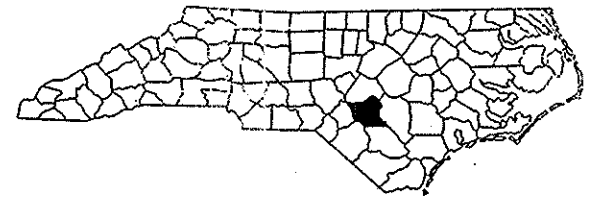


04/20/11

TIP PROJECT: 17BP.6.P.4

CONTRACT: D000147

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$



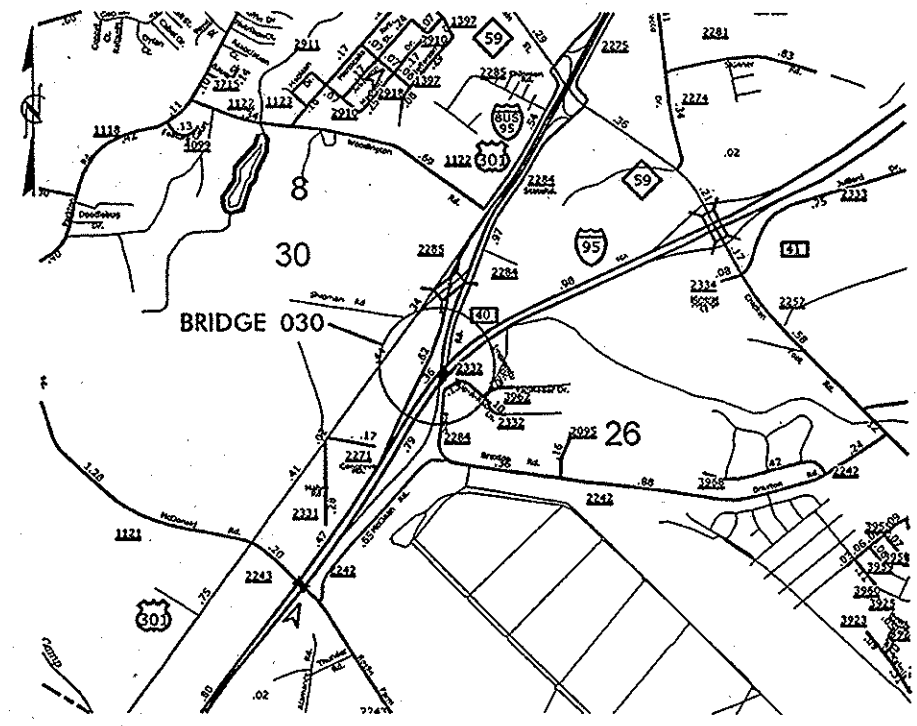
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

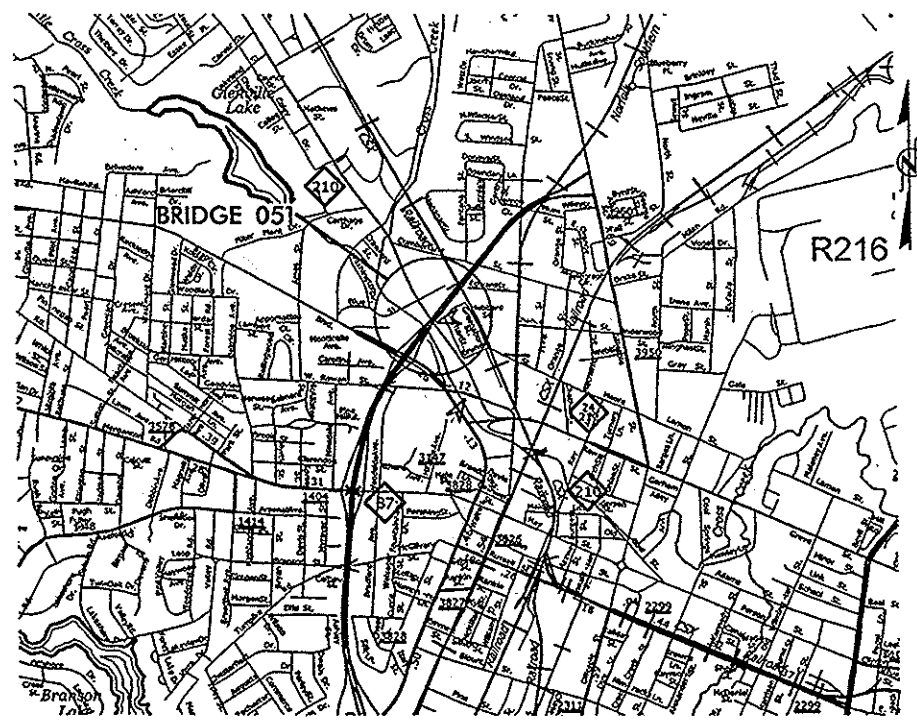
LOCATION: BRIDGE 030 ON I-95 SBL ACROSS I-95 LOOP NBL & SR 2284
BRIDGE 051 ON US 401 BUSINESS ACROSS NC 210

TYPE OF WORK: BRIDGE DECK PRESERVATION

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|------------|-----------------------------|-------------|--------------|
| N.C. | | 1 | |
| ITEM NO. | E.A. PROJ. NO. | DESCRIPTION | |
| 17BP.6.P.4 | | PE | |
| 17BP.6.P.4 | | CONST. | |
| | | | |
| | | | |
| | | | |
| | | | |



BRIDGE 30 LOCATION



BRIDGE 51 LOCATION

PROJECT LENGTH



PREPARED IN THE OFFICE OF:
Stantec Consulting Services Inc.
501 Jones French Road
Raleigh, NC 27609
Tel: (919) 801-4000
Fax: (919) 801-2024
www.stantec.com
License No. F-0282

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

N.A.

LETTING DATE:

DECEMBER 29, 2011

JOE KELVINGTON, PE
PROJECT ENGINEER

NC DOT CONTACT:

ZAKI WAFI, PE
BRIDGE MANAGEMENT PROJECT MANAGER

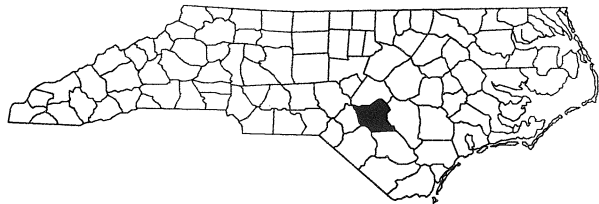


DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



TIP PROJECT:17BP.6.P.4

CONTRACT: DO00147



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

LOCATION: BRIDGE 030 ON I-95 SBL ACROSS I-95 LOOP NBL & SR 2284
BRIDGE 051 ON US 401 BUSINESS ACROSS NC 210

TYPE OF WORK: BRIDGE DECK PRESERVATION

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|------------|-----------------------------|-------------|--------------|
| N.C. | | 1A | |
| WBS NO. | P.A. PROJ. NO. | DESCRIPTION | |
| 17BP.6.P.4 | | PE | |
| 17BP.6.P.4 | | CONST. | |
| | | | |
| | | | |
| | | | |
| | | | |

INDEX OF SHEETS

| DWG. | DESCRIPTION |
|-------------------|-----------------------------|
| 1 | TITLE SHEET |
| 1A | INDEX OF SHEET |
| 2 | SUMMARY OF QUANTITIES |
| S-1 THRU S-8 | STRUCTURE PLANS – BRIDGE 30 |
| S-9 THRU S-16 | STRUCTURE PLANS – BRIDGE 51 |
| TMP-1 THRU TMP-5A | TRAFFIC MANAGEMENT PLANS |

ROADWAY STANDARD DRAWINGS

2006 ROADWAY ENGLISH STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEARING IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH -N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C. DATED JULY 18, 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO | TITLE |
|--------------------------|--------------------------------------------|
| DIVISION 8 – INCIDENTALS | |
| 846.01 | CONCRETE CURB, GUTTER AND CURB & GUTTER |

PROJECT LENGTH



PREPARED IN THE OFFICE OF:

Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-8888
Fax. (919) 851-7024
www.stantec.com
License No. F-0872

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N.A.

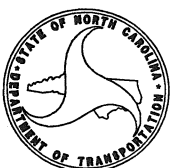
LETTING DATE:
DECEMBER 29, 2011

JOE KELVINGTON, PE
PROJECT ENGINEER

NCDOT CONTACT: ZAKI Wafa, PE
BRIDGE MANAGEMENT PROJECT MANAGER

RICK NELSON, PE
DESIGN ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



09/08/09

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-------|-----------------------------|-----------|--------------|
| N.C. | | 2 | |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

TIP PROJECT:17BP.6.P.4


CONTRACT: DO00147

| | TOTAL BILL OF MATERIAL | | | | | | | | | | | |
|-------------|---------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------------|------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------|------------------------|------------------------------|----------------------------------------------|------------------------------|
| | SCARIFYING ** BRIDGE DECK | CLASS I * SURFACE PREPARATION | CLASS II * SURFACE PREPARATION | CLASS III * SURFACE PREPARATION | HYDRO- DEMOLITION OF BRIDGE DECK | CLASS AA * CONCRETE | LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH | PLACING & FINISHING LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH | EVAZOTE JOINT SEALS | GROOVING BRIDGE FLOORS | ASHPHALT CONC. SURF. COURSE TYPE S9.5C | 2'-6" CONC. CURB & GUTTER |
| | SQ.YDS. | SQ.YDS. | SQ.YDS. | SQ.YDS. | SQ.YDS. | CU.YDS. | CU.YDS. | SQ.YDS. | LUMP SUM | SQ.FT. | TON | LF |
| BRIDGE #030 | 2,921 | 0 | 11 | 0 | 2,155 | 0 | 89 | 2,155 | LUMP SUM | 18,698 | 61 | - |
| BRIDGE #051 | 3,415 | 0 | 4 | 0 | 1,697 | 0 | 70 | 1,702 | LUMP SUM | 14,618 | 135 | 267 |
| | | | | | | | | | | | | - |
| TOTAL QTY. | 6,336 | 0 | 15 | 0 | 3,852 | 0 | 159 | 3,857 | LUMP SUM | 33,316 | 196 | 267 |

* QUANTITIES ARE ESTIMATES FROM BEST AVAILABLE DATA, AND SHOULD BE CONSIDERED FOR INFORMATIONAL PURPOSES ONLY. IF ANY CLASS III LOCATIONS ARE ENCOUNTERED PRIOR TO OR DURING HYDRO-DEMOLITION, SEE "TYP. BLOW THRU" CONTAINMENT AND FORMWORK" DETAIL. NO SEPARATE MEASUREMENT OR PAYMENT FOR THESE ITEMS WILL BE MADE. ALL COSTS FOR THIS WORK WILL BE INCLUDED IN THE UNIT PRICE BID FOR HYDRO-DEMOLITION.

** INCLUDES MILLING OF ROADWAY PAVEMENT.

PROJECT LENGTH



PREPARED IN THE OFFICE OF:
Stantec Consulting Services Inc.
301 Jones Franklin Road
Suite 300
Raleigh, NC 27608
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Fax. (919) 961-7024
www.stantec.com
License No. F-0872

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N.A.

LETTING DATE:
DECEMBER 29, 2011

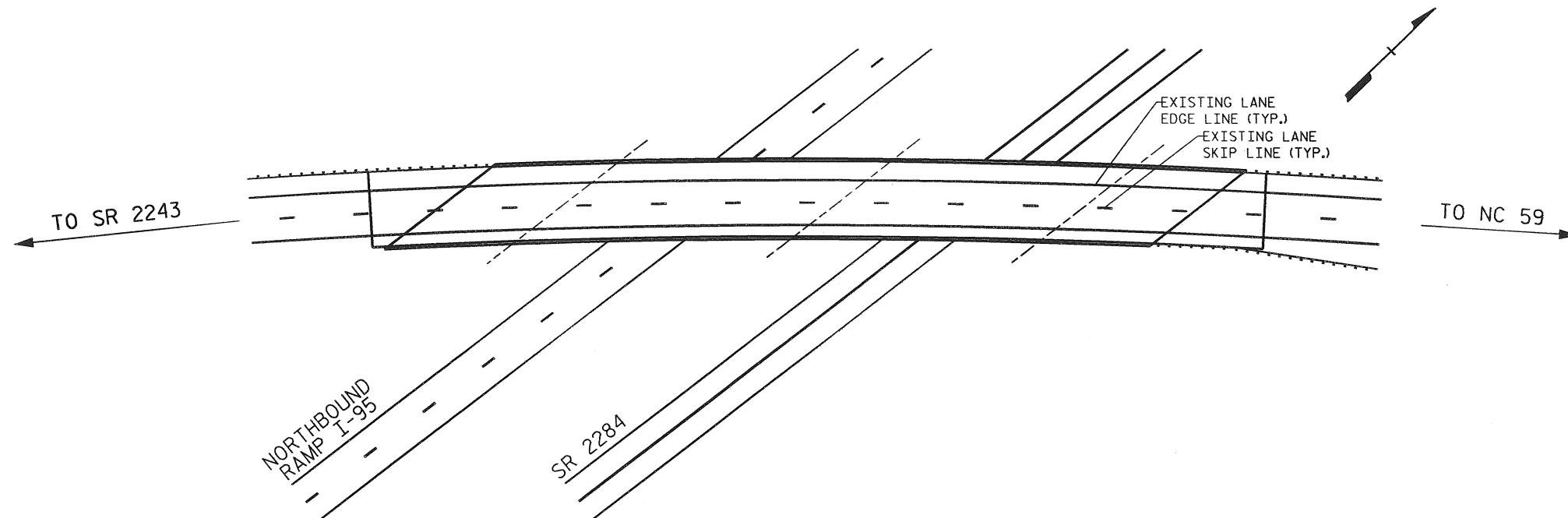
JOE KELVINGTON, PE
PROJECT ENGINEER

NCDOT CONTACT: ZAKI WAFI, PE
BRIDGE MANAGEMENT PROJECT MANAGER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



RICK NELSON, PE
DESIGN ENGINEER



BRIDGE 30 ON I-95 SOUTHBOUND
LOCATION: BRIDGE 250030, I-95 SOUTHBOUND OVER
I-95 NORTHBOUND RAMP & SR2284

TOTAL BILL OF MATERIAL

| SCARIFYING BRIDGE DECK | CLASS I * SURFACE PREPARATION | CLASS II * SURFACE PREPARATION | CLASS III * SURFACE PREPARATION | HYDRO- DEMOLITION | CLASS AA * CONCRETE | LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH | PLACING & FINISHING OF LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH | EVAZOTE JOINT SEAL | GROOVING BRIDGE FLOORS | ASHPHALT CONC. SURF. COURSE TYPE S9.5C |
|---------------------------|-------------------------------------|--------------------------------------|---------------------------------------|----------------------|------------------------|------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------|------------------------------|----------------------------------------------|
| SQ.YDS. | SQ.YDS. | SQ.YDS. | SQ.YDS. | SQ.YDS. | CU.YDS. | CU.YDS. | SQ.YDS. | LUMP SUM | SQ.FT. | TON |
| 2921.0 | 0.0 | 11.0 | 0.0 | 2155.0 | 0.0 | 89.0 | 2155.0 | LUMP SUM | 18698.0 | 61.0 |

* QUANTITIES ARE ESTIMATES FROM BEST AVAILABLE DATA, AND SHOULD BE CONSIDERED FOR INFORMATIONAL PURPOSES ONLY. IF ANY CLASS III LOCATIONS ARE ENCOUNTERED PRIOR TO OR DURING HYDRO-DEMOLITION, SEE "TYP. "BLOW THRU" CONTAINMENT AND FORMWORK" DETAIL. NO SEPARATE MEASUREMENT OR PAYMENT FOR THESE ITEMS WILL BE MADE. ALL COSTS FOR THIS WORK WILL BE INCLUDED IN THE UNIT PRICE BID FOR HYDRO-DEMOLITION.

** INCLUDES MILLING OF ROADWAY PAVEMENT.



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www.stantec.com
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DRAWN BY : A T LOPEZ DATE : 9/11
CHECKED BY : J T KELVINGTON DATE : 9/11

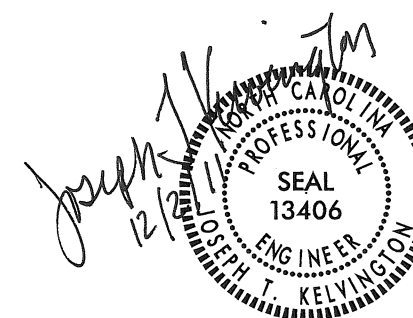
PROJECT NO. WBS 17BP.6.P.4
CUMBERLAND COUNTY
STATION: _____

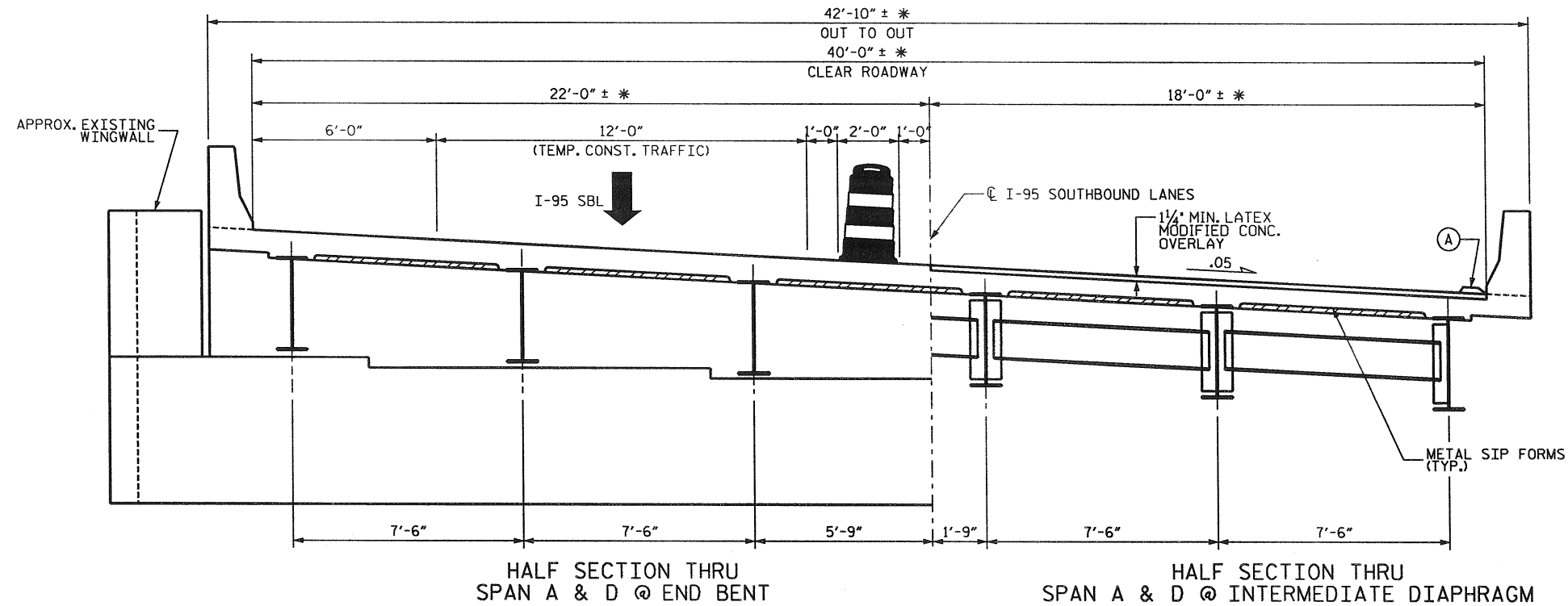
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

LOCATION SKETCH
AND TOTAL
BILL OF MATERIAL

DECK REHAB. FOR BRIDGE NO. 30

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|-----------------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-1 |
| 2 | | | 4 | | | TOTAL SHEETS 16 |





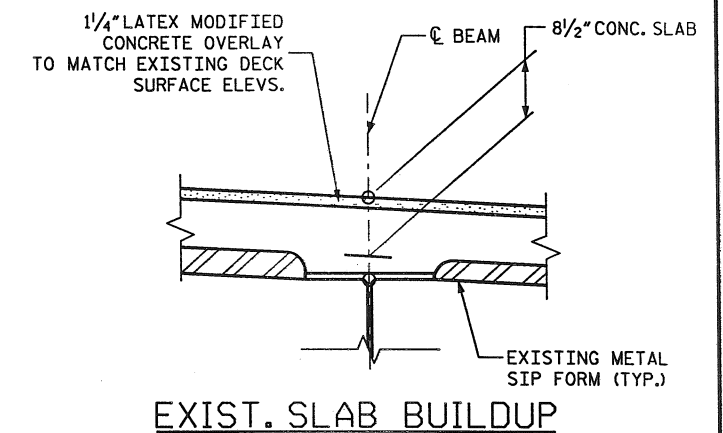
NOTES:

WATER & CONCRETE SLURRY FROM HYDRO-DEMOLITION SHALL NOT BE ALLOWED TO DRAIN ACROSS TRAVEL LANES. CONTRACTOR SHALL PROVIDE A METHOD TO CONTROL THE WATER.

FOR TRAFFIC CONTROL AND CONSTRUCTION PHASING, SEE TRANSPORTATION MANAGEMENT PLANS.

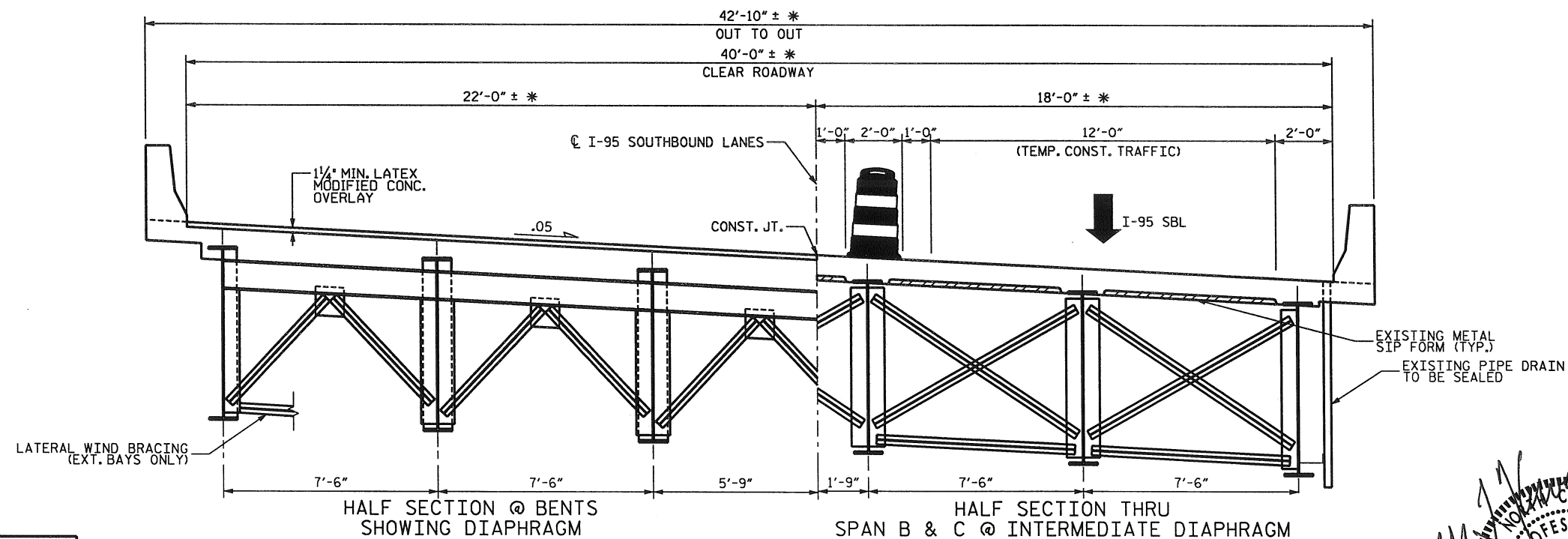
* RADIAL DIMENSION

(A) DAM IS REQ'D TO CONTROL WATER FROM HYDRO-DEMOLITION.



TYPICAL SECTION - SBL

ALL DIMENSIONS ARE APPROXIMATE



TYPICAL SECTION - SBL

ALL DIMENSIONS ARE APPROXIMATE

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

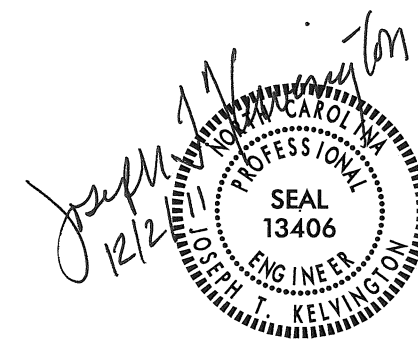
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS
FOR BRIDGE #030

DECK REHAB. FOR BRIDGE NO. 30

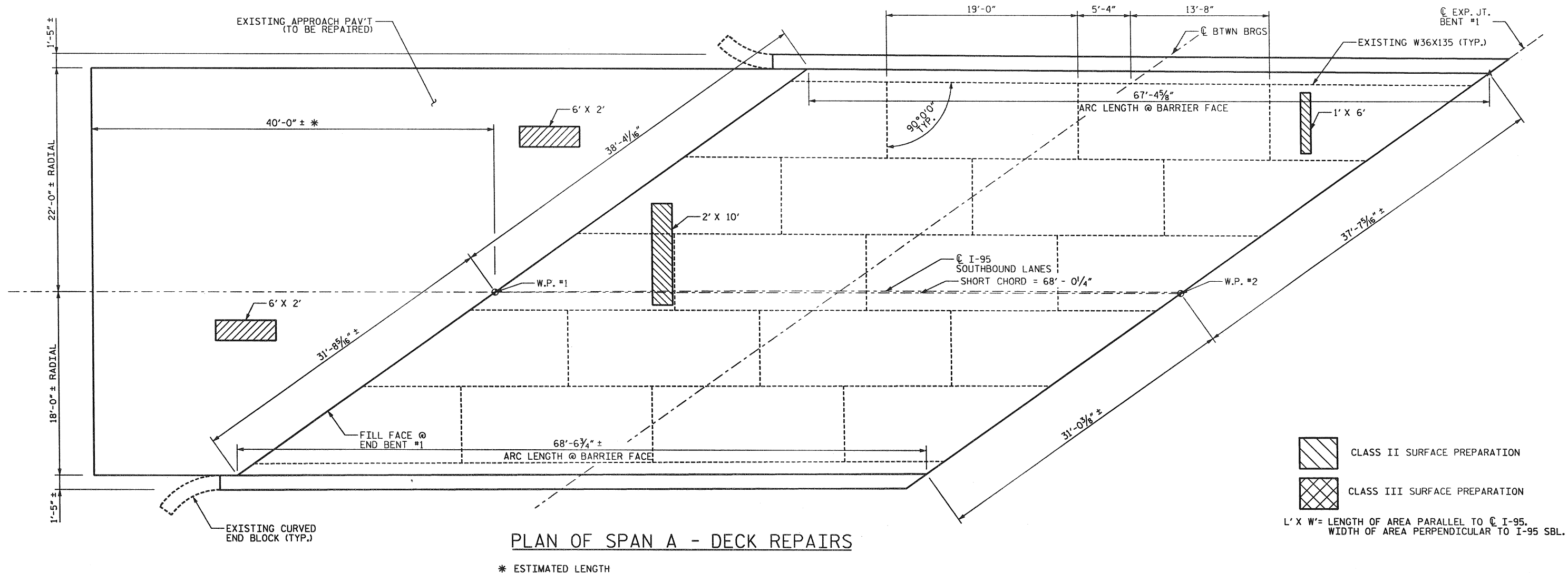
| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-3 |
| 2 | | | 4 | | | TOTAL SHEETS 16 |



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www.stantec.com
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DRAWN BY: A T LOPEZ DATE: 9/11
CHECKED BY: J T KELVINGTON DATE: 9/11

Group 201\WBS 17BP.6.P.4 Cumberland Co Bridge 30\Drawings\BP30.Repair\PlanA.dgn 12/27/2011 9:45:22 AM b1a1on



NOTES:

CONTRACTOR SHALL FURNISH FORMWORK TO SUPPORT SLAB OVERHANG REGIONS WITH EXTENSIVE CLASS III SURFACE PREPARATION.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF HYDRO-DEMOLITION.

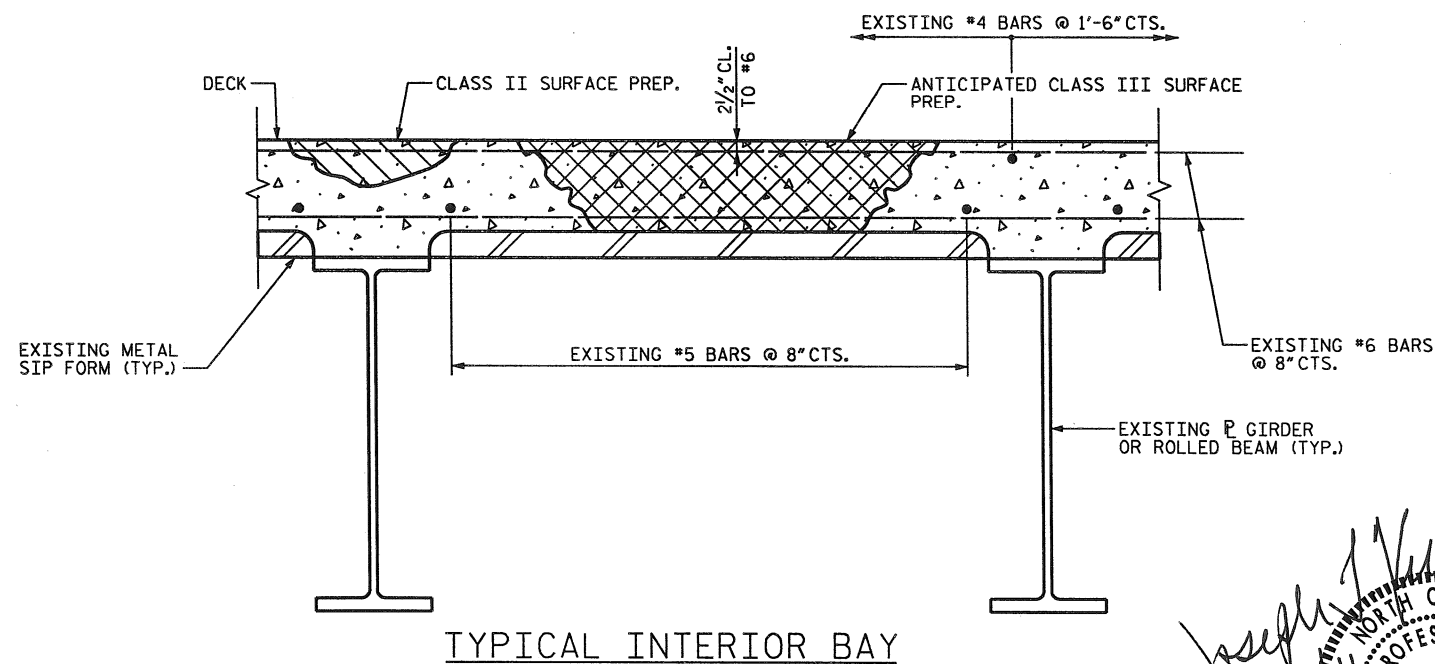
SEE HYDRO-DEMOLITION SPECIAL PROVISIONS.

CLASS II AND CLASS III SURFACE PREPARATION SHOWN IS REPRESENTATIVE AND DOES NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED @ THE PROJECT SITE.

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.

CONTRACTOR, AT HIS OPTION, MAY CHOOSE TO MONITOR HYDRO-DEMOLITION WORK IN LIEU OF BLOW THRU CONTAINMENT. SEE TRANSPORTATION MANAGEMENT PLANS.



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Fax. (919) 851-7024
www.stantec.com
License No. F-0872

DRAWN BY : A T LOPEZ DATE : 9/11
CHECKED BY : J T KELVINGTON DATE : 9/11

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

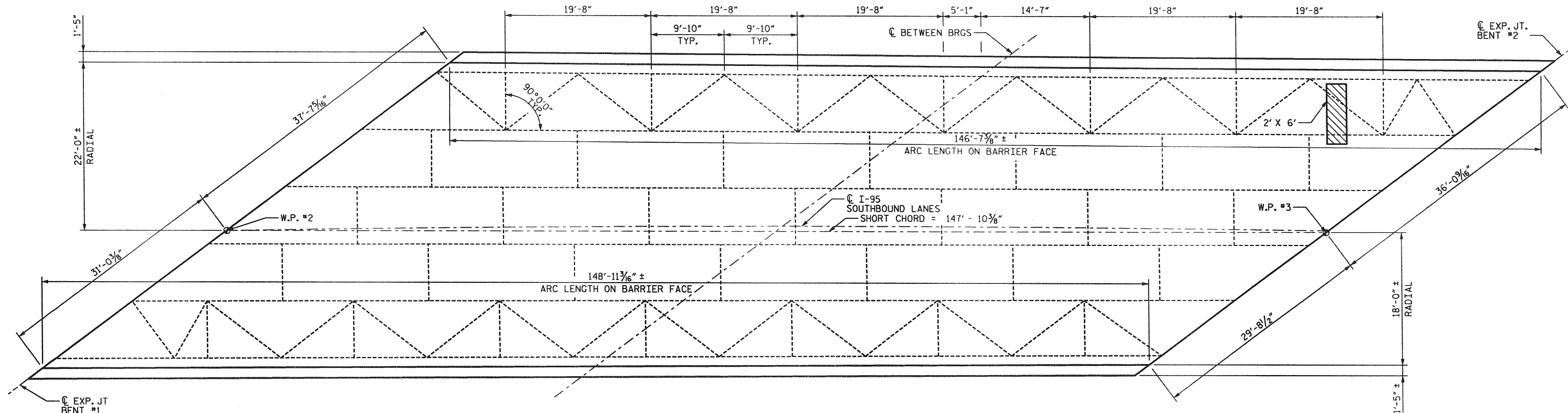
DECK REPAIR DETAILS

DECK REHAB. FOR BRIDGE NO. 30

| REVISIONS | | | | | | SHEET NO. S-4 |
|-----------|-----|-------|-----|-----|-------|-----------------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | TOTAL SHEETS 16 |
| 2 | | | 4 | | | |

Joseph T. Kelvington
12/27/11
NORTH CAROLINA
PROFESSIONAL
SEAL
13406
ENGINEER

Group 2011\WBS 17BP.6.P.4 Cumberland Co Bridge 30\Drawings\BP30_Repair\PlanB.dgn 12/2/2011 9:45:24 AM b1a1on



PLAN OF SPAN B - DECK REPAIRS



CLASS II SURFACE PREPARATION



CLASS III SURFACE PREPARATION

L' X W' = LENGTH OF AREA PARALLEL TO C I-95.
WIDTH OF AREA PERPENDICULAR TO I-95 SBL.

NOTES:

CONTRACTOR SHALL FURNISH FORMWORK TO SUPPORT SLAB OVERHANG REGIONS WITH EXTENSIVE CLASS III SURFACE PREPARATION.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF HYDRO-DEMOLITION.

SEE HYDRO-DEMOLITION SPECIAL PROVISIONS.

CLASS II AND CLASS III SURFACE PREPARATION SHOWN IS REPRESENTATIVE AND DOES NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED @ THE PROJECT SITE.

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.

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Tel. (919) 851-8886
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

DRAWN BY : A T LOPEZ DATE : 9/11
CHECKED BY : J T KELVINGTON DATE : 9/11

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

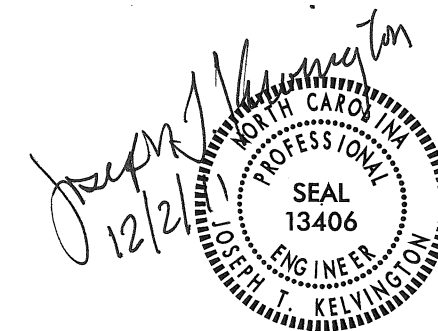
STATION: _____

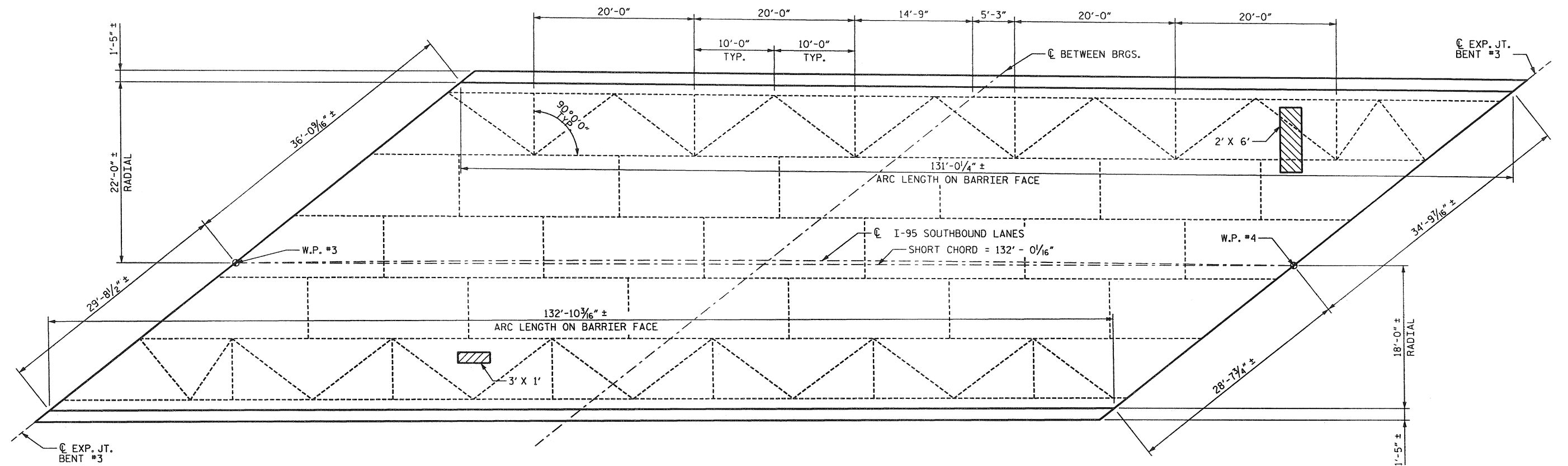
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS

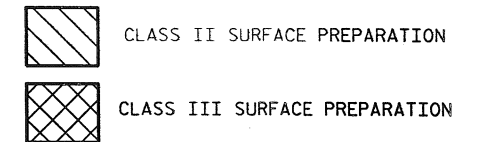
DECK REHAB. FOR BRIDGE NO. 30

| REVISIONS | | | | | | SHEET NO. S-5 |
|-----------|-----|-------|-----|-----|-------|-----------------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | TOTAL SHEETS 16 |
| 2 | | | 4 | | | |





PLAN OF SPAN C - DECK REPAIRS



L' X W' = LENGTH OF AREA PARALLEL TO CL I-95.
WIDTH OF AREA PERPENDICULAR TO I-95 SBL.

NOTES:

CONTRACTOR SHALL FURNISH FORMWORK TO SUPPORT SLAB OVERHANG REGIONS WITH EXTENSIVE CLASS III SURFACE PREPARATION.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF HYDRO-DEMOLITION.

SEE HYDRO-DEMOLITION SPECIAL PROVISIONS.

CLASS II AND CLASS III SURFACE PREPARATION SHOWN IS REPRESENTATIVE AND DOES NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED @ THE PROJECT SITE.

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.

CONTRACTOR, AT HIS OPTION, MAY CHOOSE TO MONITOR HYDRO-DEMOLITION WORK IN LIEU OF BLOW THRU CONTAINMENT. SEE TRANSPORTATION MANAGEMENT PLANS.

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

STATION: _____

Joseph T. Kelvington
12/2/11
NORTH CAROLINA
PROFESSIONAL
SEAL
13406
ENGINEER
JOSEPH T. KELVINGTON

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS

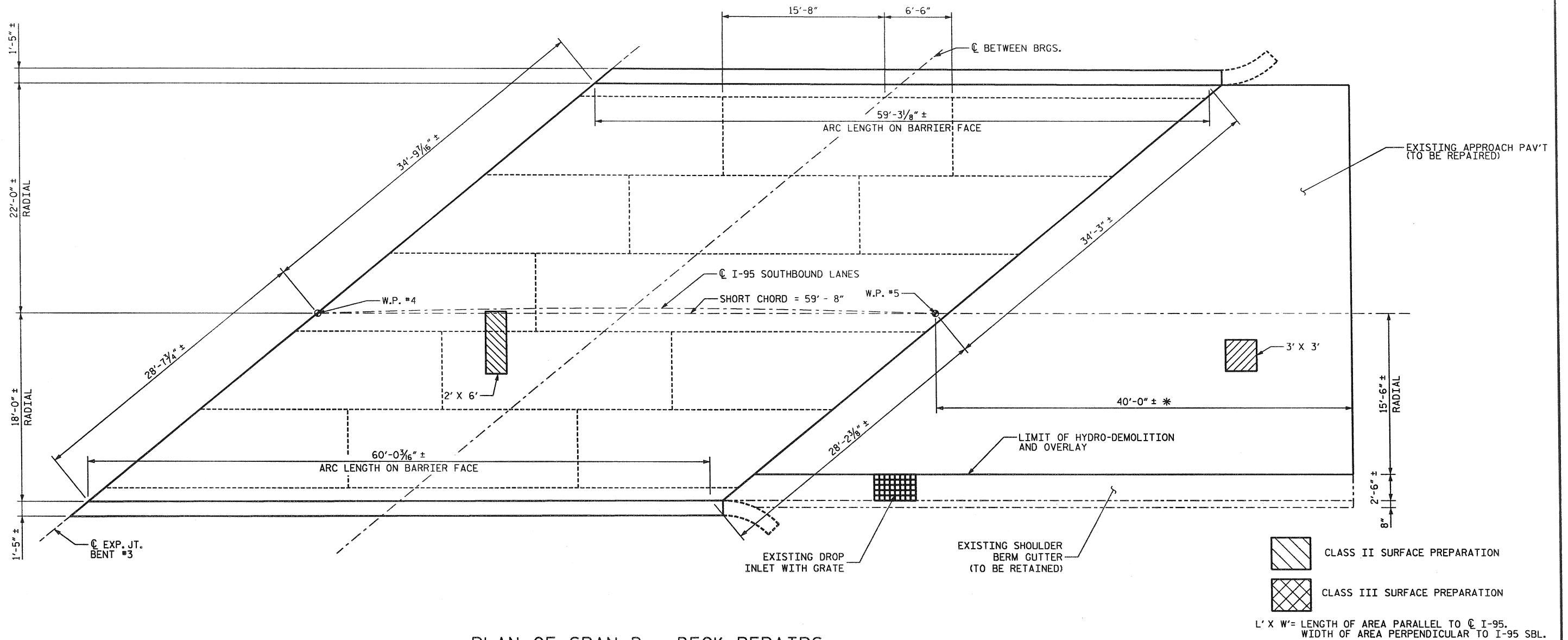
DECK REHAB. FOR BRIDGE NO. 30

| REVISIONS | | | | | | SHEET NO. |
|--------------|-----|-------|-----|-----|-------|-----------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-6 |
| 2 | | | 4 | | | |
| TOTAL SHEETS | | | | | | 16 |



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www.stantec.com
License No. F-0672

DRAWN BY: A T LOPEZ DATE: 9/11
CHECKED BY: J T KELVINGTON DATE: 9/11



PLAN OF SPAN D - DECK REPAIRS

* ESTIMATED LENGTH

NOTES:

CONTRACTOR SHALL FURNISH FORMWORK TO SUPPORT SLAB OVERHANG REGIONS WITH EXTENSIVE CLASS III SURFACE PREPARATION.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF HYDRO-DEMOLITION.

SEE HYDRO-DEMOLITION SPECIAL PROVISIONS.

CLASS II AND CLASS III SURFACE PREPARATION SHOWN IS REPRESENTATIVE AND DOES NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED @ THE PROJECT SITE.

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.

CONTRACTOR, AT HIS OPTION, MAY CHOOSE TO MONITOR HYDRO-DEMOLITION WORK IN LIEU OF BLOW THRU CONTAINMENT. SEE TRANSPORTATION MANAGEMENT PLANS.

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

STATION: _____



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www.stantec.com
License No. F-0672

DRAWN BY : A. T. LOPEZ DATE : 9/11
CHECKED BY : J. T. KELVINGTON DATE : 9/11

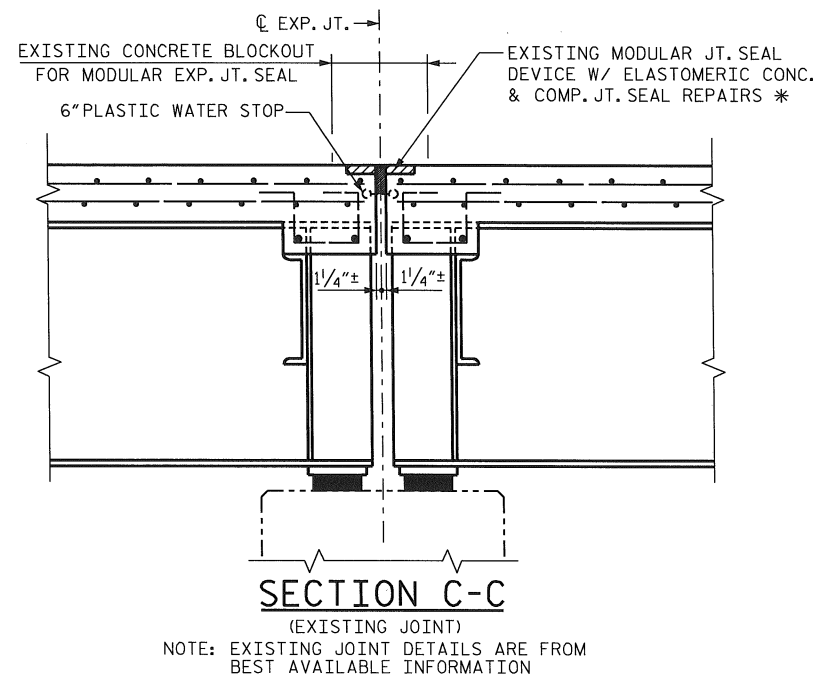


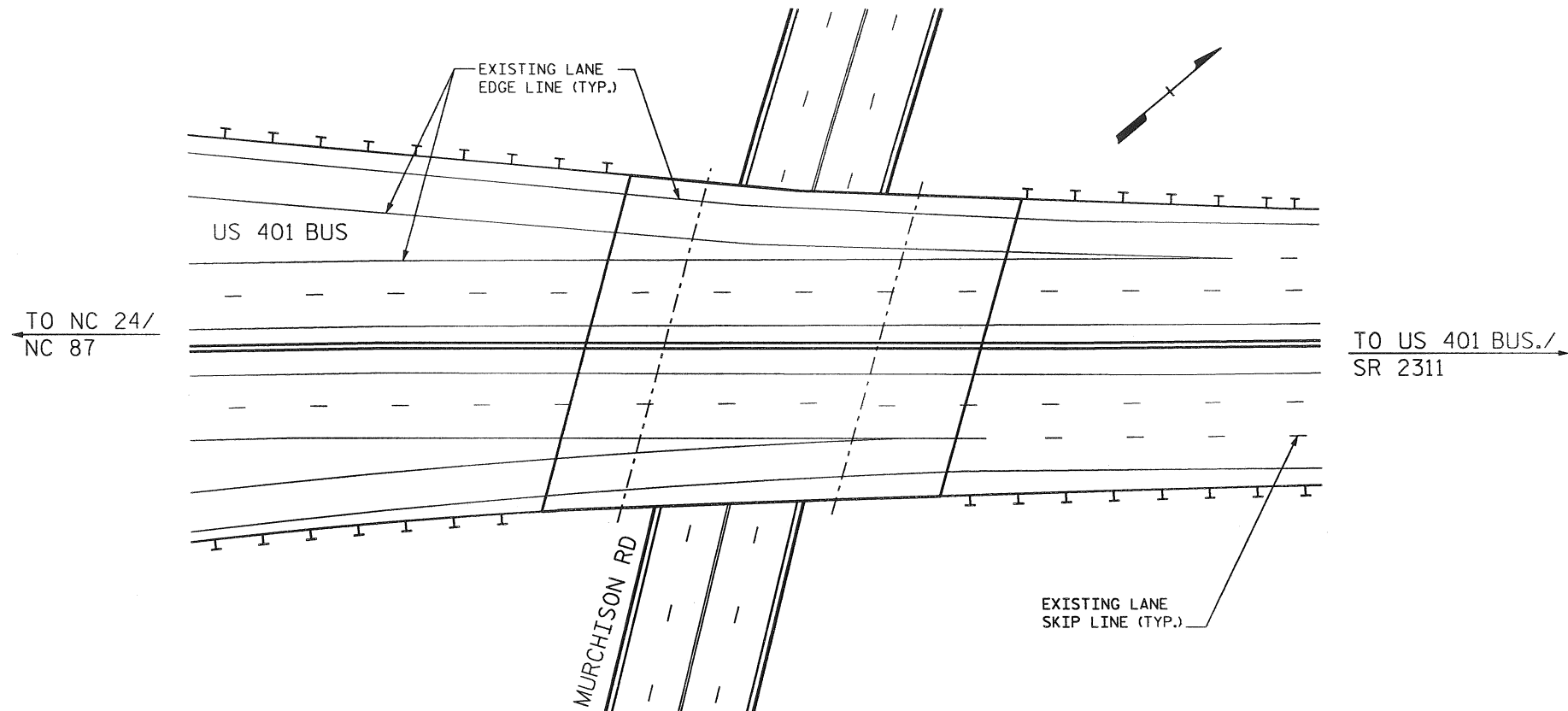
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS

DECK REHAB. FOR BRIDGE NO. 30

| REVISIONS | | | | | | SHEET NO. |
|--------------|-----|-------|-----|-----|-------|-----------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-7 |
| 2 | | | 4 | | | |
| TOTAL SHEETS | | | | | | 16 |





BRIDGE 051 ON US 401 BUS

LOCATION: BRIDGE 250051, US 401 BUS OVER NC 210 0.2 MILES
NORTH OF JUNCTION WITH NC 24/87

TOTAL BILL OF MATERIAL

| SCARIFYING * BRIDGE DECK | CLASS I * SURFACE PREPARATION | CLASS II * SURFACE PREPARATION | CLASS III * SURFACE PREPARATION | HYDRO- DEMOLITION | CLASS AA * CONCRETE | LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH | PLACING & FINISHING OF LATEX MODIFIED CONCRETE- VERY EARLY STRENGTH | EVAZOTE JOINT SEAL | GROOVING BRIDGE FLOORS | ASHPHALT CONC. SURF. COURSE TYPE S9.5C | 2'-6" CONCRETE CURB & GUTTER |
|-----------------------------|-------------------------------------|--------------------------------------|---------------------------------------|----------------------|------------------------|------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------|------------------------------|----------------------------------------------|---------------------------------|
| SQ.YDS. | SQ.YDS. | SQ.YDS. | SQ.YDS. | SQ.YDS. | CU.YDS. | CU.YDS. | SQ.YDS. | LUMP SUM | SQ.FT. | TON | LIN. FT. |
| 3415 | 0 | 4 | 0 | 1697 | 0 | 70 | 1702 | LUMP SUM | 14618 | 135 | 267 |

* QUANTITIES ARE ESTIMATES FROM BEST AVAILABLE DATA, AND SHOULD BE CONSIDERED FOR INFORMATIONAL PURPOSES ONLY. IF ANY CLASS III LOCATIONS ARE ENCOUNTERED PRIOR TO OR DURING HYDRO-DEMOLITION, SEE "TYP. BLOW THRU" CONTAINMENT AND FORMWORK" DETAIL. NO SEPARATE MEASUREMENT OR PAYMENT FOR THESE ITEMS WILL BE MADE. ALL COSTS FOR THIS WORK WILL BE INCLUDED IN THE UNIT PRICE BID FOR HYDRO-DEMOLITION.

** INCLUDES MILLING OF ROADWAY PAVEMENT.



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DRAWN BY : B C MACYOWSKY DATE : 10/11
CHECKED BY : J T KELVINGTON DATE : 10/11

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

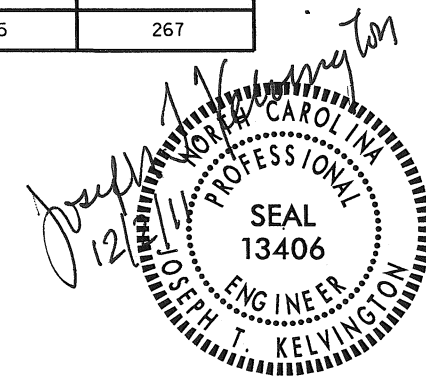
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

LOCATION SKETCH
AND TOTAL
BILL OF MATERIAL

DECK REHAB FOR BRIDGE NO. 51

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-9 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 16 |



MILL & REPLACE EXIST. RDWY.
PAV'T W/ ASPHALT CONC.
SURFACE COURSE TYPE S9.5C

— REMOVE EXIST. CURB & GUTTER
AND REPLACE WITH 2'-6" CONC.
CURB & GUTTER (SEE ROADWAY STD. 846.01)
(TYP. EA. SIDE, EA. END)

—EXIST. CURB & GUTTER
(TYP. EA. END)

NOTES:

EXISTING DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS WITH LATEX MODIFIED CONCRETE. SEE SPECIAL PROVISIONS.

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 THE DECK. SEE DETAIL, SHT. NO. S-13.

LATEX MODIFIED CONCRETE SHALL BE LATEX MODIFIED
CONCRETE - VERY EARLY STRENGTH.

FOR LATEX MODIFIED CONCRETE - VERY EARLY STRENGTH,
SEE SPECIAL PROVISIONS.

FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS.

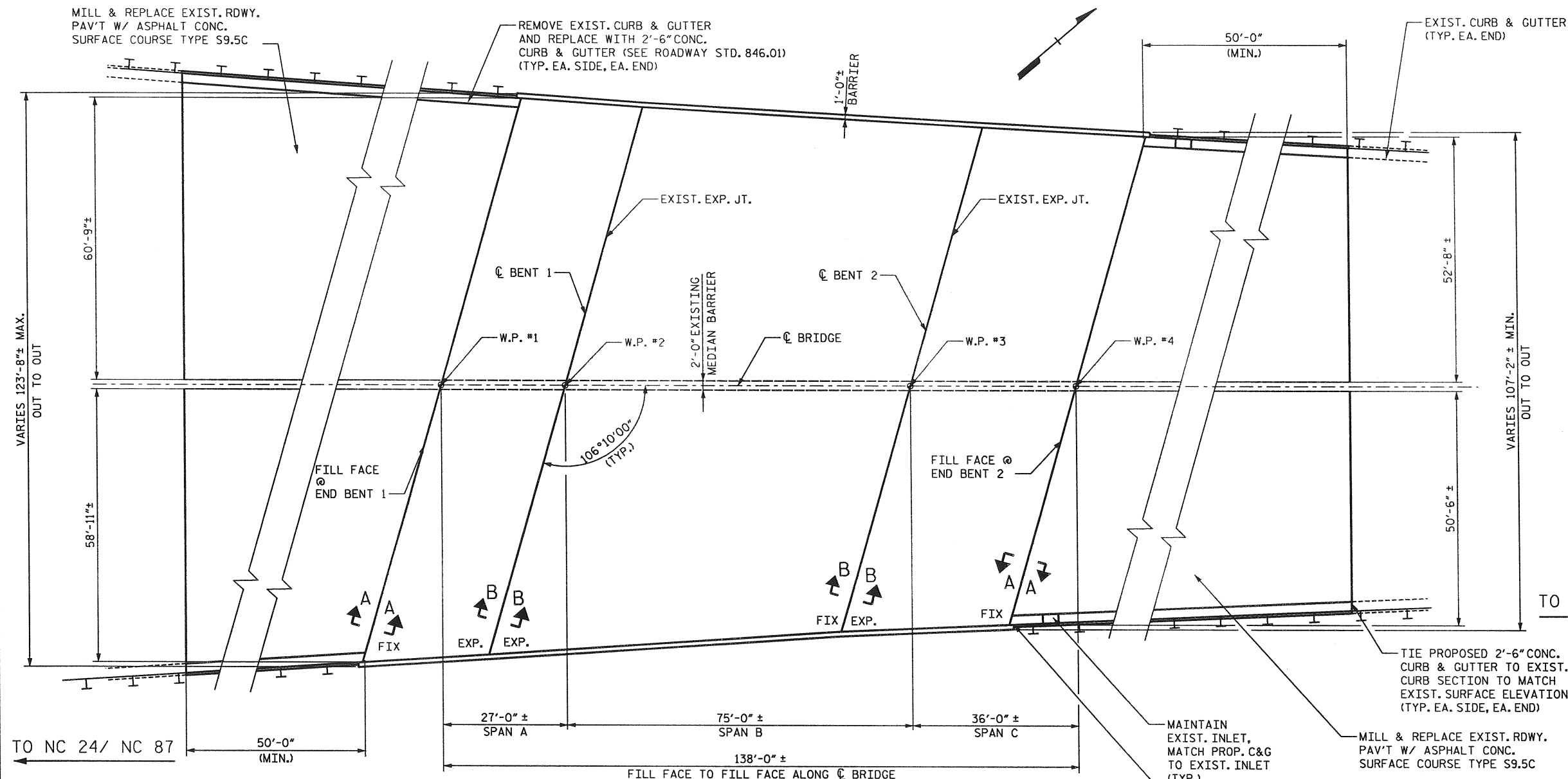
FOR SECTION B-B, SEE SHT. NO. S-16.

COSTS FOR REMOVAL OF EXISTING CURB & GUTTER SECTIONS, BACKFILL AND GRADING SUBBASE UNDER RECONSTRUCTED CURB & GUTTER SECTION WILL BE INCLUDED IN THE UNIT PRICE BID FOR 2'-6" CONCRETE CURB & GUTTER.

FOR THE TYPICAL ROADWAY APPROACH SECTION,
SEE SHEET NO. S-13.

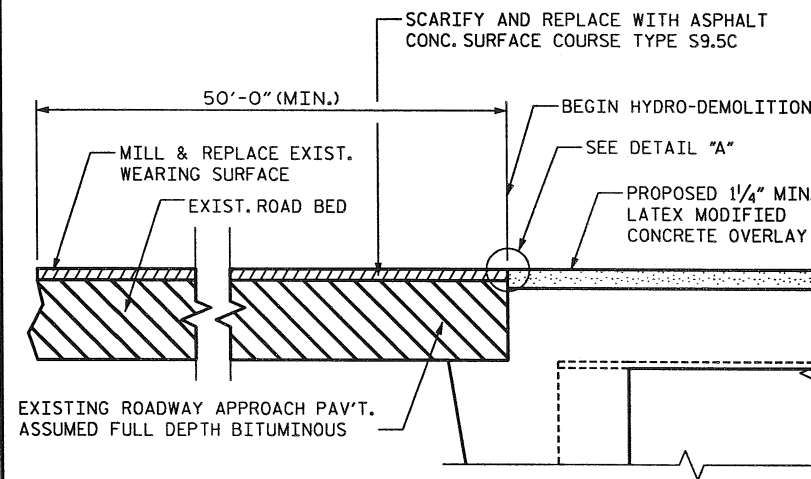
1/4" BACKER ROD SHALL BE CLOSED CELL EXPANDED POLYETHYLENE FOAM TYPE L. PLACE BACKER ROD TO WITHIN 1"-0" OF EXISTING CURB FACE. NO SEPARATE PAYMENT FOR LABOR, MATERIALS, AND EQUIPMENT NEEDED TO CONSTRUCT CONCRETE JOINT SEALS SHALL BE MADE. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE SEVERAL PAY ITEMS.

TO US 401 BUS./SR 2311

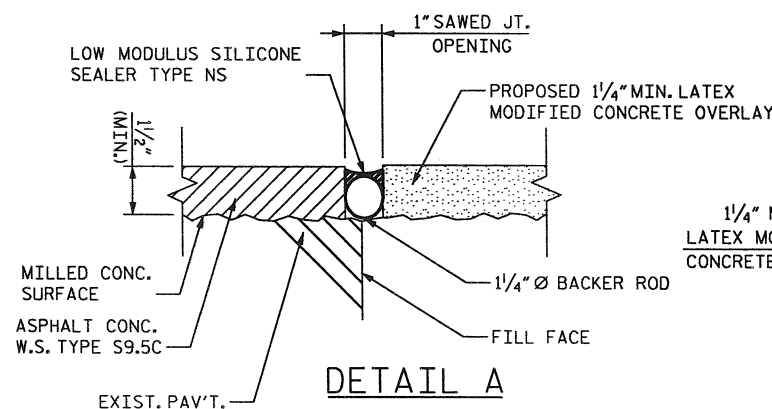


PLAN VIEW OF SPANS A-C

NOTE: ALL DIMENSION SHOWN ARE PARALLEL OR
NORMAL TO C BRIDGE.

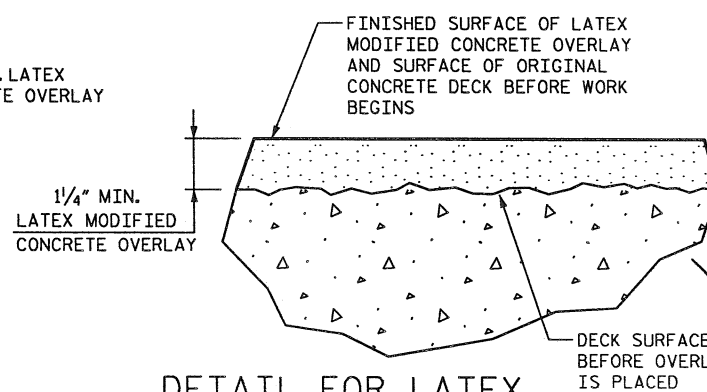


SECTION A-A



DETAIL A

CONCRETE JOINT SEAL
HORIZONTAL DIMENSIONS ARE
NORMAL TO THE JOINT



DETAIL FOR LATEX
MODIFIED CONCRETE OVERLAY



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DRAWN BY : B C MACYOWSKY DATE : 10/11
CHECKED BY : J T KELVINGTON DATE : 10/11

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN OF SPANS FOR DECK REPAIR

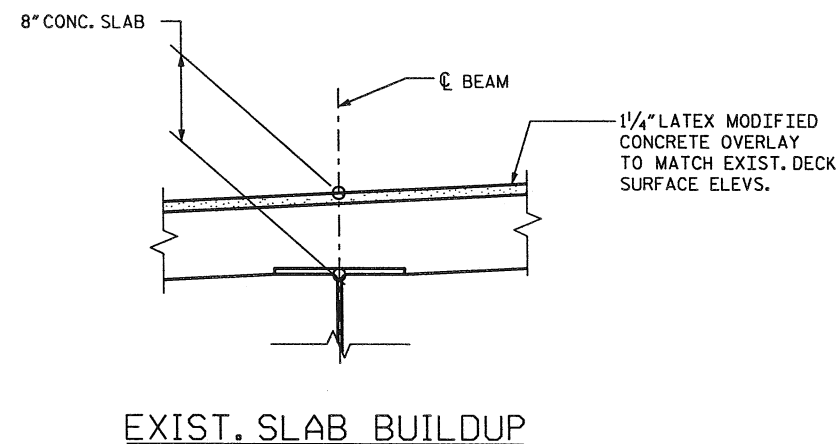
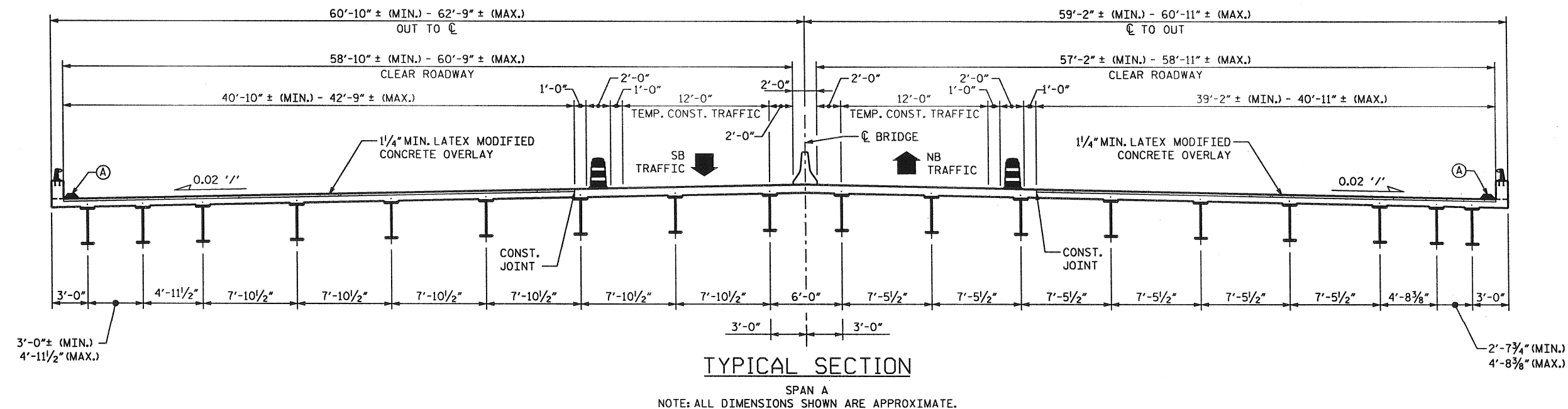
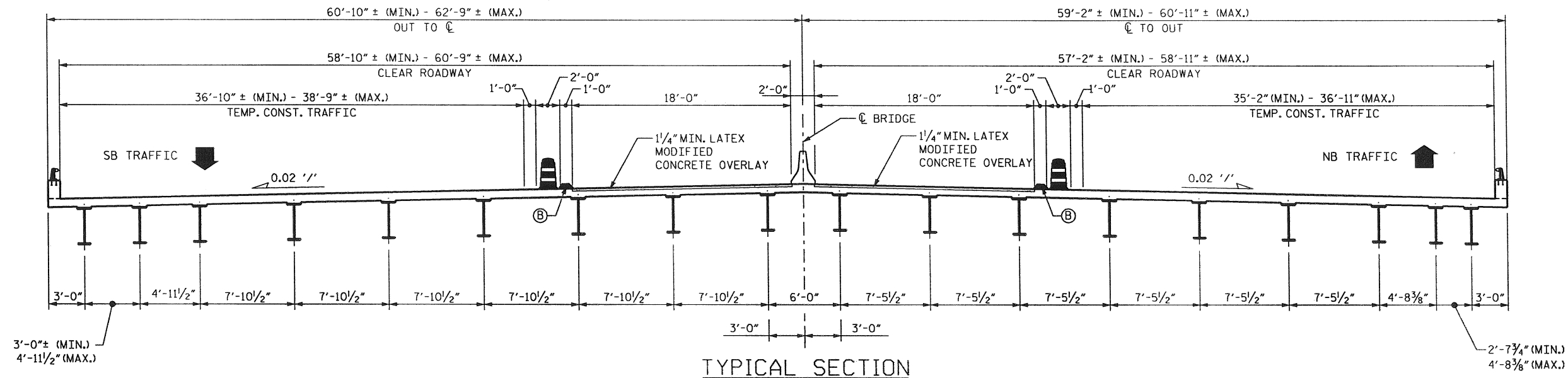
DECK REHAB FOR BRIDGE NO. 51

| REVISIONS | | | | | | SHEET NO. S-10 |
|-----------|-----|-------|-----|-----|-------|-----------------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | TOTAL SHEETS 16 |
| 2 | | | 4 | | | |

SHEET N
S-10

| | |
|--------------|----|
| TOTAL SHEETS | 16 |
|--------------|----|

Bridge Group 2011\WBS 17BP.6.P.4 Cumberland Co\Bridge 5\Drawing\BPSI_TYPS.A.dgn 12/5/2011 9:53:36 AM b1010101



NOTES:

WATER & CONCRETE SLURRY FROM HYDRO-DEMOLITION SHALL NOT BE ALLOWED TO DRAIN ACROSS TRAVEL LANES. CONTRACTOR SHALL PROVIDE A METHOD TO CONTROL THE WATER.

FOR TRAFFIC CONTROL AND CONSTRUCTION PHASING, SEE TRANSPORTATION MANAGEMENT PLANS.

- (A) DAM IS REQUIRED TO CAPTURE CONCRETE SLURRY @ DRAINS AND EXPANSION JOINTS.
- (B) DAM CONTINUOUSLY THRU WORK ZONE TO CAPTURE RUN OFF.

PROJECT NO. WBS 17BP.6.P.4

CUMBERLAND COUNTY

STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS
FOR BRIDGE #051

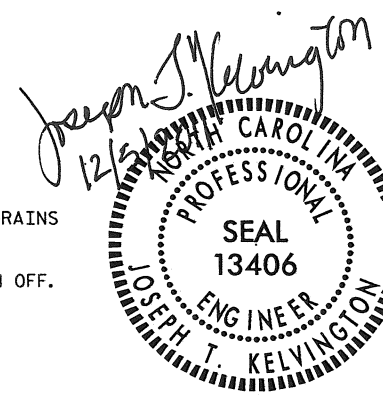
DECK REHAB FOR BRIDGE NO. 51

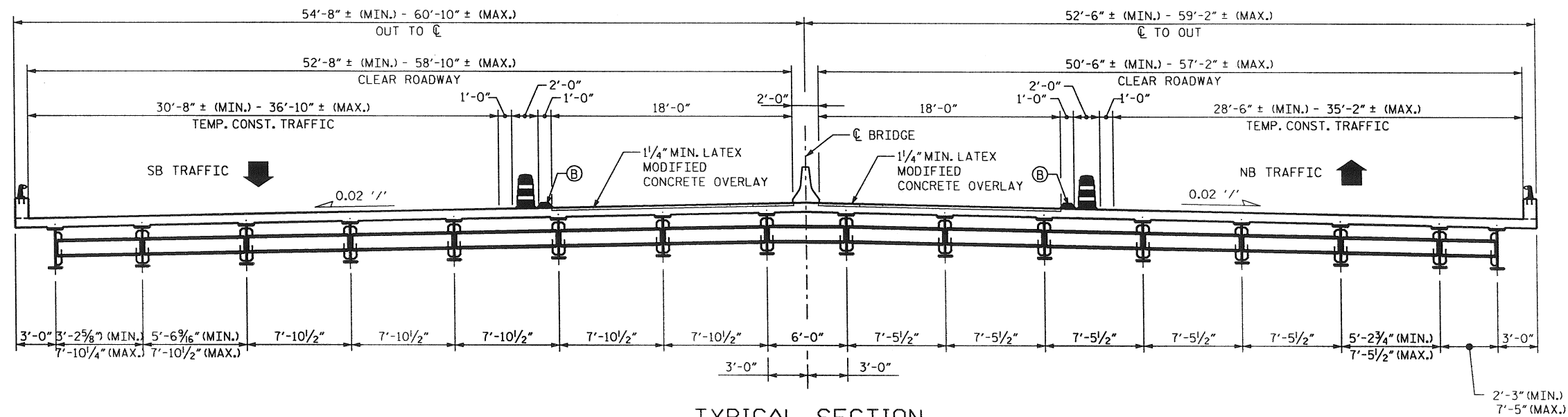
| REVISIONS | | | | | | SHEET NO. S-11 |
|-----------|-----|-------|-----|-----|-------|-----------------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | TOTAL SHEETS 16 |
| 2 | | | 4 | | | |



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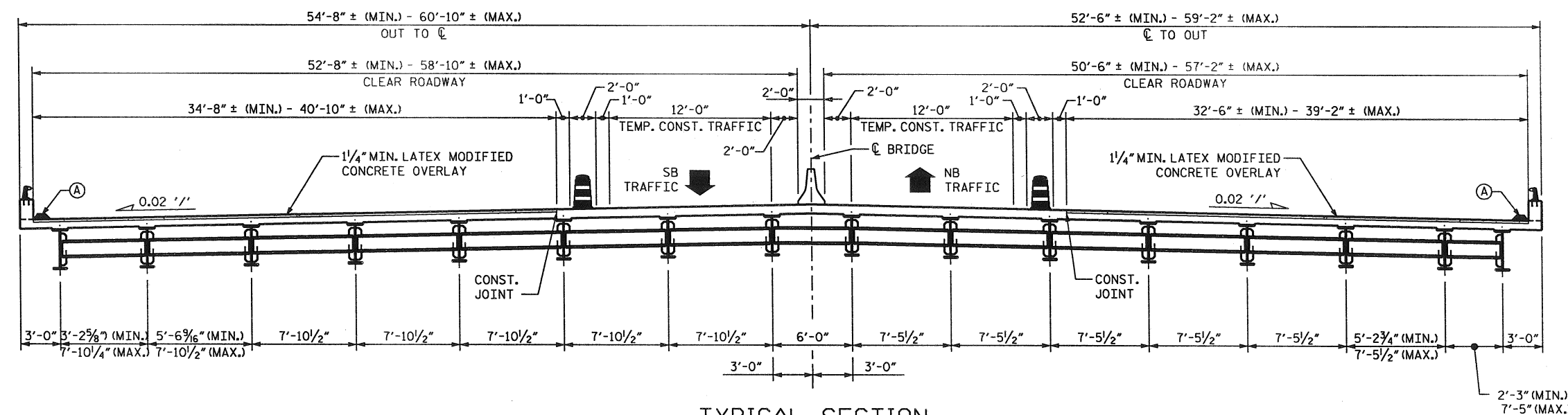
DRAWN BY : B C MACYOWSKY DATE : 10/11
CHECKED BY : J T KELVINGTON DATE : 10/11





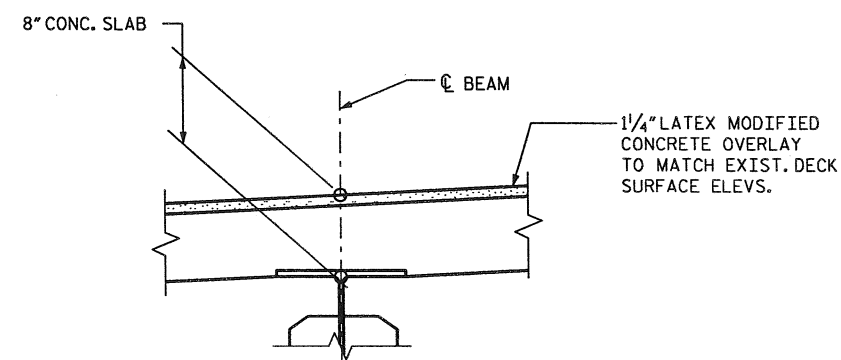
TYPICAL SECTION

SPAN B AND SPAN C
NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE.



TYPICAL SECTION

SPAN B AND SPAN C
NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE.



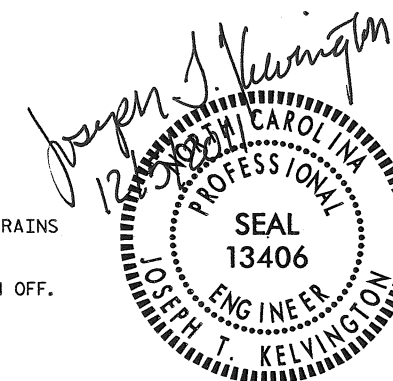
EXIST. SLAB BUILDUP

NOTES:

WATER & CONCRETE SLURRY FROM HYDRO-DEMOLITION SHALL NOT BE ALLOWED TO DRAIN ACROSS TRAVEL LANES. CONTRACTOR SHALL PROVIDE A METHOD TO CONTROL THE WATER.

FOR TRAFFIC CONTROL AND CONSTRUCTION PHASING, SEE TRANSPORTATION MANAGEMENT PLANS.

- (A) DAM IS REQUIRED TO CAPTURE CONCRETE SLURRY @ DRAINS AND EXPANSION JOINTS.
- (B) DAM CONTINUOUSLY THRU WORK ZONE TO CAPTURE RUN OFF.



PROJECT NO. WBS 17BP.6.P.4
CUMBERLAND COUNTY
STATION: _____

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-12 |
| 2 | | | 4 | | | TOTAL SHEETS 16 |

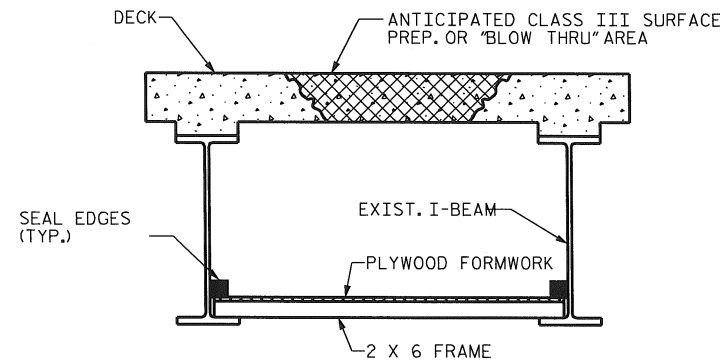
DECK REHAB FOR BRIDGE NO. 51

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-12 |
| 2 | | | 4 | | | TOTAL SHEETS 16 |



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DRAWN BY: B C MACYOWSKY DATE: 10/11
CHECKED BY: J T KELVINGTON DATE: 10/11



TYP. "BLOW THRU" CONTAINMENT
AND FORMWORK

NOTES:

CONTRACTOR SHALL FURNISH FORMWORK TO SUPPORT SLAB OVERHANG REGIONS WITH EXTENSIVE CLASS III SURFACE PREPARATION.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF HYDRO-DEMOLITION.

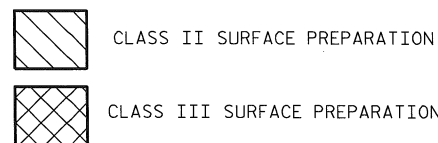
SEE HYDRO-DEMOLITION SPECIAL PROVISIONS.

CLASS II AND CLASS III SURFACE PREPARATION SHOWN IS REPRESENTATIVE AND DOES NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED @ THE PROJECT SITE.

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.

CONTRACTOR, AT HIS OPTION, MAY CHOOSE TO MONITOR HYDRO-DEMOLITION WORK IN LIEU OF BLOW THRU CONTAINMENT. SEE TRANSPORTATION MANAGEMENT PLANS.

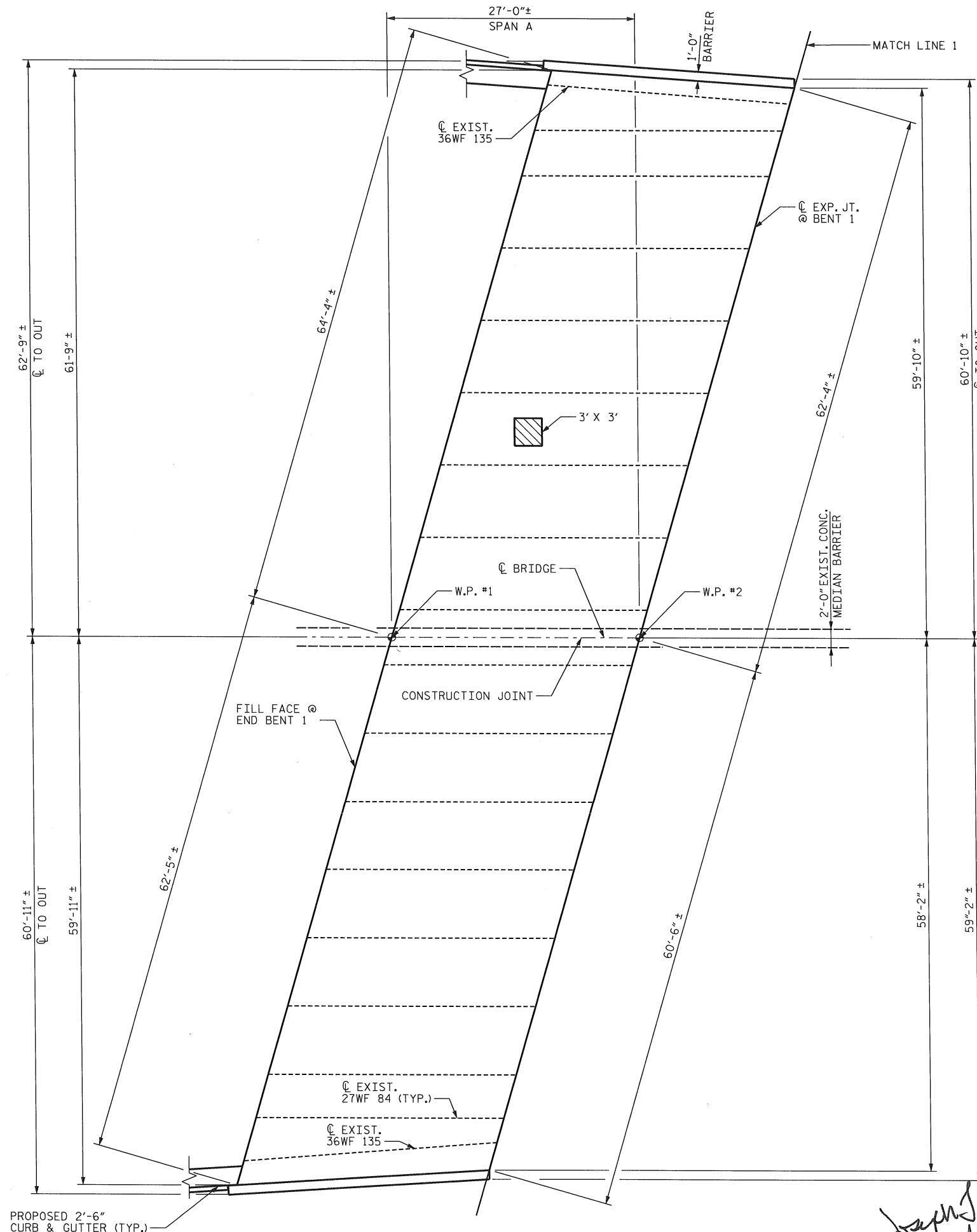


L' X W' = LENGTH OF AREA PARALLEL TO C BRIDGE X
WIDTH OF AREA PERPENDICULAR TO C BRIDGE.

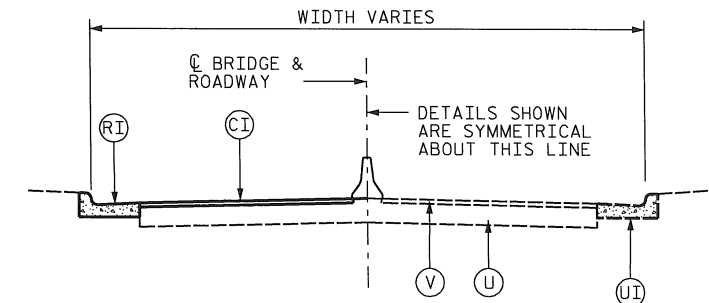


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CHECKED BY : J I KELVINGTON DATE : 10/11



PLAN OF SPAN A - DECK REPAIRS



TYPICAL ROADWAY SECTION

PAVEMENT SCHEDULE

- (CI) 2" MIN. ASPALT CONC. SURFACE COURSE, TYPE S9.5C @ AN AVG RATE OF 224 LBS. PER. SQ. YD.
- (RI) 2'-6" CONCRETE CURB AND GUTTER
- (U) EXISTING PAVEMENT
- (UT) EXISTING CURB AND GUTTER TO BE REMOVED
- (V) MILLING 1/2" MIN. THICKNESS

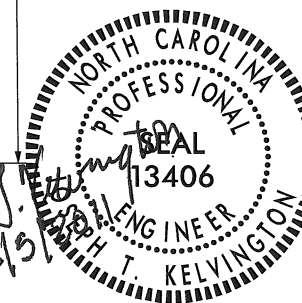
PROJECT NO. WBS 17BP.6.P.4
CUMBERLAND COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS

DECK REHAB FOR BRIDGE NO. 51

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-13 |
| 2 | | | 4 | | | TOTAL SHEETS 16 |



NOTES:

CONTRACTOR SHALL FURNISH FORMWORK TO SUPPORT SLAB OVERHANG REGIONS WITH EXTENSIVE CLASS III SURFACE PREPARATION.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF HYDRO-DEMOLITION.

SEE HYDRO-DEMOLITION SPECIAL PROVISIONS.

CLASS II AND CLASS III SURFACE PREPARATION SHOWN IS REPRESENTATIVE AND DOES NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED @ THE PROJECT SITE.

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.

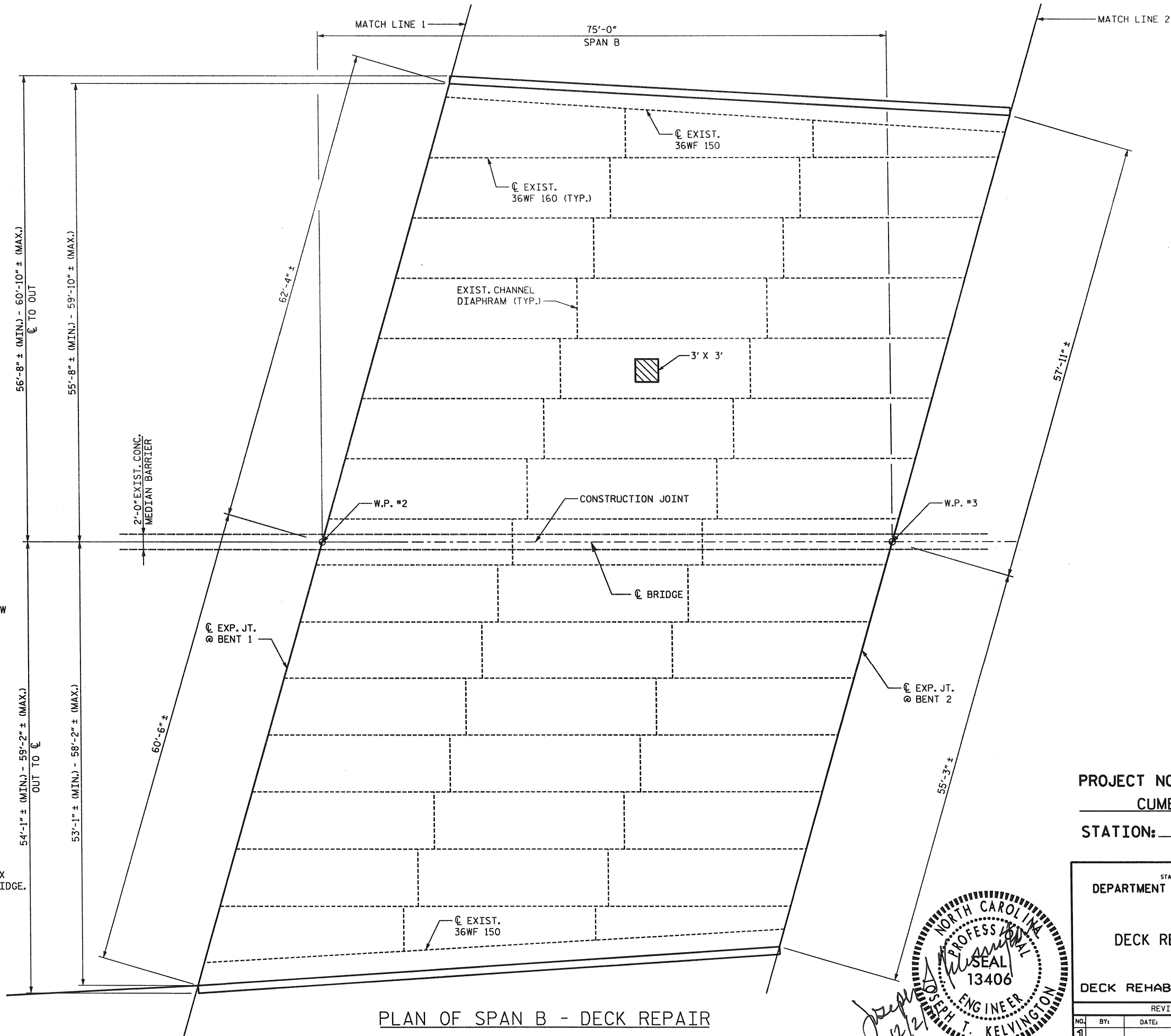
CONTRACTOR, AT HIS OPTION, MAY CHOOSE TO MONITOR HYDRO-DEMOLITION WORK IN LIEU OF BLOW THRU CONTAINMENT. SEE TRANSPORTATION MANAGEMENT PLANS.

- CLASS II SURFACE PREPARATION
- CLASS III SURFACE PREPARATION

L' X W' = LENGTH OF AREA PARALLEL TO C BRIDGE X WIDTH OF AREA PERPENDICULAR TO C BRIDGE.

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PLAN OF SPAN B - DECK REPAIR

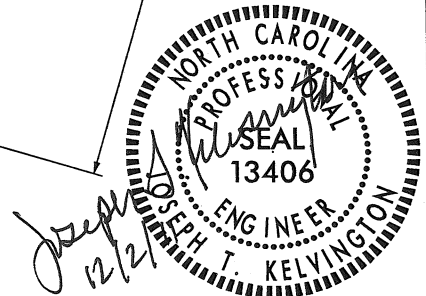
PROJECT NO. WBS 17BP.6.P.4
CUMBERLAND COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS

DECK REHAB FOR BRIDGE NO. 51

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | S-14 |
| 2 | | | 4 | | | TOTAL SHEETS 16 |



NOTES:

CONTRACTOR SHALL FURNISH FORMWORK TO SUPPORT SLAB OVERHANG REGIONS WITH EXTENSIVE CLASS III SURFACE PREPARATION.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF HYDRO-DEMOLITION.

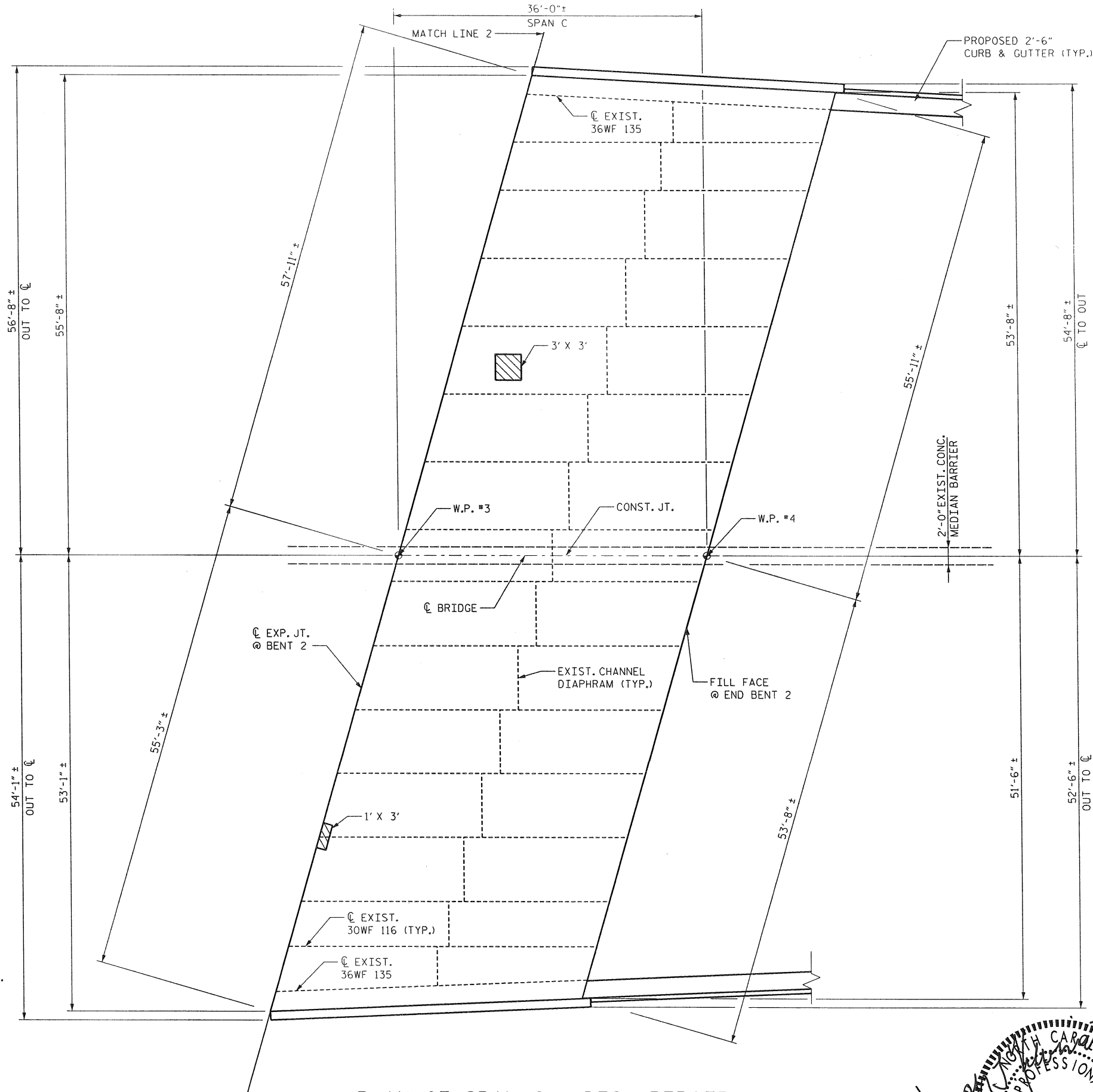
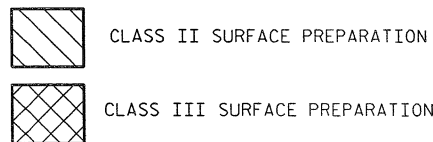
SEE HYDRO-DEMOLITION SPECIAL PROVISIONS.

CLASS II AND CLASS III SURFACE PREPARATION SHOWN IS REPRESENTATIVE AND DOES NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED @ THE PROJECT SITE.

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.

CONTRACTOR, AT HIS OPTION, MAY CHOOSE TO MONITOR HYDRO-DEMOLITION WORK IN LIEU OF BLOW THRU CONTAINMENT. SEE TRANSPORTATION MANAGEMENT PLANS.



PLAN OF SPAN C - DECK REPAIR

PROJECT NO. WBS 17BP.6.P.4
CUMBERLAND COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS

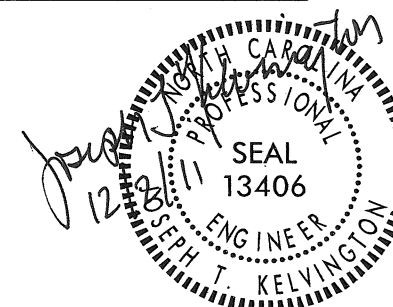
DECK REHAB FOR BRIDGE NO. 51

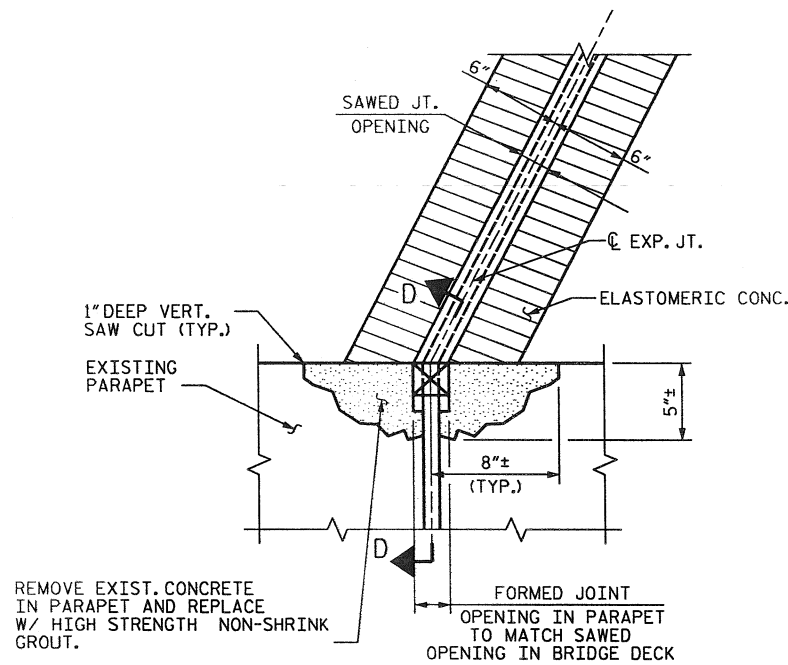
| REVISIONS | | | | | | SHEET NO. S-15 |
|-----------|-----|-------|-----|-----|-------|-----------------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | TOTAL SHEETS 16 |
| 2 | | | 4 | | | |



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DRAWN BY: B C MACYOWSKY DATE: 10/11
CHECKED BY: J T KELVINGTON DATE: 10/11

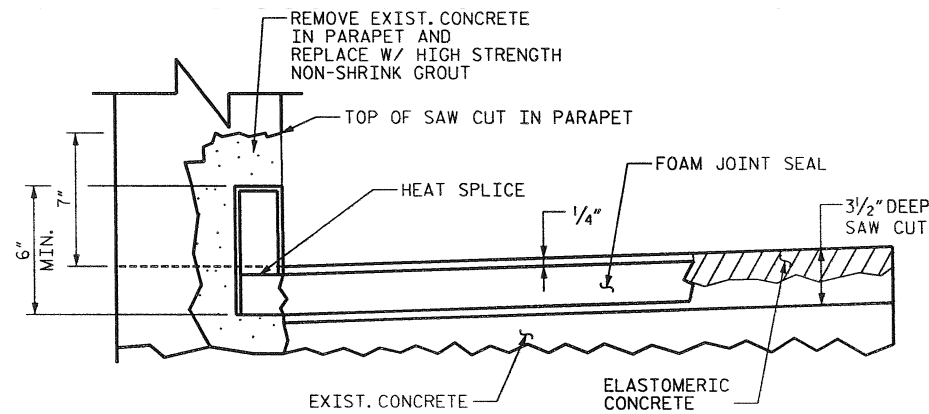




**PARTIAL PLAN @ JOINT
@ PARAPET**
(TYP. @ INTERIOR BENTS)

HIGH STRENGTH GROUT SHALL BE APPROVED BY THE ENGINEER.

FOR HIGH STRENGTH GROUT, SEE SPECIAL PROVISION ENTITLED "GROUT FOR STRUCTURES".

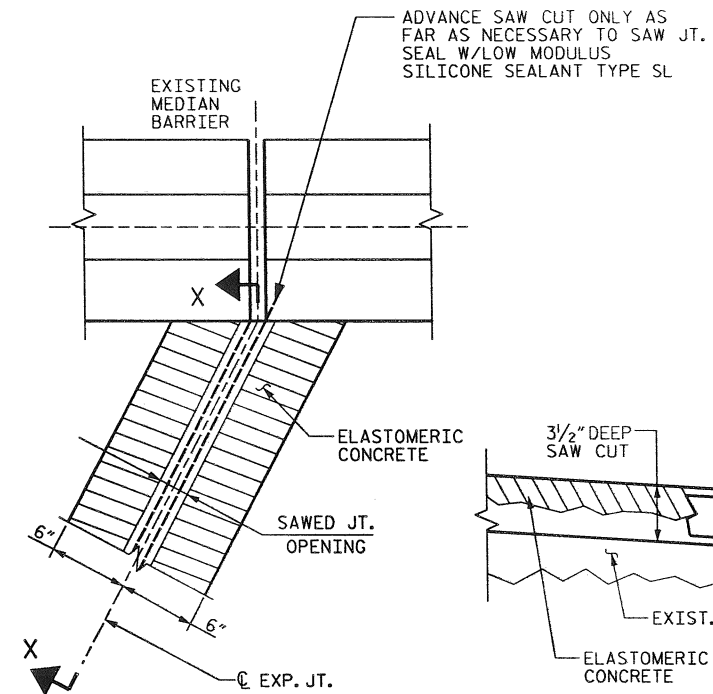


SECTION D-D

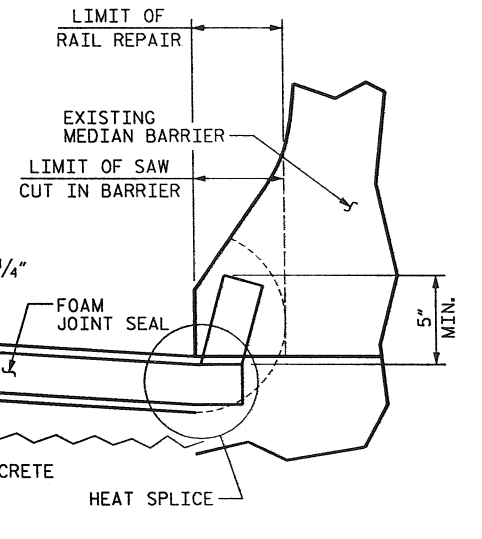
CONTRACTOR SHALL EXERCISE CARE TO AVOID CUTTING OR DAMAGING EXISTING REINF. STEEL.

FOR HIGH STRENGTH GROUT, SEE SPECIAL PROVISION ENTITLED "GROUT FOR STRUCTURES".

HIGH STRENGTH GROUT SHALL BE APPROVED BY THE ENGINEER.



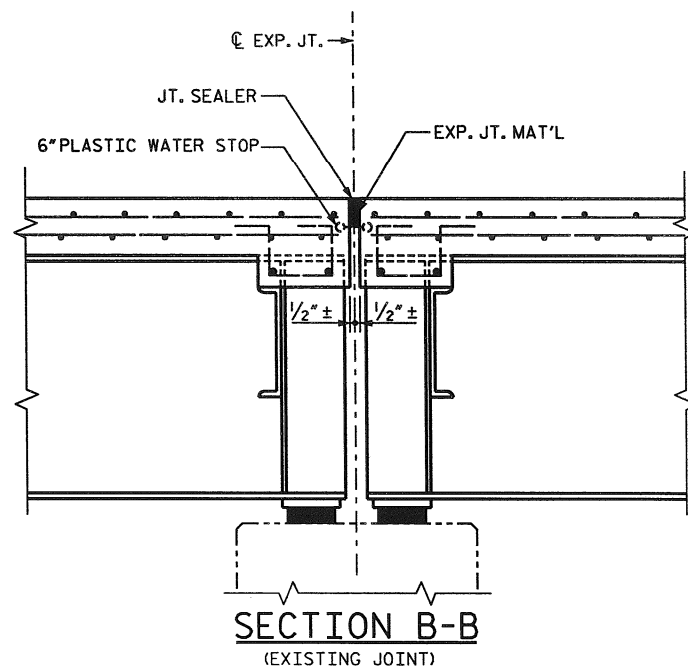
**PARTIAL PLAN @ JOINT
@ MEDIAN BARRIER**
(TYP. @ INTERIOR BENTS)



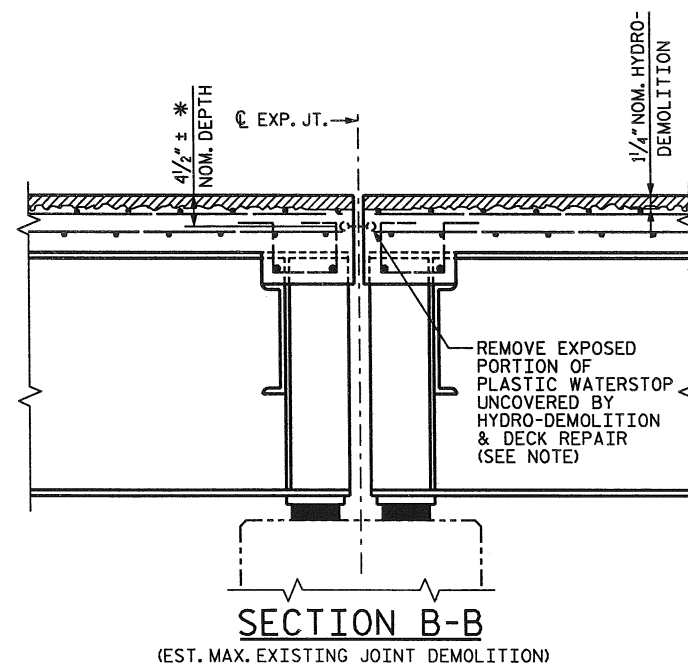
SECTION X-X

| ELASTOMERIC CONCRETE | |
|----------------------|-----------|
| LOCATION | QTY |
| BENT 1 | 11.5 C.F. |
| BENT 2 | 10.5 C.F. |

TOTAL ELASTOMERIC CONC. = 22.0 C.F.
TOTAL ELASTOMERIC CONC. = 0.8 C.Y.



SECTION B-B
(EXISTING JOINT)

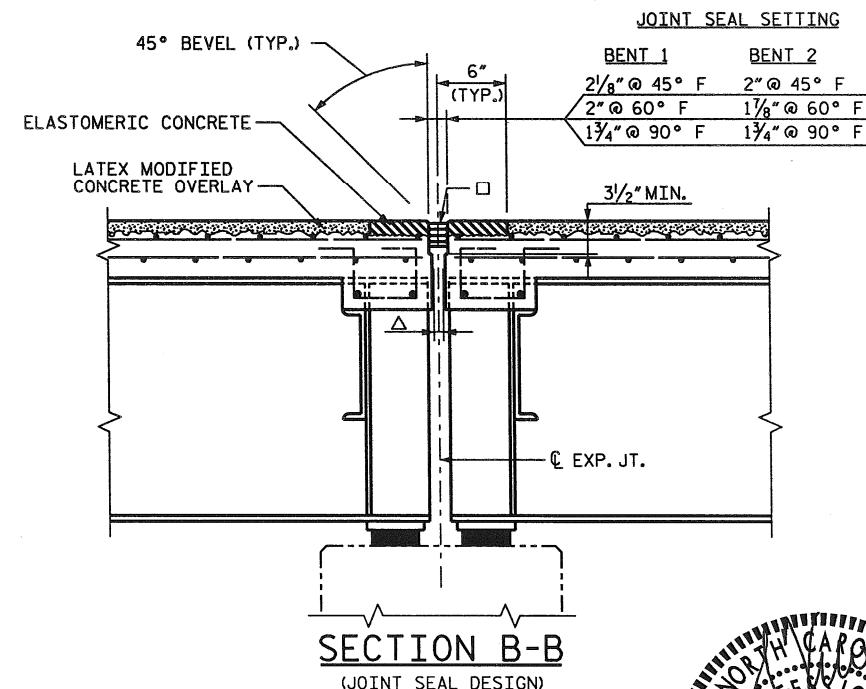


SECTION B-B
(EST. MAX. EXISTING JOINT DEMOLITION)

* FROM BEST AVAILABLE INFORMATION.

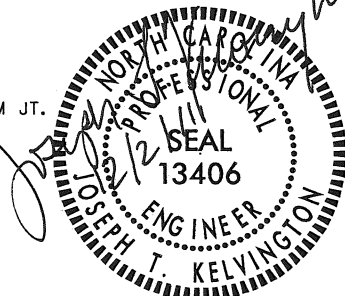
NOTE: ALL LOOSE AND UNSOUND CONCRETE SHALL BE REMOVED. IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE, THE ENTIRE WATERSTOP SHALL BE REMOVED.

RETAIN ALL EXIST. REINF. STEEL. CLEAN AND REPAIR AS REQ'D.



SECTION B-B
(JOINT SEAL DESIGN)

□ USE 2.8125" X 2.50" UNCOMPRESSED FOAM JT. SEAL MATERIAL
△ 1" FORMED OPENING



PROJECT NO. **WBS 17BP.6.P.4**
CUMBERLAND COUNTY
STATION: _____

| STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH | | | | | |
|--------------------------------------------------------------------|-----|-------|-----------|-----|-------|
| EXPANSION JOINT DETAILS | | | | | |
| DECK REHAB FOR BRIDGE NO. 51 | | | | | |
| REVISIONS | | | SHEET NO. | | |
| NO. | BY: | DATE: | NO. | BY: | DATE: |
| 1 | | | 3 | | |
| 2 | | | 4 | | |
| TOTAL SHEETS | | | 16 | | |



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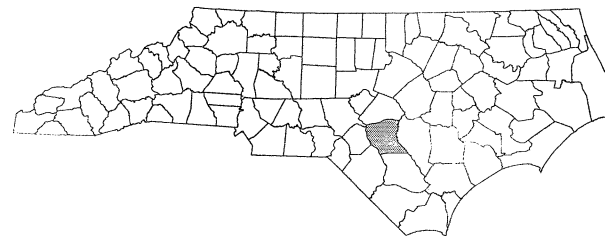
DRAWN BY : **B. C. MACYOWSKY** DATE : **10/11**
CHECKED BY : **J. T. KELVINGTON** DATE : **10/11**

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CUMBERLAND COUNTY

DIVISION 6



BRIDGE DECK PRESERVATION

BRIDGE #30 – I-95 SBL over I-95 Loop NBL & SR 2284

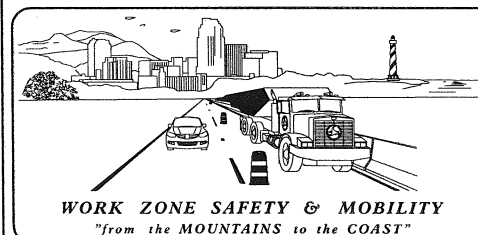
BRIDGE #51 – US 401 Business over NC 210

INDEX OF SHEETS

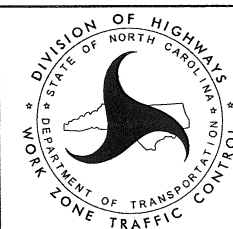
| SHEET NO. | TITLE |
|-------------|-------------------------------------------------------------------------------------------|
| TMP-1 | TITLE SHEET, AND INDEX OF SHEETS |
| TMP-1A | LIST OF ROADWAY STANDARD DRAWINGS AND LEGEND |
| TMP-2 | GENERAL NOTES |
| TMP-3 | PHASING |
| TMP 4,4A,4B | BRIDGE #51-US 401 BUS NB RIGHT LANE CLOSURE AND CLOSURE OF ENTRANCE RAMP FROM BRAGG BLVD. |
| TMP-4C | BRIDGE #51-DETOUR FOR RAMP FROM BRAGG BLVD.TO US401 BUS. NB |
| TMP-5 | BRIDGE #51-US 401 BUS. SB RIGHT LANE CLOSURE AND CLOSURE OF BRAGG BLVD. EXIT RAMP |
| TMP-5A | BRIDGE #51-US 401 BUS. SB TO BRAGG BLVD. EXIT RAMP DETOUR |

TRAFFIC MANAGEMENT STRATEGY

PROPOSED BRIDGE WORK WILL BE PERFORMED USING A COMBINATION OF DAY AND TIME RESTRICTED LANE CLOSURES AND RAMP CLOSURES. TEMPORARY DETOURS WILL BE REQUIRED. REFER TO SHEET TMP-3 FOR PHASING.



PLAN PREPARED FOR NCDOT BRIDGE MANAGEMENT UNIT
RALEIGH, NC



PLAN PREPARED BY:
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Stantec

BETSY L. WATSON, P.E.
TRAFFIC ENGINEER

GEORGE KARAGEORGE
SR TRANSPORTATION DESIGNER

APPROVED: *Betsy L. Watson*
DATE: 12/17/11

SEAL

SEAL
29449
ENGINEER
BETSY L. WATSON

SHEET NO.
TMP-1
WBS 17BP.6.P.4

11/30/2011
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gkaragoraga

LEGEND

← DIRECTION OF TRAFFIC FLOW

WORK AREA

NORTH ARROW

TYPE III BARRICADE

▲ CONE
● DRUM ◎ SKINNY DRUM ⊙ TUBULAR MARKER

CHANGEABLE MESSAGE SIGN (CMS)

FLAGGER

FLASHING ARROW PANEL (TYPE C)

LAW ENFORCEMENT

TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)

PORTABLE CONCRETE BARRIER (PCB)

TEMPORARY CRASH CUSHION

TEMPORARY SHORING

WORK ZONE SIGN-PORTABLE

WORK ZONE SIGN-STATIONARY

WORK ZONE SIGN-STATIONARY OR PORTABLE

SIGNALS

EXISTING PROPOSED TEMPORARY

PAVEMENT MARKINGS

EXISTING PAVEMENT MARKING (GRAY)

SKIP LINES

MINI-SKIP LINES

SOLID LINES

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

EXISTING PAVEMENT MARKING SYMBOLS (HOLLOW)

ONLY PAVEMENT MARKING ALPHANUMERIC CHARACTERS

| | |
|---------------------|-----------|
| PROJ. REFERENCE NO. | SHEET NO. |
| 17BP.6.P.4 | TMP-1A |

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 |
| 1110.01 | STATIONARY WORK ZONE SIGNS |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1115.01 | FLASHING ARROW PANELS |
| 1130.01 | DRUMS |
| 1145.01 | BARRICADES |
| 1165.01 | TRUCK MOUNTED IMPACT ATTENUATOR |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES & OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS |
| 1250.01 | PAVEMENT MARKER SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS (PERMANENT) |

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APPROVED: _____ DATE: _____

SEAL

PROFESSIONAL ENGINEER
NORTH CAROLINA
10/1/11

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS
&
LEGEND

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GENERAL NOTES

| | |
|---------------------|-----------|
| PROJ. REFERENCE NO. | SHEET NO. |
| 17BP.6.P.4 | TMP-2 |

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

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.

LANE CLOSURE TIME RESTRICTIONS

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

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|-----------------------|-----------------------------------------------------|
| I-95 & US 401 BUS. | 6:00 A.M.- 7:00 P.M. MONDAY THRU SUNDAY (EVERY DAY) |

HOLIDAY & HOLIDAY WEEKEND LANE CLOSURE TIME RESTRICTIONS

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND HOLIDAY WEEKENDS AS FOLLOWS:

- ROAD NAME
ALL ROADS
- 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 6:00 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 TUESDAY.
 - 3) FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
 - 4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
 - 5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 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 6:00 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 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
 - 7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
 - 8) FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CLOSE ROADS AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|----------------------|----------------------------------------------------|
| US 401 BUS. RAMPS | 6:00 A.M.-7:00 P.M. MONDAY THRU SUNDAY (EVERY DAY) |

LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) LANE CLOSURES ARE REQUIRED WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN ANY PORTION OF A TRAVEL LANE. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- E) 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. COVER OR LAY DOWN SIGNS, AND TURN OFF ARROW PANEL AND MESSAGE BOARDS.
- F) 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.
- G) 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 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) 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 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

ROAD CLOSURES

- I) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.
- J) PROVIDE SIGNING AND DEVICES FOR ROAD CLOSURES ACCORDING TO THE TRAFFIC MANAGEMENT PLAN. COVER OR REMOVE ALL SIGNS AND DEVICES FOR ROAD CLOSURES WHEN NOT IN EFFECT.
- K) PROVIDE OFFSITE DETOUR ROUTE SIGNING AS SHOWN IN THE TRAFFIC MANAGEMENT PLAN. COVER OR REMOVE OFFSITE DETOUR SIGNING WHEN THE DETOUR IS NOT IN OPERATION. ALL OFFSITE DETOUR ROUTES MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTING.
- L) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- M) WHEN CLOSING A ROADWAY OR DRIVEWAY PLACE TYPE III BARRICADES COMPLETELY ACROSS THE ROADWAY OR FROM CURB TO CURB. ATTACH BARRICADE MOUNTED "ROAD CLOSED" SIGN R11-2 AT ALL CLOSURE LOCATIONS. IF LOCAL TRAFFIC IS TO BE MAINTAINED STAGGER THE BARRICADES TO ALLOW ACCESS.
- N) INSTALL SIGNS BEFORE BARRICADES WHEN CLOSING A ROADWAY TO TRAFFIC. REMOVE BARRICADES BEFORE SIGNS WHEN OPENING A ROADWAY TO TRAFFIC. INSTALL/REMOVE ROAD CLOSURE SIGNS AND BARRICADES IN A CONTINUOUS OPERATION AND WITHIN THE SAME CALENDAR DAY.

PAVEMENT MARKINGS AND MARKERS

- O) RECORD ALL LOCATIONS AND TYPES OF EXISTING PAVEMENT MARKINGS AS THEY WILL BE REPLACED IN THE SAME LOCATION ON THE NEW SURFACE.
- P) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Q) UPON COMPLETION OF ALL OTHER CONSTRUCTION OPERATIONS INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

| ROAD NAME | MARKING | PAVEMENT MARKER |
|-------------------------|----------------------|--------------------------------------|
| US 401 BUSINESS I-95 | POLYUREA POLYUREA | RAISED PERMANENT RAISED PERMANENT |

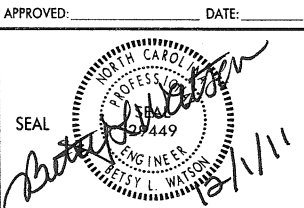
- R) REPLACE PAVEMENT MARKINGS BEFORE OPENING LANES OR A ROADWAY TO TRAFFIC. A THIN LAYER OF PAINT MAY BE USED INITIALLY UNTIL FINAL MARKINGS ARE PLACED.

MISCELLANEOUS

- S) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER. LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE AND MAY BE REVISED AS THE OFFICER OR THE ENGINEER DEEM NECESSARY.
- T) ALL DIMENSIONS AND STATIONS IN THE TRAFFIC MANAGEMENT PLAN AND PHASING ARE APPROXIMATE (+/-); FIELD ADJUST AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- U) MAINTAIN DRIVEWAY ACCESS AT ALL TIMES, UNLESS OTHERWISE DIRECTED BY ENGINEER.
- V) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.



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GENERAL NOTES

PHASING

DO NOT WORK ON BRIDGE #30 AND #51 SIMULTANEOUSLY.

BRIDGE #30

DURING BRIDGE WORK ON I-95 USE RIGHT OR LEFT LANE CLOSURES PER ROADWAY
STANDARD DRAWING 1101.02, SHEET 3.

BRIDGE #51

DURING BRIDGE WORK ON US 401 BUS. USE LANE CLOSURES AND RAMP CLOSURES AS
FOLLOWS:

DO NOT WORK ON BOTH DIRECTIONS OF US 401 BUSINESS SIMULTANEOUSLY

US 401 BUS. NORTHBOUND LEFT LANE: USE A LEFT LANE CLOSURE PER ROADWAY
STANDARD DRAWING 1101.02, SHEET 3.

US 401 BUS. NORTHBOUND RIGHT LANES: USE A RIGHT LANE CLOSURE AND ENTRANCE
RAMP CLOSURE PER SHEETS TMP-4A,4B,4C.

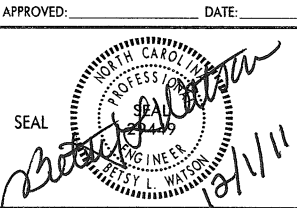
US 401 BUS. SOUTHBOUND LEFT LANE: USE A LEFT LANE CLOSURE PER ROADWAY
STANDARD DRAWING 1101.02, SHEET 3.

US 401 BUS. SOUTHBOUND RIGHT LANES: USE A RIGHT LANE CLOSURE AND CLOSE THE
EXIT RAMP PER SHEETS TMP-5,5A.

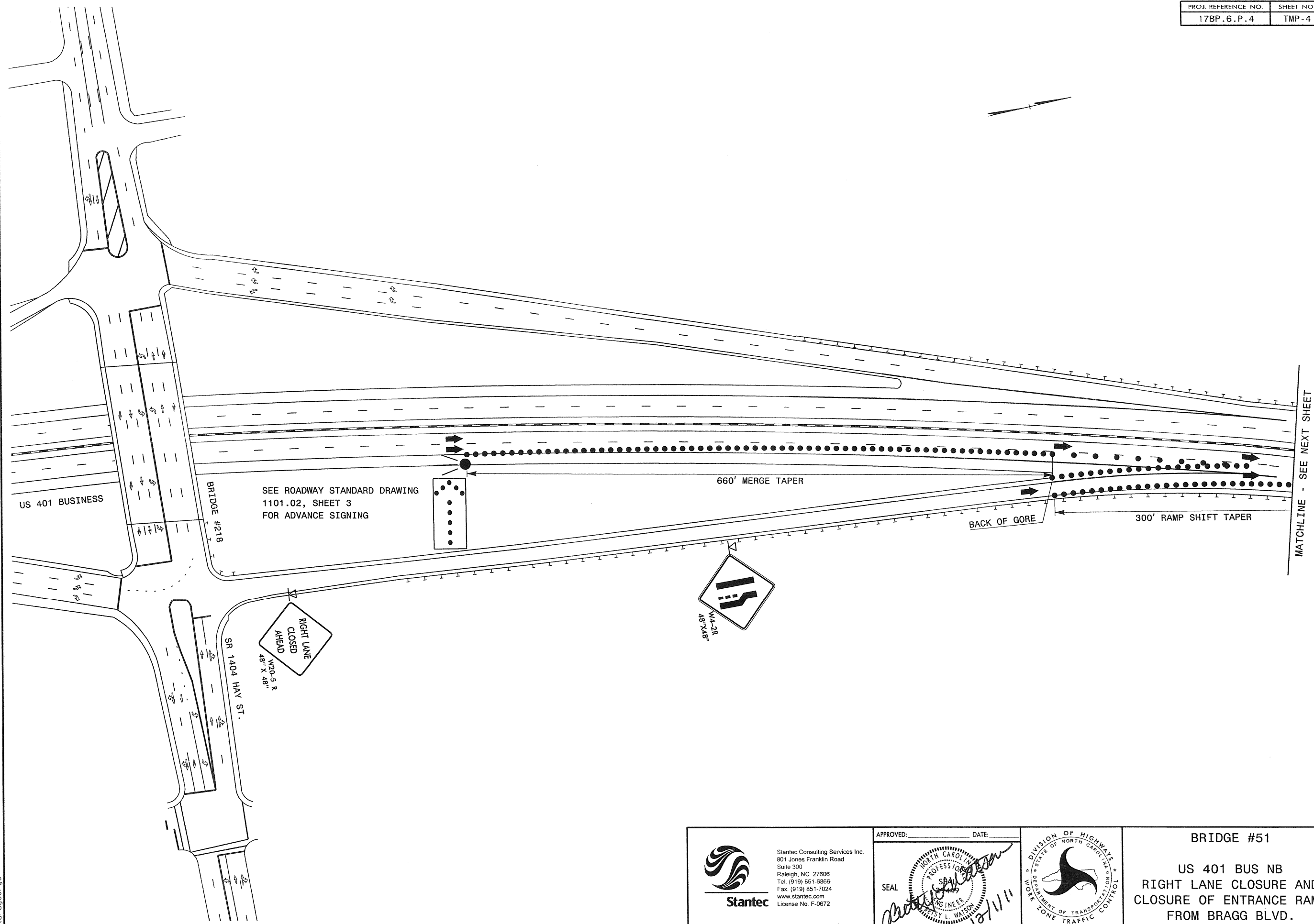
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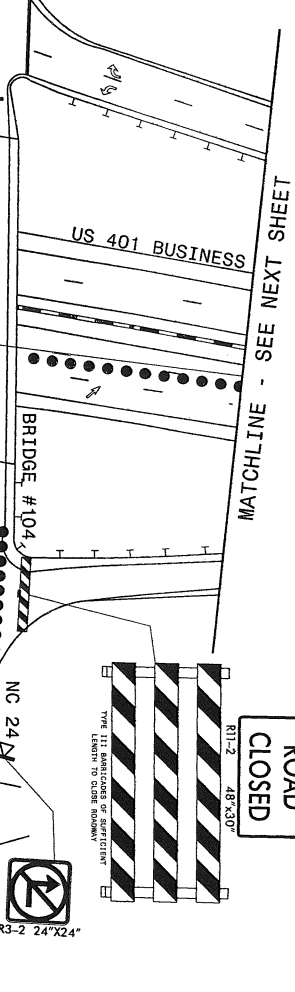
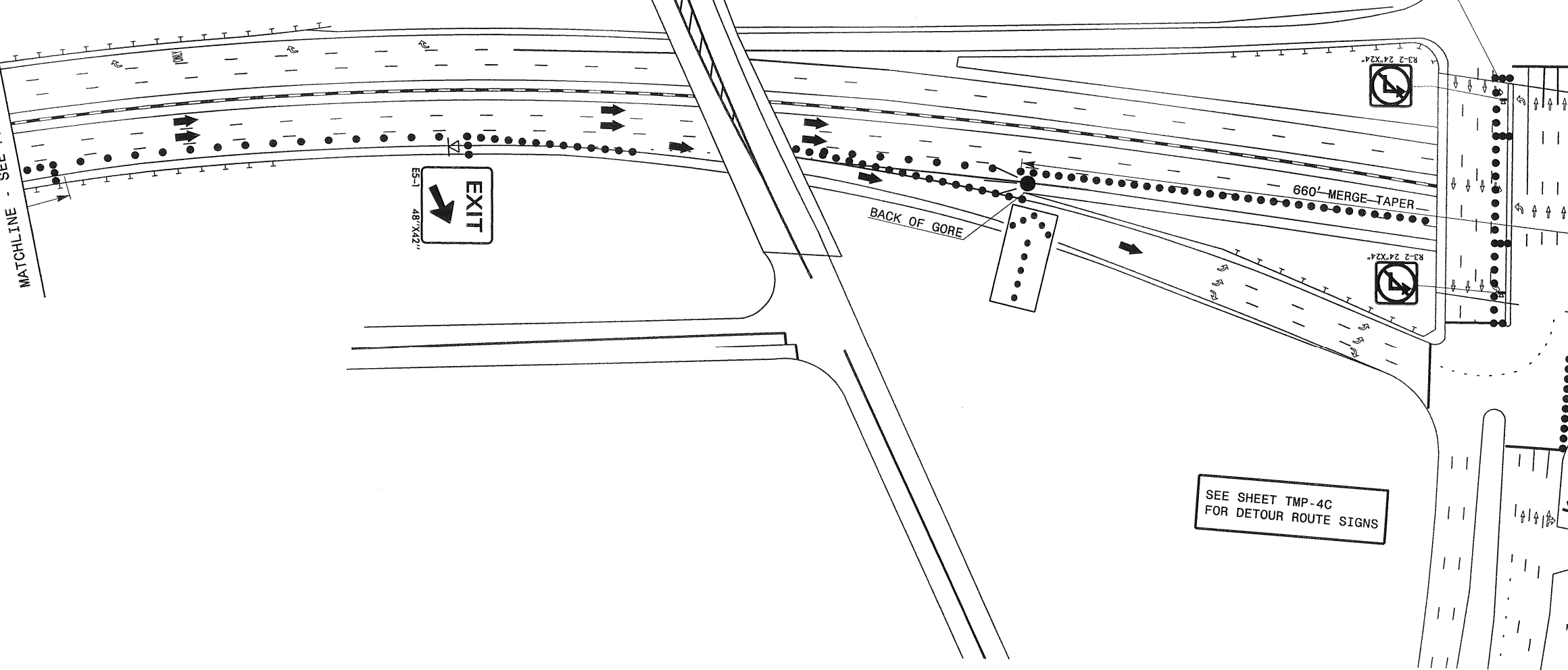
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|  Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-5866 Fax. (919) 851-7024 www.stantec.com License No. F-0672 | APPROVED: _____ DATE: _____  |  | BRIDGE #51 US 401 BUS NB RIGHT LANE CLOSURE AND CLOSURE OF ENTRANCE RAMP FROM BRAGG BLVD. |
| | | | |

MATCHLINE - SEE PREVIOUS SHEET



MATCHLINE - SEE NEXT SHEET

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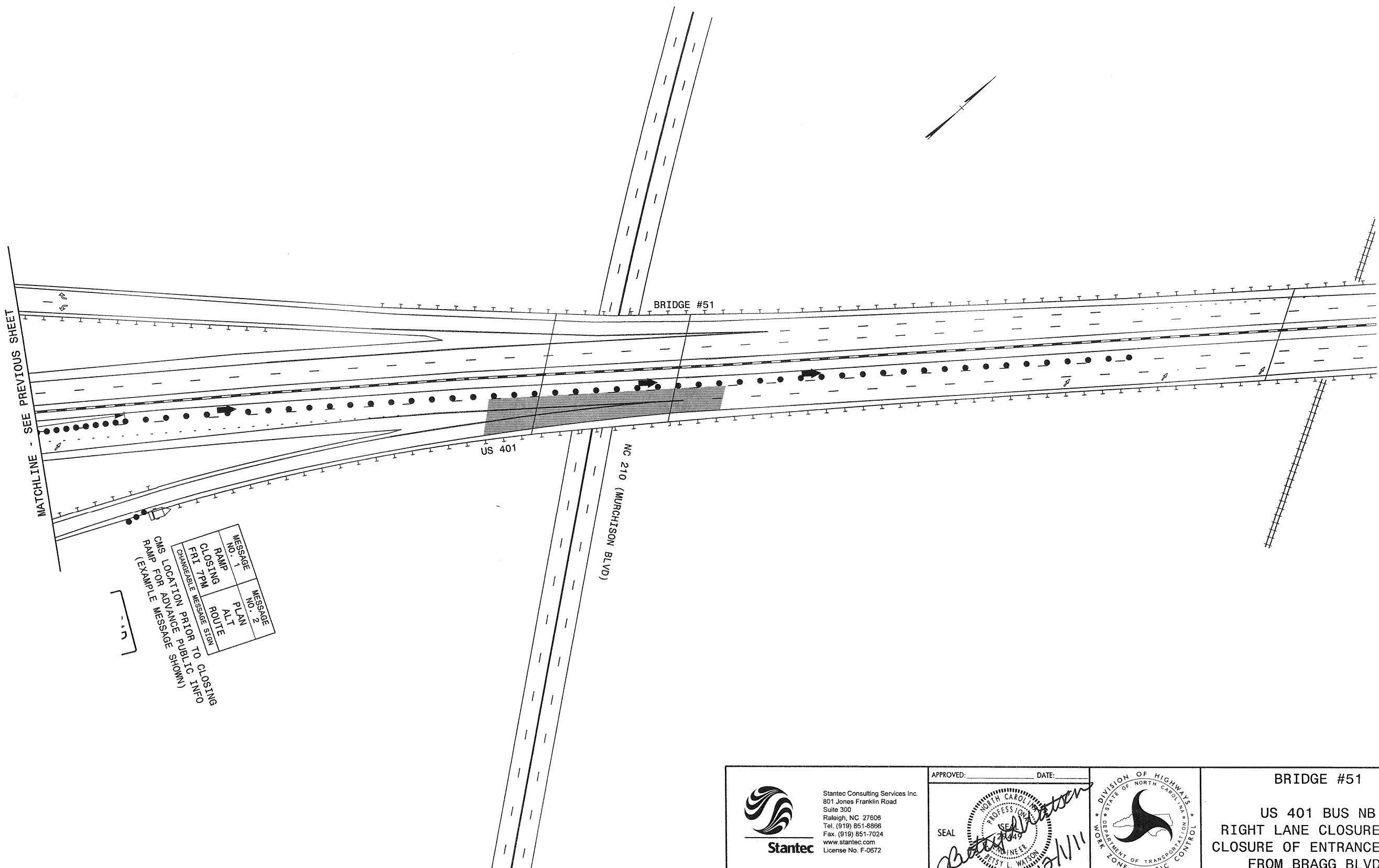
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APPROVED: _____ DATE: _____

 SEAL
 Patsy L. Watson
 11/1/11

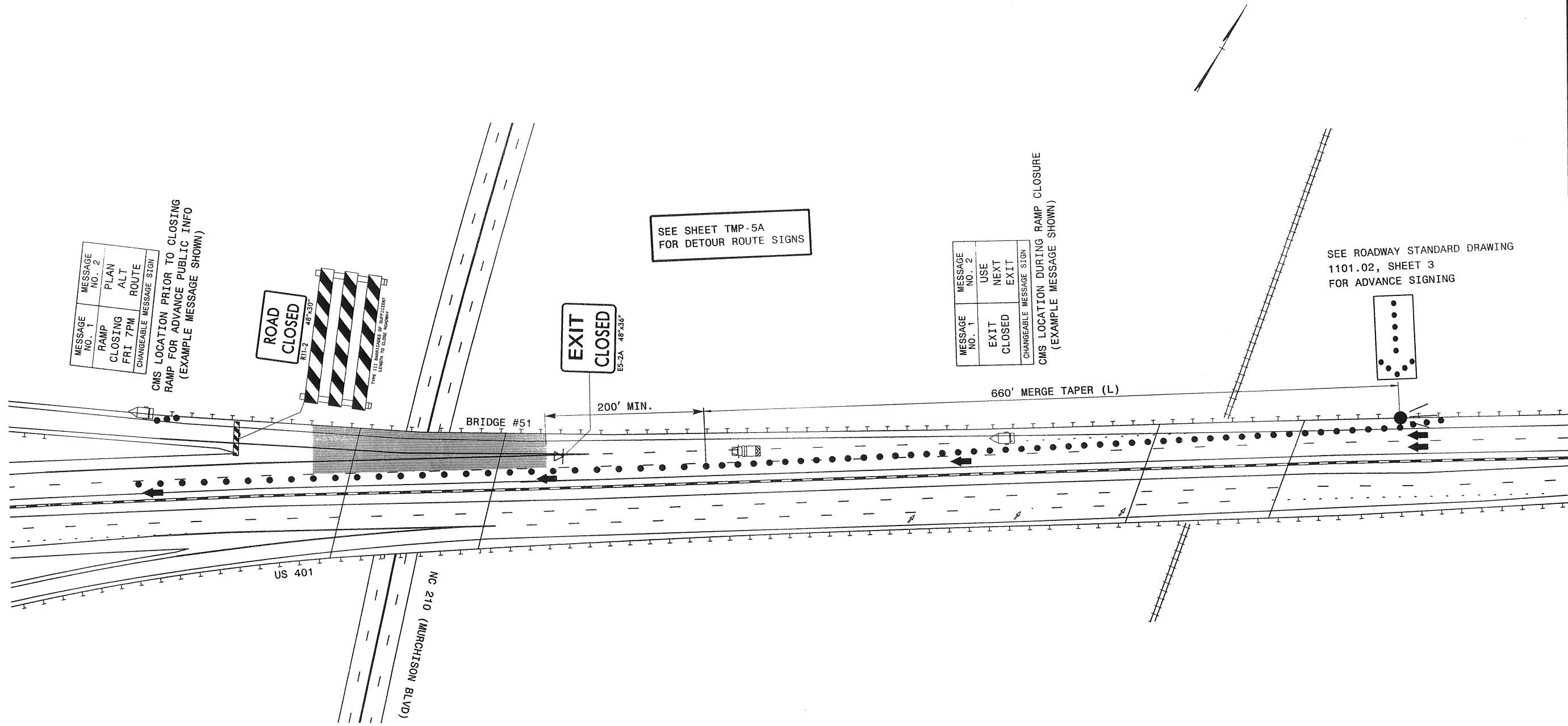


BRIDGE #51
 US 401 BUS NB
 RIGHT LANE CLOSURE AND
 CLOSURE OF ENTRANCE RAMP
 FROM BRAGG BLVD.



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| | <p>11/1/11</p> | | |

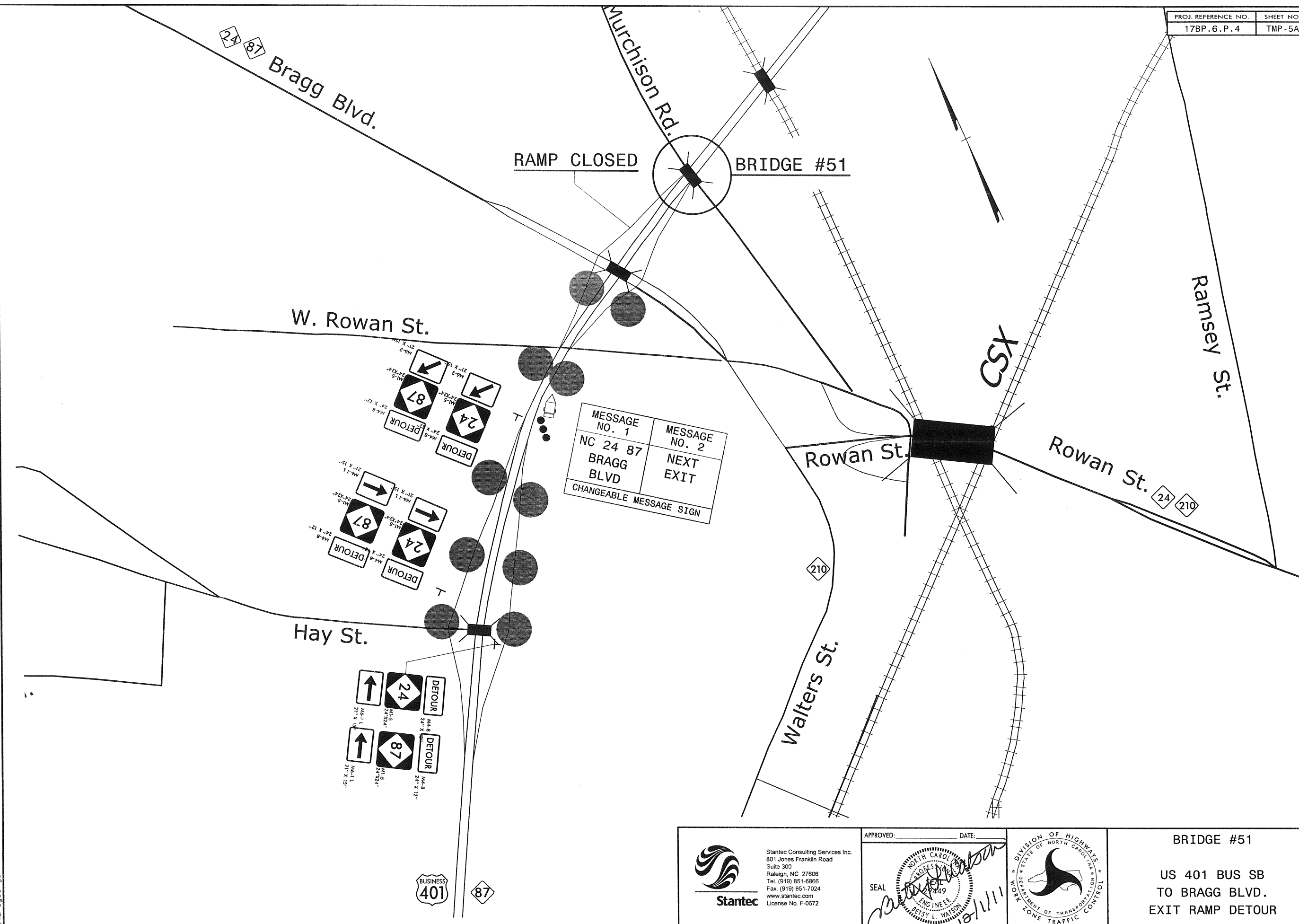


| MESSAGE NO. | MESSAGE NO. |
|-------------------------|-------------|
| 1 | 2 |
| RAMP CLOSING | PLAN ALT |
| FRI 7PM | ROUTE |
| CHANGEABLE MESSAGE SIGN | |

| MESSAGE NO. | MESSAGE NO. |
|-------------------------|---------------|
| 1 | 2 |
| EXIT CLOSED | USE NEXT EXIT |
| CHANGEABLE MESSAGE SIGN | |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--|--|---------------------------------------------------------------------------------------------------------------------------|
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| | | | | |



| | |
|---------------|---------------|
| MESSAGE NO. 1 | MESSAGE NO. 2 |
| NC 24 87 | NEXT |
| BRAGG | EXIT |
| BLVD | |

CHANGEABLE MESSAGE SIGN

| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--|-----------------------------------------------------------------------|
| <p>Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p> | APPROVED: _____ DATE: _____ | | BRIDGE #51 US 401 BUS SB TO BRAGG BLVD. EXIT RAMP DETOUR |
| | | | |

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