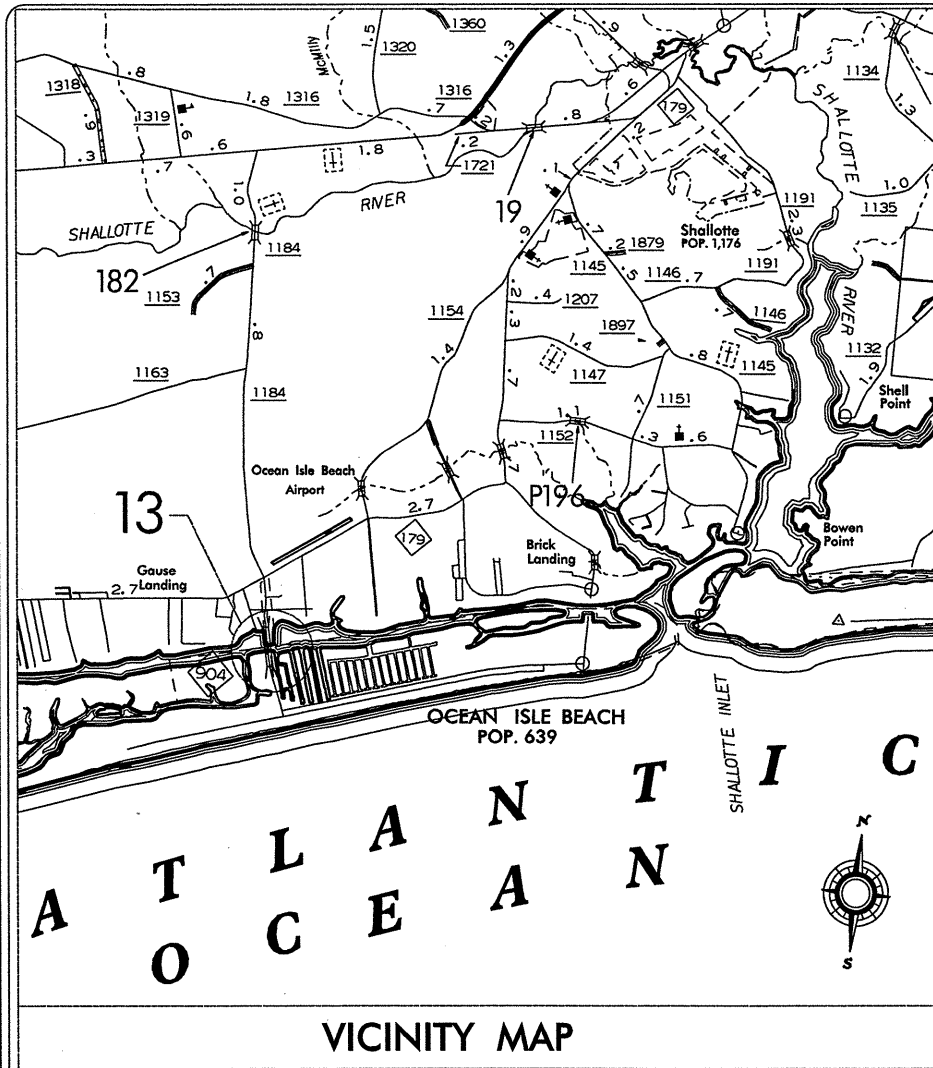


TIP: BK-5101E

CONTRACT # C202563



| INDEX OF SHEETS | |
|-----------------|-----------------------|
| 1 | TITLE SHEET |
| 1A | SUMMARY OF QUANTITIES |
| S1 - S6 | STRUCTURE PLANS |
| TCP1 - TCP4 | TRAFFIC CONTROL PLANS |

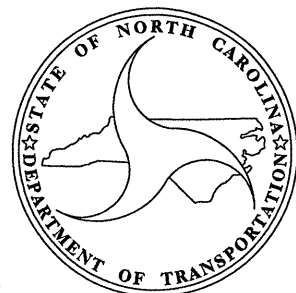
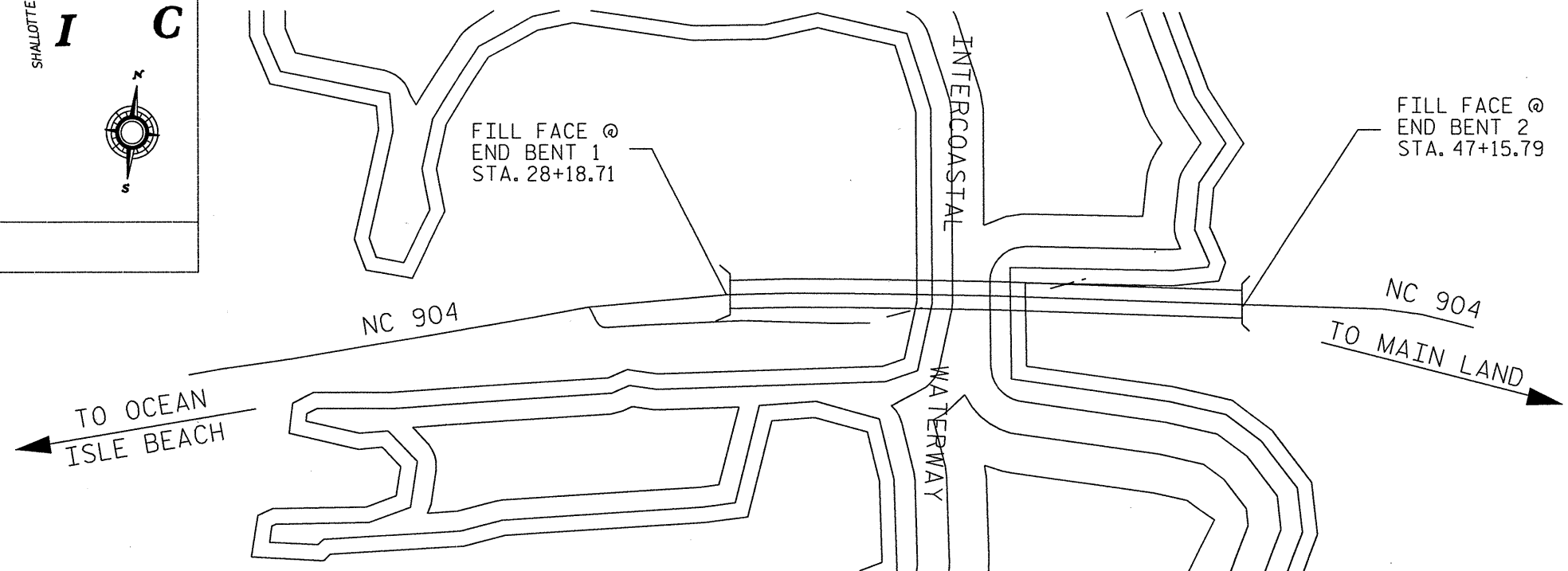
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BRUNSWICK COUNTY

**LOCATION: BRIDGE #13, ON NC 904, CAUSEWAY DR. OVER
THE INTERCOASTAL WATERWAY.**

TYPE OF WORK: BRIDGE DECK PRESERVATION

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | BK-5101E | 1 | 7 |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 42579.3.5 | BRSTP-0904 (6) | CONST | |
| 42579.1.1 | BRSTP-0904 (6) | PE | |



DESIGN DATA
ADT 2008 = 7800

PROJECT LENGTH

LENGTH STRUCTURE PROJECT = .359 MILE

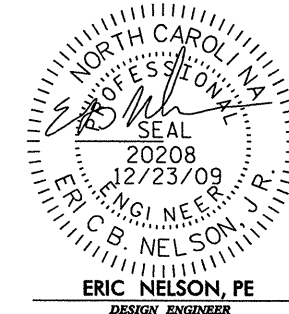
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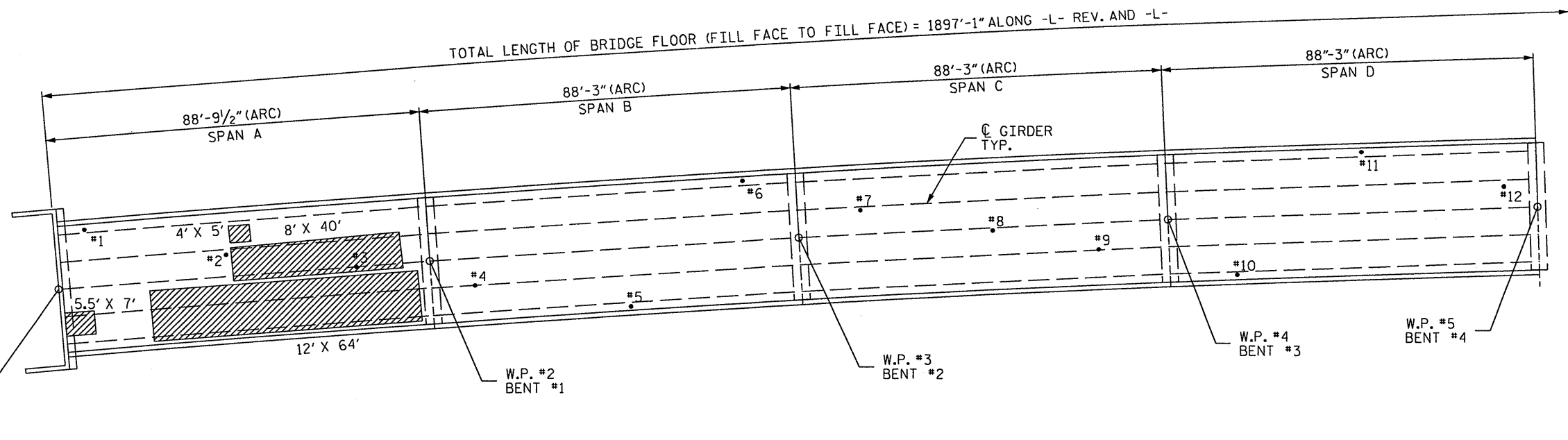
DIVISION OF BRIDGE MANAGEMENT

2006 STANDARD SPECIFICATIONS

LETTING DATE:
5/18/2010

DAN HOLDERMAN, PE
PROJECT ENGINEER



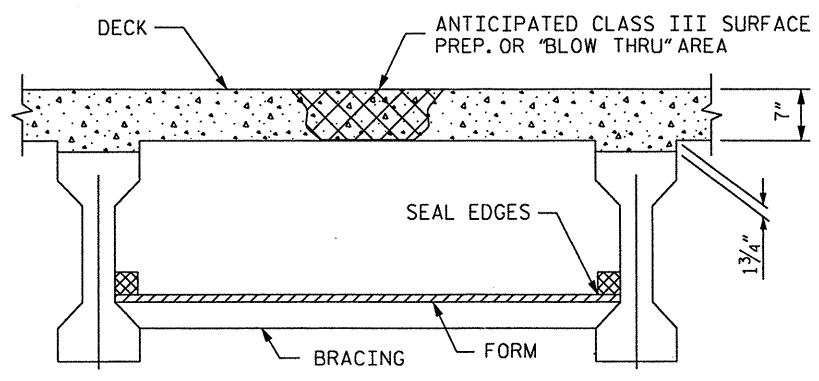


PLAN VIEW

- APPROX. AREA: CLASS II REPAIR
- APPROX. TEST BORING LOCATION

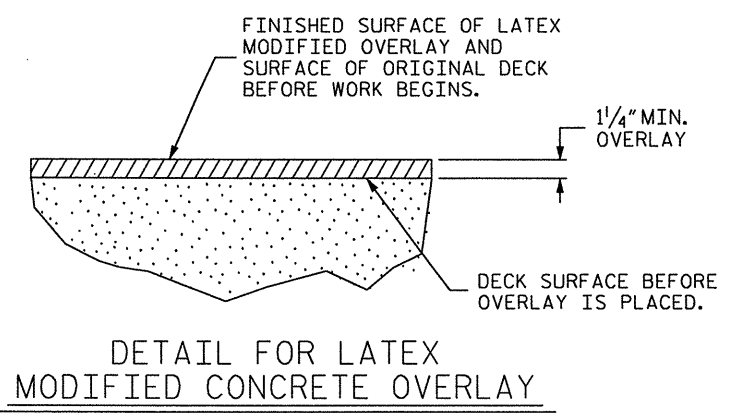
NOTES

FOR OVERLAY OF BRIDGE WITH LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH, SEE SPECIAL PROVISIONS.
 SEE SPECIAL PROVISIONS FOR SURFACE PREPARATION.
 FOR HYDRO-DEMOLITION, SEE SPECIAL PROVISIONS .
 FOR UNDER DECK CONTAINMENT SEE SPECIAL PROVISIONS.
 THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN -OFF WATER FROM THE HYDRO- DEMOLITION PROCESS, SEE SPECIAL PROVISIONS.
 BRIDGE DECK DRIANS SHALL BE PLUGGED DURING HYDRODEMOLITION PROCES.
 THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE.
 FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS.
 FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.
 BRIDGE DECK DRIANS SHALL BE PLUGGED DURING HYDRODEMOLITION PROCESS. SEE HYDRODEMOLITION SPECIAL PROVISIONS.



TYP. "BLOW THRU" CONTAINMENT AND FORMWORK

A METHOD TO CAPTURE WATER AND DEBRIS FROM BLOW THRU DURING HYDRO-DEMOLITION SHALL BE INSTALLED IN AREAS INDICATED AS CLASS III SURFACE PREPARATION.
 SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK.
 COST FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE PER SQ. YARD OF HYDRO-DEMOLITION.



DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

TOTAL BILL OF MATERIAL

| * SCARIFYING BRIDGE DECK | * CLASS I SURFACE PREPARATION | * CLASS II SURFACE PREPARATION | * CLASS III SURFACE PREPARATION | HYDRO-DEMOLITION OF BRIDGE DECK | LATEX MODIFIED CONCRETE VERY EARLY STRENGTH | PLACING & FINISHING LATEX MODIFIED CONCRETE VERY EARLY STRENGTH | EVAZOTE JOINT SEALS | GROOVING BRIDGE FLOOR | PAVEMENT MARKING | ASPHALT CONCRETE SURFACE COURSE TYPE SF 9.5A |
|--------------------------|-------------------------------|--------------------------------|---------------------------------|---------------------------------|---|---|---------------------|-----------------------|------------------|--|
| SO.YDS. | SO.YDS. | SO.YDS. | SO.YDS. | SO.YDS. | C.Y. | SO.YDS. | LUMP SUM | SO. FT. | LF | TONS |
| 6635 | 5823 | 501 | 0 | 6324 | 351 | 6324 | LUMP SUM | 56916 | 14,400 | 36 |

* QUANTITY SHOWN IS FOR INFORMATION ONLY. * INCLUDES APPROACH MILLING.

DRAWN BY : CLB DATE : 11/09
 CHECKED BY : AGA DATE : 11/09

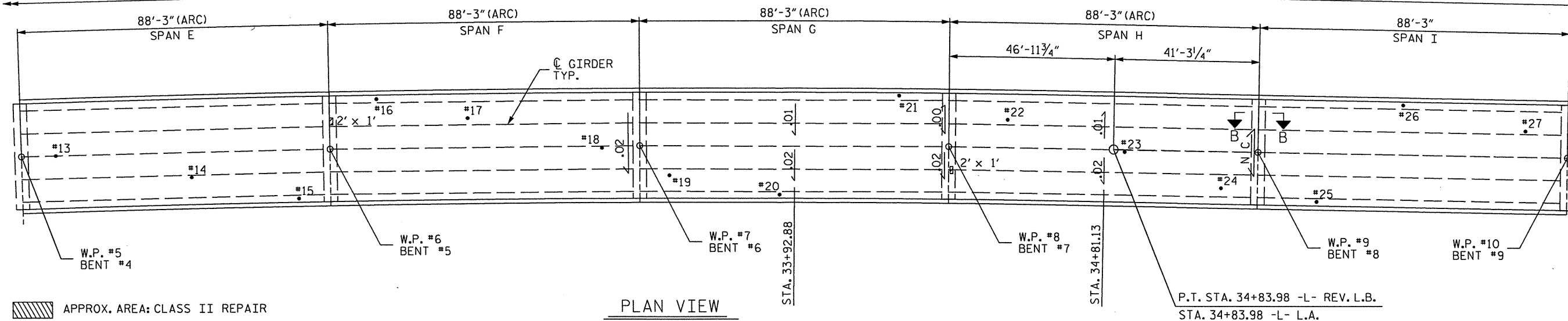
PROJECT NO. BK-5101E
 COUNTY: BRUNSWICK
 STATION: N/A
 DECK REHAB BRIDGE NO. 13

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

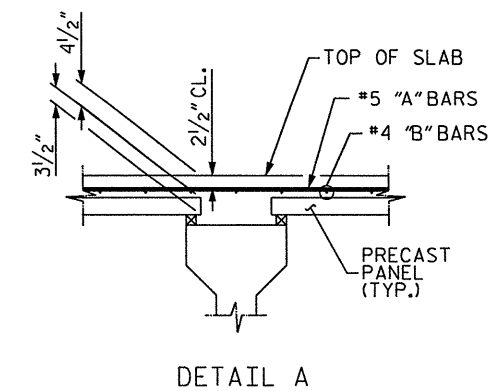
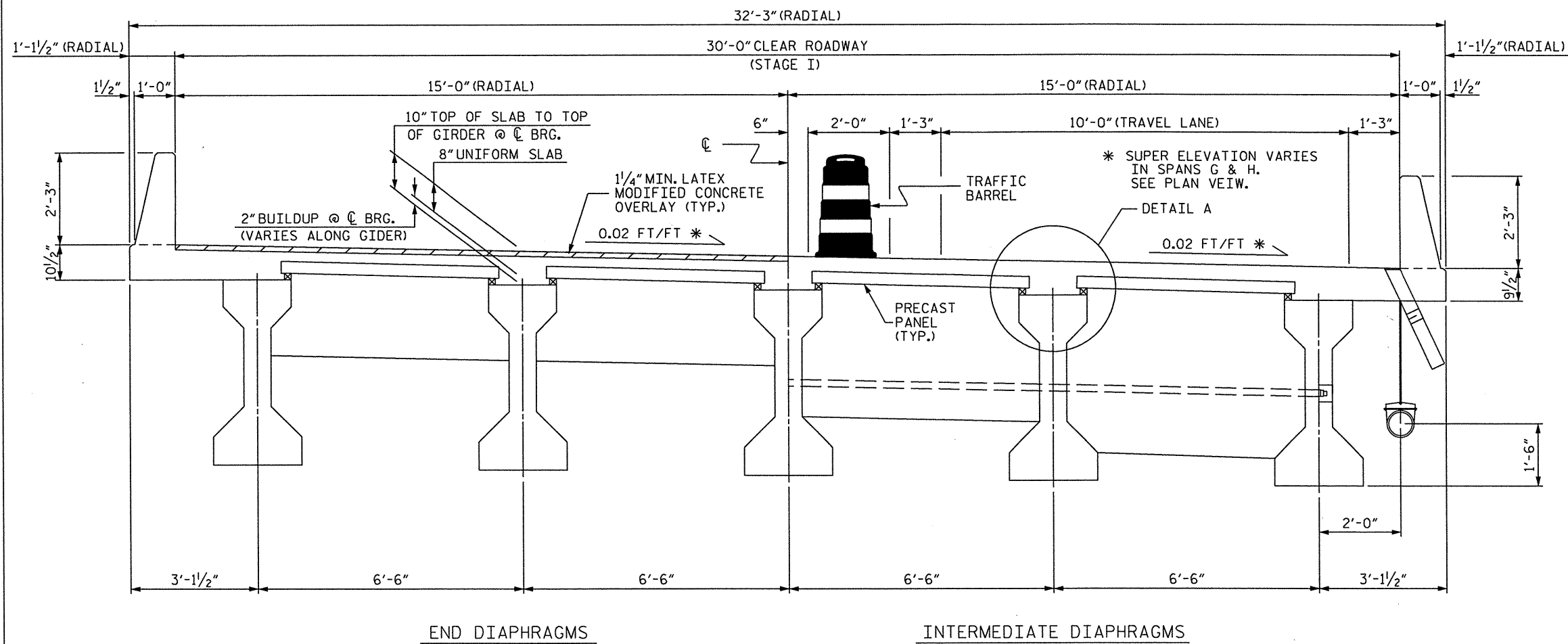
PLAN VIEW OF BRIDGE
 #13 ON NC 904 OVER
 INTERCOASTAL WATERWAY

| REVISIONS | | | | | | SHEET NO. |
|-----------|----|------|-----|----|------|--------------|
| NO. | BY | DATE | NO. | BY | DATE | TOTAL SHEETS |
| 1 | | | 3 | | | 7 |
| 2 | | | 4 | | | |

TOTAL LENGTH OF BRIDGE FLOOR (FILL FACE TO FILL FACE) = 1897'-1" ALONG -L- REV. AND -L-



APPROX. AREA: CLASS II REPAIR
 APPROX. TEST BORING LOCATION



PROJECT NO. BK-5101E
 COUNTY: BRUNSWICK
 STATION: N/A
 DECK REHAB BRIDGE NO. 13

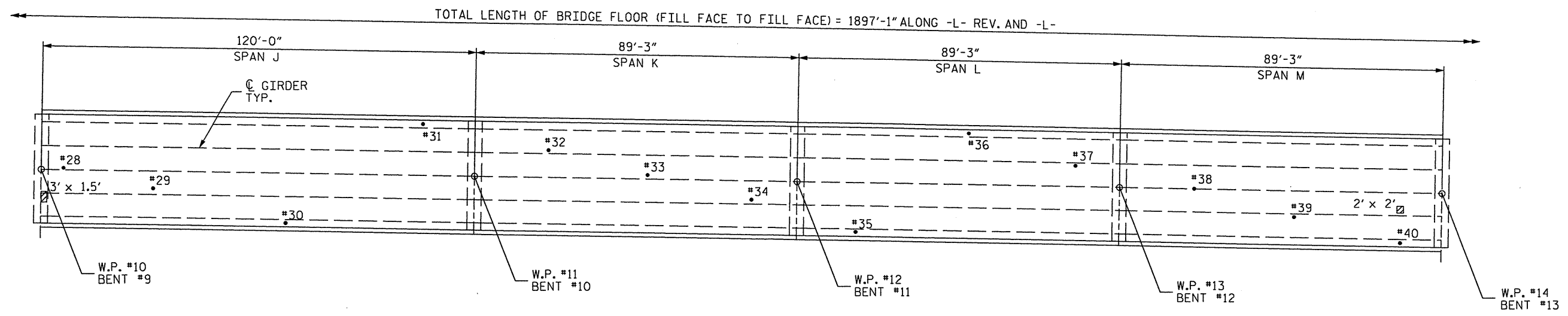
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW OF BRIDGE
 #13 ON NC 904 OVER
 INTERCOASTAL WATERWAY

| REVISIONS | | | | | | SHEET NO. |
|-----------|----|------|-----|----|------|--------------|
| NO. | BY | DATE | NO. | BY | DATE | TOTAL SHEETS |
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| 2 | | | 4 | | | |

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 CHECKED BY : AGA DATE : 11/09

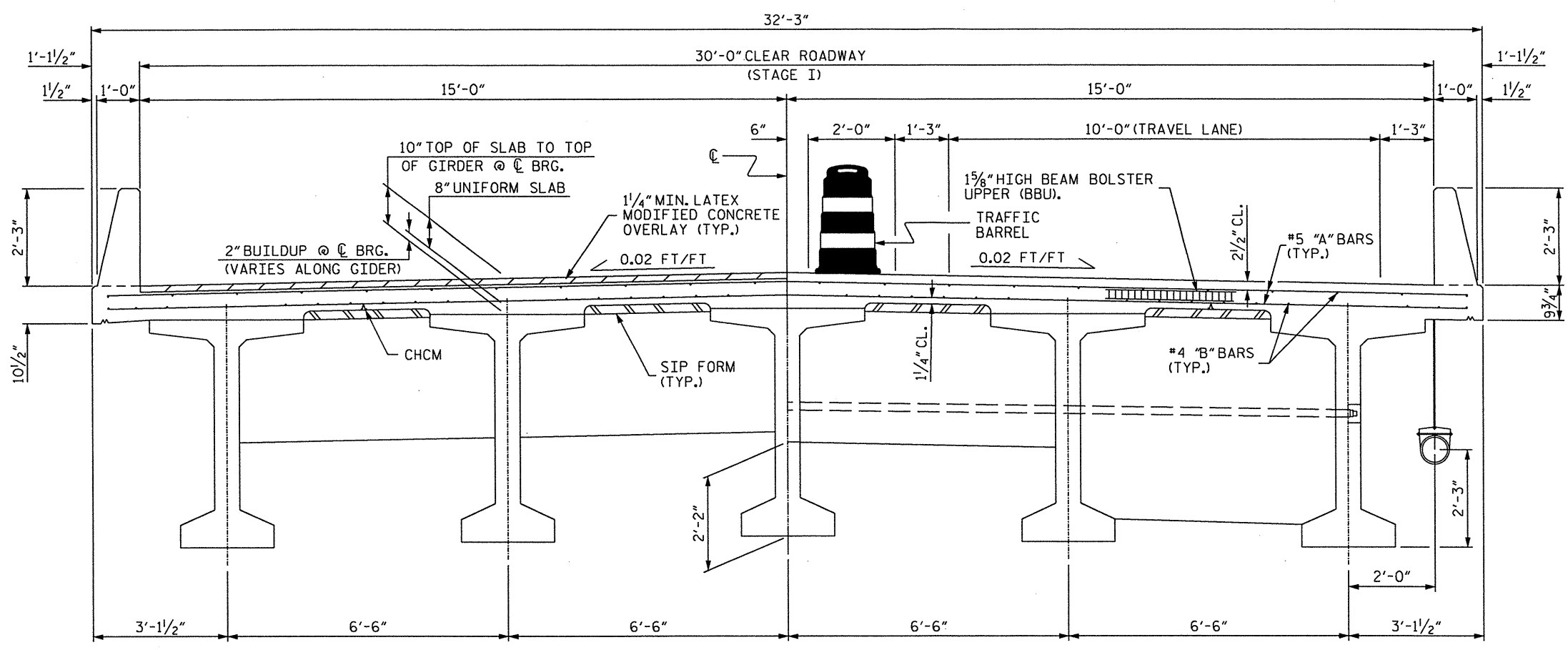
TYPICAL SECTION SPANS "A" THRU "H"
 AASHTO TYPE IV P.C. GDRS. (STAGE I SHOWN
 STAGE II SIMILAR ABOUT CL)

*****SYSTEM***** *****USERNAME*****



APPROX. AREA: CLASS II REPAIR
 APPROX. TEST BORING LOCATION

PLAN VIEW



TYPICAL SECTION SPAN "J"

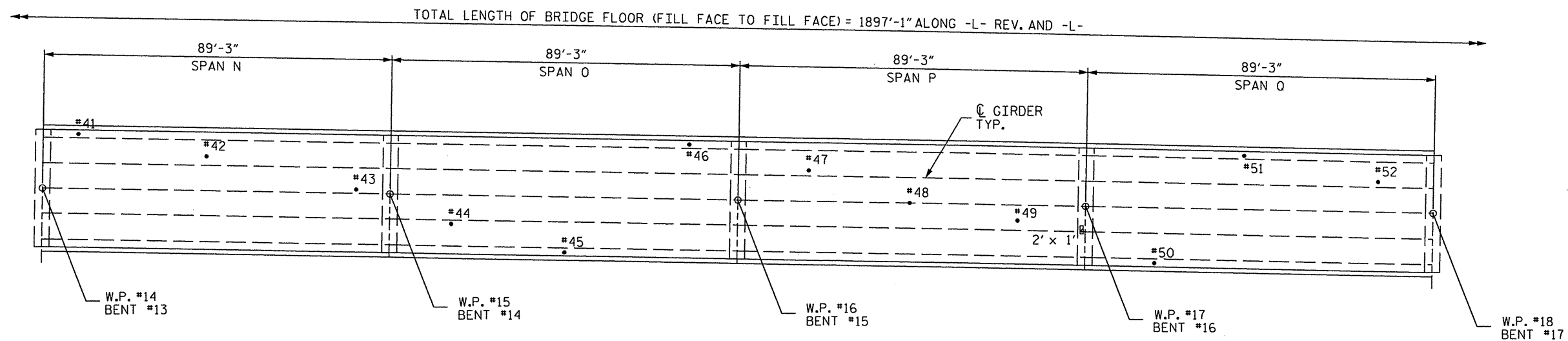
AASHTO TYPE V P.C. GDRS. (STAGE I SHOWN
STAGE II SIMILAR ABOUT C)

PROJECT NO. BK-5101E
 COUNTY: BRUNSWICK
 STATION: N/A
 DECK REHAB BRIDGE NO. 13

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW OF BRIDGE
 #13 ON NC 904 OVER
 INTERCOASTAL WATERWAY

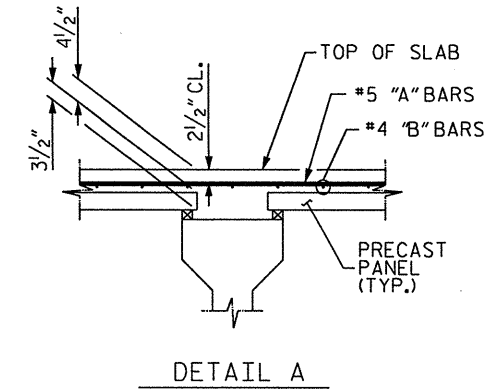
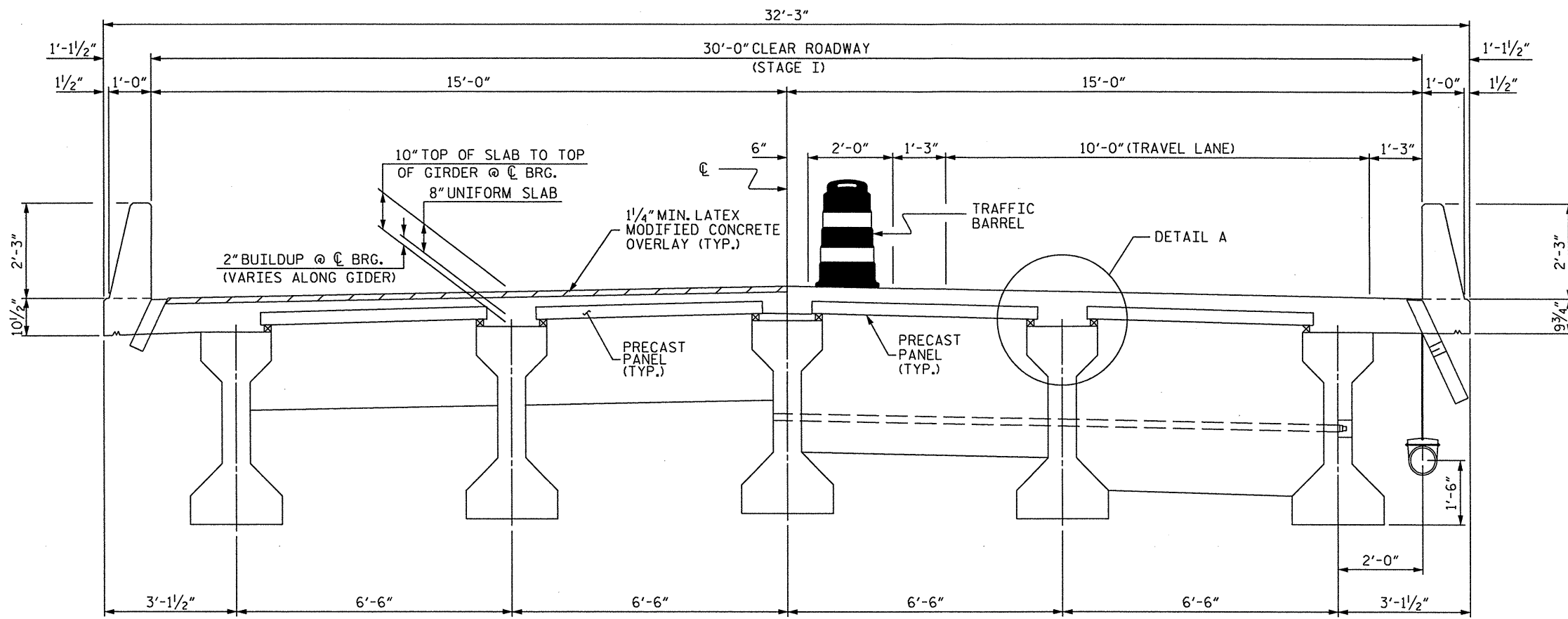
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|-----------|----|------|-----|----|------|--------------|
| NO. | BY | DATE | NO. | BY | DATE | S-3 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 7 |

DRAWN BY : CLB DATE : 11/09
 CHECKED BY : AGA DATE : 11/09
 *****SYSTEM***** *****USERNAME*****



APPROX. AREA: CLASS II REPAIR
 . APPROX. TEST BORING LOCATION

PLAN VIEW



DETAIL A

END DIAPHRAGMS

INTERMEDIATE DIAPHRAGMS

TYPICAL SECTION SPANS "I" AND "K" THRU "U"

AASHTO TYPE IV P.C. GDRS. (STAGE I SHOWN
STAGE II SIMILAR ABOUT C)

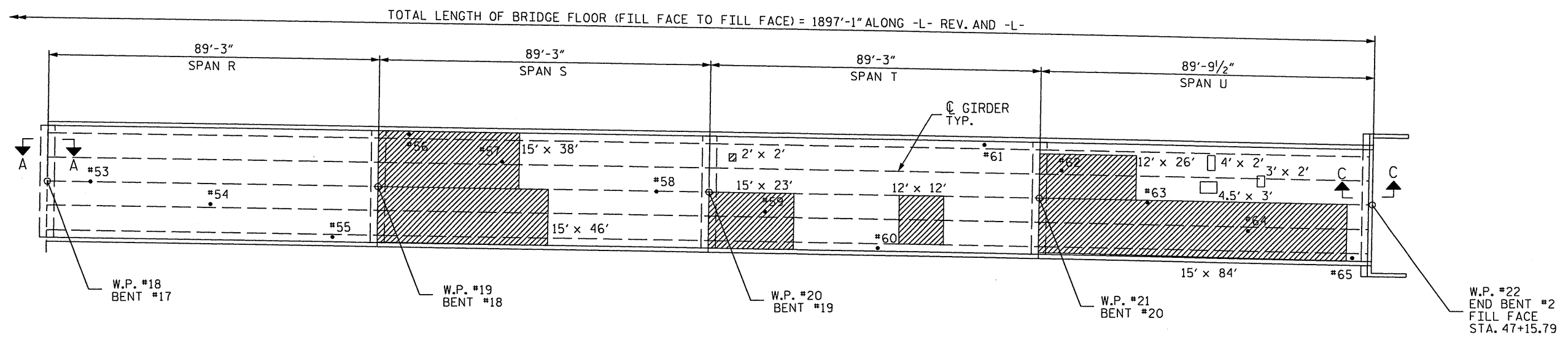
PROJECT NO. BK-5101E
 COUNTY: BRUNSWICK
 STATION: N/A
 DECK REHAB BRIDGE NO. 13

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW OF BRIDGE
 #13 ON NC 904 OVER
 INTERCOASTAL WATERWAY

| REVISIONS | | | | | | SHEET NO. |
|-----------|----|------|-----|----|------|--------------|
| NO. | BY | DATE | NO. | BY | DATE | S-4 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 7 |

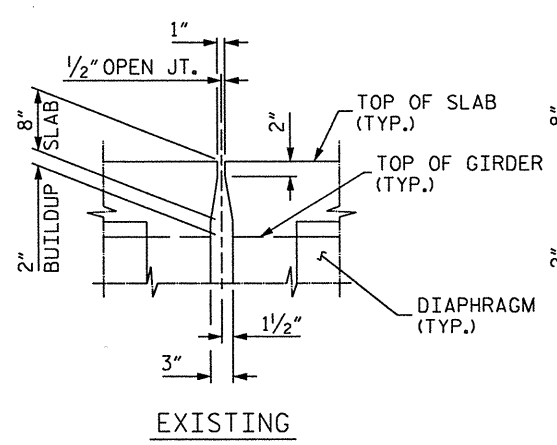
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 DATE : 11/09
 DATE : 11/09

*****SYSTEM***** *****USERNAME*****

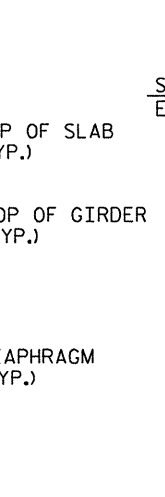
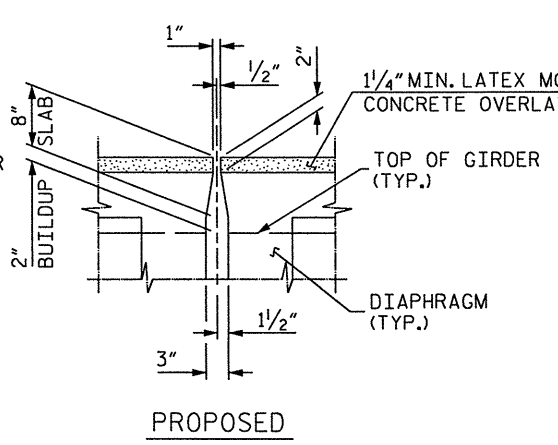


APPROX. AREA: CLASS II REPAIR
 . APPROX. TEST BORING LOCATION

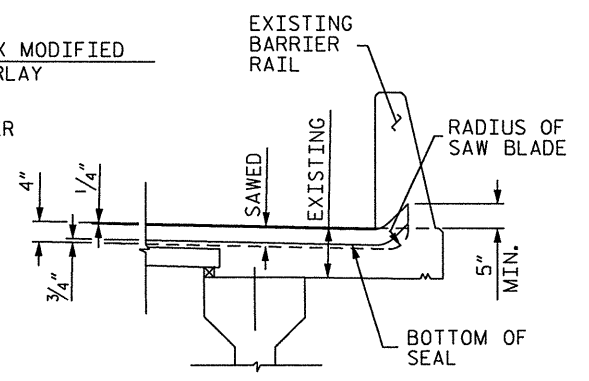
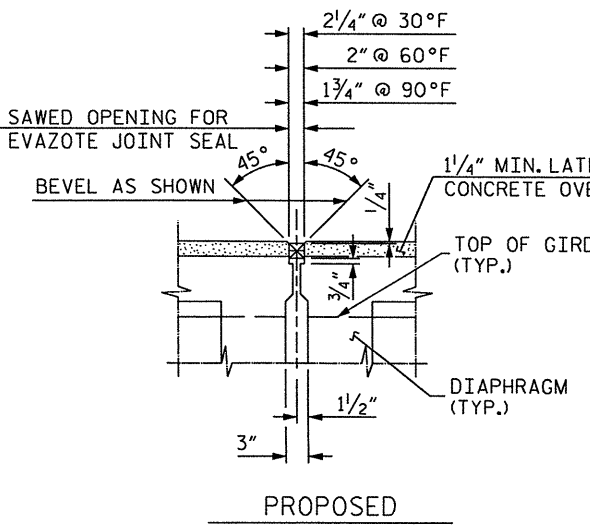
PLAN VIEW



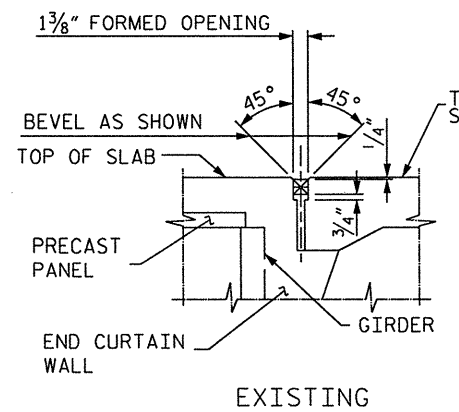
SECTION A-A
(@ BENTS 1-8 & 11-20)



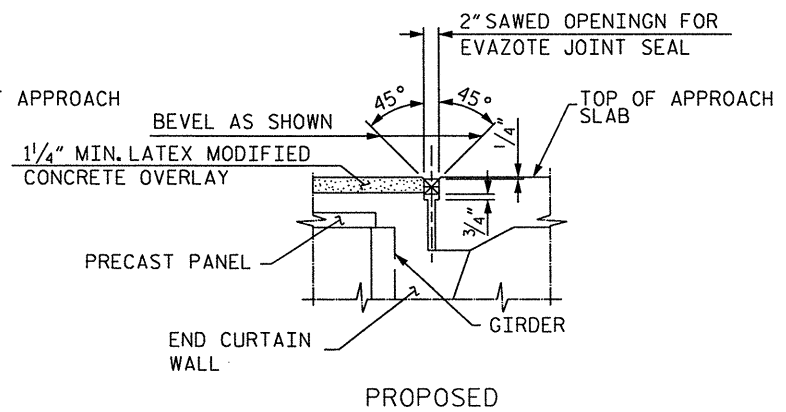
SECTION B-B
(@ BENTS 9 & 10)



SECTION THRU JOINT



SECTION C-C
(E. B. #2 SHOWN
E. B. #1 SIMILAR)



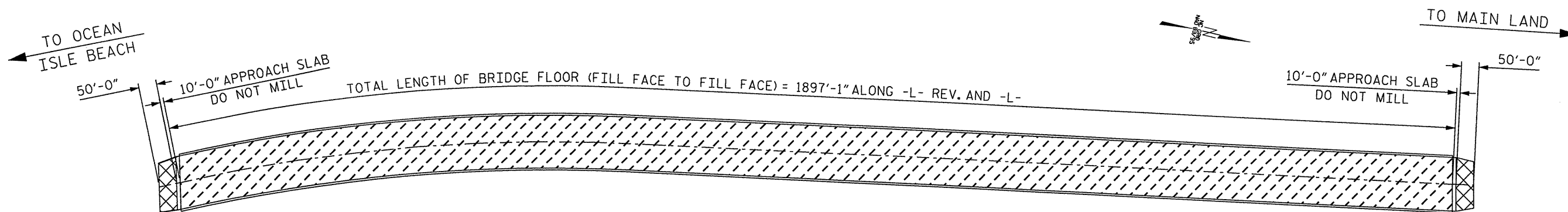
NOTES:



- JOINTS @ EB 1, EB 2 AND BENTS 9 & 10 SHALL BE REPLACED WITH AN EVAZOTE SEAL.
- FOR EVAZOTE JOINT SEAL, SEE SPECIAL PROVISIONS.
- THE INSTALLED EVAZOTE JOINT SEALS SHALL BE WATERTIGHT.
- OPENINGS ARE BASED ON A NOMINAL UNCOMPRESSED SEAL WIDTH OF 2 1/2".
- THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE JOINT SEAL IN LIEU OF SAWING THE JOINT.

PROJECT NO. BK-5101E
 COUNTY: BRUNSWICK
 STATION: N/A
 DECK REHAB BRIDGE NO. 13

| REVISIONS | | | | | | FIGURE NO. |
|-----------|----|------|-----|----|------|--------------|
| NO. | BY | DATE | NO. | BY | DATE | TOTAL SHEETS |
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| 2 | | | 4 | | | |

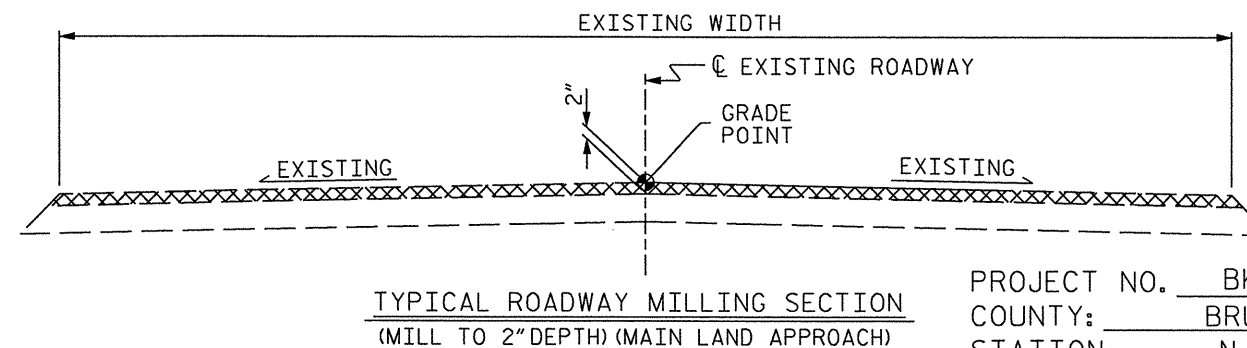
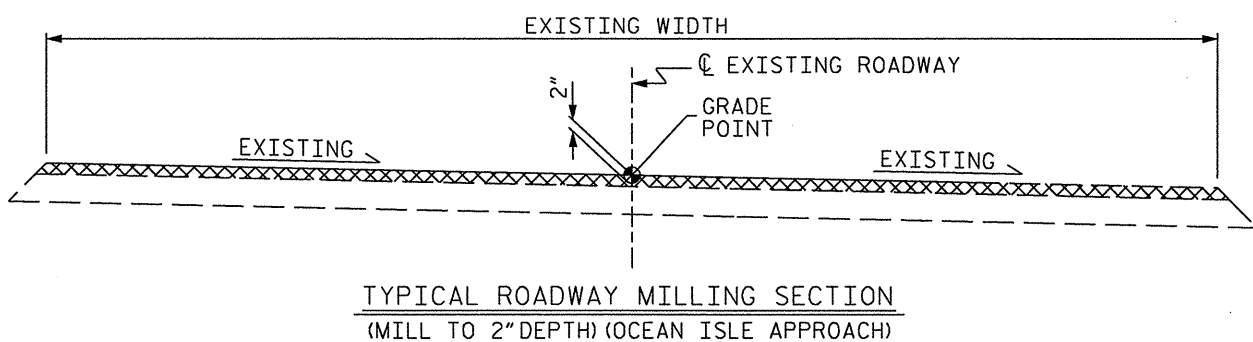
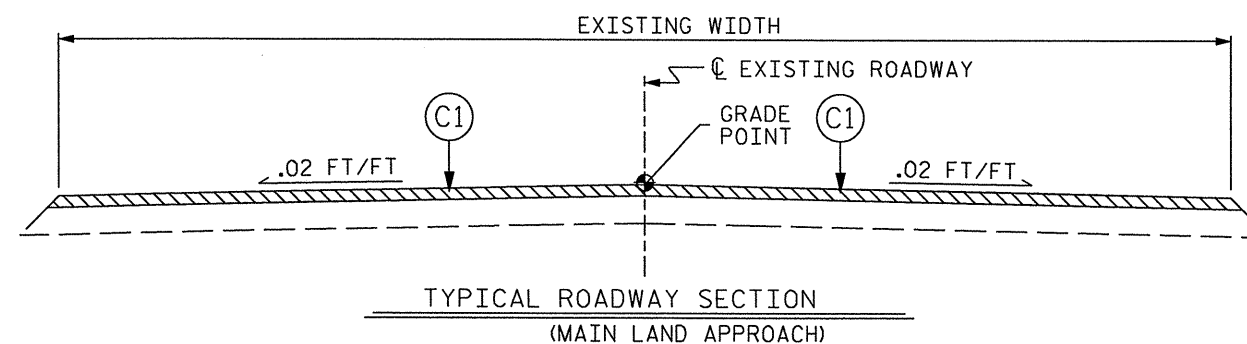
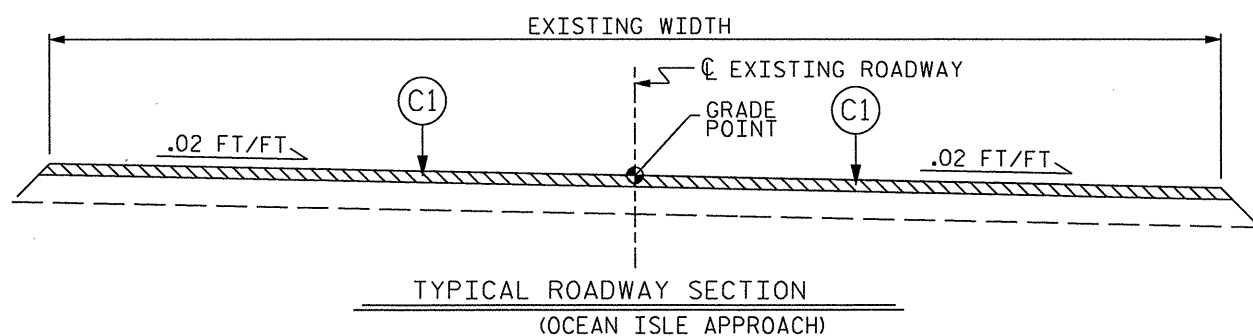
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 CHECKED BY : AGA
 DATE : 11/09
 DATE : 11/09



-  DECK SCARIFICATION AND HYDRODEMOLITION
-  APPROACH MILLING

PLAN

C1 PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF 9.5A AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 1 1/2" IN DEPTH.



PROJECT NO. BK-5101E
 COUNTY: BRUNSWICK
 STATION: N/A
 DECK REHAB BRIDGE NO. 13

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLAN VIEW OF BRIDGE
 #13 ON NC 904 OVER
 INTERCOASTAL WATERWAY

| REVISIONS | | | | | | SHEET NO. |
|-----------|----|------|-----|----|------|-------------------|
| NO. | BY | DATE | NO. | BY | DATE | S-6 |
| 1 | | | 3 | | | TOTAL SHEETS 7 |

NOT TO SCALE

DRAWN BY: CLB DATE: 11/09
 CHECKED BY: AGA DATE: 11/09

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

| | |
|-----------------------------|-----------|
| STATE PROJECT REFERENCE NO. | SHEET NO. |
| BK-5101E | TCP-1 |

**PLAN FOR PROPOSED
TRAFFIC CONTROL**

BRUNSWICK COUNTY

LOCATION: BRIDGE NO.13 , NC 904 CAUSEWAY DR. OVER
THE INTERCOASTAL WATERWAY

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 CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|----------|--|
| 1101.02 | TEMPORARY LANE CLOSURES |
| 1101.04 | TEMPORARY SHOULDER CLOSURES |
| 1101.11 | TRAFFIC CONTROL DESIGN TABLES |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1130.01 | DRUMS |
| 1150.01 | FLAGGING DEVICES |
| 1165.01 | TRUCK MOUNTED IMPACT ATTENUATOR |
| 1180.01 | SKINNY DRUM |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES AND OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - TWO-LANE, TWO-WAY ROADWAYS |

INDEX OF SHEETS

| SHEET NO. | TITLE |
|-----------|--|
| TCP-1 | LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, PHASING, AND INDEX OF SHEETS |
| TCP-2 | GENERAL NOTES |
| TCP-3 | DETAIL FOR TEMPORARY LANE CLOSURES USING FLAGGING OPERATIONS |
| TCP-4 | ADVANCE WORK ZONE SIGNING |

LEGEND

- 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

PHASING

STEP 1:

PERFORM BRIDGE DECK PRESERVATION OPERATIONS AS SHOWN IN THE CONTRACT AND CONSTRUCTION PLANS. PERFORM WORK IN ACCORDANCE WITH "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES-JULY 2006".

PERFORM WORK USING NIGHTLY FLAGGING OPERATIONS ACCORDING TO SHEET TCP-3 AND THE TIME RESTRICTIONS SHOWN ON SHEET TCP-2. DURING EACH WORK PERIOD, PERFORM ONLY THE AMOUNT OF DECK PRESERVATION THAT CAN BE COMPLETED IN THE GIVEN WORK PERIOD.

AT THE END OF EACH NIGHT'S OPERATIONS MOVE EQUIPMENT TO STAGING AREA AT LEAST 40 FEET AWAY FROM ANY TRAVEL LANES AS APPROVED BY THE ENGINEER AND REMOVE LANE CLOSURES.

STEP 2:

UPON COMPLETION OF DECK PRESERVATION, PLACE FINAL PAVEMENT MARKINGS ON BRIDGE.

PERFORM WORK USING NIGHTLY FLAGGING OPERATIONS ACCORDING TO SHEET TCP-3 AND THE TIME RESTRICTIONS SHOWN ON SHEET TCP-2.

STEP 3:

UPON COMPLETION OF THE PROJECT, REMOVE ALL TRAFFIC CONTROL DEVICES.

| | | |
|---|--|--|
| APPROVED: DATE: 12/14/09 | PLAN PREPARED BY: Betsy L. Watson, PE Kellie L. Wieskamp, EI | Stantec Consulting Services Inc. Suite 300, 801 Jones Franklin Road Raleigh, NC 27606 Tel. 919.851.6866 Fax. 919.851.7024 www.stantec.com |
| Betsy L. Watson, PE TRAFFIC CONTROL ENGINEER | | Kellie L. Wieskamp, EI TRANSPORTATION DESIGNER |

WBS 42579.3.5

TIP NO. BK-5101E

12/14/2009 11:00:00 AM U:\Office\TrafficControl\BK-5101E Brunswick 13\PLAN_SHEETS\tcp.psh.01.dgn KLS/KRM

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 AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|-----------|--|
| NC 904 | 6:00 A.M.-7:00 P.M. MONDAY THRU SUNDAY |

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

ROAD NAME
NC 904

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

- 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 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 1/2 MILE OF LANE CLOSURE ON NC 904 CAUSEWAY DR. MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- H) DO NOT INSTALL MORE THAN 1 SIMULTANEOUS LANE CLOSURE IN ANY ONE DIRECTION ON NC 904 CAUSEWAY DR.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

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

TRAFFIC CONTROL DEVICES

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


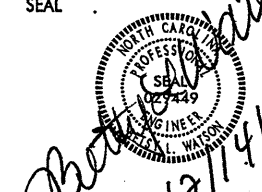

PAVEMENT MARKINGS

- N) INSTALL POLYUREA PAVEMENT MARKINGS ON THE FINAL SURFACE OF NC 904 ACCORDING TO RSD 1205.02.
- O) AT THE END OF EACH NIGHT'S OPERATIONS, REPLACE ANY DAMAGED PAVEMENT MARKINGS ON NC 904 WITH TEMPORARY PAINT MARKINGS. PLACE ONE APPLICATION OF PAINT FOR TEMPORARY MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

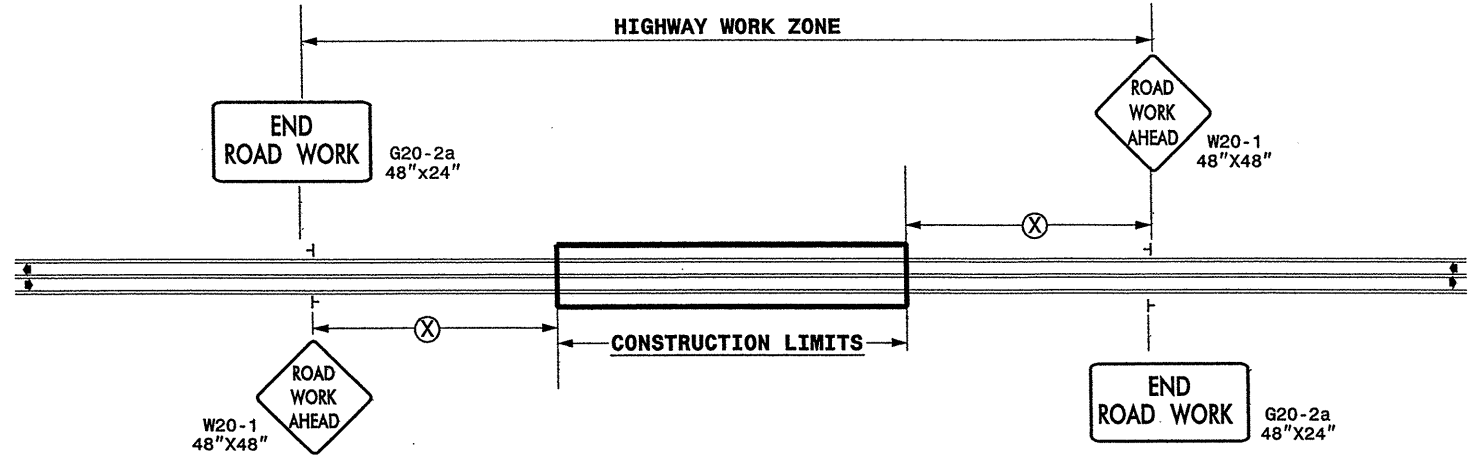
MISCELLANEOUS

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

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 12/14/2009
 blw@stantec.com

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|  Stantec <small>Stantec Consulting Services Inc. Suite 300, 801 Jones Franklin Road Raleigh, NC 27606 Tel. 919.851.6866 Fax. 919.851.7024 www.stantec.com</small> | SEAL |  <i>Robert Watson</i> 12/14/09 | GENERAL NOTES | | | | | | | | |
| | SIGNATURE | DATE | SCALE: NONE DATE: DEC. 2009 DWG. BY: KLW DESIGN BY: BLW REVIEWED BY: BLW |  | REVISIONS | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; height: 20px;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> </tr> </table> | | | | | |
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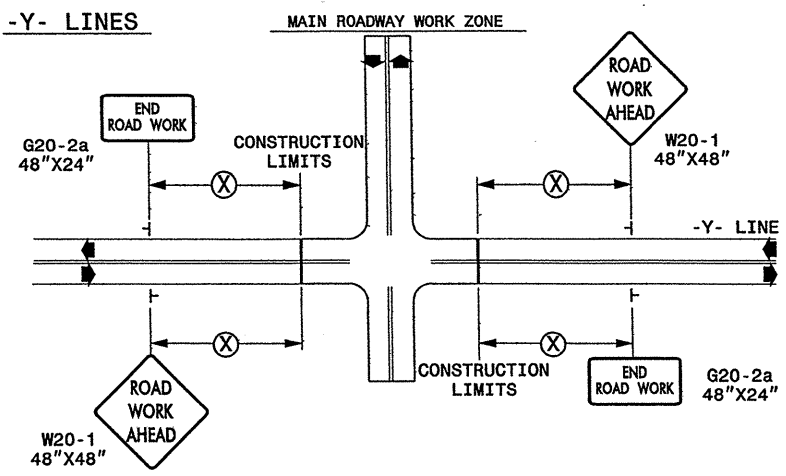
TWO-WAY UNDIVIDED ** (L-LINES)



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

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

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



DETAIL DRAWING FOR
 TWO-WAY UNDIVIDED
 WORK ZONE WARNING SIGNS

GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- 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.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

┆ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW



APPROVED: _____ DATE: _____

SEAL

Patsy L. Watson

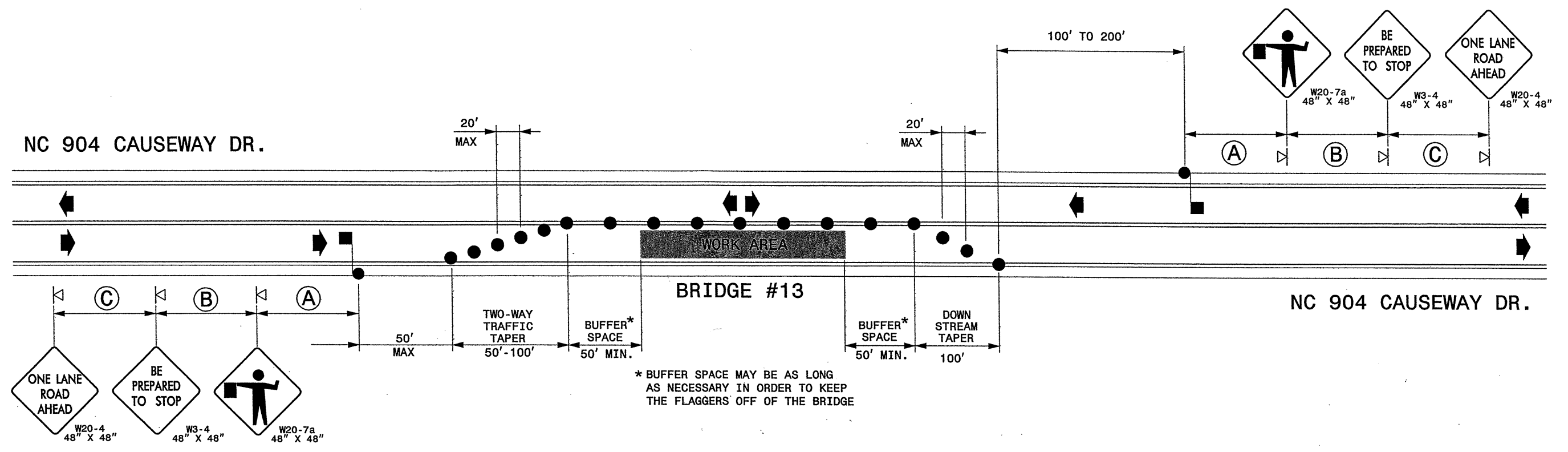
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DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS

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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 DRUMS 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- 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.
- 8- 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.

LEGEND

- DRUM
- ▽ PORTABLE SIGN
- FLAGGER
- ← DIRECTION OF TRAFFIC FLOW

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| <p>Stantec Stantec Consulting Services Inc. Suite 300, 801 Jones Franklin Road Raleigh, NC 27606 Tel. 919.851.6868 Fax. 919.851.7024 www.stantec.com</p> | SEAL | TEMPORARY LANE CLOSURES FLAGGING OPERATIONS | | | | | | | | | |
| | <p><i>Matthew Watson</i> 12/14/09</p> | | <table border="1"> <tr> <td>SCALE:</td> <td>NONE</td> <td rowspan="4" style="text-align: center;">REVISIONS</td> </tr> <tr> <td>DATE:</td> <td>DEC. 2009</td> </tr> <tr> <td>DESIGN BY:</td> <td>KLW</td> </tr> <tr> <td>REVIEWED BY:</td> <td>BLW</td> </tr> </table> | SCALE: | NONE | REVISIONS | DATE: | DEC. 2009 | DESIGN BY: | KLW | REVIEWED BY: |
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