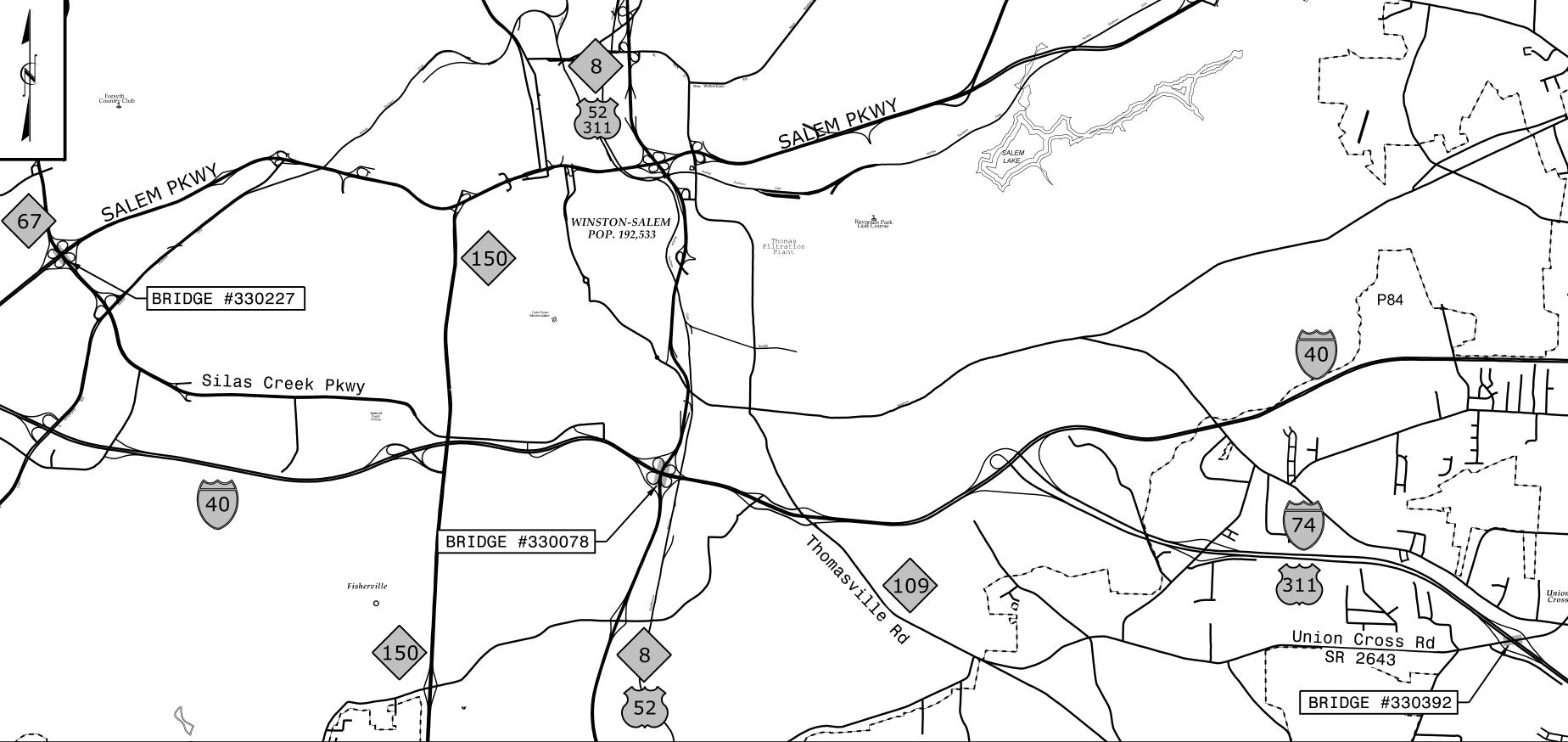


LOCATION: BRIDGE #330078 ON US 52 / US 311 OVER US 311 / I-40 BRIDGE #330227 ON NC 67 OVER SALEM PKWY. BRIDGE #330392 ON SR 2643 OVER US 311 /I-40



DOCUMENT NOT CONSIDERED FINAL

SEAL

INDEX OF SHEETS

LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND

TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES)

BRIDGE # 330078 TEMPORARY TRAFFIC CONTROL DETAILS

BRIDGE # 330227 TEMPORARY TRAFFIC CONTROL DETAILS

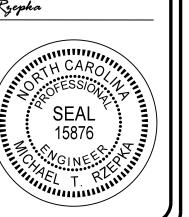
BRIDGE # 330392 TEMPORARY TRAFFIC CONTROL DETAILS

TMP-1 TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS

TEMPORARY TRAFFIC CONTROL PHASING

<u>TITLE</u>

SHEET NO.



WORK ZONE SAFETY & MOBILITY "from the MOUNTAINS to the COAST"

PLANS PREPARED BY: MIKE RZEPKA, P.E.

TRAFFIC CONTROL PROJECT ENGINEER **BRANDON SCOTT** TRAFFIC CONTROL DESIGN ENGINEER NCDOT CONTACTS:

PROJECT ENGINEER

PROJECT DESIGN ENGINEER

HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116

UNLESS ALL SIGNATURES COMPLETED

APPROVED: _____Michael T. Ryepha *DATE*: 1/14/2022

: 1:38:51 PM 10328461/6 0 CAD BIM/6 2 WIP/Traffic/TrafficControl/ICP/Common plan sheets/15RPR 55 IC IMP01A

DATE: 1/14/2022 TIME: 1:38:51 PM

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<u>TITLE</u>
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY-DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-1A

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LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW

——— EXIST. PVMT.

NORTH ARROW

----- PROPOSED PVMT.

WORK AREA

PAVEMENT MARKINGS

——EXISTING LINES

——TEMPORARY LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)

A CONE

DRUM SKINNY DRUM

FLASHING ARROW BOARD

LAW ENFORCEMENT

TRUCK MOUNTED ATTENUATOR (TMA)

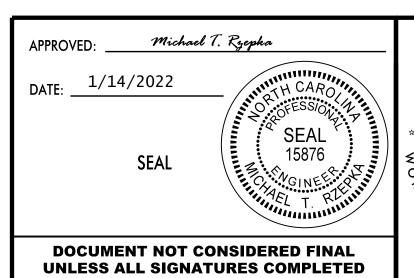
CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN

- STATIONARY SIGN

STATIONARY OR PORTABLE SIGN





ROADWAY STANDARD DRAWINGS & LEGEND

CAD_

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME

I-40

DAY AND TIME RESTRICTIONS

SUNDAY-SATURDAY, 5:00 A.M.-9:00 P.M. (SINGLE LANE CLOSURE) 5:00 A.M.-11:00 P.M. (DOUBLE LANE CLOSURE)

I-74 SALEM PKWY. & CD US 52 & LOOPS

SUNDAY-SATURDAY. 5:00 A.M.-8:00 P.M. SUNDAY-SATURDAY, 5:00 A.M.-8:00 P.M. SILAS CR. PKWY. & LOOPS SUNDAY-SATURDAY, 5:00 A.M.-8:00 P.M.

SUNDAY-SATURDAY, 5:00 A.M.-8:00 P.M.

UNION CROSS RD.

MONDAY-FRIDAY, 5:00 A.M.-9:00 A.M. 4:00 P.M.-7:00 P.M.

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

ROAD NAME

I-40 I-74

US 52

SALEM PKWY. SILAS CR. PKWY.

HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 5:00 A.M. DECEMBER 31st TO 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 5:00 A.M. THURSDAY AND 8:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 5:00 A.M. FRIDAY TO 8:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 5:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 5:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 5:00 A.M. FRIDAY AND 8:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 5:00 A.M. TUESDAY TO 8:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 5:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- DO NOT STOP TRAFFIC AS FOLLOWS:

DAY AND TIME **ROAD NAME** RESTRICTIONS DURATION AND **OPERATION**

I-40 SUNDAY-SATURDAY, I-74 5:00 A.M.-11:00PM SALEM PKWY.

30 MINUTES OVERHEAD BRIDGE WORK

DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE. CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

- COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- O) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

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

PAVEMENT MARKINGS AND MARKERS

R) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

SHEET NO.

TMP-2

HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601

N.C.B.E.L.S. License Number: F-0116

PROJ. REFERENCE NO. 15BPR.55

ROAD NAME MARKER MARKING ALL PAINT TEMPORARY RAISED

PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING

MISCELLANEOUS

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

MANAGEMENT STRATEGIES

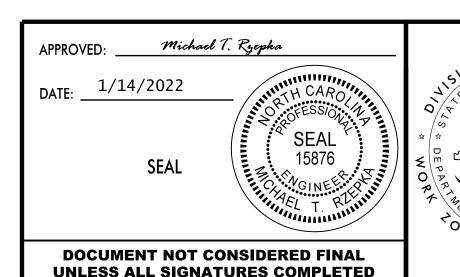
THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES: FULL ROADWAY CLOSURES ROLLING ROADBLOCK LANE SHIFTS OR CLOSURES SHOULDER CLOSURES RAMP CLOSURES / RELOCATION NIGHT WORK WEEKEND WORK WORK HOUR RESTRICTIONS FOR PEAK TRAVEL OFF-SITE DETOURS / USE OF ALTERNATIVE ROUTES

TRAFFIC / INCIDENT MANAGEMENT & SPEED ENFORCEMENT STRATEGIES: LOCAL DETOUR ROUTES

CONTRACTING & INNOVATIVE CONTRUCTION STRATEGIES: INTERMEDIATE CONTRACT TIMES / LIQUIDATED DAMAGES



NORTH

TRANSPORTATION OPERATIONS PLAN

PHASING

NOTES:

BEFORE BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES. FIELD VERIFY LOCATIONS WITH THE RESIDENT ENGINEER PRIOR TO INSTALLATION.

COMPLETE ANY PROPOSED WORK IN SUCH A MANNER THAT NO PONDING OF WATER WILL OCCUR WITHIN THE TRAVEL LANE.

REPLACE MARKINGS AND RETURN TRAFFIC TO THE CURRENT TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

WHEN USING LANE CLOSURES (RSD 1101.02), RETURN TRAFFIC TO EXISTING TRAFFIC PATTERN UPON ACTIVITIES COMPLETION, UNLESS OTHERWISE NOTED IN THE PHASING.

FOR ALL SHOULDER CLOSURES, SEE RSD 1101.04.

BRIDGE SITE #330078 (US 52 OVER I-40) (SEE SHEETS TMP-4 THRU TMP-11)

NOTE: PHASE 2 WORK THAT DOES NOT REQUIRE ADDITIONAL LOOP CLOSURES, MAY BE PERFORMED CONCURRENTLY WITH PHASE 1 WORK.

PHASE 1 - BRIDGE WORK ON US 52

- MAY PERFORM LANE CLOSURES AND WORK IN EITHER DIRECTION OF
- US 52 BEFORE COMPLETING THE OTHER DIRECTION.
- STEP 1 AND STEP 2 MAY BE COMPLETED IN ANY ORDER. - RECORD EXISTING PAVEMENT MARKING LOCATIONS PRIOR TO BRIDGE WORK

STEP 1

COMPLETE BRIDGE WORK FOR RIGHT HALF OF THE OUTSIDE THROUGH-LANE AND LOOP AUXILIARY LANE IN THE FOLLOWING MANNER:

- A) CLOSE CORRESPONDING ON-LOOP AND OFF-LOOP AND DETOUR TRAFFIC OFFSITE.
- B) USE RSD 1101.02, SHEET 6 OF 14 TO CLOSE INSIDE THROUGH-LANE, THEN SHIFT CHANNELIZED SINGLE LANE OF TRAFFIC TO INSIDE LANE ON BRIDGE.
- C) PERFORM WORK (SEE STRUCTURE PLANS)
- D) PLACE TEMPORARY PAVEMENT MARKING ACCORDING TO RECORDED LOCATIONS AND REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD.
- E) REPEAT EACH WORK PERIOD UNTIL COMPLETE.

STEP 2

COMPLETE BRIDGE WORK FOR MEDIAN SHOULDER, INSIDE THROUGH-LANE AND LEFT HALF OF THE OUTSIDE THROUGH-LANE IN THE FOLLOWING MANNER:

- A) CLOSE CORRESPONDING ON-LOOP AND OFF-LOOP AND DETOUR TRAFFIC OFFSITE. B) USE RSD 1101.02, SHEET 3 OF 14 TO CLOSE INSIDE THROUGH-LANE.
- C) SHIFT THE SINGLÉ-LANE US 52 TRAFFIC TO THE LOOP AUXILIARY LANE
- D) PERFORM WORK (SEE STRUCTURE PLANS)
- E) PLACE TEMPORARY PAVEMENT MARKING ACCORDING TO RECORDED LOCATIONS AND REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD.
- F) REPEAT EACH WORK PERIOD UNTIL COMPLETE.

STEP 3

USE RSD 1101.02. SHEET 3 OF 14. PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON US 52 BRIDGE.

PHASE 2 - RIDGE WORK ACCESSING FROM I-40

NOTE: BRIDGE WORK ACCESSING FROM I-40 MAY BEGIN IN ANY DIRECTION AND FROM ANY LANE.

COMPLETE BRIDGE WORK USING THE FOLLOWING. REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD:

- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE INSIDE THROUGH-LANE, USE RSD 1101.02, SHEET 4 OF 14.
- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE CENTER THROUGH-LANE, USE RSD 1101.02, SHEET 8 OF 14 TO CLOSE INSIDE AND CENTER THROUGH-LANES.
- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE OUTSIDE THROUGH-LANE, USE RSD 1101.02, SHEETS 6 & 8 OF 14 TO CLOSE INSIDE AND CENTER THROUGH-LANES, THEN SHIFT CHANNELIZED SINGLE-LANE TRAFFIC TO INSIDE LANE ADJACENT TO WORK AREA. CLOSE ADJACENT ON-LOOP AND OFF-LOOP AND DETOUR TRAFFIC OFFSITE.
- FOR BRIDGE WORK REQUIRING THE CLOSURE OF ON-LOOP AND OFF-LOOP ONLY, DETOUR LOOP TRAFFIC OFFSITE.

BRIDGE SITE #330227 (NC 67 OVER US 421) (SEE SHEETS TMP-12 THRU TMP-23)

NOTE: PHASE 2 WORK THAT DOES NOT REQUIRE ADDITIONAL LOOP CLOSURES. MAY BE PERFORMED CONCURRENTLY WITH PHASE 1 WORK.

PHASE 1 - BRIDGE WORK ON SILAS CREEK PKWY.

- MAY PERFORM LANE CLOSURES AND WORK IN EITHER DIRECTION OF SILAS CREEK PKWY. BEFORE COMPLETING THE OTHER DIRECTION.
- STEP 1, STEP 2 AND STEP 3 MAY BE COMPLETED IN ANY ORDER - RECORD EXISTING PAVEMENT MARKING LOCATIONS PRIOR TO BRIDGE WORK

STEP 1

COMPLETE BRIDGE WORK FOR LOOP AUXILIARY LANE IN THE FOLLOWING MANNER:

- A) CLOSE CORRESPONDING ON-LOOP AND OFF-LOOP AND DETOUR TRAFFIC OFFSITE.
- B) USE RSD 1101.02, SHEET 6 OF 14 TO CLOSE INSIDE THROUGH-LANE THEN SHIFT CHANNELIZED SINGLE LANE OF TRAFFIC TO INSIDE LANE ON BRIDGE.
- C) PERFORM WORK (SEE STRUCTURE PLANS)
- D) PLACE TEMPORARY PAVEMENT MARKING ACCORDING TO RECORDED
- LOCATIONS AND REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD.
- E) REPEAT EACH WORK PERIOD UNTIL COMPLETE.

STEP 2

COMPLETE BRIDGE WORK FOR OUTSIDE LANE IN THE FOLLOWING MANNER:

- A) CLOSE CORRESPONDING ON-LOOP AND OFF-LOOP AND DETOUR TRAFFIC OFFSITE.
- B) USE RSD 1101.02, SHEET 6 OF 14 TO CLOSE INSIDE THROUGH-LANE, THEN SHIFT CHANNELIZED SINGLE LANE OF TRAFFIC TO MEDIAN SHOULDER/INSIDE LANE ON BRIDGE.
- C) PERFORM WORK (SEE STRUCTURE PLANS)
- D) PLACE TEMPORARY PAVEMENT MARKING ACCORDING TO RECORDED LOCATIONS AND REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD.
- E) REPEAT EACH WORK PERIOD UNTIL COMPLETE.

STEP 3

COMPLETE BRIDGE WORK FOR MEDIAN SHOULDER AND INSIDE LANE IN THE FOLLOWING MANNER:

- A) CLOSE CORRESPONDING ON-LOOP AND OFF-LOOP AND DETOUR TRAFFIC
- B) USE RSD 1101.02, SHEET 3 OF 14 TO CLOSE INSIDE LANE. C) SHIFT THE SINGLE-LANE SILAS CREEK PKWY. TRAFFIC TO THE LOOP AUXILIARY LANE ON BRIDGE.
- D) PERFORM WORK (SEE STRUCTURE PLANS)
- E) PLACE TEMPORARY PAVEMENT MARKING ÁCCORDING TO RECORDED LOCATIONS
- AND REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD. F) REPEAT EACH WORK PERIOD UNTIL COMPLETE.

STEP 4

USE RSD 1101.02, SHEET 3 OF 14, PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON SILAS CREEK BRIDGE.

PHASE 2 - BRIDGE WORK ACCESSING FROM SALEM PKWY.

NOTE: BRIDGE WORK ACCESSING FROM SALEM PKWY. MAY BEGIN IN ANY DIRECTION AND FROM ANY LANE.

COMPLETE BRIDGE WORK USING THE FOLLOWING. REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD:

- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE INSIDE LANE ON SALEM PKWY.:
 - SB DIRECTION: USE RSD 1101.02, SHEET 8 OF 14 AND RSD 1101.03, SHEET 7 OF 9 TO CLOSE BOTH THROUGH-LANES AND CHANNELIZE ALL THROUGH-TRAFFIC TO THE SB CD.
- NB DIRECTION: USE RSD 1101.02, SHEET 3 OF 14 TO CLOSE THE OUTSIDE LANE, THEN SHIFT CHANNELIZED SINGLE-LANE TRAFFIC TO OUTSIDE LANE ADJACENT TO WORK AREA. USE RSD 1101.02, SHEET 10 OF 14 TO MAINTAIN OFF-RAMP
- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE OUTSIDE LANE ON SALEM PKWY.:
 - SB DIRECTION: USE RSD 1101.02, SHEET 8 OF 14 AND RSD 1101.03, SHEET 7 OF 9 TO CLOSE BOTH THROUGH-LANES AND CHANNELIZE ALL TRAFFIC TO THE SB CD.
 - NB DIRECTION: USE RSD 1101.02, SHEET 3 OF 14 TO CLOSE THE OUTSIDE LANE. CLOSE ADJACENT ON-LOOP AND OFF-LOOP AND DETOUR TRAFFIC OFFSITE.
- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE SB CD ON SALEM PKWY. CLOSE ADJACENT ON-LOOP AND OFF-LOOP AND DETOUR LOOP TRAFFIC OFFSITE.

SHEET NO. PROJ. REFERENCE NO. 15BPR.55 TMP-3

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BRIDGE SITE #330392 (UNION CROSS RD. OVER I-74) (SEE SHEETS TMP-24 THRU TMP-31)

WORK IN A MANNER TO COMPLETE THE BRIDGE DECK WORK ON UNION CROSS ROAD IN PHASE 1. STEP 1 THROUGH STEP 4. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

NOTE: PHASE 2 WORK THAT DOES NOT REQUIRE THE ADDITIONAL LOOP CLOSURE, MAY BE PERFORMED CONCURRENTLY WITH PHASE 1 WORK.

PHASE 1 - BRIDGE WORK ON UNION CROSS ROAD

- MAY PERFORM ICT CLOSURE AND WORK IN EITHER DIRECTION OF UNION CROSS ROAD BEFORE COMPLETING ICT CLOSURE AND WORK IN THE OTHER DIRECTION.
- RECORD EXISTING PAVEMENT MARKING LOCATIONS PRIOR TO BRIDGE WORK

WORK IN A CONTINUOUS MANNER TO COMPLETE THE BRIDGE WORK ON NB UNION CROSS ROAD IN STEPS 1 & 2 IN TWENTY-ONE (21) CONSECUTIVE DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DÁMAGES)

STEP 1

USING RSD 1101.03, SHEET 2 OF 9 AND SHEET TMP-24, CLOSE NB DIRECTION OF UNION CROSS ROAD AND LOOP 'A' AND DETOUR TRAFFIC ÓFFSITE.

STEP 2

AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING FOR NB DIRECTION OF UNION CROSS ROAD:

- A) RECORD EXISTING PAVEMENT MARKING LOCATIONS PRIOR TO BRIDGE WORK B) COMPLETE BRIDGE DECK WORK ON NB UNION CROSS ROAD. USE RSD 1101.02, SHEET 3 OF 14, IF NECESSARY, TO CLOSE SB INSIDE LANE WHEN WORKING IN NB INSIDE LANE.
- C) PLACE TEMPORARY PAVEMENT MARKINGS ACCORDING TO RECORDED LOCATIONS. D) OPEN NB UNION CROSS ROAD AND LOOP 'A'.

WORK IN A CONTINUOUS MANNER TO COMPLETE THE BRIDGE WORK ON SB UNION CROSS ROAD IN STEPS 3 & 4 IN TWENTY-ONE (21) CONSECUTIVE DAYS. (SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES)

STEP 3

USING RSD 1101.03, SHEET 2 OF 9 AND SHEET TMP-25, CLOSE SB DIRECTION OF UNION CROSS ROAD AND LOOP 'C' AND DETOUR TRAFFIC OFFSITE.

STEP 4

AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING FOR SB DIRECTION OF UNION CROSS ROAD:

- A) RECORD EXISTING PAVEMENT MARKING LOCATIONS PRIOR TO BRIDGE WORK
- B) COMPLETE BRIDGE DECK WORK ON SB UNION CROSS ROAD. USE RSD 1101.02, SHEET 3 OF 14, IF NECESSARY, TO CLOSE NB INSIDE LANE WHEN WORKING IN SB INSIDE LANE.
- C) PLACE TEMPORARY PAVEMENT MARKINGS ACCORDING TO RECORDED LOCATIONS. D) OPEN SB UNION CROSS ROAD AND LOOP 'C'.

STEP 5

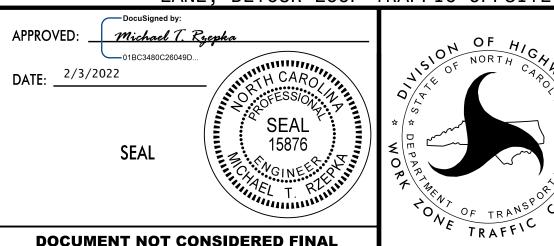
USE RSD 1101.02, SHEET 3 OF 14, PLACE FINAL PAVEMENT MARKINGS AND MARKERS ON UNION CROSS BRIDGE.

PHASE 2 - BRIDGE WORK ACCESSING FROM US 74

NOTE: BRIDGE WORK ACCESSING FROM US 74 MAY BEGIN IN ANY DIRECTION AND FROM ANY LANE.

COMPLETE BRIDGE WORK USING THE FOLLOWING. REMOVE LANE/LOOP CLOSURE(S) AT END OF WORK PERIOD:

- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE INSIDE THROUGH-LANE, USE RSD 1101.02, SHEET 4 OF 14.
- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE OUTSIDE THROUGH-LANE, USE RSD 1101.02, SHEET 6 OF 14 TO CLOSE INSIDE LANE THEN SHIFT CHANNELIZED SINGLE-LANE TRAFFIC TO INSIDE LANE ADJACENT TO WORK AREA. CLOSE ADJACENT LOOP AND ACCELERATION LANE AND DETOUR TRAFFIC OFFSITE.
- FOR BRIDGE WORK REQUIRING THE CLOSURE OF THE LOOP AND ACCELERATION LANE. DETOUR LOOP TRAFFIC OFFSITE.



UNLESS ALL SIGNATURES COMPLETED

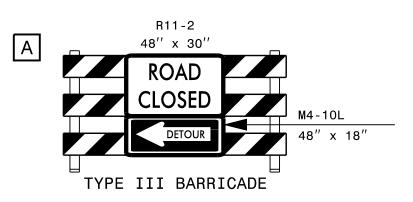
PHASING

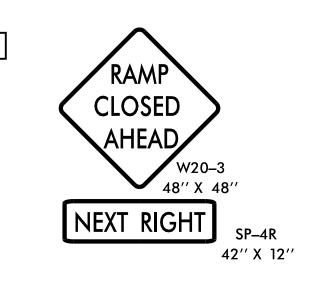
LOOP 'C' CLOSED EXIT 105 CLEMMONSVILLE RD CLOSED ROAD -----LOOP 'C' DETOUR ROUTE

PROJ. REFERENCE NO. SHEET NO.

15BPR.55 TMP-10

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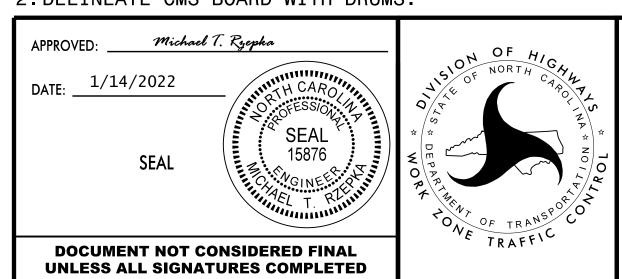


CI	MS 1
MESSAGE NO. 1	MESSAGE NO. 2
I-40 E	FOLLOW
EXIT	DETOUR
CLOSED	AHEAD
CHANGEABLE MESSAGE SIGN	

CMS 2	
MESSAGE NO. 1	MESSAGE NO. 2
I-40	USE
EAST	EXIT
DETOUR	105
CHANGEABLE MESSAGE SIGN	

CMS 3	3 & 4
MESSAGE NO. 1	MESSAGE NO. 2
I-40 E DETOUR	I-40 E DETOUR
<	<
CHANGEABL SI	E MESSAGE GN

NOTES:
1. CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER.
2. DELINEATE CMS BOARD WITH DRUMS.



BRIDGE # 330078

US 52 LOOP 'C' OVERNIGHT CLOSURE

----- CLOSED ROAD

• • LOOP 'D' DETOUR ROUTE

DATE:

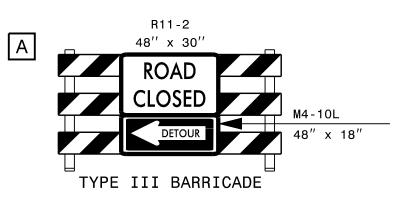
| SEAL |

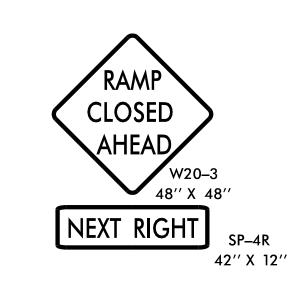
US 52 LOOP 'D' OVERNIGHT CLOSURE COUNTRY CLUB RD A - LOOP 'A' CLOSED SALEM PARKWAY ✓

B CMS 1 CLOSED ROAD ● LOOP 'A' DETOUR ROUTE

PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-19

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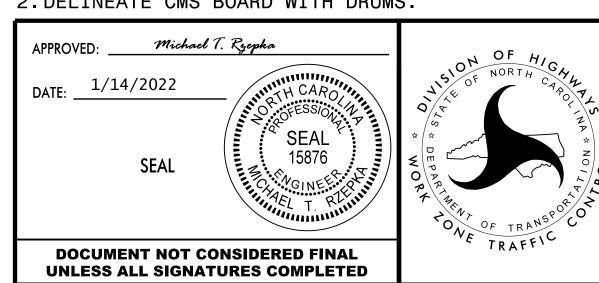


CMS 1		
	MESSAGE NO. 1	MESSAGE NO. 2
	US 421 N	FOLLOW
	EXIT	DETOUR
	CLOSED	AHEAD
CHANGEABLE MESSAGE SIGN		

CMS 2		
MESSAGE NO. 1	MESSAGE NO. 2	
US 421 N	DETOUR	
SALEM	NEXT	
PARKWAY	EXIT	
CHANGEABLE MESSAGE SIGN		

CMS 3 & 4	
MESSAGE	MESSAGE
NO. 1	NO. 2
US 421 N	US 421 N
DETOUR	DETOUR
CHANGEABLE MESSAGE SIGN	

NOTES:
1.CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER.
2.DELINEATE CMS BOARD WITH DRUMS.

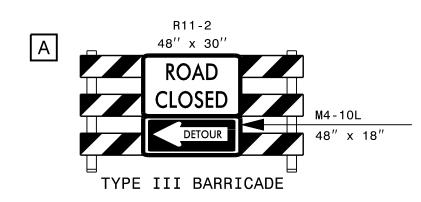


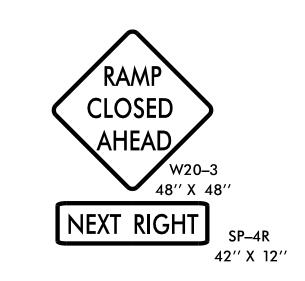
BRIDGE # 330227

SILAS CREEK PARKWAY LOOP 'A' OVERNIGHT CLOSURE

SALEM PARKWAY LOOP 'C' -CLOSED 158 смѕ з 🗖 🕯 67 CLOSED ROAD -----● LOOP 'C' DETOUR ROUTE PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-21

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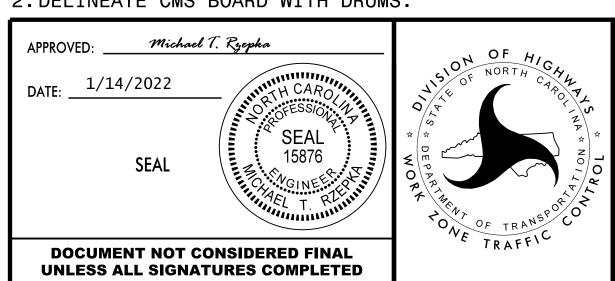


CMS 1		
MESSAGE NO. 1	MESSAGE NO. 2	
US 421 S	FOLLOW	
EXIT	DETOUR	
CLOSED	AHEAD	
CHANGEABLE MESSAGE SIGN		

CMS 2		
	MESSAGE NO. 1	MESSAGE NO. 2
	US 421 S	DETOUR
	SALEM	NEXT
	PARKWAY	EXIT
CHANGEABLE MESSAGE SIGN		

CMS 3 & 4		
	MESSAGE NO. 1	MESSAGE NO. 2
	US 421 S DETOUR	US 421 S DETOUR
	CHANGEABL SI	E MESSAGE GN

NOTES:
1. CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER.
2. DELINEATE CMS BOARD WITH DRUMS.



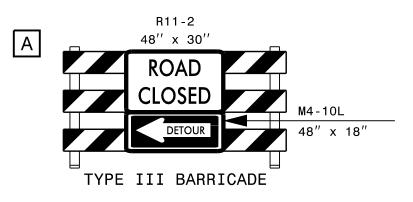
BRIDGE # 330227

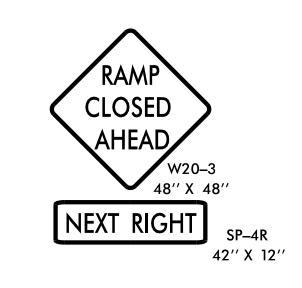
SILAS CREEK PARKWAY LOOP 'C' OVERNIGHT CLOSURE

CMS CMS 3 CLOSED ROAD -----LOOP 'D' DETOUR ROUTE

PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-22

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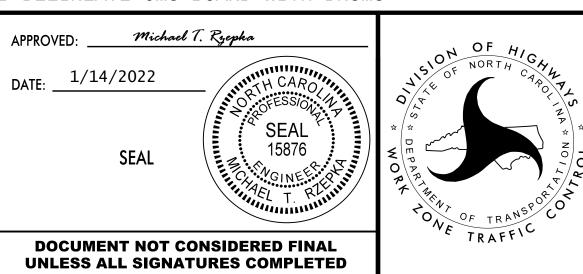


CM	S 1
MESSAGE NO. 1	MESSAGE NO. 2
EX 237A	DETOUR
CLOSED	USE EXIT
AHEAD	237B
CHANGEABLE MESSAGE SIGN	

CMS 2		
	MESSAGE NO. 1	MESSAGE NO. 2
	NC 67	DETOUR
	SILAS CR	NEXT
	PARKWAY	EXIT
CHANGEABLE MESSAGE SIGN		

	CMS 3	3 & 4
	MESSAGE NO. 1	MESSAGE NO. 2
	NC 67 DETOUR	NC 67 DETOUR
CHANGEABLE MESSAGE SIGN		

NOTES:
1. CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER.
2. DELINEATE CMS BOARD WITH DRUMS.



SALEM PARKWAY

A

D

- LOOP 'D' CLOSED

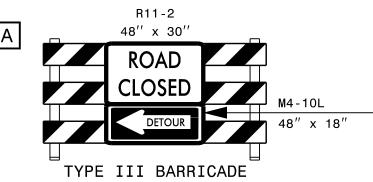
CAPON	BRIDGE	#	33022
S			
→			

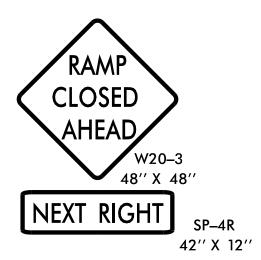
SILAS CREEK PARKWAY LOOP 'D' OVERNIGHT CLOSURE

CD ROAD CLOSED SALEM PARKWAY A - LOOP 'D' CLOSED LOOP 'C' CMS CLOSED NOTES:
1. CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER.
2. DELINEATE CMS BOARD WITH DRUMS. CMS 5 APPROVED: Michael T. Rzepka DATE: ___1/14/2022 CLOSED ROAD -----CD ROAD DETOUR ROUTE

PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-23

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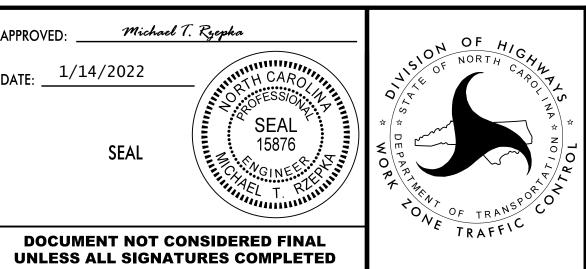


CMS 1		
MESSAGE NO. 1	MESSAGE NO. 2	
EX 237A	DETOUR	
CLOSED	USE EXIT	
AHEAD	237B	
CHANGEABLE MESSAGE SIGN		

CMS 2		
MESSAGE NO. 1	MESSAGE NO. 2	
US 421 S	DETOUR	
EXIT	USE NEXT	
CLOSED	EXIT	
CHANGEABLE MESSAGE SIGN		

	CMS 3		
	MESSAGE NO. 1	MESSAGE NO. 2	
	US 421 S	USE	
	SILAS CR	NEXT	
	DETOURS	EXIT	
CHANGEABLE MESSAGE SIGN			

CMS 4	4 & 5
MESSAGE NO. 1	MESSAGE NO. 2
US 421 S	SILAS CR
DETOUR	DETOUR
<	<
CHANGEABL	E MESSAGE GN



BRIDGE # 330227

SILAS CREEK PARKWAY CD ROAD OVERNIGHT CLOSURE

RD

CROSS

UNION

PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-28

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TYPE III BARRICADE

CN	IS	1	

MESSAGE NO. 1	MESSAGE NO. 2
UNION	DETOURS
CROSS	NEXT
I-74 W	EXIT
CHANGEABL	E MESSAGE

SIGN

CMS 2 & 3

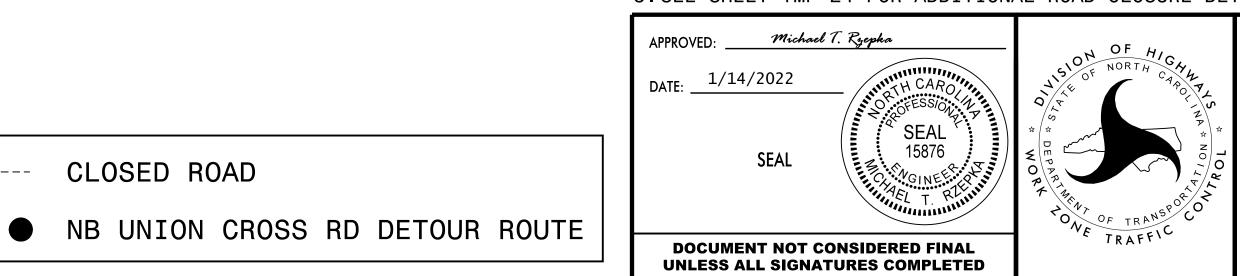
MESSAGE NO. 1	MESSAGE NO. 2
UNION	I-74 W
CROSS	
<	<

CHANGEABLE MESSAGE SIGN

EXIT 59 EXIT 60 CMS 2 NB UNION CROSS CLOSED CMS 1 BETWEEN RAMPS

CLOSED ROAD

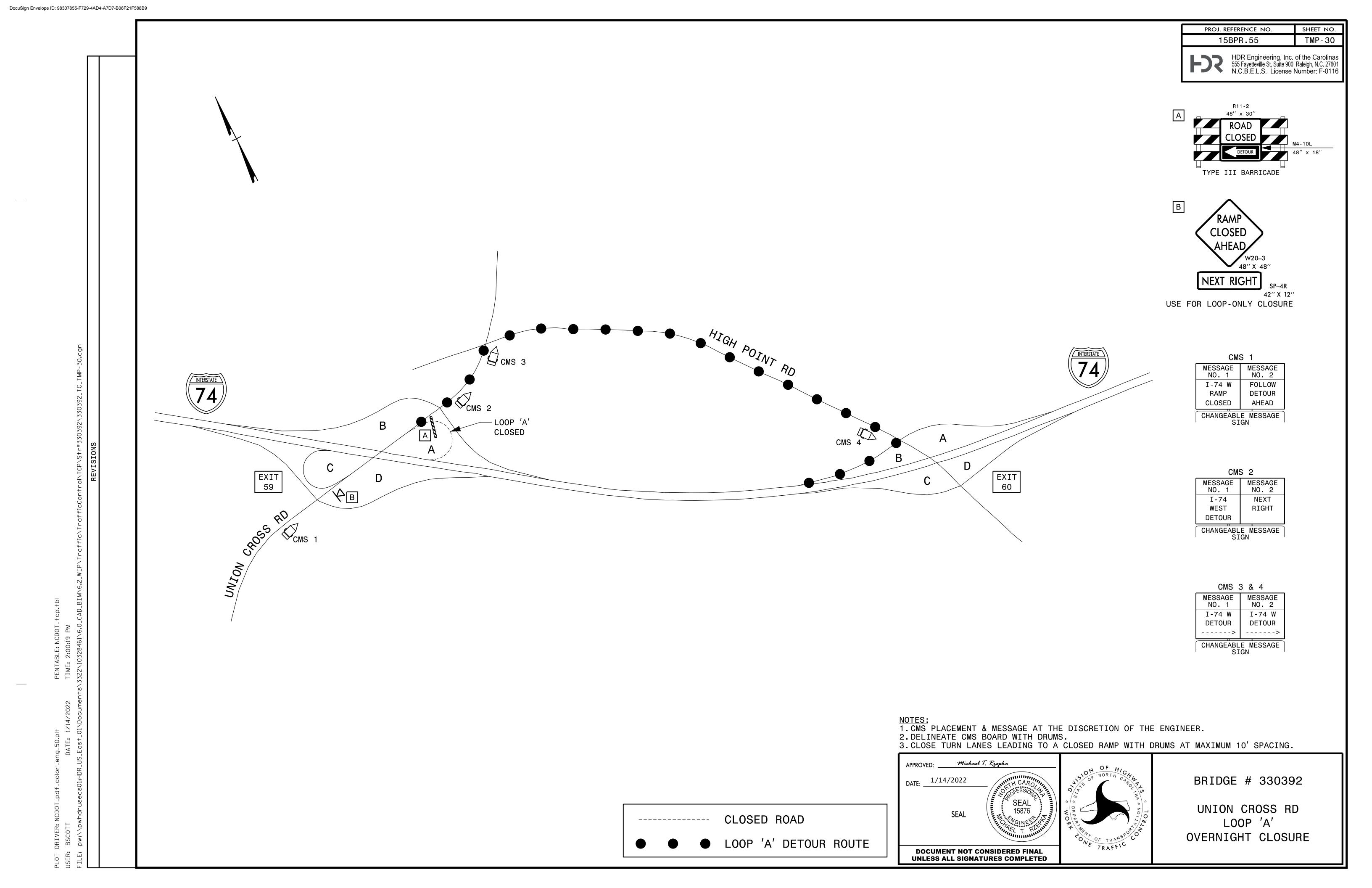
NOTES:
1. COVER ANY CONFLICTING SIGNS.
2. CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER.
3. DELINEATE CMS BOARD WITH DRUMS.
4. CLOSE TURN LANES LEADING TO A CLOSED RAMP WITH DRUMS AT MAXIMUM 10' SPACING.
5. SEE SHEET TMP-24 FOR ADDITIONAL ROAD CLOSURE DETAILS.



BRIDGE # 330392

NORTHBOUND UNION CROSS RD 7-DAY CLOSURE

PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-29 CMS 1 CMS 2 & 3 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116 MESSAGE MESSAGE MESSAGE MESSAGE NO. 2 NO. 2 NO. 1 **DETOURS** UNION I-74 E UNION CROSS NEXT CROSS EXIT I-74 E <----<----CHANGEABLE MESSAGE SIGN CHANGEABLE MESSAGE TYPE III BARRICADE SIGN CMS 2 CMS 1 SB UNION CROSS CLOSED -BETWEEN RAMPS EXIT 56 INTERSTATE EXIT 59 NOTES: 1. COVER ANY CONFLICTING SIGNS. 2. CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER. 3. DELINEATE CMS BOARD WITH DRUMS. 4. CLOSE TURN LANES LEADING TO A CLOSED RAMP WITH DRUMS AT MAXIMUM 10' SPACING. 5. SEE SHEET TMP-25 FOR ADDITIONAL ROAD CLOSURE DETAILS. Michael T. Ryepka BRIDGE # 330392 DATE: 1/14/2022 SOUTHBOUND CLOSED ROAD UNION CROSS RD 7-DAY CLOSURE SB UNION CROSS RD DETOUR ROUTE DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJ. REFERENCE NO. SHEET NO. 15BPR.55 TMP-31 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116 TYPE III BARRICADE WOODWAL В CLOSED CMS 2 NEXT RIGHT 42" X 12" USE FOR LOOP-ONLY CLOSURE CMS 1 MESSAGE NO. 1 MESSAGE NO. 2 I-74 E FOLLOW RAMP DETOUR CLOSED AHEAD CHANGEABLE MESSAGE SIGN EXIT 59 B CMS 4 CMS 2 MESSAGE NO. 1 MESSAGE NO. 2 NEXT EAST LEFT EXIT DETOUR LOOP 'C' 60 CLOSED CHANGEABLE MESSAGE SIGN CMS 3 MESSAGE NO. 1 MESSAGE NO. 2 I-74 E I-74 E DETOUR DETOUR <----PENTABLE: NCDOT_tcp.tbl TIME: 2:01:20 PM ents\3322\10328461\6.0_CAD_BIM\6 CHANGEABLE MESSAGE SIGN CMS 4 MESSAGE NO. 1 MESSAGE NO. 2 I-74 E I-74 E LEFT LEFT CHANGEABLE MESSAGE SIGN NOTES:
1. CMS PLACEMENT & MESSAGE AT THE DISCRETION OF THE ENGINEER. 2. DELINEATE CMS BOARD WITH DRUMS. 3. CLOSE TURN LANES LEADING TO A CLOSED RAMP WITH DRUMS AT MAXIMUM 10' SPACING. Michael T. Ryepka DATE: 1/14/2022 BRIDGE # 330392 UNION CROSS RD CLOSED ROAD LOOP 'C' _____ OVERNIGHT CLOSURE ● LOOP 'C' DETOUR ROUTE DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSign Envelope ID: 98307855-F729-4AD4-A7D7-B06F21F588B9