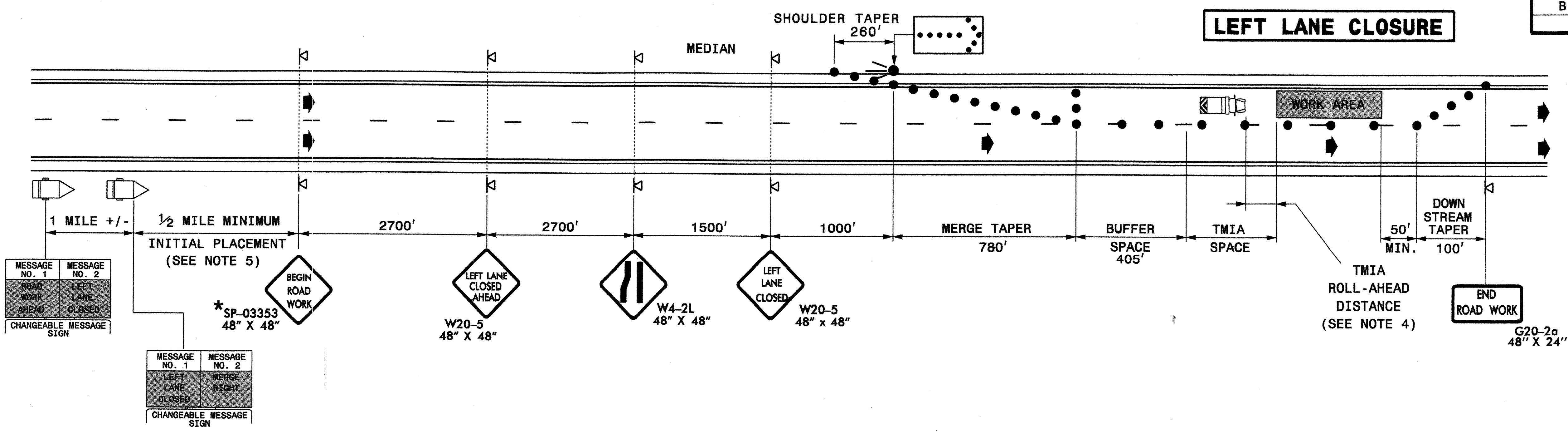
- LEGEND**
- FLASHING ARROW PANEL (TYPE C)
  - ▣ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
  - ▢ CHANGEABLE MESSAGE SIGN (CMS)
  - DRUM
  - ▣ PORTABLE SIGN
  - ➔ DIRECTION OF TRAFFIC FLOW
  - \* SEE SHEETS TCP-21A & TCP-121B FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

CINDY LN. (SR 2169)/BRIDGE #H312		REVISIONS
NORTHBOUND I-77		
I-85 NB ON-RAMP TO I-77 NB-CLOSED		
SCALE:	NONE	
DATE:	04/09	
DESIGN BY:	SNG	
REVIEWED BY:	JWG	CADD FILE

05-JAN-2010 15:05  
 VS:\DOT\SR\PROJECTS\GROUPS\WZ\TCC\WZTC\DesignGroup3\Saud3B\SpecialProjects\Bridges\Charlotte-Bridge Painting\Projects\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP11F.dgn  
 sng/ean AT WZTC244733



**NOTES**

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- 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.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-11E FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	CINDY LN. (SR 2169)/BRIDGE #H312 TEMPORARY LANE CLOSURE ONE LANE CLOSED				
	SCALE: NONE				
	DATE: 04/09				
	DESIGN BY: SNG				
	REVIEWED BY: JWG				
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REVISIONS					

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 AT WZTC244733  
 sngreen

**PHASE 1**

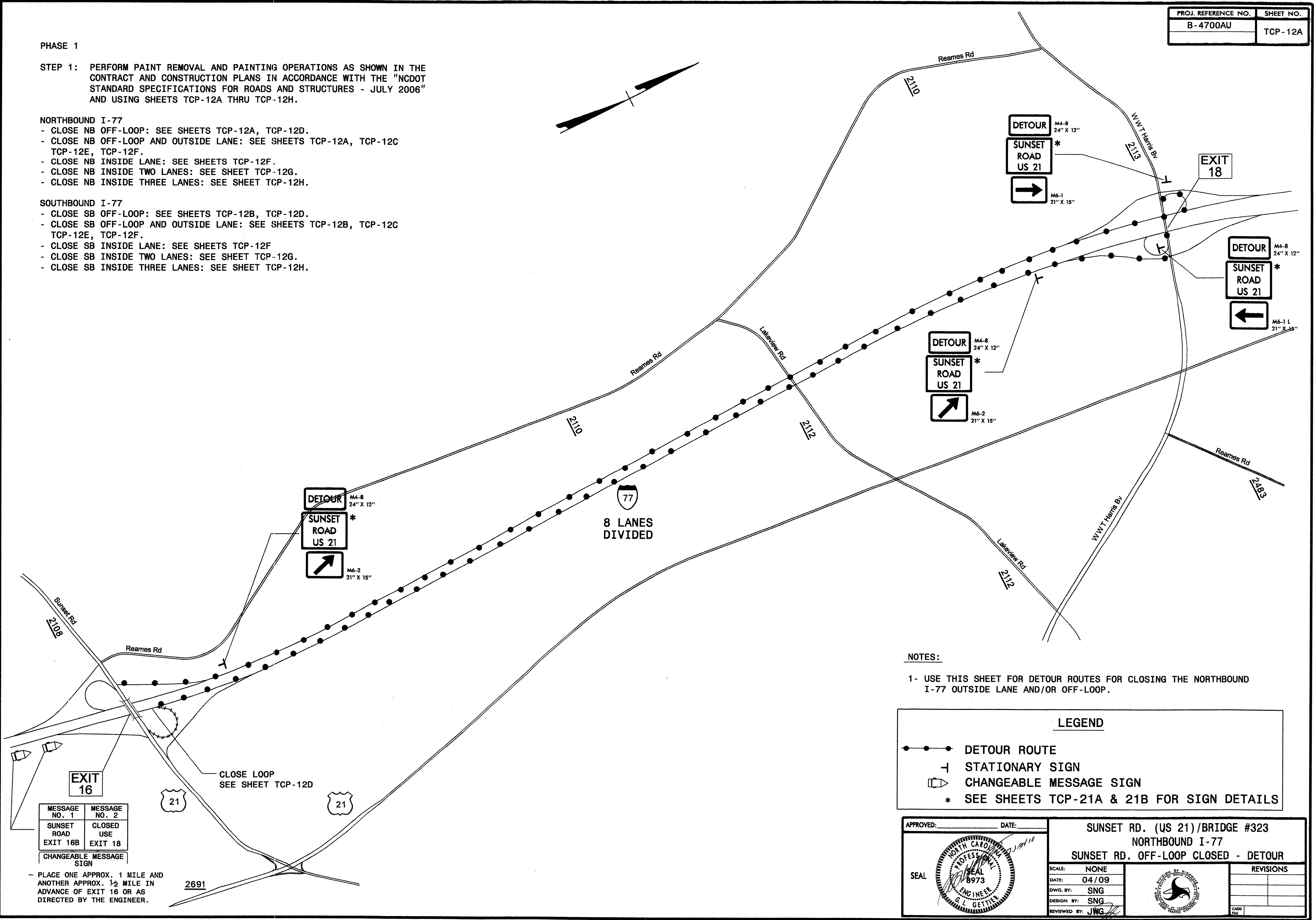
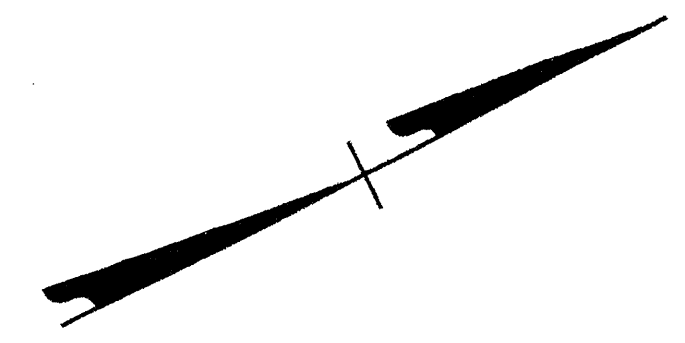
**STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JULY 2006" AND USING SHEETS TCP-12A THRU TCP-12H.**

**NORTHBOUND I-77**

- CLOSE NB OFF-LOOP: SEE SHEETS TCP-12A, TCP-12D.
- CLOSE NB OFF-LOOP AND OUTSIDE LANE: SEE SHEETS TCP-12A, TCP-12C TCP-12E, TCP-12F.
- CLOSE NB INSIDE LANE: SEE SHEETS TCP-12F.
- CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-12G.
- CLOSE NB INSIDE THREE LANES: SEE SHEET TCP-12H.

**SOUTHBOUND I-77**

- CLOSE SB OFF-LOOP: SEE SHEETS TCP-12B, TCP-12D.
- CLOSE SB OFF-LOOP AND OUTSIDE LANE: SEE SHEETS TCP-12B, TCP-12C TCP-12E, TCP-12F.
- CLOSE SB INSIDE LANE: SEE SHEETS TCP-12F.
- CLOSE SB INSIDE TWO LANES: SEE SHEET TCP-12G.
- CLOSE SB INSIDE THREE LANES: SEE SHEET TCP-12H.



**NOTES:**

- 1- USE THIS SHEET FOR DETOUR ROUTES FOR CLOSING THE NORTHBOUND I-77 OUTSIDE LANE AND/OR OFF-LOOP.

**LEGEND**

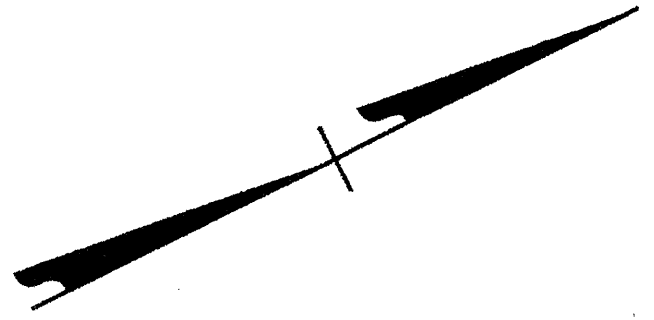
- DETOUR ROUTE
- ⊥ STATIONARY SIGN
- ◻ CHANGEABLE MESSAGE SIGN
- \* SEE SHEETS TCP-21A & 21B FOR SIGN DETAILS

<b>EXIT 16</b>	
MESSAGE NO. 1 SUNSET ROAD EXIT 16B	MESSAGE NO. 2 CLOSED USE EXIT 18
CHANGEABLE MESSAGE SIGN	

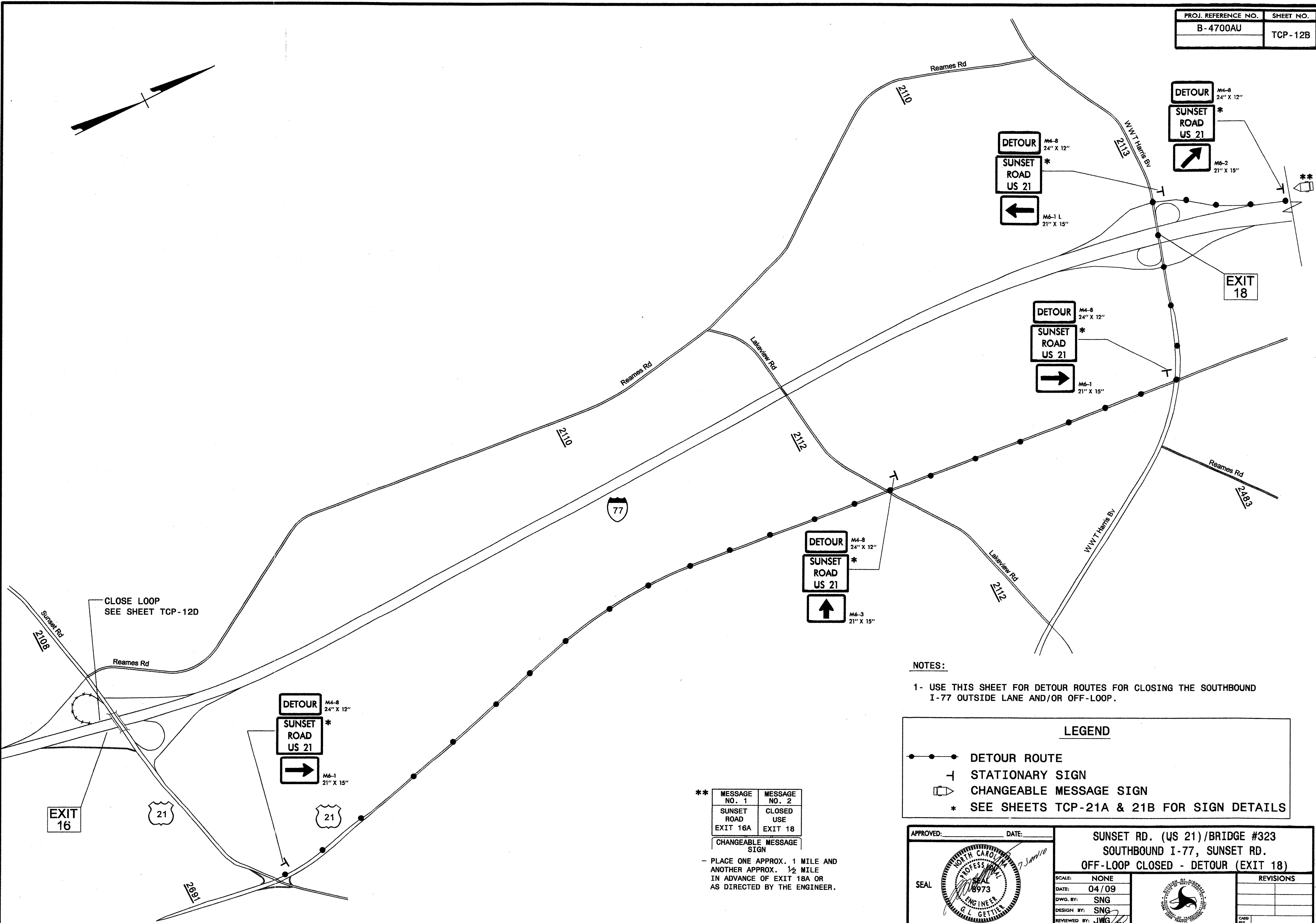
PLACE ONE APPROX. 1 MILE AND ANOTHER APPROX. 1/2 MILE IN ADVANCE OF EXIT 16 OR AS DIRECTED BY THE ENGINEER.

APPROVED: _____	DATE: _____	<b>SUNSET RD. (US 21)/BRIDGE #323 NORTHBOUND I-77 SUNSET RD. OFF-LOOP CLOSED - DETOUR</b>		
	SCALE: NONE			
	DATE: 04/09			REVISIONS
	DESIGN BY: SNG			
	REVIEWED BY: JWG			

06-JAN-2010 15:08  
 \DOT\OFFSHOOTS\GROUPS-WZTC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Painting\Charlotte-Bridge\Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP12A.dgn  
 AT WZTC24733  
 sngreen



06-JAN-2010 15:09  
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 sngrreen AT WZTCC244733



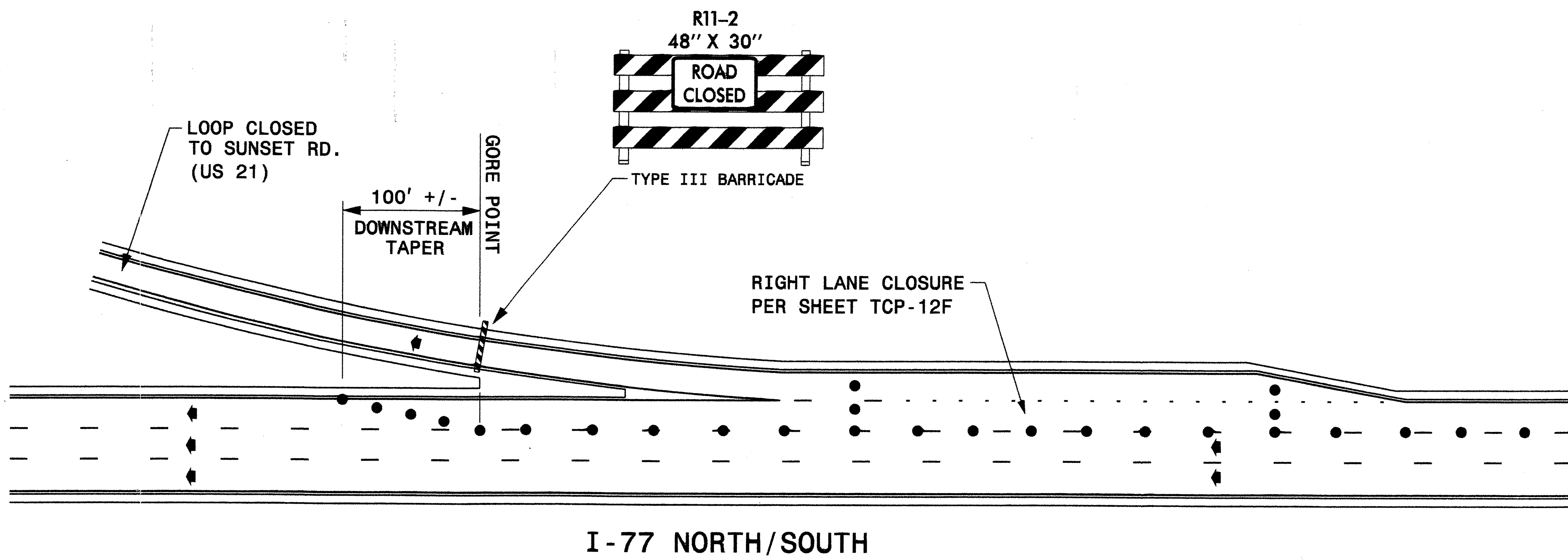
**NOTES:**  
 1- USE THIS SHEET FOR DETOUR ROUTES FOR CLOSING THE SOUTHBOUND I-77 OUTSIDE LANE AND/OR OFF-LOOP.

LEGEND	
	DETOUR ROUTE
	STATIONARY SIGN
	CHANGEABLE MESSAGE SIGN
* SEE SHEETS TCP-21A & 21B FOR SIGN DETAILS	

**	MESSAGE NO. 1 SUNSET ROAD EXIT 16A	MESSAGE NO. 2 CLOSED USE EXIT 18
	CHANGEABLE MESSAGE SIGN	

- PLACE ONE APPROX. 1 MILE AND ANOTHER APPROX. 1/2 MILE IN ADVANCE OF EXIT 18A OR AS DIRECTED BY THE ENGINEER.

APPROVED: _____ DATE: _____	<b>SUNSET RD. (US 21)/BRIDGE #323</b> <b>SOUTHBOUND I-77, SUNSET RD.</b> <b>OFF-LOOP CLOSED - DETOUR (EXIT 18)</b>							
SCALE: NONE	DATE: 04/09	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
REVISIONS								
DWG. BY: SNG	DESIGN BY: SNG	REVIEWED BY: JWG						



I-77 NORTH/SOUTH

**NOTES**

- 1- PROVIDE A 21 CALENDAR DAY NOTICE TO THE ENGINEER PRIOR TO A ROAD BEING CLOSED SUCH THAT NECESSARY PROVISIONS CAN BE MADE TO INFORM LOCAL EMERGENCY AND LAW ENFORCEMENT PERSONNEL, OR ANY OTHER PARTIES AFFECTED BY THE ROAD CLOSURE.
- 2- INSTALL SIGNS BEFORE BARRICADES WHEN CLOSING THE ROADWAY TO TRAFFIC. REMOVE BARRICADES BEFORE SIGNS WHEN OPENING THE ROADWAY TO TRAFFIC.
3. POSITION BARRICADES SUCH THAT THE STRIPES ARE SLOPED DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.

**LEGEND**

- DRUM
- ◀ PORTABLE SIGN
- ◆ DIRECTION OF TRAFFIC FLOW

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

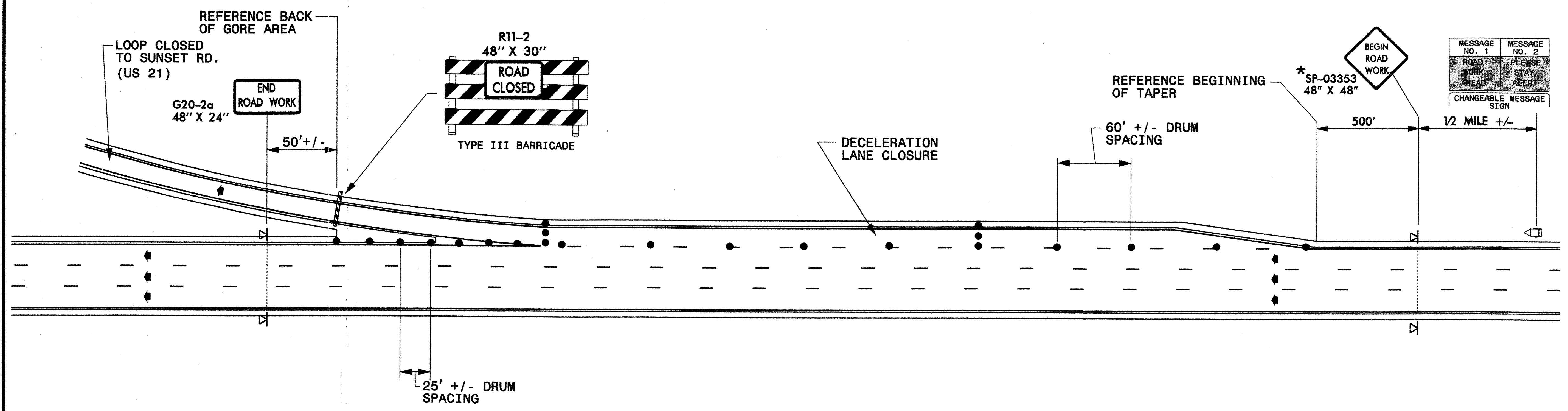
**SUNSET RD. (US 21)/BRIDGE #323  
DECELERATION LANE AND  
LANE CLOSURE AT LOOPS**

SCALE: NONE	REVISIONS
DATE: 04/09	
DWG. BY: SNG	
DESIGN BY: SNG	
REVIEWED BY: JWG	

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 AT WZTC244733  
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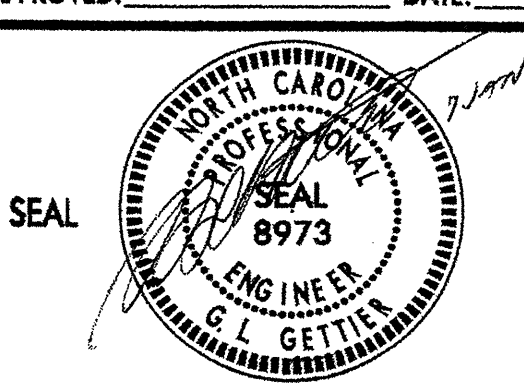



**NOTES**

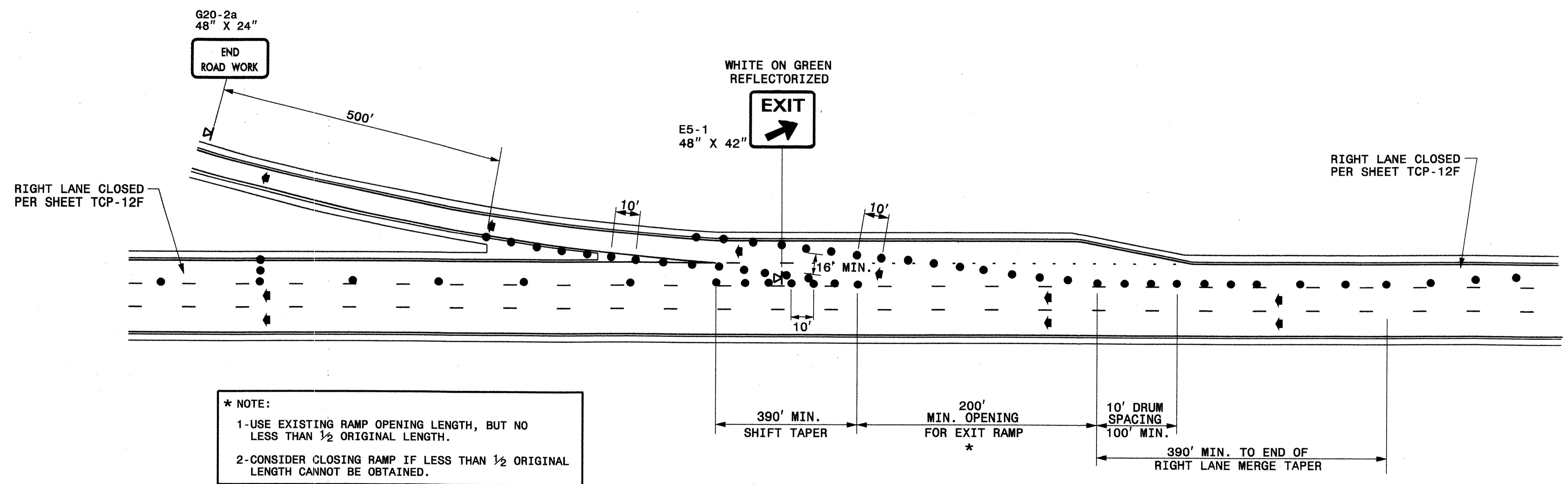
- 1- PROVIDE A 21 CALENDAR DAY NOTICE TO THE ENGINEER PRIOR TO A ROAD BEING CLOSED SUCH THAT NECESSARY PROVISIONS CAN BE MADE TO INFORM LOCAL EMERGENCY AND LAW ENFORCEMENT PERSONNEL, OR ANY OTHER PARTIES AFFECTED BY THE ROAD CLOSURE.
- 2- INSTALL SIGNS BEFORE BARRICADES WHEN CLOSING THE ROADWAY TO TRAFFIC. REMOVE BARRICADES BEFORE SIGNS WHEN OPENING THE ROADWAY TO TRAFFIC.
3. POSITION BARRICADES SUCH THAT THE STRIPES ARE SLOPED DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.

**LEGEND**

- DRUM
- ◀ PORTABLE SIGN
- ◀ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>SUNSET RD. (US 21)/BRIDGE #323 DECELERATION LANE CLOSURE AT LOOPS</b>	
		
SCALE: NONE	REVISIONS	
DATE: 04/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

06-JAN-2010 15:10  
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 AT WZTC244733  
 sngreen



**\* NOTE:**

- 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.
- 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

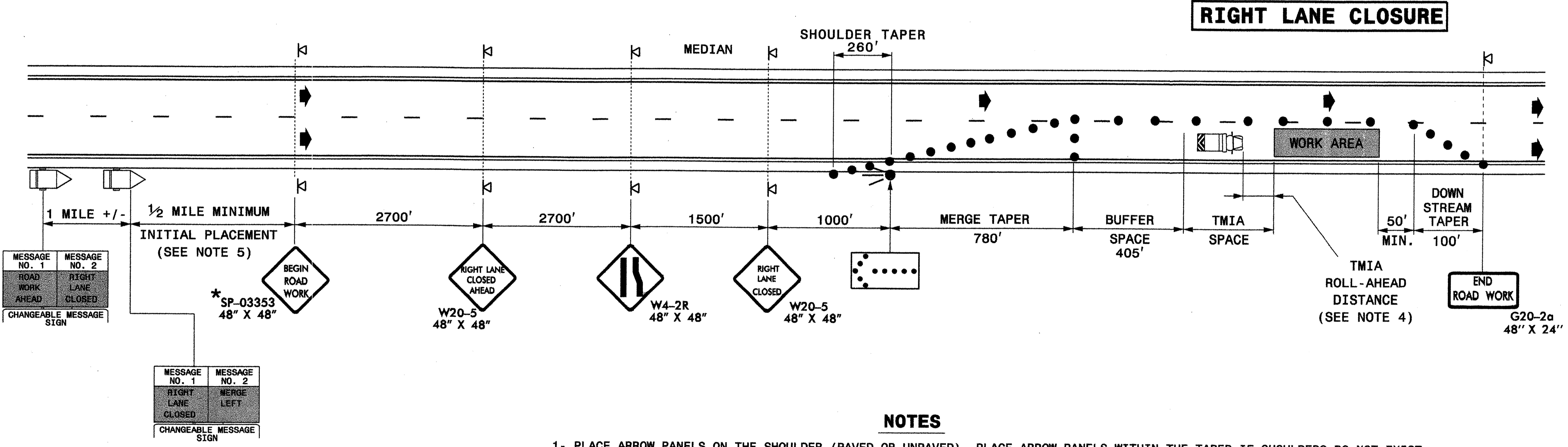
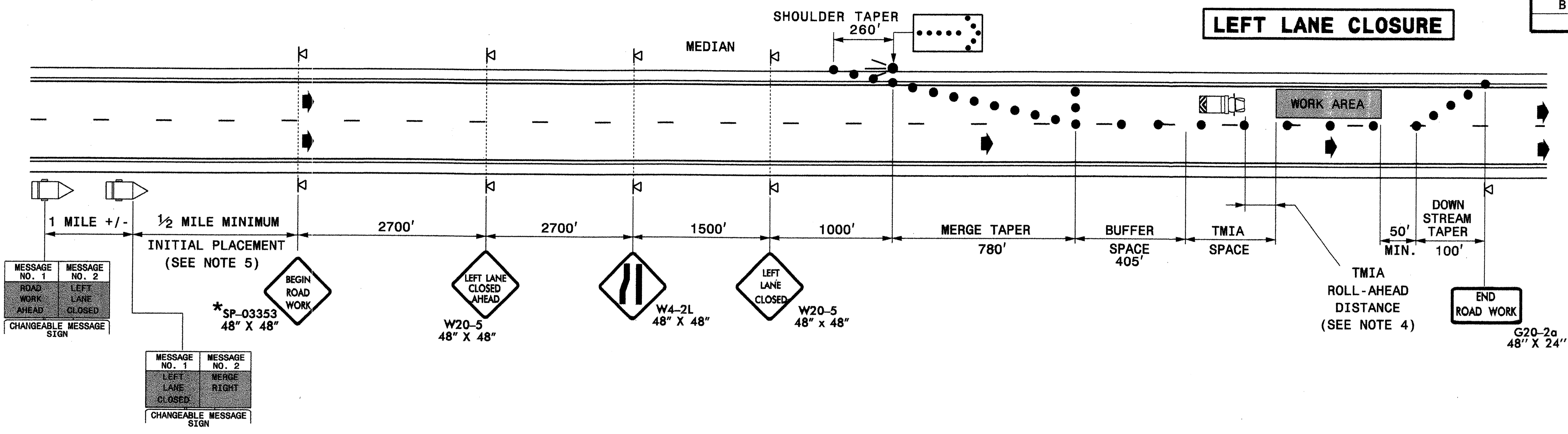
**LEGEND**

- DRUM
- ▣ PORTABLE SIGN
- ◄ DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**

1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED:	DATE:	<b>SUNSET RD. (US 21)/BRIDGE #323          TEMPORARY LANE CLOSURES          THRU EXIT RAMPS</b>					
SCALE: NONE	DATE: 04/09	<table border="1"> <thead> <tr> <th>REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </tbody> </table>		REVISIONS			
REVISIONS							
DWG. BY: SNG	DESIGN BY: SNG	<table border="1"> <tr> <td>REVIEWED BY: JWG</td> </tr> </table>		REVIEWED BY: JWG			
REVIEWED BY: JWG							
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**NOTES**

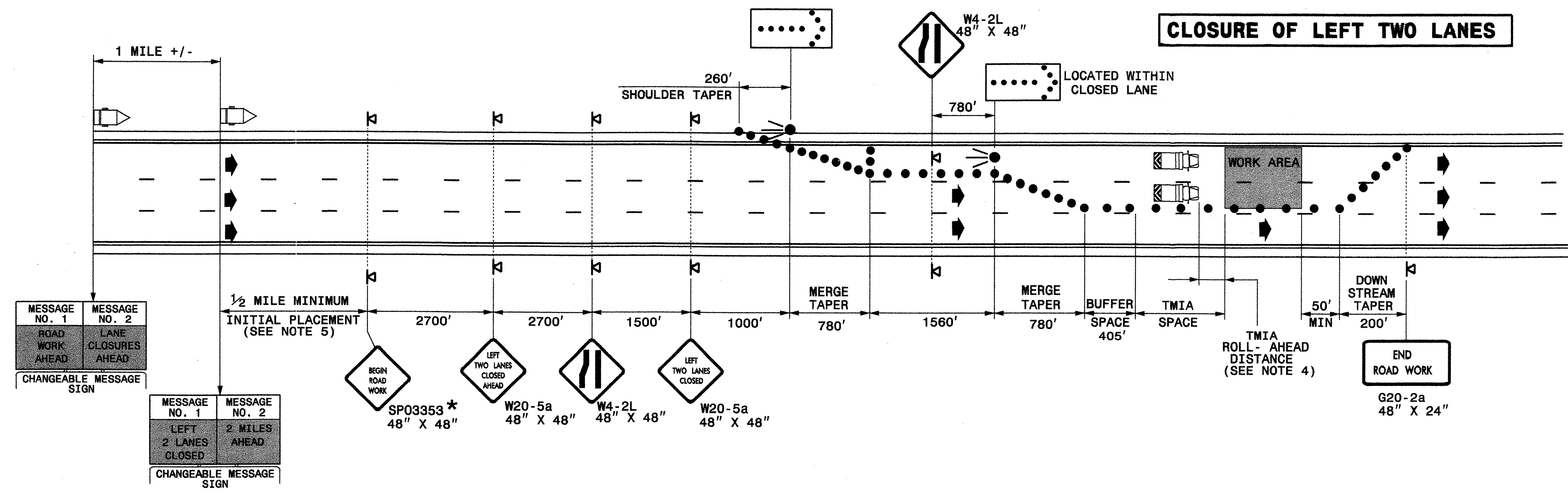
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- 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.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-12E FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ▤ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<p><b>SUNSET RD. (US 21)/BRIDGE #323</b>  <b>TEMPORARY LANE CLOSURE</b>  <b>INSIDE/OUTSIDE LANE CLOSED</b></p>	SCALE: NONE	<p>REVISIONS</p> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>								
	<p>DATE: 04/09</p> <p>DWG. BY: SNG</p> <p>DESIGN BY: SNG</p> <p>REVIEWED BY: JWG</p>										

06-JAN-2010 15:11 \\DOT\DFSR001\GROUPS-WZTC\WZTC\DesignGroup3\SpecialProjects\Bridges\Painting\B-4700AU - Last 13 Bridges\CHLT-BRDC REPAINT-TCP12F.dgn  
 sngreen AT WZTC244733



MESSAGE NO. 1 ROAD WORK AHEAD	MESSAGE NO. 2 LANE CLOSURES AHEAD
----------------------------------	--------------------------------------

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1 LEFT 2 LANES CLOSED	MESSAGE NO. 2 2 MILES AHEAD
--------------------------------------	--------------------------------

CHANGEABLE MESSAGE SIGN

**NOTES**  
1-REFER TO NOTES ON SHEET TCP-12F.

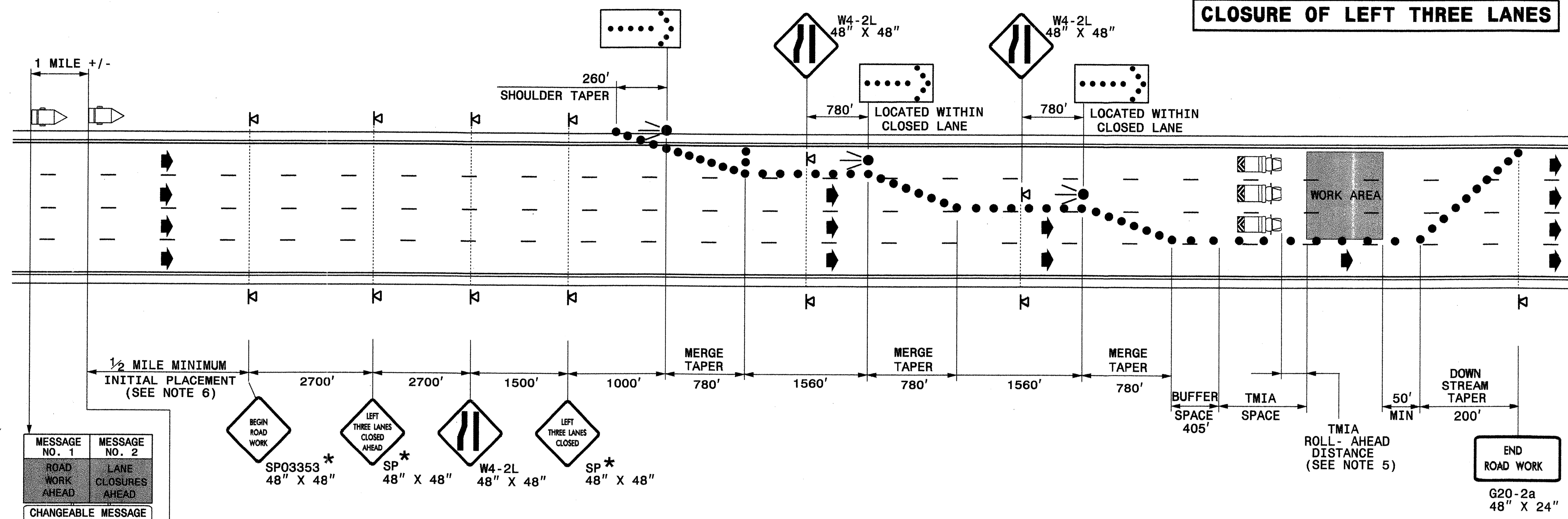
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<p><b>SUNSET RD. (US 21)/BRIDGE #323 TEMPORARY LANE CLOSURE INSIDE TWO LANES CLOSED</b></p> <p>SCALE: NONE DATE: 04/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG</p>		<p>REVISIONS</p> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						

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 sngreen AT WZTC244733

### CLOSURE OF LEFT THREE LANES



MESSAGE NO. 1 ROAD WORK AHEAD	MESSAGE NO. 2 LANE CLOSURES AHEAD
----------------------------------	--------------------------------------

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1 LEFT 3 LANES CLOSED	MESSAGE NO. 2 2 MILES AHEAD
--------------------------------------	--------------------------------

CHANGEABLE MESSAGE SIGN

#### GENERAL NOTES

1-REFER TO NOTES ON SHEET TCP-12F.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED:	DATE: 2/2/10	<b>SUNSET RD. (US 21)/BRIDGE #323 TEMPORARY LANE CLOSURE INSIDE THREE LANES CLOSED</b>	
SCALE: NONE	DATE: 04/09		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

06-JAN-2010 15:12 \\DOT\DFSR00101\GROUPS\WZTCC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP12H.dgn sngreen AT WZTC24733

PROJ. REFERENCE NO.	SHEET NO.
B-4700AU	TCP-13A

**PHASING**

**PHASE 1**

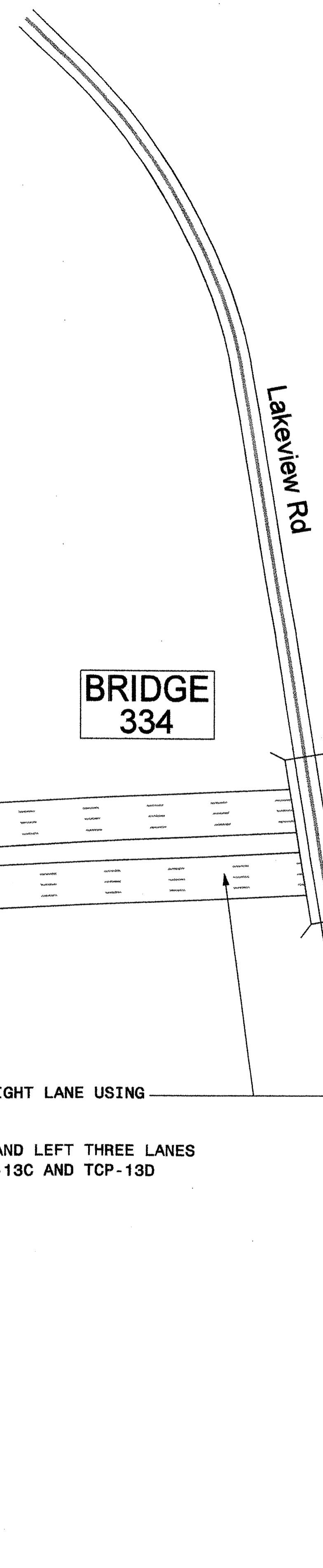
**LAKEVIEW RD. (SR 2485/SR 2112)**

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 - JULY 2006" AND USING SHEETS TCP-13A - TCP-13D.

- CLOSE INSIDE/OUTSIDE LANE: SEE SHEET TCP-13B.
- CLOSE BOTH INSIDE LANES: SEE SHEET TCP-13C.
- CLOSE INSIDE THREE LANES: SEE SHEET TCP-13D.

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.



**BRIDGE  
334**

**77 8 LANE DIVIDED**

CLOSE LEFT OR RIGHT LANE USING SHEET TCP-13B

CLOSE LEFT TWO AND LEFT THREE LANES USING SHEET TCP-13C AND TCP-13D

**LEGEND**

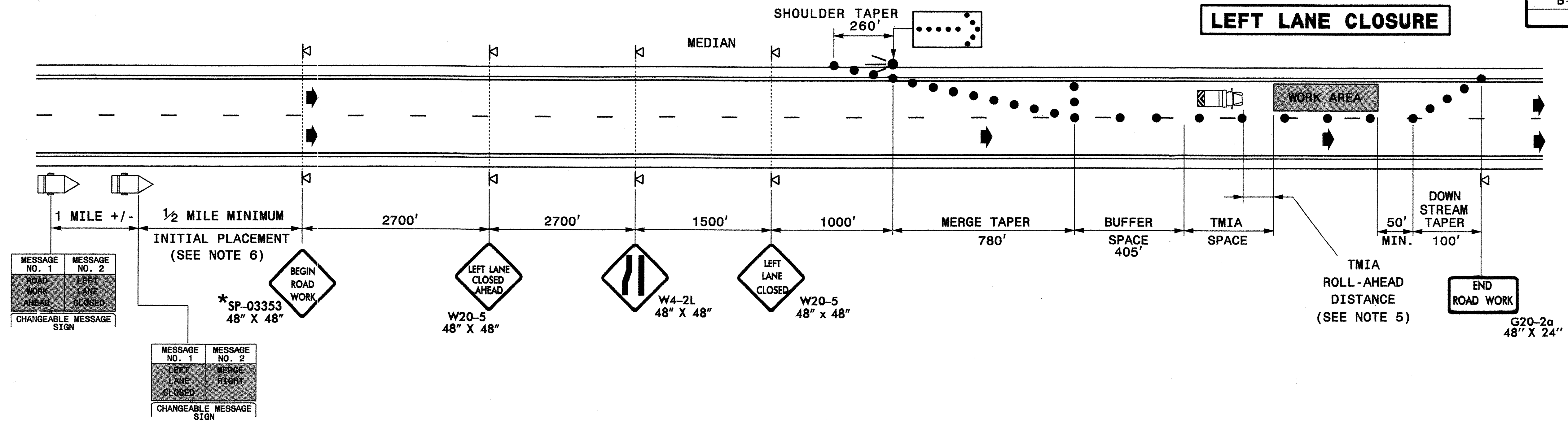
- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- STATIONARY OR PORTABLE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

\* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN

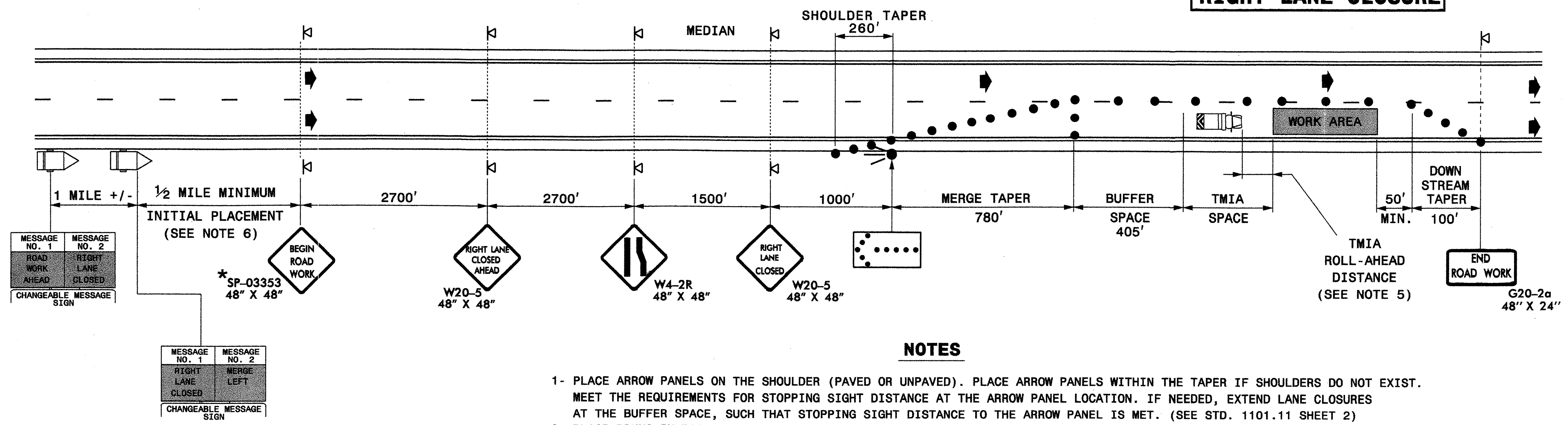
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REVIEWED BY: JWG			

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 AT: WZTCC24733  
 sngreen

### LEFT LANE CLOSURE



### RIGHT LANE CLOSURE



#### NOTES

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
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- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

#### LEGEND

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

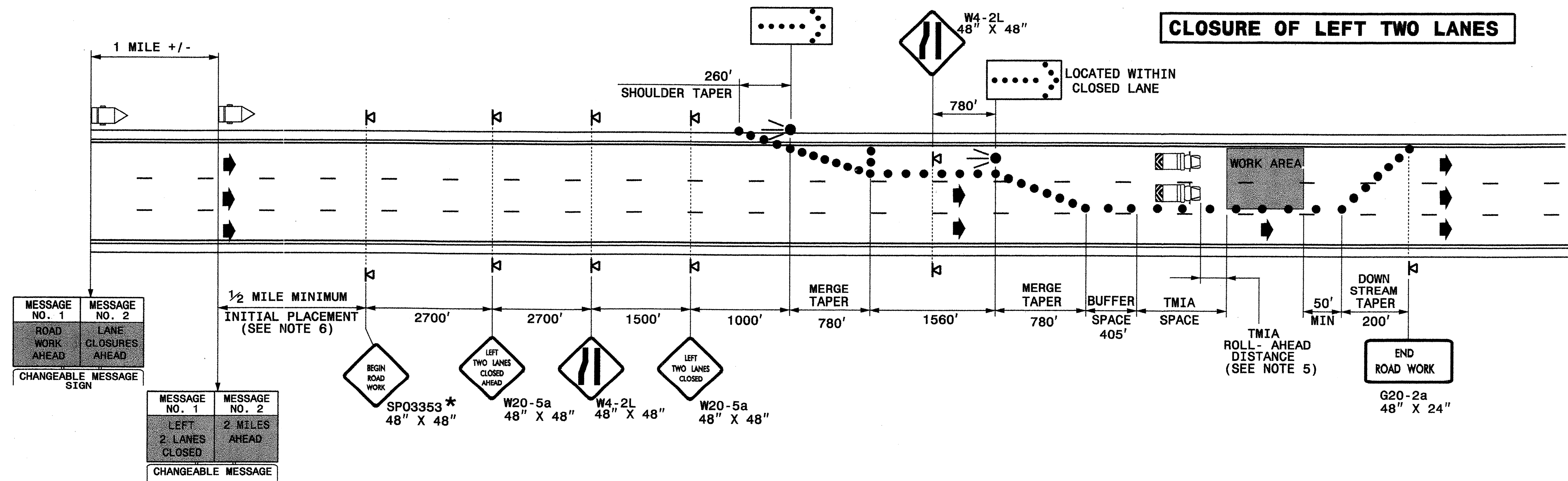
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

LAKEVIEW RD (SR2485/SR2112) / BRIDGE #334  
 TEMPORARY LANE CLOSURE  
 INSIDE OR OUTSIDE LANE CLOSED

SCALE: NONE		REVISIONS
DATE: 04/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

06-JAN-2010 15:43  
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 sngruen AT WZTC244733



**GENERAL NOTES**

1-REFER TO NOTES ON SHEET TCP-13B

**LEGEND**

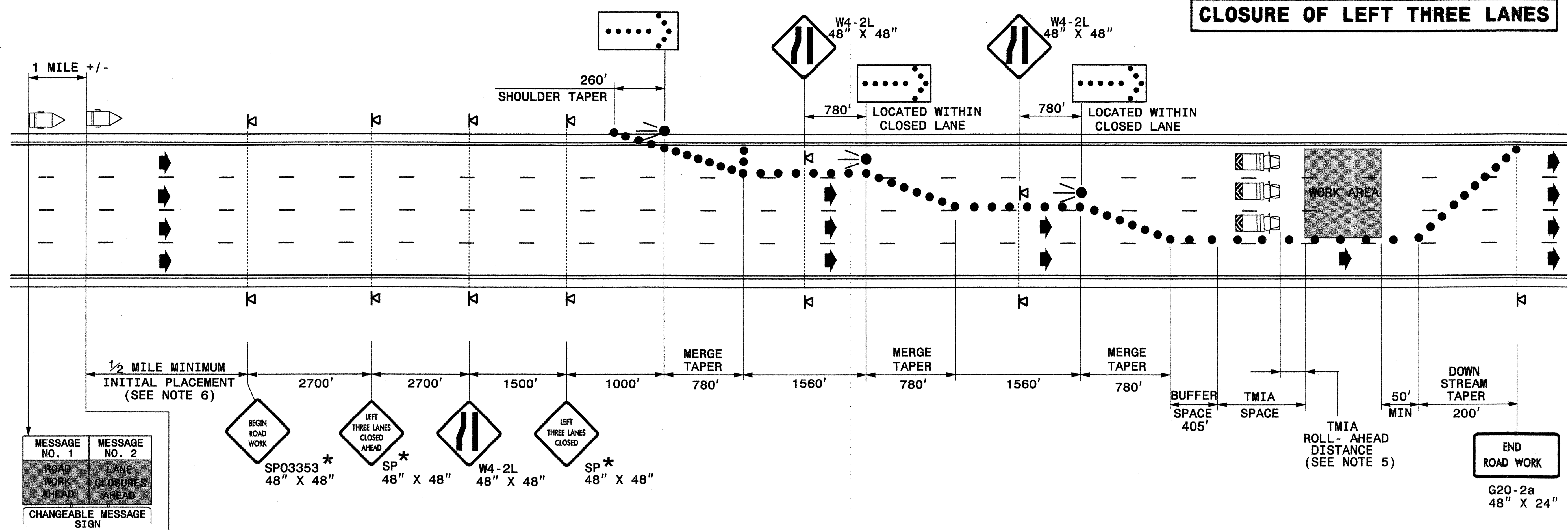
- FLASHING ARROW PANEL (TYPE C)
- ▣ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- ▣ PORTABLE SIGN
- ▣ CHANGEABLE MESSAGE SIGN (CMS)
- ➔ DIRECTION OF TRAFFIC FLOW
- ★ SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	LAKEVIEW RD (SR2485/SR2112)/BRIDGE #334 TEMPORARY LANE CLOSURE INSIDE TWO LANES CLOSED									
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 AT WZTC244733  
 sngreen



### CLOSURE OF LEFT THREE LANES



MESSAGE NO. 1 ROAD WORK AHEAD	MESSAGE NO. 2 LANE CLOSURES AHEAD
----------------------------------	--------------------------------------

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1 LEFT 3 LANES CLOSED	MESSAGE NO. 2 2 MILES AHEAD
--------------------------------------	--------------------------------

CHANGEABLE MESSAGE SIGN

#### GENERAL NOTES

1-REFER TO NOTES ON SHEET TCP-13B.

**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____  	<b>LAKEVIEW RD (SR2485/SR2112)/BRIDGE #334</b> <b>TEMPORARY LANE CLOSURE</b> <b>INSIDE THREE LANES CLOSED</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS							
REVISIONS										
SCALE: NONE DATE: 04/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">CARD FILE</td> </tr> </table>	CARD FILE							
CARD FILE										

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**PHASING**

**PHASE 1**

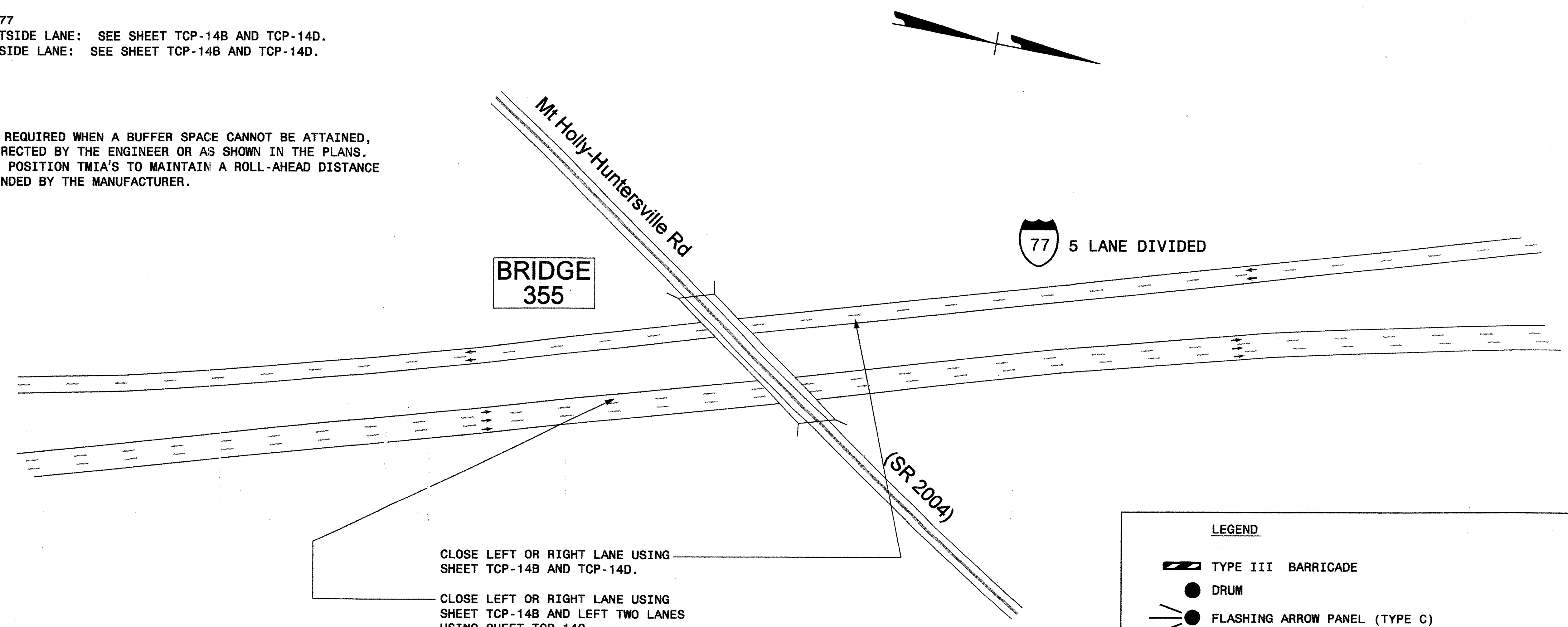
**MT. HOLLY-HUNTERSVILLE RD. (SR 2004)**  
**STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES JULY 2006" AND USING SHEETS TCP-14A THRU TCP-14D.**

**NORTH BOUND I-77**  
 - CLOSE NB OUTSIDE LANE: SEE SHEET TCP-14B.  
 - CLOSE NB INSIDE LANE: SEE SHEET TCP-14B.  
 - CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-14C.

**SOUTH BOUND I-77**  
 - CLOSE SB OUTSIDE LANE: SEE SHEET TCP-14B AND TCP-14D.  
 - CLOSE SB INSIDE LANE: SEE SHEET TCP-14B AND TCP-14D.

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.



**LEGEND**

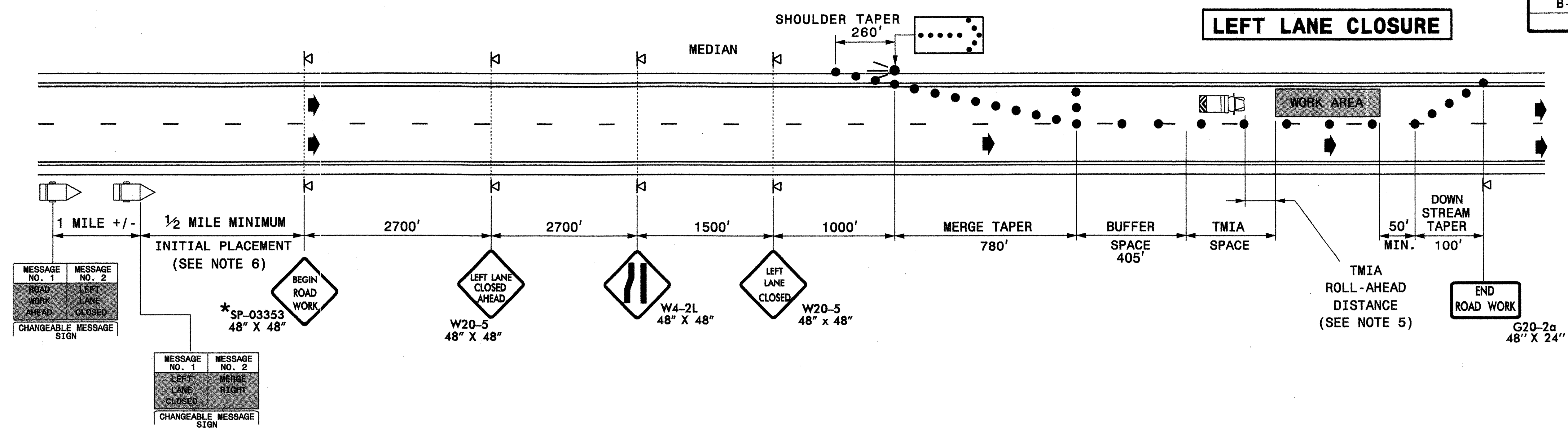
- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- STATIONARY OR PORTABLE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

\* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN

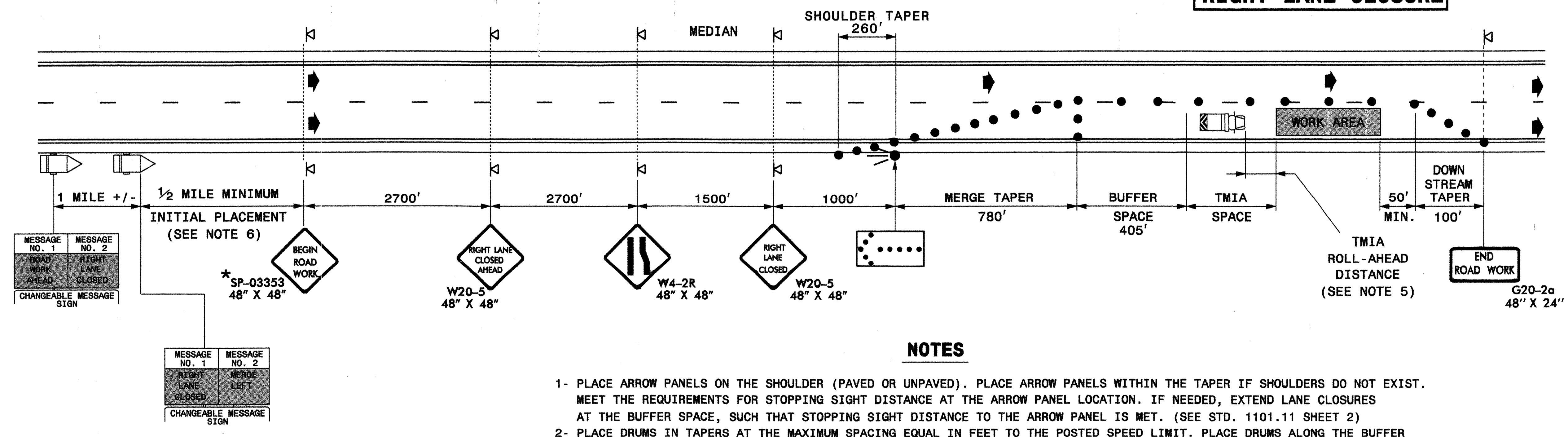
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		<b>DETAIL PLAN</b>	
SCALE: NONE	DATE: 12/09		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

06-JAN-2010 15:15  
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 sngreen AT WZTC244733

### LEFT LANE CLOSURE



### RIGHT LANE CLOSURE

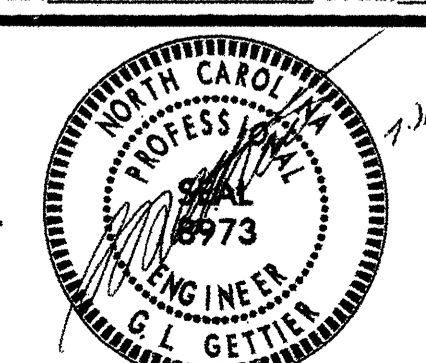
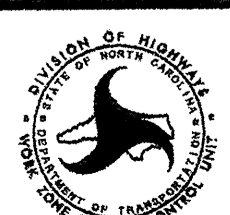


### NOTES

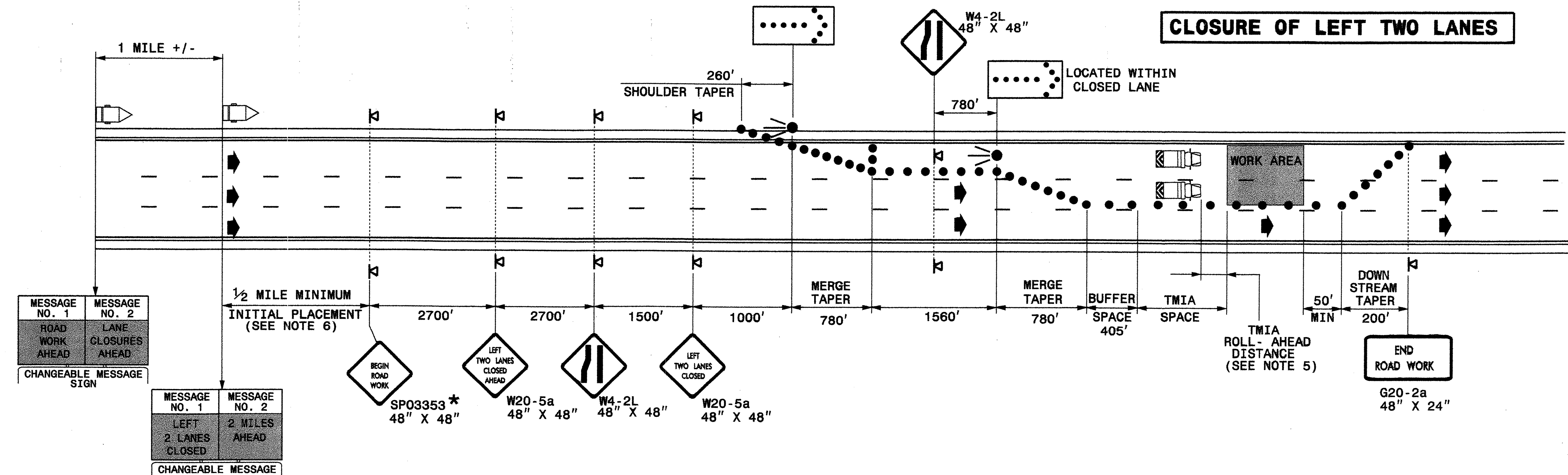
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- 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.
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- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

### LEGEND

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	<b>SR 2004/BRIDGE #355</b> <b>TEMPORARY LANE CLOSURE</b> <b>INSIDE OR OUTSIDE LANE CLOSED</b>	
			
SCALE: NONE	DATE: 12/09		REVISIONS
DWG. BY: SNG	DESIGN BY: SNG		
REVIEWED BY: JWG			

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 AT WZTC244733  
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**GENERAL NOTES**

1-REFER TO NOTES ON SHEET TCP-14B

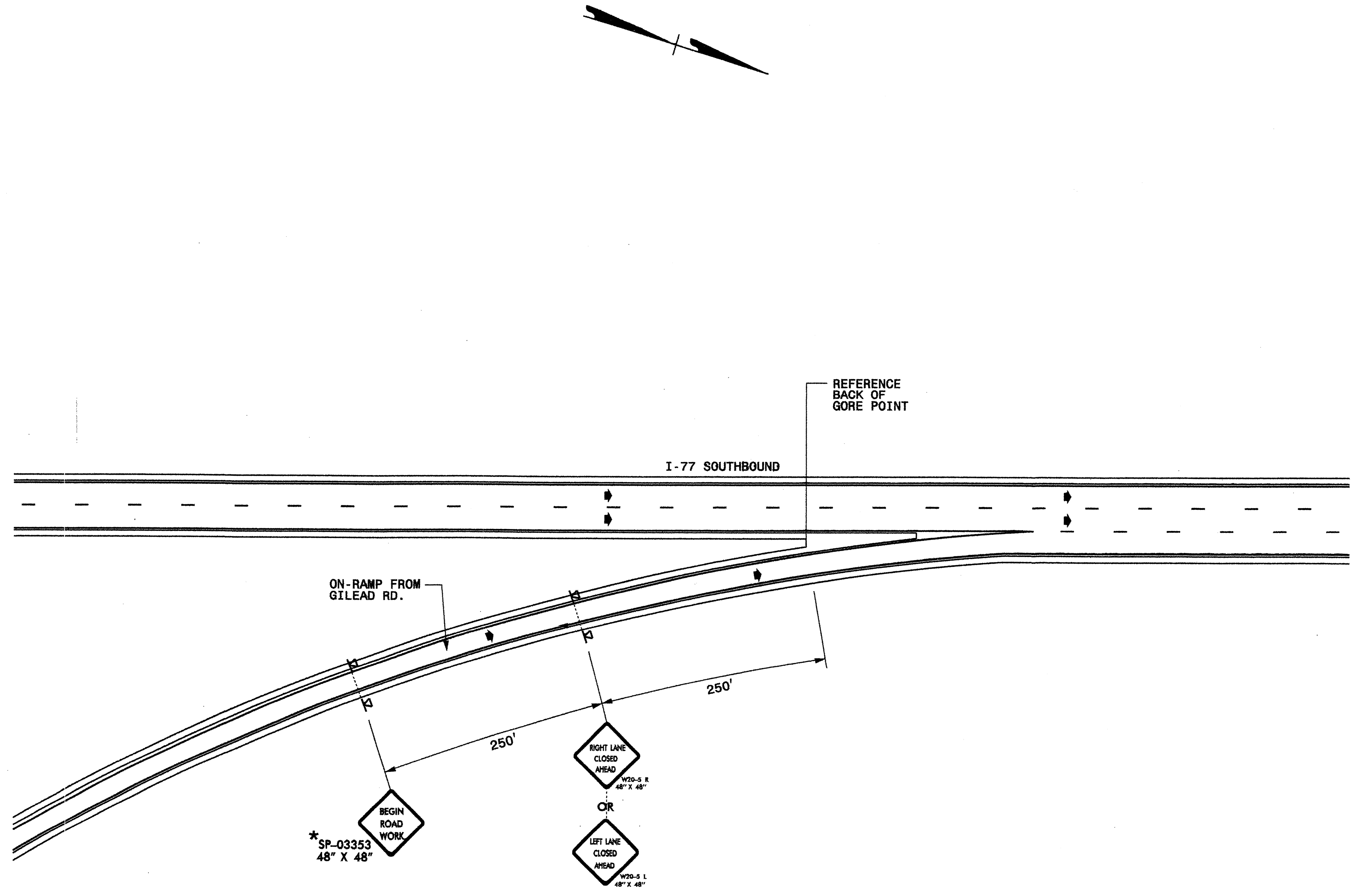
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED:	DATE:	<b>SR 2004/BRIDGE #355</b> <b>TEMPORARY LANE CLOSURES</b> <b>INSIDE TWO LANES CLOSED</b>						
SCALE: NONE	DATE: 12/09	<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS					
REVISIONS								
DWG. BY: SNG	DESIGN BY: SNG	<table border="1"> <tr> <td>REVIEWED BY: JWG</td> <td>CADD FILE</td> </tr> </table>	REVIEWED BY: JWG	CADD FILE				
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 AT WZTC244733  
 sngreen

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 sngreen AT WZTC244755



**LEGEND**

◀ PORTABLE SIGN  
 ◆ DIRECTION OF TRAFFIC FLOW  
 \* SEE SHEETS TCP-21A FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

**SR 2004/BRIDGE #355**  
**SOUTHBOUND I-77**  
**INSIDE OR OUTSIDE LANE CLOSED**

SCALE: NONE		REVISIONS
DATE: 12/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

**PHASING**

**PHASE 1**

**GILEAD RD.**

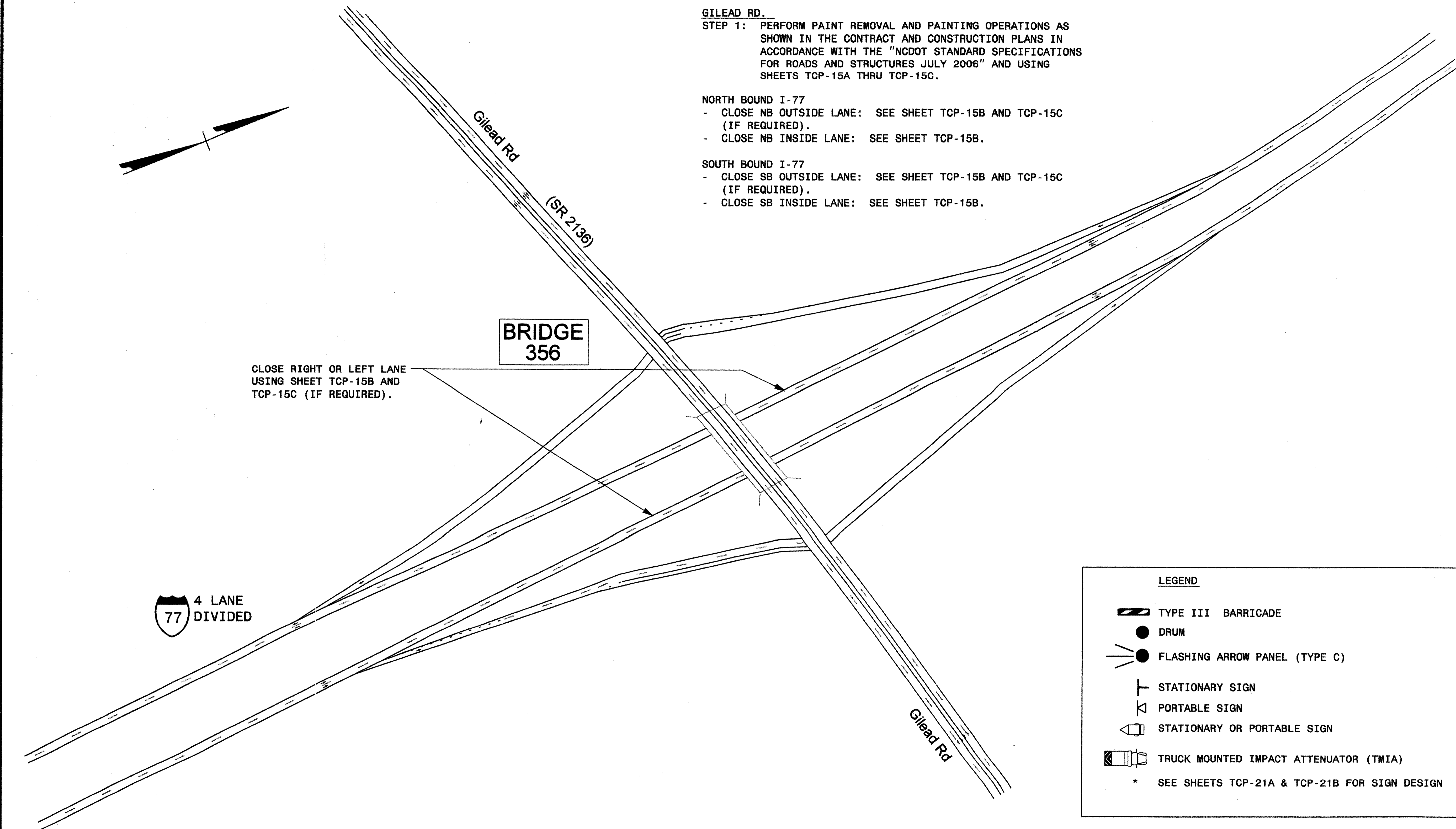
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES JULY 2006" AND USING SHEETS TCP-15A THRU TCP-15C.

**NORTH BOUND I-77**

- CLOSE NB OUTSIDE LANE: SEE SHEET TCP-15B AND TCP-15C (IF REQUIRED).
- CLOSE NB INSIDE LANE: SEE SHEET TCP-15B.

**SOUTH BOUND I-77**

- CLOSE SB OUTSIDE LANE: SEE SHEET TCP-15B AND TCP-15C (IF REQUIRED).
- CLOSE SB INSIDE LANE: SEE SHEET TCP-15B.










CLOSE RIGHT OR LEFT LANE USING SHEET TCP-15B AND TCP-15C (IF REQUIRED).

**77**  
4 LANE  
DIVIDED

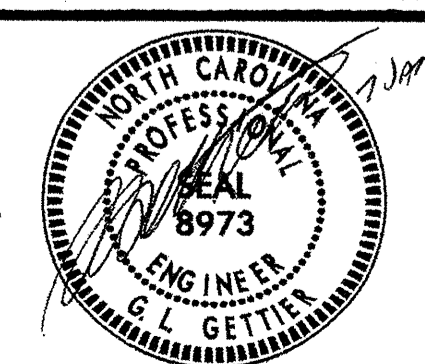

**BRIDGE  
356**

**LEGEND**

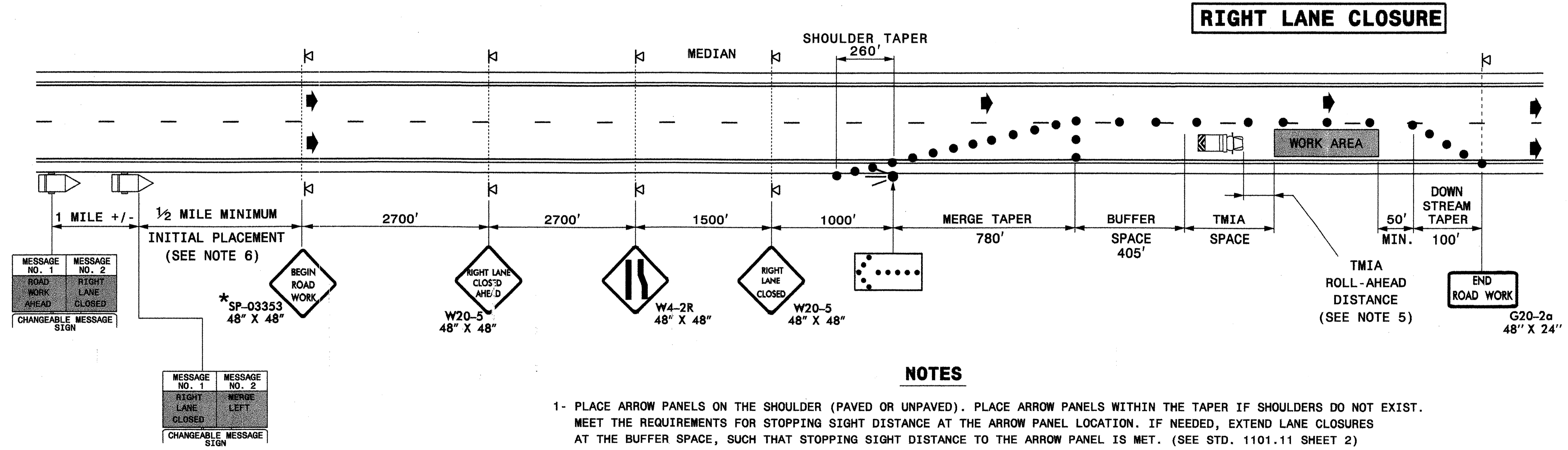
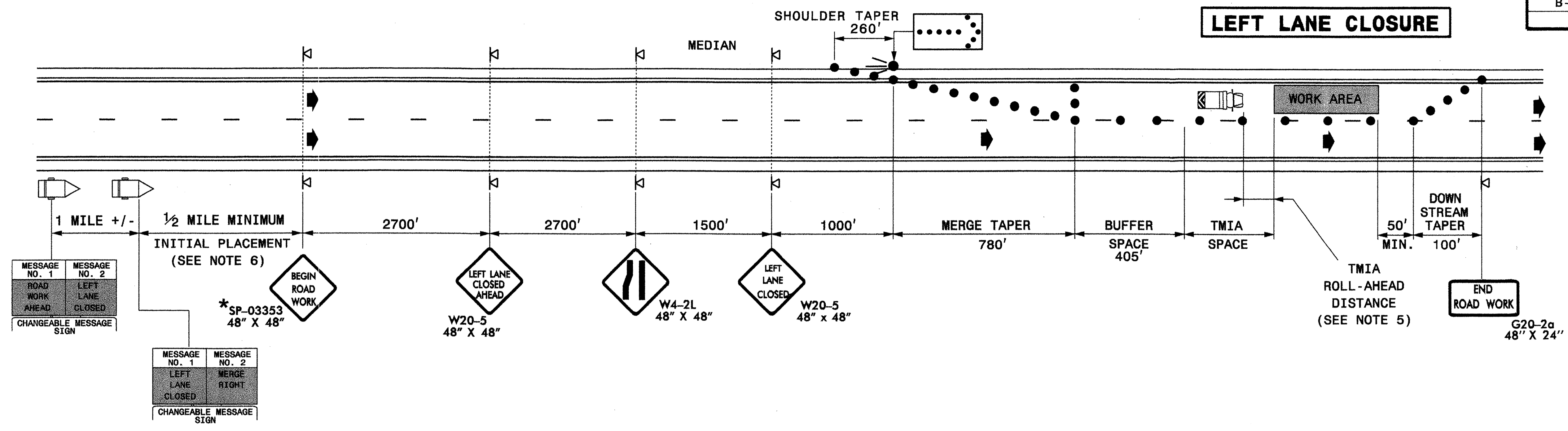
-  TYPE III BARRICADE
-  DRUM
-  FLASHING ARROW PANEL (TYPE C)
-  STATIONARY SIGN
-  PORTABLE SIGN
-  STATIONARY OR PORTABLE SIGN
-  TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: 	DATE: 12/10/09	<b>BRIDGE #356 GILEAD RD. DETAIL PLAN</b>	
SCALE: NONE	DATE: 12/09		
DESIGN BY: SNG	DESIGN BY: SNG		REVISIONS
REVIEWED BY: JWG	REVIEWED BY: JWG		CHD FILE

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**NOTES**

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- SEE SHEET TCP-15C FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.
- 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- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 6- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

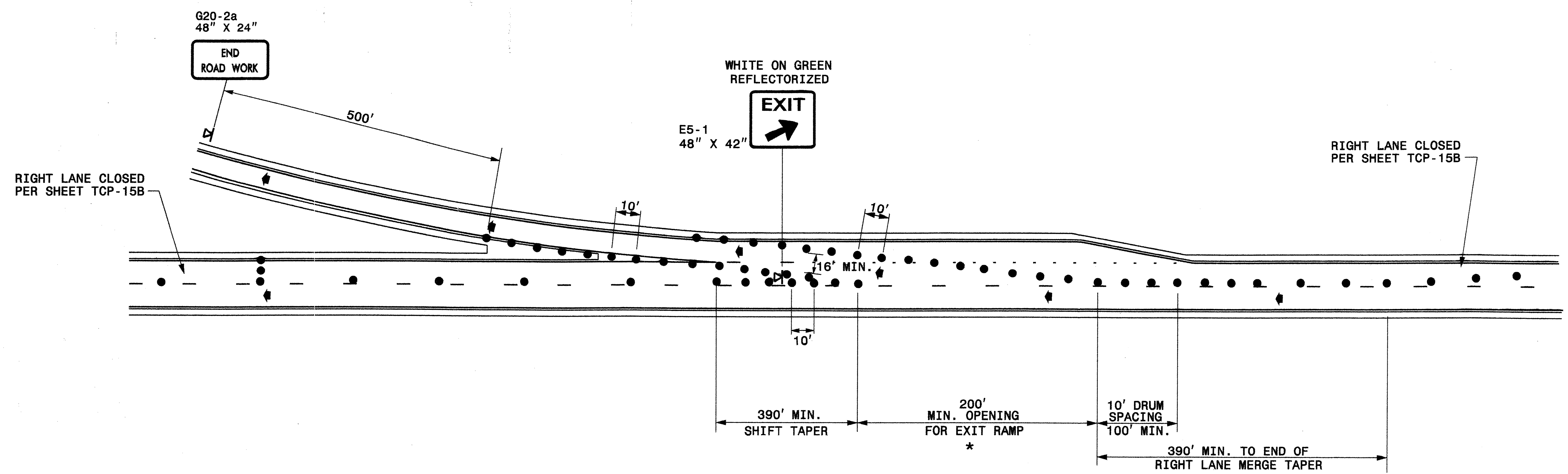
**LEGEND**

- ➡● FLASHING ARROW PANEL (TYPE C)
- 🚚 TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- 📄 CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ⚡ PORTABLE SIGN
- ➡ DIRECTION OF TRAFFIC FLOW
- ★ SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>SR 2136/BRIDGE #356</b> <b>TEMPORARY LANE CLOSURE</b> <b>INSIDE OR OUTSIDE LANE CLOSED</b>		SCALE: NONE
			DATE: 12/09
	DWG. BY: SNG		DESIGN BY: SNG
	REVIEWED BY: JWG		REVISIONS

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 sngreen AT WZTC24733

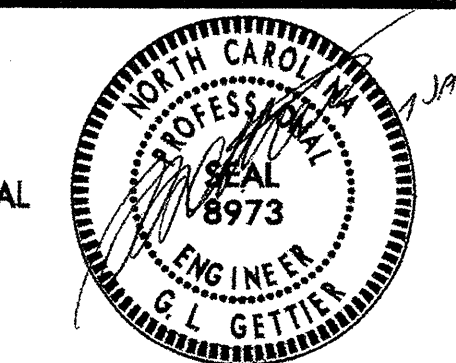

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 AT WZTC24733  
 sngreen



**\* NOTE:**  
 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

LEGEND	
●	DRUM
⚡	PORTABLE SIGN
➔	DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
 1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	<b>SR 2136/BRIDGE #356          TEMPORARY LANE CLOSURES          THRU EXIT RAMPS</b>	
		
SCALE: NONE		REVISIONS
DATE: 12/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		



**PHASING**

**PHASE 1**

**STUMPTOWN RD.**

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 JULY 2006" AND USING SHEETS TCP-16A THRU TCP-16C.

**NORTH BOUND I-77**

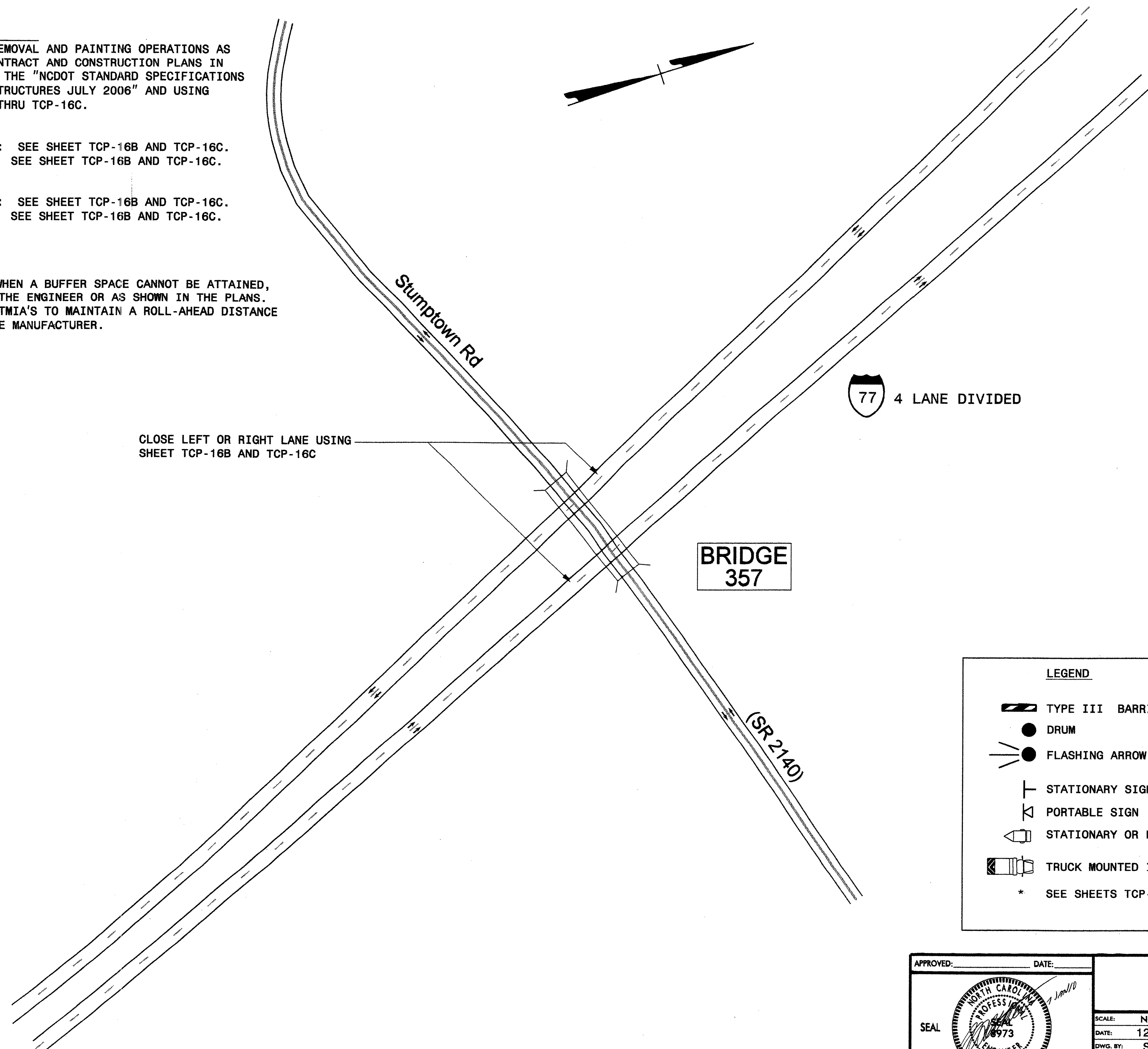
- CLOSE NB OUTSIDE LANE: SEE SHEET TCP-16B AND TCP-16C.
- CLOSE NB INSIDE LANE: SEE SHEET TCP-16B AND TCP-16C.

**SOUTH BOUND I-77**

- CLOSE SB OUTSIDE LANE: SEE SHEET TCP-16B AND TCP-16C.
- CLOSE SB INSIDE LANE: SEE SHEET TCP-16B AND TCP-16C.

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.



**LEGEND**

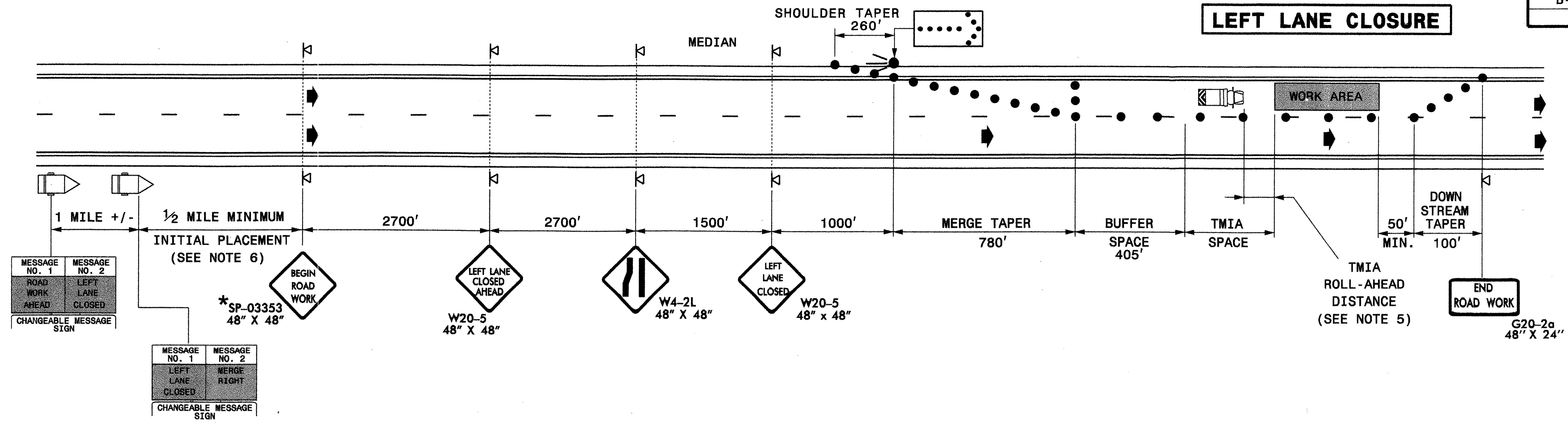
- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- STATIONARY OR PORTABLE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

\* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN

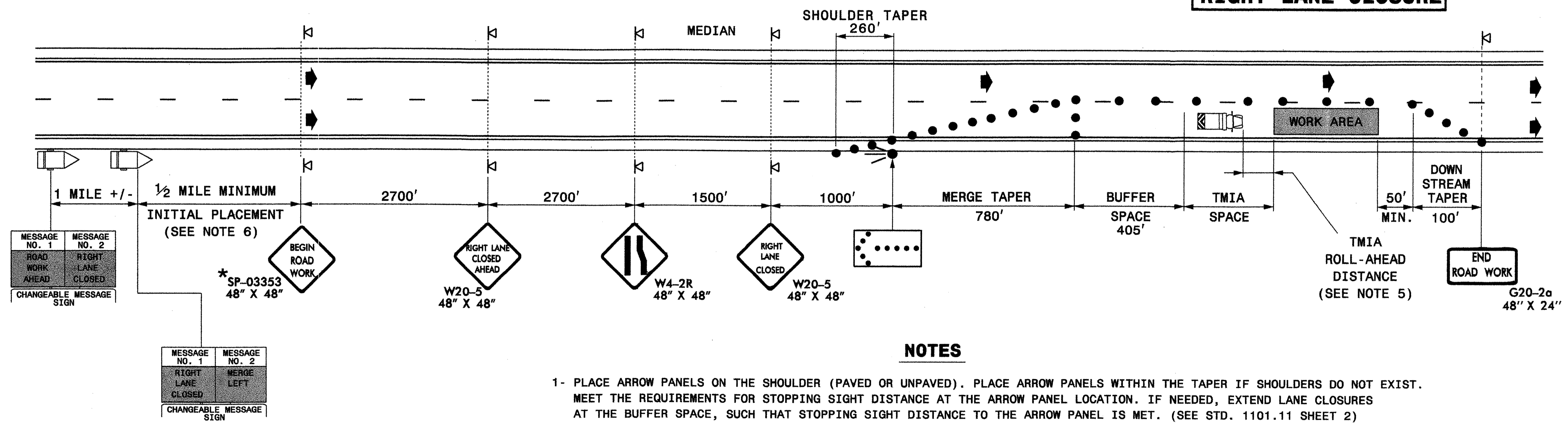
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APPROVED: _____ DATE: _____ 	<b>BRIDGE #357</b> <b>STUMPTOWN RD. (SR 2140)</b> <b>DETAIL PLAN</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">REVISIONS</th> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> </table>	REVISIONS					
REVISIONS								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SCALE: NONE</td> </tr> <tr> <td>DATE: 12/09</td> </tr> <tr> <td>DWG. BY: SNG</td> </tr> <tr> <td>DESIGN BY: SNG</td> </tr> <tr> <td>REVIEWED BY: JWG</td> </tr> </table>	SCALE: NONE	DATE: 12/09	DWG. BY: SNG	DESIGN BY: SNG	REVIEWED BY: JWG		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">CHD FILE</td> </tr> </table>	CHD FILE
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DATE: 12/09								
DWG. BY: SNG								
DESIGN BY: SNG								
REVIEWED BY: JWG								
CHD FILE								

### LEFT LANE CLOSURE



### RIGHT LANE CLOSURE



#### NOTES

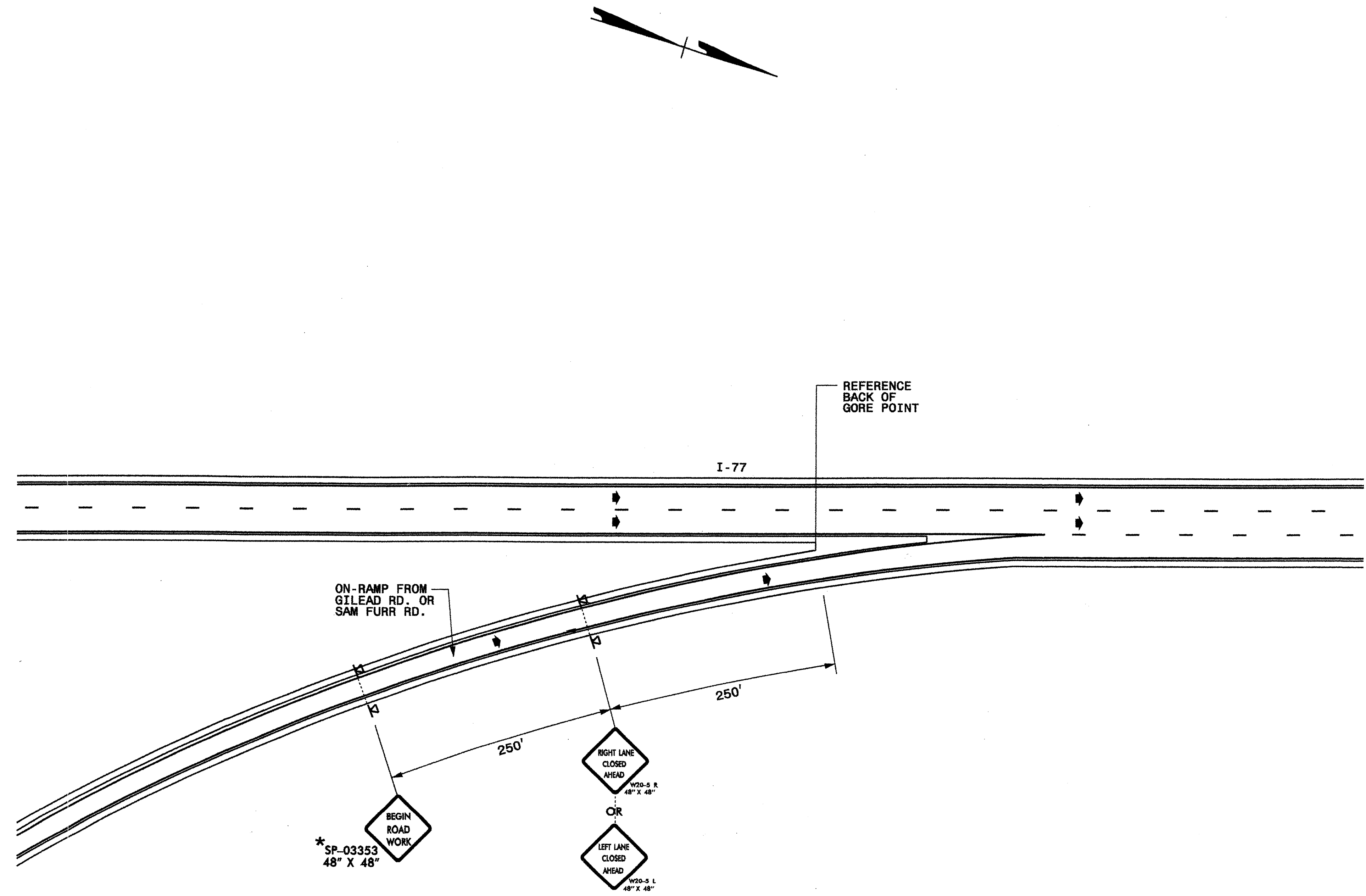
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
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- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

#### LEGEND

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR(TMIA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____	DATE: _____	<b>SR 2140/BRIDGE #357</b> <b>TEMPORARY LANE CLOSURE</b> <b>INSIDE OR OUTSIDE LANE CLOSED</b>													
SCALE: NONE	DATE: 12/09														
DWG. BY: SNG	DESIGN BY: SNG														
REVIEWED BY: JWG															
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 sngreen AT WZTC244733



\* SP-03353  
48" X 48"

BEGIN  
ROAD  
WORK

RIGHT LANE  
CLOSED  
AHEAD

OR

LEFT LANE  
CLOSED  
AHEAD

250'

250'

I-77

REFERENCE  
BACK OF  
GORE POINT

ON-RAMP FROM  
GILEAD RD. OR  
SAM FURR RD.

**LEGEND**

- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

SR 2140/BRIDGE #357  
I-77  
INSIDE OR OUTSIDE LANE CLOSED

SCALE: NONE  
DATE: 12/09  
DWG. BY: SNG  
DESIGN BY: SNG  
REVIEWED BY: JWG

REVISIONS


CARD 1/2

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 AT WZTCC244733  
 sngreen

**PHASING**

**PHASE 1**

**WESTMORELAND RD.**

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 JULY 2006" AND USING SHEETS TCP-17A THRU TCP-17C.

**NORTH BOUND I-77**

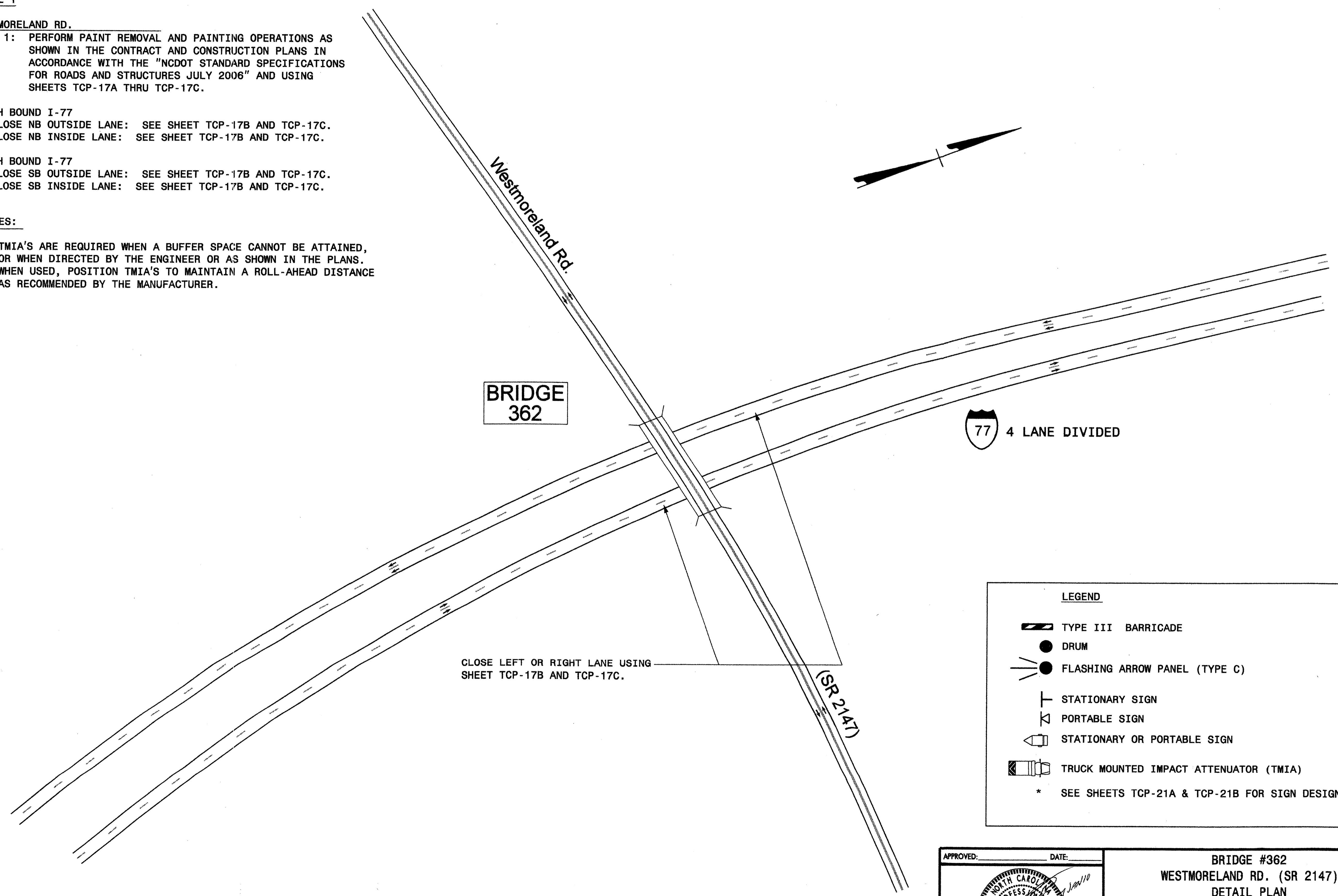
- CLOSE NB OUTSIDE LANE: SEE SHEET TCP-17B AND TCP-17C.
- CLOSE NB INSIDE LANE: SEE SHEET TCP-17B AND TCP-17C.

**SOUTH BOUND I-77**

- CLOSE SB OUTSIDE LANE: SEE SHEET TCP-17B AND TCP-17C.
- CLOSE SB INSIDE LANE: SEE SHEET TCP-17B AND TCP-17C.

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.



**BRIDGE 362**

**77 4 LANE DIVIDED**

CLOSE LEFT OR RIGHT LANE USING SHEET TCP-17B AND TCP-17C.

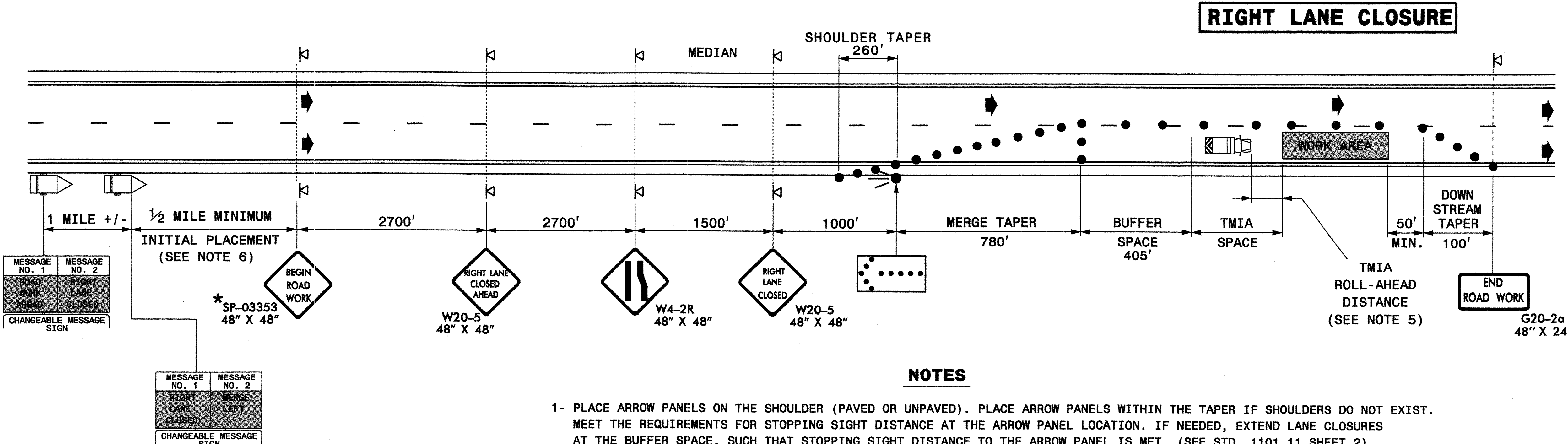
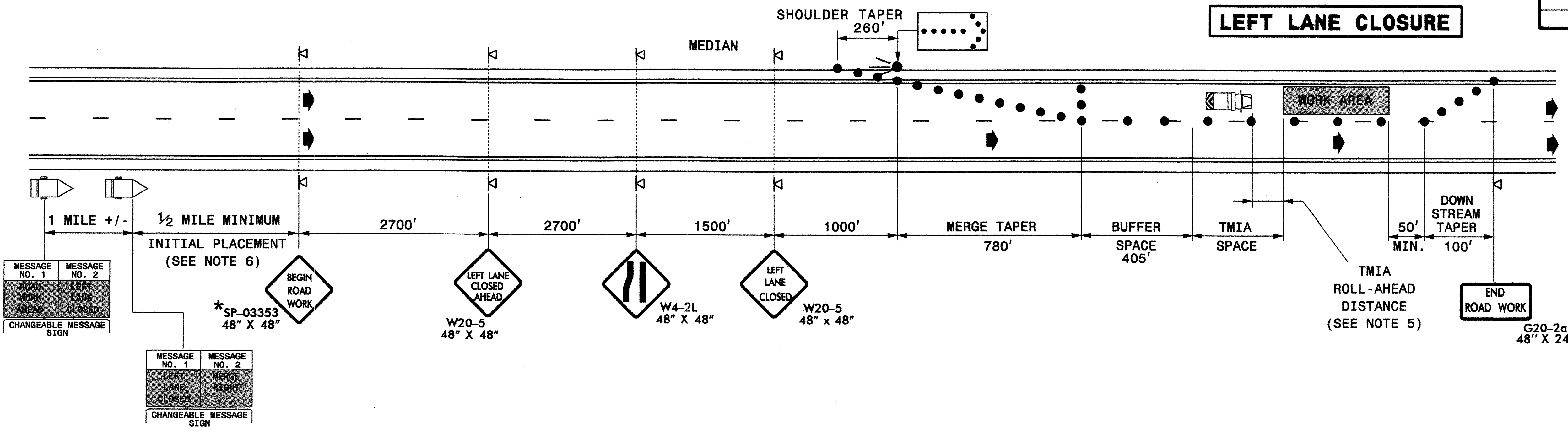
**(SR 2147)**

**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- STATIONARY OR PORTABLE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN

APPROVED: _____ DATE: _____	<b>BRIDGE #362 WESTMORELAND RD. (SR 2147) DETAIL PLAN</b>	
	SCALE: NONE	
	DATE: 12/09	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

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 AT WZTCCC244733  
 sngreen



**NOTES**

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- 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.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
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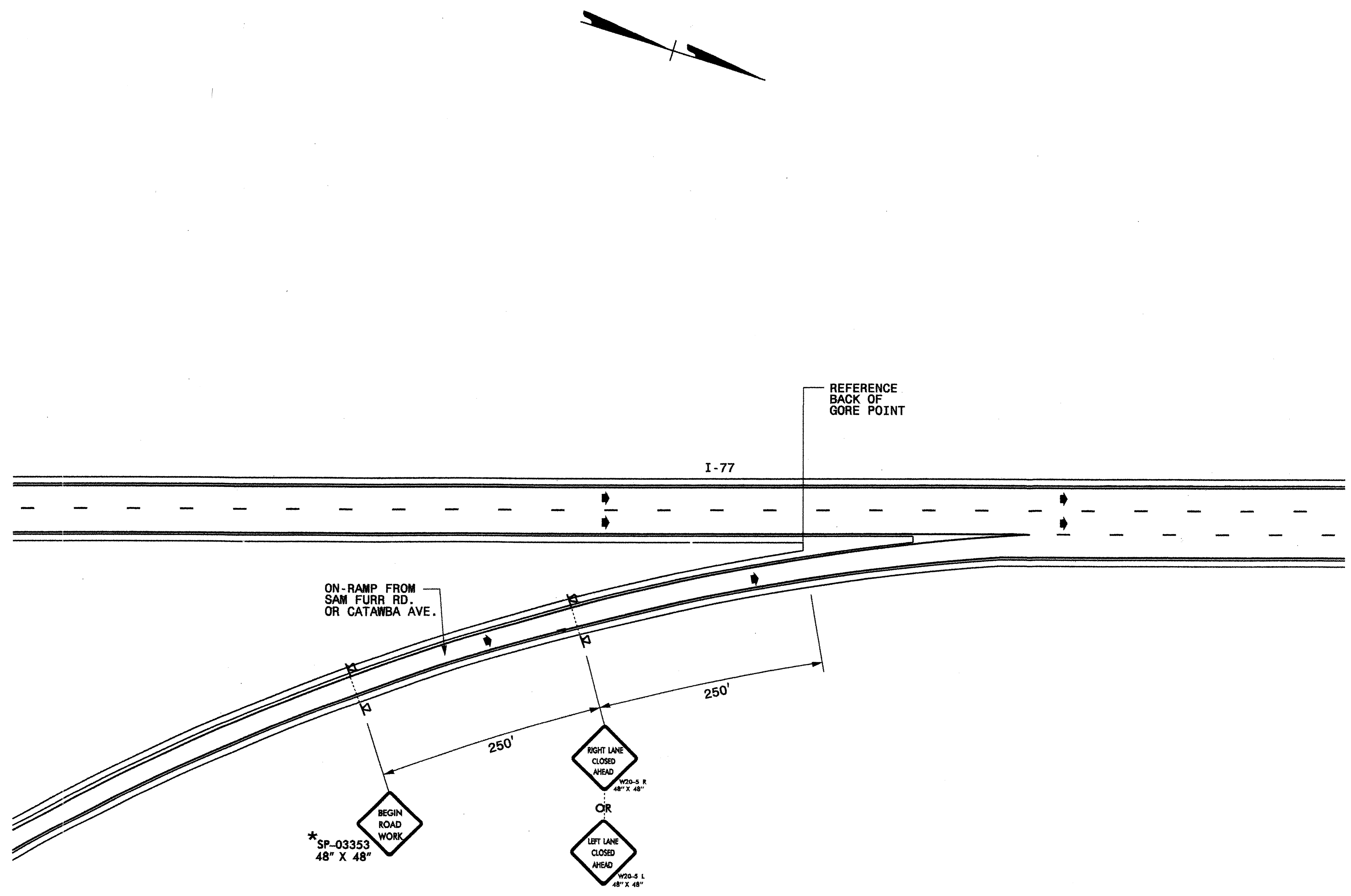
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>SR 2147/BRIDGE #362 TEMPORARY LANE CLOSURE INSIDE OR OUTSIDE LANE CLOSED</b>	
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	DATE: 12/09	
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REVIEWED BY: JWG	REVISIONS	

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 sngreen AT WZTC244133



**LEGEND**

- ▣ PORTABLE SIGN
- ◆ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

SR 2147/BRIDGE #362  
I-77  
INSIDE OR OUTSIDE LANE CLOSED

SCALE: NONE		REVISIONS
DATE: 12/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

**PHASING**

**PHASE 1**

**E. CATAWBA AVE.**

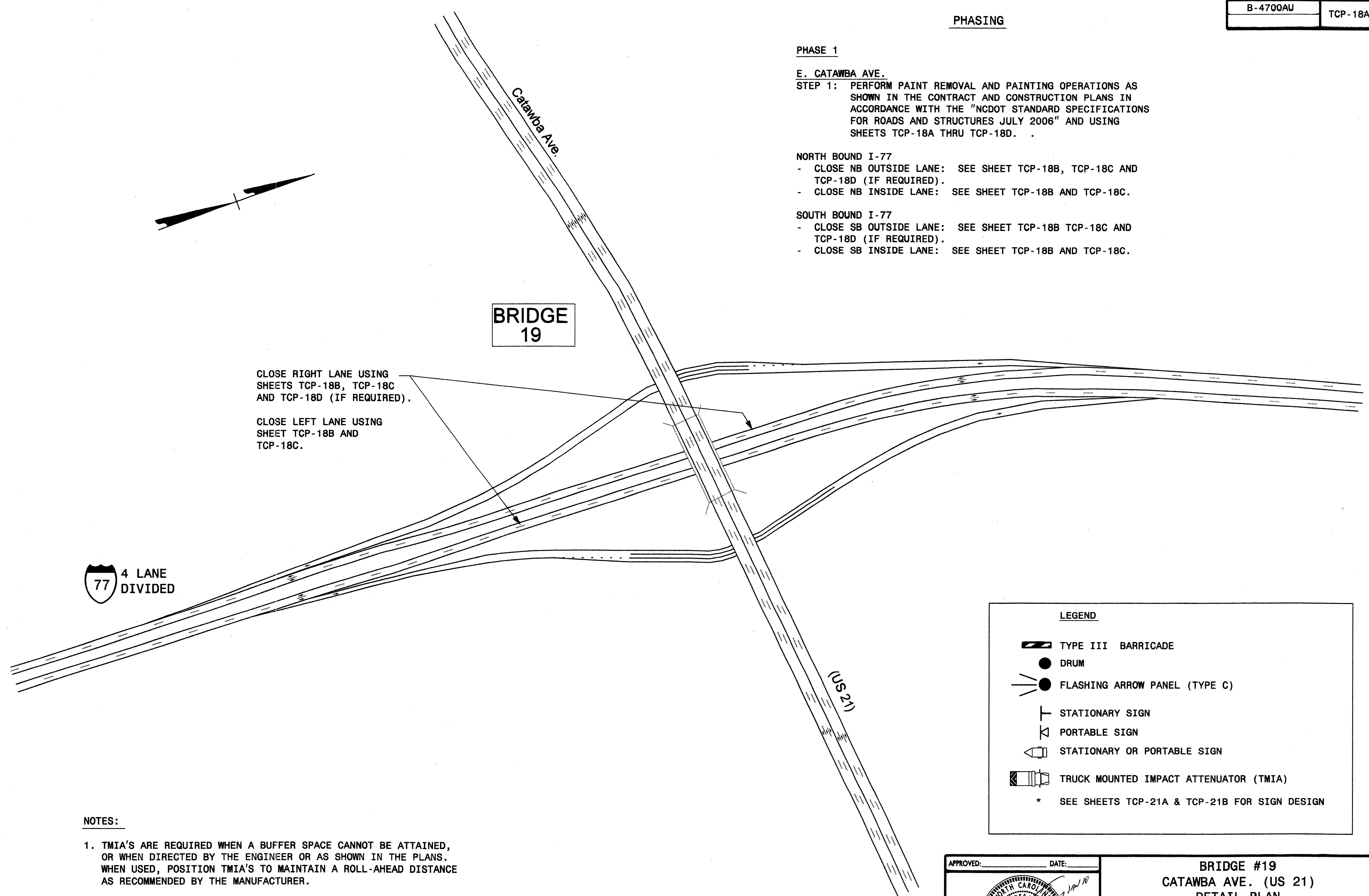
STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES JULY 2006" AND USING SHEETS TCP-18A THRU TCP-18D.

**NORTH BOUND I-77**

- CLOSE NB OUTSIDE LANE: SEE SHEET TCP-18B, TCP-18C AND TCP-18D (IF REQUIRED).
- CLOSE NB INSIDE LANE: SEE SHEET TCP-18B AND TCP-18C.

**SOUTH BOUND I-77**

- CLOSE SB OUTSIDE LANE: SEE SHEET TCP-18B TCP-18C AND TCP-18D (IF REQUIRED).
- CLOSE SB INSIDE LANE: SEE SHEET TCP-18B AND TCP-18C.



CLOSE RIGHT LANE USING SHEETS TCP-18B, TCP-18C AND TCP-18D (IF REQUIRED).

CLOSE LEFT LANE USING SHEET TCP-18B AND TCP-18C.



**BRIDGE  
19**

**LEGEND**

- TYPE III BARRICADE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- STATIONARY OR PORTABLE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

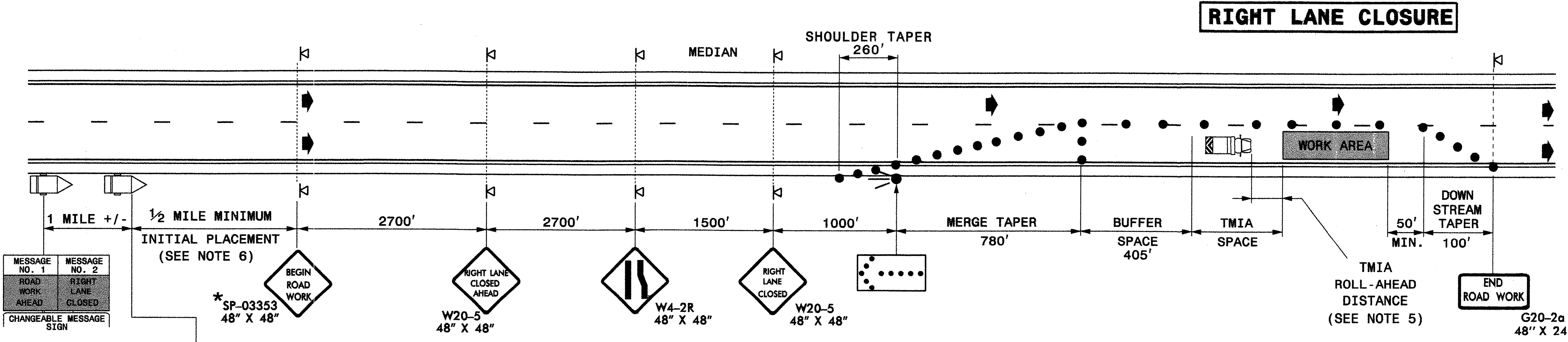
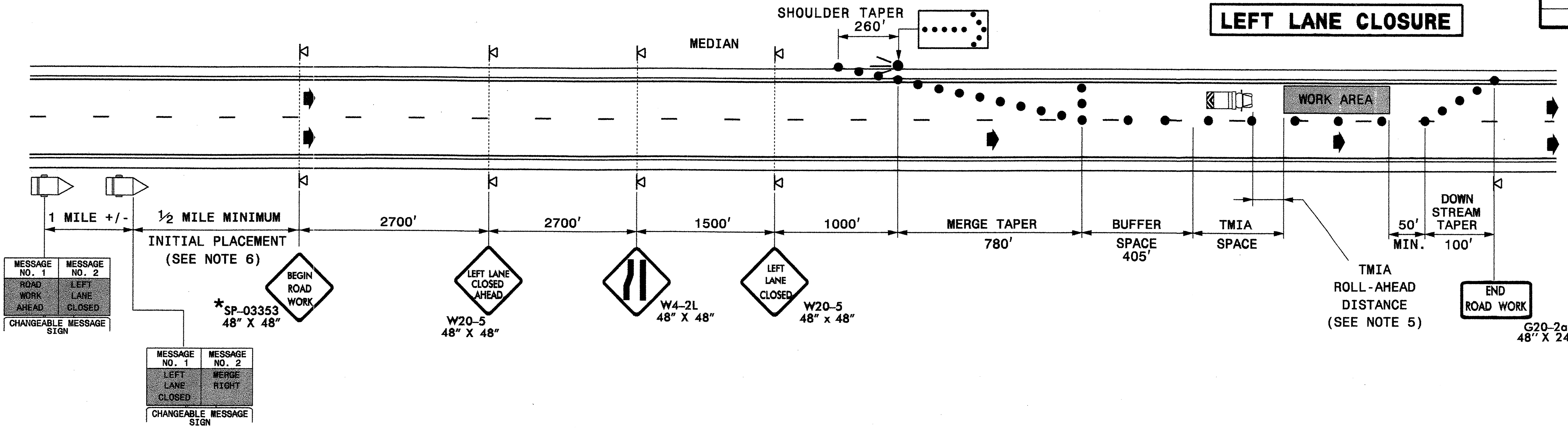
\* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGN

**NOTES:**

1. TMIA'S ARE REQUIRED WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS. WHEN USED, POSITION TMIA'S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

APPROVED: _____ DATE: _____	<b>BRIDGE #19 CATAWBA AVE. (US 21) DETAIL PLAN</b>	
	SCALE: NONE	
	DATE: 12/09	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

06-JAN-2010 15:21  
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 AT WZTC244733  
 sngreen



**NOTES**

- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- SEE SHEET TCP-18D FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.
- 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- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 6- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.

**LEGEND**

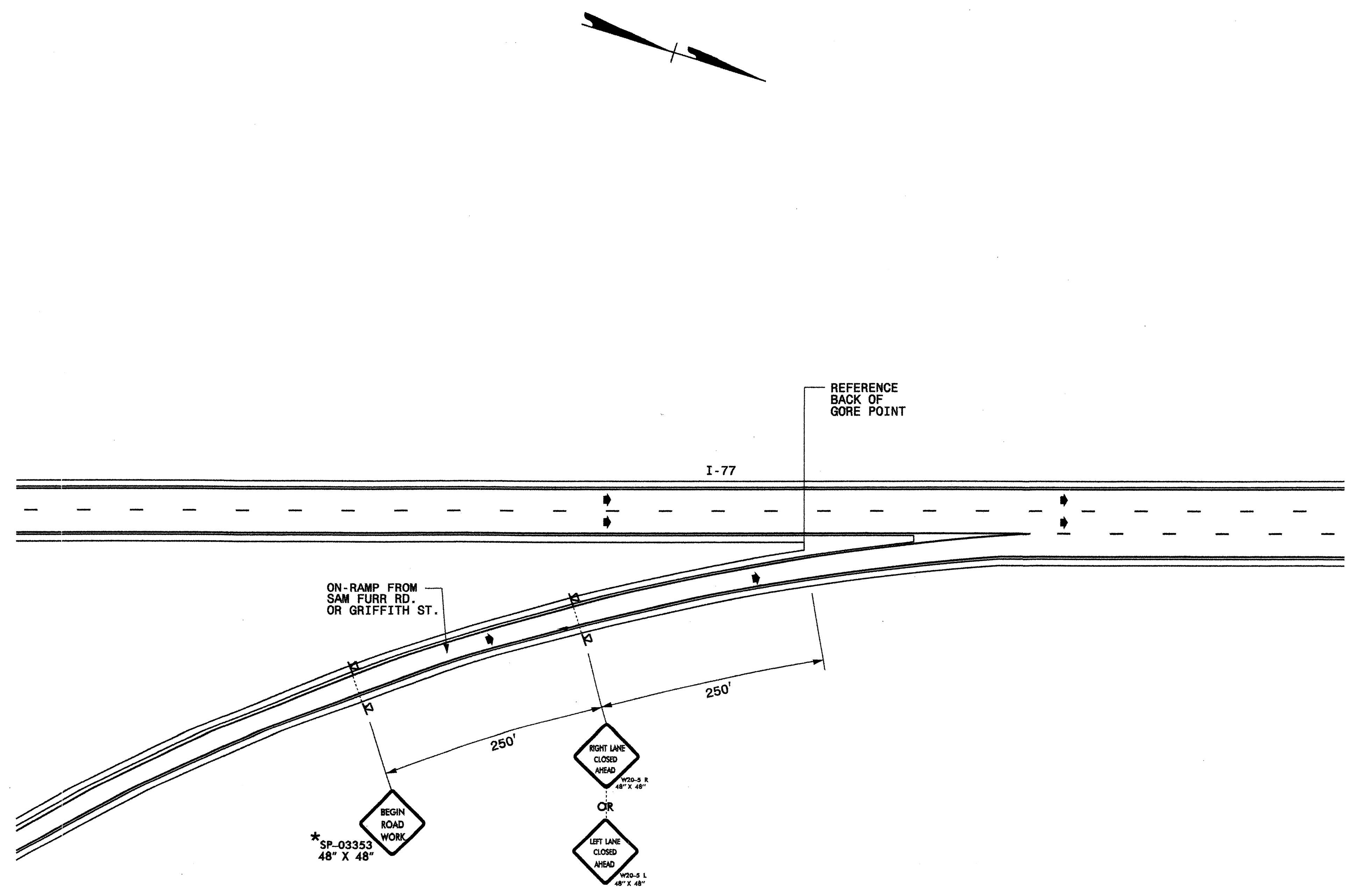
- FLASHING ARROW PANEL (TYPE C)
- ☐ TRUCK MOUNTED IMPACT ATTENUATOR(TMIA)
- ☐ CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- ◁ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<b>US 21/BRIDGE #19 TEMPORARY LANE CLOSURE INSIDE OR OUTSIDE LANE CLOSED</b>	
	SCALE: NONE	
	DATE: 12/09	
	DESIGN BY: SNG	
	REVIEWED BY: JWG	
		REVISIONS

06-JAN-2010 15:22  
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 AT WZTCC24733  
 sngreen



06-JAN-2010 15:23  
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 AT WZTC244733  
 sngreen



**LEGEND**

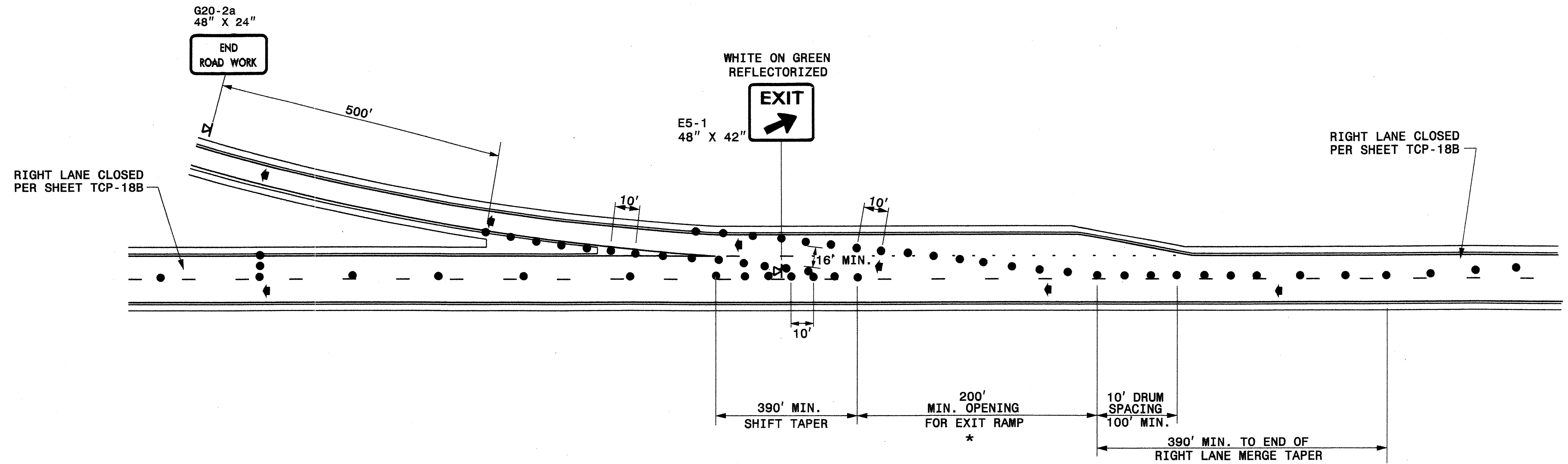
◀ PORTABLE SIGN  
 ➔ DIRECTION OF TRAFFIC FLOW  
 \* SEE SHEETS TCP-21A FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

US 21/BRIDGE #19  
I-77  
INSIDE OR OUTSIDE LANE CLOSED

SCALE: NONE		REVISIONS
DATE: 12/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		



**\* NOTE:**  
 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

LEGEND	
●	DRUM
⊠	PORTABLE SIGN
↔	DIRECTION OF TRAFFIC FLOW

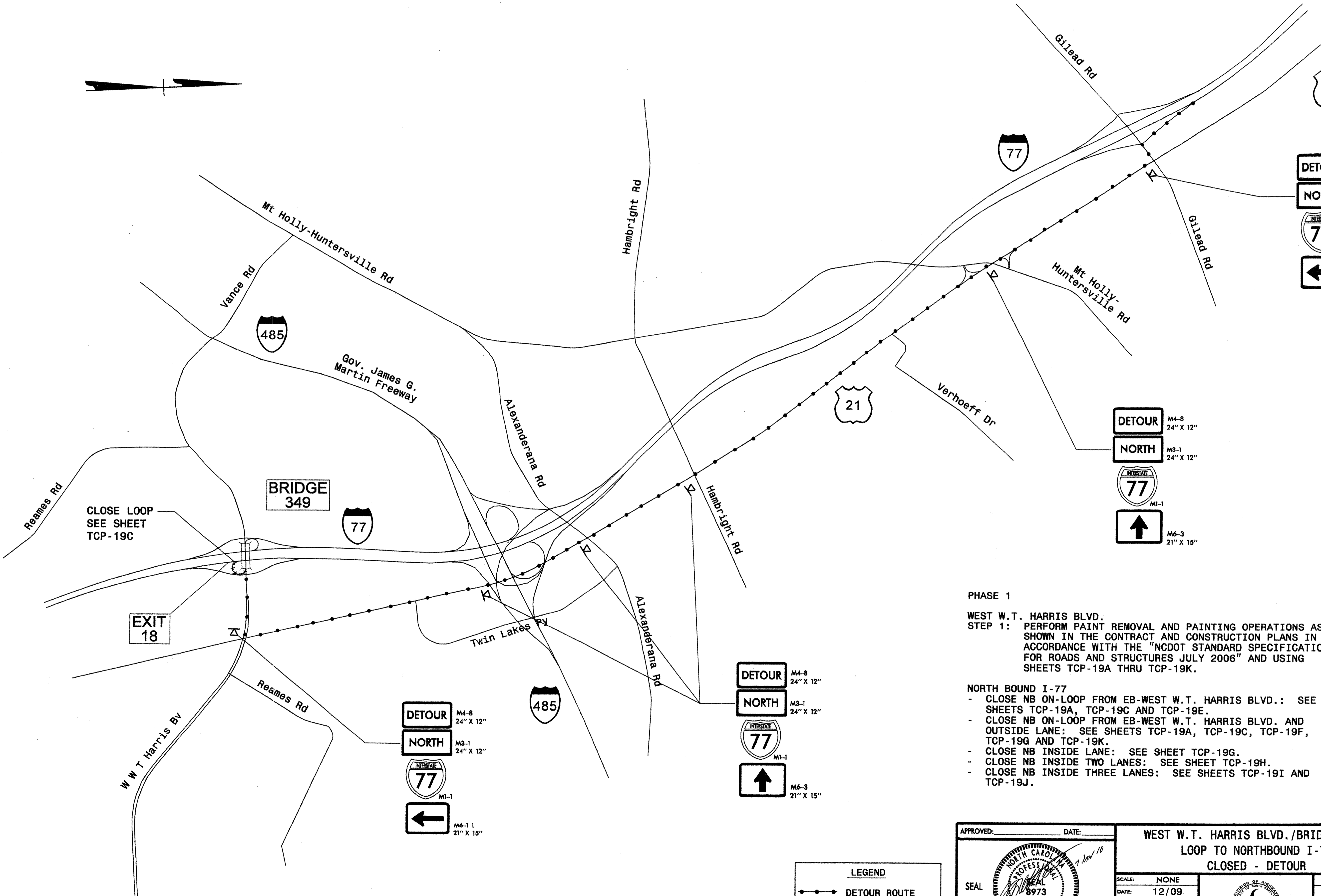
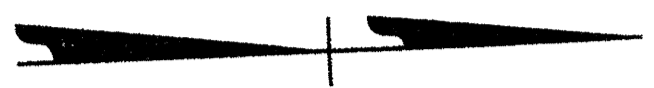
**GENERAL NOTES**  
 1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

**US 21/BRIDGE #19  
 TEMPORARY LANE CLOSURES  
 THRU EXIT RAMPS**

SCALE: NONE		REVISIONS
DATE: 12/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

06-JAN-2010 15:23  
 \\DOT\DFS\root\GROUPS-WZTCC\DesignGroup3\Squad38\SpecialProjects\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP18D.dgn  
 AT WZTC244733  
 sngreen



21  
 M4-8  
 24" X 12"  
 M3-1  
 24" X 12"  
 M1-1  
 M6-1 L  
 21" X 15"

M4-8  
 24" X 12"  
 M3-1  
 24" X 12"  
 M1-1  
 M6-3  
 21" X 15"

M4-8  
 24" X 12"  
 M3-1  
 24" X 12"  
 M1-1  
 M6-3  
 21" X 15"

M4-8  
 24" X 12"  
 M3-1  
 24" X 12"  
 M1-1  
 M6-1 L  
 21" X 15"

CLOSE LOOP  
SEE SHEET  
TCP-19C

EXIT  
18

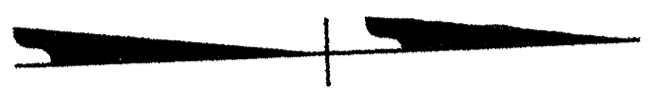
BRIDGE  
349


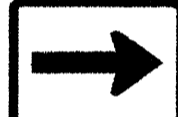
**PHASE 1**  
**WEST W.T. HARRIS BLVD.**  
**STEP 1: PERFORM PAINT REMOVAL AND PAINTING OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES JULY 2006" AND USING SHEETS TCP-19A THRU TCP-19K.**  
  
**NORTH BOUND I-77**  
 - CLOSE NB ON-LOOP FROM EB-WEST W.T. HARRIS BLVD.: SEE SHEETS TCP-19A, TCP-19C AND TCP-19E.  
 - CLOSE NB ON-LOOP FROM EB-WEST W.T. HARRIS BLVD. AND OUTSIDE LANE: SEE SHEETS TCP-19A, TCP-19C, TCP-19F, TCP-19G AND TCP-19K.  
 - CLOSE NB INSIDE LANE: SEE SHEET TCP-19G.  
 - CLOSE NB INSIDE TWO LANES: SEE SHEET TCP-19H.  
 - CLOSE NB INSIDE THREE LANES: SEE SHEETS TCP-19I AND TCP-19J.

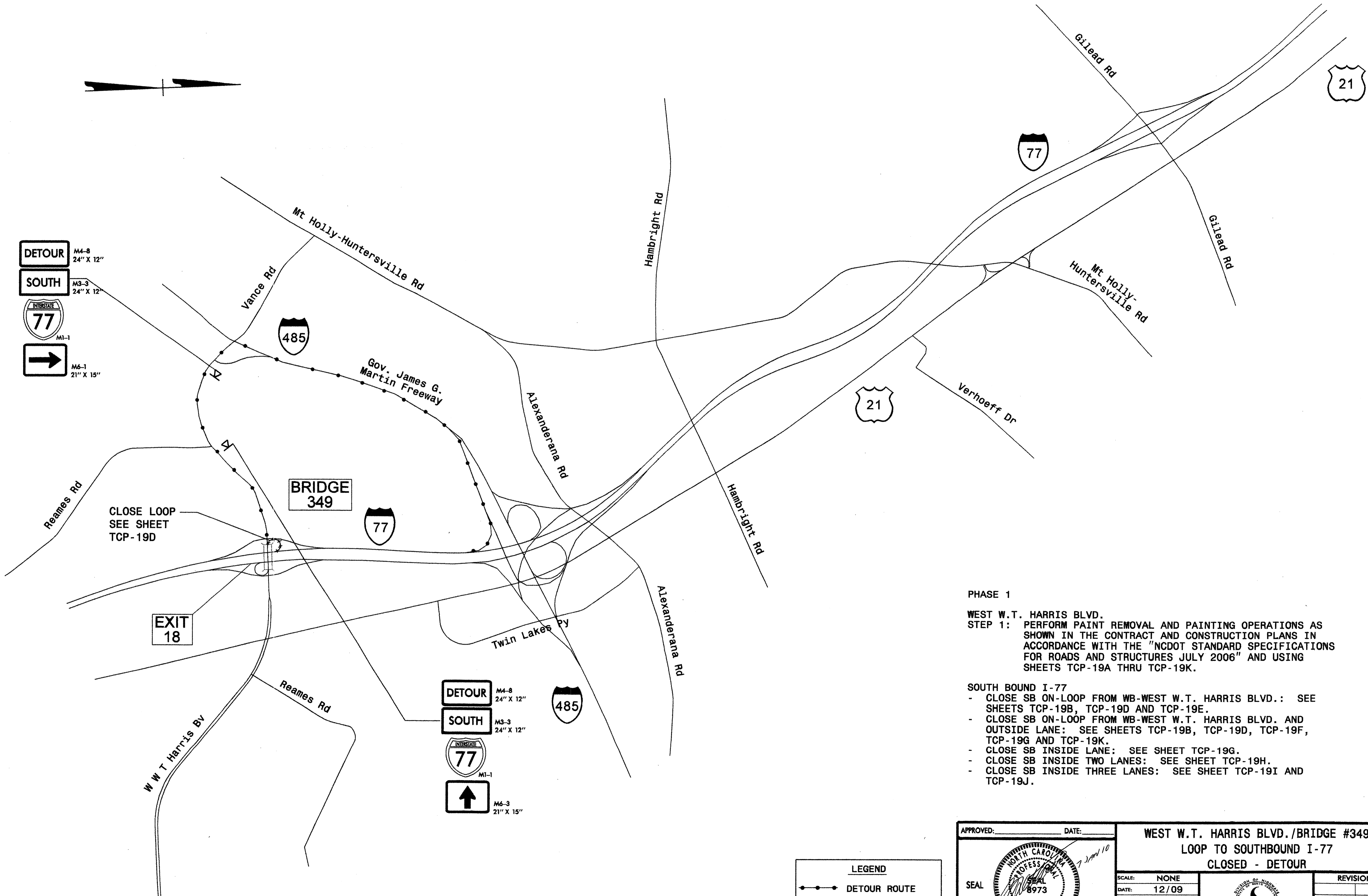
**LEGEND**  
 DETOUR ROUTE  
 PORTABLE SIGN

APPROVED: _____ DATE: _____	<b>WEST W.T. HARRIS BLVD./BRIDGE #349 LOOP TO NORTHBOUND I-77 CLOSED - DETOUR</b>	
	SCALE: NONE	
	DATE: 12/09	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

06-JAN-2010 15:24  
 \\ADOT\NF\SR0101\GROUPS-WZTCCC\WZTC\DesignGroup3\Squad3B\SpecialProjects\Bridges\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BRDS REPAINT-TCP19A.dgn  
 singraem AT WZTC24753





**DETOUR** M4-8  
 24" X 12"  
**SOUTH** M3-3  
 24" X 12"  
 M1-1  
 M6-1  
 21" X 15"



EXIT 18

BRIDGE 349



**DETOUR** M4-8  
 24" X 12"  
**SOUTH** M3-3  
 24" X 12"  
 M1-1  
 M6-3  
 21" X 15"

**PHASE 1**

**WEST W.T. HARRIS BLVD.**  
**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 JULY 2006" AND USING SHEETS TCP-19A THRU TCP-19K.**

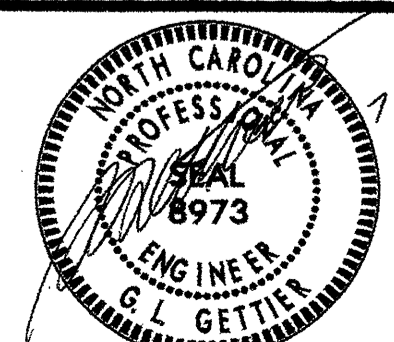
- SOUTH BOUND I-77**
- CLOSE SB ON-LOOP FROM WB-WEST W.T. HARRIS BLVD.: SEE SHEETS TCP-19B, TCP-19D AND TCP-19E.
  - CLOSE SB ON-LOOP FROM WB-WEST W.T. HARRIS BLVD. AND OUTSIDE LANE: SEE SHEETS TCP-19B, TCP-19D, TCP-19F, TCP-19G AND TCP-19K.
  - CLOSE SB INSIDE LANE: SEE SHEET TCP-19G.
  - CLOSE SB INSIDE TWO LANES: SEE SHEET TCP-19H.
  - CLOSE SB INSIDE THREE LANES: SEE SHEET TCP-19I AND TCP-19J.

**LEGEND**

-  DETOUR ROUTE
-  PORTABLE SIGN

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL



**WEST W.T. HARRIS BLVD./BRIDGE #349**  
**LOOP TO SOUTHBOUND I-77**  
**CLOSED - DETOUR**

SCALE: NONE  
 DATE: 12/09  
 DWG. BY: SNG  
 DESIGN BY: SNG  
 REVIEWED BY: JWG

REVISIONS

06-JAN-2010 15:24  
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 AT WZTCCC244733  
 sngrreen



EB - WEST W.T. HARRIS BLVD.

BRIDGE #349

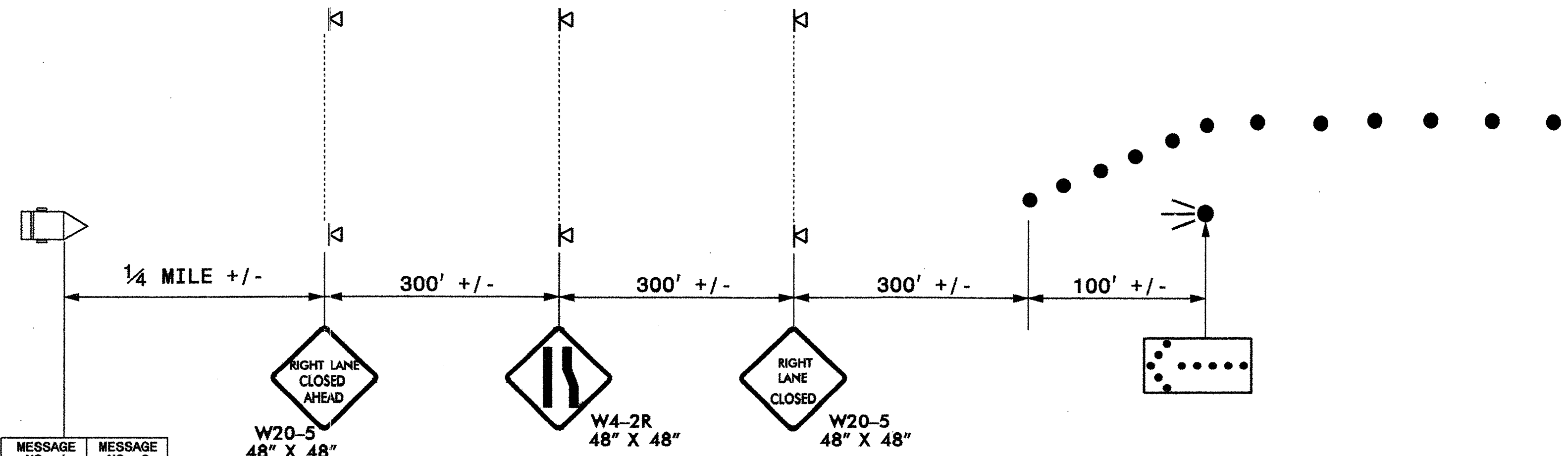
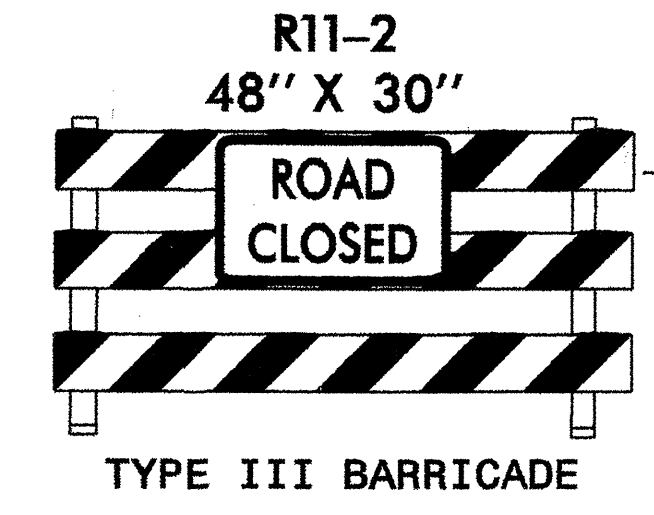
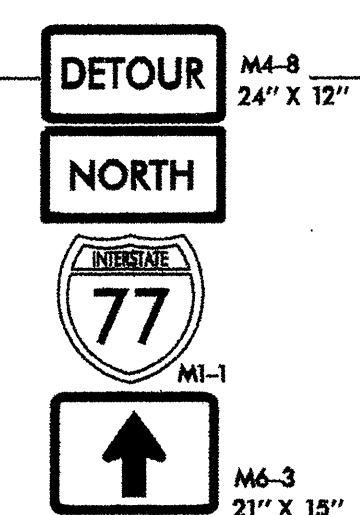
25' +/- DRUM SPACING

ON-RAMP TO I-77SB

ON-LOOP TO I-77 NB CLOSED

BACK OF GORE POINT

SEE BELOW AND NOTES ON TCP-19G TO CLOSE RIGHT LANE



**LEGEND**

- DRUM
- ⚡ PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

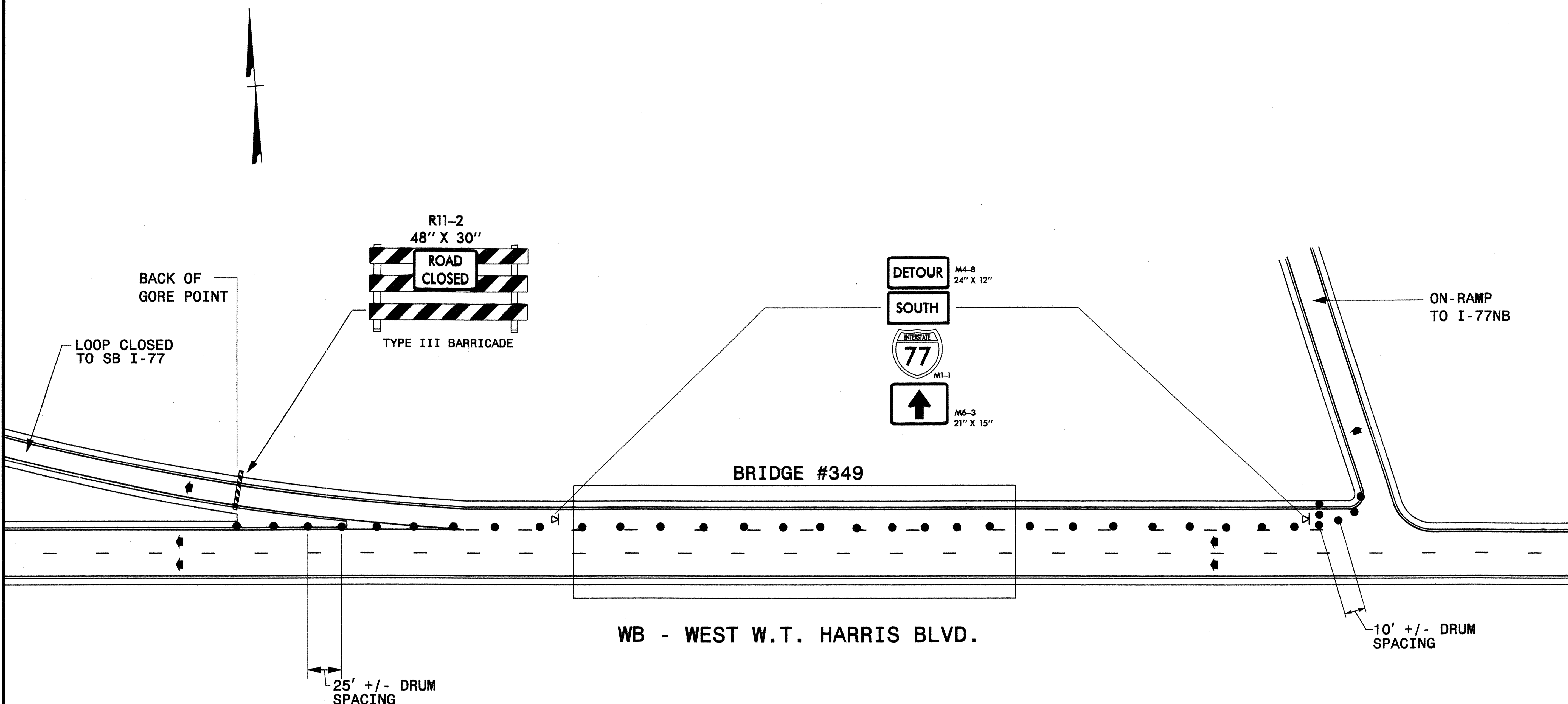
SEAL

EB - WEST W.T. HARRIS BLVD  
ON-LOOP TO I-77 NB  
CLOSED

SCALE: NONE		REVISIONS
DATE: 12/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

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 sngreen AT WZTC24733

06-JAN-2010 15:26  
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 Sngreen AT WZTCC4703



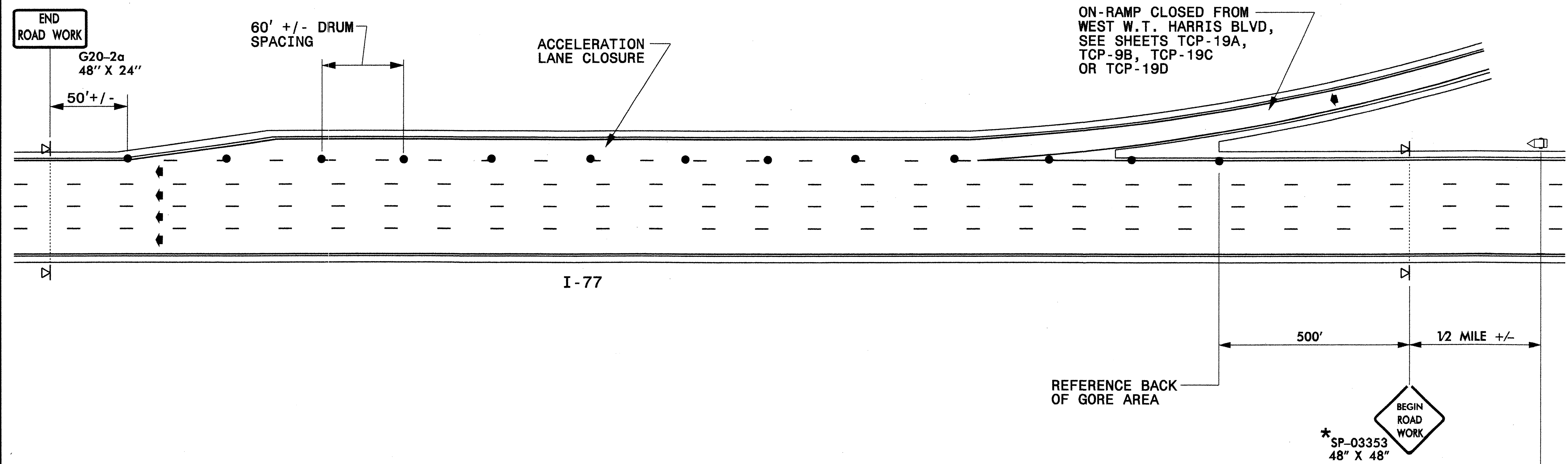
LEGEND	
●	DRUM
▣	PORTABLE SIGN
↔	DIRECTION OF TRAFFIC FLOW

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL

WB - WEST W. T. HARRIS BLVD. ON-LOOP TO SOUTHBOUND I-77 CLOSED		REVISIONS
SCALE: NONE	DATE: 12/09	
DWG. BY: SNG	DESIGN BY: SNG	
REVIEWED BY: JWG		

06-JAN-2010 15:26  
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 AT WZTC244733  
 sngreen



**LEGEND**

- DRUM
- ◄ DIRECTION OF TRAFFIC FLOW
- ▽ PORTABLE SIGN
- ◁ CHANGEABLE MESSAGE SIGN
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

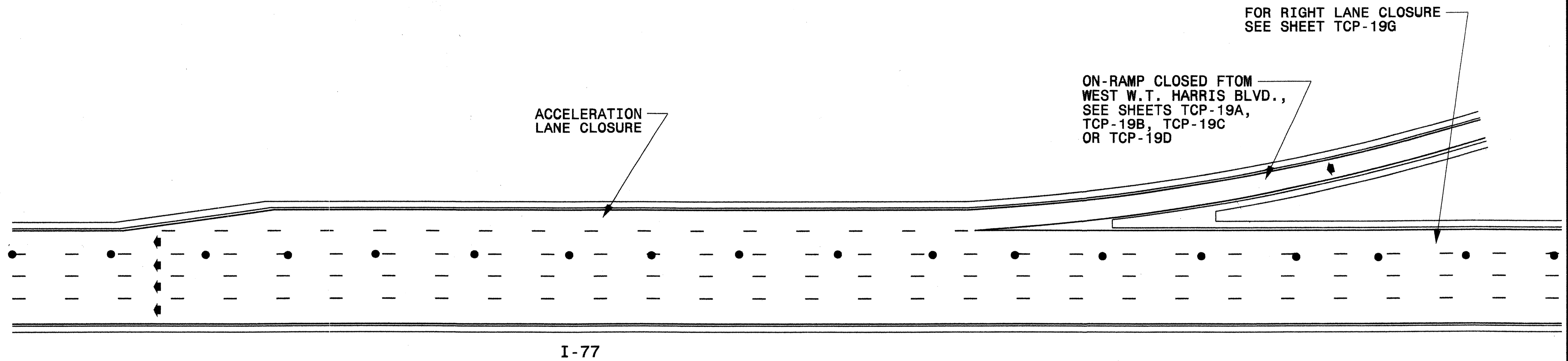
SEAL

**WEST W.T. HARRIS BLVD./BRIDGE #349**  
**TEMPORARY**  
**ACCELERATION LANE CLOSED**

SCALE: NONE		REVISIONS
DATE: 12/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	PLEASE STAY ALERT
CHANGEABLE MESSAGE SIGN	

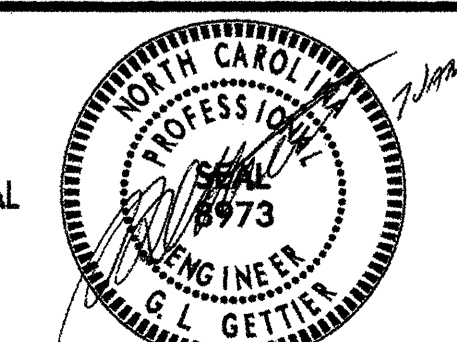

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 sngreen AT WZTCCC4133



I-77

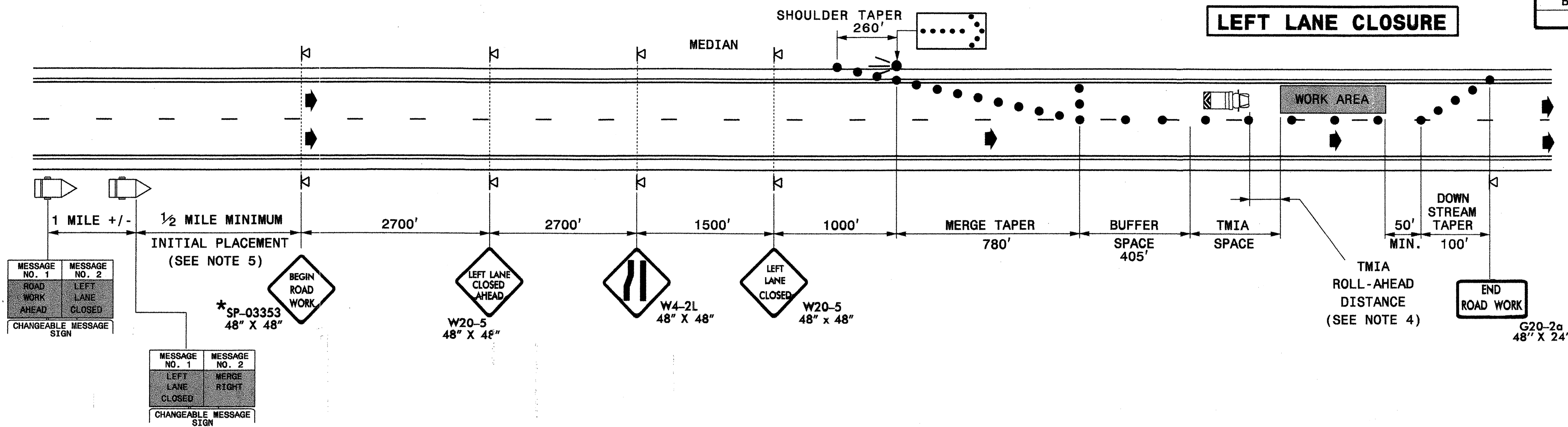
**LEGEND**

- DRUM
- ◄ DIRECTION OF TRAFFIC FLOW
- ▽ PORTABLE SIGN
- ◻ CHANGEABLE MESSAGE SIGN
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

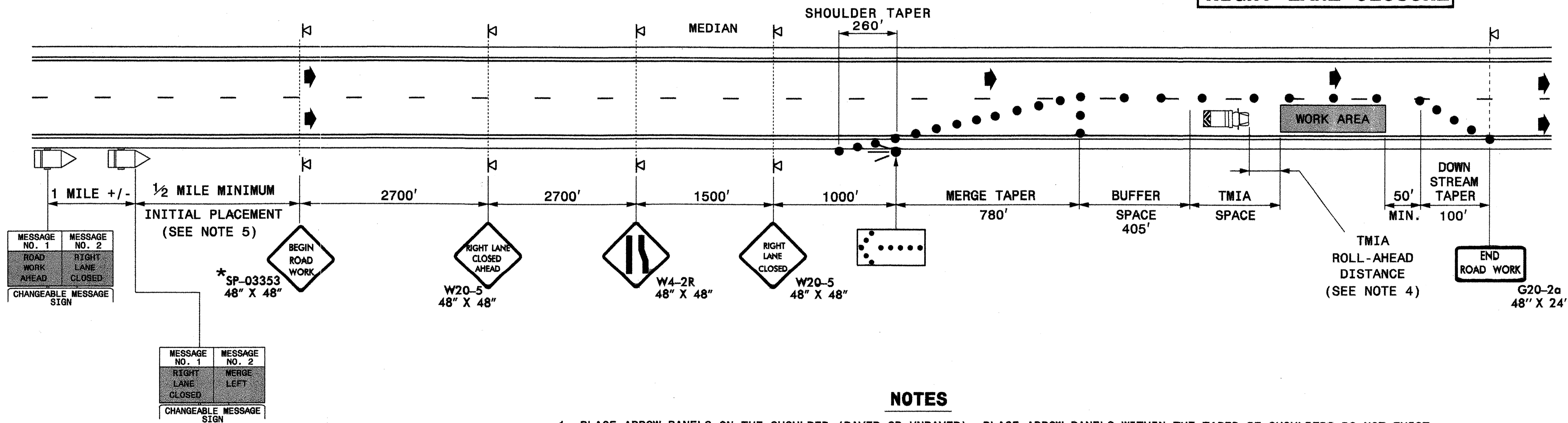
APPROVED: _____ DATE: _____ 	<b>WEST W.T. HARRIS BLVD./BRIDGE #349</b> <b>TEMPORARY LANE CLOSURE AND</b> <b>ACCELERATION LANE CLOSED</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS							
REVISIONS										
SCALE: NONE DATE: 12/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG										



### LEFT LANE CLOSURE



### RIGHT LANE CLOSURE



### NOTES

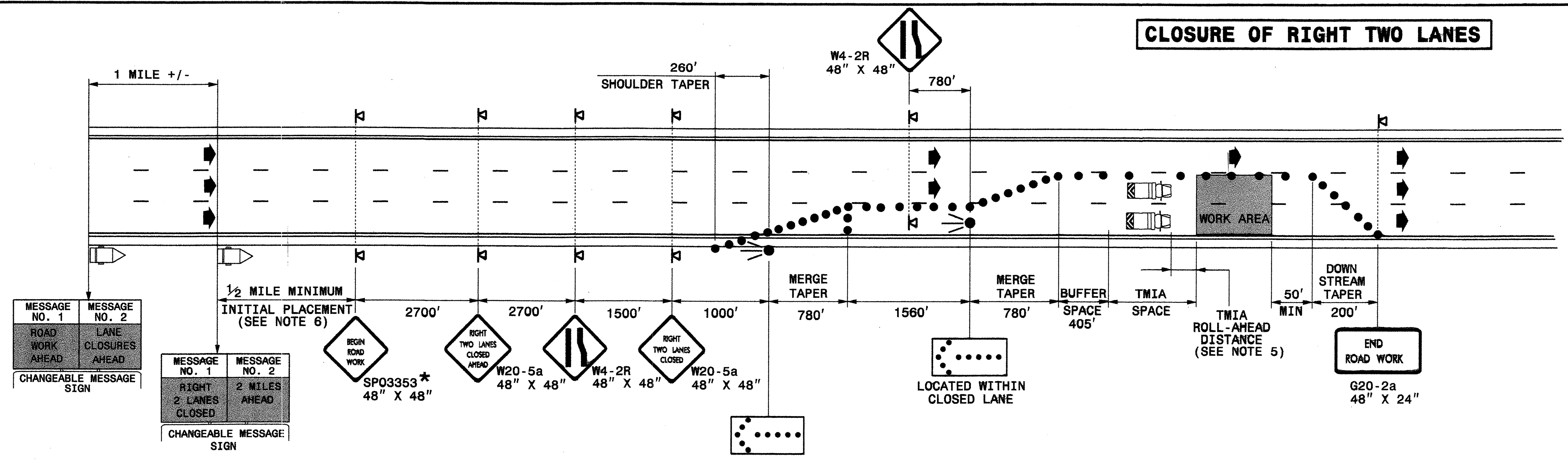
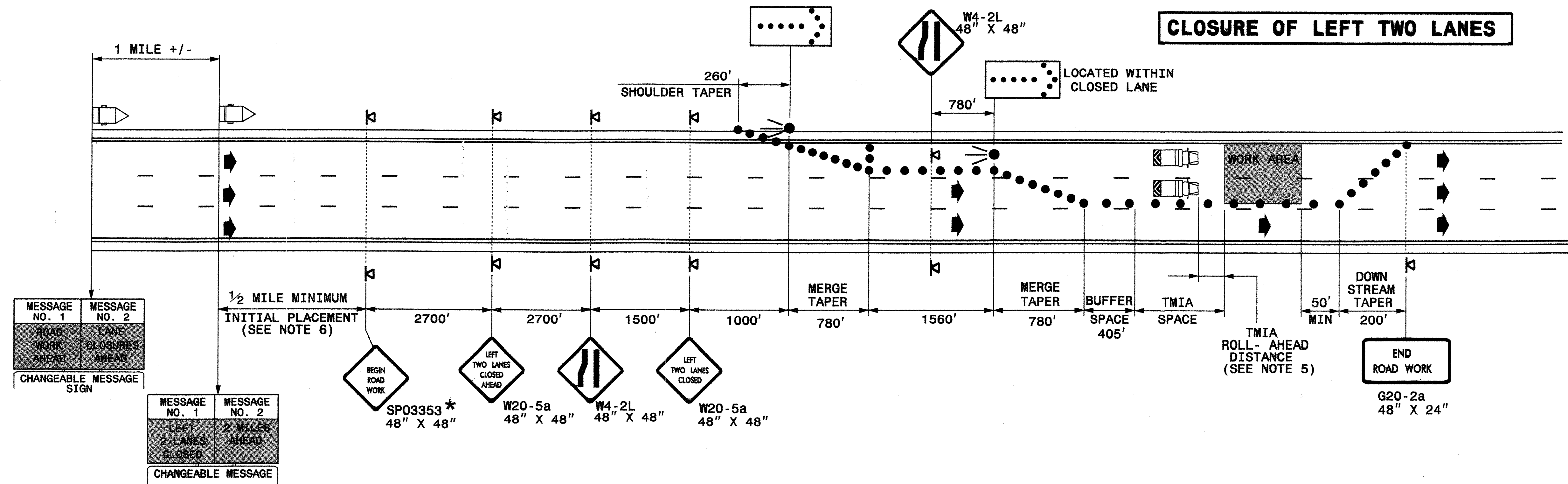
- 1- PLACE ARROW PANELS ON THE SHOULDER (PAVED OR UNPAVED). PLACE ARROW PANELS WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE ARROW PANEL LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE ARROW PANEL 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 BUFFER SPACE AND WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 3- 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.
- 4- TMIA'S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED, POSITION THE TMIA TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
- 5- PLACE CHANGEABLE MESSAGE SIGNS (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. IF TRAFFIC BACKS UP TO WHERE THE CMS IS LOCATED THEN RELOCATE THE CMS 1/2 MILE FROM THE ANTICIPATED BACK UP.
- 6- SEE SHEET TCP-19K FOR TREATMENT OF LANE CLOSURES AT EXIT RAMP.

#### LEGEND

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN (CMS)
- DRUM
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	WEST W.T. HARRIS BLVD./BRIDGE #349 TEMPORARY LANE CLOSURE ONE LANE CLOSED	
	SCALE: NONE	
	DATE: 12/09	
	DWG. BY: SNG	
	DESIGN BY: SNG	
REVIEWED BY: JWG	REVISIONS	

06-JAN-2010 15:27  
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 sngreen AT WZTCC24733



**NOTES**  
1-REFER TO NOTES ON SHEET TCP-19G.

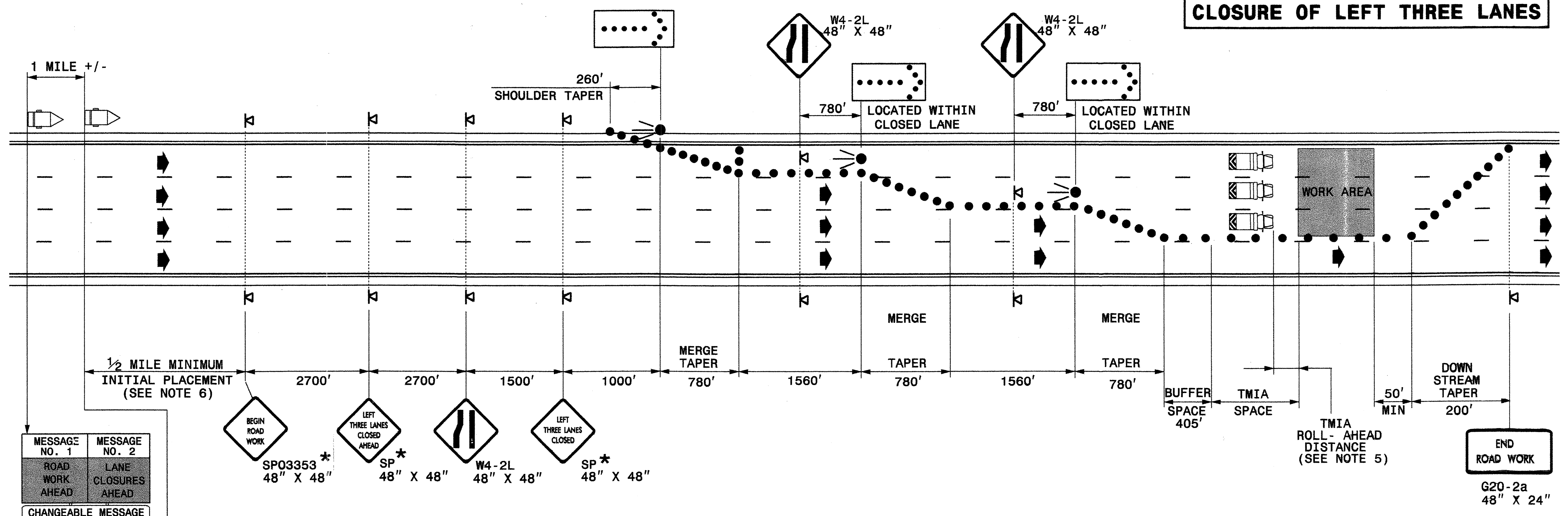
**LEGEND**

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	WEST W.T. HARRIS BLVD./BRIDGE #349 TEMPORARY LANE CLOSURES INSIDE TWO LANES CLOSED	
	SCALE: NONE	
	DATE: 12/09	
	DESIGN BY: SNG	
	REVIEWED BY: JWG	
		REVISIONS

06-JAN-2010 15:28 \\DOT\DRS\001\01\GROUPS\WZTCCC\WZTCCC\SpecialProjects\Bridges\Painting Projects\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BROG REPAINT-TCP19H.dgn

### CLOSURE OF LEFT THREE LANES



MESSAGE NO. 1 ROAD WORK AHEAD	MESSAGE NO. 2 LANE CLOSURES AHEAD
----------------------------------	--------------------------------------

CHANGEABLE MESSAGE SIGN

MESSAGE NO. 1 LEFT 3 LANES CLOSED	MESSAGE NO. 2 2 MILES AHEAD
--------------------------------------	--------------------------------

CHANGEABLE MESSAGE SIGN

#### GENERAL NOTES

1-REFER TO NOTES ON SHEET TCP-19G.

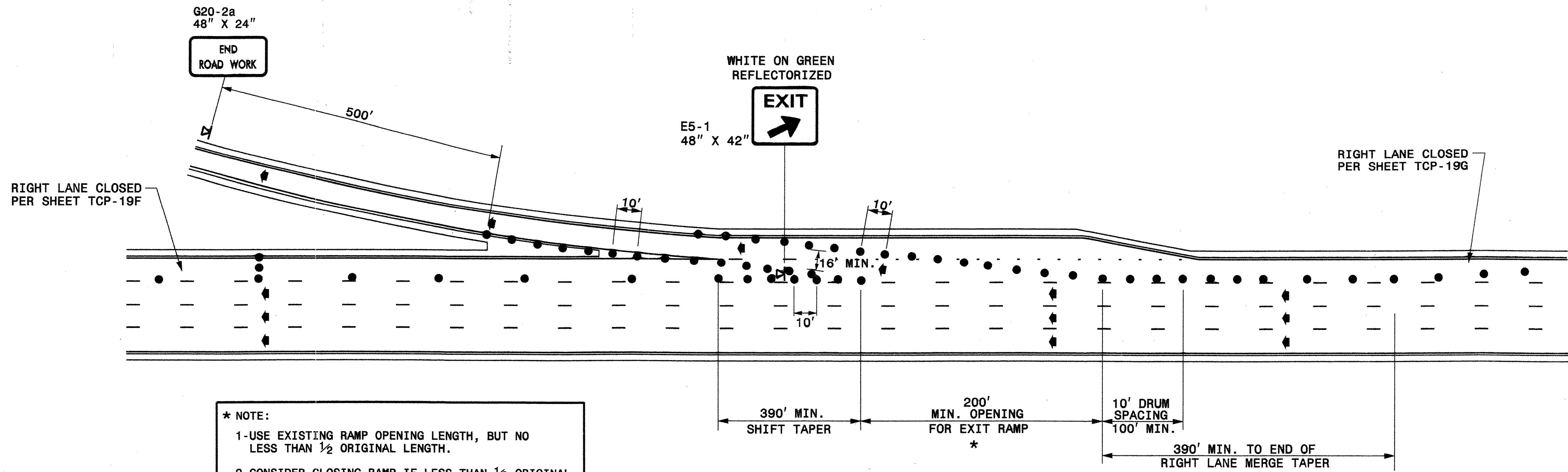
#### LEGEND

- FLASHING ARROW PANEL (TYPE C)
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- DRUM
- PORTABLE SIGN
- CHANGEABLE MESSAGE SIGN (CMS)
- DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DETAILS

APPROVED: _____ DATE: _____	<p>WEST W.T. HARRIS BLVD./BRIDGE #349 TEMPORARY LANE CLOSURE INSIDE THREE LANES CLOSED</p>						
<p>SCALE: NONE DATE: 12/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG</p>	<p>REVISIONS</p> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						

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 sngreen AT WZTC24733





**\* NOTE:**  
 1-USE EXISTING RAMP OPENING LENGTH, BUT NO LESS THAN 1/2 ORIGINAL LENGTH.  
 2-CONSIDER CLOSING RAMP IF LESS THAN 1/2 ORIGINAL LENGTH CANNOT BE OBTAINED.

**LEGEND**

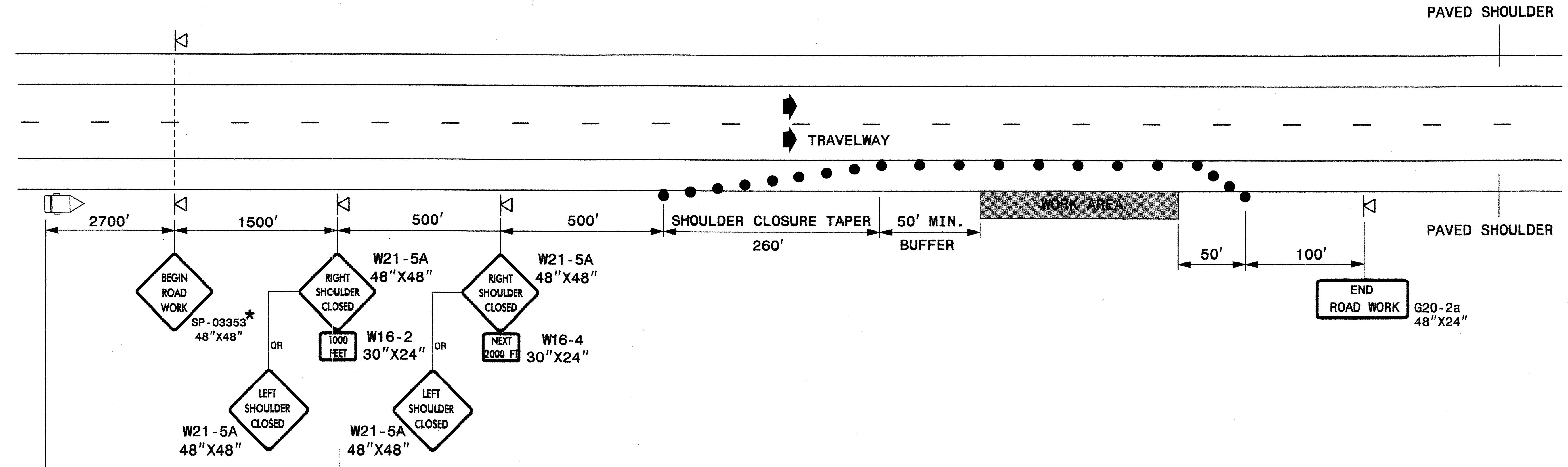
- DRUM
- ◀ PORTABLE SIGN
- ◀ DIRECTION OF TRAFFIC FLOW

**GENERAL NOTES**  
 1-MOUNT EXIT SIGNS A MINIMUM OF 7 FEET ABOVE THE PAVEMENT ELEVATION.

APPROVED: _____ DATE: _____	WEST W.T. HARRIS BLVD./BRIDGE #349 TEMPORARY LANE CLOSURES THRU EXIT RAMPS			<b>REVISIONS</b> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>								
	SCALE: NONE DATE: 12/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG											

06-JAN-2010 15:30  
 \DOT\DFSROOT\GROUPS-WZTCCC\WZTCCC\DesignGroup3\Squad3B\SpecialProjects\Charlotte-Bridge Painting\B-4700AU - Last 13 Bridges\CHLT-BRDG REPAINT-TCP19K.dgn  
 sngreen AT WZTCCC244133

## SHOULDER CLOSURE ON I-77



MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	LEFT SHOULDER CLOSED
CHANGEABLE MESSAGE SIGN	
OR	
MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	RIGHT SHOULDER CLOSED
CHANGEABLE MESSAGE SIGN	

### GENERAL NOTES

- 1- PLACE SHOULDER CLOSURE SIGNS ON THE SAME SIDE AS THE SHOULDER THAT IS CLOSED.
- 2- 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.
- 3- DO NOT CLOSE THE SHOULDERS ON RIGHT SIDE AND MEDIAN SIDE OF THE ROADWAY AT THE SAME TIME.

### LEGEND

- DRUM
- ▽ PORTABLE SIGN
- ➡ DIRECTION OF TRAFFIC FLOW
- \* SEE SHEETS TCP-21A & TCP-21B FOR SIGN DESIGNS

APPROVED:	DATE:	<b>TEMPORARY SHOULDER CLOSURE</b>	
		SCALE: NONE	
		DATE: 04/09	REVISIONS
		DWG. BY: SNG	
		DESIGN BY: SNG	
		REVIEWED BY: JWG	

06-JAN-2010 15:31  
 S:\DOT\SR\SR01\01\GROUPS\SpecialProjects\Bridges\Painting\B-4700AU - Lost 13 Bridges\CHLT-BRDG REPAINT-TCP20.dgn  
 sngreen AI: WZTC244733

SIGN NUMBER: SPO6417      BACKG COLOR: Fluorescent Orange  
 TYPE: PORTABLE      COPY COLOR: Black  
 QUANTITY: SEE PLANS

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16 Sq. Ft.

BORDER TYPE: RECESSED  
 RECESS: 0.75"  
 WIDTH: 1.25"  
 RADII: 3"

NO. Z BARS:      MAT'L: COMPOSITE  
 LENGTH:      OR ROLL-UP SUBSTRATES

DESIGN BY: M. TRACEY      CHECKED BY: *San P. King*  
 PROJECT ID: 36727.3.5      DIV: 7      DATE: Oct 11, 2006

BORDER  
 R=3"  
 TH=1.25"  
 IN=0.75"

LETTER POSITIONS

Letter spacings are to start of next letter											Series/Size Text Length
L	E	F	T								C 2000
22.7	5.2	5.4	4.6	4.1	22.8						19.3
3		L	A	N	E	S					C 2000
12.9	5	7.5	4.6	6.2	6.2	5	4.5	12.9			39
C	L	O	S	E	D						C 2000
16	6.1	5	5.9	5.8	5.4	4.5	16				32.8

Spacing Factor is 1 unless specified otherwise

SIGN NUMBER: SPO6418      BACKG COLOR: Fluorescent Orange  
 TYPE: PORTABLE      COPY COLOR: Black  
 QUANTITY: SEE PLANS

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16 Sq. Ft.

BORDER TYPE: RECESSED  
 RECESS: 0.75"  
 WIDTH: 1.25"  
 RADII: 3"

NO. Z BARS:      MAT'L: COMPOSITE  
 LENGTH:      OR ROLL-UP SUBSTRATES

DESIGN BY: M. TRACEY      CHECKED BY: *San P. King*  
 PROJECT ID: 36727.3.5      DIV: 7      DATE: Oct 11, 2006

BORDER  
 R=3"  
 TH=1.25"  
 IN=0.75"

LETTER POSITIONS

Letter spacings are to start of next letter											Series/Size Text Length
L	E	F	T								C 2000
25.2	3.9	4.1	3.4	3.1	25.2						14.5
3		L	A	N	E	S					C 2000
17.7	3.7	5.6	3.4	4.7	4.7	3.8	3.4	17.7			29.3
C	L	O	S	E	D						C 2000
20.1	4.6	3.8	4.4	4.4	4.1	3.4	20.1				24.6
A	H	E	A	D							C 2000
21.9	4.7	4.7	3.6	4.7	3.4	21.9					21

Spacing Factor is 1 unless specified otherwise

SIGN NUMBER: SP-03353      BACKG COLOR: Fluorescent Orange  
 TYPE: PORTABLE      COPY COLOR: Black  
 QUANTITY: SEE PLANS

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 4'-0"  
 HEIGHT: 4'-0"  
 TOTAL AREA: 16.0 Sq. Ft.

BORDER TYPE: FLUSH  
 RECESS: 0.59"  
 WIDTH: 0.75"  
 RADII: 1.38"

NO. Z BARS: N/A      MAT'L: composite  
 LENGTH: N/A      OR substrate roll-up.

DESIGN BY: CL DOWNEY      CHECKED BY: CHECKED      STD #: W20-1  
 PROJECT ID: ALL PROJECTS      DIV: DIV      DATE: Aug 20, 2003

BORDER  
 R=1.38"  
 TH=0.75"  
 IN=0.59"

LETTER POSITIONS

Letter spacings are to start of next letter											Series/Size Text Length
B	E	G	I	N							C7
22.4	5.3	4.6	5.4	2.5	3.8	22.4					21.6
R	O	A	D								C7
23.4	5	5.2	5.6	3.8	23.4						19.6
W	O	R	K								C7
22.6	6.4	5.6	5.2	4	22.6						21.2

Spacing Factor is 1 unless specified otherwise

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

SEAL:

**SPECIAL SIGN DETAILS**

SCALE: NONE		REVISIONS
DATE: 04/09		
DWG. BY: SNG		
DESIGN BY: SNG		
REVIEWED BY: JWG		

06-JAN-2010 15:31  
 S:\DOT\XP\SR001\GROUPS\WZTCC\WZTC\DesignGroup\3\Squad38\SpecialProjects\Bridges\Painting\Bridges\Painting\Bridges\Painting\B-4700AU - Last 13 Bridges\CHLT-BROG REPAINT-TCP21A.dgn  
 sngreen AT WZTCC244733

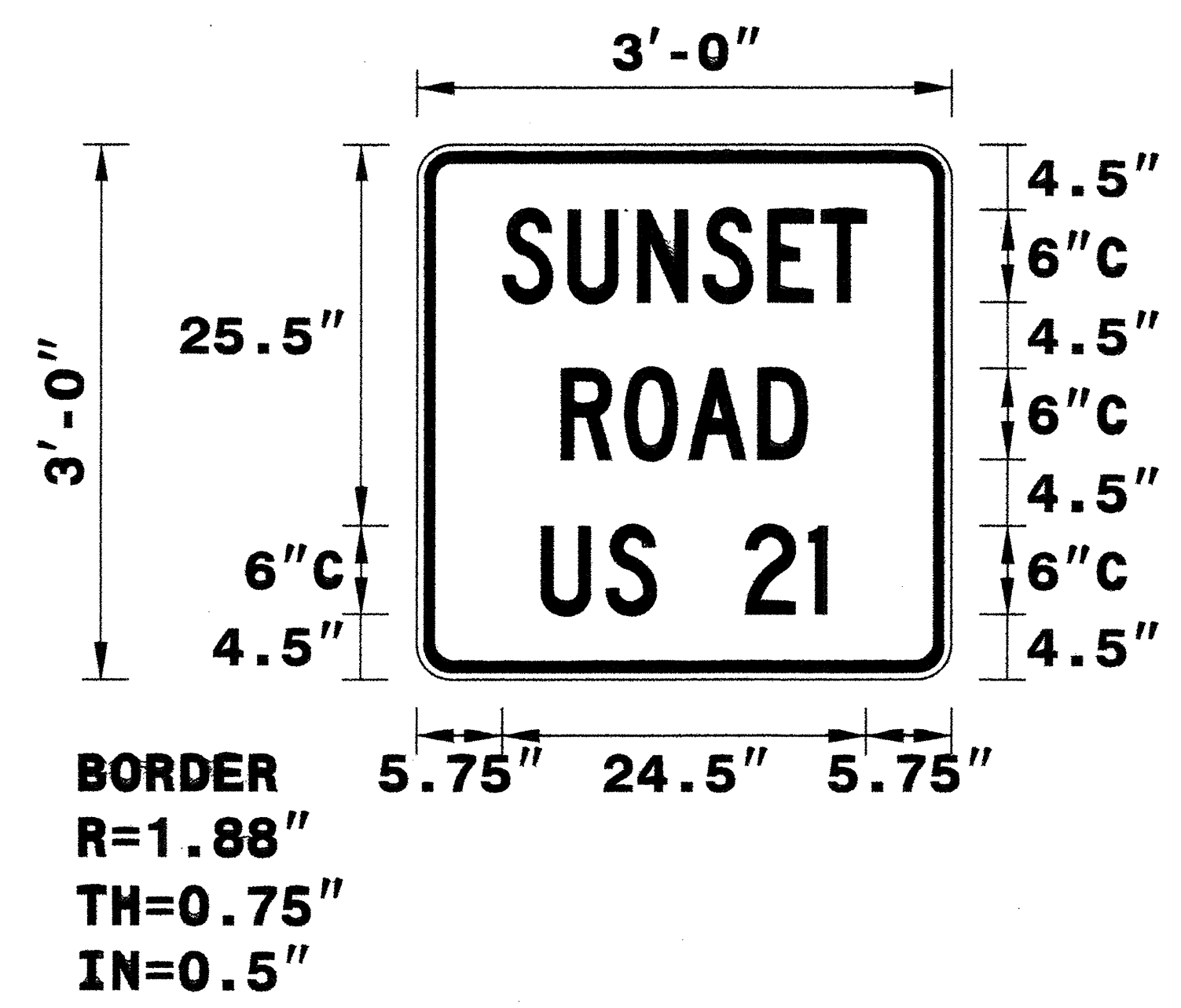
**SIGN NUMBER:** SP09094      **BACKG COLOR:** Fluorescent Orange  
**TYPE:** D      **COPY COLOR:** Black  
**QUANTITY:** 1  
**SIGN WIDTH:** 3'-0"  
**HEIGHT:** 3'-0"  
**TOTAL AREA:** 9.0 Sq.Ft.  
**BORDER TYPE:** INSET  
**RECESS:** 0.5"  
**WIDTH:** 0.75"  
**RADII:** 1.88"  
**NO. Z BARS:**      **MAT'L:** 0.080" (2.0 mm) ALUMINUM  
**LENGTH:**

**DESIGN BY:** M. TRACEY  
**PROJECT ID:**

**CHECKED BY:**  
**DIV:** 10

**DATE:** May 20, 2009

SYMBOL	X	Y	WID	HT



Spacing Factor is 1 unless specified otherwise

**USE NOTES:** 1,2  
 1. Legend and border shall be direct applied black non-reflective sheeting.  
 2. Background shall be Type VII, VIII, or IX (prismatic) fluorescent orange retroreflective sheeting.

**LETTER POSITIONS**

Letter spacings are to start of next letter										Series/Size
	S	U	N	S	E	T				Text Length
	5.8	4.4	4.7	4.4	4.4	3.6	3.1	5.8		C 2000
										24.5
		R	O	A	D					C 2000
	9.7	4.3	4.3	4.7	3.4	9.7				16.6
										C 2000
	8.4	4.4	3.4	6	4.3	1.3	8.4			19.3

FILENAME: west woodlawn rd\_sunset rd\_us 21

NORTH CAROLINA D.O.T. SIGN DETAIL

06-JAN-2010 15:40  
 \DOT\UP\SR0010\GROUPS\WZTCCC\WZTCCC\DesignGroup\3\Squad3B\SpecialProjects\Bridges\Painting\B-4700AU - Last 13 Bridges\CHL T-BRDG REPAINT-TCP21B.dgn  
 sngreen AT WZTCCC

APPROVED: _____ DATE: _____	<b>SPECIAL SIGN DESIGNS</b>							
SCALE: NONE DATE: 04/09 DWG. BY: SNG DESIGN BY: SNG REVIEWED BY: JWG		<b>REVISIONS</b> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>						