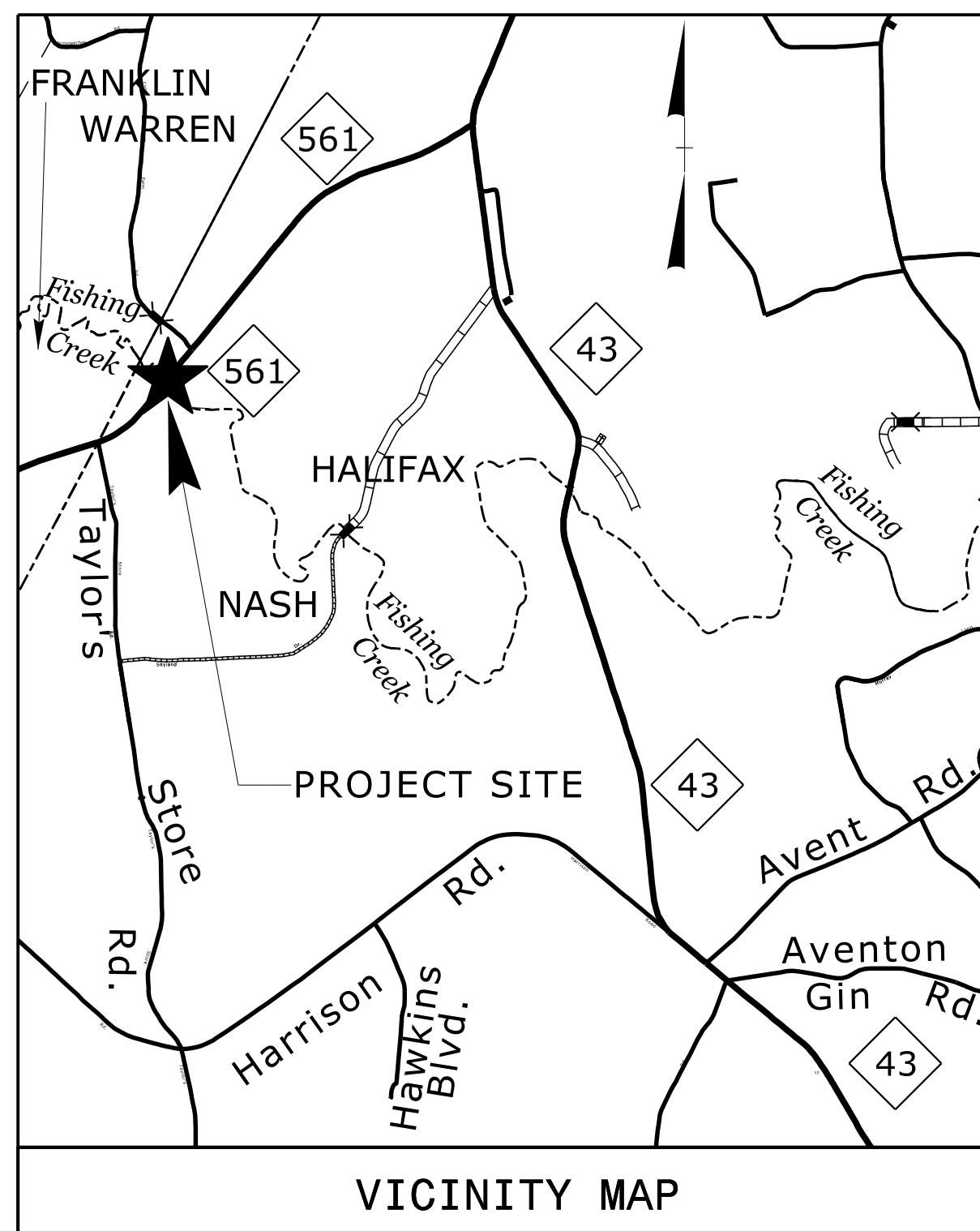
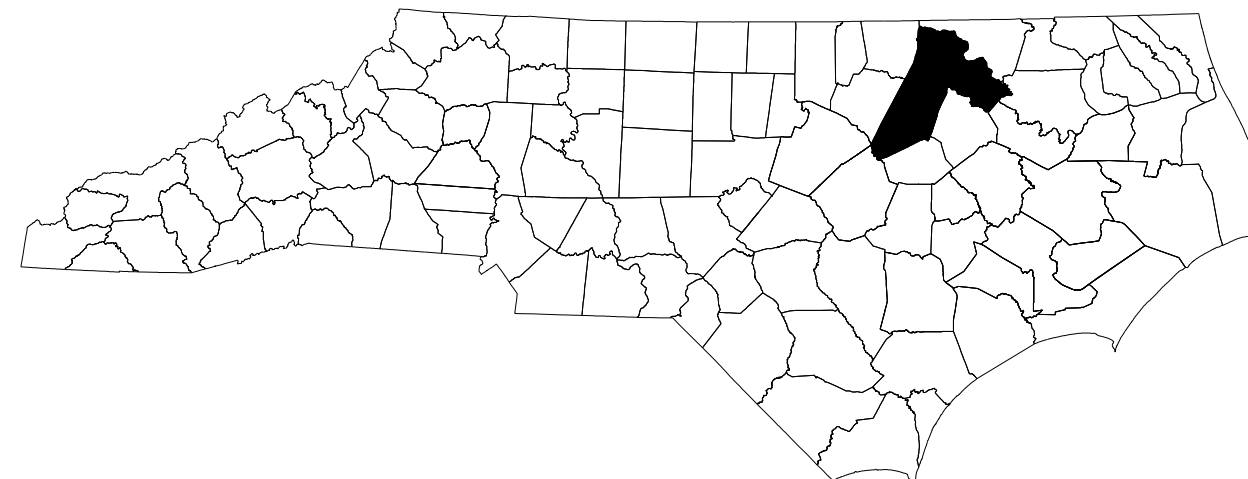
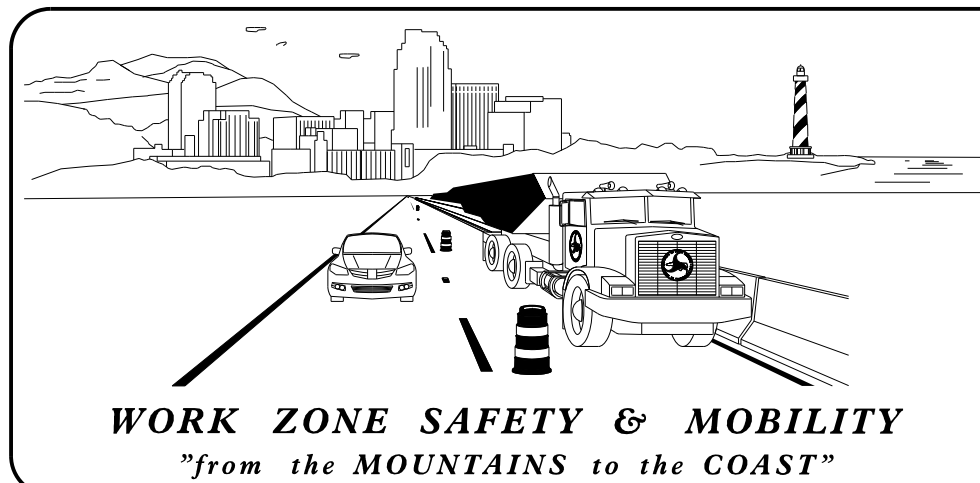


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN  
HALIFAX & NASH COUNTY



LOCATION: BRIDGE NO. 630036 OVER FISHING CREEK ON NC 561  
TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE



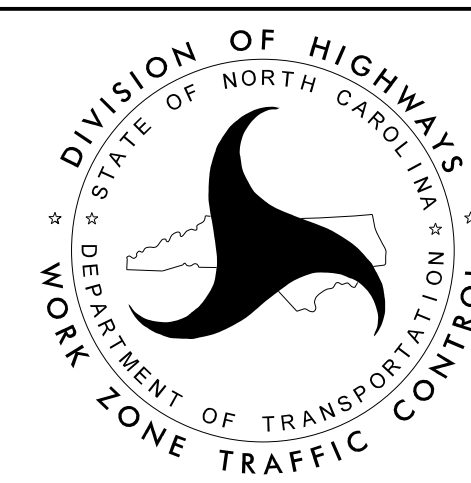
PLANS PREPARED BY:

ALLA LYUDMIRSKAYA  
PROJECT DESIGN ENGINEER

WILLIAM DEBREW  
DESIGN ENGINEER

NCDOT CONTACTS:

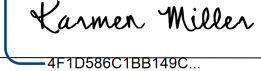
KARMEN MILLER, PE  
PROJECT MANAGER



INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING SCHEDULE
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, AND GENERAL NOTES)
TMP-2	TEMPORARY SHORING NOTES
TMP-3	PHASING NOTES
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-5	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP-6	TEMPORARY TRAFFIC CONTROL PHASE III DETAIL

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UNLESS ALL SIGNATURES COMPLETED

APPROVED:   
DATE: 06/19/2025

SEAL



SHEET NO.

TMP-1

BR-0090

TIP PROJECT:

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 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	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHIONS
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
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	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - (TEMPORARY AND PERMANENT)
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS
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.
- TEMP. SHORING (LOCATION PURPOSES ONLY)

- WORK AREA
- REMOVAL
- TEMPORARY PAVEMENT

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

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

TEMPORARY SIGNING

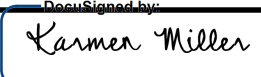
- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS


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

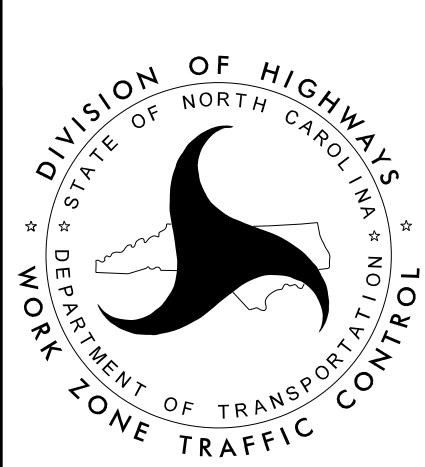
TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
	PAINT (4')
P1	WHITE EDGELINE
P11	YELLOW SINGLE CENTER LINE
P12	10 FT. YELLOW SKIP LINE
P13	DOUBLE YELLOW CENTER LINE
	TEMPORARY RAISED MARKERS
MH	YELLOW & YELLOW

APPROVED:   
DATE: 06/19/2025

SEAL





ROADWAY STANDARD  
DRAWINGS & LEGEND

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



# TRANSPORTATION MANAGEMENT STRATEGIES

THE FOLLOWING WORK ZONE STRATEGIES  
ARE RECOMMENDED FOR THIS TMP:

- ON-SITE DETOUR
- ONE-LANE, TWO-WAY FLAGGING OPERATIONS
- SHOULDER 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 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.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) 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.
- B) 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.
- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN  
TRAVEL LANE ON AN UNDIVIDED FACILITY, 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 10 FT OF AN OPEN  
TRAVEL LANE ON A DIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE  
USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS  
PROTECTED BY BARRIER OR GUARDRAIL.

- D) 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.

### PAVEMENT EDGE DROP OFF REQUIREMENTS

- E) 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.

- F) 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 EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

### TRAFFIC PATTERN ALTERATIONS

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

### SIGNING

- H) 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.
- I) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROADS 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.
- J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY  
TRAFFIC PATTERN.
- K) 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

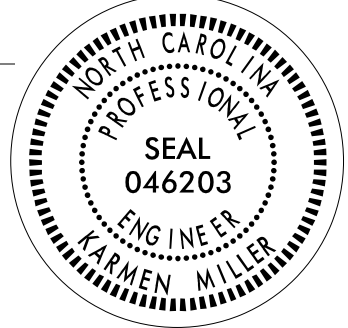

- L) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK  
WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (55 MPH),  
EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY.  
REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130  
(DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- M) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF  
SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

### PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
NC 561	PAINT	TEMPORARY RAISED

- O) 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.
- P) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Q) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY  
THE END OF EACH DAY'S OPERATION.

APPROVED: _____ DATE: 06/19/2025  SEAL  DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	<div>Drawn/signed by: <u>Karmer Miller</u> 4FTDSB8C1B8T4BPC...</div> <div></div>	<div></div>	TRANSPORTATION OPERATIONS PLAN
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TEMPORARY SHORING NOTES

TEMPORARY SHORING 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 15+30±, 26±FT RIGHT, TO STATION 15+52±, 26±FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT  $\gamma$  = 120 PCF  
FRICTION ANGLE  $\phi$  = 30 DEGREES  
COHESION (c) = 0 PSF  
GROUNDWATER ELEVATION = 144 FT

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 15+30±, 26.0 FT RIGHT, TO STATION 15+52±, 26±FT RIGHT, MAY NOT PENETRATE BELOW ELEVATION 110± FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 15+30, 26±FT RIGHT, TO STATION 15+52±, 26±FT RIGHT.

AT THE CONTRACTOR\*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 15+30±, 26±FT RIGHT, TO STATION 15+52±, 26±FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

TEMPORARY SHORING 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 17+48±, 26±FT RIGHT, TO STATION 17+75, 26.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

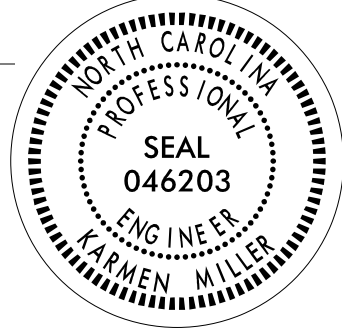
UNIT WEIGHT  $\gamma$  = 120 PCF  
FRICTION ANGLE  $\phi$  = 30 DEGREES  
COHESION (c) = 0 PSF  
GROUNDWATER ELEVATION = 144 FT

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 17+48±, 26.0 FT RIGHT, TO STATION 17+75±, 26±FT RIGHT, MAY NOT PENETRATE BELOW ELEVATION 120± FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 17+48, 26±FT RIGHT, TO STATION 17+75, 26±FT RIGHT.

AT THE CONTRACTOR\*S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 17+48±, 26.0 FT RIGHT, TO STATION 17+75, 26±FT RIGHT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON 1/18/2023 AND SEALED BY A PROFESSIONAL ENGINEER, THEIN TUN ZAN, LICENSE # 030943.

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TEMPORARY  
SHORING NOTES



PHASING NOTES

NOTE:  
COMPLETE ANY PROPOSED WIDENING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE.

PHASE I

- STEP 1:
- USING RSD 1101.01 (SHEET 3 OF 3), INSTALL ADVANCE WORK ZONE WARNING SIGNS ON NC 561.
- STEP 2:
- USING RSD 1101.02, (SHEET 1 OF 19), REMOVE EXISTING GUARDRAIL ALONG EB NC 561 AND INSTALL TEMPORARY GUARDRAIL AS SHOWN ON SHEET TMP-3. CONNECT TEMPORARY GUARDRAIL TO EXISTING BRIDGE RAIL. (ROADWAY PAY ITEM, SEE ROADWAY PLANS).
- STEP 3:
- AWAY FROM TRAFFIC, INSTALL TEMPORARY SHORING No. 1 FROM -L- STA. 15+30±, 26' RT TO -L- STA. 15+52±, 26' RT AND TEMPORARY SHORING No.2 FROM -L- STA. 17+48±, 26' RT TO -L- STA. 17+75±, 26' RT.
- STEP 4:
- AWAY FROM TRAFFIC AND USING RSD 1101.02 (SHEET 1 OF 19) AS NEEDED, COMPLETE THE FOLLOWING UP TO THE EXISTING EDGE AND ELEVATION OF NC 561:
- LDET- STA. 10+90± TO -LDET- STA. 22+21±.  
(SEE SHEET TMP-4).
- BEGIN CONSTRUCTION OF PROPOSED DRAINAGE.

PHASE II

- STEP 1:
- USING RSD 1101.02 (SHEET 1 OF 19) AND RSD 1101.03 (SHEET 3 OF 9), PLACE TEMPORARY PAVEMENT MARKINGS AND TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON SHEET TMP-5.
- INSTALL WORK ZONE WARNING SIGNS ALONG -LDET- AND SHIFT TRAFFIC ONTO ON-SITE DETOUR.
- STEP 2:
- AWAY FROM TRAFFIC, REMOVE EXISTING BRIDGE AND TEMPORARY GUARDRAIL INSTALLED IN PHASE I, STEP 3.
- CONSTRUCT PROPOSED BRIDGE AND ROADWAY APPROACHES ON -L- NC 561 FROM -L- STA. 12+15± TO -L- STA. 20+95±, UP TO BUT NOT INCLUDING FINAL PAVEMENT SURFACE COURSE.
- COMPLETE CONSTRUCTION OF PROPOSED DRAINAGE.

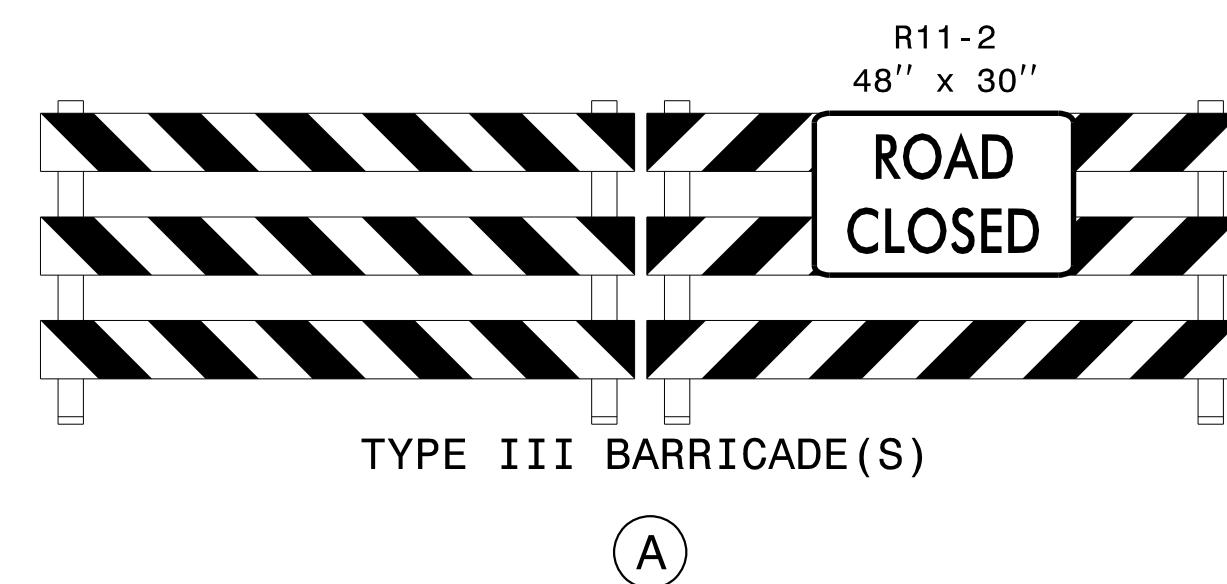
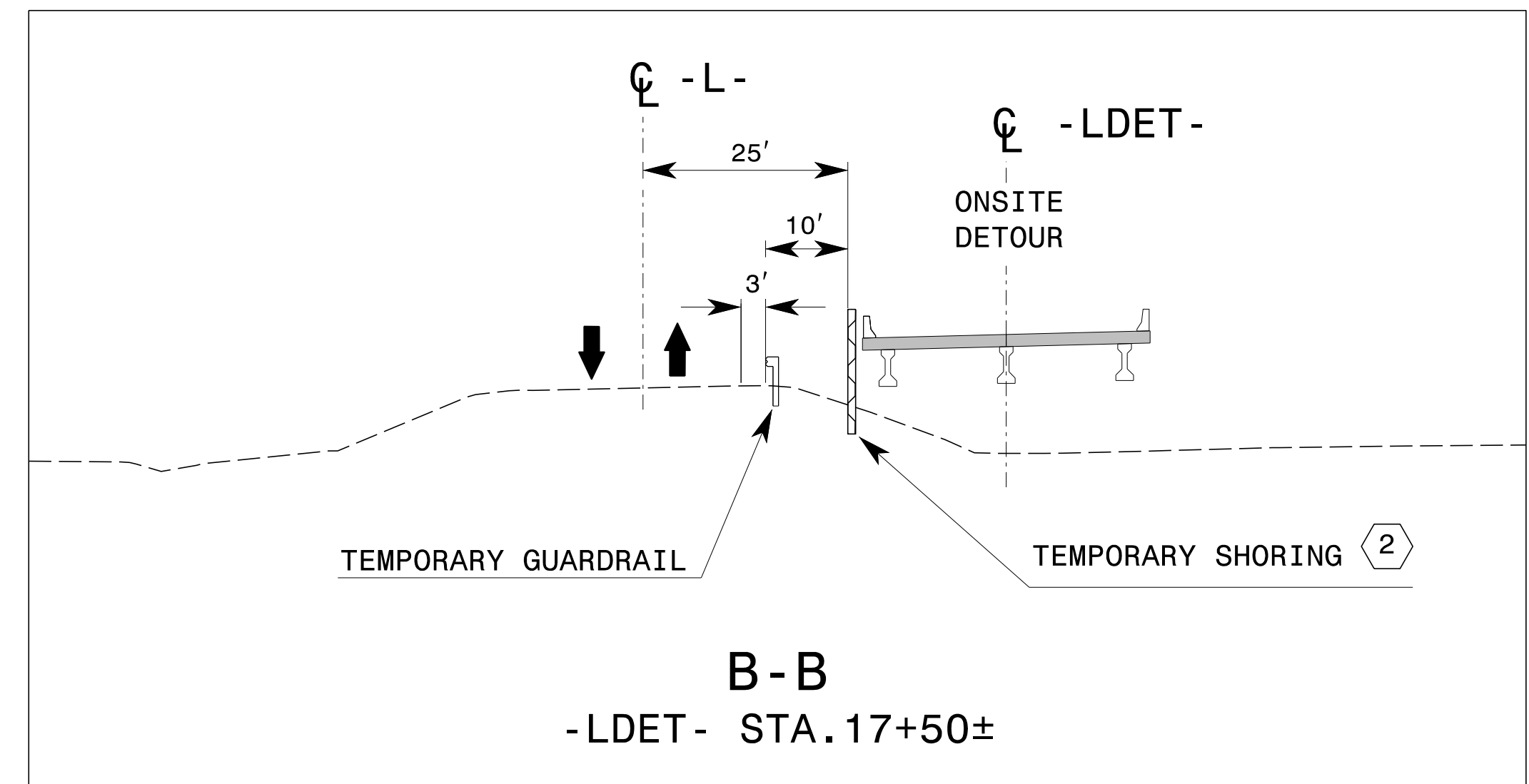
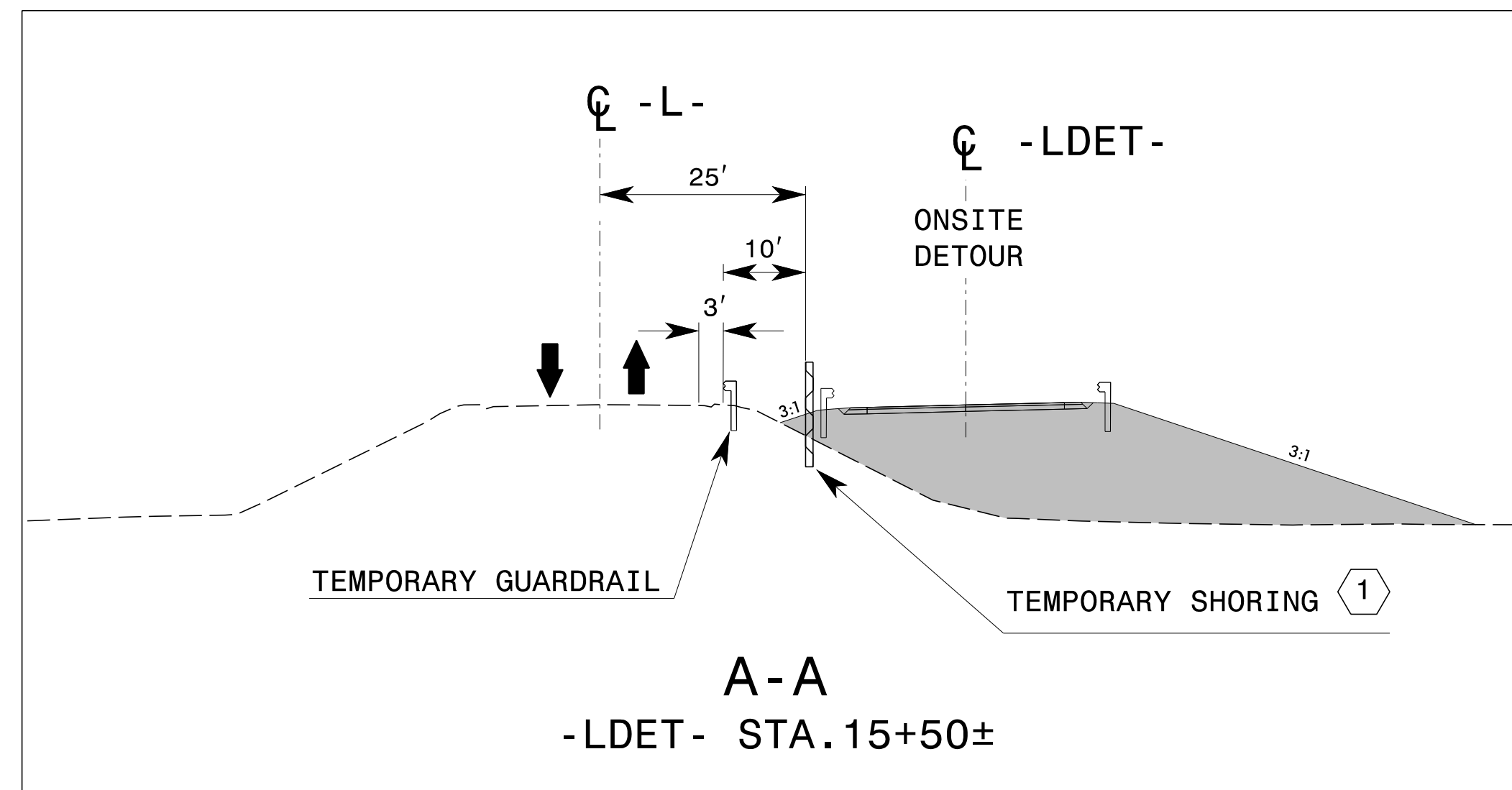
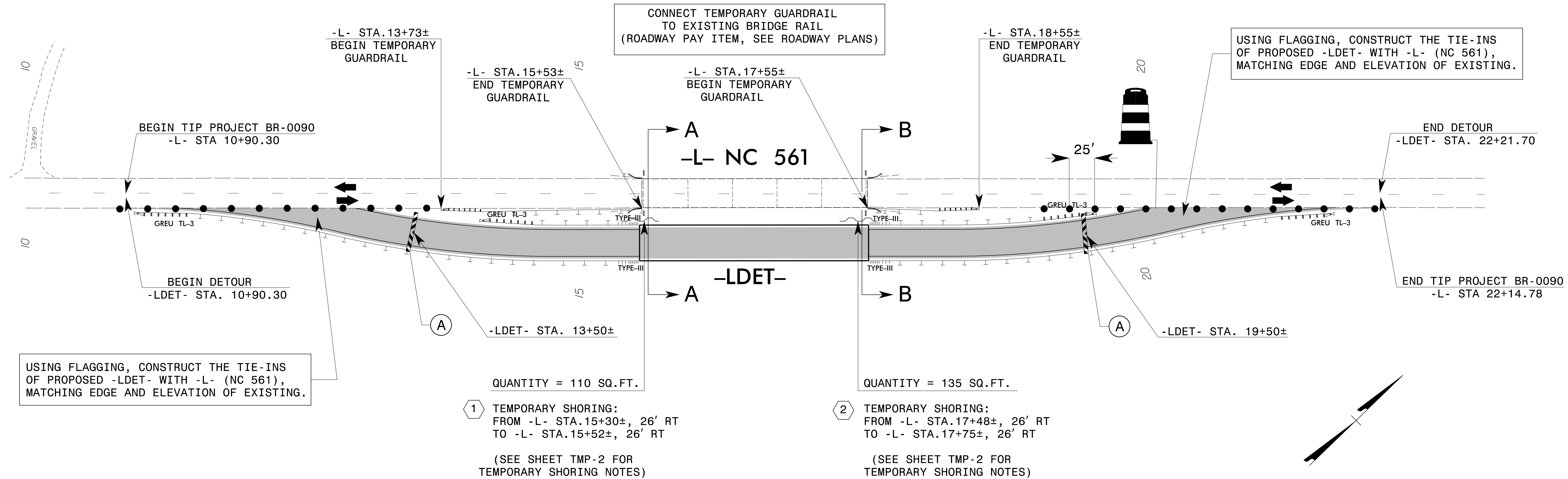
NOTE:  
USING FLAGGING, KEEP TRAFFIC IN A ONE-LANE, TWO-WAY TRAFFIC PATTERN, UNTIL PROPOSED GUARDRAIL ALONG NB NC 561 IS COMPLETELY INSTALLED.

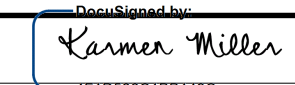
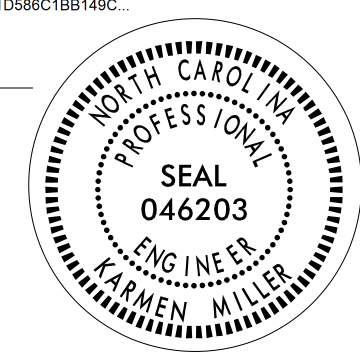

- STEP 3:
- USING RSD 1101.02, (SHEET 1 OF 19), PERFORM THE FOLLOWING:  
PLACE TRAFFIC IN ONE-LANE, TWO-WAY PATTERN ON NB TEMPORARY ON-SITE DETOUR
- CONSTRUCT TIE-IN OF SB TEMPORARY ON-SITE DETOUR WITH PROPOSED -L-. INSTALL PERMANENT GUARDRAIL ALONG SB -L- NC 561, AND PLACE TEMPORARY PAVEMENT MARKINGS ON SB -L-.
- SHIFT TRAFFIC IN ONE-LANE, TWO-WAY PATTERN ON NEWLY CONSTRUCTED SB -L- NC 561. COMPLETE TIE-IN CONSTRUCTION OF NB TEMPORARY ON-SITE DETOUR WITH PROPOSED -L-. COMPLETE INSTALLATION OF PERMANENT GUARDRAIL ALONG NB -L- (NC 561), AND PLACE TEMPORARY PAVEMENT MARKINGS ON NB -L-.
- PLACE TRAFFIC IN TWO-LANE, TWO-WAY PATTERN ON NEWLY CONSTRUCTED -L- NC 561 FROM -L- STA. 12+15± TO -L- STA. 20+95±.

PHASE III

- STEP 1:
- AWAY FROM TRAFFIC AND USING RSD 1101.02 (SHEET 1 OF 19) AS NEEDED, REMOVE TEMPORARY ON-SITE DETOUR AND COMPLETE ANY REMAINING CONSTRUCTION ON -L- NC 561.
- STEP 2:
- USING RSD NO. 1101.02 (SHEET 1 OF 19), PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS ON -L- STA. 10+90± TO -L- STA. 22+14±.
- STEP 3:
- REMOVE ALL TEMPORARY WORK ZONE TRAFFIC CONTROL DEVICES.

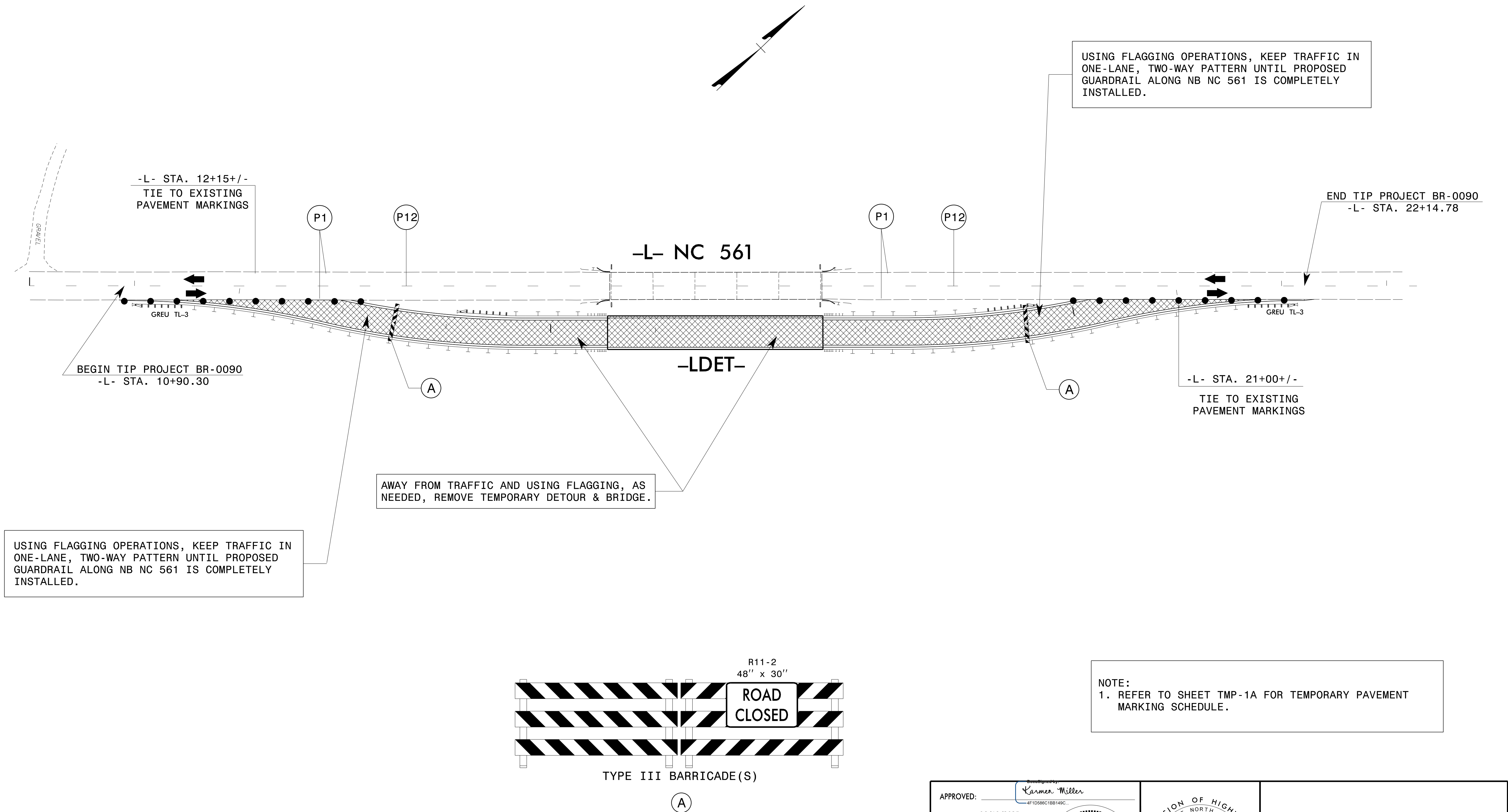
<div>APPROVED: </div> <div>DATE: 06/19/2025</div> <div>SEAL</div> <div></div> <div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div>	<div></div>	<div>TRANSPORTATION PHASING NOTES</div>
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APPROVED:  DATE: 06/19/2025 SEAL			TEMPORARY TRAFFIC CONTROL PHASE I
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APPROVED: DATE: 06/19/2025 SEAL 		TEMPORARY TRAFFIC CONTROL PHASE III DETAIL
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		