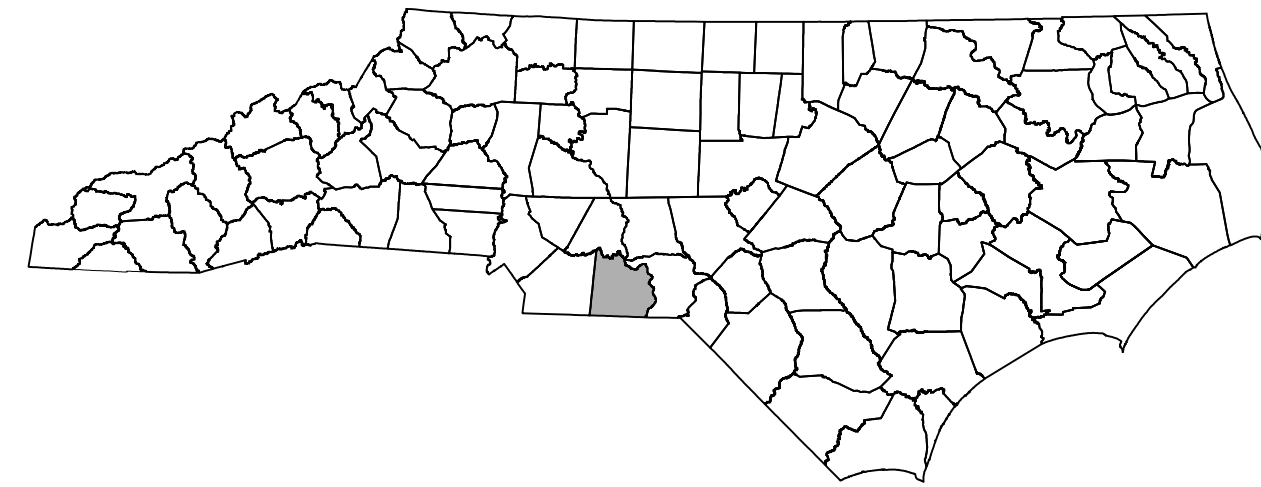


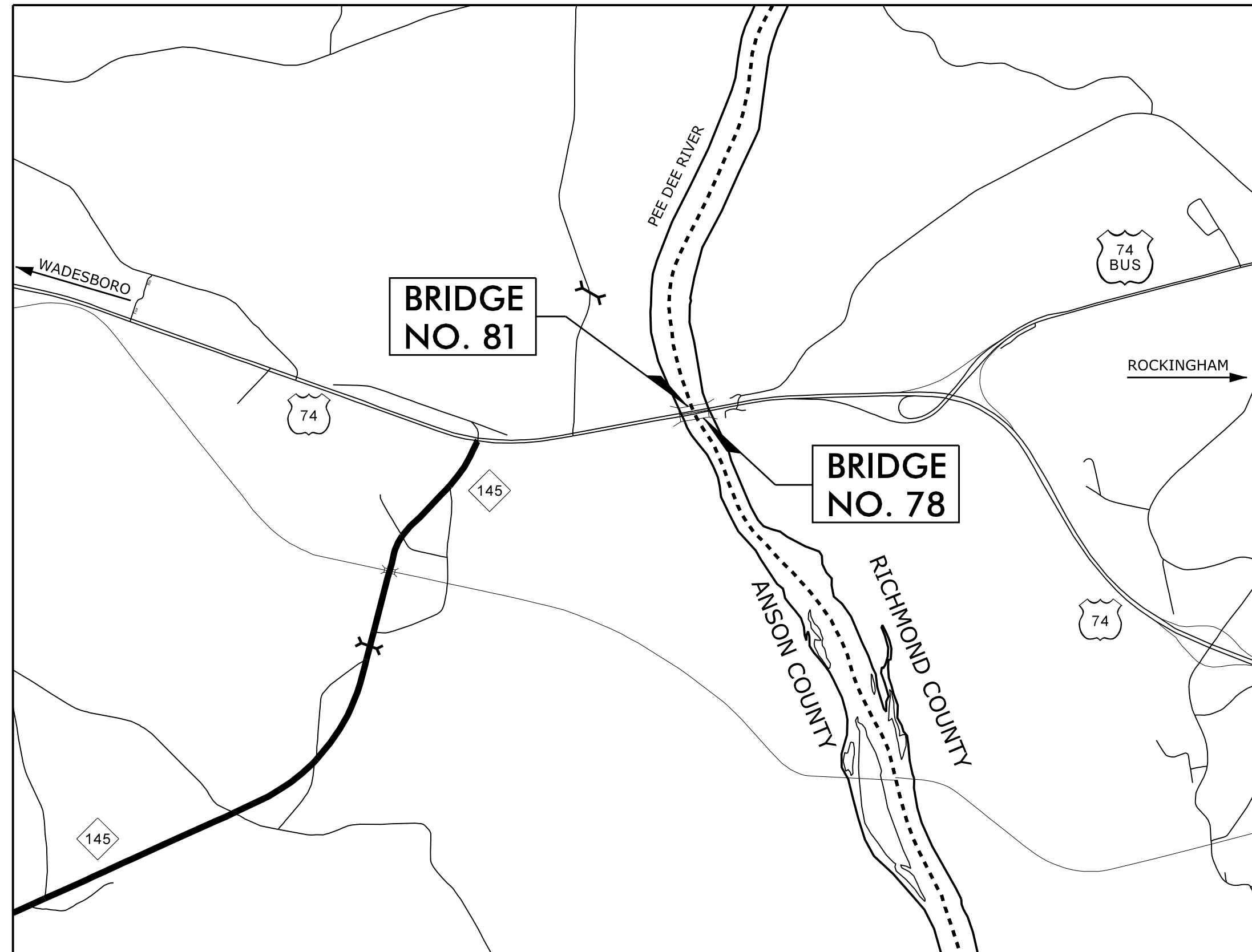
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**ANSON COUNTY**



**LOCATION: BRIDGE REHAB FOR BRIDGE NO. 78 AND BRIDGE NO. 81  
ON US 74 OVER PEE DEE RIVER**



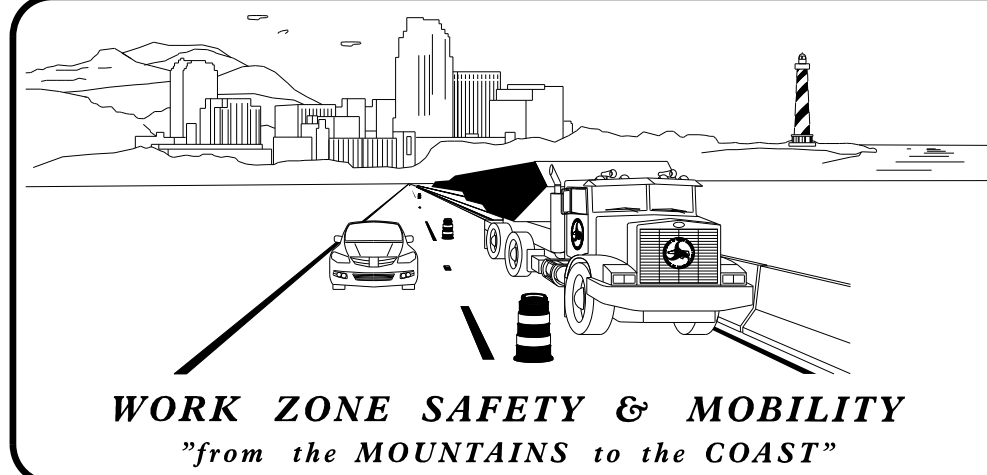
**INDEX OF SHEETS**

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 STRATEGIES AND GENERAL NOTES)
TMP-3	BRIDGE NO. 78 PHASING AND TYPICAL SECTION
TMP-4	BRIDGE NO. 81 PHASING AND TYPICAL SECTION

SHEET NO.  
TMP - 1

**15BPR.38**

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**PLANS PREPARED BY:**  
  
MICHELLE WARD, P.E.  
TRAFFIC CONTROL PROJECT ENGINEER  
  
BRANDON SCOTT  
TRAFFIC CONTROL PROJECT DESIGN ENGINEER

**NCDOT CONTACTS:**  
  
T.M. SHERRILL, P.E.  
PROJECT ENGINEER  
  
PROJECT DESIGN ENGINEER



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**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

**APPROVED:** *Michelle Ward*  
**DATE:** 2/12/2019  
  
SEAL

**TIP PROJECT:**

# 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
1101.04	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
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
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

# LEGEND

### GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)

PPC OVERLAY

REMOVAL

SCARIFICATION

### 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

### PAVEMENT MARKING SCHEDULE

- |                                       |  |
|---------------------------------------|--|
| P6 PAINT 6" WHITE EDGELINE            | V6 POLYUREA 6" WHITE EDGELINE            |
| P7 PAINT 6" YELLOW EDGELINE           | V7 POLYUREA 6" YELLOW EDGELINE           |
| PJ PAINT 6" 10'-30'/SP. WHITE SKIP    | VJ POLYUREA 6" 10'-30'/SP. WHITE SKIP    |
| PK PAINT 6" 3'-9'/SP. WHITE MINI-SKIP | VK POLYUREA 6" 3'-9'/SP. WHITE MINI-SKIP |
|                                       | MB CRYSTAL/RED RAISED PAVEMENT MARKER    |

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APPROVED: <i>Michelle Ward</i> DATE: 2/12/2019			<h2 style="margin: 0;">ROADWAY STANDARD DRAWINGS &amp; LEGEND</h2>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



# MANAGEMENT STRATEGIES

BRIDGE REHAB WORK FOR BRIDGE NO. 78 AND BRIDGE NO. 81 WILL BE COMPLETED USING LANE CLOSURES. THIS INCLUDES LANE CLOSURES FOR ACCESS TO SUBSTRUCTURE WORK.

# 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.

### TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
US 74	2:00 P.M. FRIDAY THROUGH 10:00 P.M. SUNDAY

### 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 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.

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 MILE OF LANE CLOSURE ON US 74 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 74.

### TRAFFIC PATTERN ALTERATIONS

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

### SIGNING

J) 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.

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

L) 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

M) 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.

N) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS, SKINNY DRUMS OR CONES) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

### PAVEMENT MARKINGS AND MARKERS

O) UPON COMPLETION OF ALL CONSTRUCTION OPERATIONS, INSTALL FINAL PAVEMENT MARKINGS AND MARKERS IN ORIGINAL LOCATIONS AS FOLLOWS:

ROAD NAME	MARKING	MARKER
US 74	POLYUREA	PERMANENT RAISED

P) INSTALL TEMPORARY PAVEMENT MARKINGS IN ORIGINAL LOCATIONS AS FOLLOWS UNTIL FINAL MARKINGS ARE PLACED:

ROAD NAME	MARKING	MARKER
US 74	PAINT	NONE


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

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

### MISCELLANEOUS

S) COORDINATE WITH THE ENGINEER AND THE OVERSIZE/OVERWEIGHT PERMIT UNIT FOR WIDE-LOAD DETOUR ROUTES WHEN REQUIRED IN THE TRAFFIC MANAGEMENT PLAN.



PROJ. REFERENCE NO.	SHEET NO.
15BPR.38	TMP-2

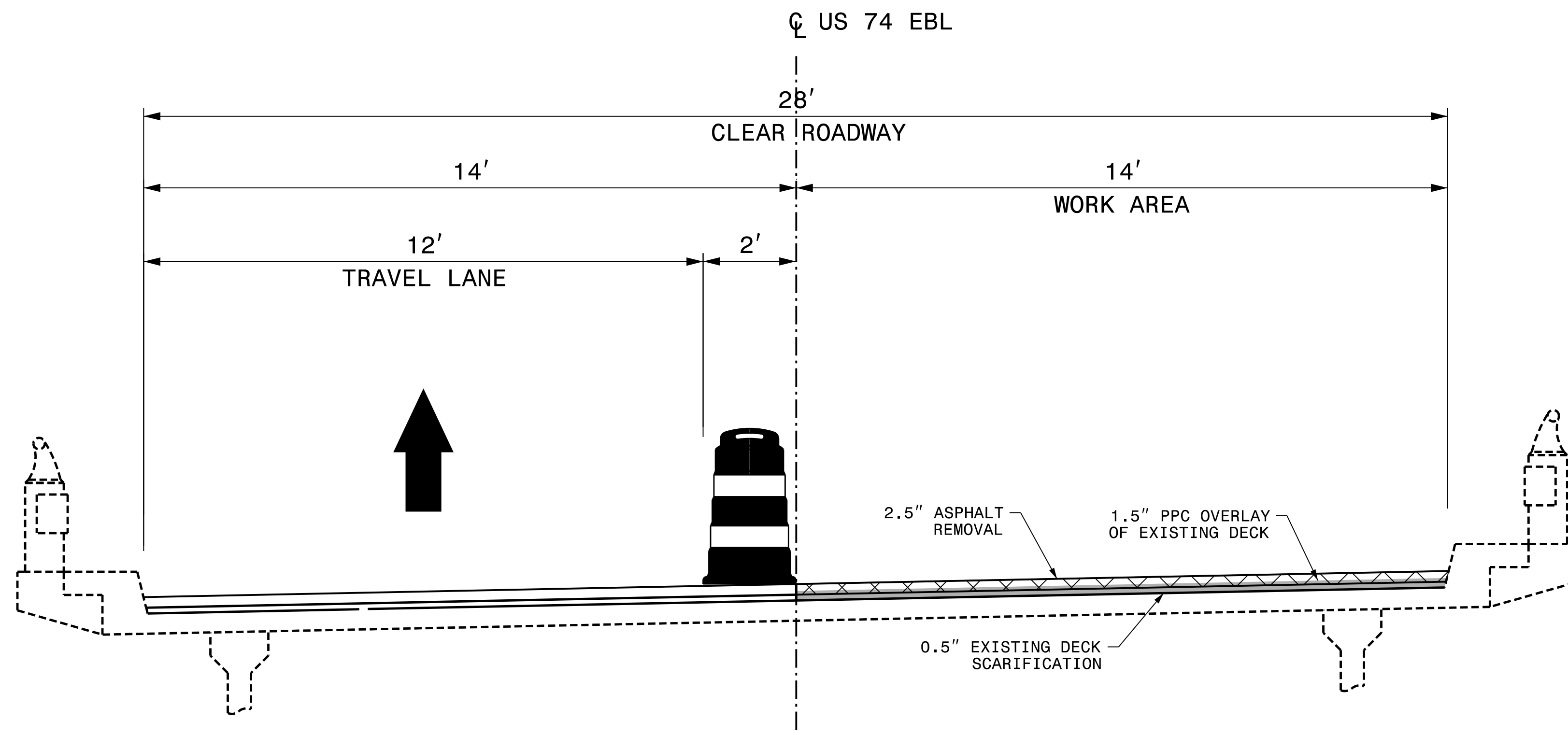


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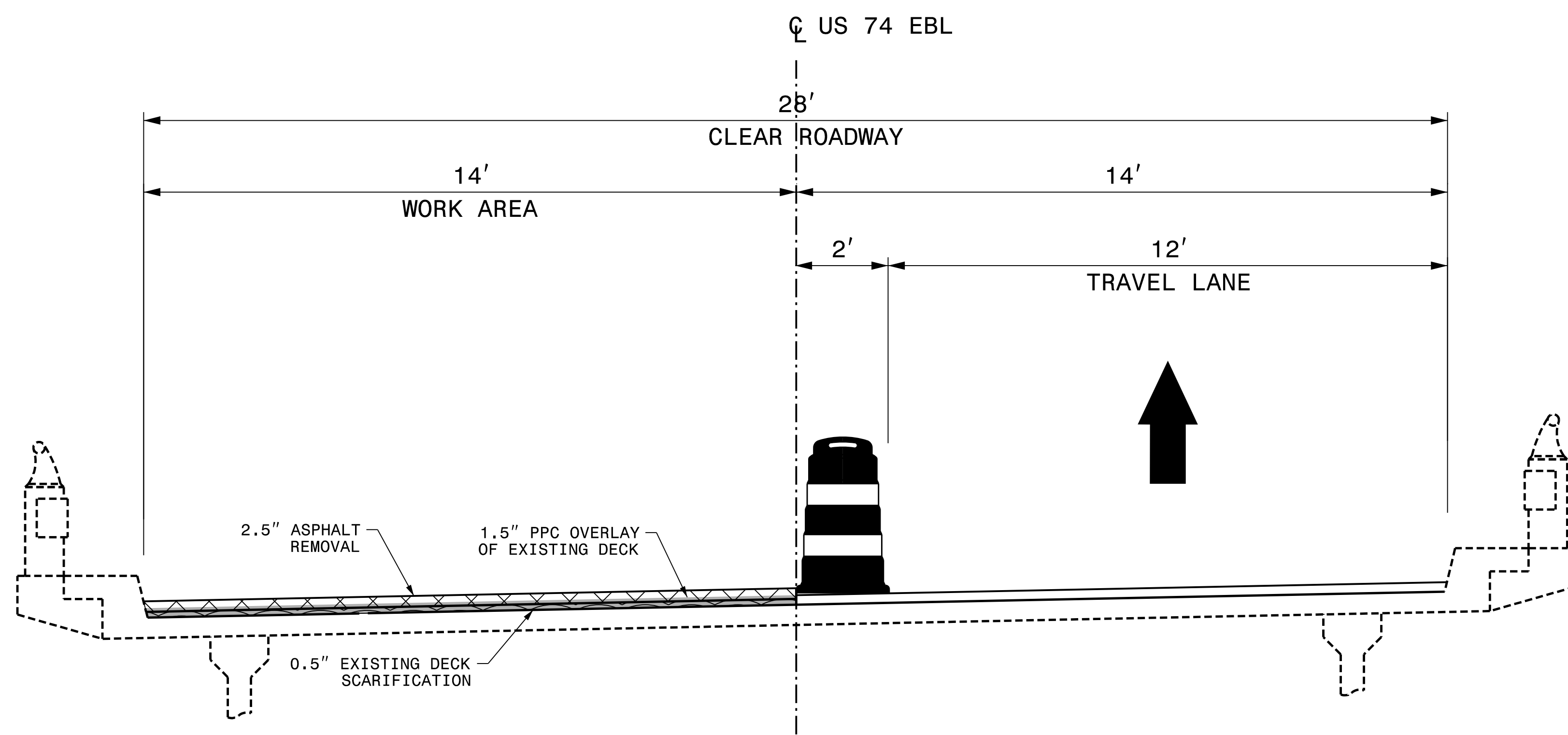
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APPROVED: <i>Michelle Ward</i> DATE: 2/27/2019 SEAL 		TRANSPORTATION OPERATIONS PLAN
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STAGE 1



**TRAFFIC CONTROL STAGING**  
 COORDINATE WITH THE OVERSIZE OVERWEIGHT UNIT DURING CONSTRUCTION ALONG BRIDGE NO. 78.

**STAGE 1**  
 USING THIS SHEET AND ROADWAY STANDARD DRAWING (RSD) 1101.02, SHEET 3 OF 14, CLOSE THE OUTSIDE EASTBOUND TRAVEL LANE AND COMPLETE SUPERSTRUCTURE BRIDGE WORK ALONG THE RIGHT SIDE OF BRIDGE NO. 78.

**NOTE:** WORK MAY ALSO BEGIN ON SUBSTRUCTURE AT THIS TIME UTILIZING THE CURRENT LANE CLOSURE OPERATION

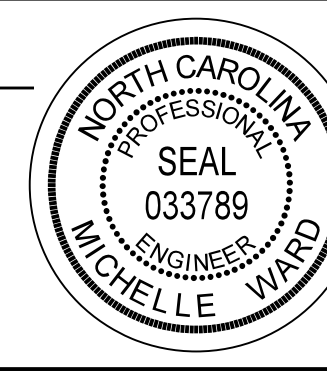
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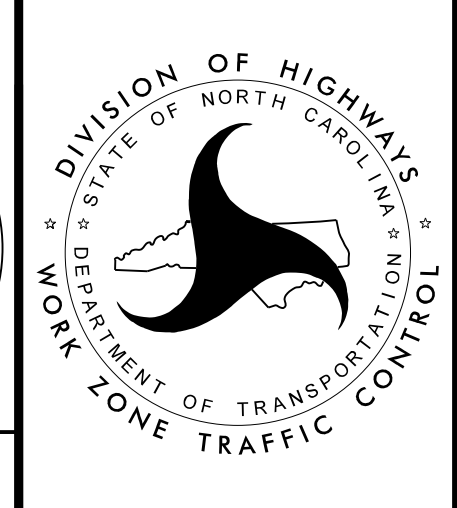
**STAGE 2**  
 USING THIS SHEET AND RSD 1101.02, SHEET 3 OF 14, CLOSE THE INSIDE EASTBOUND TRAVEL LANE AND COMPLETE SUPERSTRUCTURE BRIDGE WORK ALONG THE LEFT SIDE OF BRIDGE NO. 78.

**NOTE:** WORK MAY CONTINUE ON SUBSTRUCTURE DURING STAGE 2 CONSTRUCTION AND SHALL BE COMPLETED DURING THIS STAGE

REPLACE PAVEMENT MARKINGS OBLITERATED DURING DECK WORK WITH TEMPORARY PAVEMENT MARKINGS IN THEIR ORIGINAL LOCATIONS UNTIL FINAL MARKINGS ARE INSTALLED.

**STAGE 3**  
 AT THE COMPLETION OF ALL BRIDGE WORK, USING RSD 1101.02, SHEET 3 OF 14, MILL APPROACH ROADWAY AND OVERLAY AS SHOWN IN THE STRUCTURE PLANS, THEN USE RSD 1101.02, SHEET 12 OF 14 TO PLACE FINAL PAVEMENT MARKINGS AND MARKERS IN THEIR ORIGINAL LOCATIONS.

APPROVED: *Michelle Ward*  
 DATE: 2/12/2019  
 SEAL  




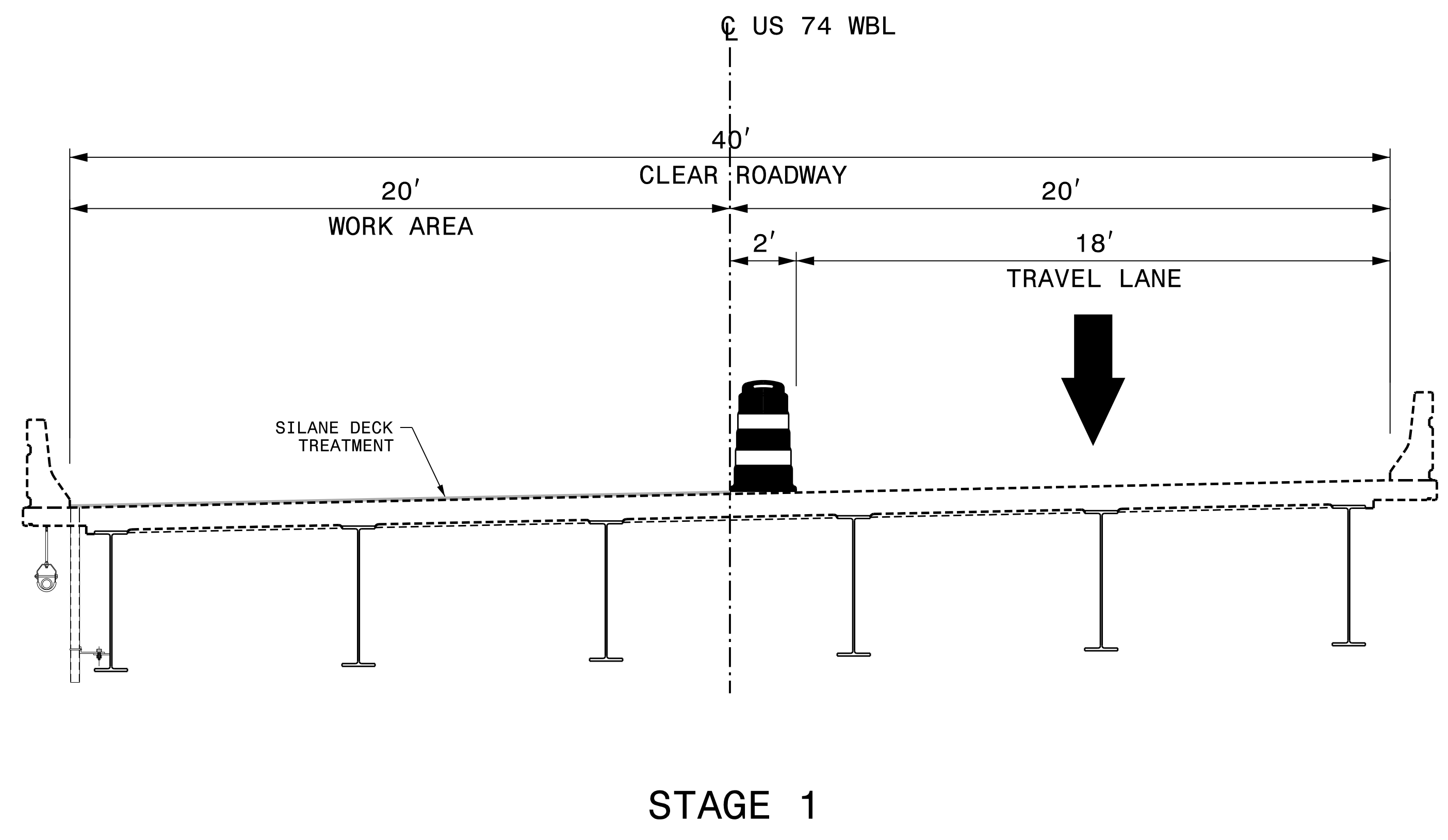
BRIDGE NO. 78  
 TYPICAL SECTION  
 & PHASING

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REVISIONS





**TRAFFIC CONTROL STAGING**

**STAGE 1**  
USING THIS SHEET AND ROADWAY STANDARD DRAWING (RSD) 1101.02, SHEET 3 OF 14, CLOSE THE OUTSIDE WESTBOUND TRAVEL LANE AND COMPLETE SUPERSTRUCTURE BRIDGE WORK ALONG THE RIGHT SIDE OF BRIDGE NO. 81.

**NOTE:** WORK MAY ALSO BEGIN ON SUBSTRUCTURE AT THIS TIME UTILIZING THE CURRENT LANE CLOSURE OPERATION

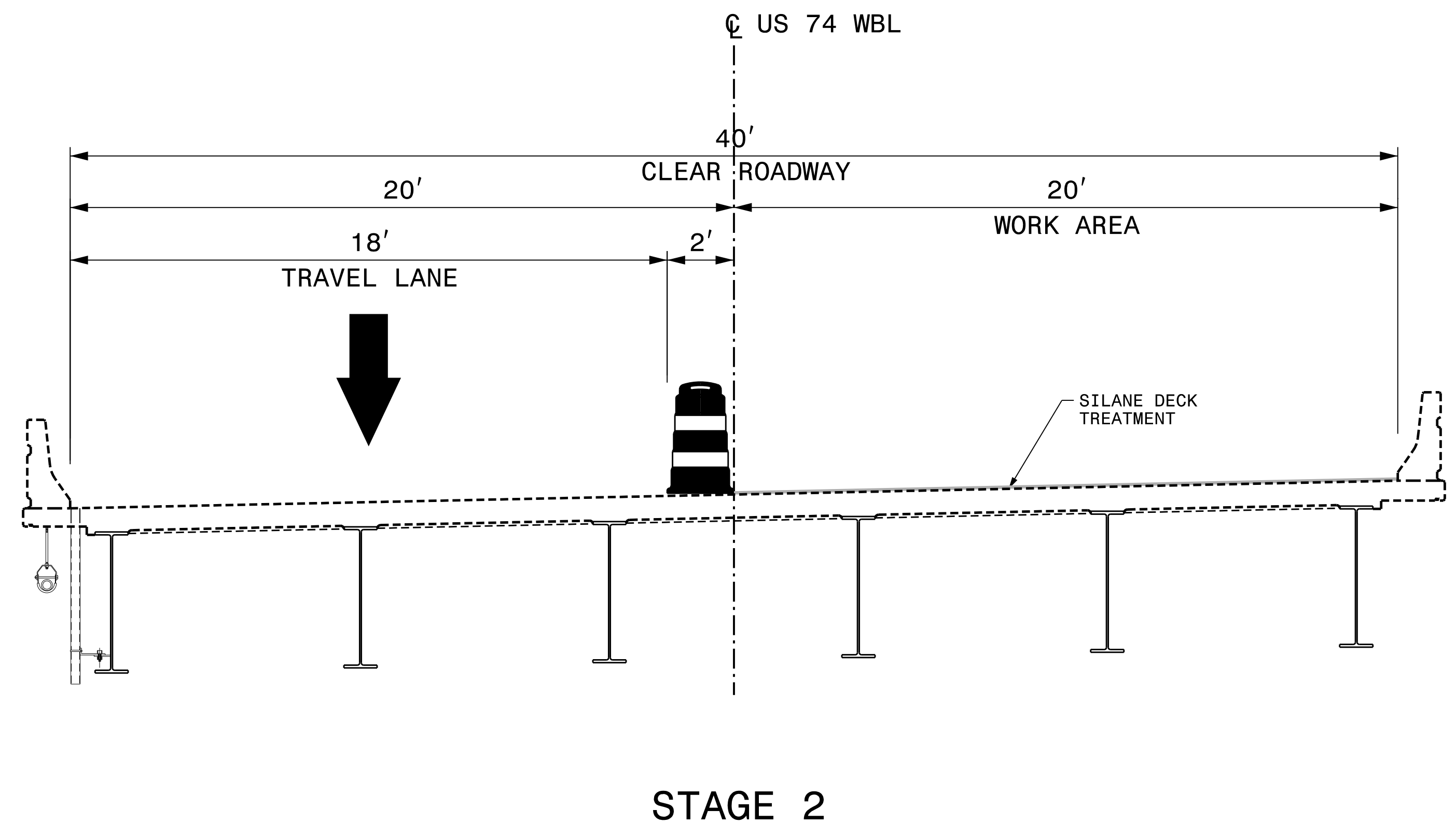
REPLACE PAVEMENT MARKINGS OBLITERATED DURING DECK WORK WITH TEMPORARY PAVEMENT MARKINGS IN THEIR ORIGINAL LOCATIONS UNTIL FINAL MARKINGS ARE INSTALLED.

**STAGE 2**  
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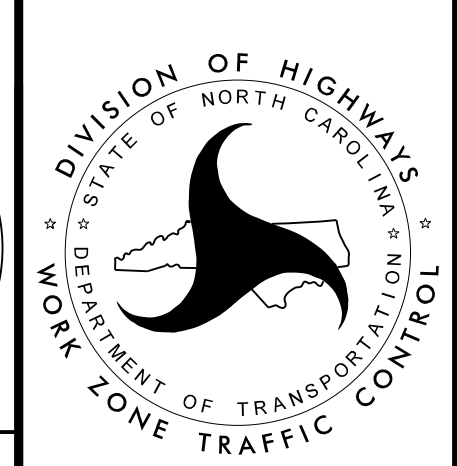
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DATE: 2/12/2019



**BRIDGE NO. 81  
TYPICAL SECTION  
& PHASING**

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