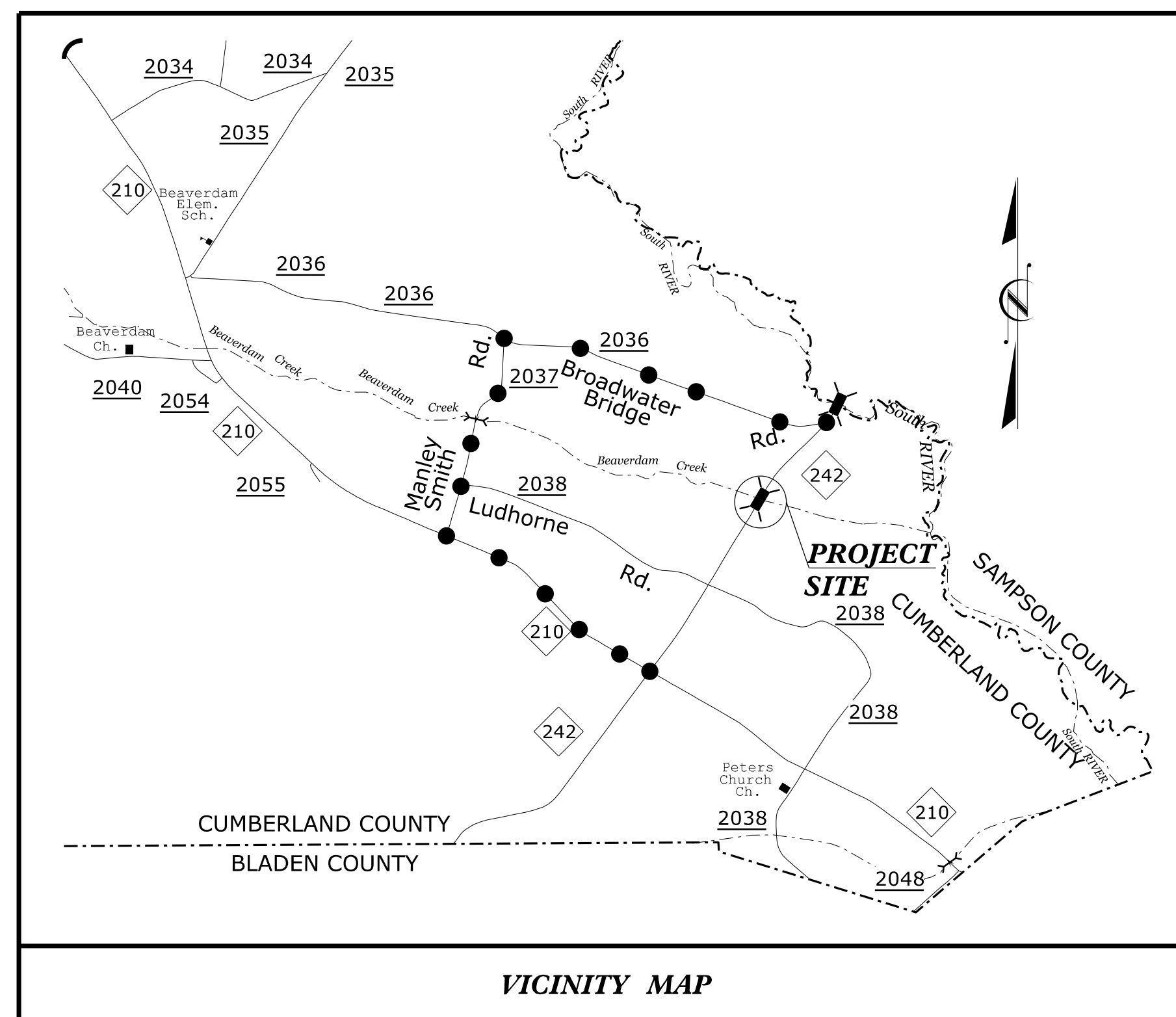
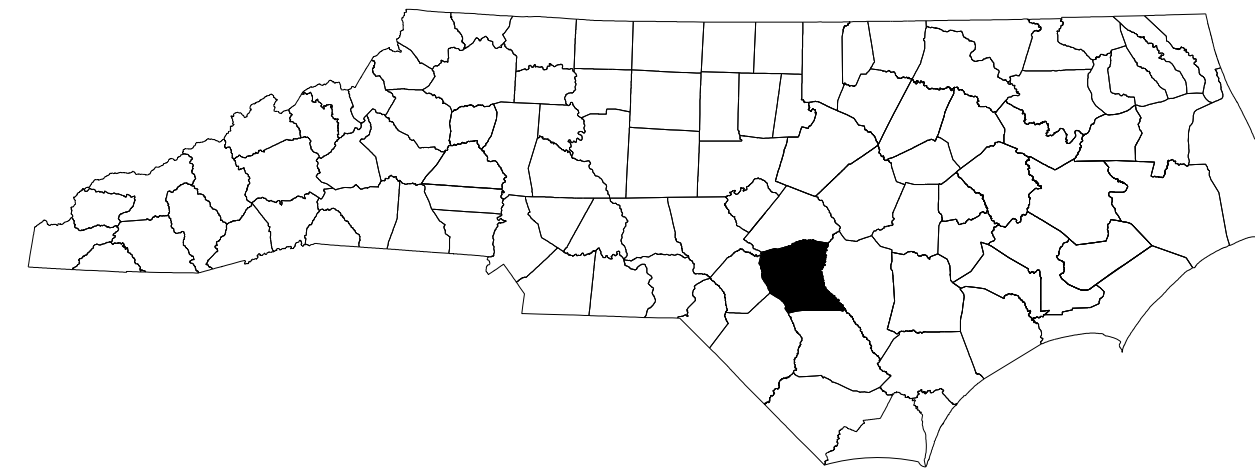


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**  
**CUMBERLAND COUNTY**



DETOUR ROUTE ●—●—●—●—

LOCATION: BRIDGE NO. 250025 OVER BEAVER DAM CREEK  
ON NC 242  
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

**INDEX OF SHEETS**

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, LEGEND AND INDEX OF SHEETS AND LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS
TMP-1A	GENERAL NOTES, MANAGEMENT STRATEGIES AND PHASING
TMP-2	DETOUR NC 242

**LEGEND**

TRAFFIC CONTROL DEVICES

- ▩ BARRICADE (TYPE III)
- ▲ CONE
- DRUM ● SKINNY DRUM ⊙ TUBULAR MARKER
- FLAGGER

TEMPORARY SIGNING

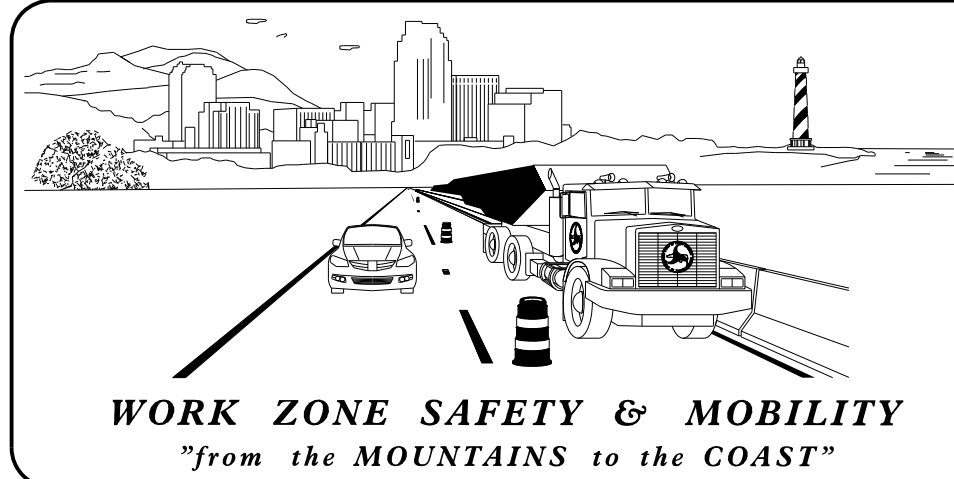
- ⊠ PORTABLE SIGN
- ⊥ STATIONARY SIGN
- ⊙ STATIONARY OR PORTABLE SIGN

**ROADWAY STANDARD DRAWINGS**

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

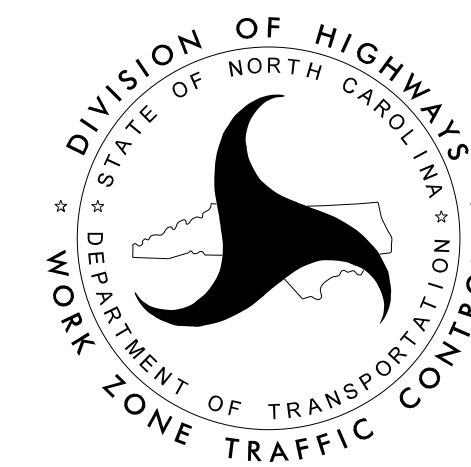
STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



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

J. E. HUMMER, P.E. STATE TRAFFIC MANAGEMENT ENGINEER  
J. S. KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER  
S. B. JENNINGS TRAFFIC CONTROL PROJECT DESIGN ENGINEER  
TRAFFIC CONTROL DESIGN ENGINEER



PLAN PREPARED FOR NCDOT BY:  
GREG S. PURVIS, P.E. PROJECT ENGINEER  
D. ALLEN HAYES, E.I. TRAFFIC CONTROL ENGINEER  
SCOTT L. KENNEDY TRAFFIC CONTROL ENGINEER

APPROVED: Cara S. Purvis  
DATE: 11/19/2019

SEAL



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SHEET NO.  
TMP-1

PROJECT: BR-0014



# MANAGEMENT STRATEGIES

CONSTRUCTION

REPLACE EXISTING BRIDGE NO. 250025 OVER BEAVER DAM CREEK ON NC 242 WITH A PROPOSED BRIDGE.

TMP DESIGN PARAMETERS

PRIOR TO CLOSING NC 242 TO TRAFFIC CONSTRUCT OFF-SITE DETOUR IMPROVEMENTS.

NC 242 WILL BE CLOSED DURING CONSTRUCTION AND TRAFFIC PLACED ON AN OFF-SITE DETOUR (SEE PHASING BELOW AND OFF-SITE DETOUR ON SHEET TMP-2).

LOCAL TRAFFIC SHALL BE MAINTAINED FROM BEGINNING OF OFF-SITE DETOUR TO POINT OF ROAD CLOSURE (SEE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9, PHASING BELOW AND SHEET TMP-2).

## PHASING

PHASE I

NOTE: BEFORE BEGINNING CONSTRUCTION OF PROPOSED OFF-SITE DETOUR THE CONTRACTOR SHALL PLACE WORK ZONE ADVANCE WARNING SIGNS ALONG OFF-SITE DETOUR ROUTE (SEE TMP-2) AND ALL OTHER -Y- LINES (SEE ROADWAY STANDARD DRAWINGS NO. 1101.01, SHEET 3 OF 3).

STEP 1: - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 14:

- CONSTRUCT PROPOSED OFF-SITE DETOUR IMPROVEMENTS AS DIRECTED BY THE ENGINEER UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, TEMPORARY PAVEMENT MARKINGS/MARKERS (SEE CONSTRUCTION PLANS).

NOTE: PLACE TRAFFIC BACK INTO EXISTING PATTERN AT THE END OF EACH WORK PERIOD.

STEP 2: - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 14:

- PAVE THE FINAL LAYER OF SURFACE COURSE AND PLACE THE FINAL PAVEMENT MARKINGS (THERMOPLASTIC) & INSTALL PERMANENT RAISED PAVEMENT MARKERS IN THE EXISTING TRAFFIC PATTERN.
- OPEN PROPOSED OFF-SITE DETOUR TO THE FINAL TRAFFIC PATTERN.

STEP 3: - REMOVE ALL TRAFFIC CONTROL DEVICES FROM THE OFF-SITE DETOUR.

PHASE II

STEP 1: - USING ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9 AND SHEET TMP-2 CLOSE NC 242 (-LREV-) FROM STA. 14+42+/- -LREV- TO STA. 28+82+/- -LREV- TO TRAFFIC.

NOTE: IF REQUIRED: AS DIRECTED BY THE ENGINEER INSTALL A SECOND SET OF TYPE III BARRICADES AT STA. 25+00+/- -LREV- AND UTILIZE DRUMS TO MAINTAIN ACCESS TO DRIVEWAY RIGHT OF STA. 25+25+/- -LREV- DURING CONSTRUCTION.

NOTE: AS DIRECTED BY THE ENGINEER INSTALL TYPE III BARRICADES TO CLOSE DRIVEWAY ACCESS LEFT OF STA. 28+00+/- -REV-.

STEP 2: - CONSTRUCT PROPOSED BRIDGE, DRAINAGE, GUARDRAIL AND ROADWAY, UP TO & INCLUDING THE FINAL LAYER OF SURFACE COURSE AND PLACE FINAL PAVEMENT MARKINGS/MARKERS FROM STA. 14+42+/- -LREV- TO STA. 28+82+/- -LREV- (SEE ROADWAY PLANS AND FINAL PAVEMENT MARKING PLANS).

STEP 3: - OPEN NC 242 (-REV-) TO THE FINAL TRAFFIC PATTERN AND REMOVE ALL TRAFFIC CONTROL DEVICES FROM THE PROJECT.

## LOCAL NOTES

- 1) IN ORDER TO HAVE TIME TO ADEQUATELY REROUTE SCHOOL BUSES, CUMBERLAND COUNTY SCHOOLS WILL BE CONTACTED AT (910) 678-2505 AT LEAST ONE MONTH PRIOR TO ROAD CLOSURE.
- 2) CUMBERLAND COUNTY EMERGENCY SERVICES WILL BE CONTACTED AT (910) 321-6736 AT LEAST ONE MONTH PRIOR TO ROAD CLOSURE TO MAKE THE NECESSARY TEMPORARY REASSIGNMENTS TO PRIMARY RESPONSE UNITS.

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# GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
BR-0014	TMP-1A

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

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

TIME RESTRICTIONS

- A) DO NOT 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

- B) 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.
- C) 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.
- D) 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.

- E) 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.

- F) 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.

- G) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- H) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

- I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE AND A MINIMUM OF ONCE EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- K) 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.

- L) 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.

- M) 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.

- N) 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 SPECIFICATIONS 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:

ROAD NAME	MARKING	MARKER
1. ALL ROADS	PAINT	TEMPORARY

- S) 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.

- T) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

- U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

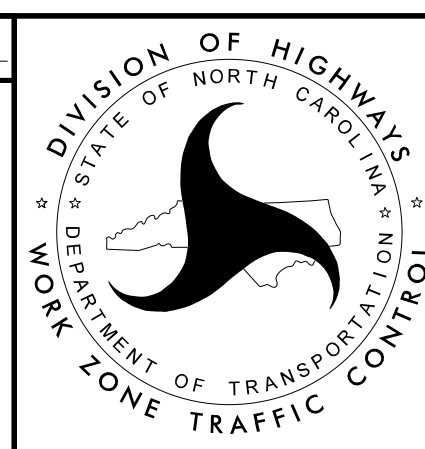
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1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

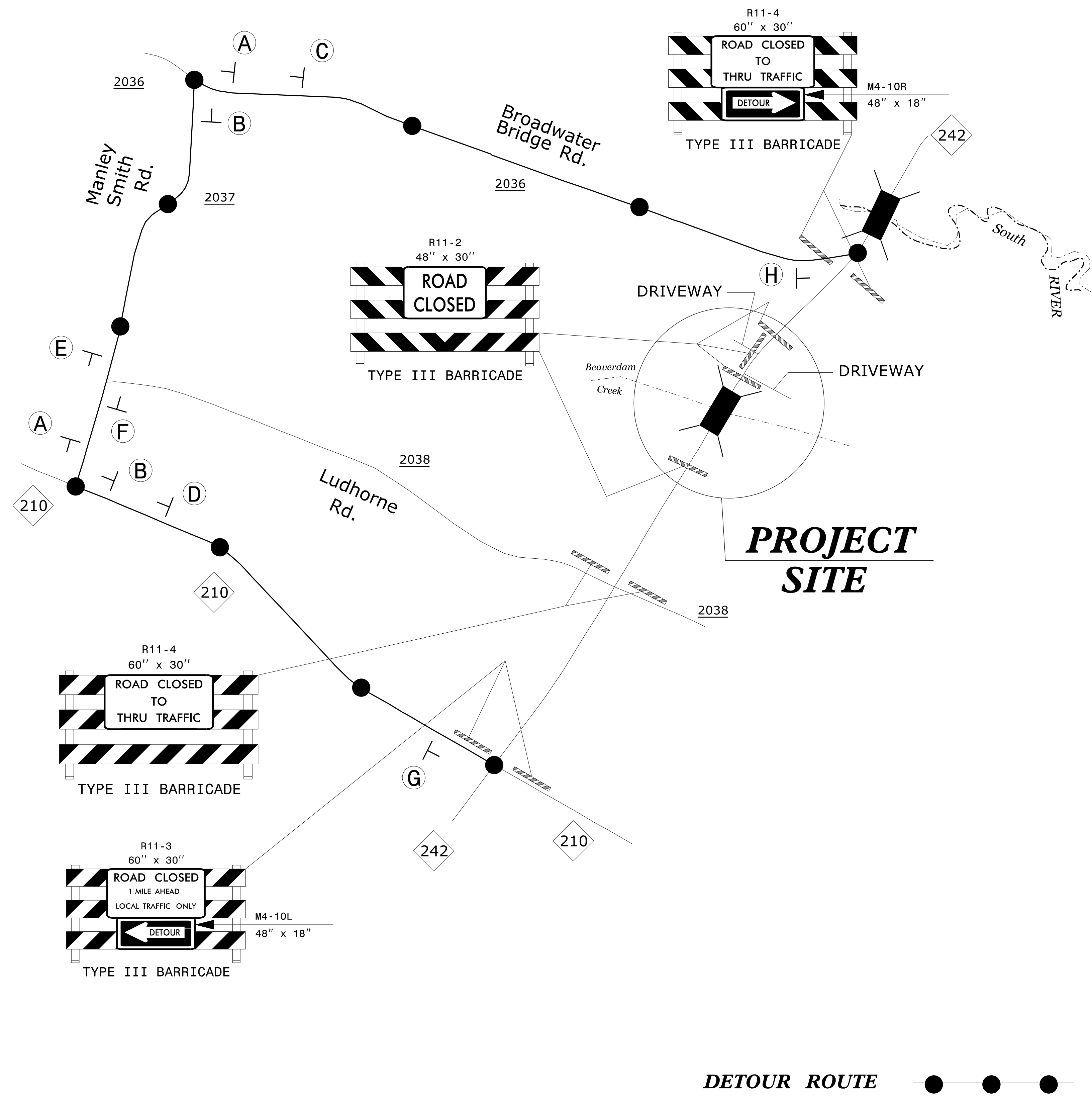
APPROVED: DATE: 2/5/2020

SEAL



**GENERAL NOTES,  
MANAGEMENT STRATEGIES  
AND PHASING**





**DETOUR SIGNING**

(A)	(B)	(C)	(D)
(E)	(F)	(G)	(H)

**DETOUR ROUTE** ● — ● — ●

\* NOTES: ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE.  
SEE RSD 1101.03, SHEET 1 OF 9, FOR TYPE III BARRICADE LOCATION WITH ATTACHED SIGNING & ADDITIONAL SIGNING FOR ROAD CLOSURE.

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<p>TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION</p>	<p>1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107</p>	<p>APPROVED:  DATE: 11/19/2019</p>	<p>SEAL</p>	<p>SEAL</p>	<p>DETOUR NC 242</p>
	<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>				