



BK-5101R

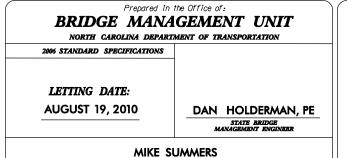
NO. DO00074

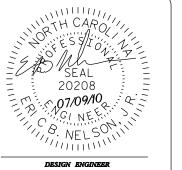
DESIGN DATA

ADT 2005 = 4300 ADT 2025 = 8600

PROJECT LENGTH

LENGTH STRUCTURE PROJECT = 0.097 MILE





N.C.

STATE PROJ. NO.

42579.3.16

BK-5101R

F. A. PROJ. NO.

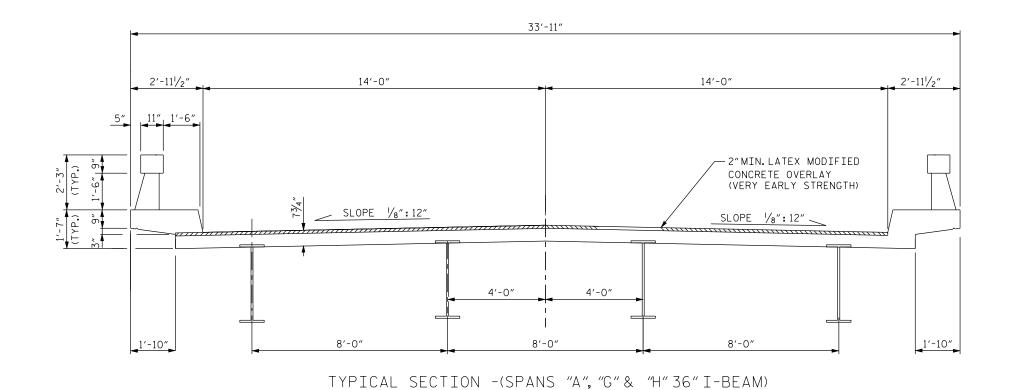
BRSTP-0011(19)

BRSTP-0011(19)

6

DESCRIPTION

CONST



	TOTAL BILL OF MATERIAL									
** DECK SCARIFICATION	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO- DEMOLITION	LATEX MODIFIED CONC VERY EARLY STR.	PLACING & FINISHING LATEX MODIFIED CONCVERY EARLY STR.	CLASS AA CONCRETE	EVAZOTE JOINT SEALS	GROOVING BRIDGE FLOOR	ASPHALT CONCRETE SURFACE COURSE TYPE SF 9.5A
SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	SQ.YDS.	C.Y.	SQ.YDS.	C.Y.	LUMP SUM	SQ.FT.	TONS
1891	1549	31	0	1580	91	1580	0	LUMP SUM	14,220	34

<sup>\*</sup> QUANTITY SHOWN IS FOR INFORMATION ONLY.

DRAWN BY: S.T. SANDOR DATE: APR./2010 CHECKED BY: A. ASTER DATE: APR./2010

\$\$\$\$\$\$SYSTIME\$\$\$\$\$ \$\$\$\$USERNAME\$\$\$\$

\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$DGN\$\$\$\$\$\$\$\$\$\$\$\$\$

# NOTES

FOR OVERLAY OF BRIDGE DECKS WITH LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH, SEE SPECIAL PROVISIONS.

SEE SPECIAL PROVISIONS FOR SURFACE PREPARATION. FOR HYDRO-DEMOLITION, SEE SPECIAL PROVISIONS .

THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN -OFF WATER FROM THE HYDRO- DEMOLITION PROCESS, SEE SPECIAL PROVISIONS.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE. THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF DECK. SEE DETAIL.

FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS.

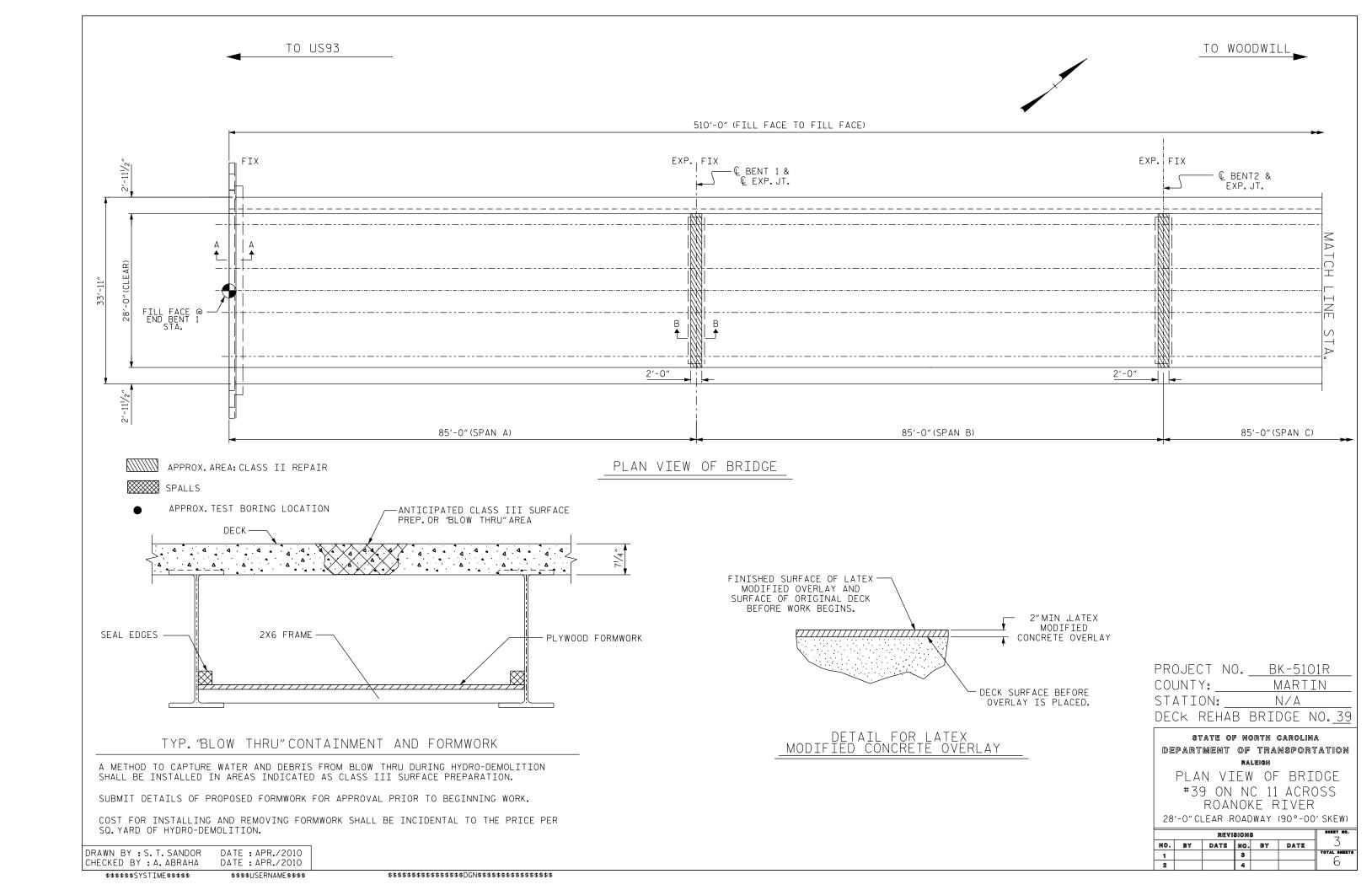
PROJECT NO. <u>BK-5101R</u>
COUNTY: <u>MARTIN</u>
STATION: <u>N/A</u>
BRIDGE NO. <u>39</u>

# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BALFIGM

TYPICAL SECTIONS OF BRIDGE No.39 ON NC 11 OVER ROANOKE RIVER

SHEET NO.	revisions						
	DATE	BY	NO.	DATE	BY	NO.	
TOTAL SMEETS			3			1	
6 1			a.			2	

<sup>\*\*</sup> INCLUDES APPROACH MILLING.



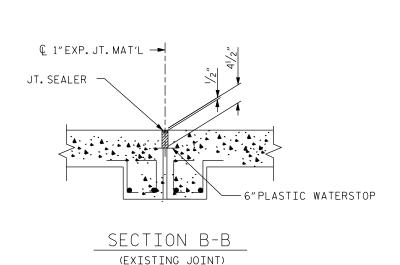
TO US93

| Si0'-0" (FILL FACE TO FILL FACE)

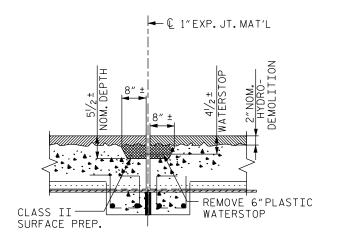
| EXP. FIX | EXP. FIX | EXP. FIX | EXP. FIX | EXP. JT. | EXP. JT.

# PLAN VIEW OF BRIDGE

85'-0"(SPAN D)



85'-0"(SPAN C)



85'-0"(SPAN E)

# MINIMUM EXISTING JOINT DEMOLITION

(FOR SECTION B-B)

NOTE: RETAIN ALL EXISTING REINF. STEEL.CLEAN AND REPAIR AS REQ'D. PROJECT NO. BK-5101R
COUNTY: MARTIN
STATION: N/A

APPROX. AREA: CLASS II REPAIR

APPROX. TEST BORING LOCATION

SPALLS

# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RAIFIGM

DECK REHAB BRIDGE NO. 39

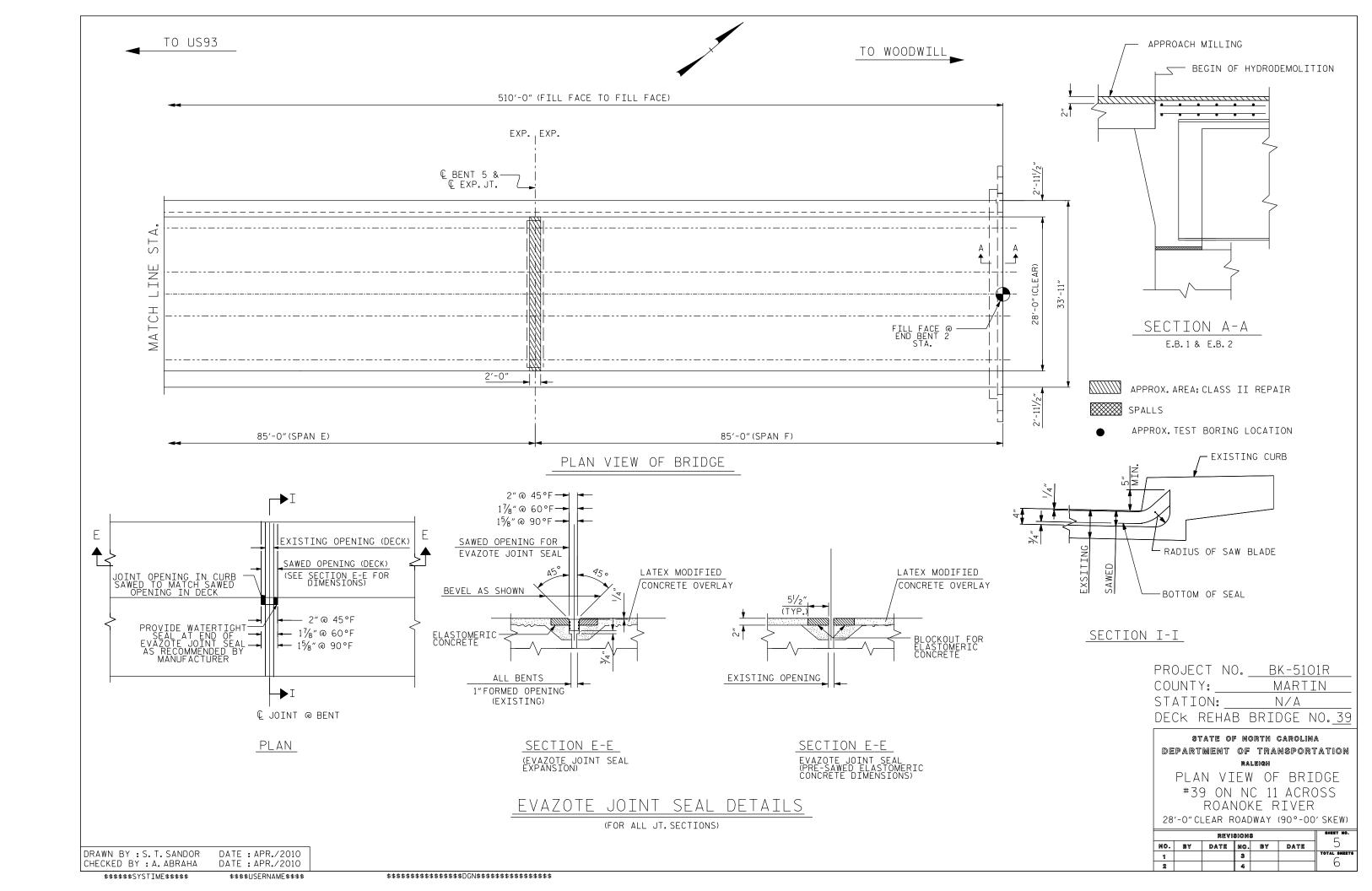
PLAN VIEW OF BRIDGE #39 ON NC 11 ACROSS ROANOKE RIVER

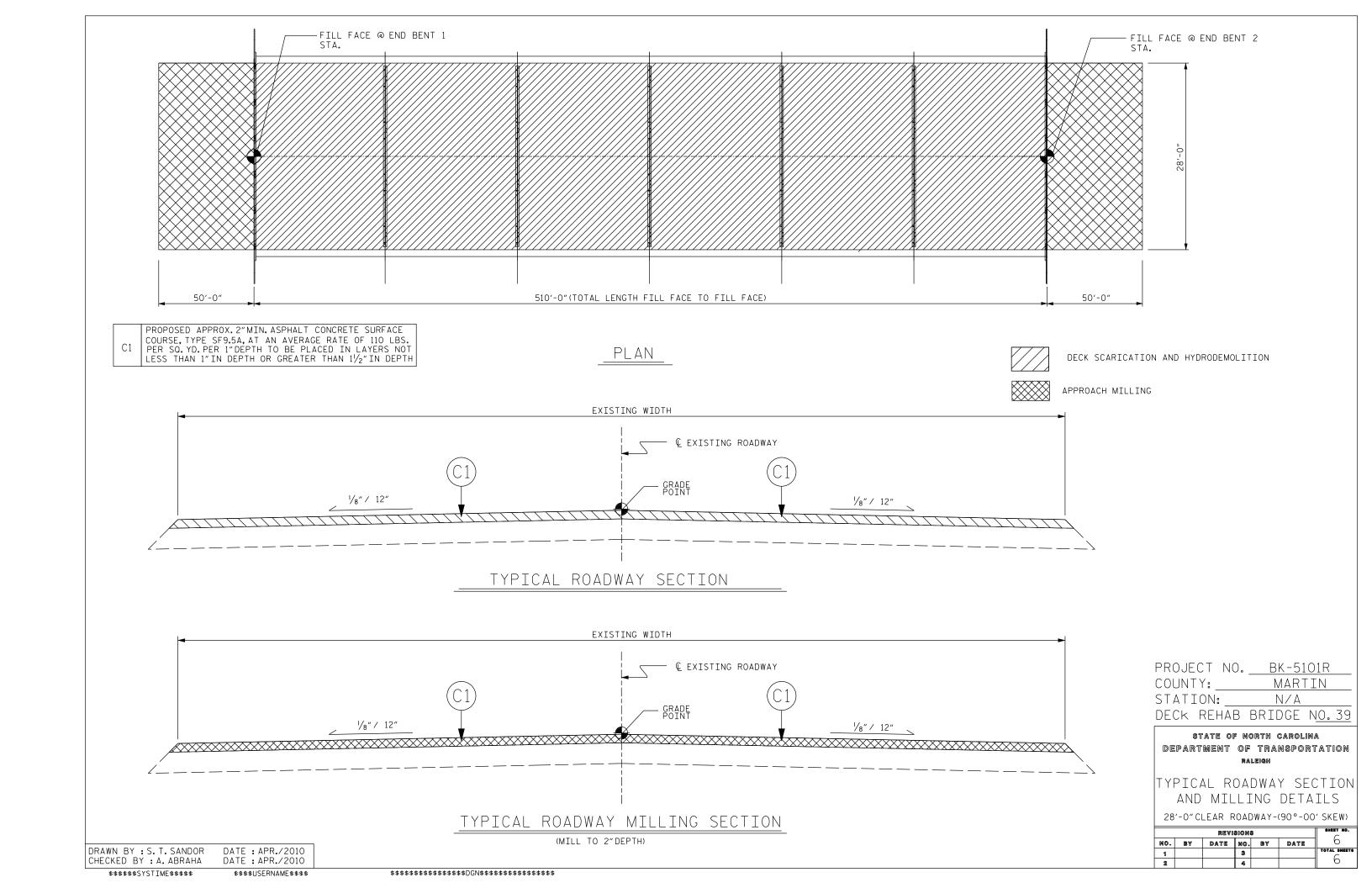
28'-0"CLEAR ROADWAY (90°-00' SKEW)

		l 4 l					
NO.	BY	DATE	NO.	BY	DATE	4	
1			3			TOTAL SHEETS	
2			4			0	

DRAWN BY: S. T. SANDOR DATE: APR./2010 CHECKED BY: A. ABRAHA DATE: APR./2010

\$\$\$\$\$\$SYSTIME\$\$\$\$\$ \$\$\$\$USERNAME\$\$\$\$





STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PLAN FOR PROPOSED TRAFFIC CONTROL

# MARTIN COUNTY

LOCATION: BRIDGE NO. 39, NC 11/NC 42 OVER ROANOKE RIVER

TYPE OF WORK: TRAFFIC CONTROL FOR BRIDGE DECK PRESERVATION

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -

PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C.,

DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE

TITLE

TEMPORARY LANE CLOSURES

PORTABLE WORK ZONE SIGNS

PAVEMENT MARKER SPACING

FLAGGING DEVICES

SKINNY DRUM

DRUMS

TEMPORARY SHOULDER CLOSURES

TRAFFIC CONTROL DESIGN TABLES

PERMANENT RAISED PAVEMENT MARKERS

PAVEMENT MARKINGS - LINE TYPES AND OFFSETS PAVEMENT MARKINGS - TWO-LANE, TWO-WAY ROADWAYS

CONSIDERED A PART OF THESE PLANS:

STD. NO.

1101.02

1101.04

1101.11

1110.02

1130.01

1150.01

1180.01

1205.01

1205.02

1250.01

1251.01

## TITLE SHEET NO. TCP-1 LEGEND, AND INDEX OF SHEETS TCP-2 GENERAL NOTES TCP-3 VICINITY MAP AND PHASING

LEGEND

STATE PROJECT REFERENCE NO.

BK-5101R

SHEET N

TCP-1

# **GENERAL**

**→** DIRECTION OF TRAFFIC FLOW

NORTH ARROW

- EXIST. PVMT.

WORK AREA

# TRAFFIC CONTROL DEVICES

TYPE III BARRICADE

▲ CONE

DRUM SKINNY DRUM

FLASHING ARROW PANEL (TYPE C)

PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

FLAGGER

# INDEX OF SHEETS

# LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS. DETAIL FOR TEMPORARY LANE CLOSURES USING FLAGGING TCP-4 **OPERATIONS** TCP-5 DETAIL FOR ADVANCE WORK ZONE SIGNING

APPROVED BUTE SUBJECT PLAN PREPARED BY:



BETSY L. WATSON, PE

TRAFFIC CONTROL ENGINEER TRANSPORTATION DESIGNER

REGINA M. CULLEN

#### PROJECT REFERENCE NO. SHFFT NO BK-5101B TCP-2

# **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 CLOSURE TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME NC 11/NC 42

#### HOLIDAY

- 1) FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2) FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 P.M. DECEMBER 31st TO 6:00 A.M. JANUARY 2nd. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 A.M. THE FOLLOWING TUESDAY.
- 3) FOR EASTER, BETWEEN THE HOURS OF 7:00 P.M. THURSDAY AND 6:00 A.M. MONDAY.
- 4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 P.M. FRIDAY TO 6:00 A.M. TUESDAY.
- 5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 A.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY; THEN BETWEEN THE HOURS OF 7:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- 6) FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 P.M. FRIDAY AND 6:00 A.M. TUESDAY.
- 7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 P.M. TUESDAY TO 6:00 A.M. MONDAY.
- 8) FOR CHRISTMAS. BETWEEN THE HOURS OF 7:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

### 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 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.
- E) 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.

#### TRAFFIC PATTERN ALTERATIONS

F) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

#### SIGNING

- G) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT. OF THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION
- H) ENSURE ALL SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

#### TRAFFIC CONTROL DEVICES

I) 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 AS SHOWN IN THE PLANS.

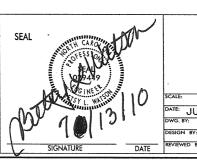
### PAVEMENT MARKINGS AND MARKERS

- J) ON THE FINAL SURFACE OF NC 11/NC 42, INSTALL PAINT PAVEMENT MARKINGS ACCORDING TO RSD 1205.02 AND PERMANENT RAISED PAVEMENT MARKERS ACCORDING TO RSD 1250.01.
- K) AT THE END OF EACH NIGHT'S OPERATIONS, REPLACE ANY DAMAGED PAVEMENT MARKINGS ON NC 11/NC 42 WITH TEMPORARY PAINT MARKINGS. PLACE ONE APPLICATION OF PAINT FOR TEMPORARY MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

### MISCELLANEOUS

L) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.

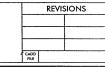


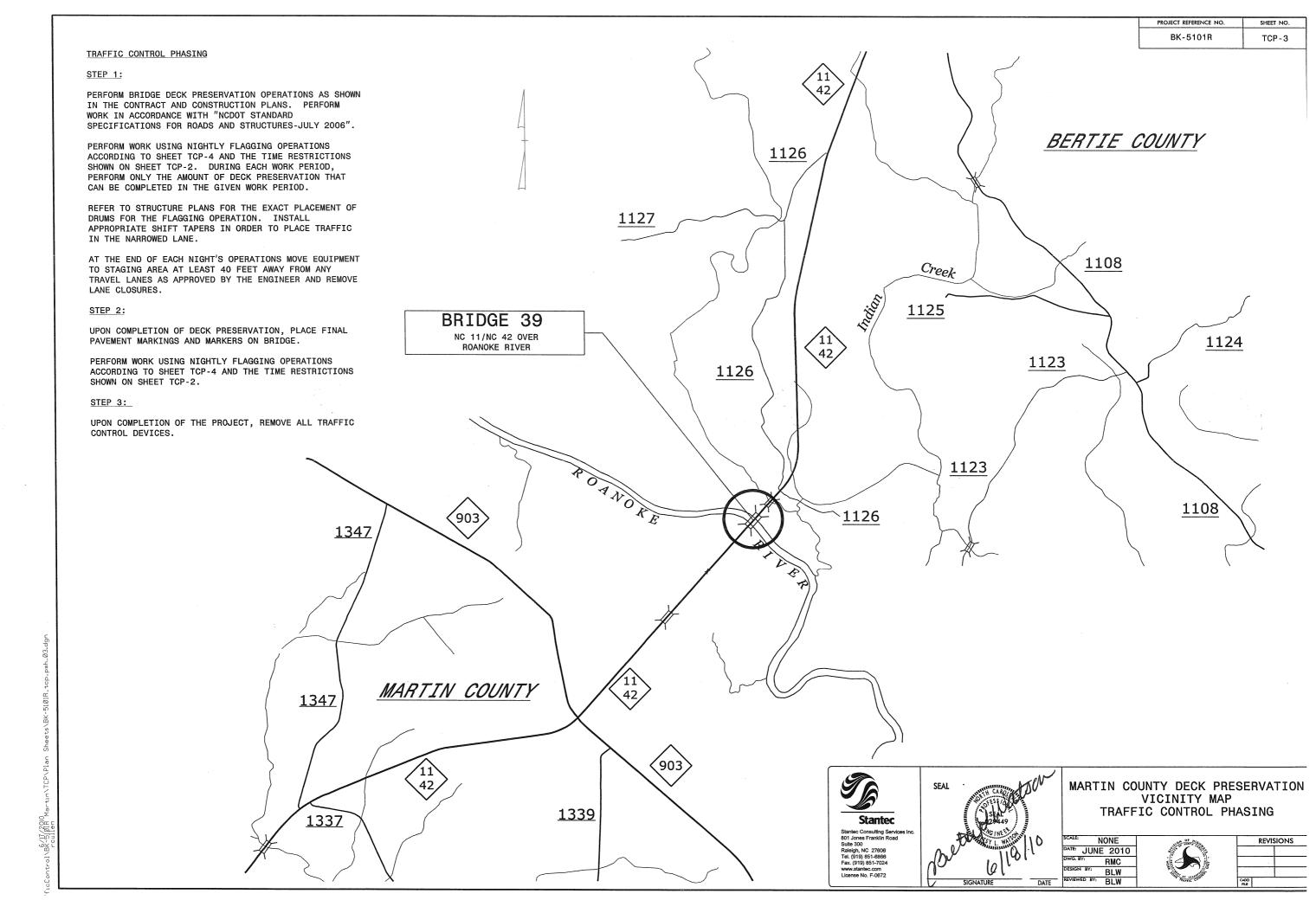


### **GENERAL NOTES**

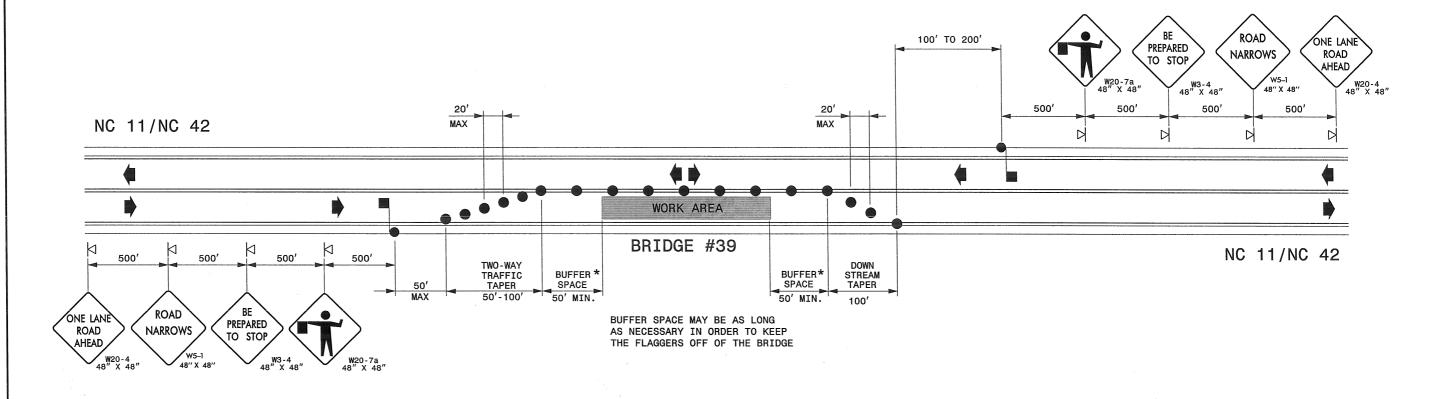
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PROJECT REFERENCE NO. BK-5101R TCP-4

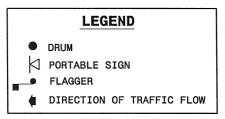


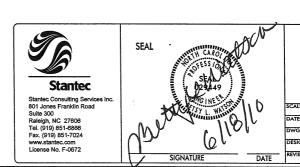
# **GENERAL NOTES FOR FLAGGER OPERATIONS**

- 1- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
  2- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
  3- PLACE DRUMS THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 4- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER.
- (REFER TO STD. 1101.11 SHEET 2)
- 5- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
- 6- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE, SUPPLEMENT FLAGGERS LOCATED AT INTERSECTIONS WITH FLAGGER AHEAD SIGNS (W20-7a) PLACED APPROXIMATELY 250 FT. IN ADVANCE OF THE FLAGGER WHERE INTERSECTIONS ARE SIGNALIZED AND PLACE SIGNALS IN THE FLASH MODE.
- 7- FLAGGERS SHALL NOT STAND IN THE ROADWAY.

## GENERAL NOTES FOR PILOT CAR OPERATIONS

- 1- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
- 2- MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A VISIBLE LOCATION ON THE REAR OF THE PILOT VEHICLE.
- 3- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.

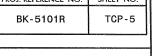




TEMPORARY LANE CLOSURES FLAGGING OPERATIONS

NONE DATE: JUNE 2010 RMC BLW

REVISIONS



HIGHWAYS

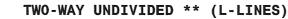
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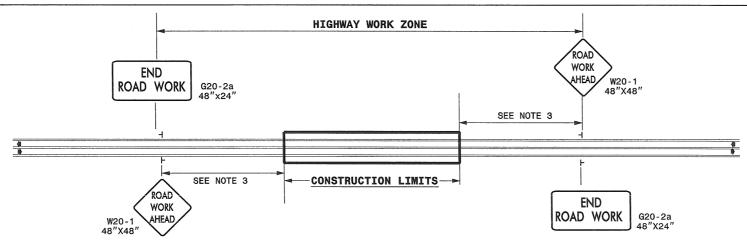
DIVISION

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N.C

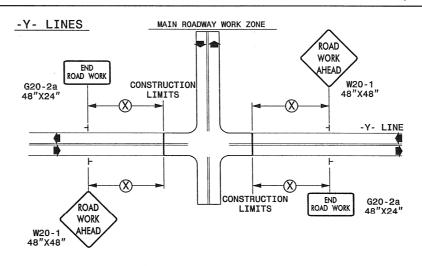
RALEIGH,





# NORTH CAROLINA TRANSPORTATION OF. 0F STATE DEPT.

# ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



	RECOMMENDED MINIMUM SIGN SPACING
POSTED SPEED LIMIT (M.P.H.)	8
≤ 50	500'
≥ 55	1000'

# **GENERAL NOTES**

- 1- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- 2- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- 3- UNLESS OTHERWISE DIRECTED BY THE ENGINEER, MOUNT STATIONARY "ROAD WORK AHEAD" SIGNS W20-1 AT LEAST 500' IN ADVANCE OF "ONE LANE ROAD AHEAD" SIGNS W20-4.
- 4- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE; FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- 5- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- 6- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- 7- DO NOT BACK BRACE SIGN SUPPORTS.



├ STATIONARY SIGN

dIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

DR.



DESIGN BY:

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS NONE

OHGINEER "	REVISIONS
CONTROL	CADD