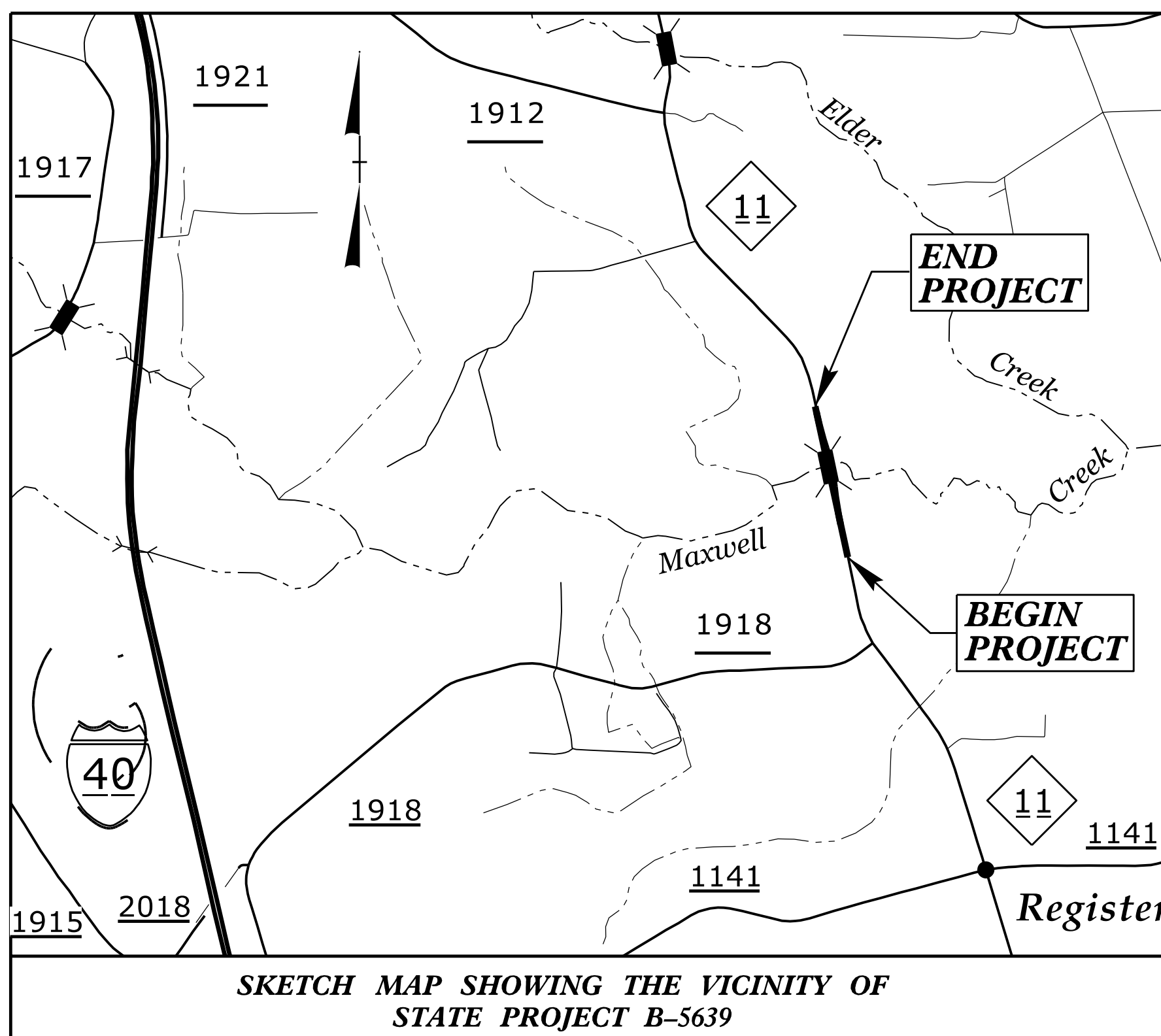
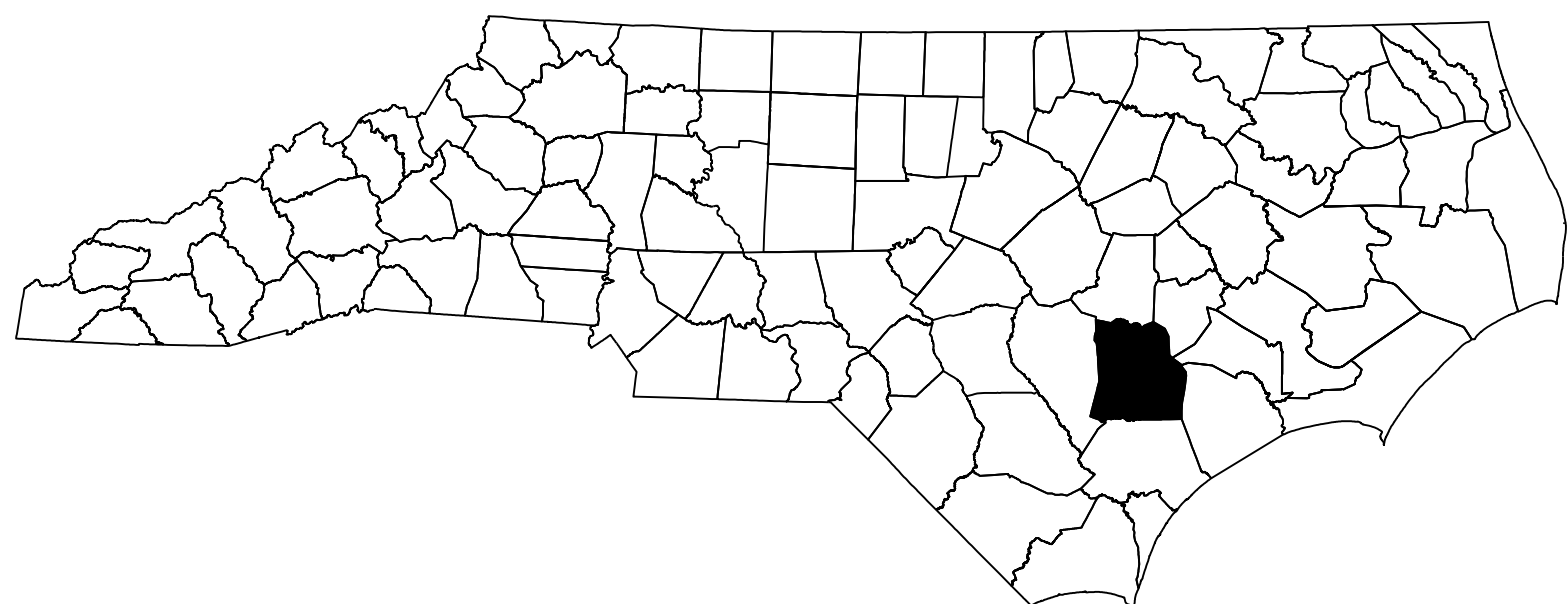


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

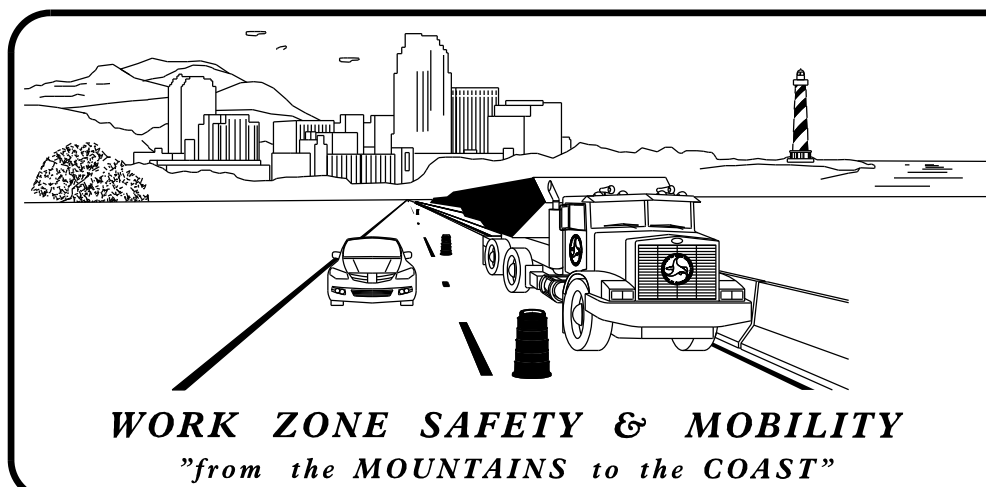
**DUPLIN COUNTY**



LOCATION: BRIDGE NO. 36 OVER MAXWELL CREEK  
ON NC 11 (CLODFELTER ROAD)

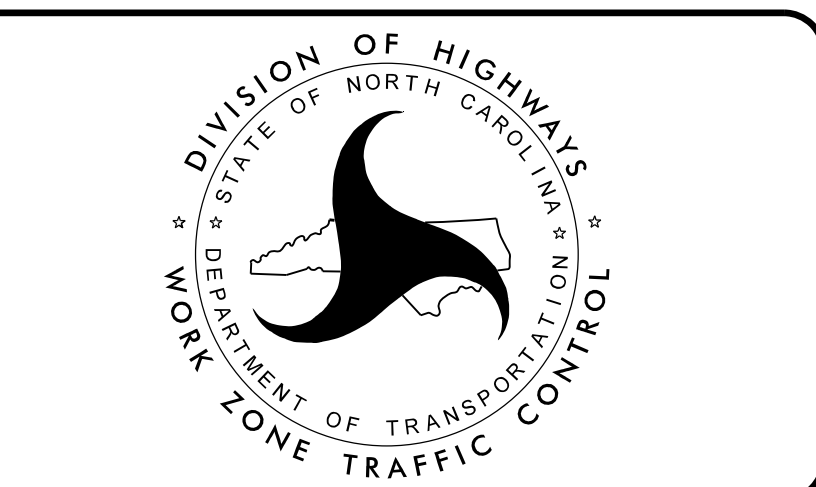
TYPE OF WORK: GRADING, DRAINAGE, PAVING,  
& STRUCTURES

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PLANS PREPARED BY:  
  
MIKE RZEPKA, P.E.  
PROJECT ENGINEER  
  
BRANDON SCOTT, E.I.  
PROJECT DESIGN ENGINEER

NCDOT CONTACTS:  
  
PROJECT ENGINEER  
  
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N.C.B.E.L.S. License Number: F-0116

APPROVED: Michael T. Rzepka  
DATE: 1/6/2021  
  
SEAL

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UNLESS ALL SIGNATURES COMPLETED

**INDEX OF SHEETS**

<u>SHEET NO.</u>	<u>TITLE</u>
TMP-1	INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND & TEMPORARY PAVEMENT MARKING SCHEDULE
TMP-2	TRANSPORTATION OPERATIONS PLAN
TMP-2A	DETOUR FOR NC 11 ROAD CLOSURE OVER MAXWELL CREEK
TMP-2B	TEMPORARY SHORING DATA
TMP-3	PHASING
TMP-4 THRU TMP-5	PHASE I DETAILS
TMP-6 THRU TMP-7	PHASE II DETAILS
TMP-8 THRU TMP-9	PHASE III DETAILS

SHEET NO.  
TMP-1

**TIP PROJECT: B-5639**

# 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.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD 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	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

# LEGEND

## GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.

- WORK AREA
- CONTINUING CONSTRUCTION
- WEDGING/RESURFACING
- REMOVAL
- TEMPORARY PAVEMENT

## TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN

## TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

## SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

## PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

## PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

## PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

# TEMPORARY PAVEMENT MARKING SCHEDULE

## TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
	PAINT (4")
P1	WHITE EDGELINE
P13	DOUBLE YELLOW CENTERLINE

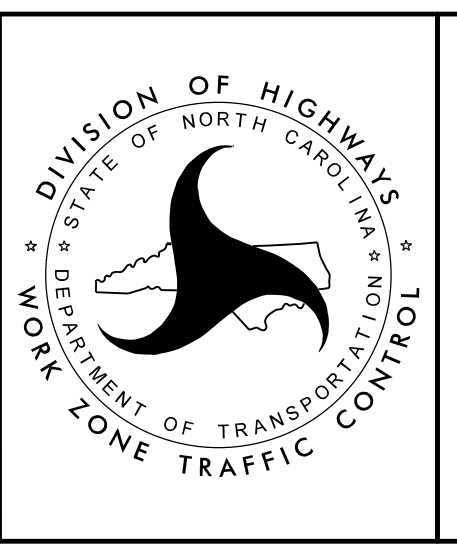
## TEMPORARY RAISED MARKERS

MH	YELLOW & YELLOW
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APPROVED: Michael T. Rzepka

DATE: 1/6/2021



ROADWAY STANDARD DRAWINGS, LEGEND & TEMPORARY PAVEMENT MARKING SCHEDULE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

## MANAGEMENT STRATEGY

THE FOLLOWING LISTED STRATEGIES DERIVE FROM DETAILED DESIGN LEVEL ASSESSMENTS OF THE WORK ZONE IMPACTS CONDUCTED DURING THE DEVELOPMENTAL STAGES OF THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED MANAGEMENT STRATEGIES RELATIVE TO THIS TMP ARE AS FOLLOWS:

PRIOR TO NC 11 BEING CLOSED AT EXISTING BRIDGE, AN ON-SITE DETOUR WILL BE CONSTRUCTED USING DAILY LANE CLOSURES AND WILL CARRY TRAFFIC DURING BRIDGE/ROADWAY CONSTRUCTION. FOR SHIFTING TRAFFIC TO THE ON-SITE DETOUR, NC 11 WILL BE CLOSED AND AN OFFSITE DETOUR WILL BE USED FOR ONE WEEKEND TO COMPLETE DETOUR ROADWAY TIE-INS.

AFTER PROPOSED CONSTRUCTION IS COMPLETED, NC 11 WILL BE CLOSED AND AN OFFSITE DETOUR WILL BE USED FOR ONE WEEKEND TO COMPLETE PROPOSED ROADWAY TIE-INS. NC 11 WILL THEN BE OPENED TO FINAL TRAFFIC PATTERN AND THE ON-SITE DETOUR WILL BE REMOVED USING DAILY LANE CLOSURES.

## GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRABLE 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** - REQUIRES INTERMEDIATE CONTRACT TIME PROJECT SPECIAL PROVISIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
NC 11	MONDAY THROUGH FRIDAY, 7:00 A.M. TO 9:00 A.M. SATURDAY, SUNDAY, 4:00 P.M. TO 6:00 P.M.

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

ROAD NAME
NC 11

### HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY.  
  
IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) 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

- D) 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.
- E) 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.
- F) 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.
- G) 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.
- H) 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.
- I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON NC 11.

### PAVEMENT EDGE DROP OFF REQUIREMENTS

- J) 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 AN EDGE OF PAVEMENT 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.
- K) 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) 350' IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

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

### SIGNING

- M) 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.
- N) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.  
  
PROVIDE SIGNING REQUIRED FOR THE ON-SITE DETOUR AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- O) 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 ON-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

### TRAFFIC CONTROL DEVICES

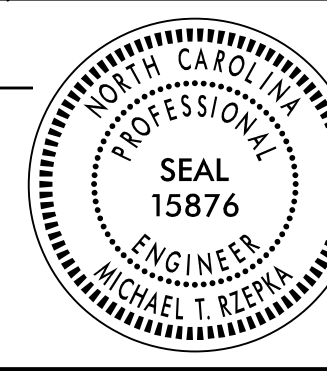
- Q) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS),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

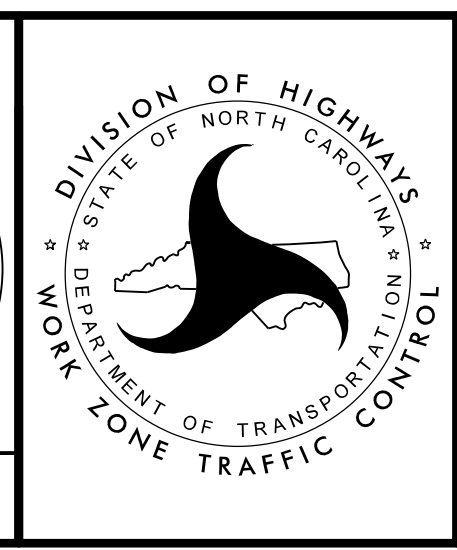
### PAVEMENT MARKINGS AND MARKERS

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

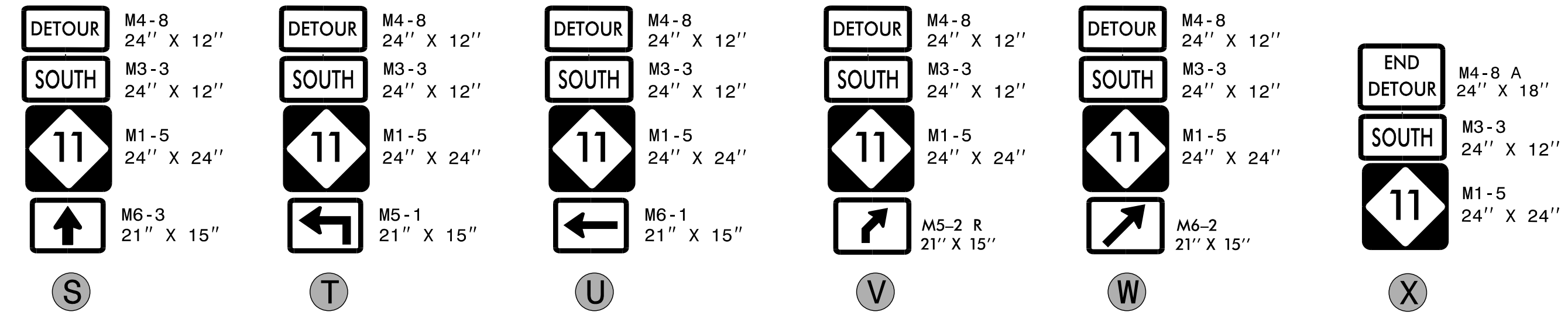
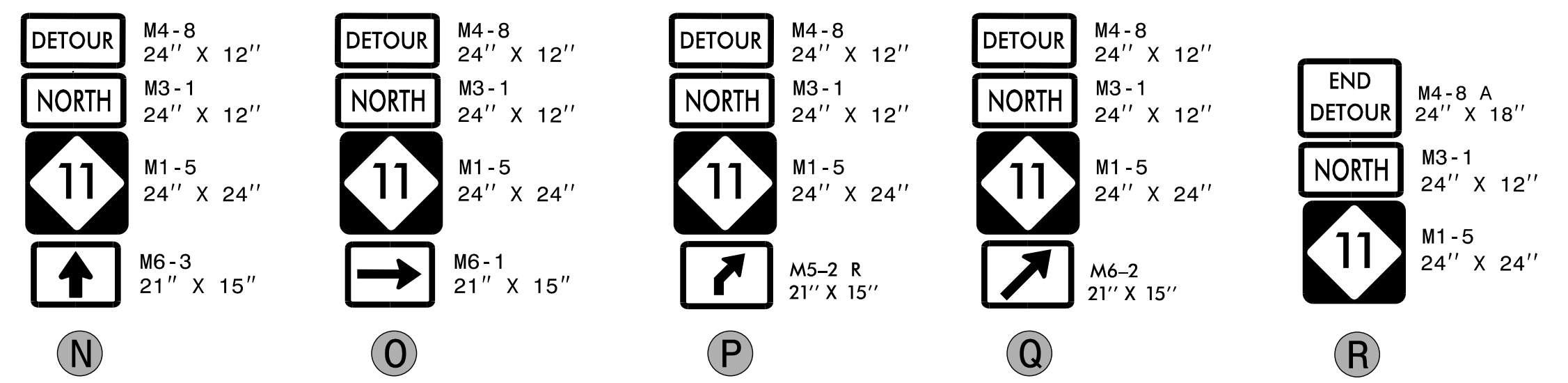
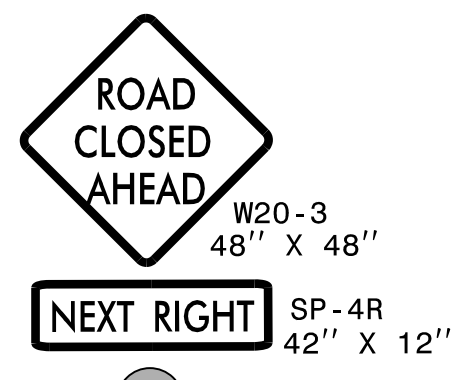
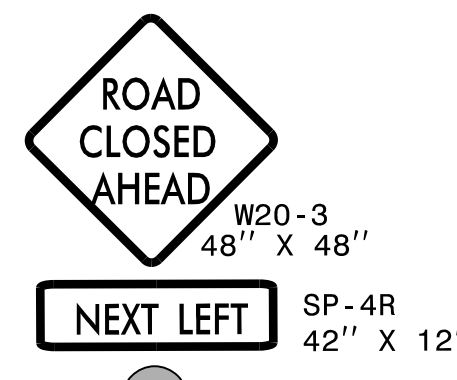
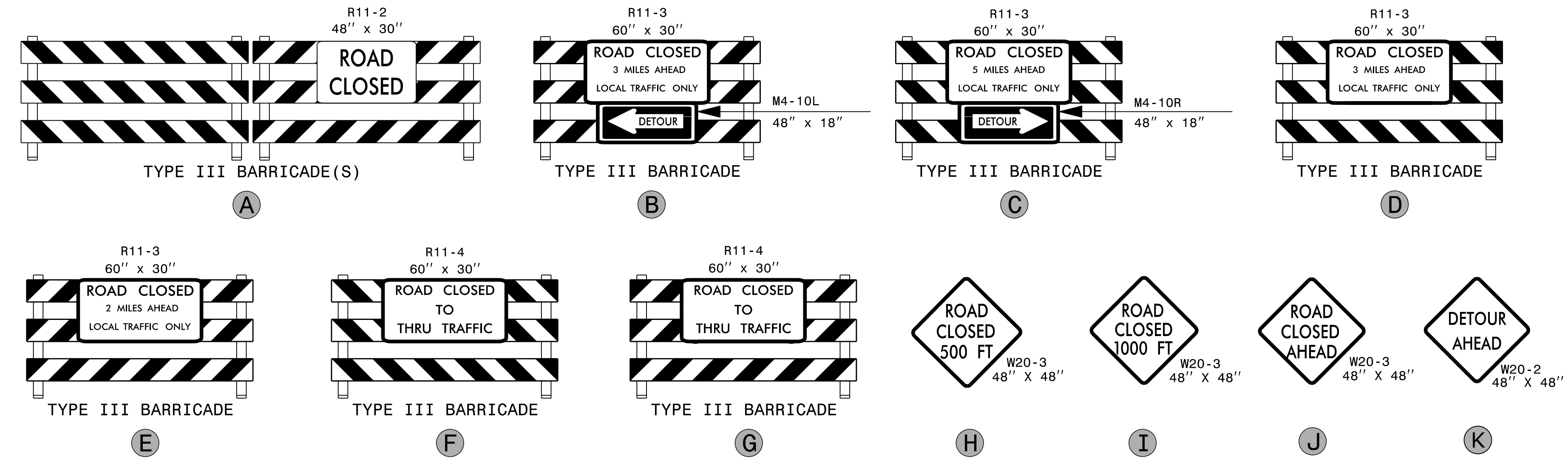
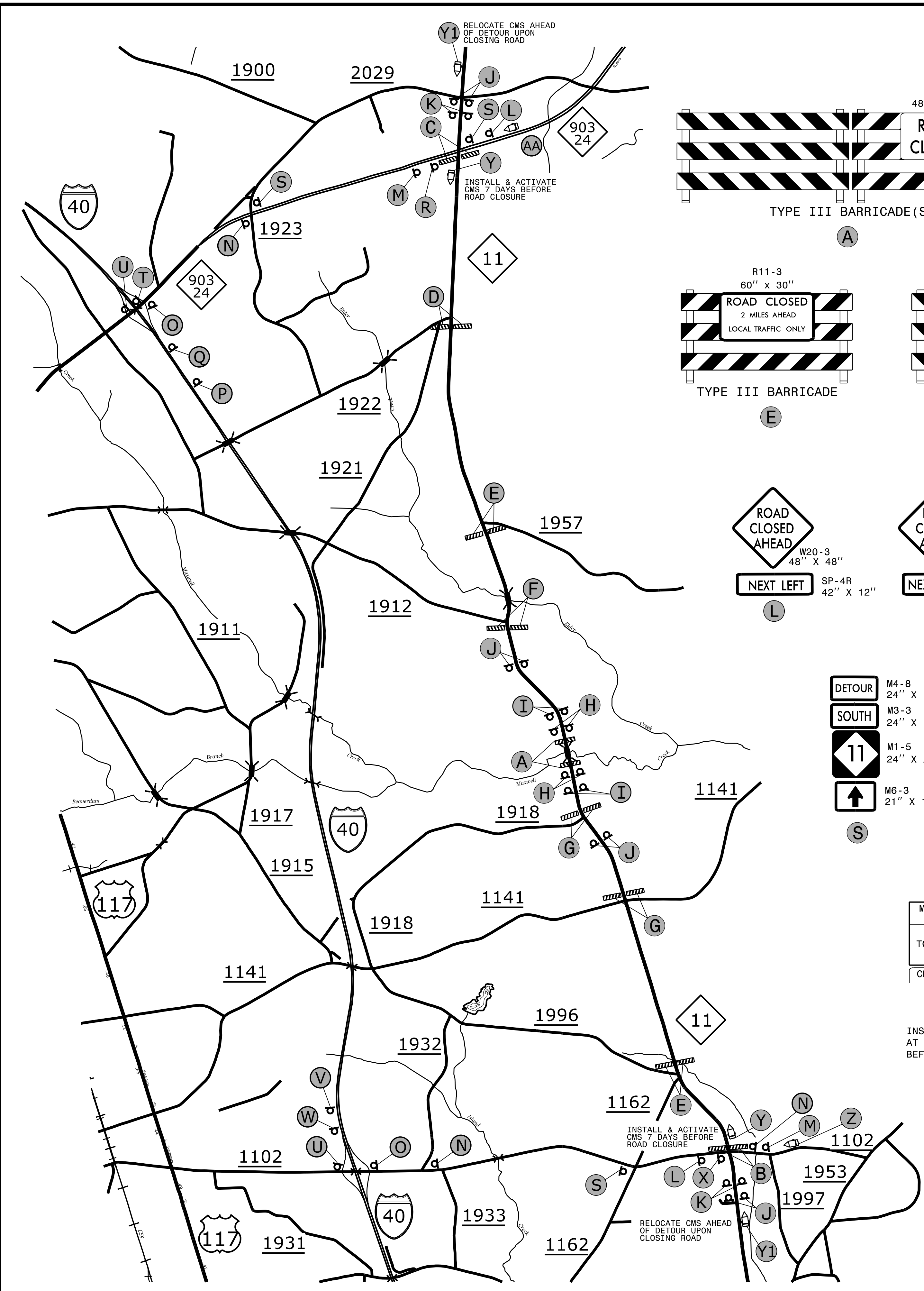
ROAD NAME	MARKING	MARKER
NC 11	PAINT	TEMPORARY RAISED
- T) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- U) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- V) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

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APPROVED: *Michael T. Rygha*  
DATE: 1/6/2021  
  
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# TRANSPORTATION OPERATIONS PLAN



MESSAGES AS SHOWN OR AS DIRECTED BY THE ENGINEER

MESSAGE NO. 1	MESSAGE NO. 2
NC 11 TO CLOSE (DATE)	NC 11 TO CLOSE (DATE)
CLOSED AHEAD	DETOUR USE I-40

CHANGEABLE MESSAGE SIGN

Y: INSTALL AND ACTIVATE AT DETOUR POINTS 7 DAYS BEFORE ROAD CLOSURE.

Y1: RELOCATE AHEAD OF DETOUR POINT UPON CLOSING ROAD

MESSAGES AS SHOWN OR AS DIRECTED BY THE ENGINEER

MESSAGE NO. 1	MESSAGE NO. 2
NC 11 CLOSED NEXT RT	DETOUR STRAIGHT AHEAD

CHANGEABLE MESSAGE SIGN

Z: MESSAGES AS SHOWN OR AS DIRECTED BY THE ENGINEER

AA: MESSAGES AS SHOWN OR AS DIRECTED BY THE ENGINEER

NOTES:  
 - COVER ANY EXISTING CONFLICTING SIGNS DURING ROAD CLOSURE  
 - DELINEATE CMS WITH DRUMS

APPROVED: *Michael T. Rzepka*

DATE: 1/6/2021

PROFESSIONAL ENGINEER SEAL 15876

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DETOUR FOR NC 11 ROAD CLOSURE OVER MAXWELL CREEK

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# TEMPORARY SHORING DATA

**HDR** 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.	SHEET NO.
B-5639	TMP-2B

Shoring Location No. 1  (SEE SHEET TMP-4)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L- 22+55±, 24' RT, TO STATION -L- 23+00±, 24' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION (c) = 0 LB/SF  
GROUNDWATER ELEVATION = 55.0 FT ±

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 22+55±, 24' RT, TO STATION -L- 23+00±, 24' RT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 22+55±, 24' RT, TO STATION -L- 23+00±, 24' RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

Shoring Location No. 2  (SEE SHEET TMP-4)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION -L- 24+13±, 24' RT, TO STATION -L- 24+55±, 24' RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION (c) = 0 LB/SF  
GROUNDWATER ELEVATION = 55.0 FT ±

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 24+13±, 24' RT, TO STATION -L- 24+55±, 24' RT.

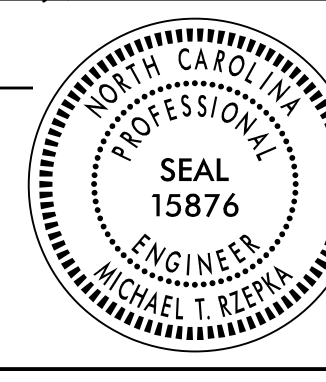
AT THE CONTRACTOR'S OPTION AND WHEN APPLICABLE, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 24+13±, 24' RT, TO STATION -L- 24+55±, 24' RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENTS FROM THE GEO TECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS DATED AND SEALED ON 02/19/2020 BY A PROFESSIONAL ENGINEER, JINYOUNG PARK, LICENSE #032171.

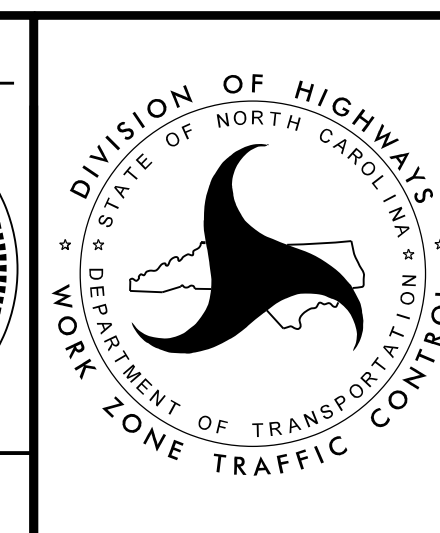
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APPROVED: *Michael T. Ryepka*

DATE: 1/6/2021



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UNLESS ALL SIGNATURES COMPLETED**



TEMPORARY SHORING DATA

# PHASING

**HDR** 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.	SHEET NO.
B-5639	TMP-3

## PHASE 1 (SEE SHEETS TMP-4 & 5)

INSTALL ADVANCE WARNING SIGNS ON NC 11 PRIOR TO BEGINNING CONSTRUCTION USING RSD 1101.01, SHEET 3 OF 3.

INSTALL TEMPORARY GUARDRAIL AND CONNECT TO EXISTING BRIDGE RAIL ALONG NB NC 11 (SEE ROADWAY PLANS FOR SPECIAL CONNECTION DETAIL).

BEHIND GUARDRAIL AND USING LANE CLOSURES, INSTALL TEMPORARY SHORING (SEE SHEET TMP-2B) AND CONSTRUCT DETOUR BRIDGE AND ROADWAY (-L\_DET-). BEGIN DETOUR TIE TO EXISTING PAVEMENT AND INSTALLATION OF -L\_DET- TEMPORARY GUARDRAIL NOT IN CONFLICT WITH EXISTING TRAFFIC PATTERN.

INSTALL DETOUR SIGNING FOR PHASE 2, STEP 1 DETOUR AND KEEP COVERED. ACTIVATE CMS ON NC 11 SEVEN DAYS PRIOR TO CLOSING NC 11 AS SHOWN ON SHEET TMP-2A.

## PHASE 2

COMPLETE WORK IN PHASE 2, STEP 1 IN 61 CONSECUTIVE HOURS BEGINNING ON A FRIDAY AT 6:00 P.M., AND ENDING ON THE FOLLOWING MONDAY AT 7:00 A.M.

### STEP 1

- A) UNCOVER DETOUR SIGNS AND ACTIVATE CMS ON NC 24 AND CHARITY ROAD. RELOCATE THE TWO CMS ON NC 11. USING A ROAD CLOSURE, CLOSE NC 11 AND DETOUR TRAFFIC TO OFFSITE DETOUR (SEE SHEET TMP-2A).
- B) COMPLETE THE FOLLOWING:
  - DETOUR TIE TO EXISTING PAVEMENT INCLUDING TEMPORARY PAVEMENT MARKINGS AND MARKERS
  - INSTALLATION OF DET- TEMPORARY GUARDRAIL
- C) OPEN NC 11 -L\_DET- ALIGNMENT TO TRAFFIC AND REMOVE OFFSITE DETOUR SIGNING.

### STEP 2 (SEE SHEETS TMP-6 & 7)

BEHIND GUARDRAIL AND USING LANE CLOSURES, CONSTRUCT THE FOLLOWING PROPOSED:

- BRIDGE AND ROADWAY FROM -L- STA 22+20± TO STA 24+90±
- LEFT/RIGHT SIDE WIDENING WITH WEDGING/RESURFACING EXISTING PAVEMENT FROM -L- STA 18+00± TO STA 22+20± AND -L- STA 24+90± TO STA 27+00±
- GUARDRAIL ALONG LEFT SIDE AND PORTION ALONG RIGHT SIDE AS SPACE PERMITS AWAY FROM TRAFFIC

INSTALL DETOUR SIGNING FOR PHASE 3, STEP 1 DETOUR AND KEEP COVERED. ACTIVATE CMS ON NC 11 SEVEN DAYS PRIOR TO CLOSING NC 11 AS SHOWN ON SHEET TMP-2A.

## PHASE 3 (SEE SHEETS TMP-8 & 9)

COMPLETE WORK IN PHASE 3, STEP 1 IN 61 CONSECUTIVE HOURS BEGINNING ON A FRIDAY AT 6:00 P.M., AND ENDING ON THE FOLLOWING MONDAY AT 7:00 A.M.

### STEP 1

- A) UNCOVER DETOUR SIGNS AND ACTIVATE CMS ON NC 24 AND CHARITY ROAD. RELOCATE THE TWO CMS ON NC 11. USING A ROAD CLOSURE, CLOSE NC 11 AND DETOUR TRAFFIC TO OFFSITE DETOUR (SEE SHEET TMP-2A).
- B) COMPLETE THE FOLLOWING:
  - PROPOSED PAVEMENT TIE/RESURFACING OF PHASE 2 CONSTRUCTION
  - RIGHT SIDE SHOULDER CONSTRUCTION
  - INSTALLATION OF RIGHT SIDE PROPOSED GUARDRAIL
  - PLACE TEMPORARY PAVEMENT MARKINGS
  - BEGIN REMOVAL OF DETOUR PAVEMENT AS NEEDED
- C) OPEN NC 11 -L- ALIGNMENT TO TRAFFIC AND REMOVE OFFSITE DETOUR SIGNING.

### STEP 2

USING LANE CLOSURES, COMPLETE THE FOLLOWING ALONG RIGHT SIDE -L- :  
- REMOVAL OF -L\_DET- PAVEMENT AND BRIDGE  
- GRADE SHOULDER AND SLOPES TO FINAL CONDITION

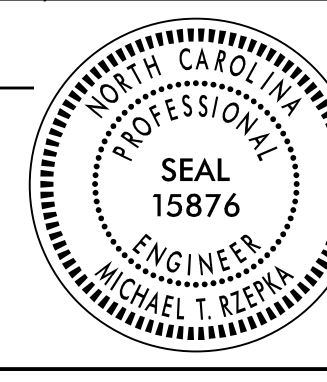
### STEP 3

USING LANE CLOSURES, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS. REMOVE REMAINING TRAFFIC CONTROL DEVICES.

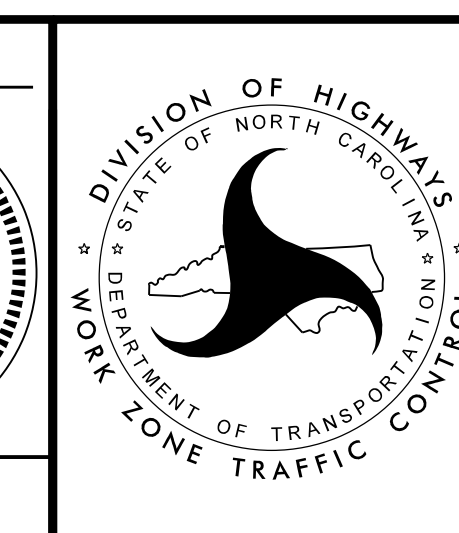
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APPROVED: *Michael T. Ryepka*

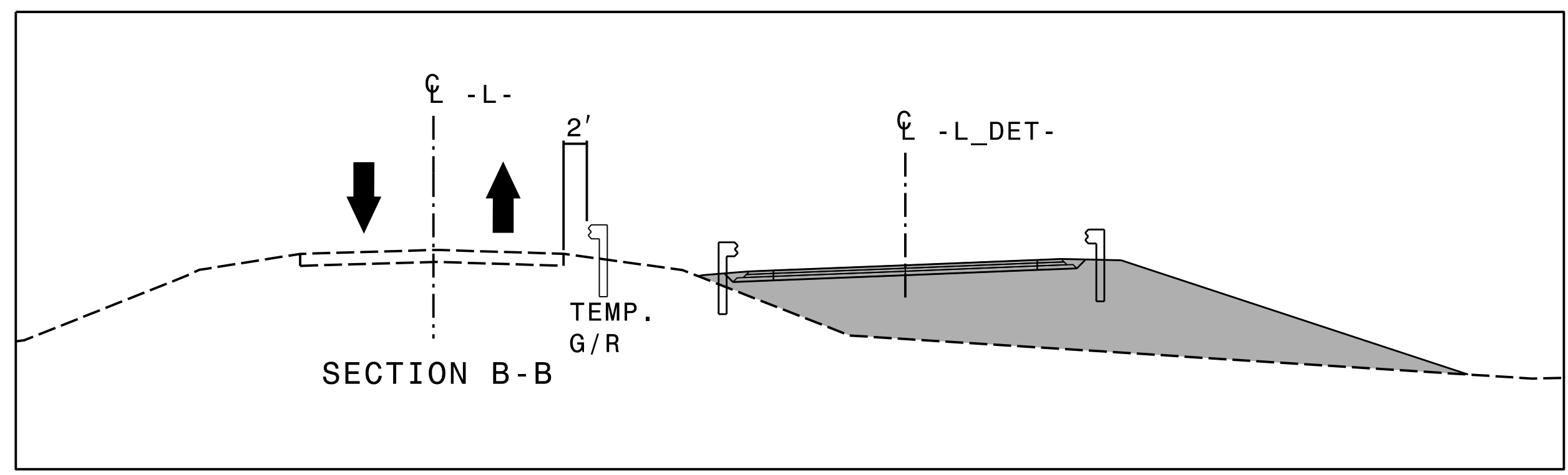
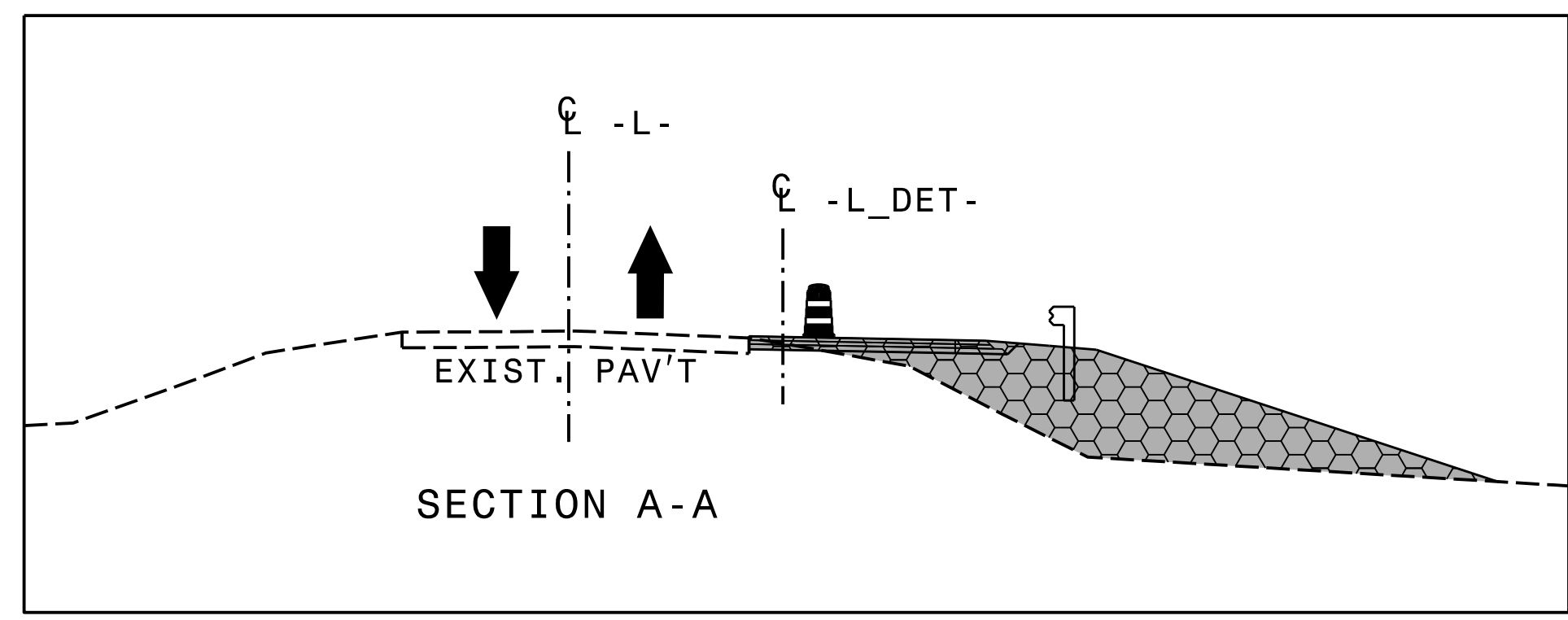
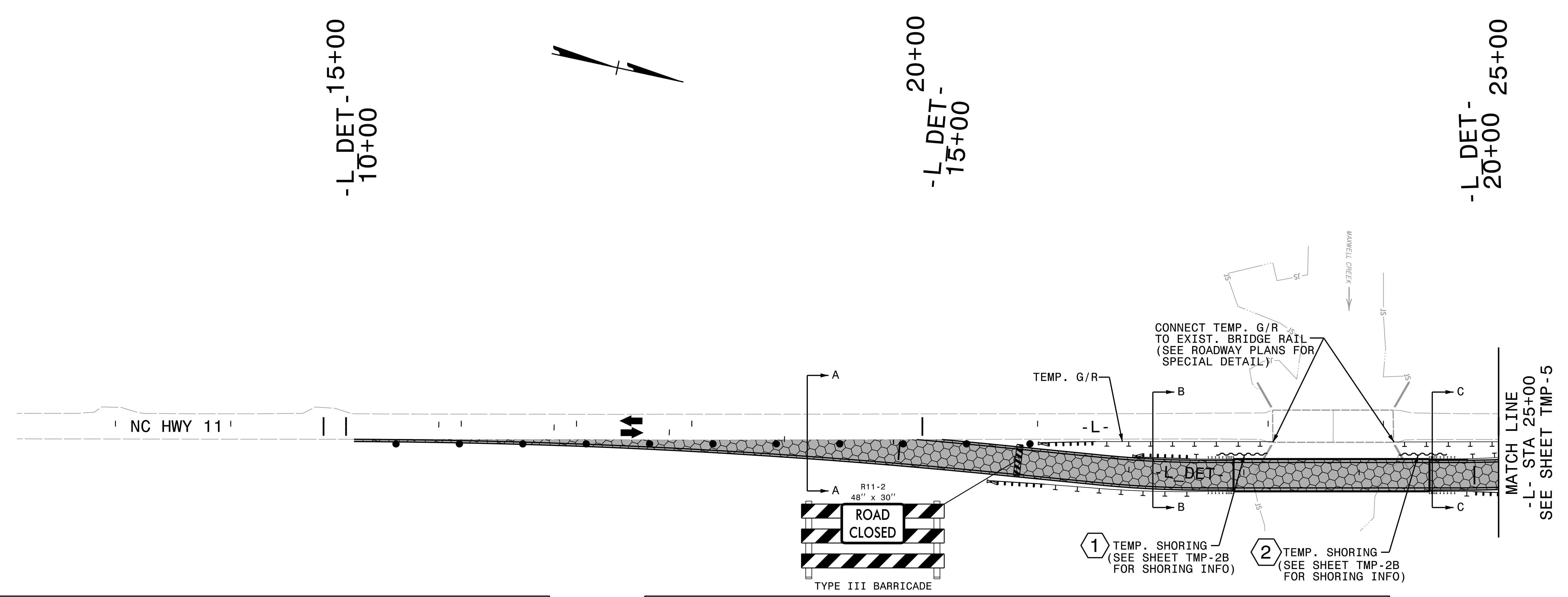
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**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



# PHASING

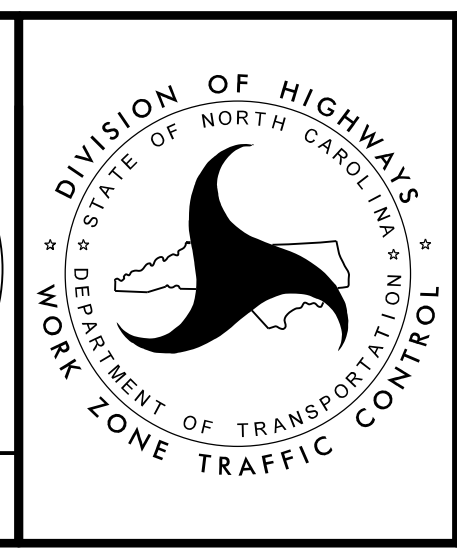


1 TEMPORARY SHORING No. 1  
 QUANTITY = 293 SF  
 FROM -L- STA. 22+55±, 24.0' RT  
 TO -L- STA. 23+00±, 24.0' RT

2 TEMPORARY SHORING No. 2  
 QUANTITY = 273 SF  
 FROM -L- STA. 24+13±, 24.0' RT  
 TO -L- STA. 24+55±, 24.0' RT

APPROVED: *Michael T. Ryznar*  
 DATE: 1/6/2021

**PROFESSIONAL ENGINEER**  
 MICHAEL T. RYZNAR  
 SEAL 15876



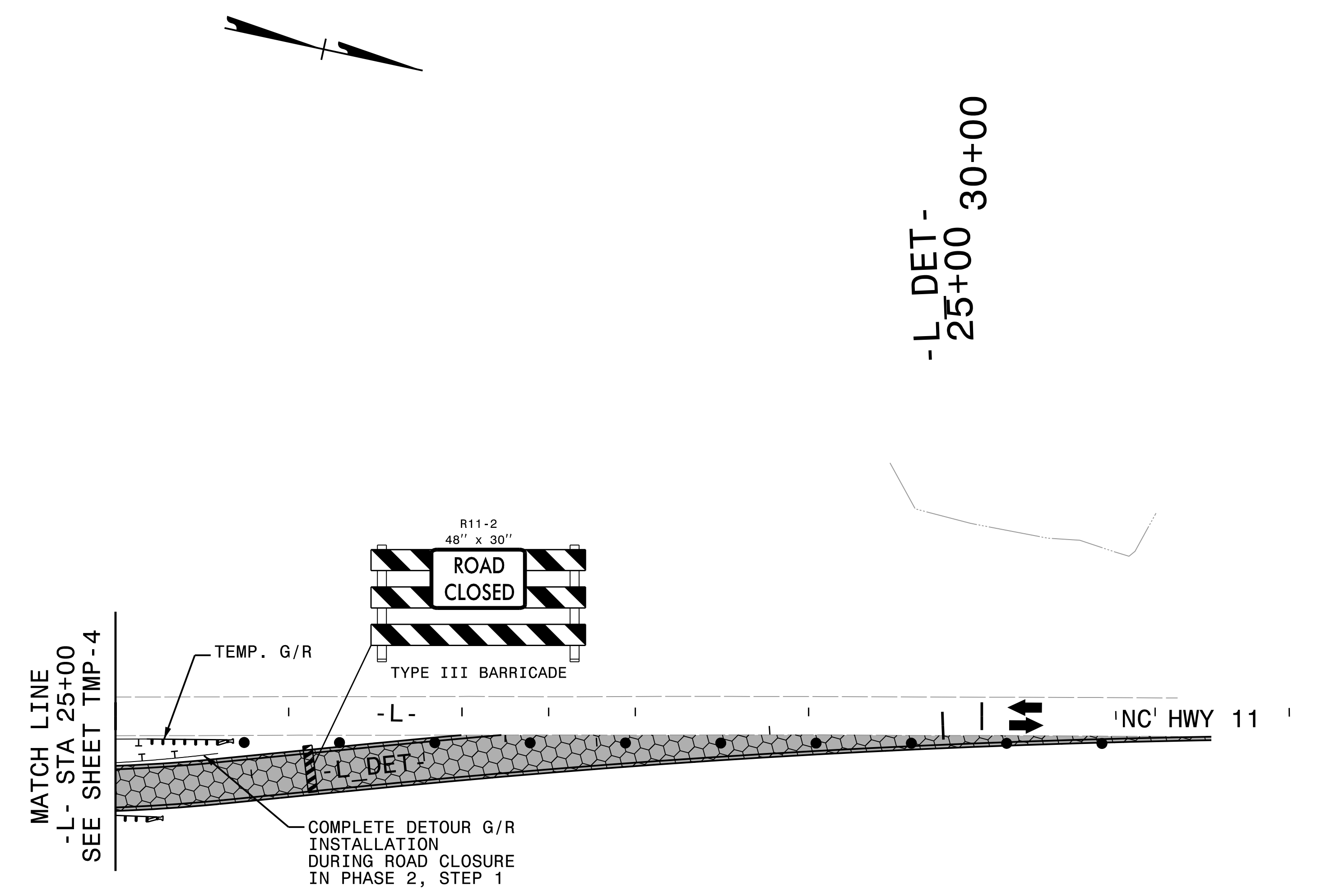
PHASE 1  
 DETAIL

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 UNLESS ALL SIGNATURES COMPLETED

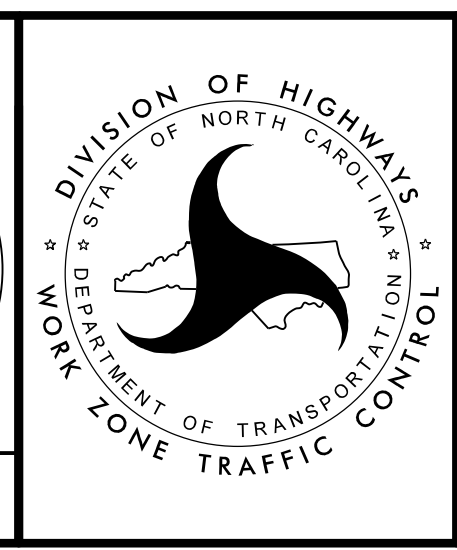
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APPROVED: *Michael T. Rzepka*  
 DATE: 1/6/2021

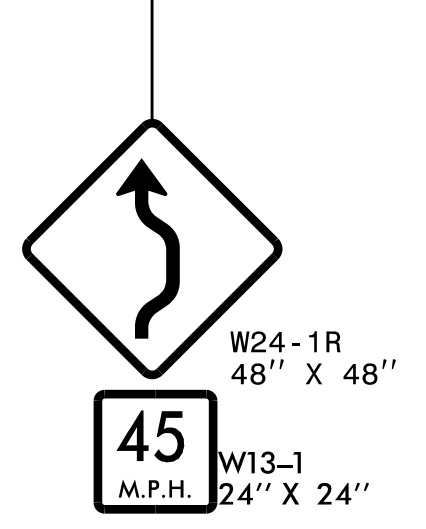
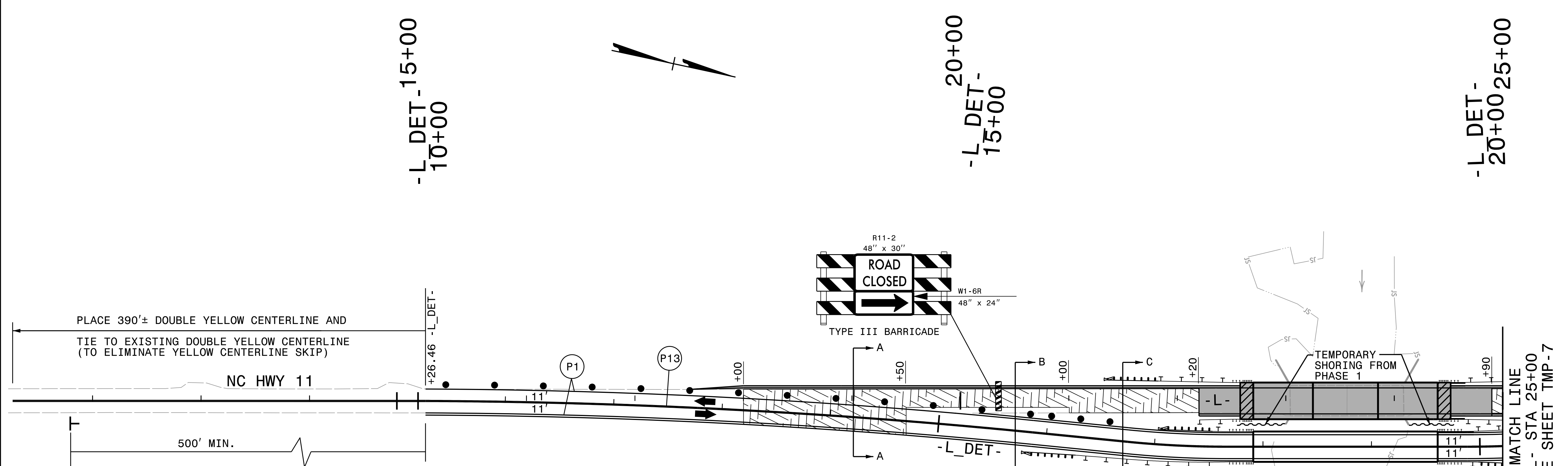
**PROFESSIONAL SEAL**  
 15876  
 ENGINEER  
 MICHAEL T. RZEPKA

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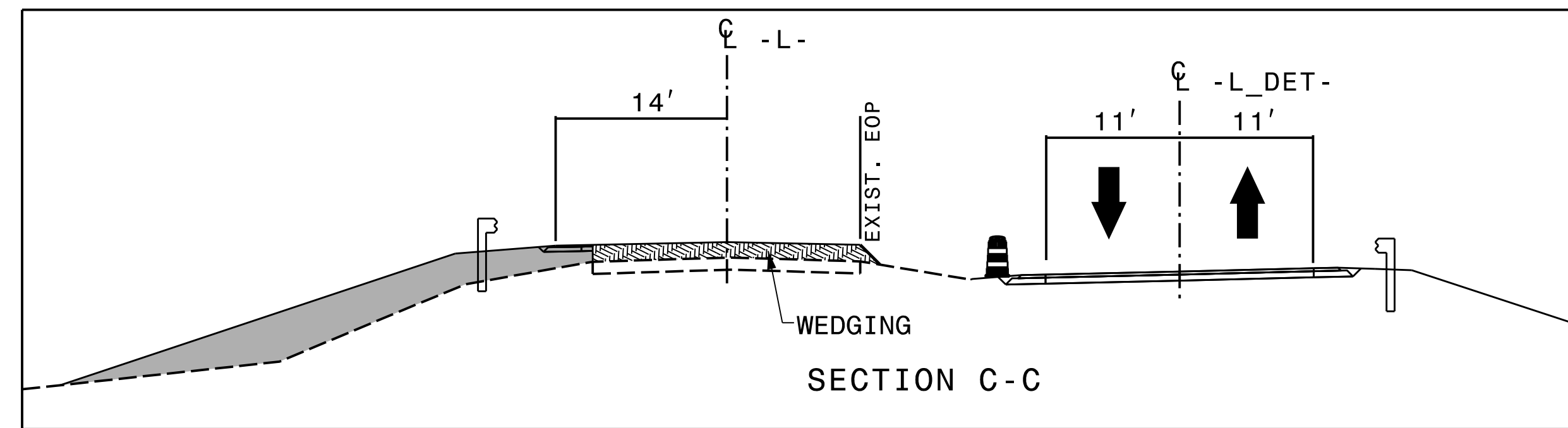
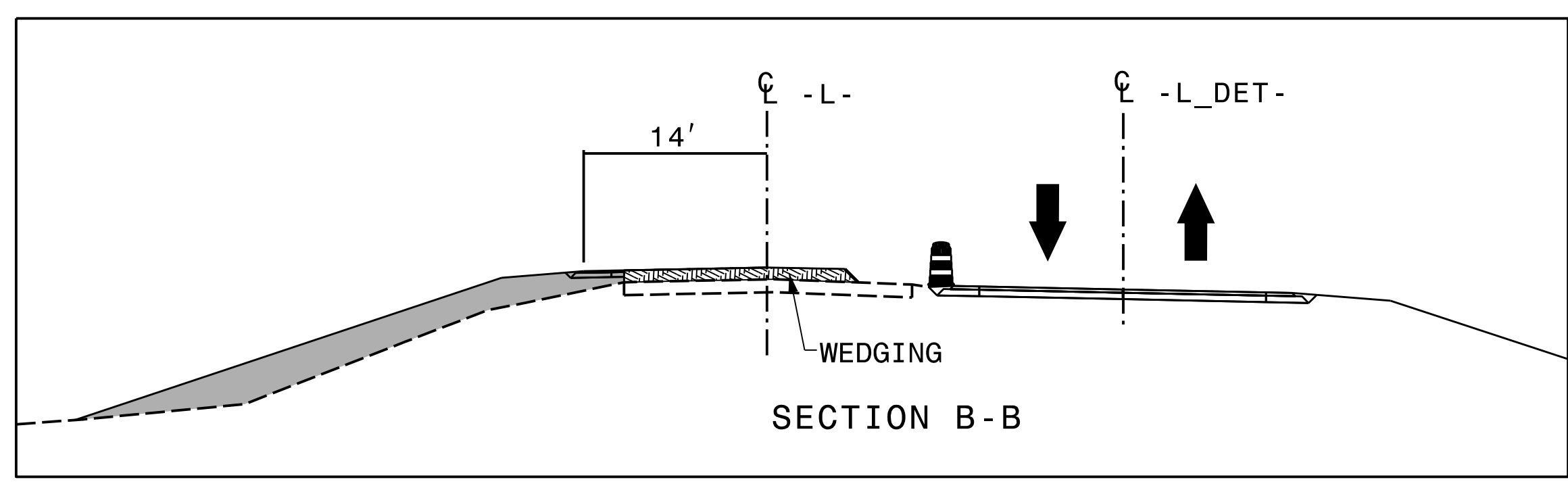
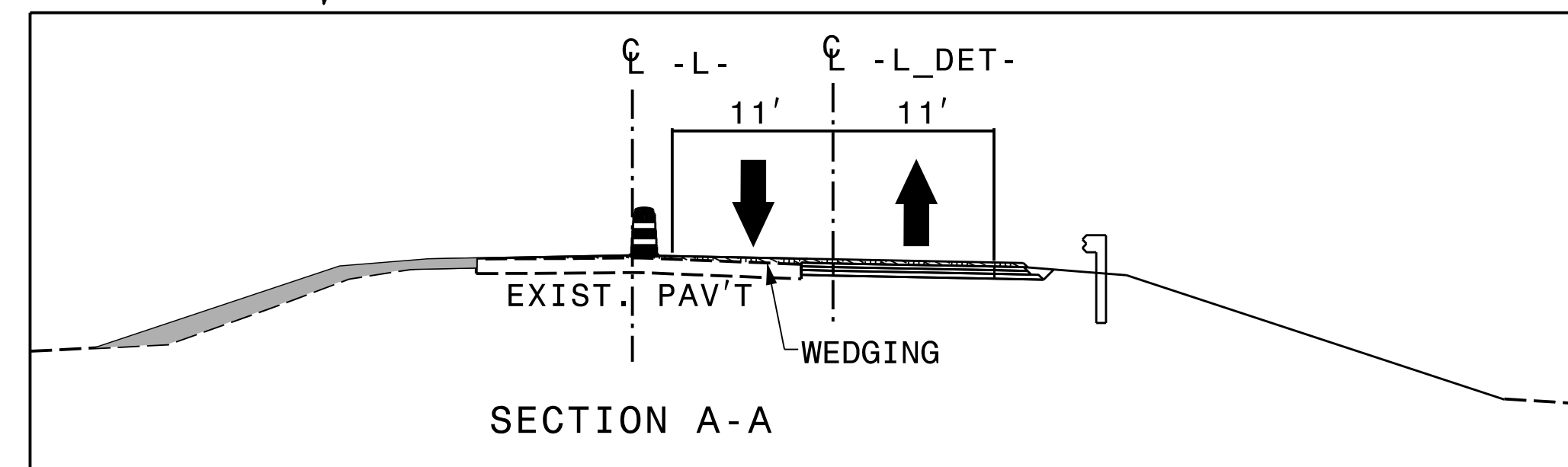


**PHASE 1  
 DETAIL**





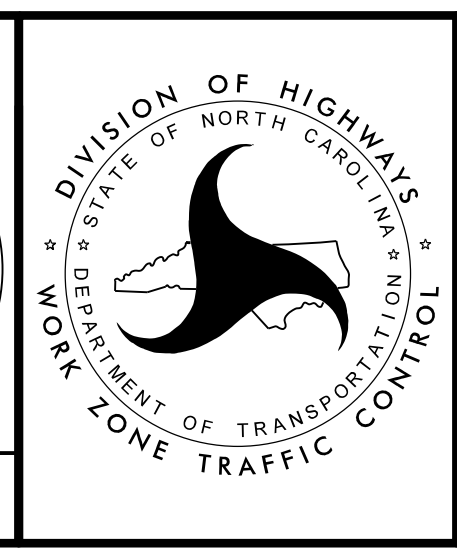
500' MIN.



MATCH LINE  
-L- STA 25+00  
SEE SHEET TMP-7

PLOT DRIVER: NCDOT\_pdf\_mono\_eng\_50.plt  
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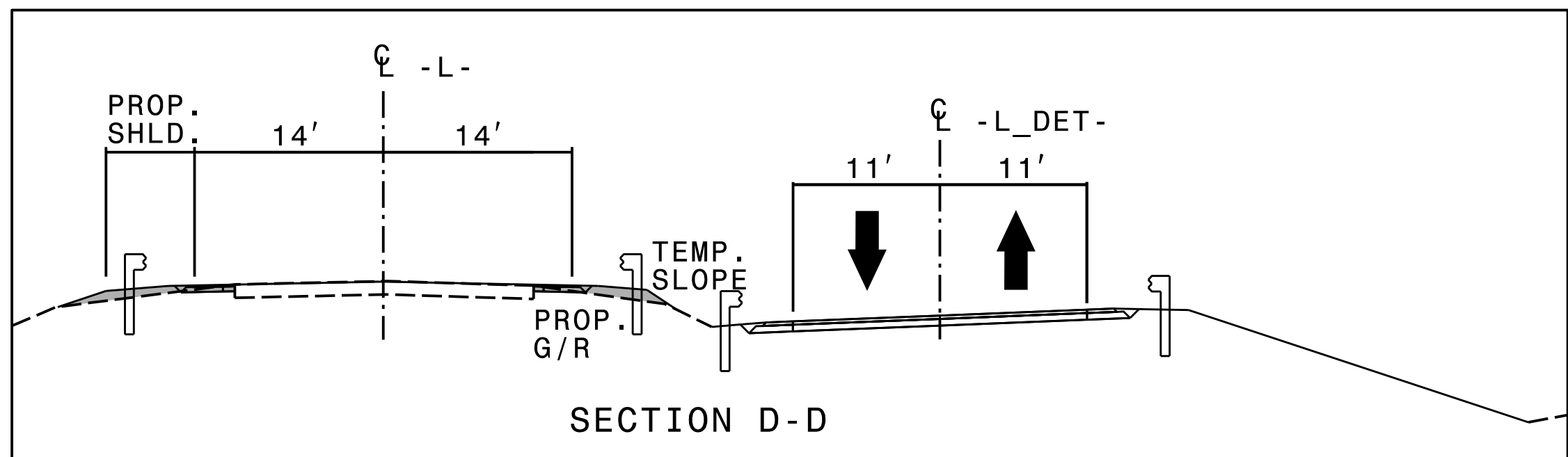
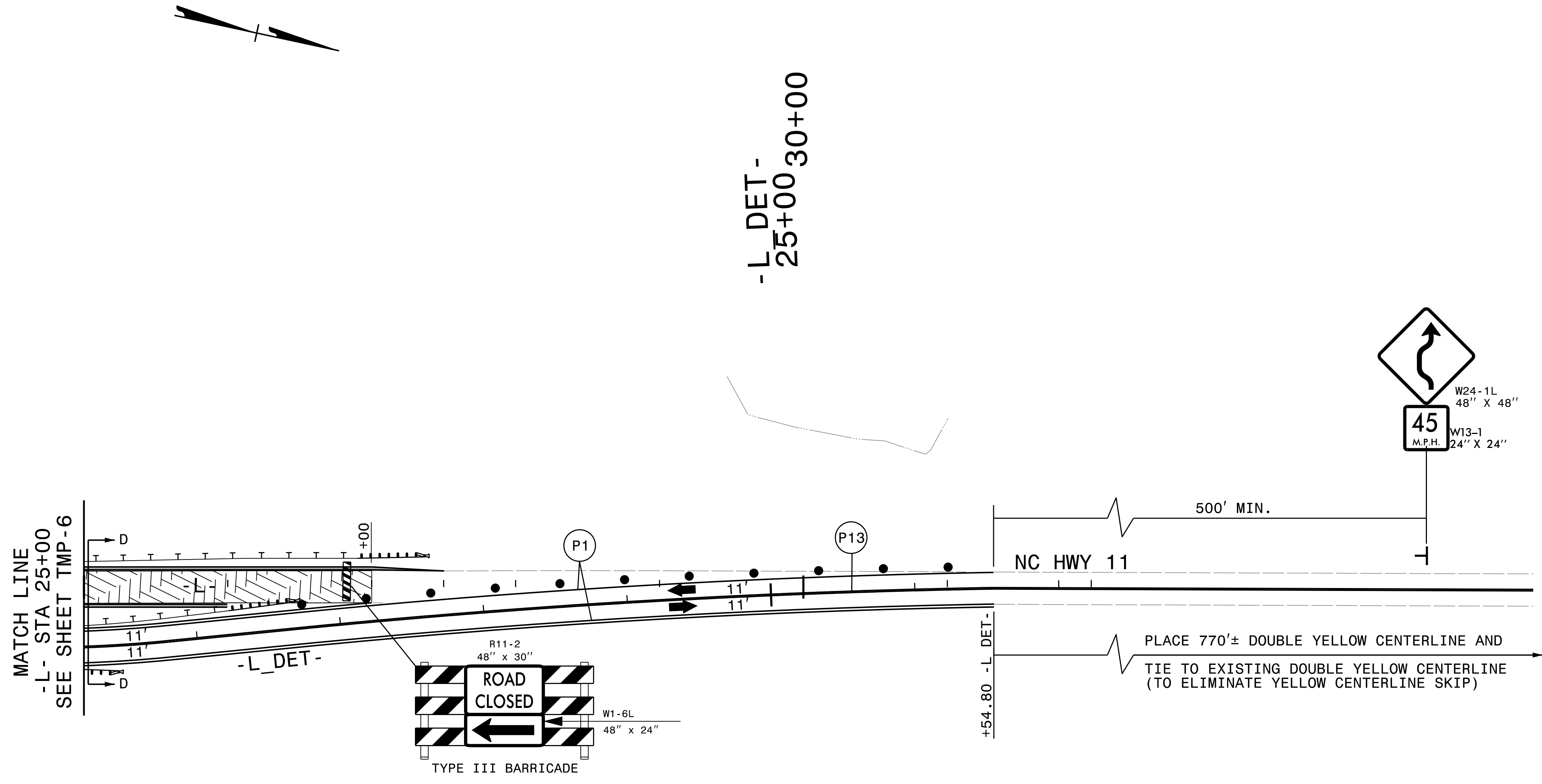
APPROVED: *Michael T. Ryepka*  
DATE: 1/6/2021  
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15876  
MICHAEL T. RYEPKA



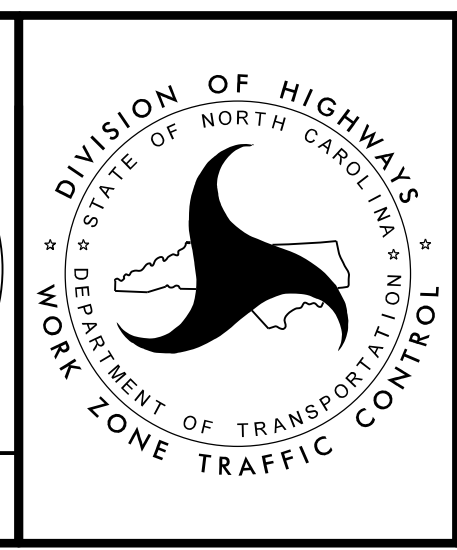
PHASE 2  
DETAIL

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

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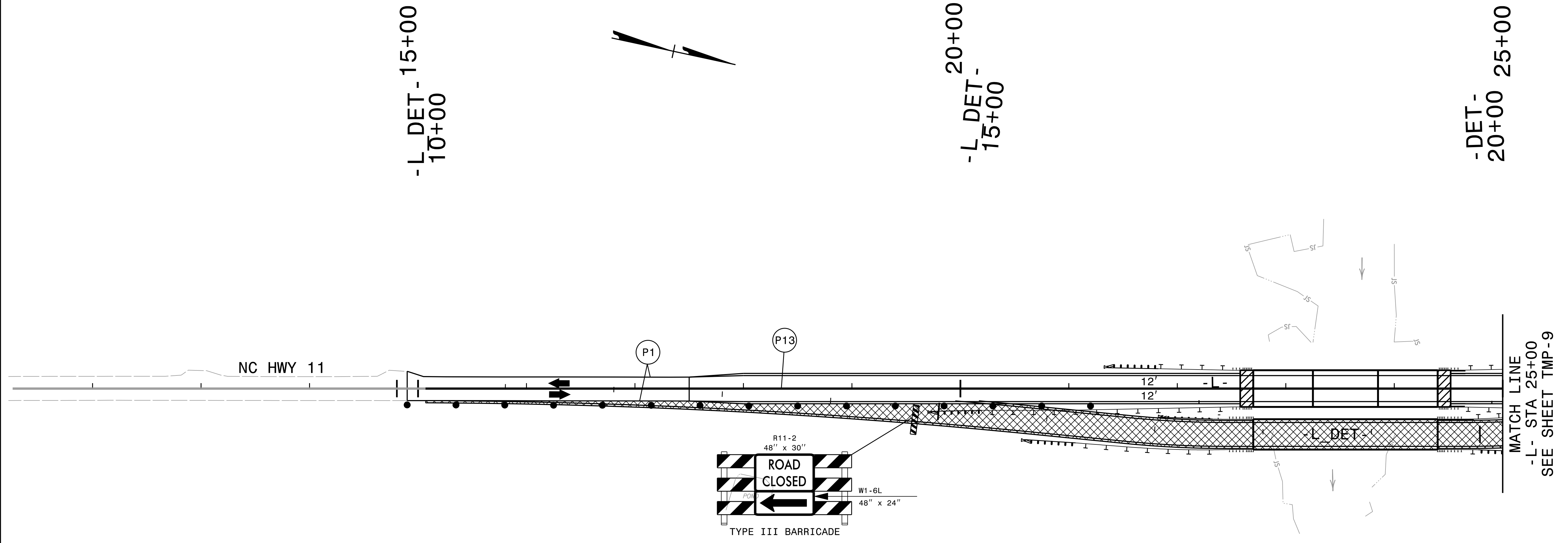
APPROVED: *Michael T. Ryopka*  
DATE: 1/6/2021  
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15876  
MICHAEL T. RYOPKA



PHASE 2  
DETAIL

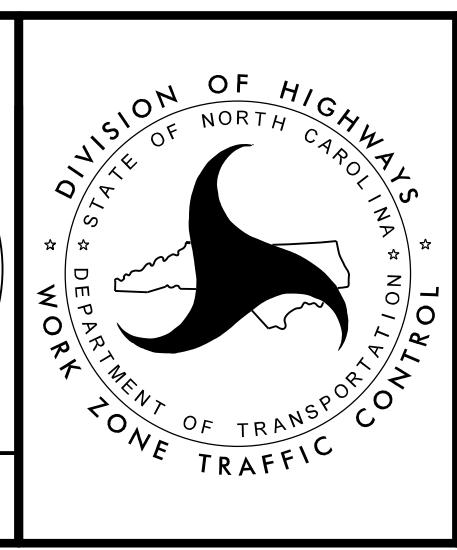
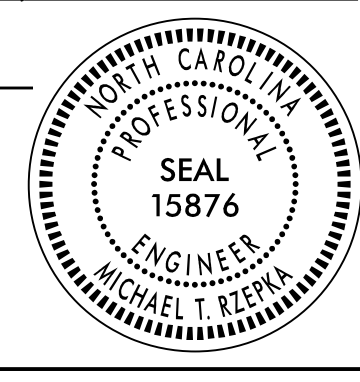
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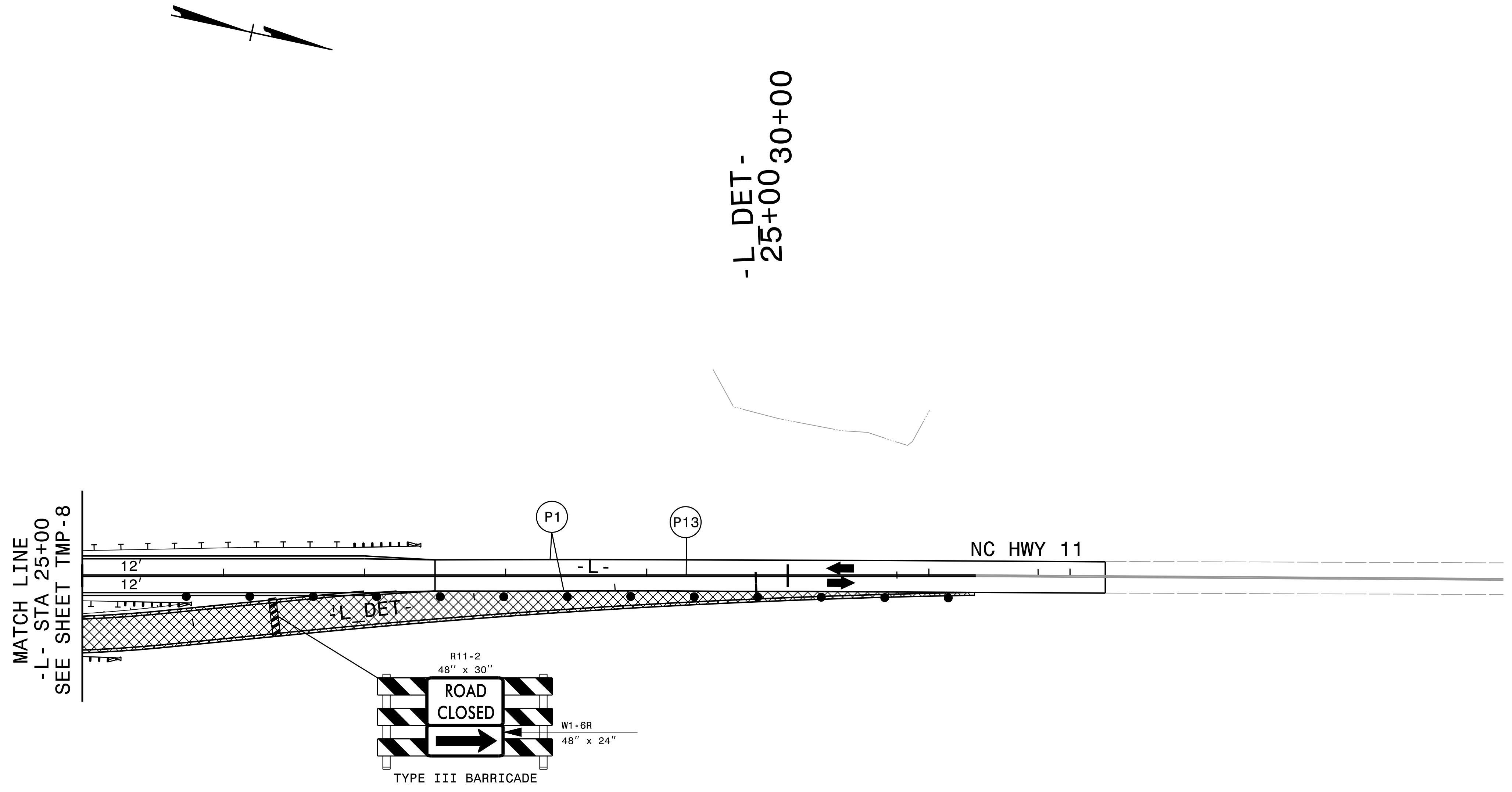
APPROVED: *Michael T. Rzepka*  
DATE: 1/6/2021

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PHASE 3  
DETAIL

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APPROVED: *Michael T. Rzepka*  
 DATE: 1/6/2021

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**PHASE 3  
 DETAIL**