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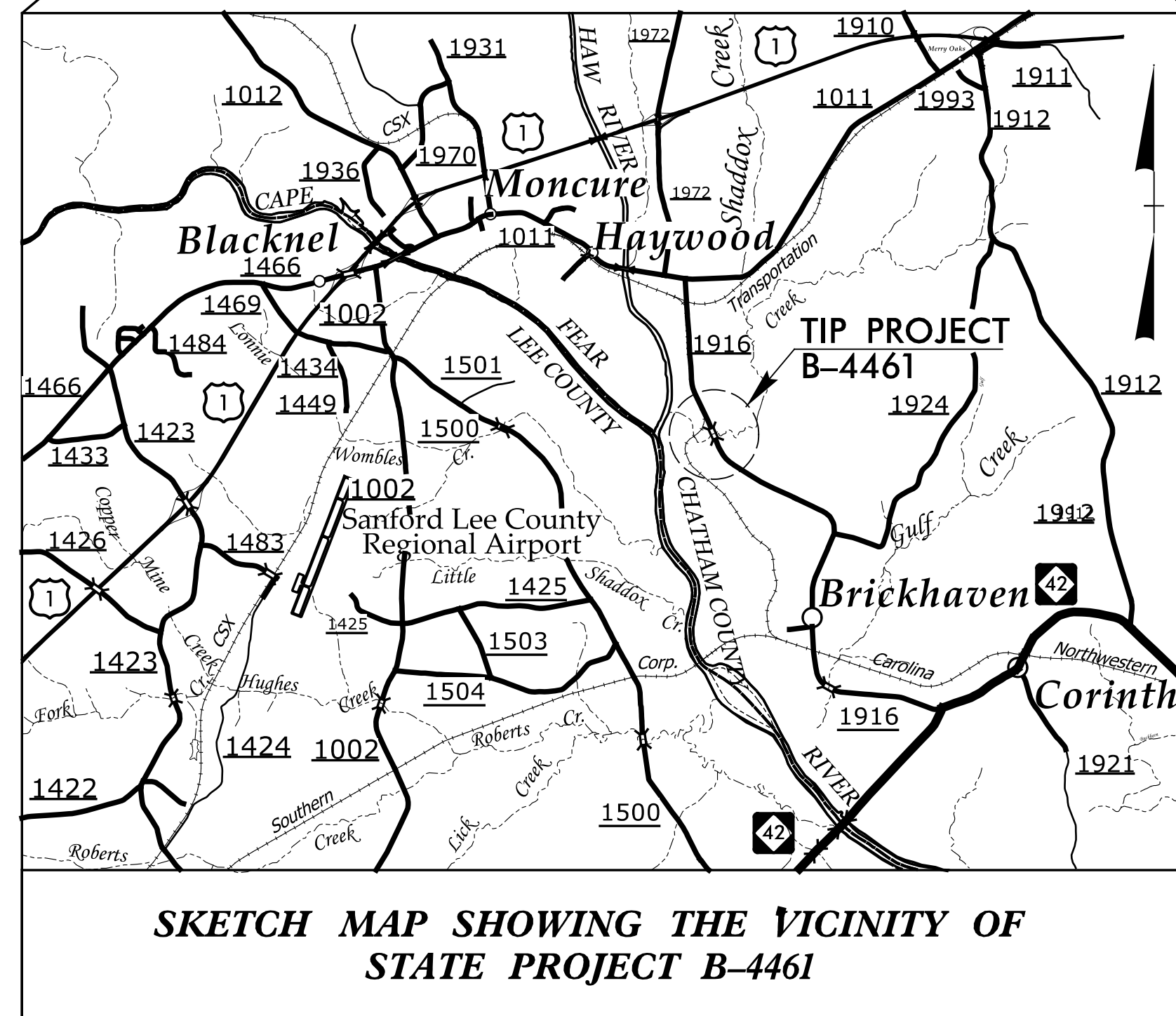
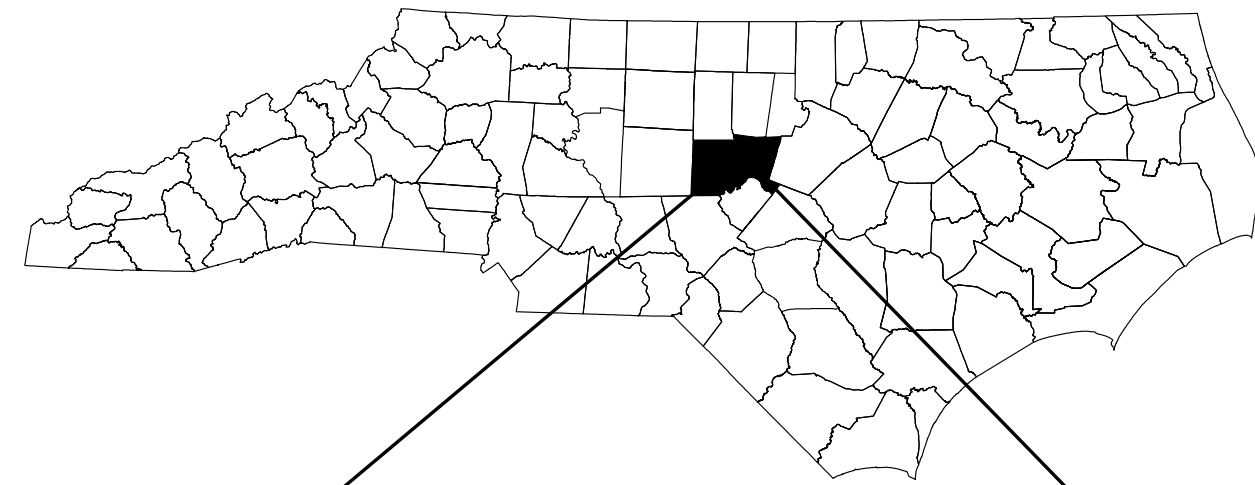
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CHATHAM COUNTY



SKETCH MAP SHOWING THE VICINITY OF
STATE PROJECT B-4461

LOCATION: BRIDGE NO.10 OVER SHADDOX CREEK ON SR 1916
(CORINTH RD.)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

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 & TEMPORARY PAVEMENT MARKING SCHEDULE
TMP-2	TRANSPORTATION OPERATION PLAN (GENERAL NOTES & MANAGEMENT STRATEGIES)
TMP-3	PHASING
TMP-4	PHASE I DETAIL
TMP-5	PHASE II DETAIL
TMP-6	PHASE III DETAIL

SHEET NO.
TMP-1

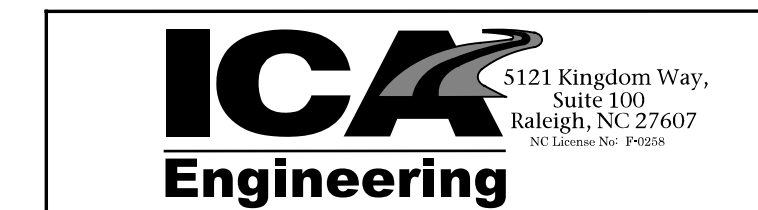
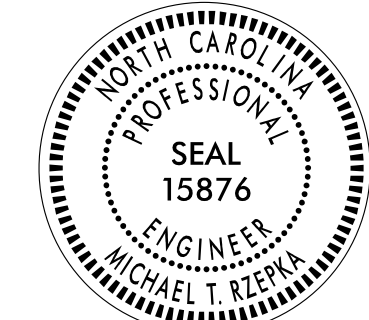
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TIP PROJECT:

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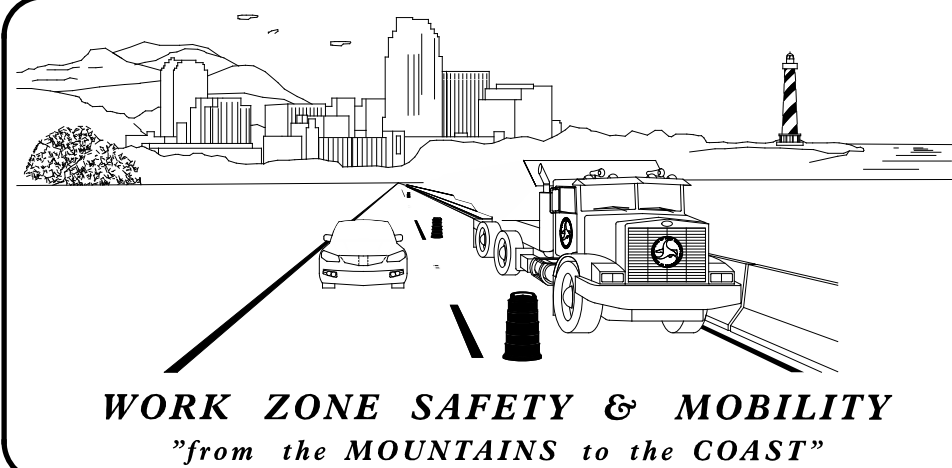
APPROVED: Michael T. Rzepka
DATE: 01/03/2016

SEAL



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. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
DAVID BISSETTE, P.E. TRAFFIC CONTROL PROJECT ENGINEER
MIKE STEELMAN TRAFFIC CONTROL PROJECT DESIGN ENGINEER
ALLEN HAYES, E.I. TRAFFIC CONTROL DESIGN ENGINEER








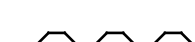


ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 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
1205.12	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.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)
-  WORK AREA
-  REMOVAL







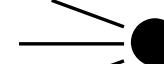


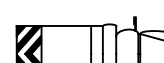

SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY




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

PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
<u>PAINT (4")</u>	
PA	WHITE EDGELINE
PI	DOUBLE YELLOW CENTERLINE
<u>TEMPORARY RAISED MARKERS</u>	
MH	YELLOW & YELLOW

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.

- 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 TRANSPORTATION MANAGEMENT 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) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON SR 1916 (CORINTH ROAD).

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 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.

- 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) IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

- J) NOTIFY THE ENGINEER TWENTY-ONE (21) 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) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- N) 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

- O) 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 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.
- P) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
SR 1916	PAINT	TEMPORARY RAISED

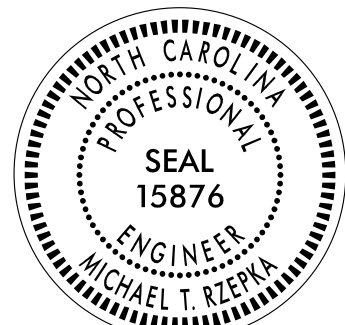
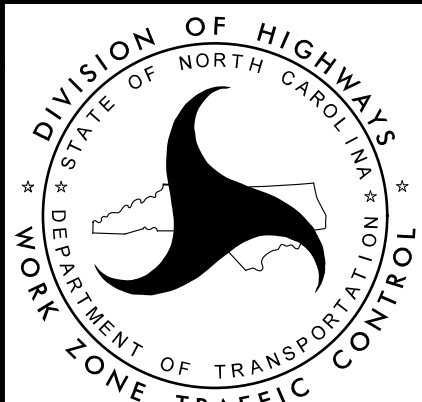
- R) IF TRAFFIC IS TO BE PLACED ON INTERIM LAYERS OF PAVEMENT, PLACE TWO (2) APPLICATIONS OF TEMPORARY PAVEMENT MARKINGS ALONG SR 1916 (CORINTH ROAD) PRIOR TO REMOVAL OF ROAD CLOSURE.
- S) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- T) PLACE ONE APPLICATION OF PAINT FOR 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) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MANAGEMENT STRATEGIES

THE PROJECT CONSISTS OF REPLACING BRIDGE NO. 10 ON SR 1916 (CORINTH ROAD). DURING CONSTRUCTION, SR 1916 TRAFFIC WILL BE PLACED IN A TWO-LANE, TWO-WAY PATTERN ON A TEMPORARY ON-SITE DETOUR.

THE TIE-IN CONSTRUCTION, TRAFFIC SHIFTS, AND PLACEMENT OF FINAL SURFACE COURSE AND PAVEMENT MARKINGS WILL BE PERFORMED USING FLAGGER OPERATIONS.

ACCESS FOR LOCAL TRAFFIC, INCLUDING DRIVEWAYS, MUST BE PROVIDED AT ALL TIMES WITHIN THE PROJECT LIMITS.

APPROVED: <u>Michael T. Rzepka</u> DATE: <u>2/9/2016</u> 		<h3 style="margin: 0;">TRANSPORTATION OPERATIONS PLAN</h3>
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PROJ. REFERENCE NO.	SHEET NO.
B-4461	TMP-3

PHASING

PHASE I

STEP 1

PRIOR TO CONSTRUCTION, USING RSD 1101.01, SHEET 3 OF 3, INSTALL WORK ZONE ADVANCE WARNING SIGNS ALONG EXISTING SR 1916 (CORINTH ROAD).

STEP 2

AWAY FROM TRAFFIC, AND USING RSD 1101.02 (SHEET 1 OF 15) AND 1101.04, AS NECESSARY, CONSTRUCT THE FOLLOWING UP THROUGH THE FINAL LAYER OF SURFACE COURSE (SEE SHEET TMP-4 AND ROADWAY AND STRUCTURE PLANS):

- CONSTRUCT THE TEMPORARY DETOUR BRIDGE FROM -LDET- STA.14+51± TO STA.15+31±.
- CONSTRUCT -LDET- FROM STA. 10+76± TO STA.14+51± AND FROM STA.15+31± TO STA.19+47±, TYING INTO THE EDGE AND ELEVATION OF EXISTING SR 1916. INSTALL TEMPORARY GUARDRAIL.

PHASE II

STEP 1

USING , RSD 1101.02 (SHEET 1 OF 15) AND RSD 1101.03 (SHEET 3 OF 9), COMPLETE THE FOLLOWING (SEE SHEET TMP-5):

- A) REMOVE CONFLICTING PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -LDET- AND TIE TO EXISTING MARKINGS
- B) SHIFT TRAFFIC ONTO -LDET- IN A TWO-LANE, TWO-WAY PATTERN
- C) CLOSE EXISTING SR 1916 (CORINTH ROAD) BETWEEN -LDET- LIMITS

STEP 2

AWAY FROM TRAFFIC AND USING RSD 1101.02 (SHEET 1 OF 15), CONSTRUCT THE FOLLOWING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE (SEE SHEET TMP-5):

- REMOVE EXISTING BRIDGE.
- CONSTRUCT PROPOSED BRIDGE AND APPROACH SLABS ON -L- FROM STA.18+43± TO STA.19+80±.
- CONSTRUCT -L- FROM STA. 17+00± TO STA. 18+43± AND FROM STA. 19+80± TO STA. 21+00±. INSTALL PROPOSED GUARDRAIL.

PHASE III

STEP 1

USING RSD 1101.02 (SHEET 1 OF 15) AS NEEDED, COMPLETE THE FOLLOWING (SEE SHEET TMP-6 AND FINAL PAVEMENT MARKING PLANS):

- A) PLACE INTERMEDIATE LAYER OF SURFACE COURSE ON -L- FROM STA. 14+00± TO STA. 17+00± AND FROM STA. 21+00± TO STA. 26+00±.
- B) PLACE TEMPORARY PAVEMENT MARKINGS AND MARKERS ON -L- AND TIE TO EXISTING MARKINGS.
- C) SHIFT TRAFFIC ONTO -L- INTO FINAL PATTERN

STEP 2

AWAY FROM TRAFFIC AND USING RSD 1101.02 (SHEET 1 OF 15) AS NEEDED, REMOVE TEMPORARY DETOUR BRIDGE AND -LDET-. GRADE TO FINAL CONDITION (SEE SHEET TMP-6 AND ROADWAY PLANS).

STEP 3

USING RSD 1101.02 (SHEET 1 OF 15), COMPLETE THE FOLLOWING (SEE ROADWAY PLANS):


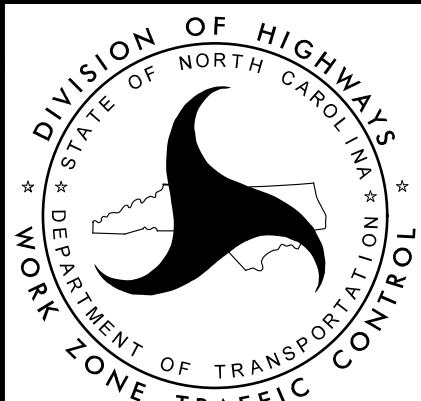
- A) PLACE FINAL LAYER OF SURFACE COURSE ALONG -L- FROM STA. 14+00± TO STA. 26+00±.
- B) PLACE FINAL PAVEMENT MARKINGS AND MARKERS ALONG -L- FROM STA. 14+00± TO STA. 26+00±, AS SHOWN ON FINAL PAVEMENT MARKING PLANS, AND TIE TO EXISTING PAVEMENT MARKINGS.

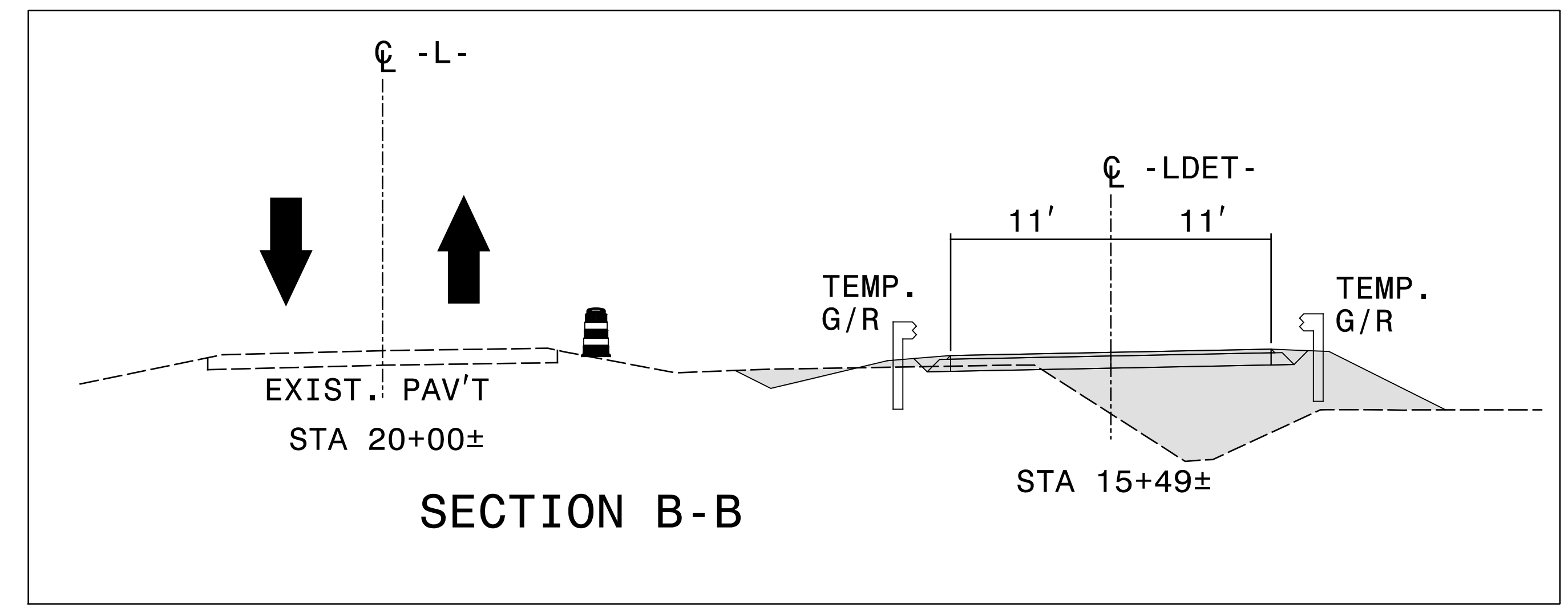
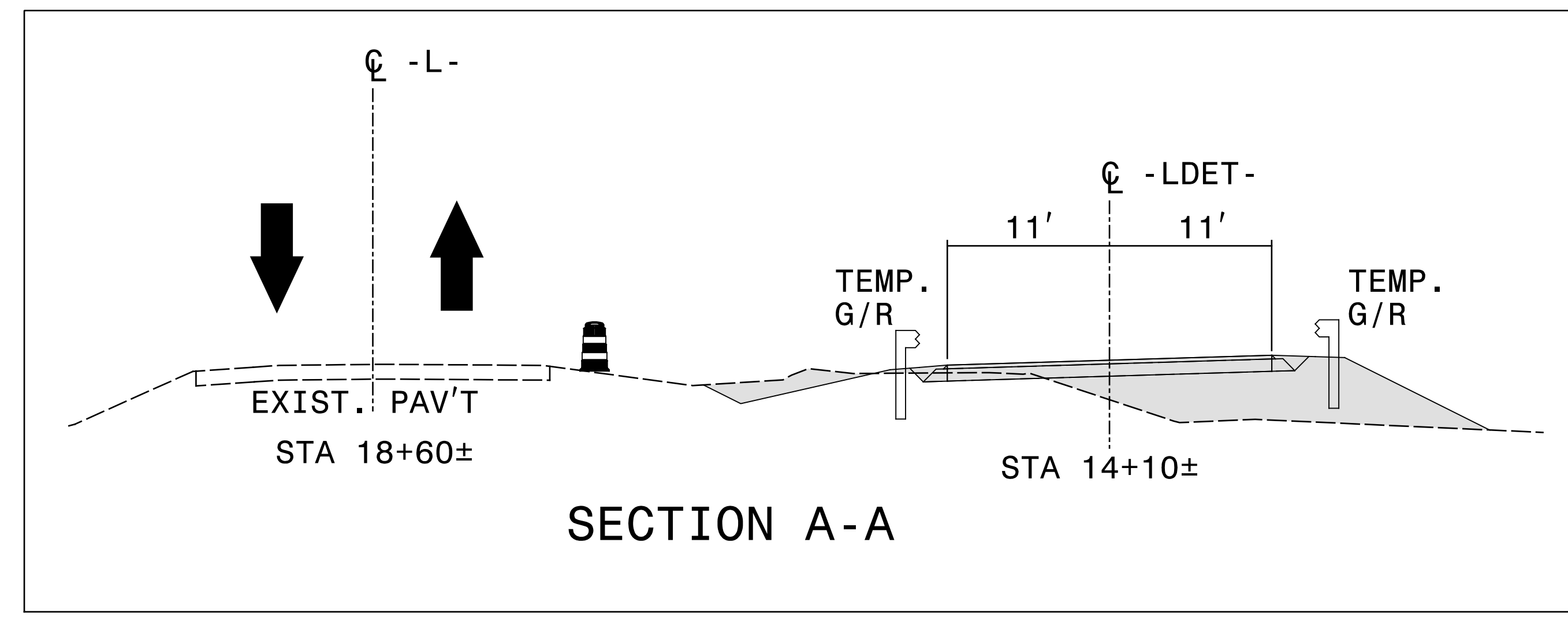
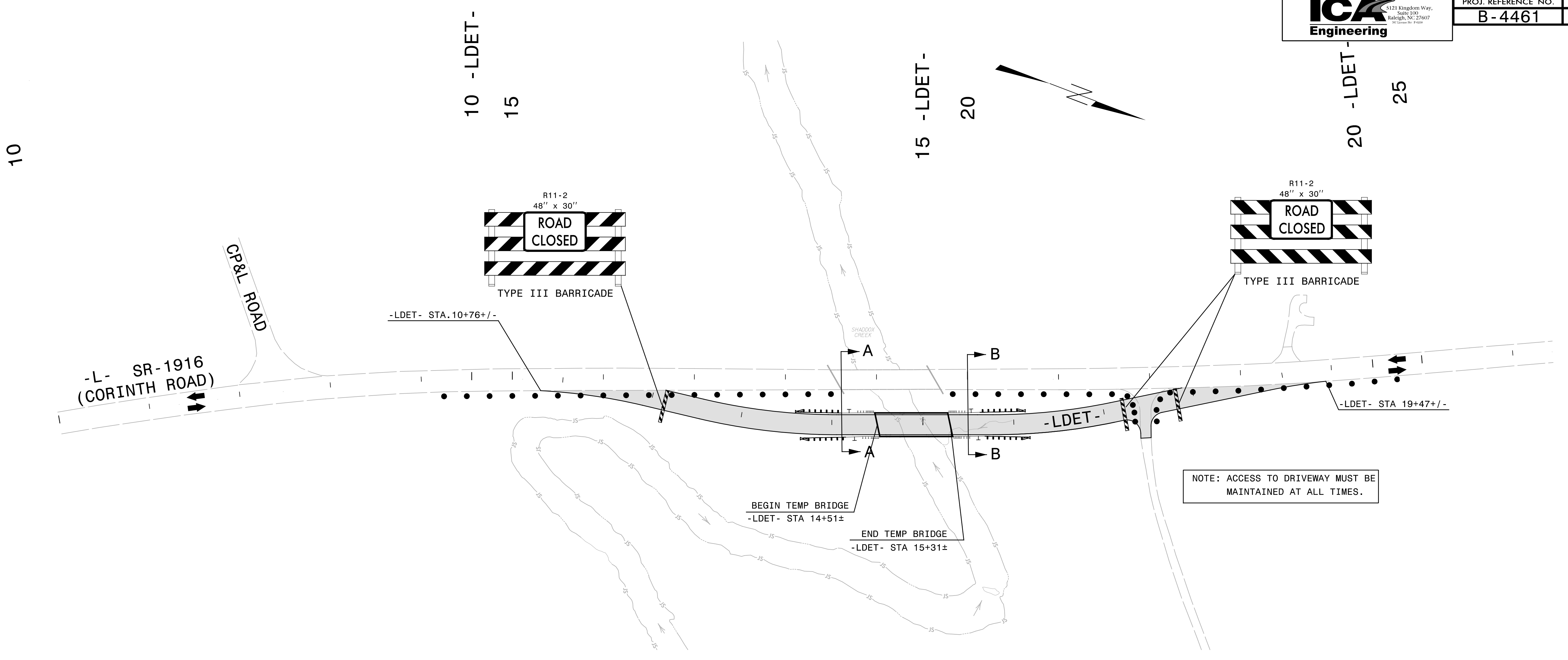
STEP 4

REMOVE ALL REMAINING WORK ZONE TRAFFIC CONTROL DEVICES AND OPEN -L- TO FINAL TRAFFIC PATTERN.

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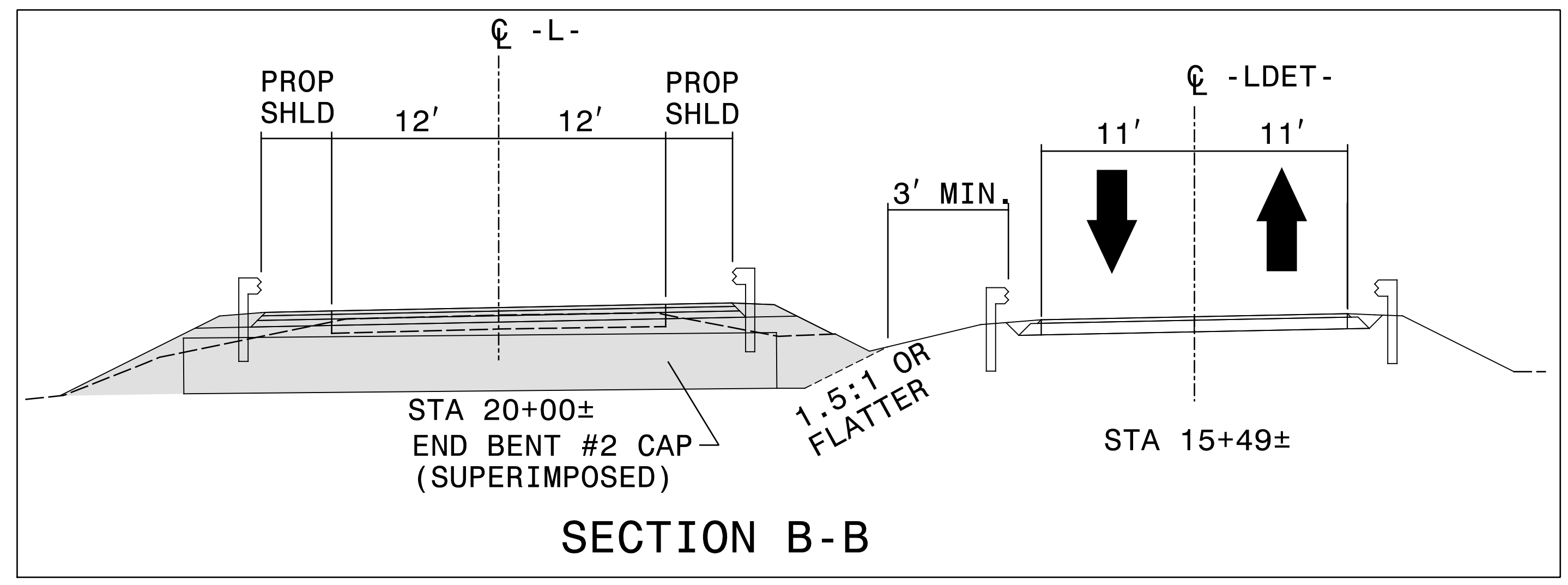
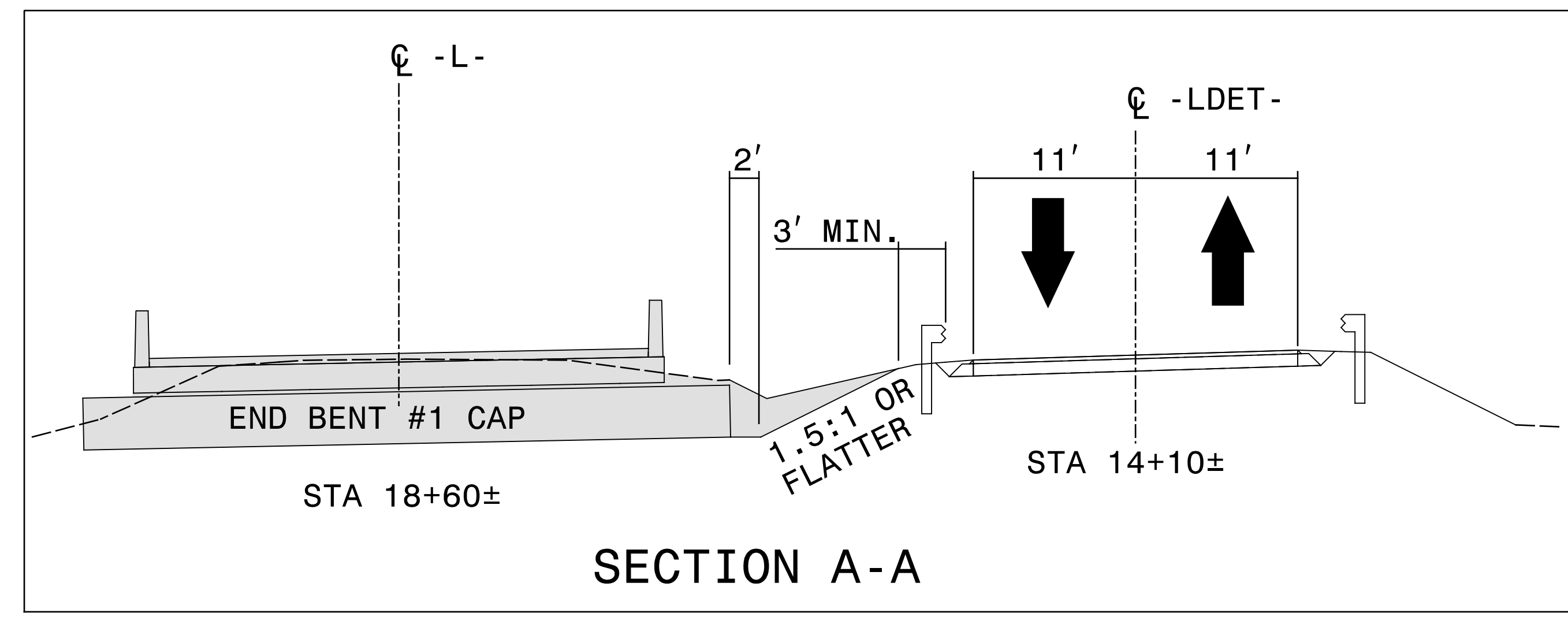
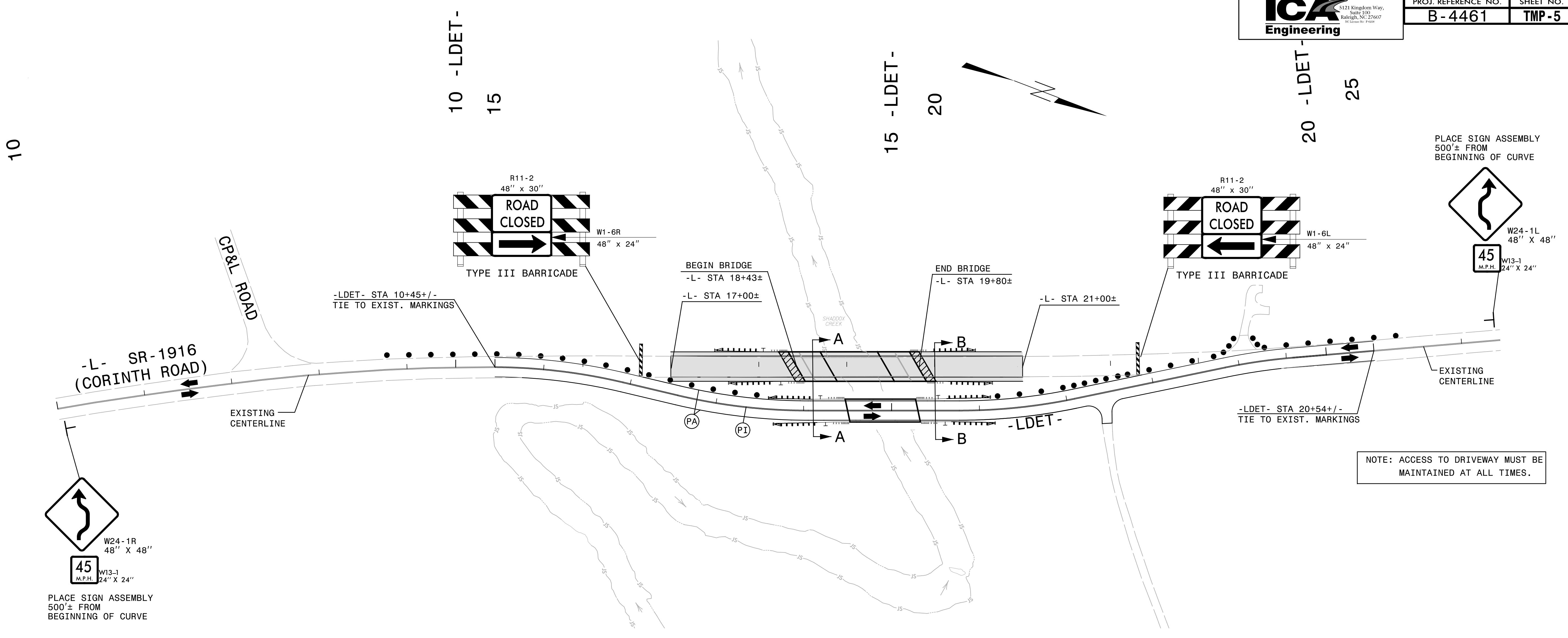
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PHASE I DETAIL



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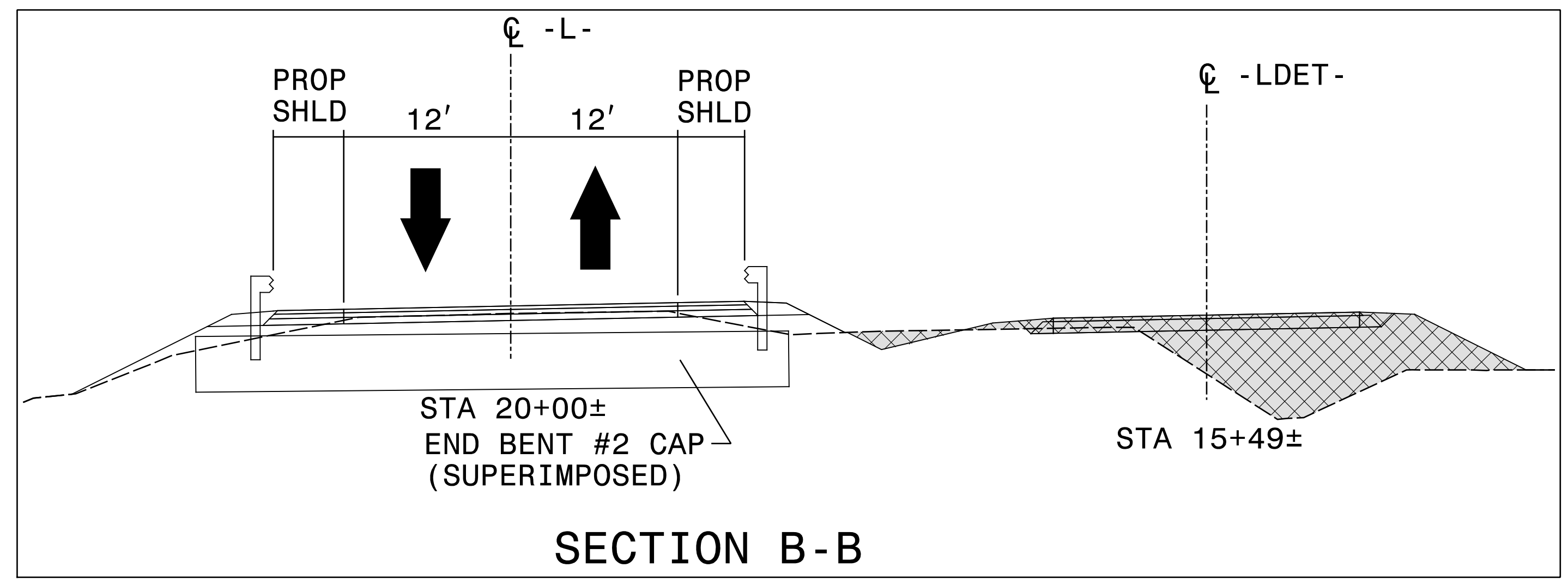
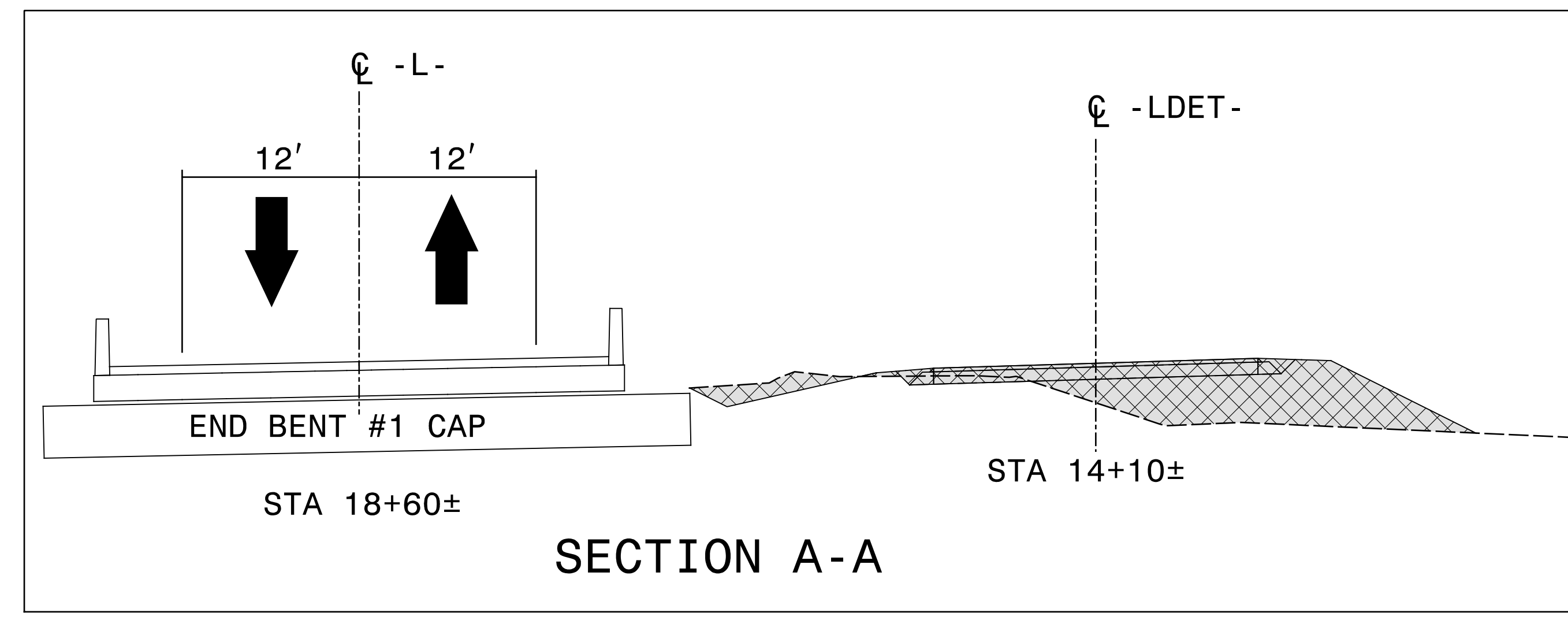
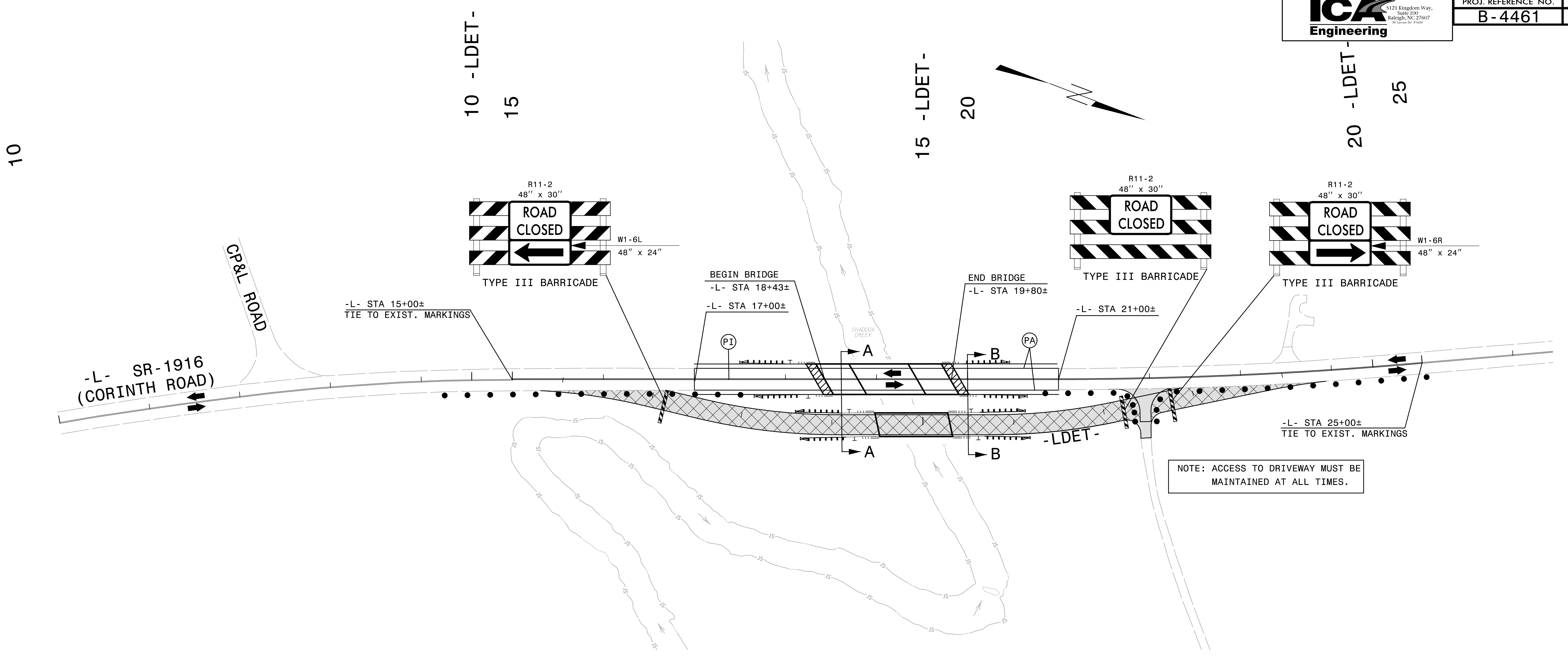
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NORTH CAROLINA
PROFESSIONAL
ENGINEER
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15876
MICHAEL T. RZEPKA

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE II DETAIL



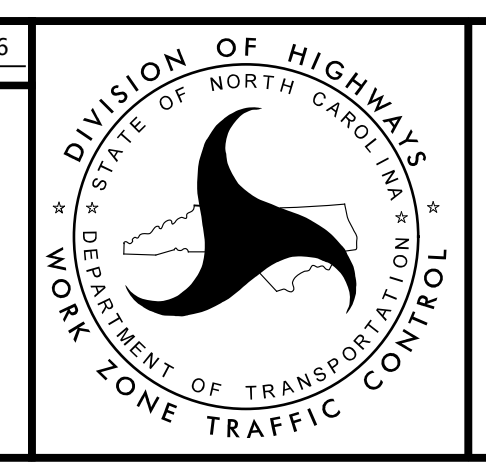
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PHASE III DETAIL