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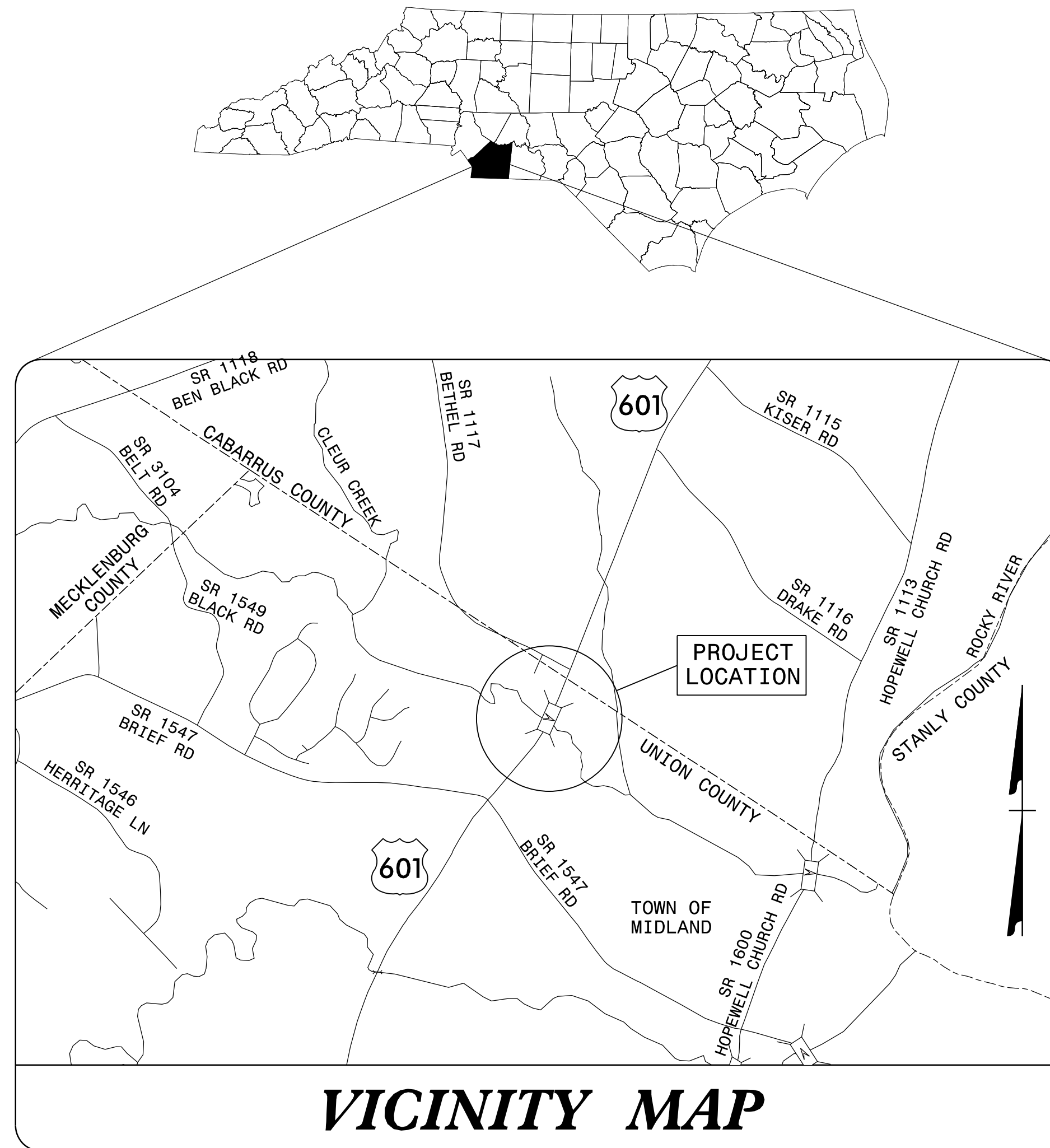
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

UNION COUNTY



**LOCATION: BRIDGE NO. 71 ON US 601 (CONCORD HWY)
OVER CLEAR CREEK**

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

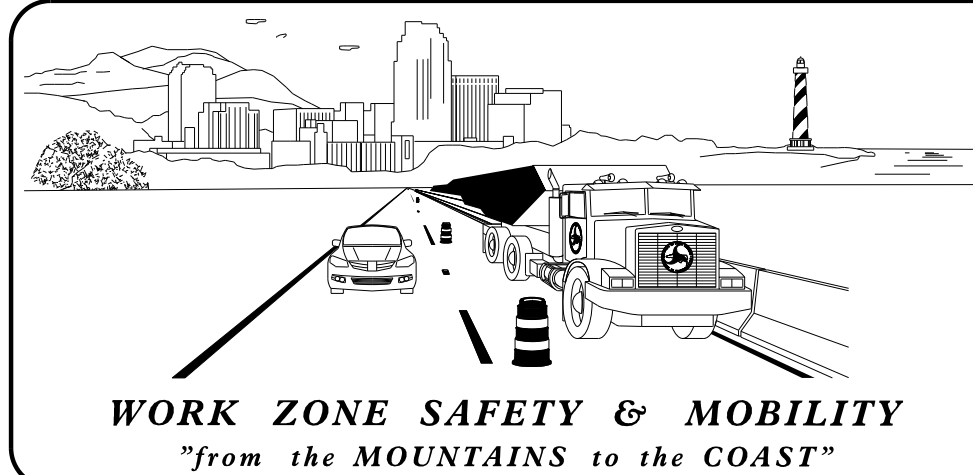
INDEX OF SHEETS	
<u>SHEET NO.</u>	<u>TITLE</u>
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TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, TRAFFIC MANAGEMENT STRATEGY AND LEGEND
TMP-2	GENERAL NOTES, AND LOCAL NOTES
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4 and TMP-5	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-6 and TMP-7	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL

SHEET NO.
TMP-1

B-5371

TIP PROJECT:

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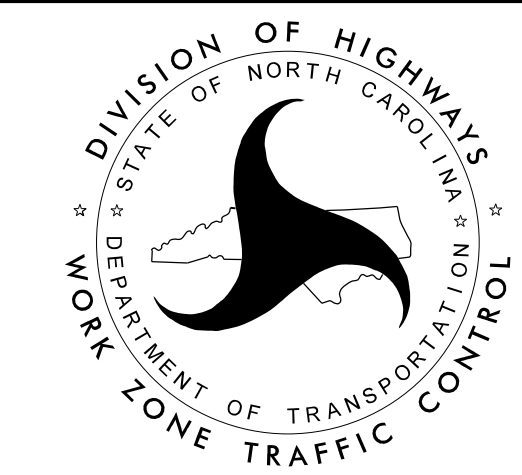
N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. E. HUMMER, PhD, PE STATE TRAFFIC MANAGEMENT ENGINEER

D. A. PARKER, PE TRAFFIC CONTROL PROJECT ENGINEER

R. M. GARRETT TRAFFIC CONTROL PROJECT DESIGN ENGINEER

TRAFFIC CONTROL DESIGN ENGINEER



moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

APPROVED: Timothy R. Reid
DATE: 12/11/2017

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
T. R. REID
015869

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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:

<u>STD. NO.</u>	<u>TITLE</u>
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
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
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
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

TRAFFIC MANAGEMENT STRATEGY

THIS PROJECT WILL UTILIZE THE EXISTING ROADWAY AND BRIDGE TO CONSTRUCT MOST OF THE NEW ROADWAY AND BRIDGE AWAY FROM TRAFFIC. FLAGGING WILL BE USED TO CONSTRUCT TIE-INS.

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

- PA WHITE EDGELINE (PAINT 4")
- PI YELLOW DOUBLE CENTER (PAINT 4")

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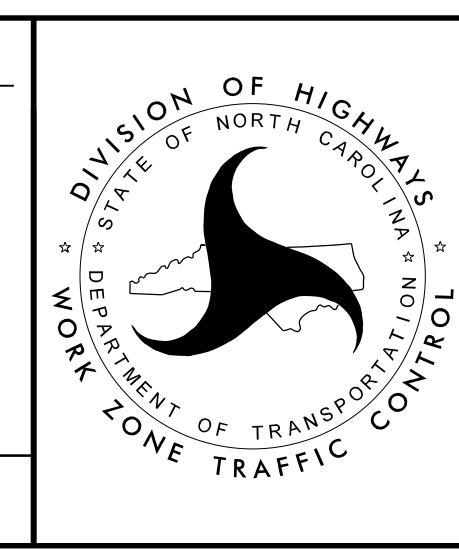
moffatt & nichol
 4700 FALLS OF NEUSE ROAD, SUITE 300
 RALEIGH, NORTH CAROLINA 27609
 (919) 781-4626 VOICE (919) 781-4869 FAX
 NC License NO.: F-0105

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**ROADWAY STANDARD
DRAWINGS & LEGEND**

GENERAL NOTES / LOCAL 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 PLANS OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
US 601 (-L-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M. 4:00 P.M. - 6:00 P.M.

B) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
US 601 (-L-)	MONDAY THRU FRIDAY 7:00 A.M. - 9:00 A.M.	15 MINUTES FOR TRAFFIC SHIFTS, PAVEMENT TIE-INS, PAVEMENT MARKING TIE-INS

LANE AND SHOULDER REQUIREMENTS

C) 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.

D) 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.

E) 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.

F) 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.

G) 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.

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

TRAFFIC CONTROL DEVICES

PAVEMENT MARKINGS

M) INSTALL TEMPORARY PAVEMENT MARKINGS ON ITERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING
US 601 (-L-)	PAINT

N) 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.

O) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

P) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS BY THE END OF EACH DAY'S OPERATION.

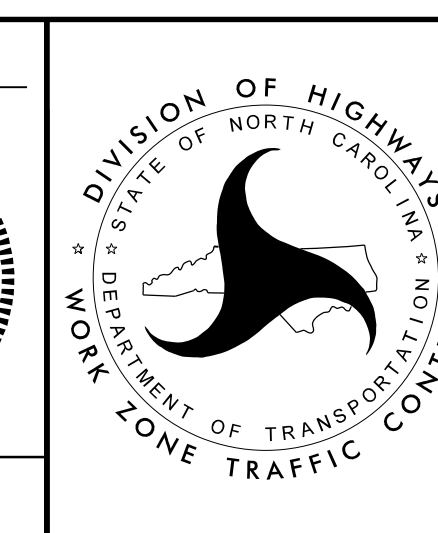
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**GENERAL NOTES
AND
LOCAL NOTES**

PHASING

PHASE I

NOTE: TRAFFIC SHALL BE MAINTAINED ON EXISTING US 601 DURING THIS PHASE AND EXISTING DRIVEWAY ACCESSES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION DURATION

STEP 1

PRIOR TO BEGINNING CONSTRUCTION, INSTALL WORK ZONE ADVANCE WARNING SIGNS USING ROADWAY STANDARD DRAWING 1101.01 SHEET 3 OF 3 ALONG EXISTING US 601.

STEP 2

AWAY FROM TRAFFIC AND USING ROADWAY STANDARD DRAWINGS 1101.02(SHEET 1 OF 15)AND 1101.04 AS NEEDED, CONSTRUCT THE PROPOSED BRIDGE, ROADWAY AND DRIVEWAYS -DR5-, -DR2- AND -DR3- AS FOLLOWS, (SEE TMP-4 AND TMP-5).

ROADWAY SHALL BE CONSTRUCTED UP TO THE EXISTING EDGE OF PAVEMENT AS SHOWN IN THE STATION RANGES BELOW, ALL OTHER CONSTRUCTION SHOULD BE BUILT UP TO, BUT NOT INCLUDING THE FINAL SURFACE LAYER.

- STA. 14+39 +/- (EL=479.46) -L- TO STA. 18+29 +/- (EL=479.15) -L-
- STA. 26+71 +/- (EL=482.58) -L- TO STA. 30+21 +/- (EL=496.60) -L-

STEP 3

INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL TRAFFIC PATTERN ON THE REALIGNED US 601 AS FOLLOWS, (SEE TMP-4 AND TMP-5)

- STA. 14+39 +/- -L- TO STA. 30+21 +/- -L-

PHASE II

NOTE: TRAFFIC SHALL BE SHIFTED AND MAINTAINED ON THE NEWLY CONSTRUCTED US 601 FOR THIS PHASE, EXISTING DRIVEWAY ACCESSES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION DURATION

STEP 1

INSTALL TRAFFIC CONTROL DEVICES AND SHIFT TRAFFIC TO NEWLY CONSTRUCTED US 601 AS SHOWN ON SHEETS TMP-6 AND TMP-7.

- STA. 14+00 +/- -L- TO STA. 19+48 +/- -L-
- STA. 27+11 +/- -L- TO STA. 30+45 +/- -L-

STEP 2

REMOVE THE EXISTING BRIDGE, ROADWAY AND GRADE THE OLD ROADBED TO DRAIN AS SHOWN ON SHEETS TMP-6 AND TMP-7.

- STA. 14+43 +/- -L- TO STA. 30+31 +/- -L-

STEP 3

USING FLAGGING OPERATION PER ROADWAY STANDARD DRAWING 1101.02 SHEET 1 OF 15, CONSTRUCT FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS AND DRIVEWAYS -DR1- AND -DR4-.

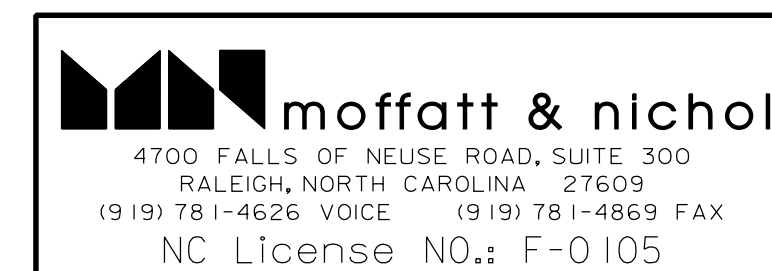
- STA. 12+50 +/- -L- TO STA. 32+00 +/- -L-

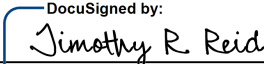
STEP 4

REMOVE ANY REMAINING TRAFFIC CONTROL SIGNS AND DEVICES.

- STA. 12+50 +/- -L- TO STA. 32+00 +/- -L-


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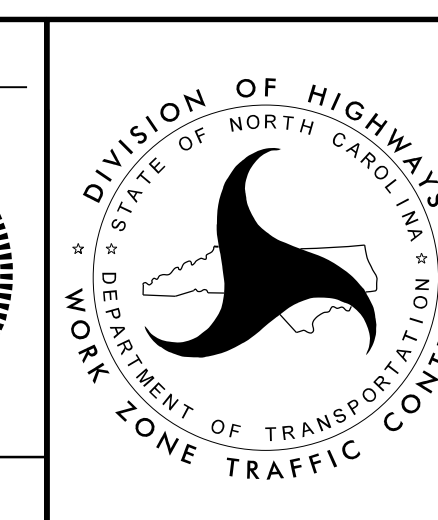
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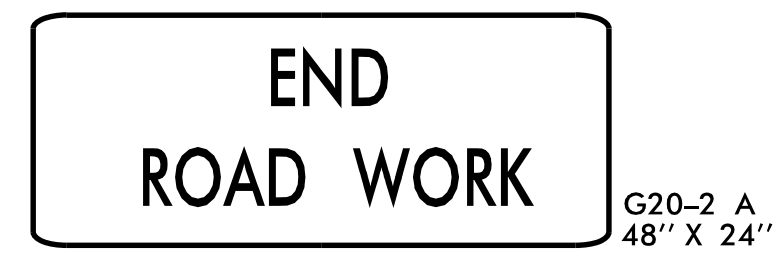
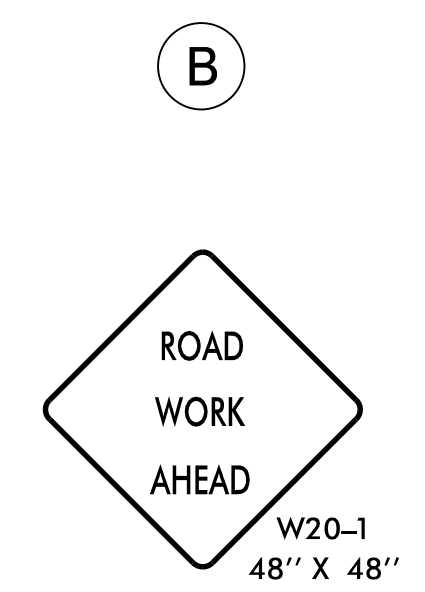
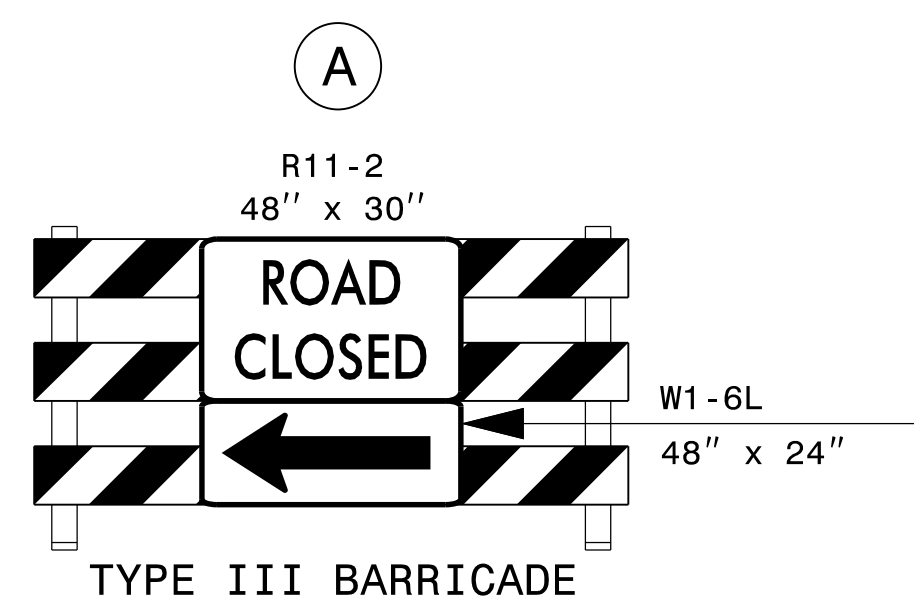
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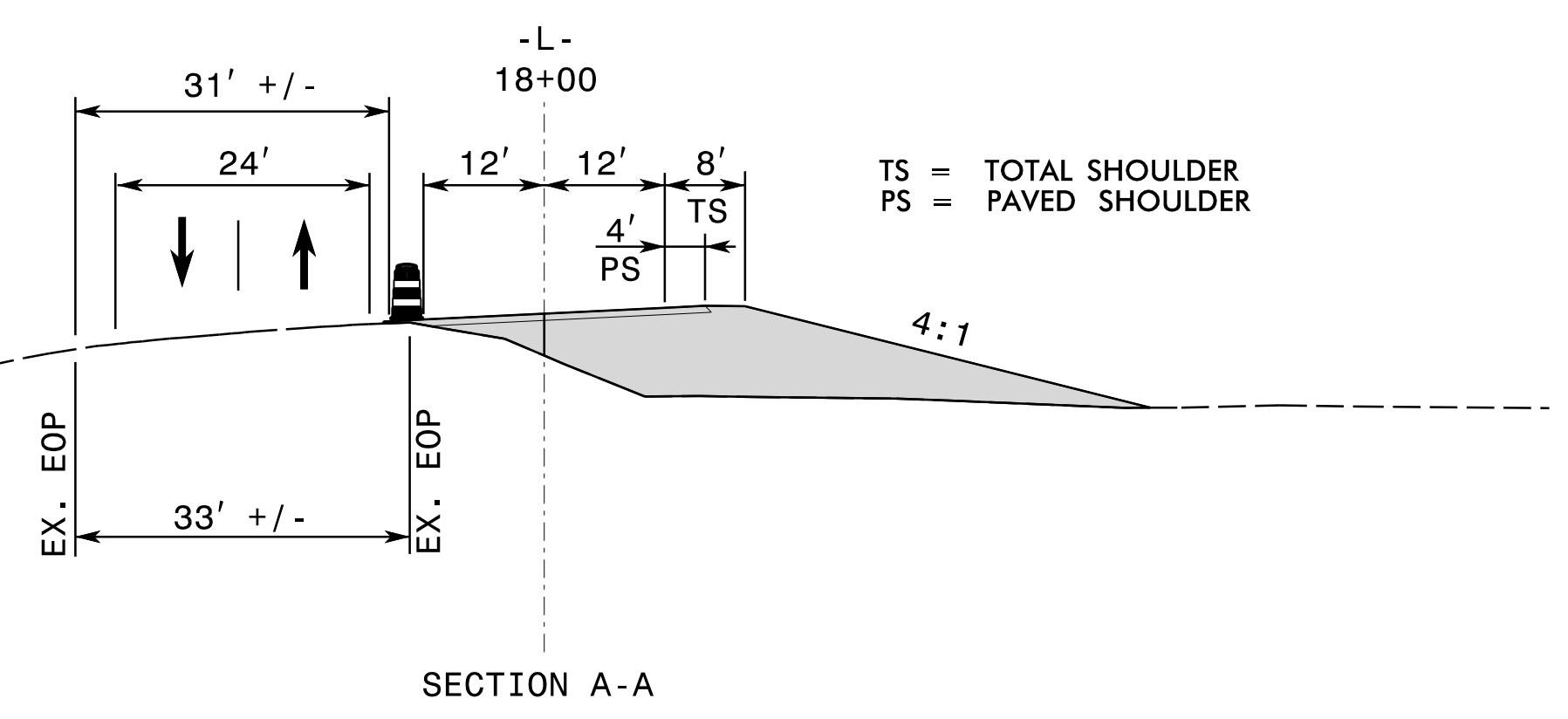
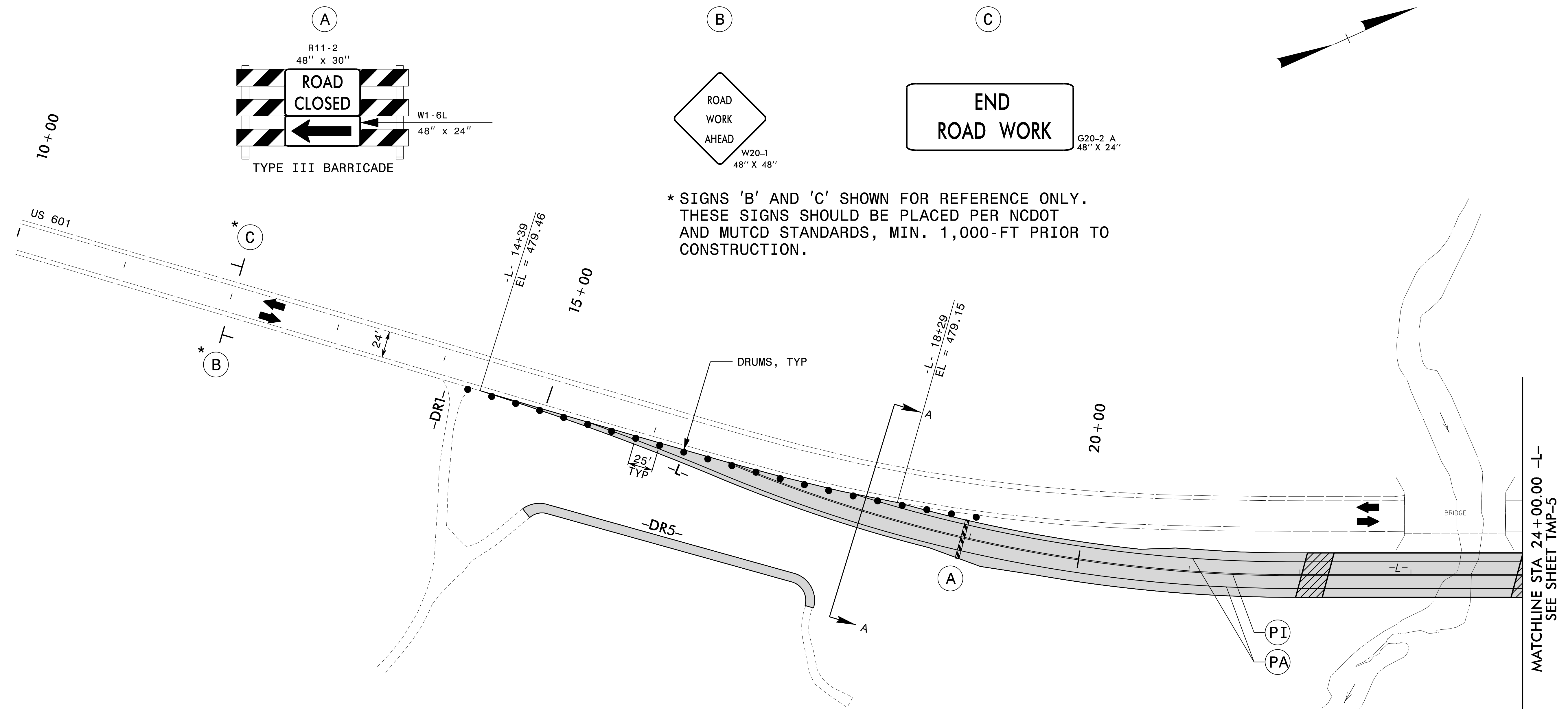
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PHASING



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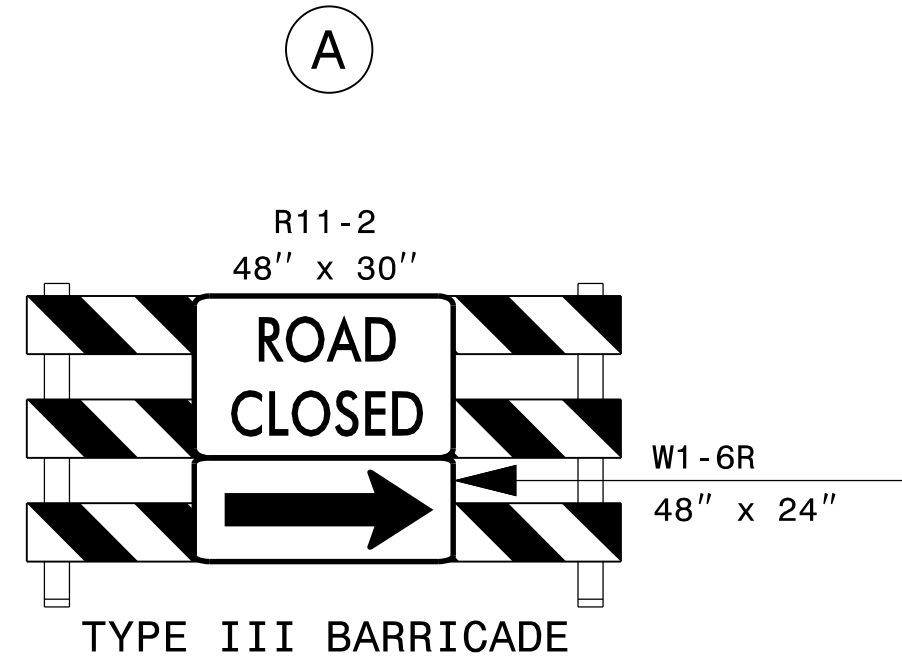
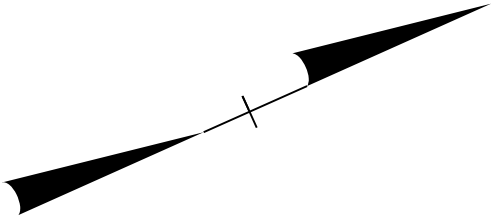
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moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

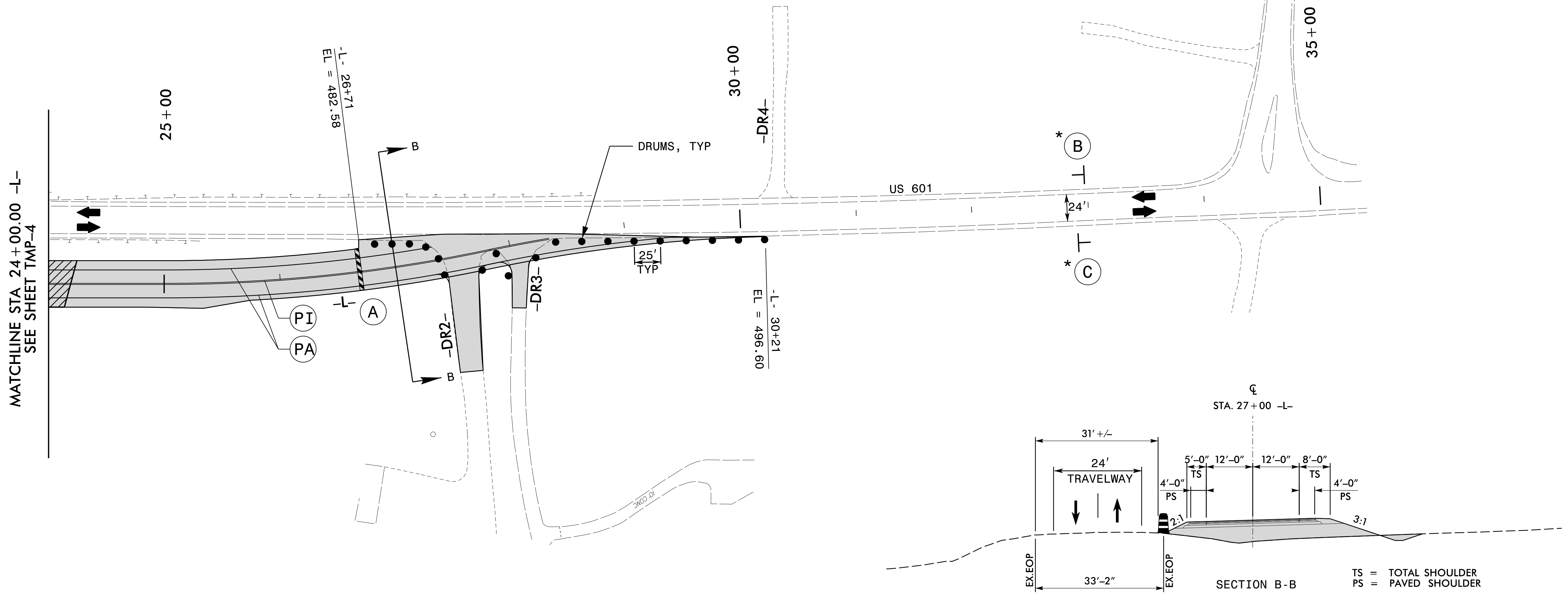
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DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL



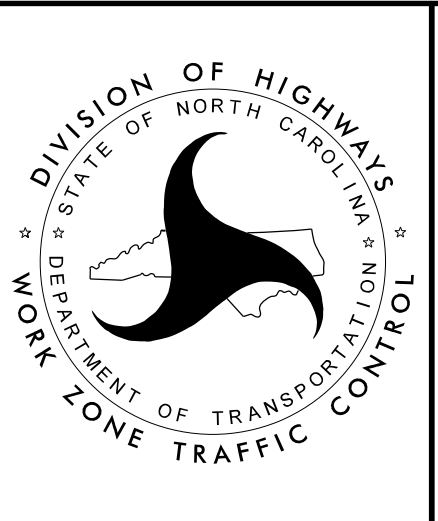
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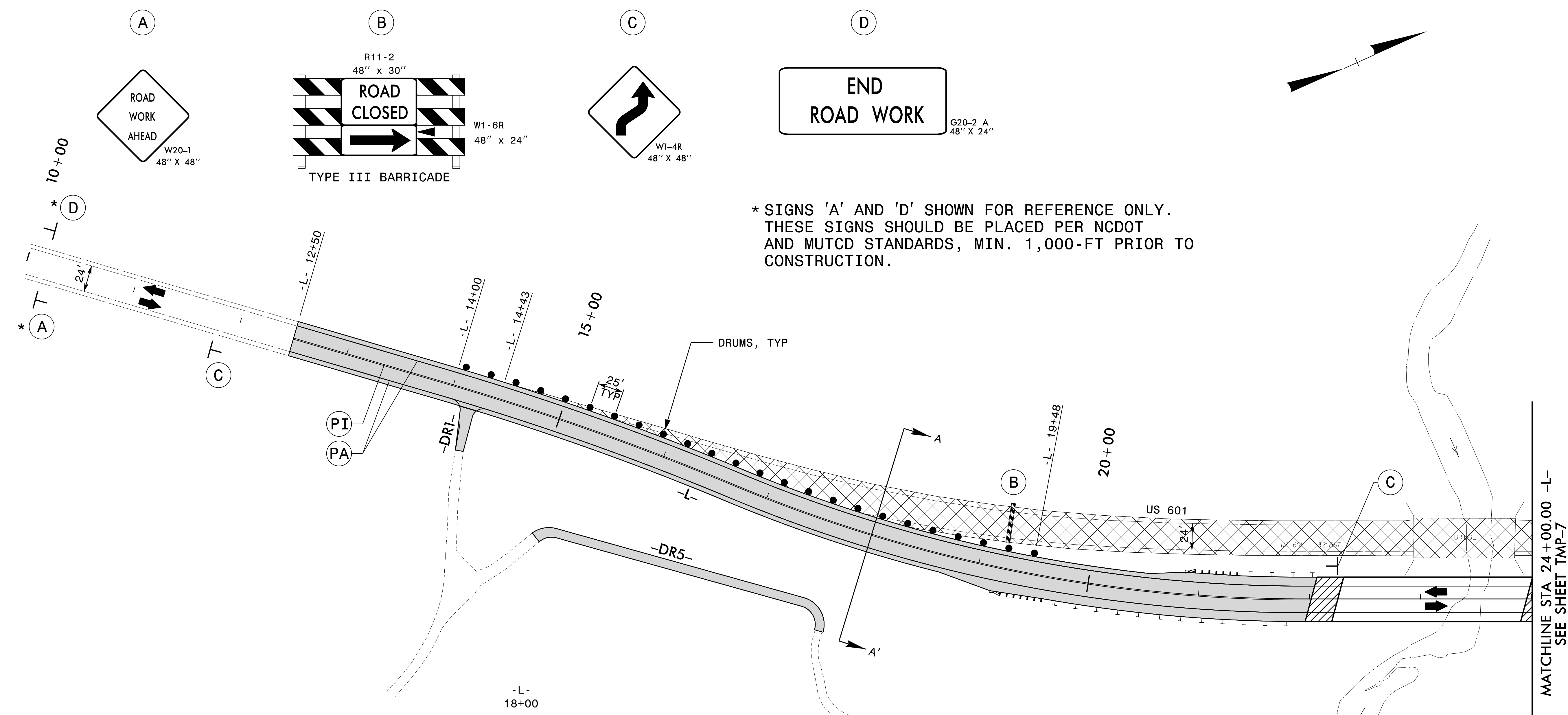
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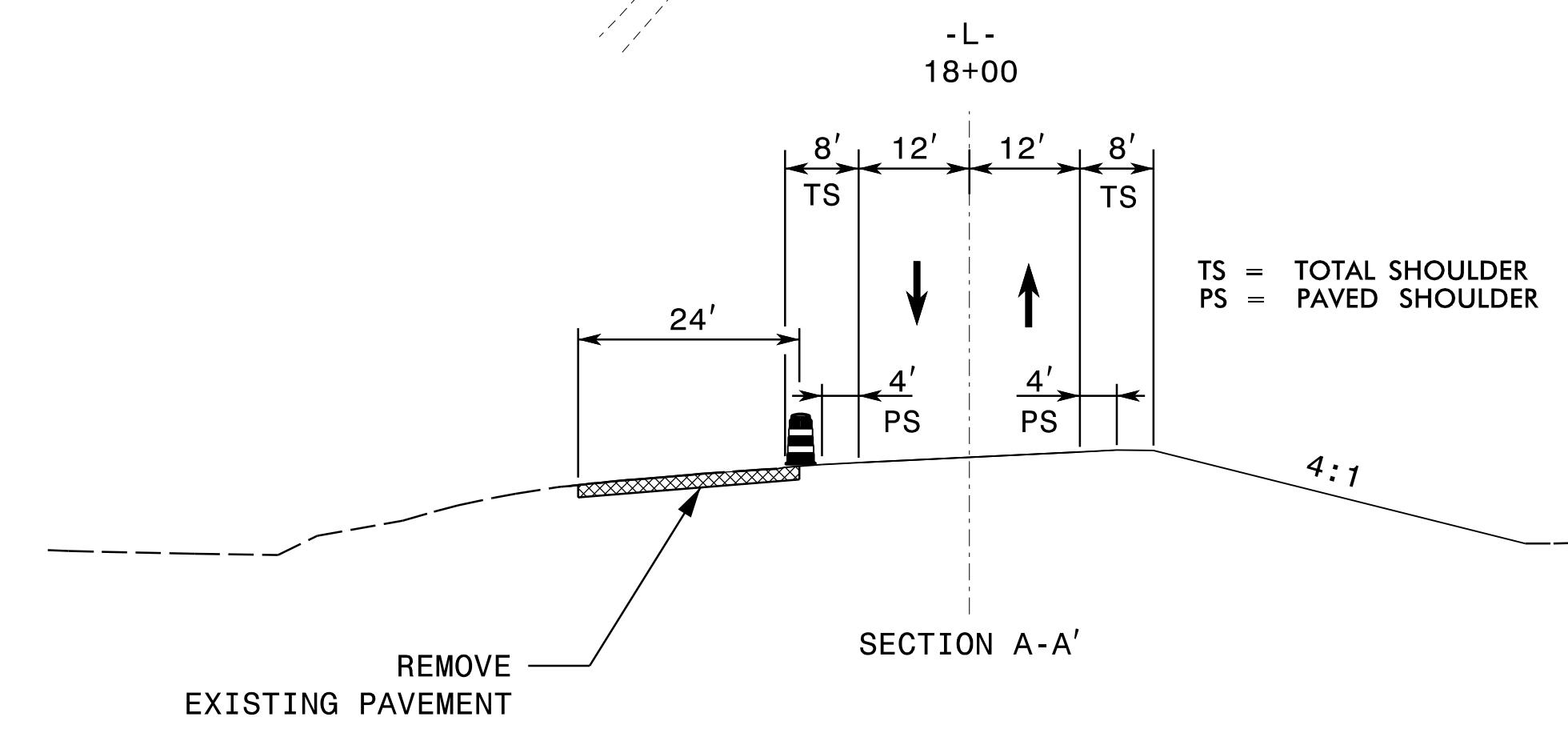


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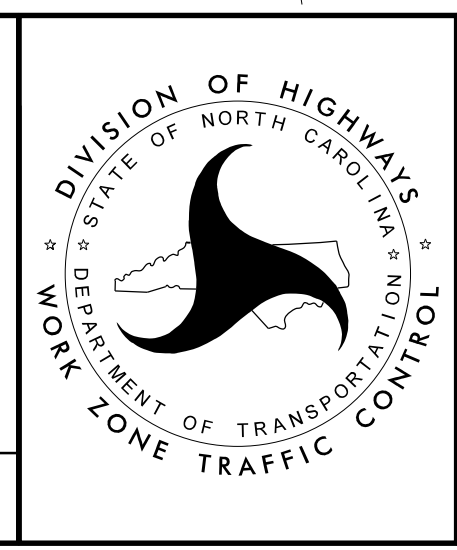
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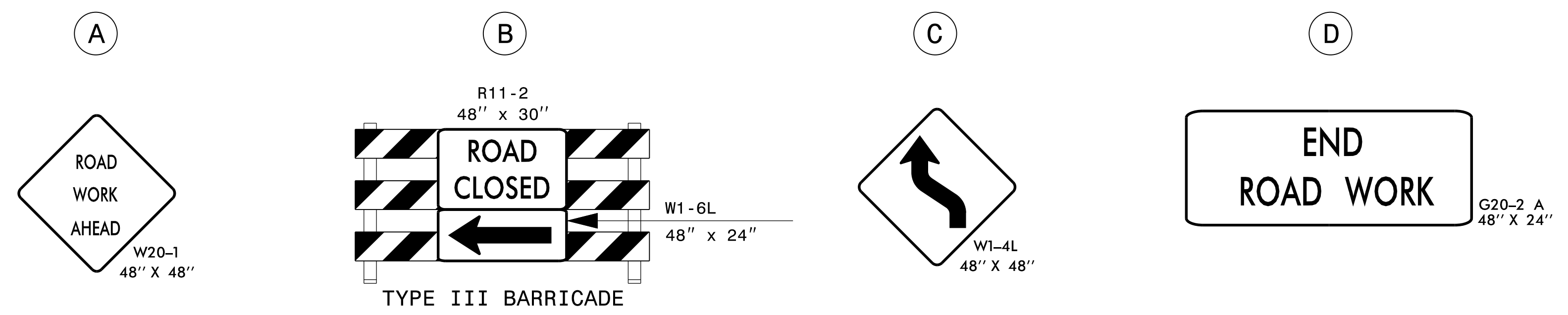
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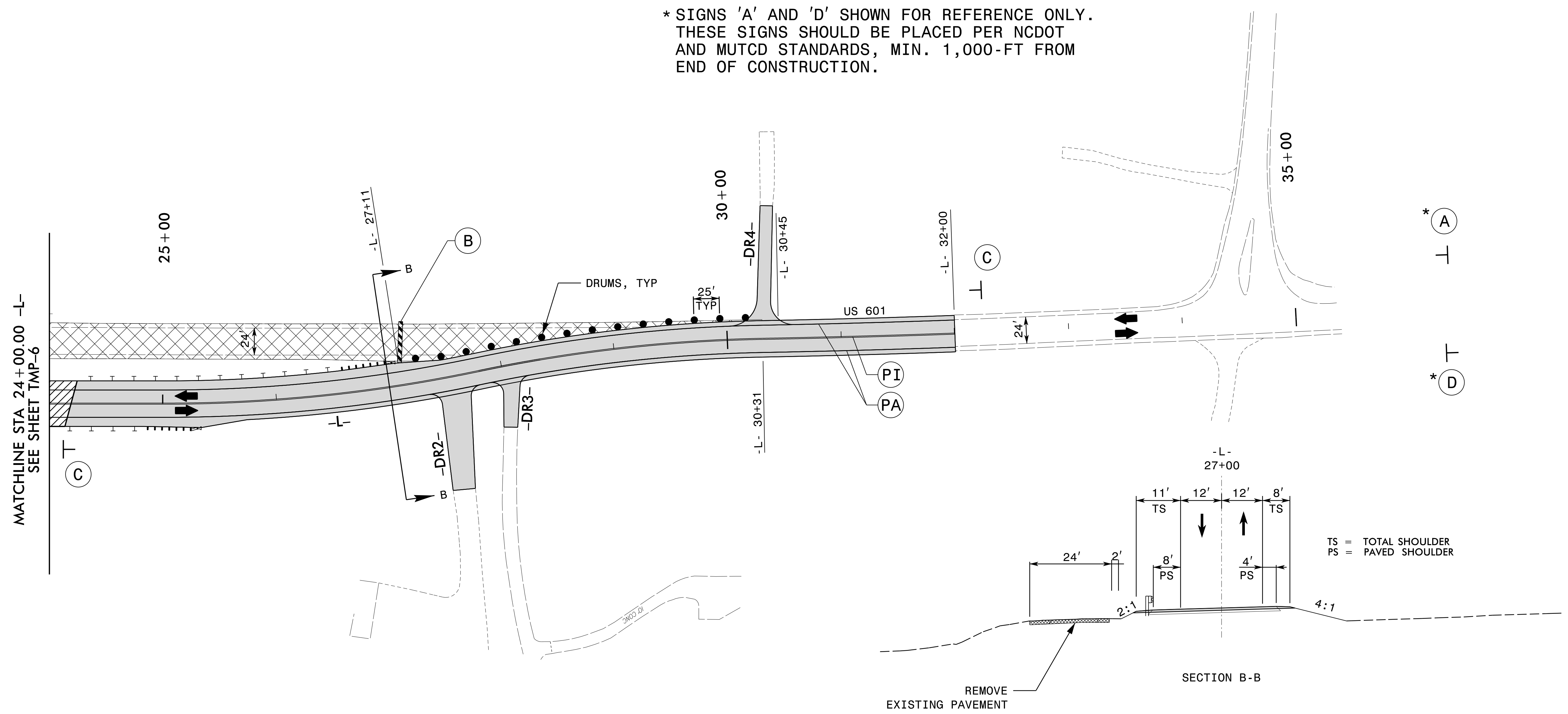


PHASE II DETAIL

MATCHLINE STA 24+00.00 -L-
SEE SHEET TMP-7



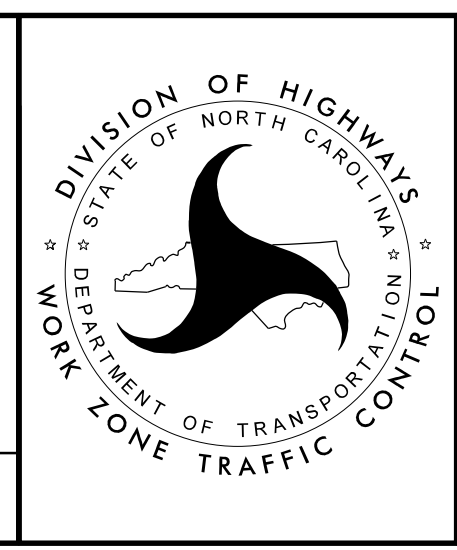
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 WORK ZONE TRAFFIC CONTROL

PHASE II DETAIL