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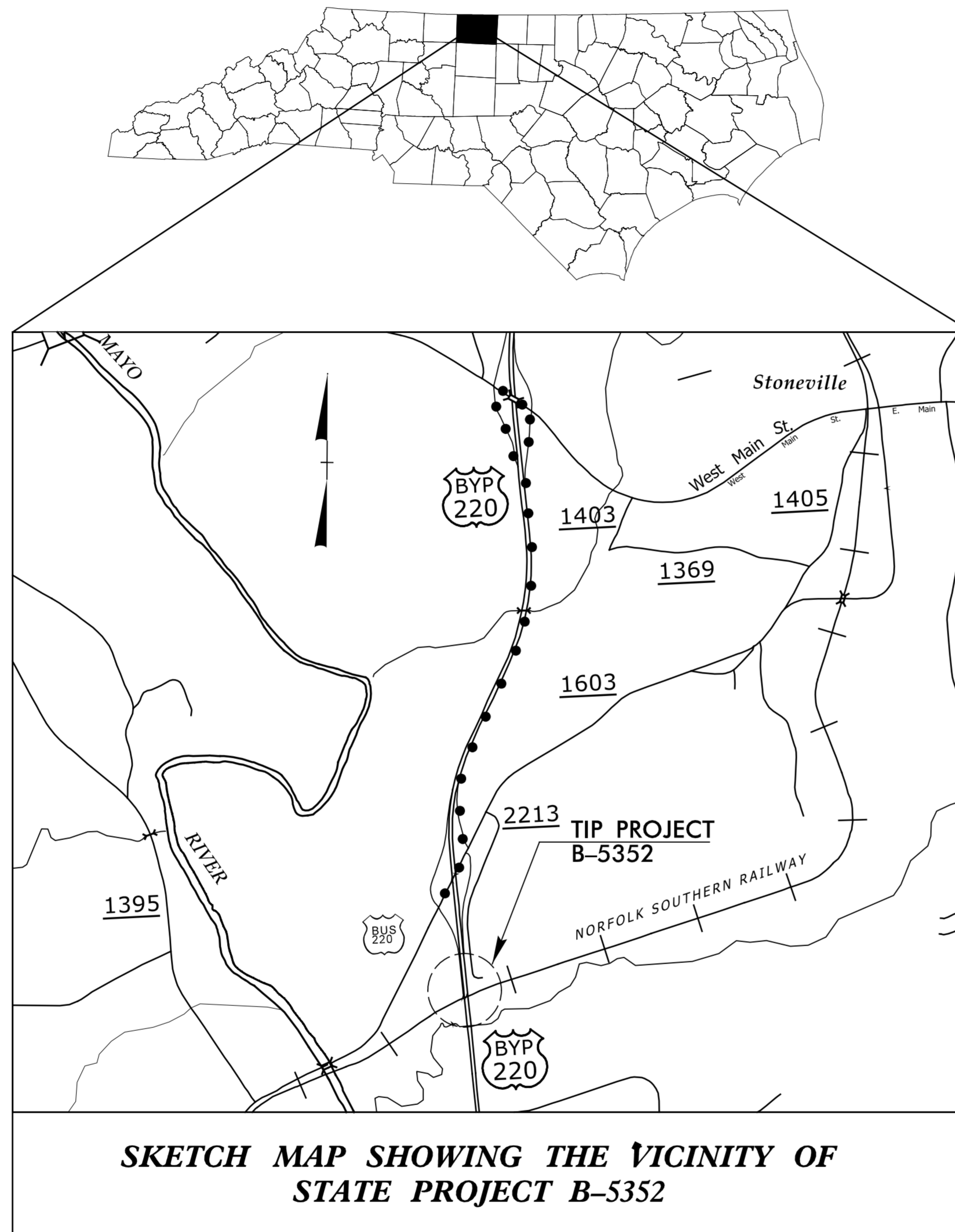
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ROCKINGHAM COUNTY



LOCATION: BRIDGE NO. 131 ON US 220 NBL OVER NORFOLK SOUTHERN RAILROAD

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

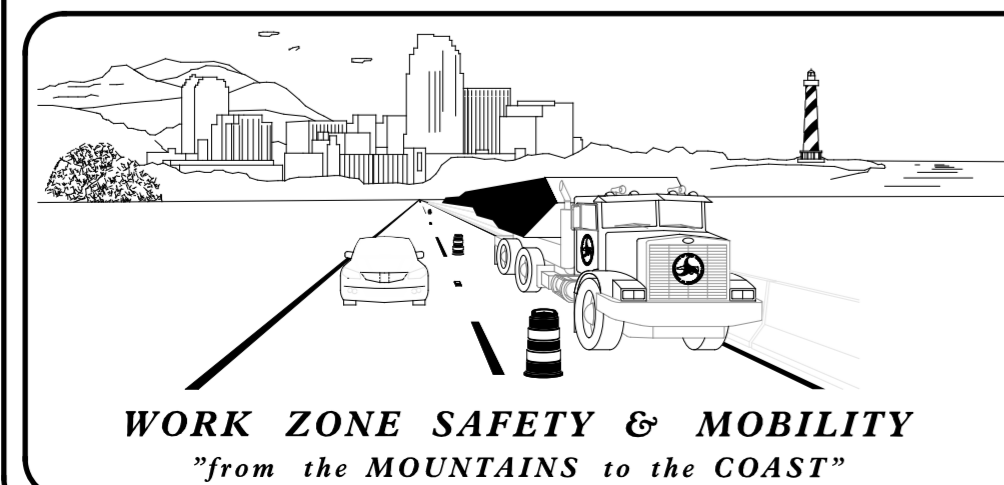
INDEX OF SHEETS	
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2	TRANSPORTATION OPERATIONS PLAN: MANAGEMENT STRATEGY & GENERAL NOTES
TMP-2A	DETOUR FOR US 220 BUS. TO SB US 220 ON-RAMP CLOSURE
TMP-3	PHASING
TMP-4 THRU 7	PHASE I DETAILS
TMP-8 & 9	PHASE II DETAILS
TMP-10 & 11	PHASE III DETAILS

SHEET NO.
TMP-1

B-5352

TIP PROJECT:

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PLANS PREPARED BY:

M. RZEPKA, P.E.
PROJECT ENGINEER

Y. MARIOTTE
PROJECT DESIGN ENGINEER

NCDOT CONTACTS:

PROJECT ENGINEER

M. STEELMAN
PROJECT DESIGN ENGINEER



HR ICA
555 Fayetteville St.,
Suite 900
Raleigh, NC 27601
NC License No: F-0258

APPROVED: *Michael T. Rzepka*
DocuSigned by:
Michael T. Rzepka
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ICA Engineering

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
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
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 SCHEDULE

SYMBOL	DESCRIPTION
	WORK ZONE PERFORMANCE MARKING (6")
Z6	3 FT.-9 FT./SP WHITE MINISKIP
Z7	10 FT. WHITE SKIP
Z8	WHITE SOLID LINE
Z9	YELLOW SOLID LINE
	WORK ZONE PERFORMANCE MARKING (12")
Z11	WHITE GORELINE
	TEMPORARY RAISED MARKERS
MI	CRYSTAL & RED

APPROVED: DATE: 2/20/2018 SEAL			ROADWAY STANDARD DRAWINGS & LEGEND
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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:

US 220:

SOUTHBOUND TRAFFIC WILL BE MAINTAINED IN A CONTINUOUS ONE-LANE PATTERN FOR CONSTRUCTION OF SOUTHBOUND OUTSIDE SHOULDER.

TRAFFIC WILL BE MAINTAINED IN CONTINUOUS ONE-LANE PATTERN IN EACH DIRECTION FOR MEDIAN CROSSOVER CONSTRUCTION/DECONSTRUCTION.

TRAFFIC WILL BE MAINTAINED IN A TWO-LANE/TWO-WAY PATTERN (USING MEDIAN CROSSOVERS) FOR NBL BRIDGE AND ROADWAY APPROACH CONSTRUCTION.

ON-RAMP FROM US 220 BUS. TO SB US 220:

ON-RAMP WILL BE CLOSED AND AN OFFSITE DETOUR USED WHILE SB US 220 TRAFFIC IS IN A SINGLE-LANE PATTERN.

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

- A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS (APPLIES TO 4-LANE/2-WAY PATTERN ONLY):

ROAD_NAME	DAY AND TIME RESTRICTIONS
US 220	MONDAY - FRIDAY 7:00 A.M. - 8:30 A.M. 4:30 P.M. - 6:00 P.M.

- B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS (APPLIES TO 4-LANE/2-WAY PATTERN ONLY):

ROAD_NAME
US 220

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.
- FOR RACE WEEKEND AT MARTINSVILLE, BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY OF THE WEEK OF THE RACE WEEKEND AT MARTINSVILLE AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF THE RACE WEEKEND AT MARTINSVILLE.

- C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD_NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
US 220	MONDAY - FRIDAY 7:00 AM - 8:30 AM 4:30 PM - 6:00 PM	TRAFFIC SHIFTS, ROLLING ROAD BLOCK; 15 MINUTES

- D) 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

- E) 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.
- F) 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.
- G) 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.

- H) 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.

- I) 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.

- J) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 220.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- K) 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.

- L) 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

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

SIGNING

- N) 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.

- O) 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.

- P) 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.

- Q) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

- R) 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 BARRIER

- S) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

- T) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

- U) 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 RADIUS, 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.

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

- W) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD_NAME	MARKING	MARKER
US 220	WORK ZONE PERFORMANCE	TEMPORARY RAISED

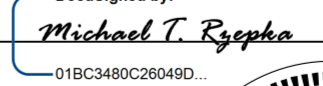
- Y) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

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

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

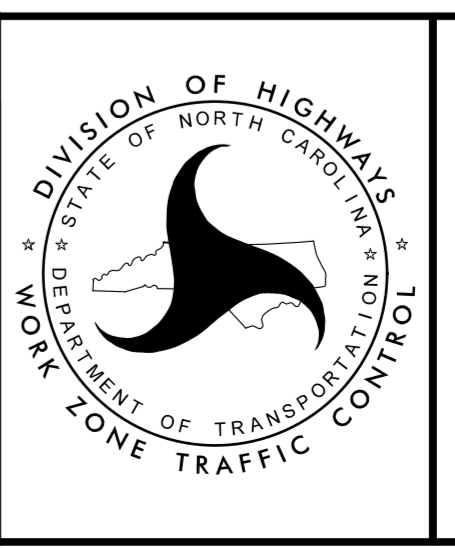
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- BB) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

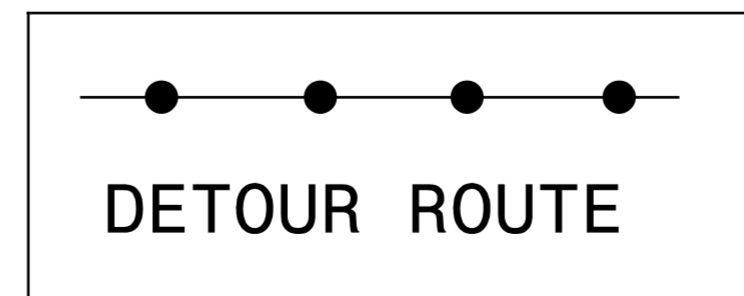
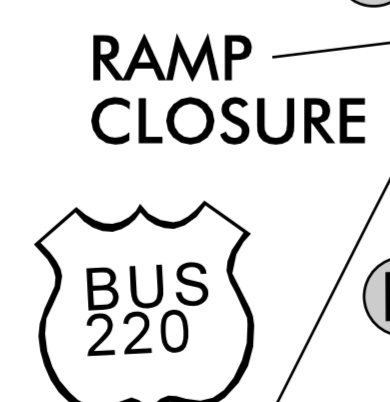
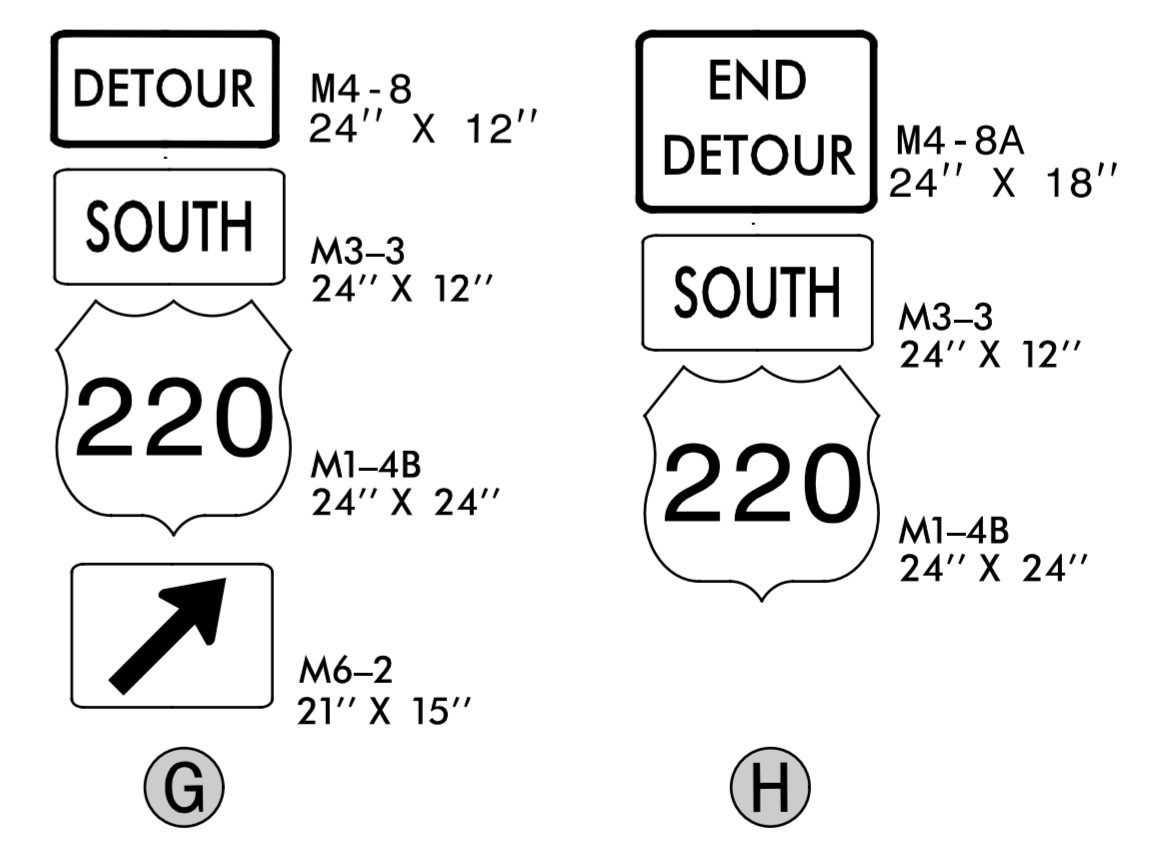
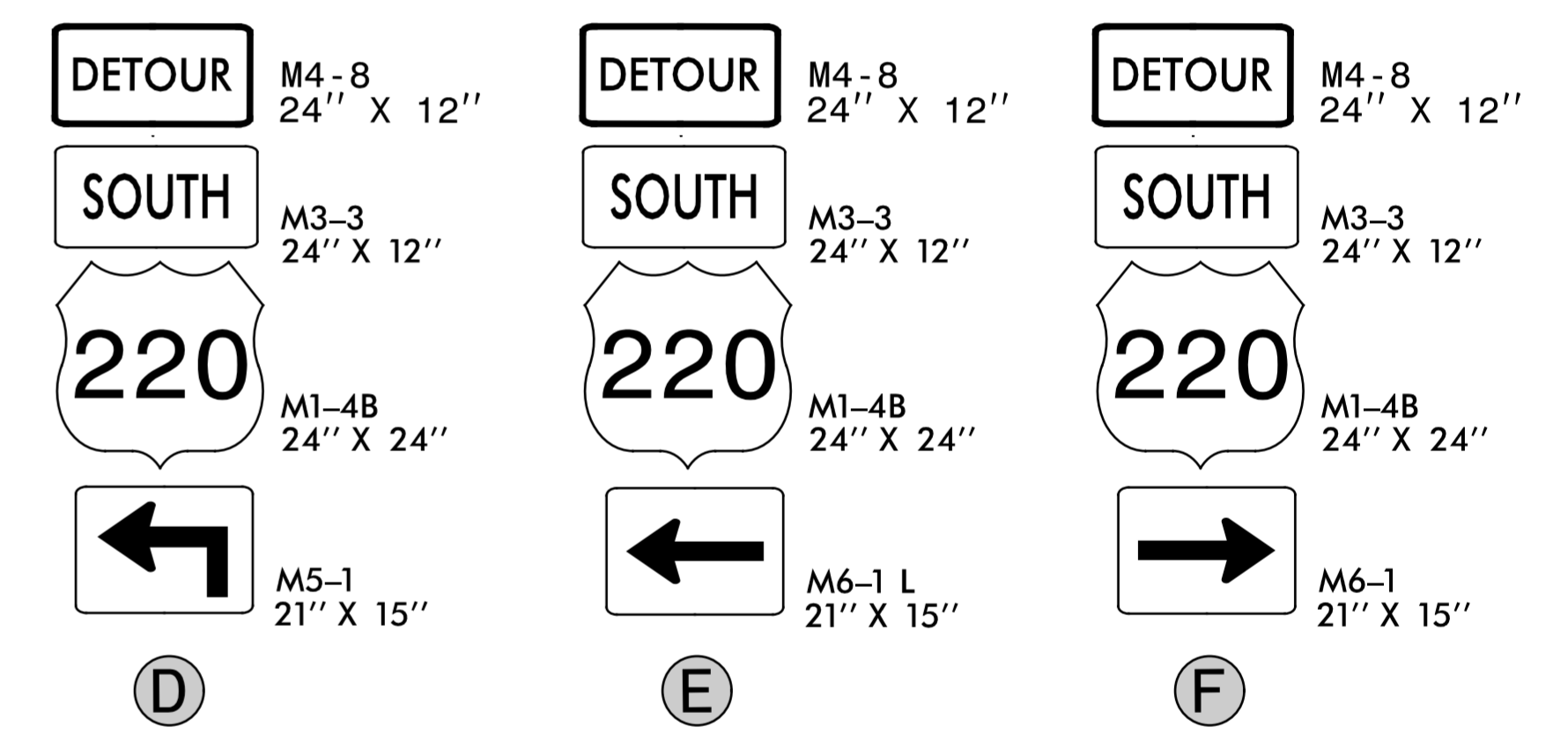
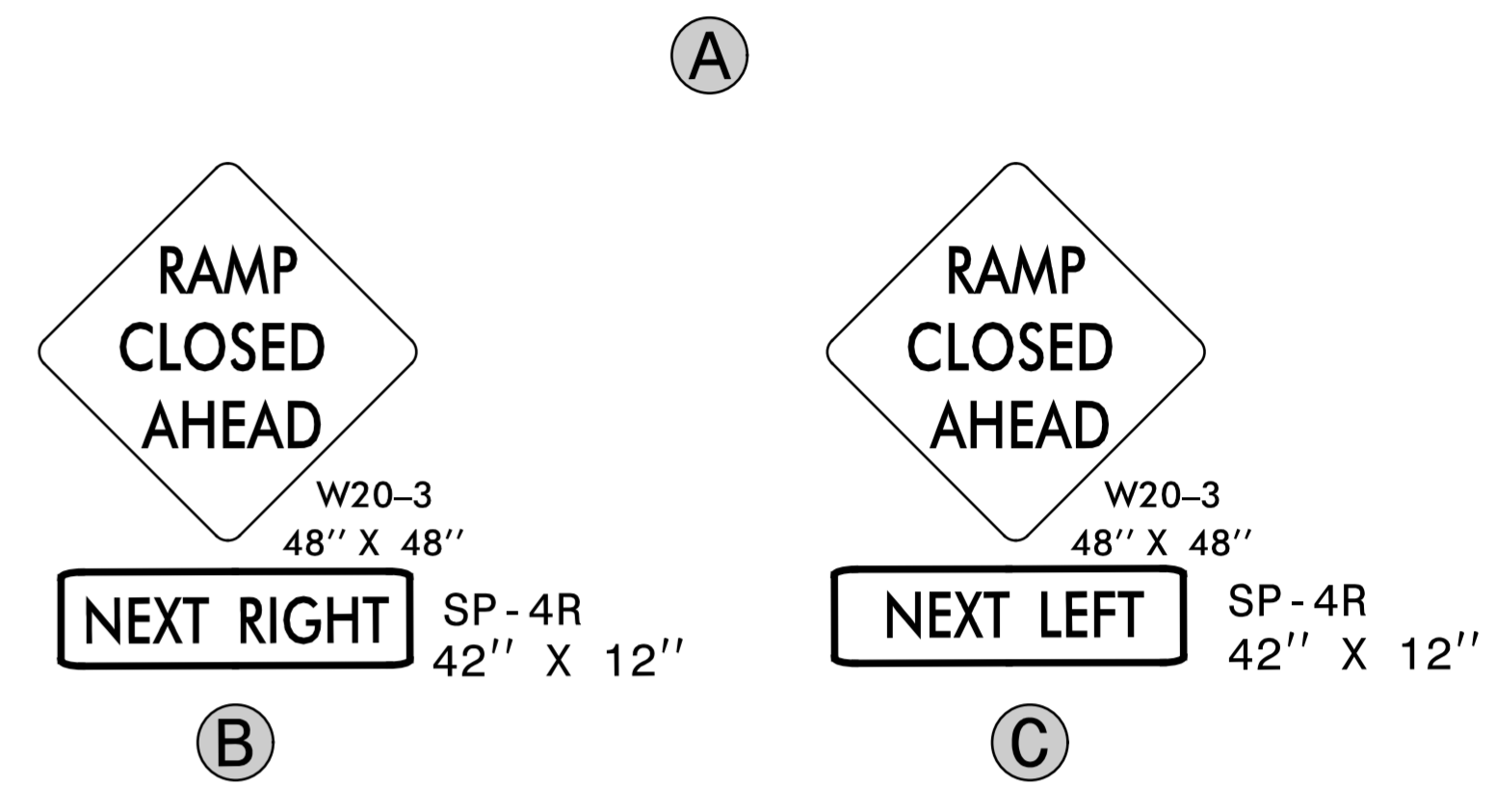
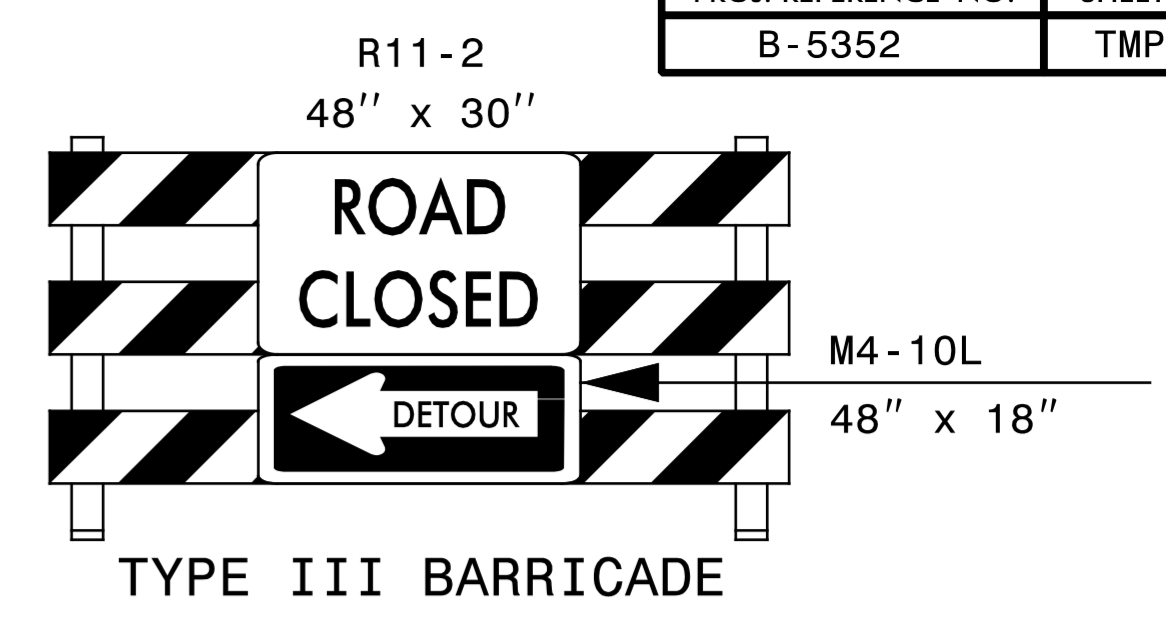
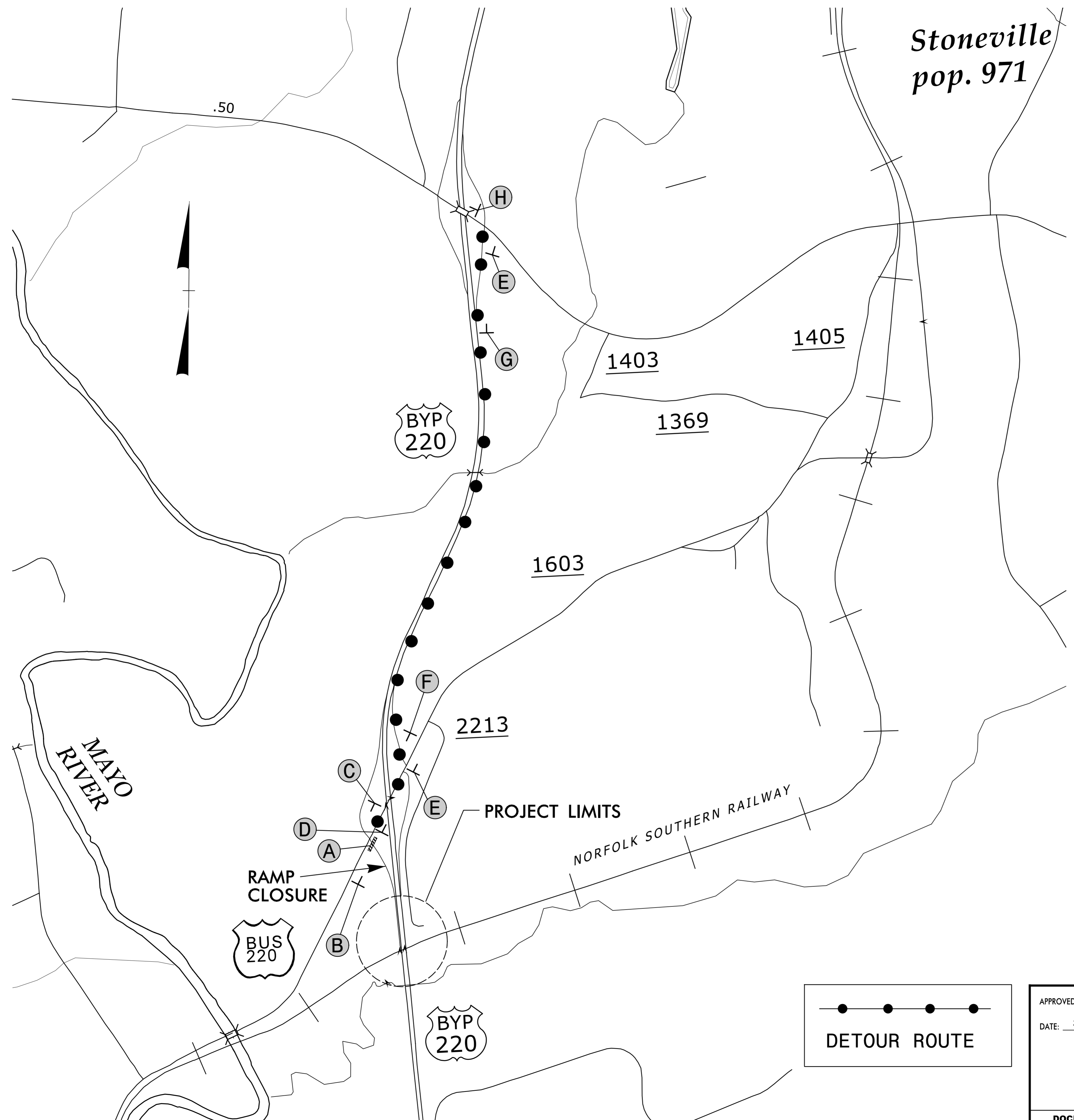
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**TRANSPORTATION
OPERATIONS
PLAN**



APPROVED: *Michael T. Esoph*
DATE: 2/20/2018

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DETOUR FOR
US 220 BUS. TO SB US 220
ON-RAMP CLOSURE

2/20/2018
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PHASING

PHASE I

STEP 1

PRIOR TO CONSTRUCTION, USING RSD 1101.01, SHEET 1 OF 3, INSTALL WORK ZONE ADVANCE WARNING SIGNS ALONG US 220 AND RAMPS AT US 220 BUS.

STEP 2

(REFER TO SHEETS TMP-2A, 4 & 5)

- A) USING RSD 1101.03 (SHEET 2 OF 9), INSTALL ROAD CLOSURE AND OFFSITE DETOUR SIGNING AND CLOSE RAMP FROM US 220 BUS. TO SOUTHBOUND US 220.
 B) USING RSD 1101.02 (SHEET 4 OF 14), PERFORM THE FOLLOWING:

- 1) USE WORK ZONE PATTERN MARKING TO COVER CONFLICTING MARKINGS AND PLACE TEMPORARY WORK ZONE PERFORMANCE PAVEMENT MARKINGS AND INSTALL RIGHT LANE CLOSURE FOR SOUTHBOUND US 220 FROM -L- STA 14+00± TO EXISTING BRIDGE OVER US 220 BUS.
- 2) INSTALL PORTABLE CONCRETE BARRIER (PCB) ALONG THE OUTSIDE OF ACTIVE LANE

- C) BEHIND BARRIER, RECONSTRUCT OUTSIDE SHOULDER OF SOUTHBOUND US 220 FROM -L- STA 14+43± TO EXISTING BRIDGE OVER RAILROAD.

STEP 3

(REFER TO SHEETS TMP-6 & 7)

- A) USING RSD 1101.02 (SHEET 4 OF 14), PERFORM THE FOLLOWING:

- 1) REMOVE PHASE I, STEP 2 PCB
- 2) USE WORK ZONE PATTERN MARKING TO COVER CONFLICTING MARKINGS AND PLACE TEMPORARY WORK ZONE PERFORMANCE PAVEMENT MARKINGS TO INSTALL LEFT LANE CLOSURE FOR SOUTHBOUND US 220 FROM -L- STA 14+43± TO EXISTING BRIDGE OVER US 220 BUS., AND SHIFT SOUTHBOUND TRAFFIC TO OUTSIDE TEMPORARY LANE
- 3) RESET PCB ALONG MEDIAN SIDE OF ACTIVE LANE

USING RSD 1101.02 (SHEET 4 OF 14), PERFORM THE FOLLOWING:

- 1) REMOVE/MASK CONFLICTING MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS AND INSTALL LEFT LANE CLOSURE FOR NORTHBOUND US 220 FROM -L1- STA 51+80± TO L- STA 30+00±
- 2) INSTALL PCB ALONG MEDIAN SIDE OF THROUGH-LANE

- B) BEHIND BARRIER, CONSTRUCT MEDIAN CROSSOVER, GUARDRAIL (INCLUDING RELAPPING) AND TEMPORARY PAVEMENT MARKINGS FOR PHASE II NORTHBOUND TRAFFIC (SEE ROADWAY PLANS).

INSTALL SIGNING ASSOCIATED WITH RSD 1101.03 (SHEET 4 OF 9) AND KEEP COVERED FOR PHASE II USE.

PHASE II

STEP 1

(REFER TO SHEETS TMP-8 & 9)

USING RSD 1101.02 (SHEET 4 OF 14) AND 1101.03 (SHEET 9 OF 9), PERFORM THE FOLLOWING:

- A) RESET PCB FROM SOUTHBOUND (PHASE I, STEP 3) -L- STA 23+44± TO ALONG NORTHBOUND MEDIAN SIDE FROM -LDET- STA 19+08± TO STA 24+66± FOR CROSSOVER SEPARATION
- B) REMOVE PHASE I, STEP 3 PCB ALONG NORTHBOUND LANE
- C) USE WORK ZONE PATTERN MARKING TO COVER CONFLICTING MARKINGS AND PLACE TEMPORARY WORK ZONE PERFORMANCE PAVEMENT MARKINGS AND INSTALL RIGHT LANE CLOSURE FOR NORTHBOUND US 220 BEGINNING AT SAME LOCATION AS THE LANE CLOSURE IN PHASE I, STEP 3
- D) SHIFT NB TRAFFIC TO CROSSOVERS AND SOUTHBOUND INSIDE LANE (2-LANE/2-WAY BARRIER SEPARATED TRAFFIC PATTERN) AND UNCOVER SIGNING ASSOCIATED WITH RSD 1101.03 (SHEET 4 OF 9)
- E) RESET PCB ALONG OUTSIDE NORTHBOUND LANE
- F) CLOSE NORTHBOUND LANES AT EXISTING NBL BRIDGE

STEP 2

(REFER TO SHEETS TMP-8 & 9)

BEHIND BARRIER AND AWAY FROM TRAFFIC, CONSTRUCT PROPOSED NORTHBOUND BRIDGE AND ROADWAY APPROACHES, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, FROM -L- STA 14+28± TO STA 25+67± AND BEGIN INSTALLATION OF PROPOSED GUARDRAIL (SEE ROADWAY PLANS). PLACE TEMPORARY WORK ZONE PERFORMANCE PAVEMENT MARKINGS FOR PHASE III PATTERN.

STEP 1

(REFER TO SHEETS TMP-10 & 11)

USING RSD 1101.02 (SHEET 4 OF 14) AND 1101.03 (SHEET 9 OF 9), PERFORM THE FOLLOWING:

- A) REMOVE PCB FROM ALONG PHASE II NORTHBOUND LANE
- B) USE WORK ZONE PATTERN MARKING TO COVER CONFLICTING MARKINGS AND PLACE TEMPORARY WORK ZONE PERFORMANCE PAVEMENT MARKINGS AND INSTALL LEFT LANE CLOSURE FOR NORTHBOUND US 220 BEGINNING AT SAME LOCATION AS THE LANE CLOSURE IN PHASE II.
- C) RESET PCB ALONG PHASE III NORTHBOUND LANE
- D) RESET PCB PORTION (PHASE II MEDIAN SEPARATION) FROM MEDIAN CROSSOVER TO ALONG MEDIAN SIDE OF PHASE II SOUTHBOUND LANE (-L- STA 23+44± TO STA 29+00±)

STEP 2

(REFER TO SHEETS TMP-10 & 11)

BEHIND BARRIER, REMOVE LDET- CROSSOVERS, GRADE MEDIAN SHOULDERS AND COMPLETE INSTALLATION OF PROPOSED GUARDRAIL (INCLUDING RELAPPING GUARDRAIL).

STEP 3

USING RSD 1101.02 (SHEET 4 OF 14) AND 1101.03 (SHEET 9 OF 9), PERFORM THE FOLLOWING FOR SOUTHBOUND US 220:

- A) REMOVE PCB
- B) USE WORK ZONE PATTERN MARKING TO COVER CONFLICTING MARKINGS AND PLACE TEMPORARY WORK ZONE PERFORMANCE PAVEMENT MARKINGS IN FINAL PATTERN. REMOVE LANE CLOSURE AND SHIFT TRAFFIC TO FINAL TWO-LANE PATTERN.
- C) OPEN ON-RAMP FROM US 220 BUS. TO SOUTHBOUND US 220 AND REMOVE ROAD CLOSURE AND OFFSITE DETOUR SIGNING


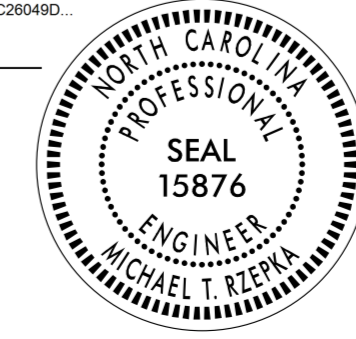
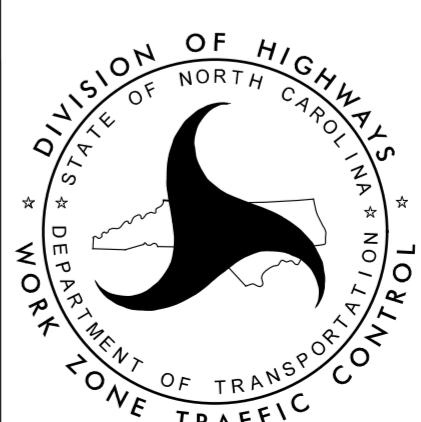
USING RSD 1101.02 (SHEET 4 OF 14) AND 1101.03 (SHEET 9 OF 9), PERFORM THE FOLLOWING FOR NORTHBOUND US 220:

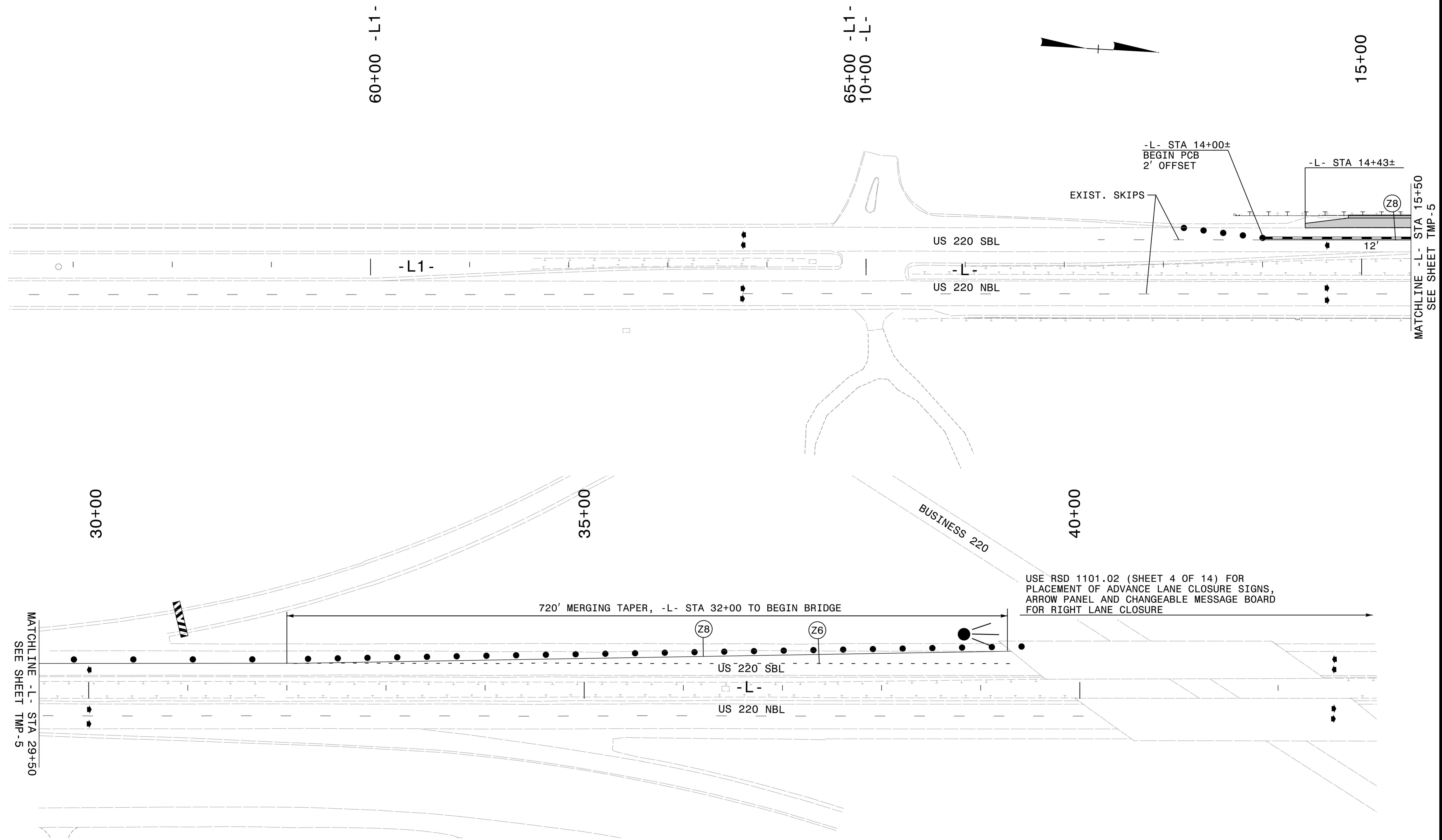
- A) REMOVE PCB
- B) USE WORK ZONE PATTERN MARKING TO COVER CONFLICTING MARKINGS AND PLACE TEMPORARY WORK ZONE PERFORMANCE PAVEMENT MARKINGS IN FINAL PATTERN. REMOVE LANE CLOSURE AND SHIFT TRAFFIC TO FINAL TWO-LANE PATTERN.

STEP 4

USING RSD 1101.02 (SHEET 4 OF 14), MILL (AS SHOWN IN ROADWAY PLANS) AND PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS ON -L-. REMOVE ALL REMAINING TRAFFIC CONTROL DEVICES.

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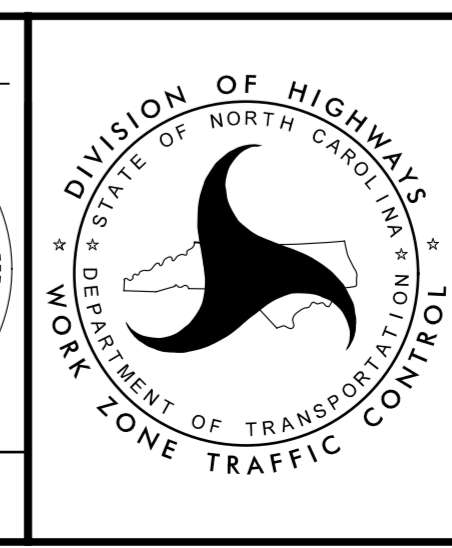


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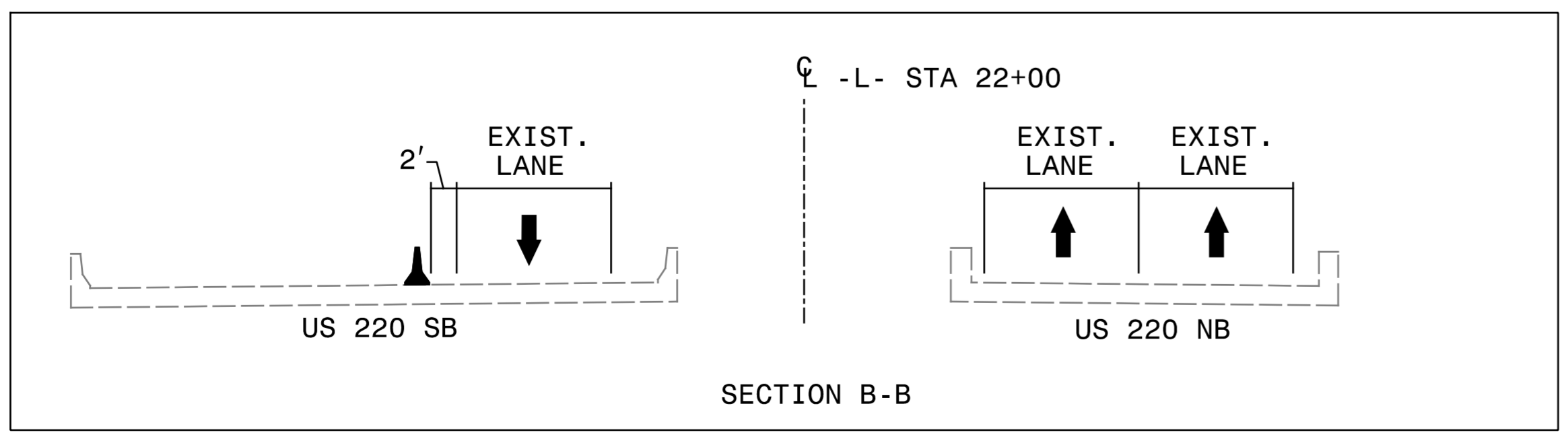
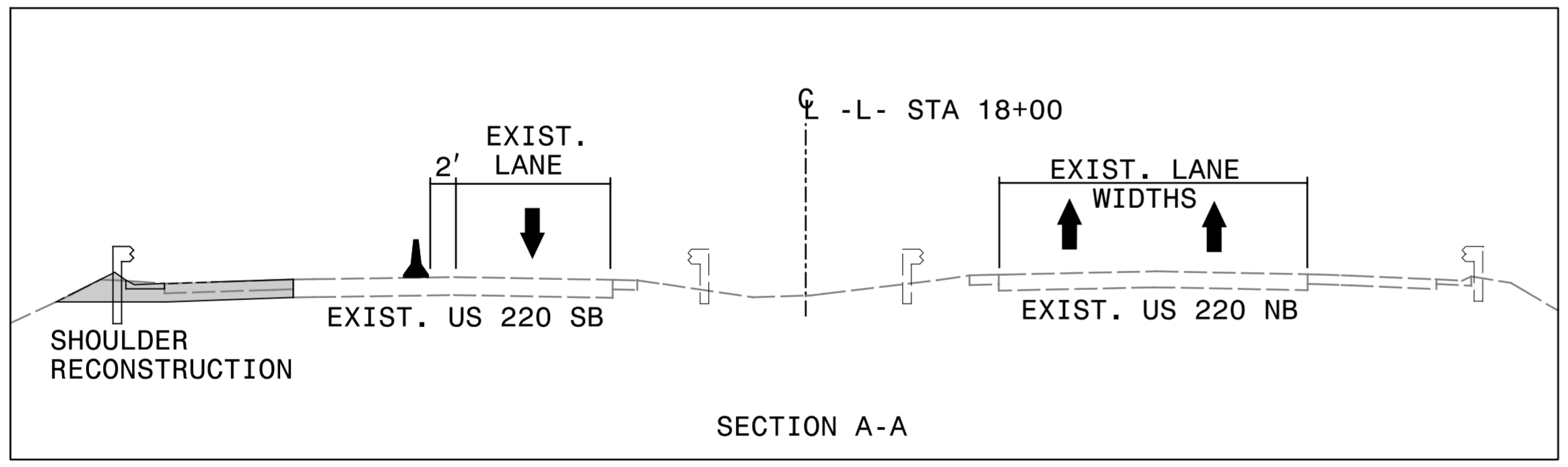
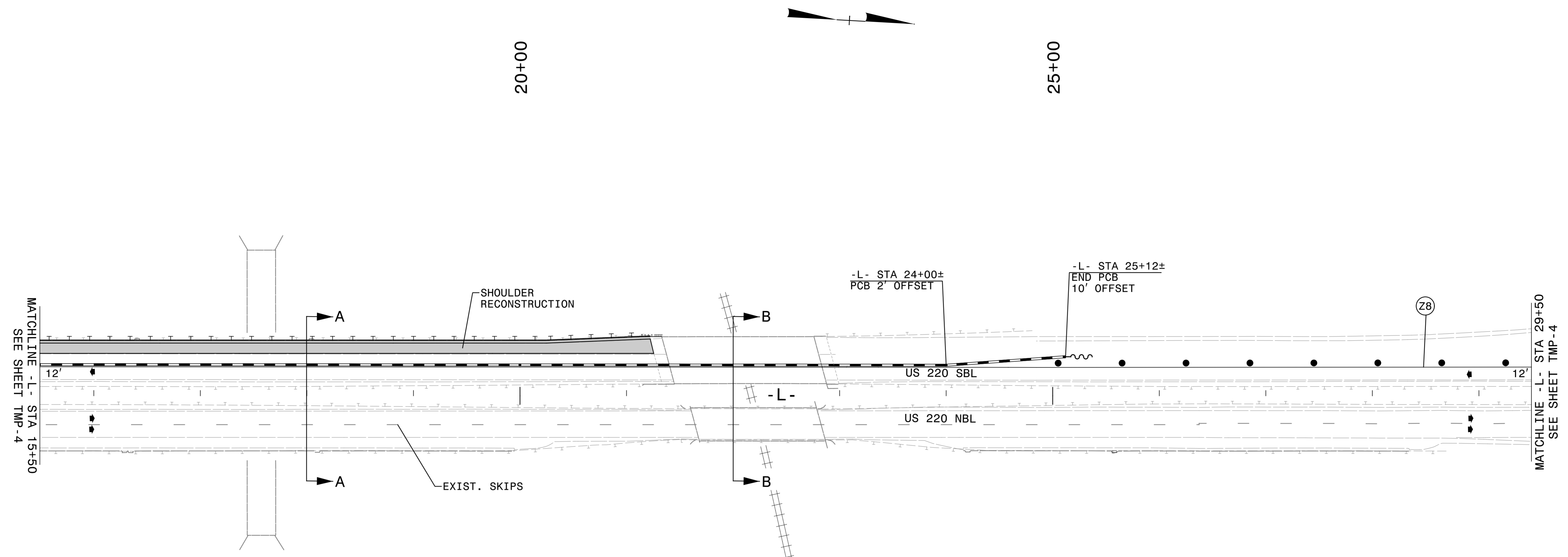
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PHASE I, STEP 2 DETAIL

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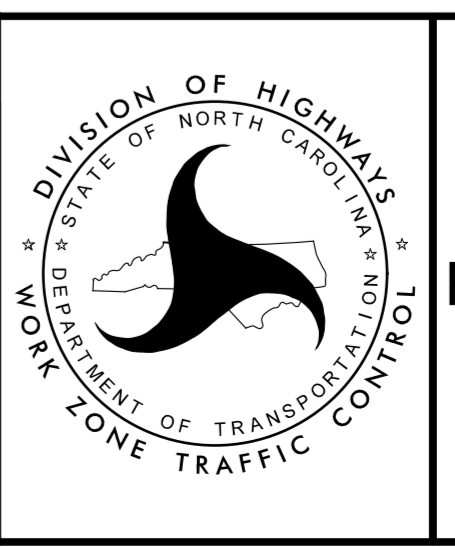
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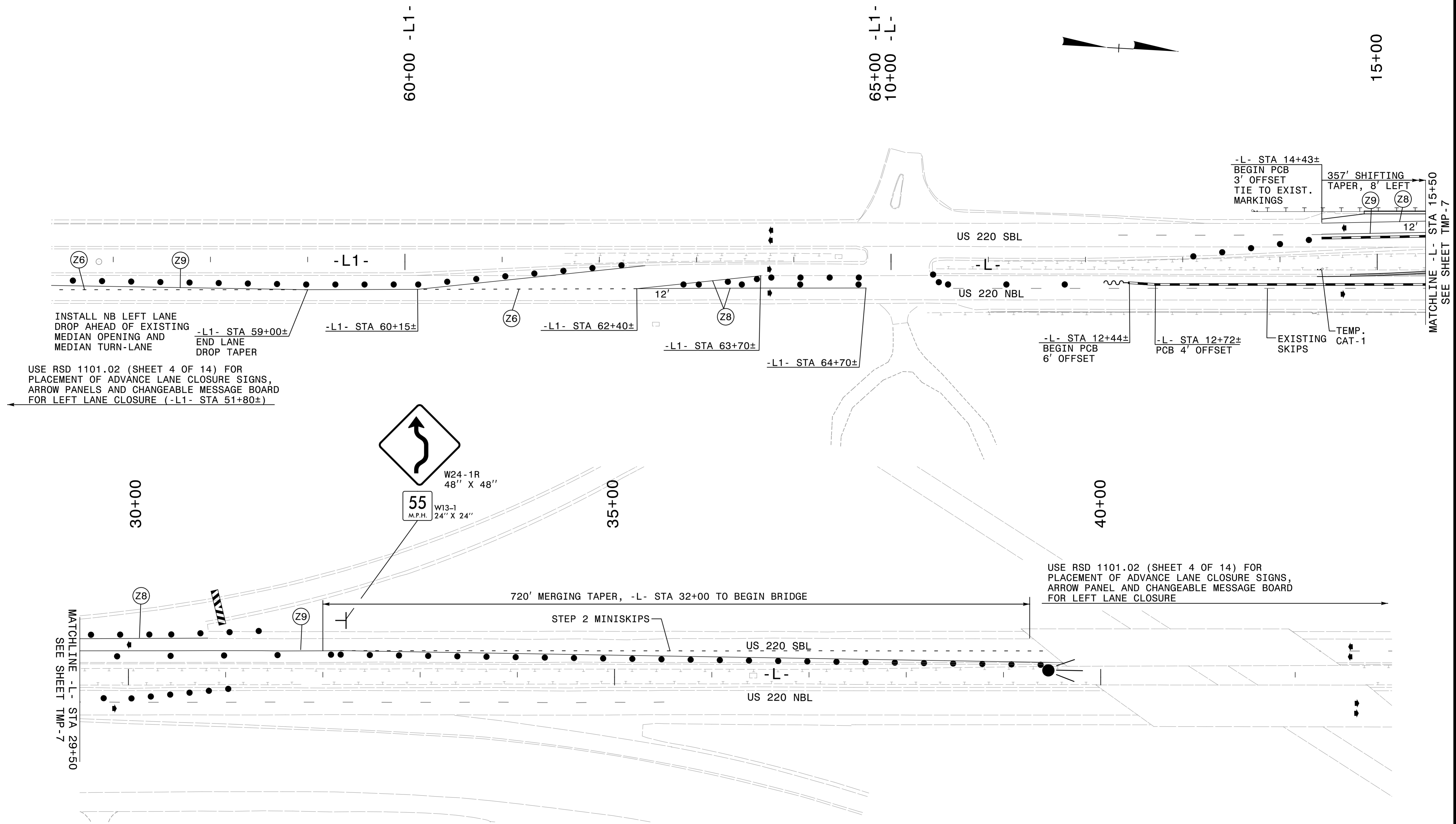
PROFESSIONAL ENGINEER
 SEAL 15876
 MICHAEL T. RZEPKA

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PHASE I, STEP 2 DETAIL

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INSTALL NB LEFT LANE DROP AHEAD OF EXISTING MEDIAN OPENING AND MEDIAN TURN-LANE

USE RSD 1101.02 (SHEET 4 OF 14) FOR PLACEMENT OF ADVANCE LANE CLOSURE SIGNS, ARROW PANELS AND CHANGEABLE MESSAGE BOARD FOR LEFT LANE CLOSURE (-L1- STA 51+80±)

USE RSD 1101.02 (SHEET 4 OF 14) FOR PLACEMENT OF ADVANCE LANE CLOSURE SIGNS, ARROW PANEL AND CHANGEABLE MESSAGE BOARD FOR LEFT LANE CLOSURE

MATCHLINE -L- STA 29+50
SEE SHEET TMP-7

MATCHLINE -L- STA 15+50
SEE SHEET TMP-7

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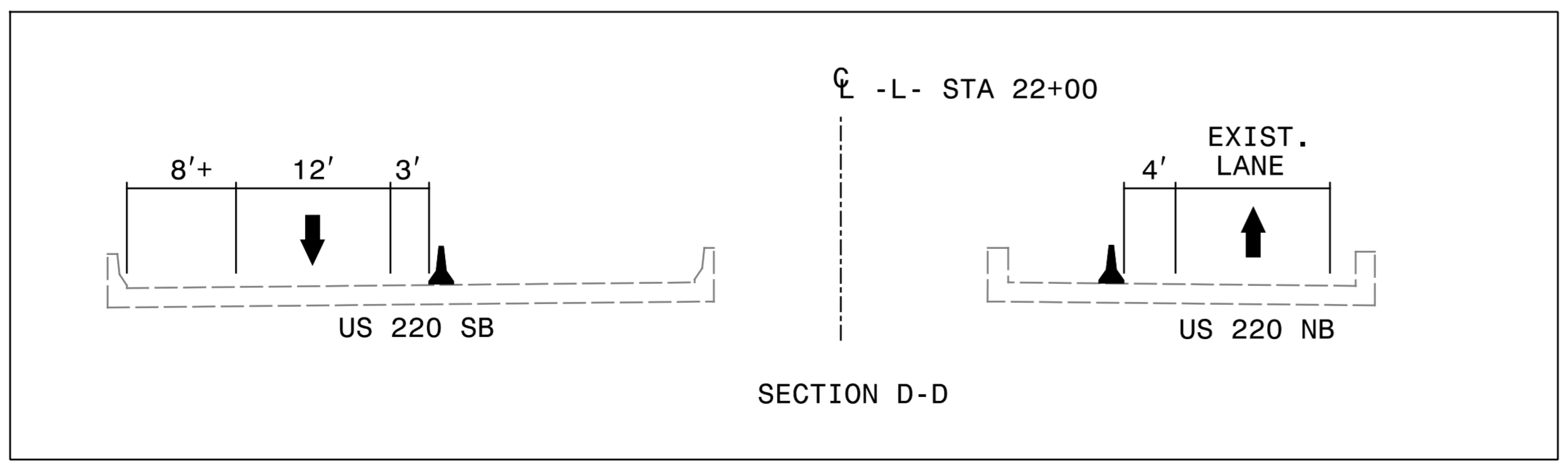
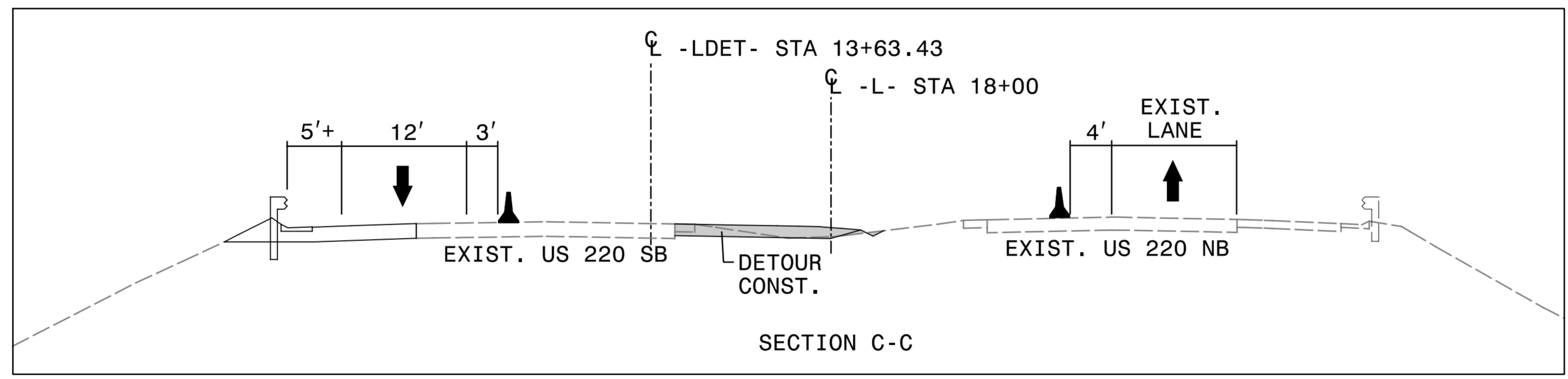
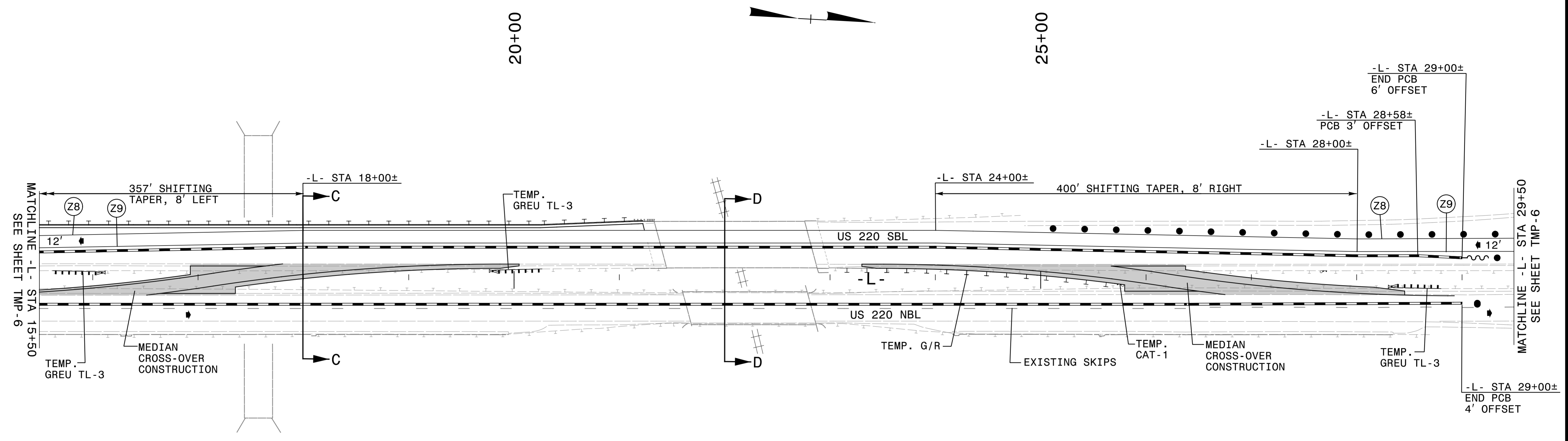
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PHASE I, STEP 3 DETAIL



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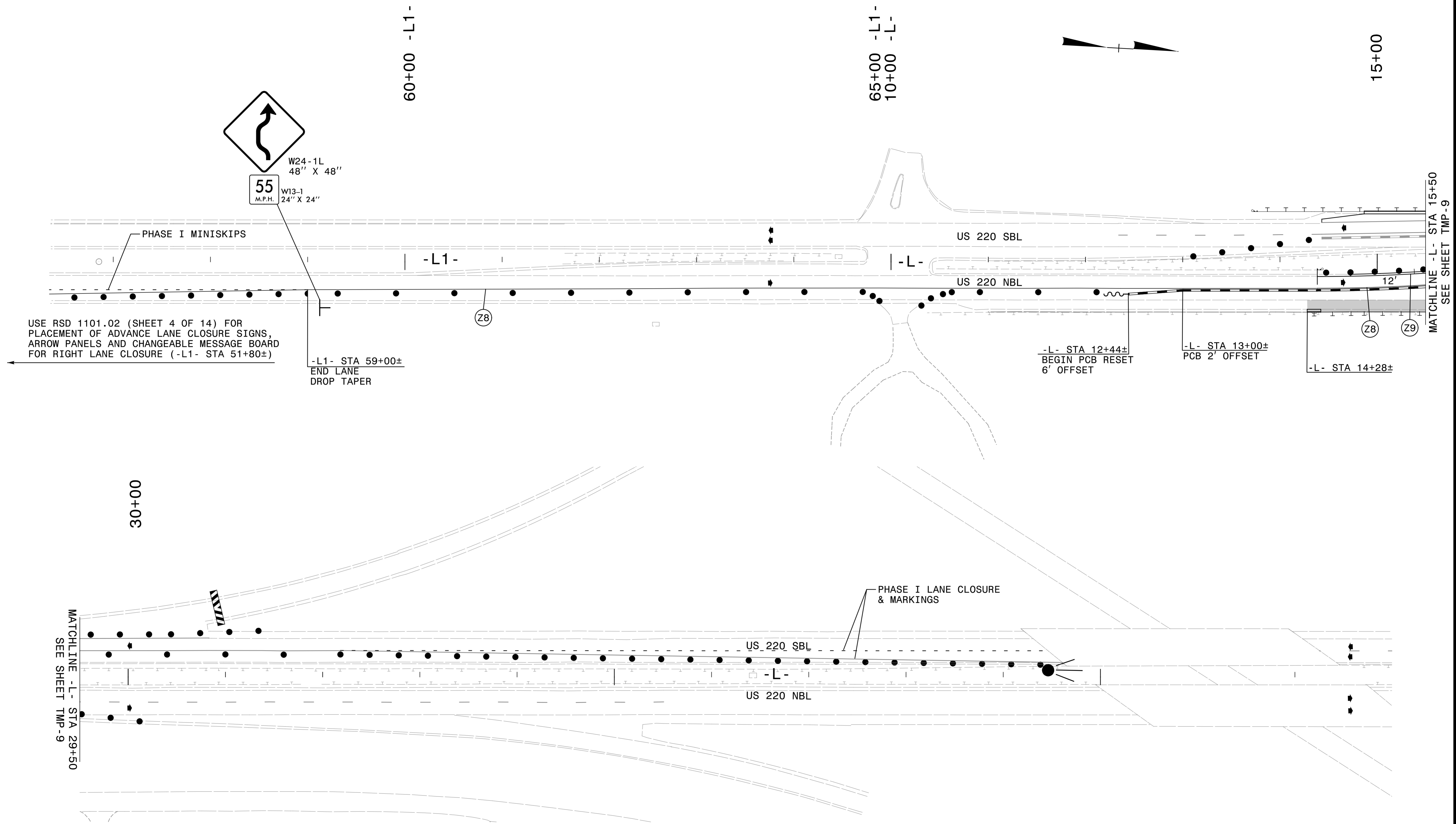
DATE: 2/20/2018

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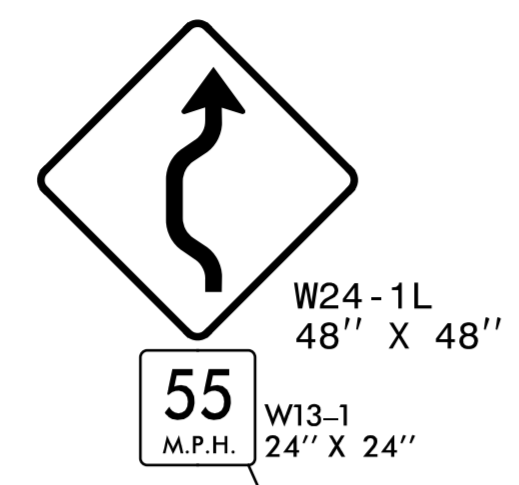


PHASE I, STEP 3 DETAIL

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USE RSD 1101.02 (SHEET 4 OF 14) FOR PLACEMENT OF ADVANCE LANE CLOSURE SIGNS, ARROW PANELS AND CHANGEABLE MESSAGE BOARD FOR RIGHT LANE CLOSURE (-L1- STA 51+80±)



MATCHLINE -L- STA 29+50
SEE SHEET TMP-9

MATCHLINE -L- STA 15+50
SEE SHEET TMP-9

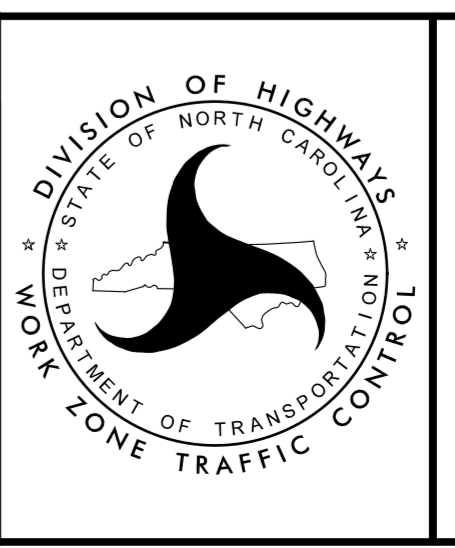
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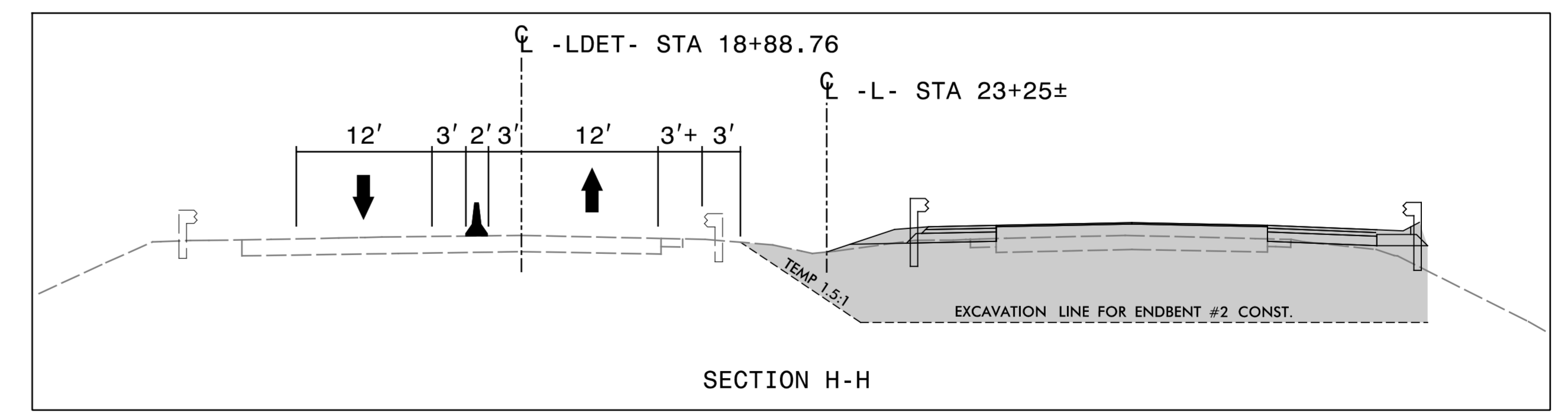
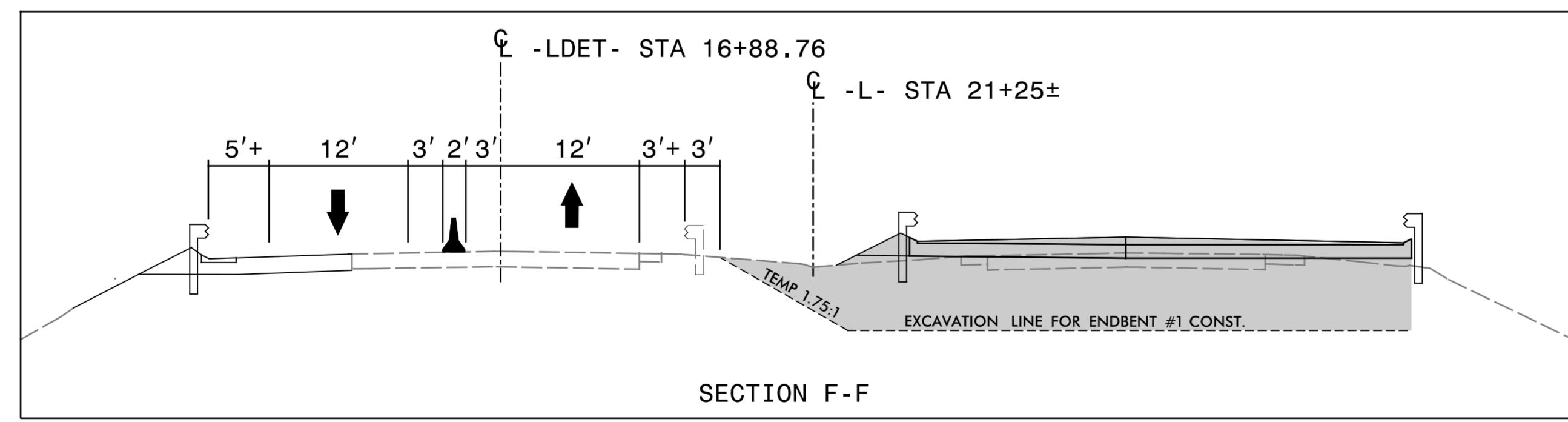
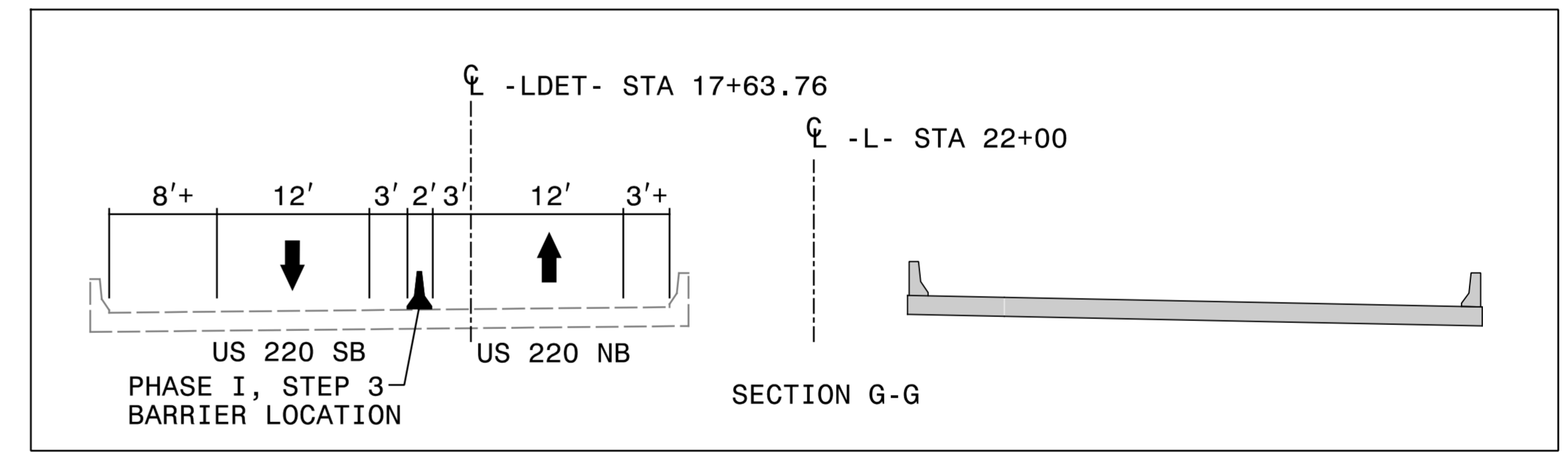
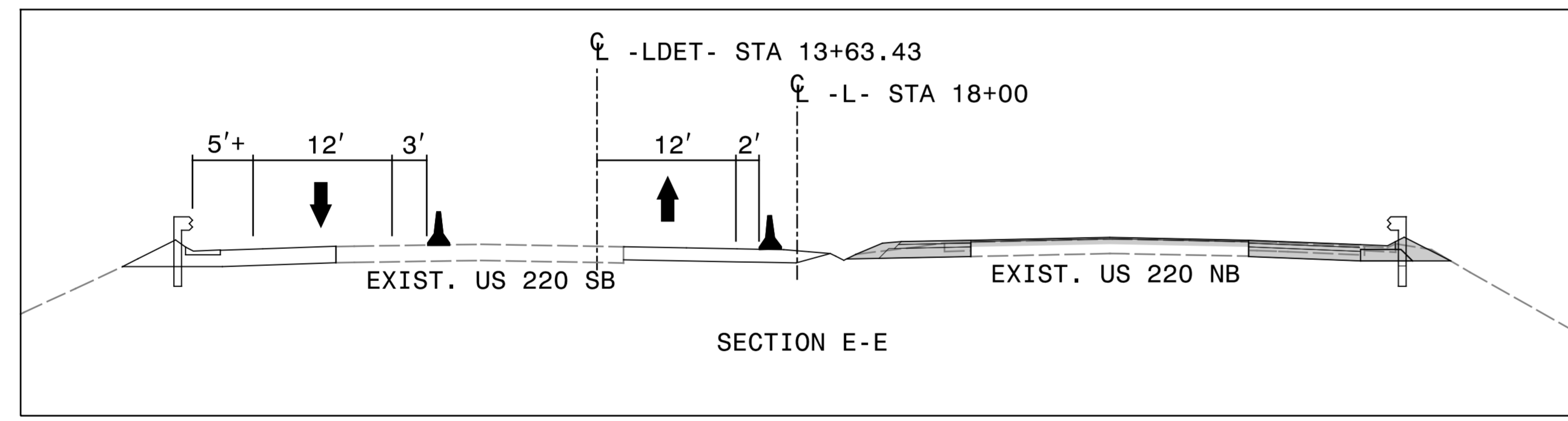
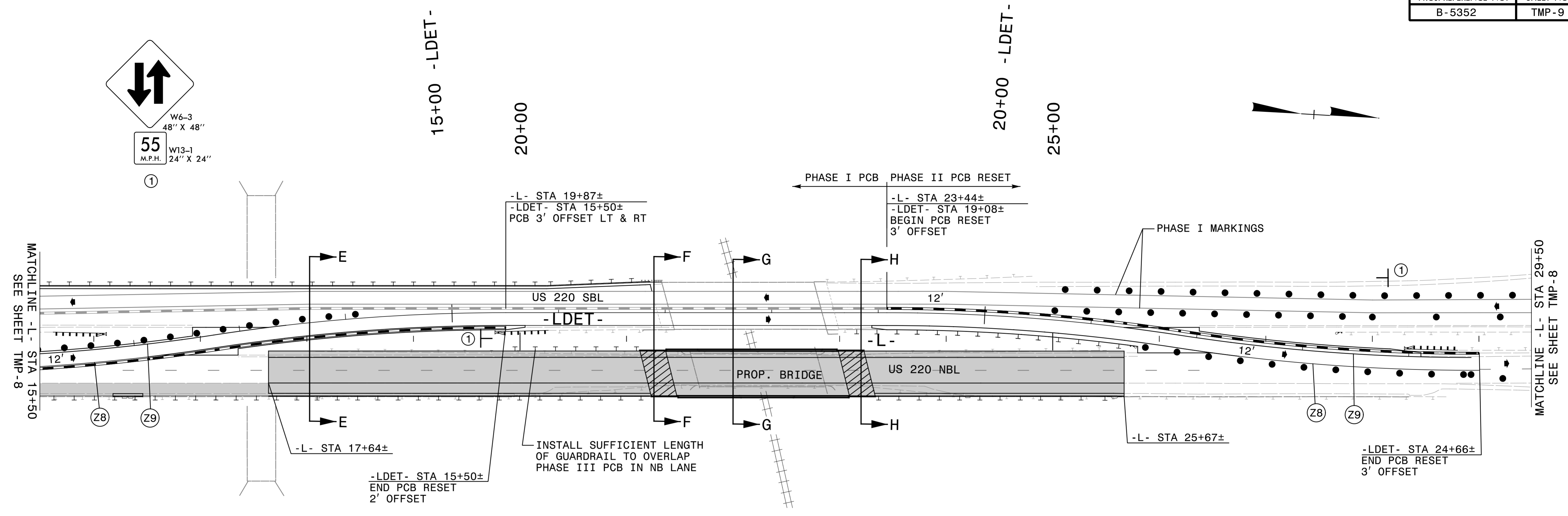
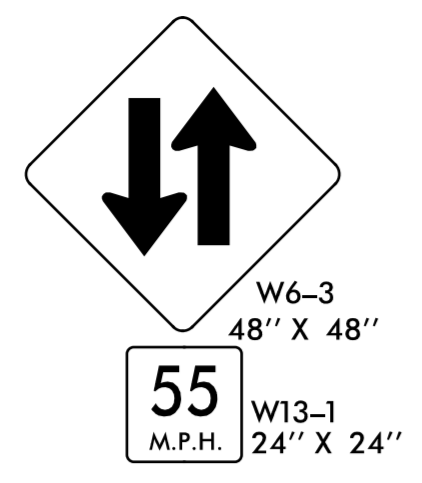
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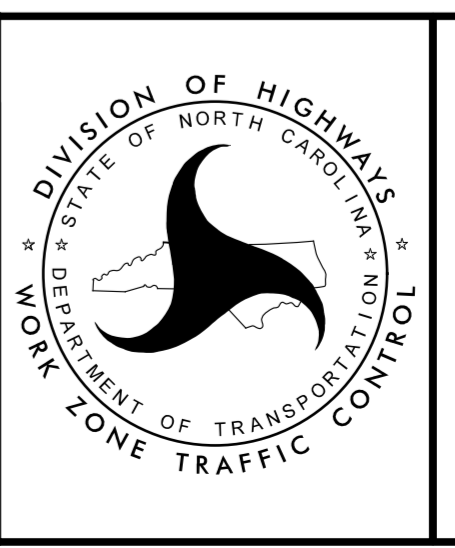
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PHASE II DETAIL

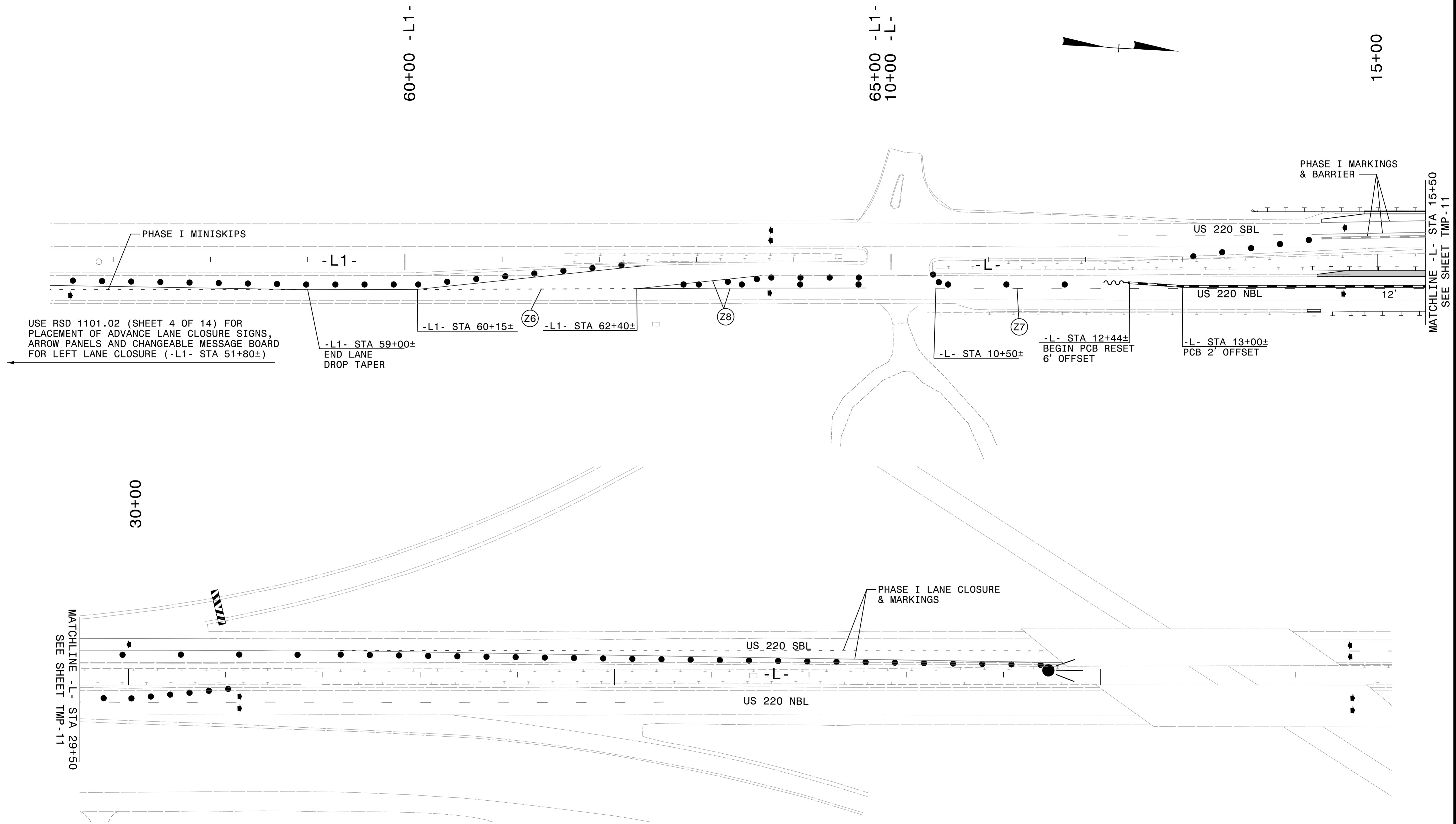


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PHASE II DETAIL

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USE RSD 1101.02 (SHEET 4 OF 14) FOR PLACEMENT OF ADVANCE LANE CLOSURE SIGNS, ARROW PANELS AND CHANGEABLE MESSAGE BOARD FOR LEFT LANE CLOSURE (-L1- STA 51+80±)

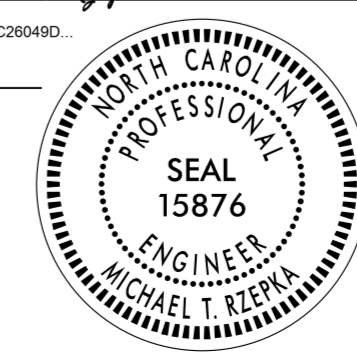
MATCHLINE -L- STA 29+50
SEE SHEET TMP-11

MATCHLINE -L- STA 15+50
SEE SHEET TMP-11

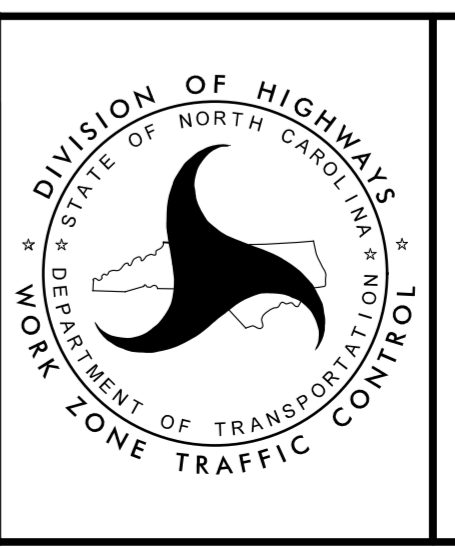
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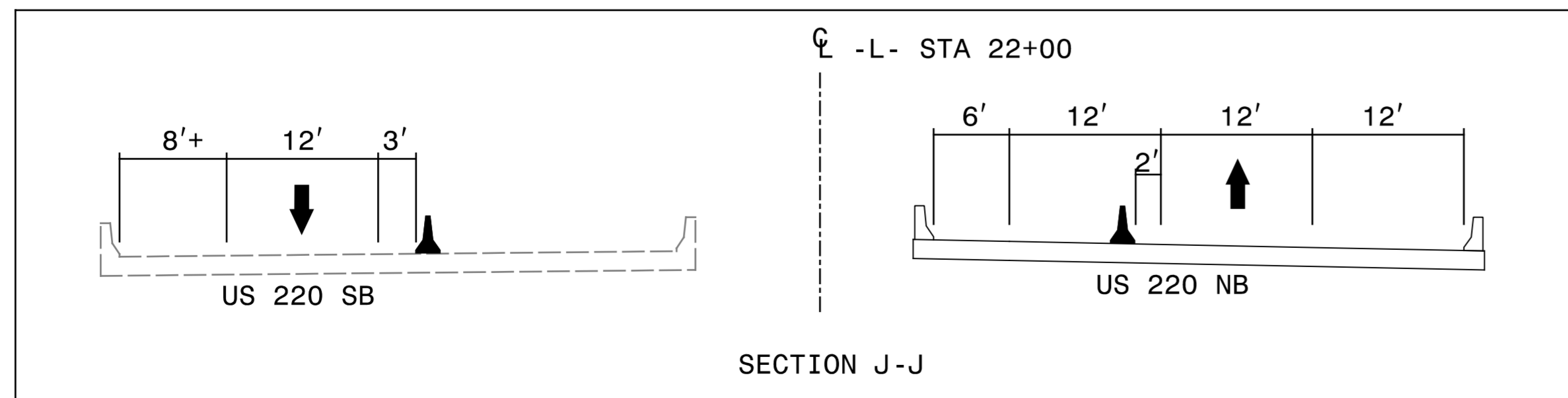
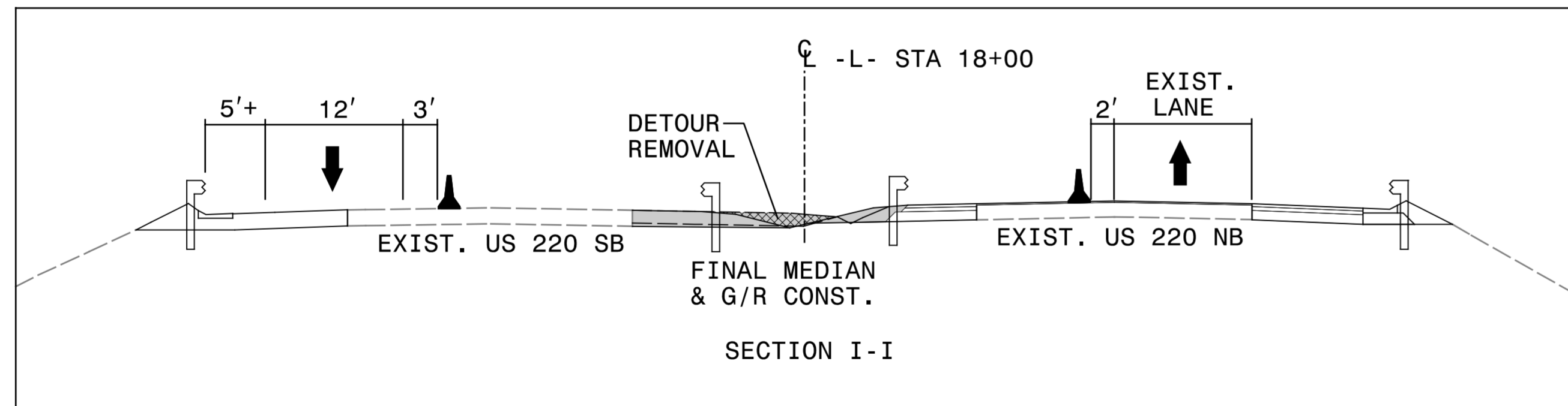
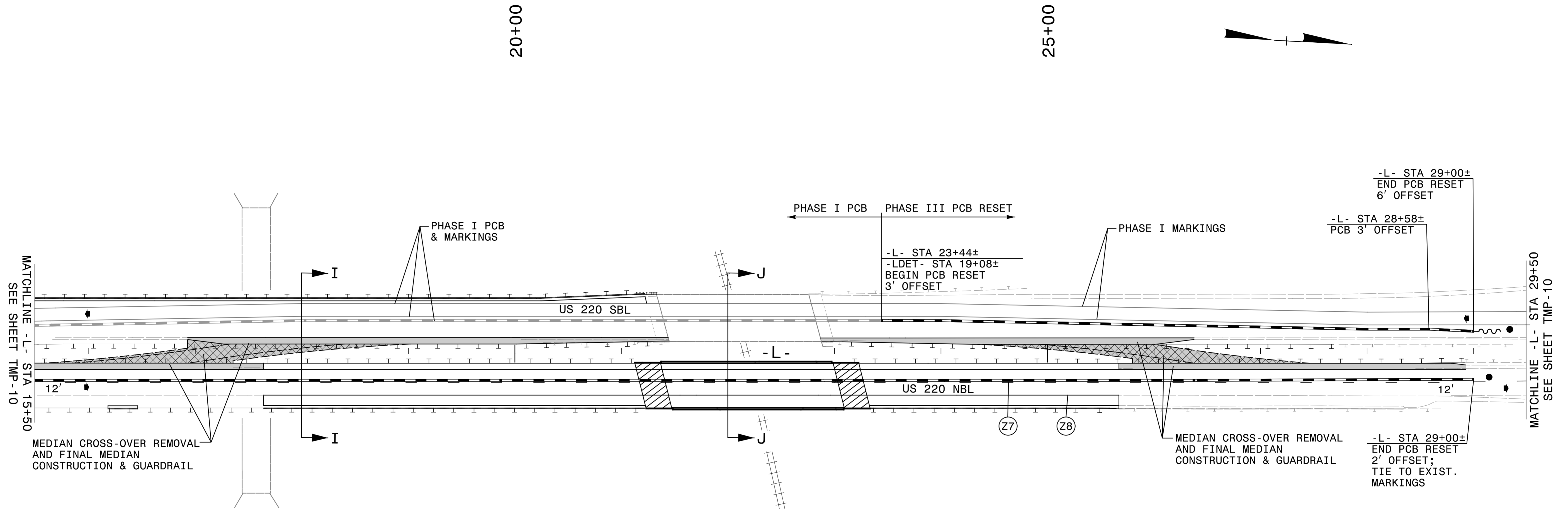
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PHASE III DETAIL

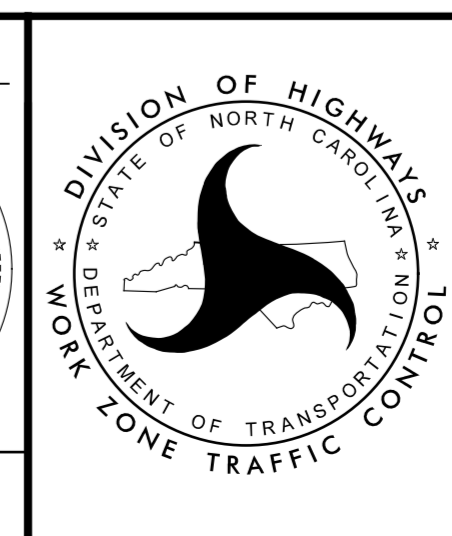


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PHASE III DETAIL