# TIP PROJECT: 17BP.2.P.8

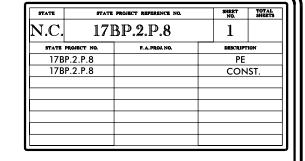
# BRIDGE NO. 96 The Straits BRIDGE NO. 73 West Mouth Bay Island VICINITY MAP

Gloucester

# CARTERET COUNTY

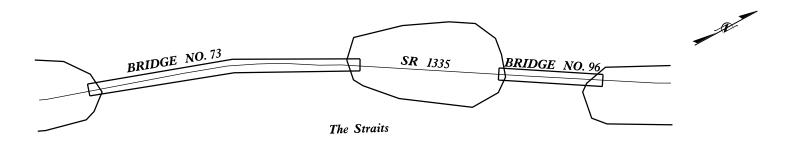
LOCATION: BRIDGES NO. 96 & 73 ON SR 1335 OVER THE STRAITS @ HARKERS ISLAND

TYPE OF WORK: BRIDGE PRESERVATION, REPAIR OF EXISTING SUPERSTRUCTURE

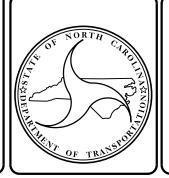




STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

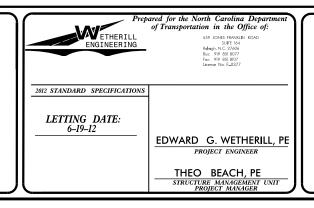


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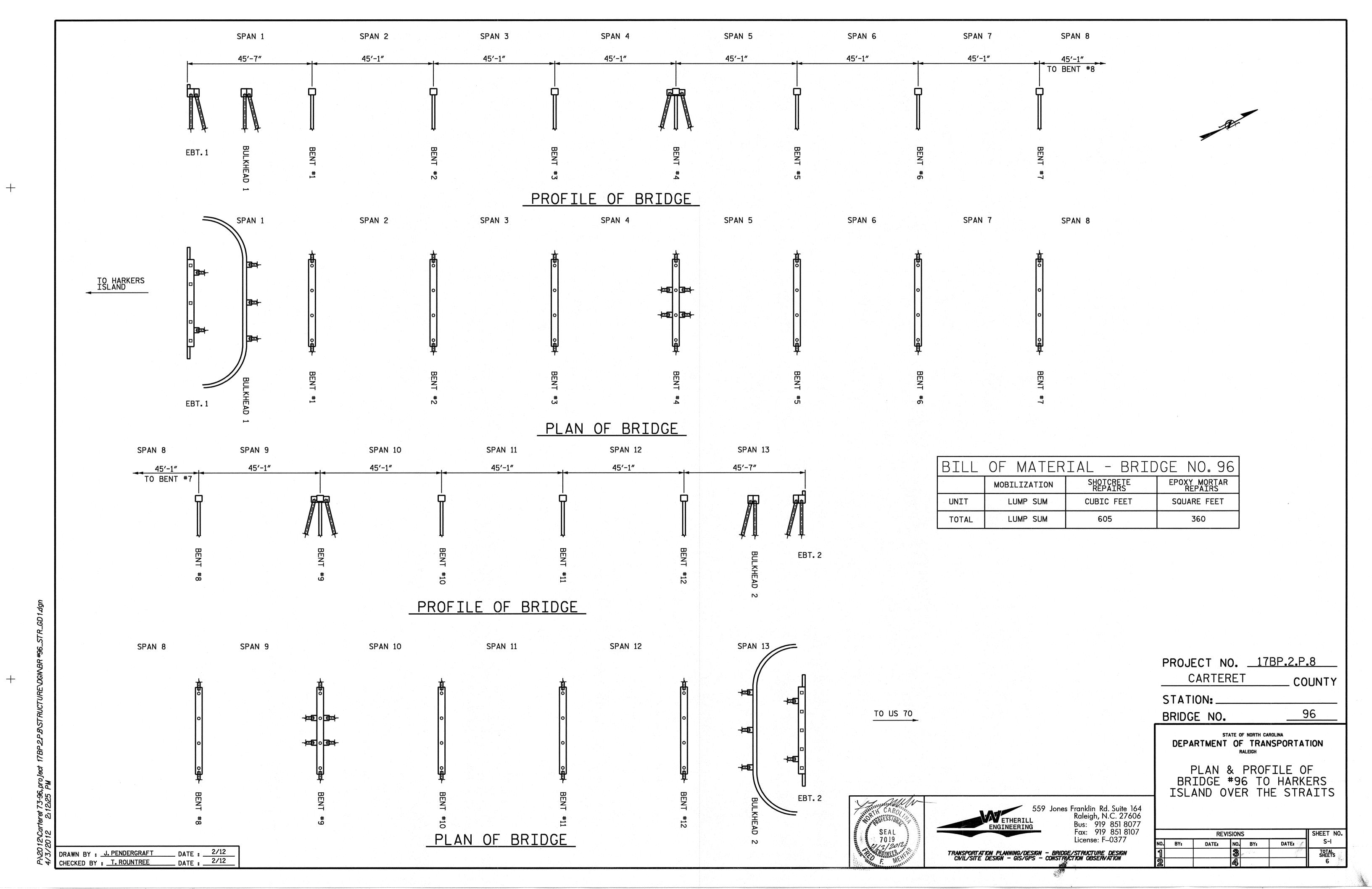


DESIGN DATA

PROJECT LENGTH





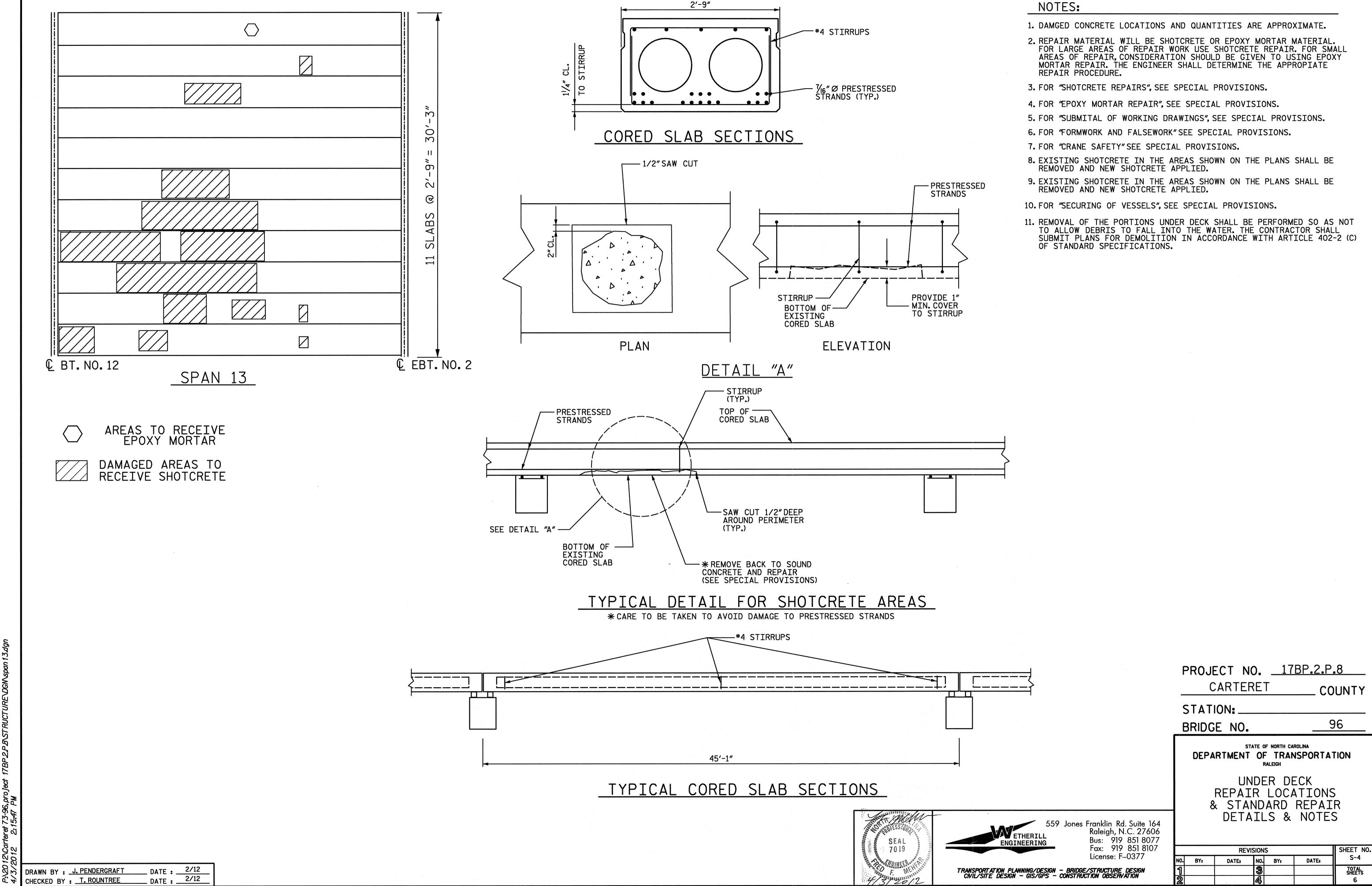


CHECKED BY : T. ROUNTREE

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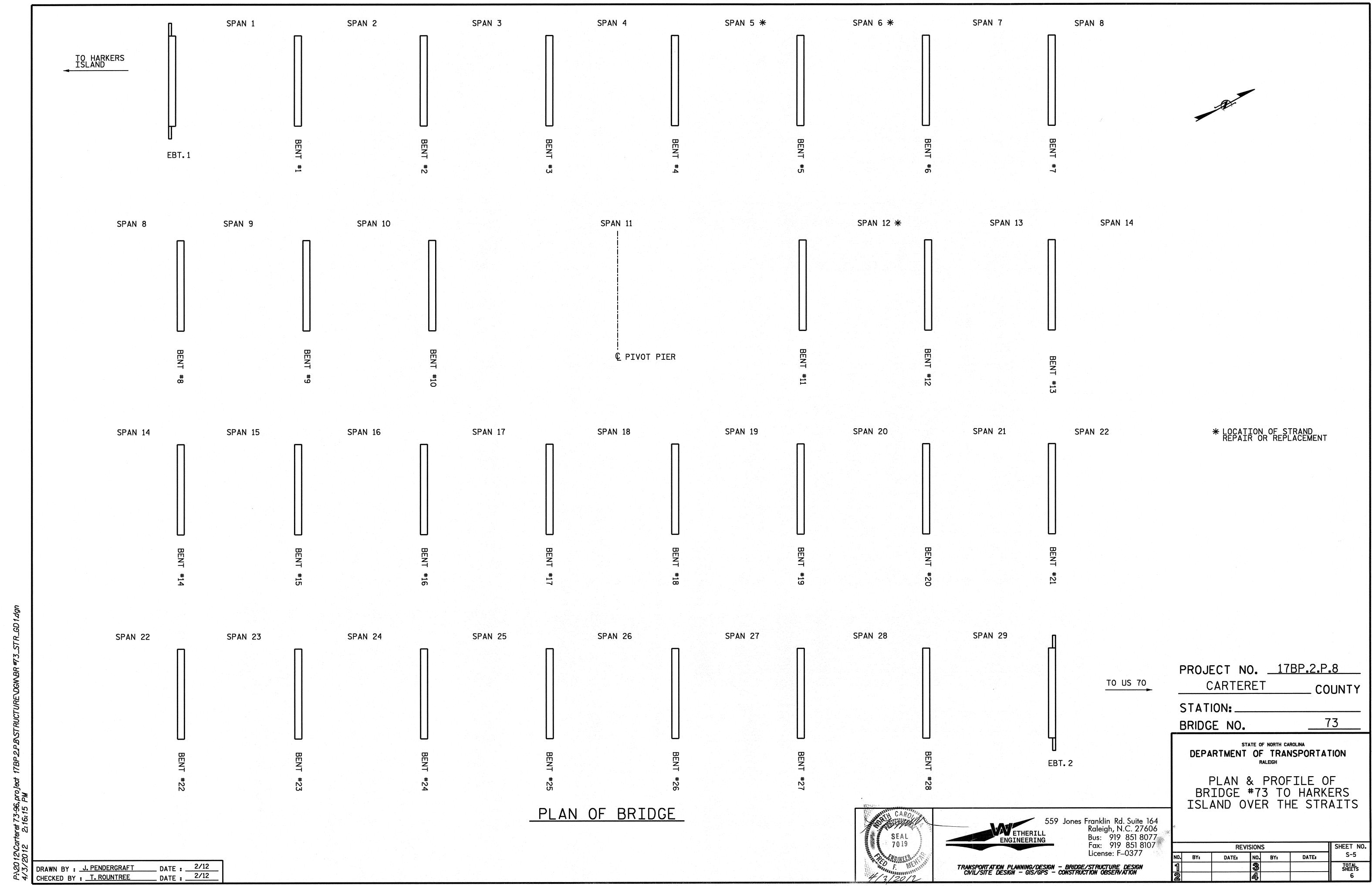
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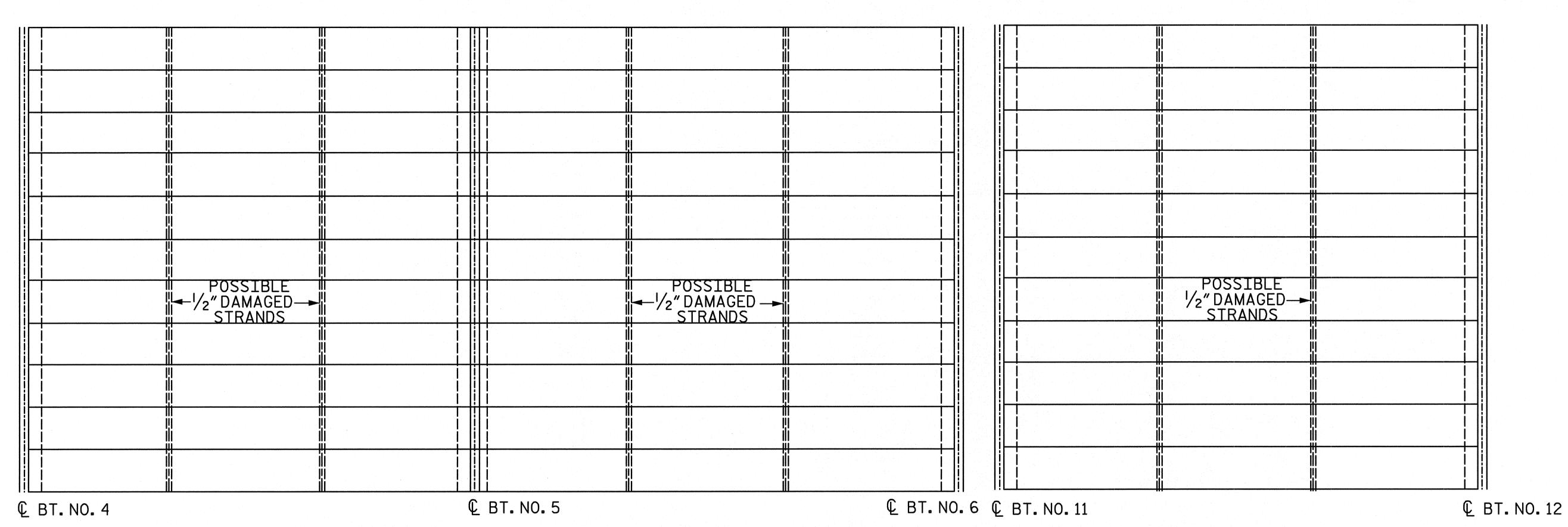
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2'-9"

CHECKED BY : T. ROUNTREE

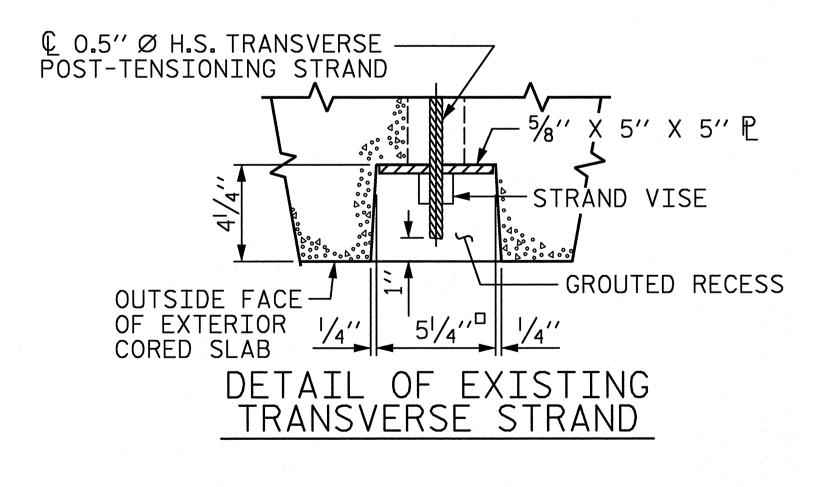




SPAN 5

SPAN 6

SPAN 12



## NOTES

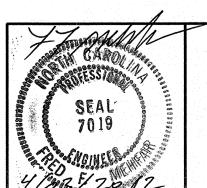
- 1. REMOVE GROUT FROM EACH END OF EXISTING TRANSVERSE STRAND.
- 2. VISUALLY INSPECT CONDITION OF STRAND AND VISE PLATE TO DETERMINE IF STRAND IS BROKEN.
- 3. IF IT IS DETERMINED THAT THE STRAND IS BROKEN, REMOVE AND REPLACE. TRAFFIC IS TO BE STOPPED DURING TENSIONING OF STRAND.
- 4. ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- 5. RECESSES FOR TRANSVERSE STRANDS SHALL BE GROUTED AFTER THE TENSIONING OF THE STRANDS.
- 6. TRANSVERSE POST TENSIONING OF THE CORED SLAB UNITS SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, EXCEPT THAT THE STRANDS SHALL BE 0.6 Ø AND TENSIONED TO 43,950 POUNDS.
- 7. IF IT CAN NOT BE DETERMINED THAT STRAND IS BROKEN, LEAVE AS IS AND REGROUT RECESS.
- 8. FOR "POST TENSION TRANSVERSE STRAND INSPECTION/REPLACEMENT", SEE SPECIAL PROVISIONS.
- 9. FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

BILL OF	- MATERIAL - BRIDGE NO.73	
POST TENSION TRANVERSE STRAND INSPECTION/REPLACEMENT		
UNIT	EACH	
TOTAL	5	

PROJECT NO. 17BP.2.P.8 CARTERET COUNTY STATION: 73 BRIDGE NO.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

STRAND INSPECTION/ REPLACEMENT LOCATIONS



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

SHEET NO. **REVISIONS** S-6 DATE: NO. BY: DATE: TOTAL SHEETS

DRAWN BY : J. PENDERGRAFT \_ DATE : 2/12 CHECKED BY : T. ROUNTREE

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# STATE OF NORTH CAROLINA RAIL DIVISION

PLAN FOR PROPOSED
TRAFFIC CONTROL

# CARTERET COUNTY

LOCATION: BRIDGES NO. 73 & NO. 96 ON SR 1335 OVER THE STRAITS TYPE OF WORK: TRAFFIC CONTROL FOR BRIDGE RESTORATION

## [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 JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM

# [INDEX OF SHEETS]

SHEET NO.	
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TCP-2	GENERAL NOTES
TCP-3	TEMPORARY LANE CLOSURE ON TWO-LANE, TWO-WAY ROADWAY

# STATE PROJECT REFERENCE NO. SHEET NO. TCP-1

# LEGEND

### **GENERAL**

DIRECTION OF TRAFFIC FLOW

NORTH ARROW

PROPOSED PVMT. ----- EXIST. PVMT.

WORK AREA

REMOVAL OF EXISTING PAVEMENT

### TRAFFIC CONTROL DEVICES

TYPE III BARRICADE

CONE

DRUM SKINNY DRUM

FLASHING ARROW PANEL (TYPE C)

- STATIONARY SIGN

PORTABLE SIGN

STATIONARY OR PORTABLE SIGN

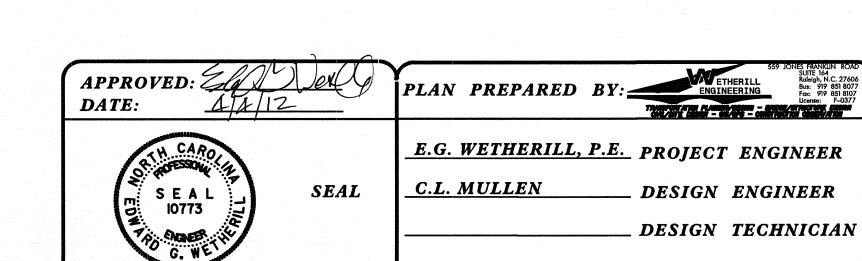
- CRASH CUSHION

CHANGEABLE MESSAGE SIGN

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

| POLICE

FLAGGER



4/2012

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 DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

### ROAD NAME

1. SR 1335

### 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 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING
- 3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 7:00 P.M. TUESDAÝ.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 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 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- 6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
- B) DO NOT STOP TRAFFIC OR CLOSE SR 1335 EXCEPT AS FOLLOWS:

OPERATION

MAX DURATION

POST TENSIONING TRANSVERSE STRANDS IN CORED SLABS (IF NECESSARY)

(AS DIRECTED BY THE ENGINEER)

PROJ. REFERENCE NO.	SHEET NO.
17BP.2.P.8	TCP-2

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- 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.
- 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.
- 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.

- 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.
- 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 ÓR BARRIER.



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

APPROVED: GALL DOUG DATE: 4/4/12

SEAL

10773

P.O. . ENGNEER

# GENERAL NOTES

NONE 1/2012 CLM DESIGN BY: CLM REVIEWED BY: EGW



REVISIONS

74/2012 .06:26 PM

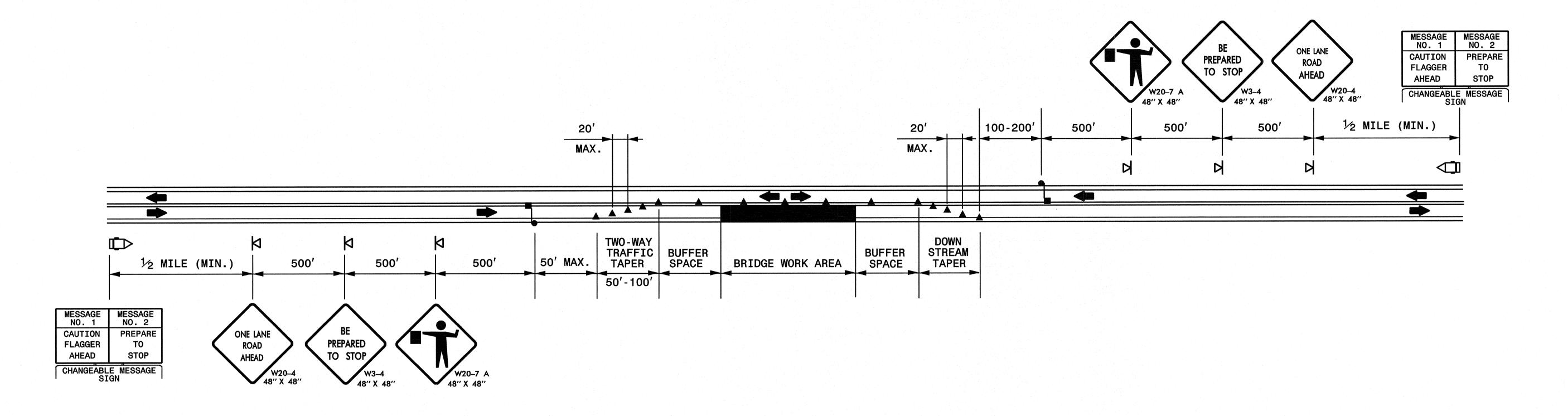
PROJ. REFERENCE NO. SHEET NO. 17BP.2.P.8 TCP-3

### PHASING

STEP 1. PERFORM BRIDGE REPAIR WORK USING FLAGGING OPERATIONS AND ACCORDING TO NOTE 'A' ON SHEET TCP-2. AT THE END OF EACH DAY'S WORK OPERATIONS, MOVE EQUIPMENT TO A STAGING AREA AT LEAST 40 FEET AWAY FROM ANY TRAVEL LANE ON SR 1335 AND REMOVE LANE CLOSURES AND DEVICES AS DIRECTED BY THE ENGINEER.

IF NECESSARY, CLOSE SR 1335 TO PERFORM POST TENSIONING OF TRANSVERSE STRANDS IN BRIDGE CORED SLABS ACCORDING TO NOTE 'B' ON TCP-2 AND ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 8 OF 9.

STEP 2. UPON COMPLETION OF ALL BRIDGE REPAIR WORK, REMOVE TRAFFIC CONTROL DEVICES FROM SR 1335.



### GENERAL NOTES FOR FLAGGER OPERATIONS

- 1. REFER TO STD. 1101.11 SHEET 4 FOR SIGN SPACING.
- 2. INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
- 3. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4. PLACE CONES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 5. EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO STD. 1101.11 SHEET 2).
- 6. DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
- 7. DRUMS OR SKINNY-DRUMS AY BE USED IN LIEU OF CONES. REFER TO STD. 1180.01 FOR SKINNY-DRUM REQUIREMENTS.
- 8. 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.
- 9. REFER TO 2009 MUTCD CHAPTER 6, FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.
- 10. DO NOT EXCEED A 1 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

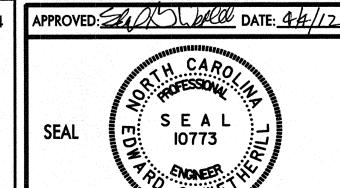
### GENERAL NOTES FOR PILOT CAR OPERATIONS

- 1. USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
- 2. IF ROADWAY WIDTH IS LESS THAN 22 FEET (EOP TO EOP), CONES MAY NOT BE REQUIRED ALONG WORK AREA AND, AT THE DISCRETION OF THE ENGINEER, CONÈS MAY BE OMÎTTED ALONG THE WORK AREA IF USING A PILOT CAR.
- 3. CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.
- MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.
- 5. DO NOT INSTALL MORE THAN 1 MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- 6. ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.



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### TEMPORARY LANE CLOSURE ON TWO-LANE, TWO-WAY ROADWAY

SCALE:	NONE
DATE:	1/2012
DWG. BY:	CLM
DESIGN BY:	CLM
REVIEWED BY:	EGW



REVISIONS