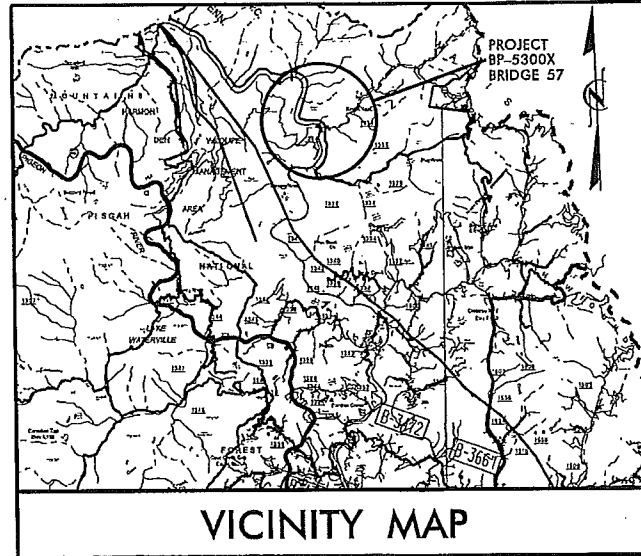


TIP PROJECT: BP-5300X

CONTRACT: D000116



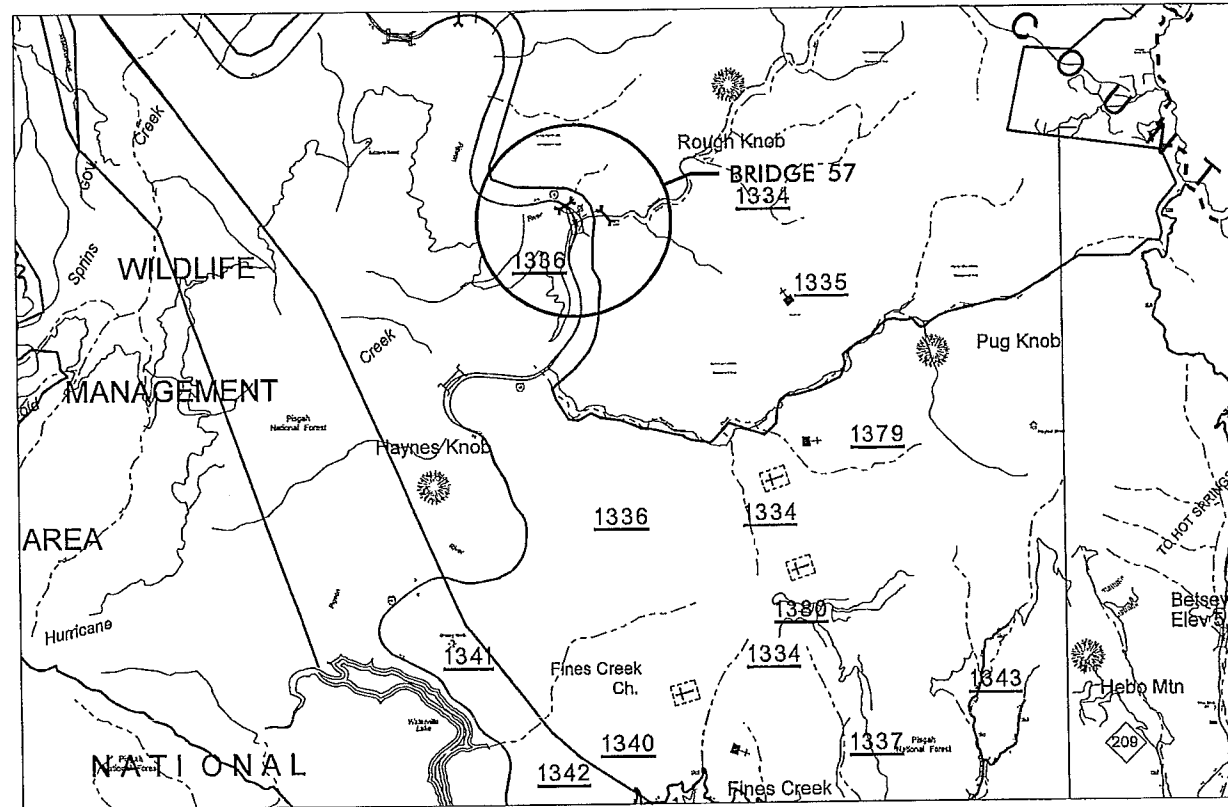
VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HAYWOOD COUNTY

LOCATION: BRIDGE 57, I-40 EBL AND WBL OVER COLD SPRING CREEK AND HARMON DEN ROAD,
8.3 MILES WEST OF JUNCTION I-40 AND SR 1338

TYPE OF WORK: BRIDGE DECK PRESERVATION



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP-5300X	1	
W.S. NO.	F.A. PROJ. NO.	DESCRIPTION	
45438.1.1	BRNHS-000S(658)	PE	

TABLE OF CONTENTS

DWG.	DESCRIPTION
S-1	PLAN OF BRIDGE
S-2	BRIDGE TYPICAL SECTION
S-3	DECK REPAIR DETAILS
S-4	DECK REPAIR DETAILS
S-5	DECK REPAIR DETAILS
S-6	DECK REPAIR DETAILS
S-7	EXPANSION JOINT REPAIR DETAILS
S-8	END BENT JOINT SEAL DETAILS
TCP-1 THRU 5	TRAFFIC CONTROL PLANS

PROJECT LENGTH

LENGTH OF ROADWAY T.I.P. PROJECT BP-5300X	= 0.000 MI.
LENGTH OF STRUCTURE T.I.P. PROJECT BP-5300X	= 0.046 MI.
TOTAL LENGTH OF T.I.P. PROJECT BP-5300X	= 0.046 MI.



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Fax: (919) 851-5504
www.stantec.com
License No. F-0072

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N.A.

LETTING DATE:
MARCH 25, 2011

NC DOT CONTACT:

JOE KELVINGTON, PE
PROJECT ENGINEER

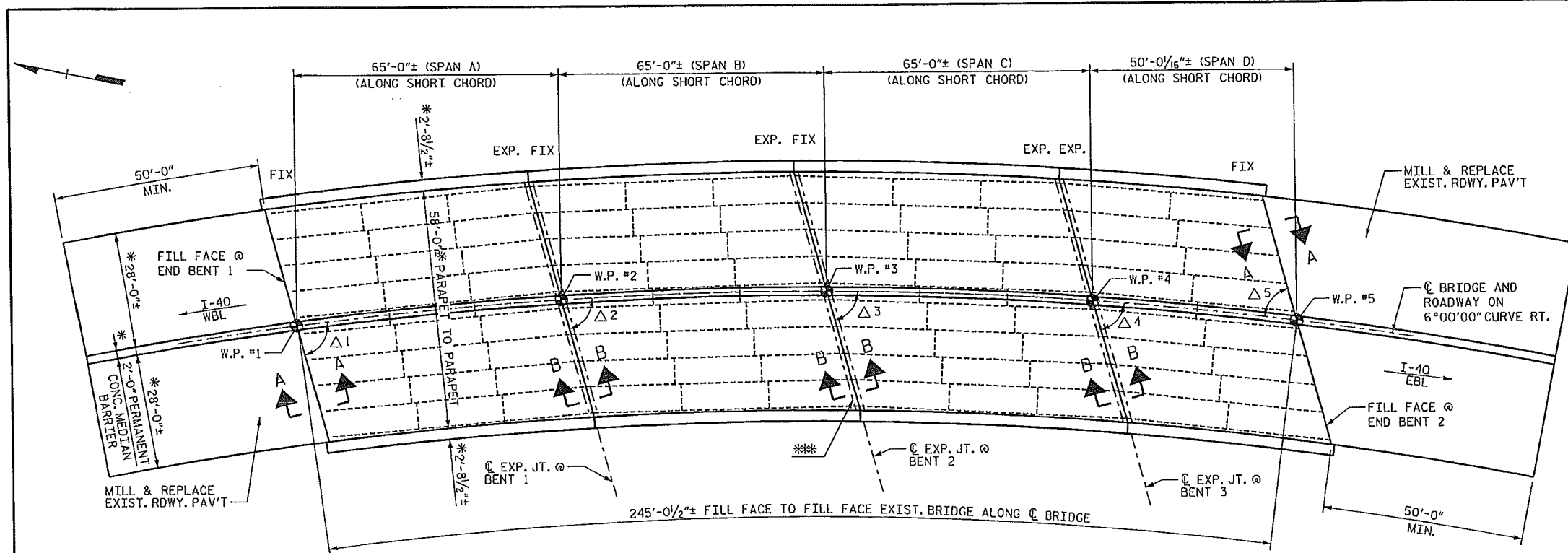
MIKE SUMMERS
BRIDGE MANAGEMENT PROJECT MANAGER

RICK NELSON, PE
DESIGN ENGINEER

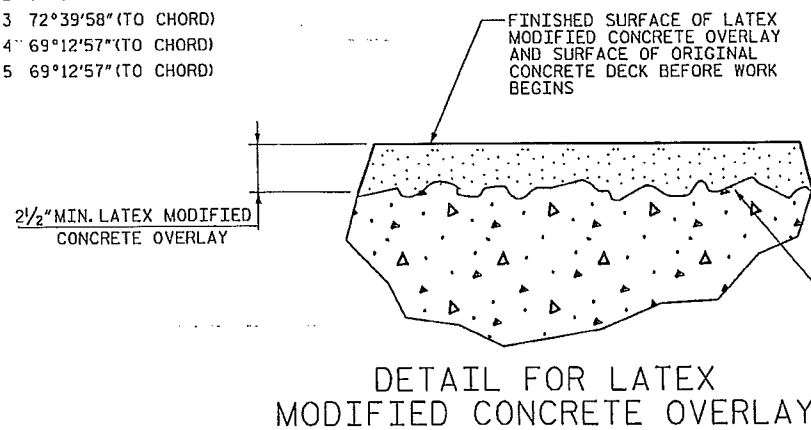
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



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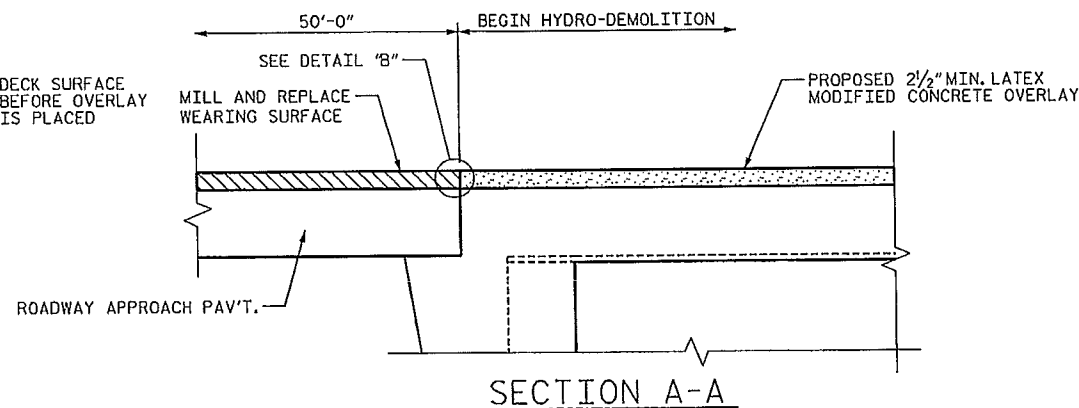


- Δ 1 82°28'02" (TO CHORD)
- Δ 2 76°34'00" (TO CHORD)
- Δ 3 72°39'58" (TO CHORD)
- Δ 4 69°12'57" (TO CHORD)
- Δ 5 69°12'57" (TO CHORD)



PLAN OF SPANS

*** ARMORED EXP. JOINT SEAL DEVICE TO BE REVQVED (TYP. EA. BENT)



NOTES:

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.

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

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

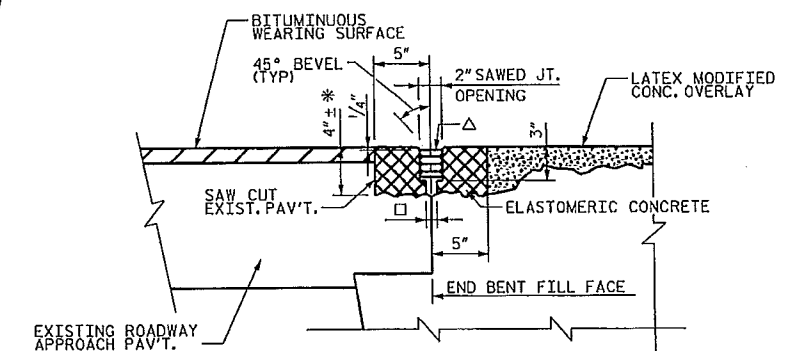
FOR SECTION B-B, SEE SHEET NO. S-7.

* DENOTES RADIAL DIMENSION.

FOR EVAZOTE JOINT SEAL, SEE SPECIAL PROVISIONS.

THICKNESS OF LATEX MODIFIED CONCRETE OVERLAY SHOWN IS ESTIMATED. OVERLAY CONCRETE IS TO BE PLACED OVER EXISTING SOUND CONCRETE SURFACES TO MATCH EXISTING DECK SURFACE ELEVATIONS.

PREVENT CUTS INTO EXISTING REINFORCING STEEL.



DETAIL "B"

- Δ USE 2.50" X 2.00" UNCOMPRESSED SEAL MATERIAL
- 1" FORMED OPENING CENTERED ABOUT FILL FACE
- * NOMINAL DIMENSION REMOVE ALL LOOSE DETERIORATED MATERIAL INCLUDING EXISTING SEAL DEVICES AND HARDWARE TO SOUND CONCRETE. PRESERVE AND RETAIN ALL EXPOSED REINFORCING STEEL. ADJUST SAW CUT DEPTH AS REQUIRED TO PREVENT CUTS INTO EXISTING REINFORCING STEEL.

PROJECT NO. BP-5300X
HAYWOOD COUNTY
STATION: _____

TOTAL BILL OF MATERIAL

DECK** SCARIFICATION	CLASS I* SURFACE PREPARATION	CLASS II* SURFACE PREPARATION	CLASS III* SURFACE PREPARATION	HYDRO- DEMOLITION	CLASS AA* CONCRETE	LATEX MODIFIED CONCRETE VERY EARLY STRENGTH	PLACE & FINISH LMC VERY EARLY STRENGTH	EVAZOTE JOINT SEAL	GROOVING BRIDGE FLOORS	ASPHALT CONC. SURFACE COURSE TYPE S9.5B
sq.yds.	sq.yds.	sq.yds.	sq.yds.	sq.yds.	cu.yds.	cu.yds.	sq.yds.	LUMP SUM	sq.ft.	TON
2,243	1,089.0	145.1	304.3	1,524.5	24.1	132.5	1,525.0	LUMP SUM	12,542	76

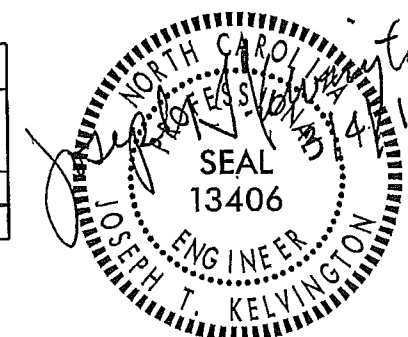
* QUANTITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. IF ANY CLASS III LOCATIONS ARE ENCOUNTERED PRIOR TO OR DURING HYDRO-DEMOLITION, SEE "TYP. BLOW THRU" CONTAINMENT AND FORMWORK" DETAIL.

** INCLUDES MILLING OF ROADWAY PAVEMENT.



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DRAWN BY: B M PALMER DATE: 2/11
CHECKED BY: J T KELVINGTON DATE: 2/11



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN OF SPANS FOR DECK REPAIR

DECK REHAB. FOR BRIDGE NO. 57

REVISIONS						SHEET NO. S-1
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 8
2			4			

ALL HORIZONTAL DIMENSIONS SHOWN ARE RADIAL.
FOR TRAFFIC CONTROL AND CONSTRUCTION PHASING, SEE
TRAFFIC CONTROL PLANS TCP-1 THRU 5.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION

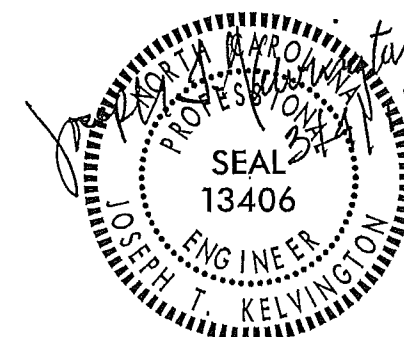
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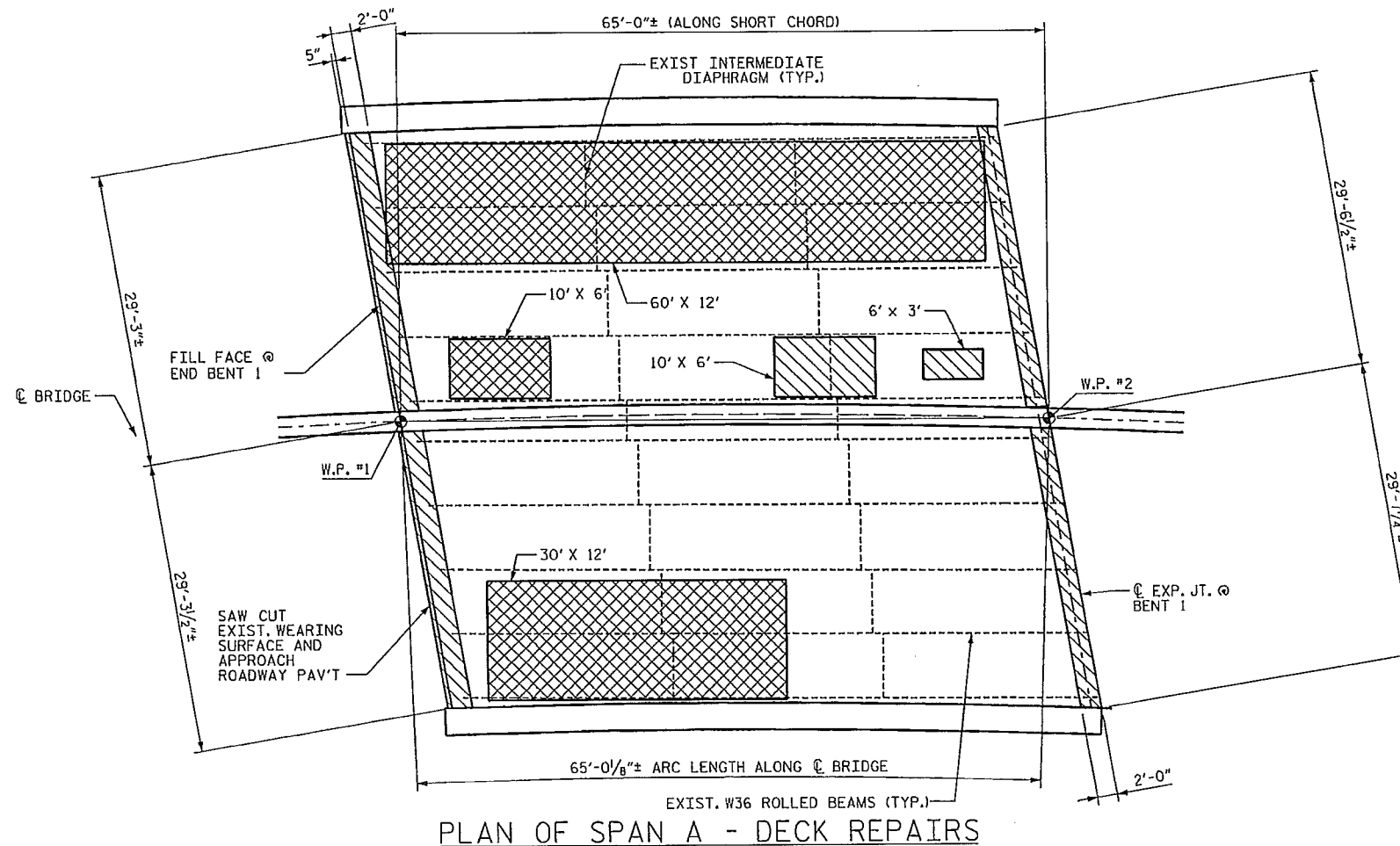
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2			4			



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CHECKED BY : J T KELVINGTON DATE : 2/11





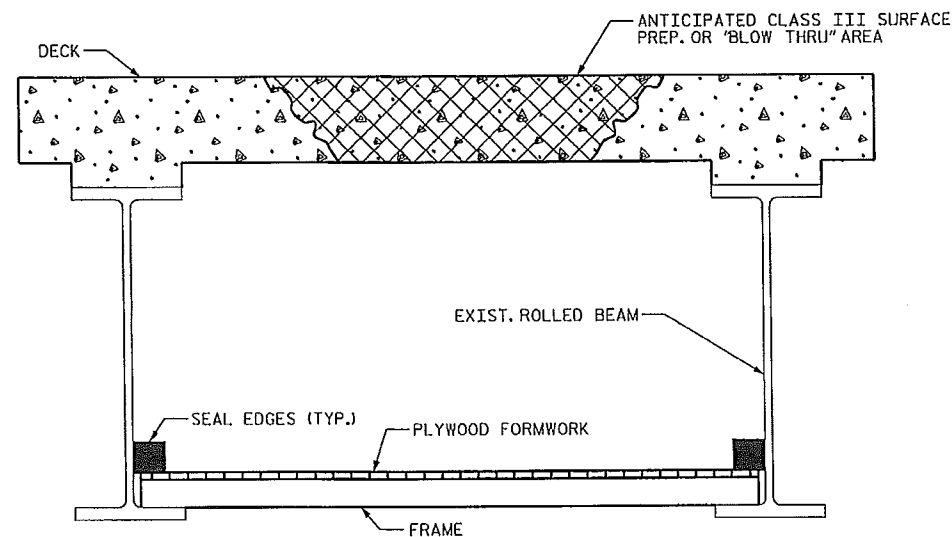
NOTES:

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

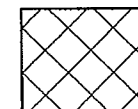
SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF CLASS III SURFACE PREPARATION.

SEE HYDRO DEMOLITION SPECIAL PROVISIONS.



CLASS II SURFACE PREPARATION



CLASS III SURFACE PREPARATION

L' x W' = LENGTH OF AREA ALONG C BRIDGE X WIDTH OF AREA NORMAL TO C BRIDGE ±

PROJECT NO. BP-5300X
HAYWOOD COUNTY
STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS
SPAN A

DECK REHAB. FOR BRIDGE NO. 57

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			S-3
2			4			
TOTAL SHEETS						8



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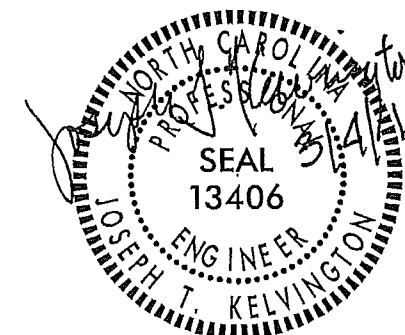
DRAWN BY: B M PALMER DATE: 2/11
CHECKED BY: J T KELVINGTON DATE: 2/11

A METHOD TO CAPTURE WATER AND DEBRIS FROM BLOW THRU DURING HYDRO-DEMOLITION SHALL BE INSTALL IN AREAS INDICATED AS CLASS III SURFACE PREPARATION.

SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK.

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

CONTRACTOR, AT HIS OPTION, MAY CHOOSE TO MONITOR HYDRO-DEMOLITION WORK AND CONTROL TRAFFIC UNDER THE BRIDGE IN LIEU OF BLOW THRU CONTAINMENT. SEE TRAFFIC CONTROL PLANS.



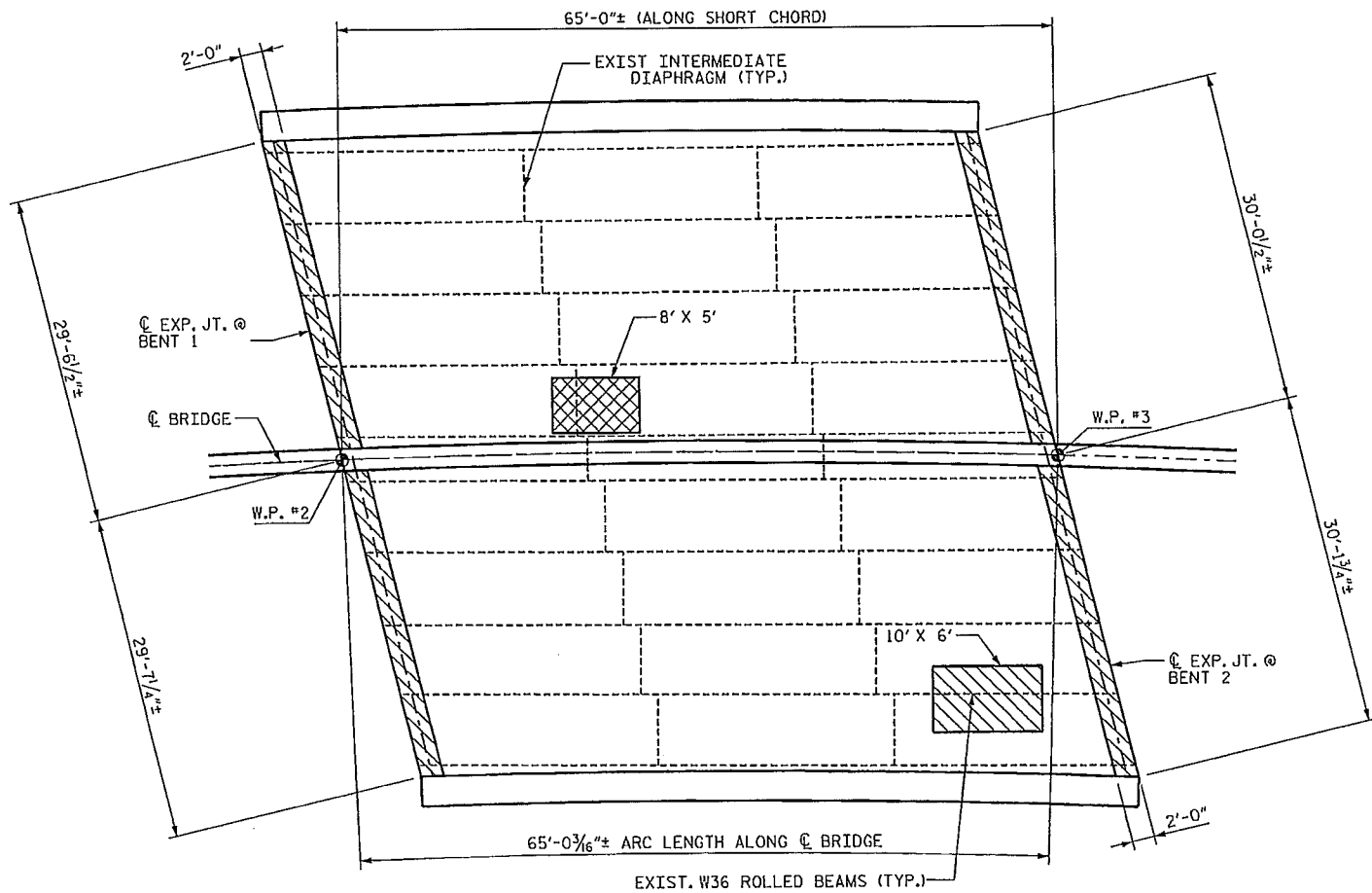
NOTES:

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

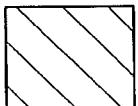
SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF CLASS III SURFACE PREPARATION.

SEE HYDRO DEMOLITION SPECIAL PROVISIONS.



PLAN OF SPAN B - DECK REPAIRS



CLASS II SURFACE PREPARATION

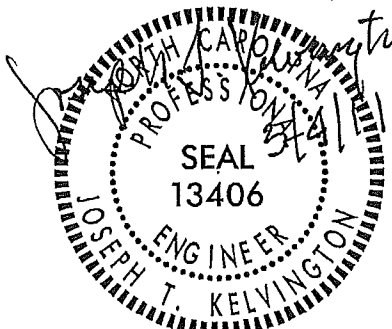


CLASS III SURFACE PREPARATION

L' X W' = LENGTH OF AREA ALONG CL. BRIDGE X
WIDTH OF AREA NORMAL TO CL. BRIDGE ±

PROJECT NO. BP-5300X
HAYWOOD COUNTY
STATION:

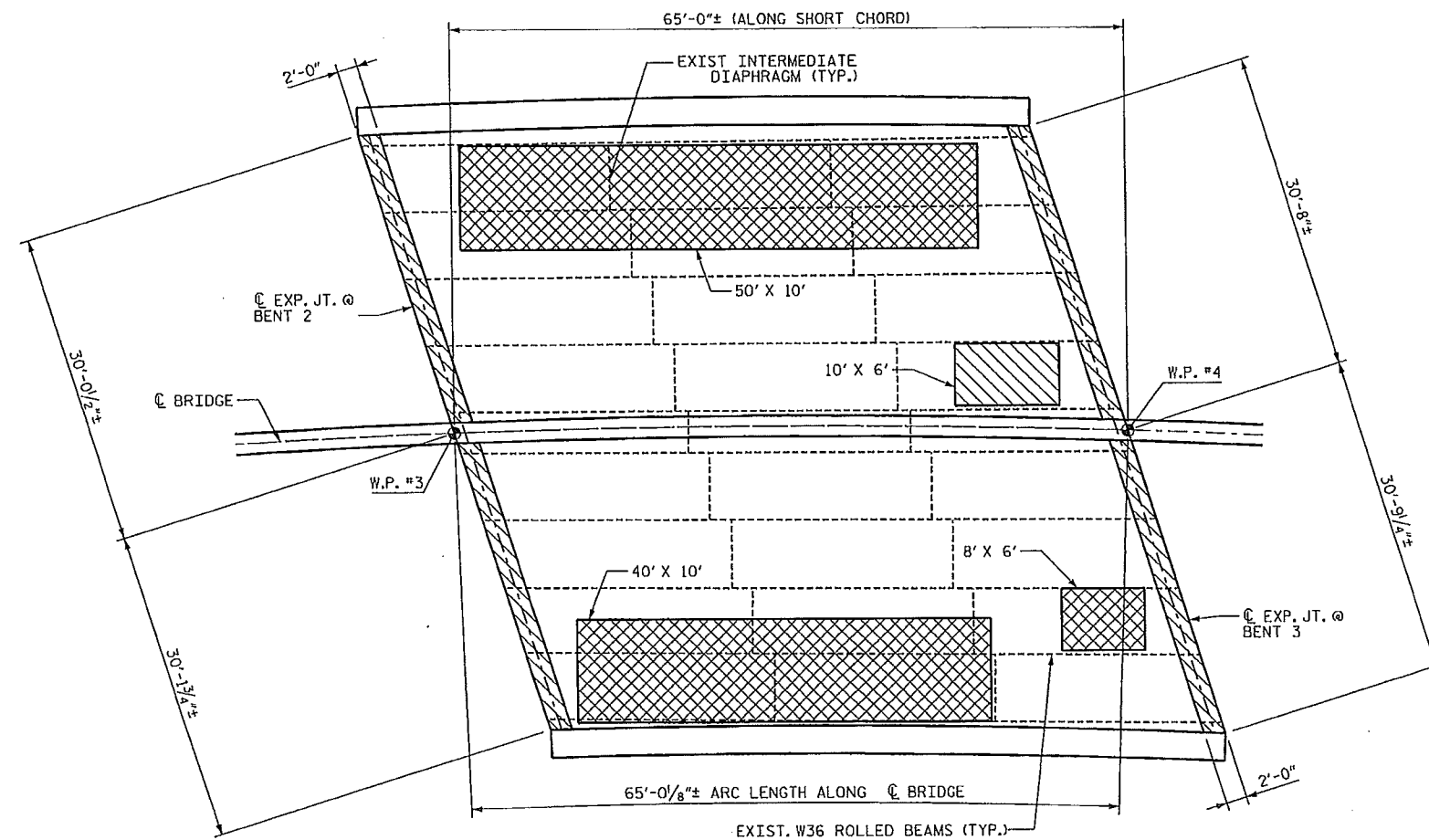
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DECK REPAIR DETAILS SPAN B					
DECK REHAB. FOR BRIDGE NO. 57					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTALS					8



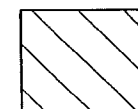
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CHECKED BY: J. T. KELVINGTON DATE: 2/11

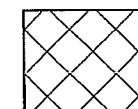
Structures Bridge Group 2011\BP5300X\Bridges 57\Drawing\BP-5300X57_Repair\PLAN2.dgn 3/4/2011 2:22:45 PM \$USER\$



PLAN OF SPAN C - DECK REPAIRS



CLASS II SURFACE PREPARATION



CLASS III SURFACE PREPARATION

L' X W' = LENGTH OF AREA ALONG ϕ BRIDGE X
WIDTH OF AREA NORMAL TO ϕ BRIDGE $\pm$

NOTES:

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

SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF CLASS III SURFACE PREPARATION.

SEE HYDRO DEMOLITION SPECIAL PROVISIONS.

PROJECT NO. BP-5300X

HAYWOOD COUNTY

STATION: _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS
SPAN C

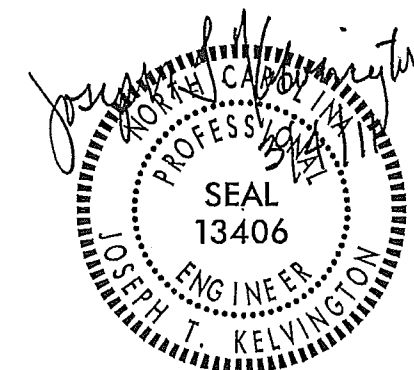
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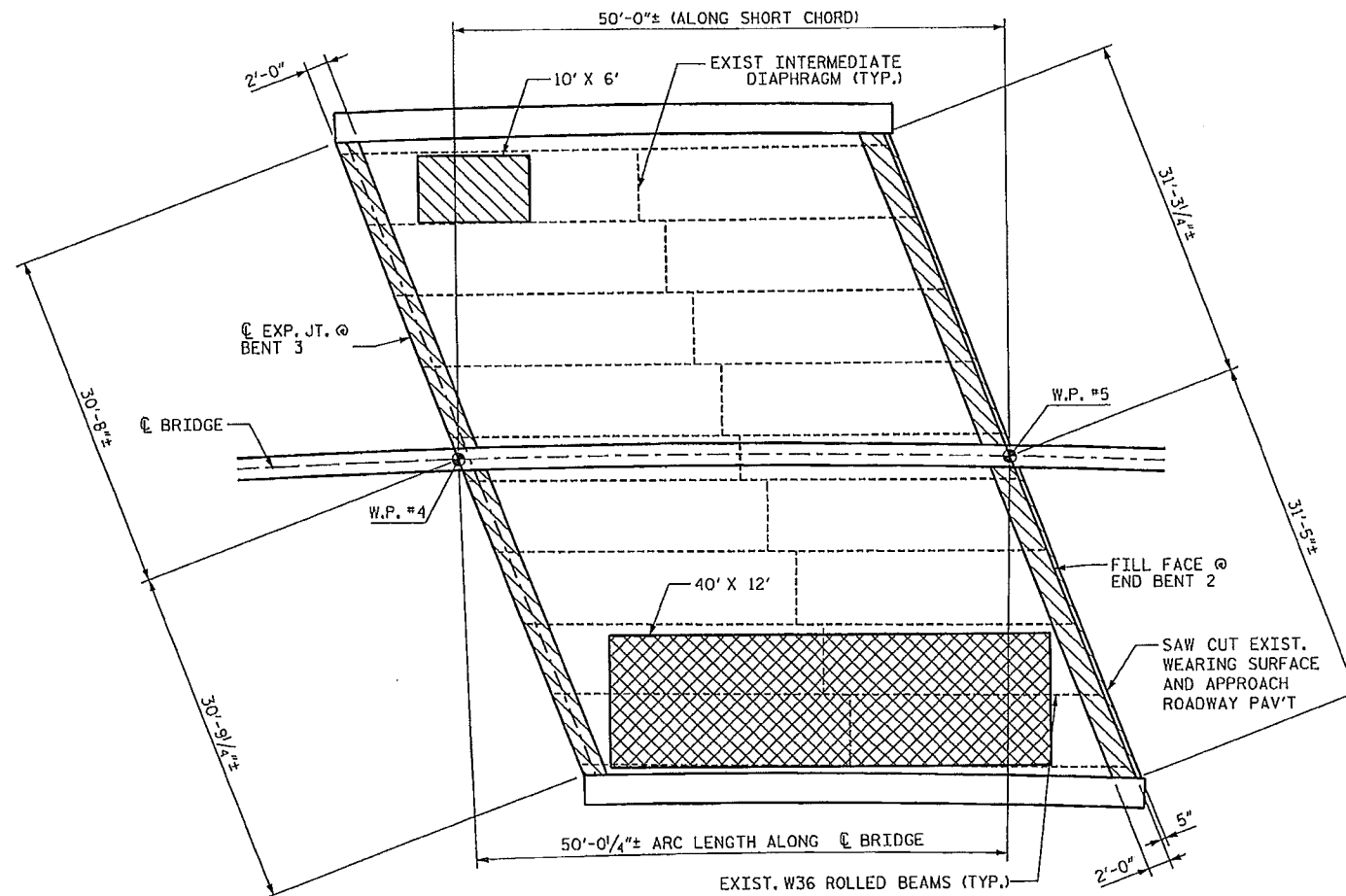
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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-5
2			4			
TOTAL SHEETS						8



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CHECKED BY: J. T. KELVINGTON DATE: 2/11

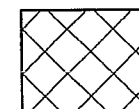




PLAN OF SPAN D - DECK REPAIRS



CLASS II SURFACE PREPARATION



CLASS III SURFACE PREPARATION

L' X W' = LENGTH OF AREA ALONG ϕ BRIDGE X
WIDTH OF AREA NORMAL TO ϕ BRIDGE $\pm$

NOTES:

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

SUBMIT DETAILS OF PROPOSED FORMWORK FOR APPROVAL PRIOR TO BEGINNING WORK.

COSTS FOR INSTALLING AND REMOVING FORMWORK SHALL BE INCIDENTAL TO THE PRICE BID PER SQ. YD. OF CLASS III SURFACE PREPARATION.

SEE HYDRO DEMOLITION SPECIAL PROVISIONS.

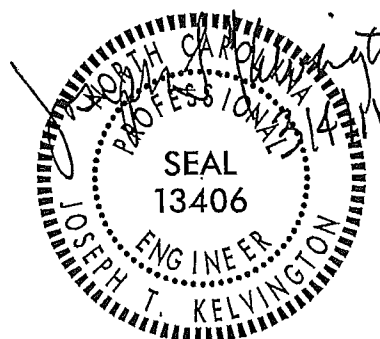
PROJECT NO. BP-5300X
HAYWOOD COUNTY
STATION:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK REPAIR DETAILS
SPAN D

DECK REHAB. FOR BRIDGE NO. 57

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			S-6
2			4			
TOTAL SHEETS						8



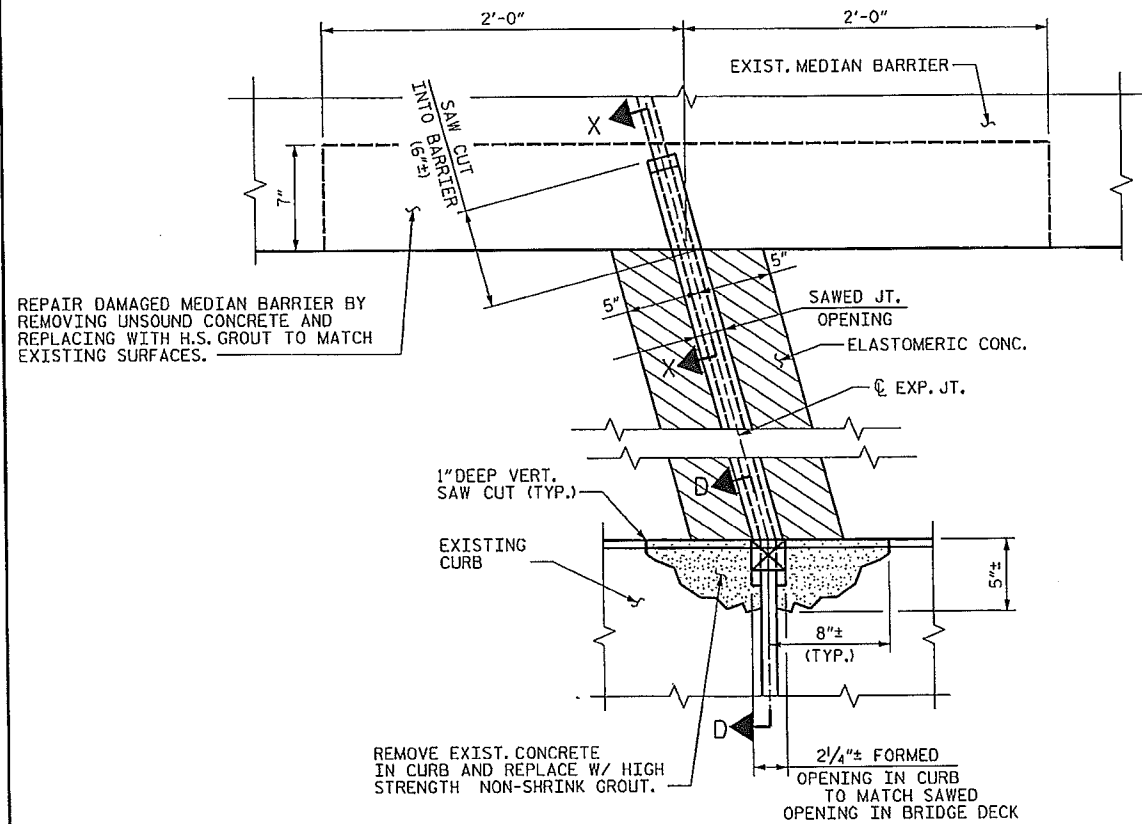
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CHECKED BY: J. T. KELVINGTON DATE: 2/11

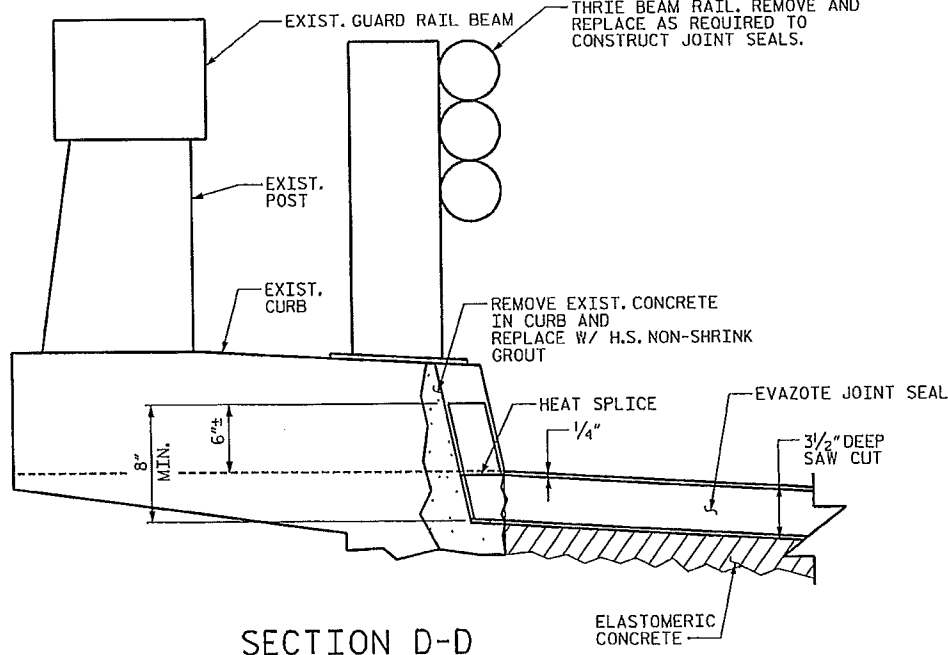
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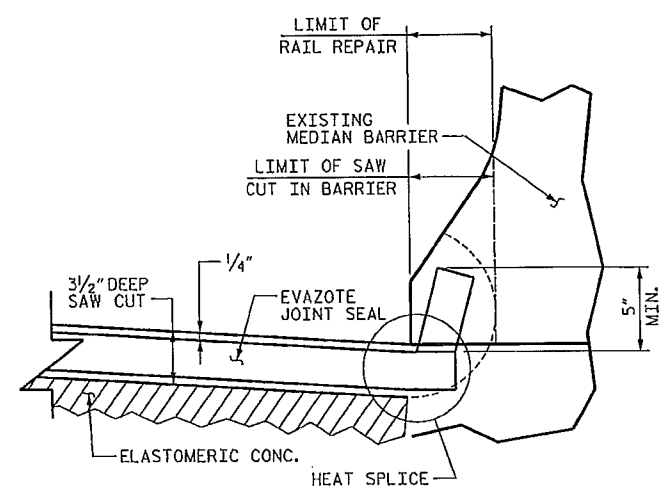


PARTIAL PLAN @ JOINT



SECTION D-D

CONTRACTOR SHALL EXERCISE CARE TO AVOID CUTTING OR DAMAGING EXISTING REINF. STEEL.
FOR HIGH STRENGTH GROUT, SEE SPECIAL PROVISIONS.
HIGH STRENGTH GROUT SHALL BE APPROVED BY THE ENGINEER.

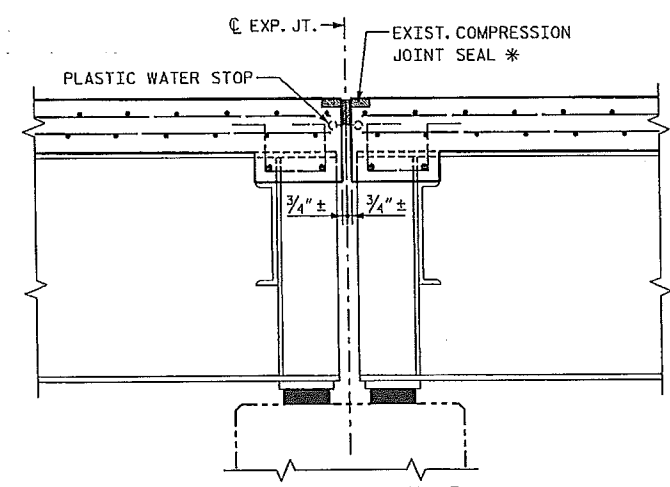


SECTION X-X

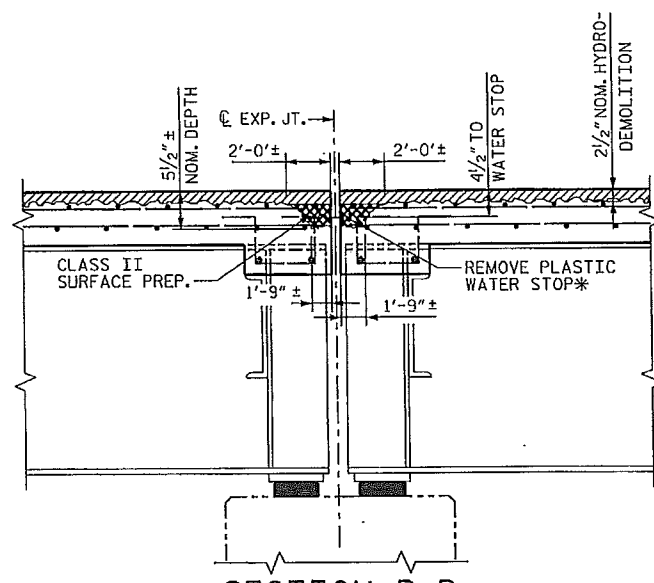
ELASTOMERIC CONCRETE

LOCATION	QTY
END BENT 1	15.9 C.F.
BENT 1	19.1 C.F.
BENT 2	19.4 C.F.
BENT 3	19.8 C.F.
END BENT 2	17.0 C.F.

TOTAL ELASTOMERIC CONC. = 91.2 C.F.
TOTAL ELASTOMERIC CONC. = 3.4 C.Y.

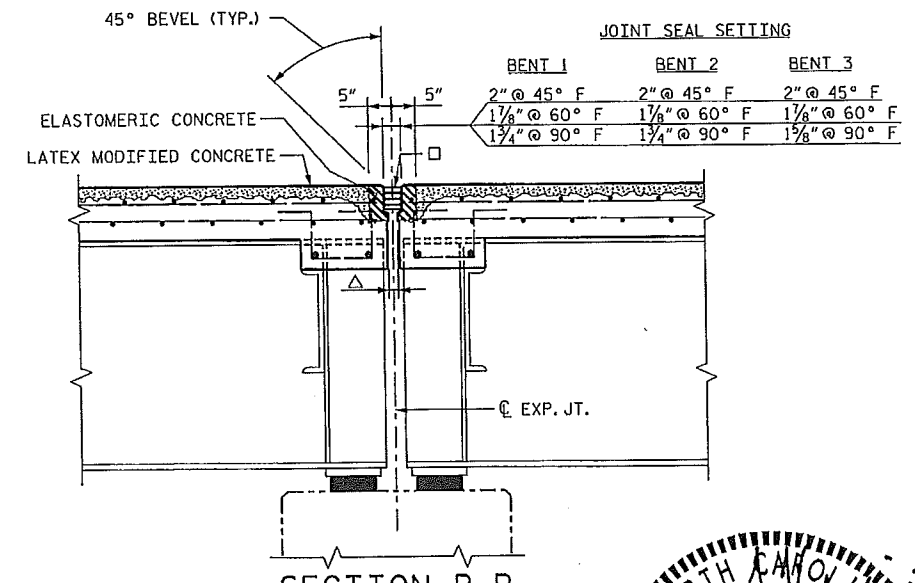


SECTION B-B
(EXISTING JOINT)



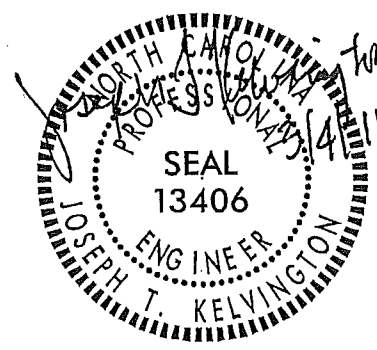
SECTION B-B
(MINIMUM EXISTING JOINT DEMOLITION)

NOTE: RETAIN ALL EXIST. REINF. STEEL. CLEAN AND REPAIR AS REQ'D
* REMOVE EXIST. COMP. JT. SEAL MAT'L. AS WELL AS EPOXY MORTAR, EMBEDDED STEEL HARDWARE, OR ASPHALT CONC. COMPLETELY FROM JOINT AREA.



SECTION B-B
(JOINT SEAL DESIGN)

- USE 2.50" X 2.00" UNCOMPRESSED EVAZOTE JT. SEAL MATERIAL AT BENTS 1 & 2
- USE 2.8125" X 2.50" UNCOMPRESSED EVAZOTE JT. SEAL MATERIAL AT BENT 3
- △ 1 1/4" FORMED OPENING



PROJECT NO. BP-5300X
HAYWOOD COUNTY
STATION: _____

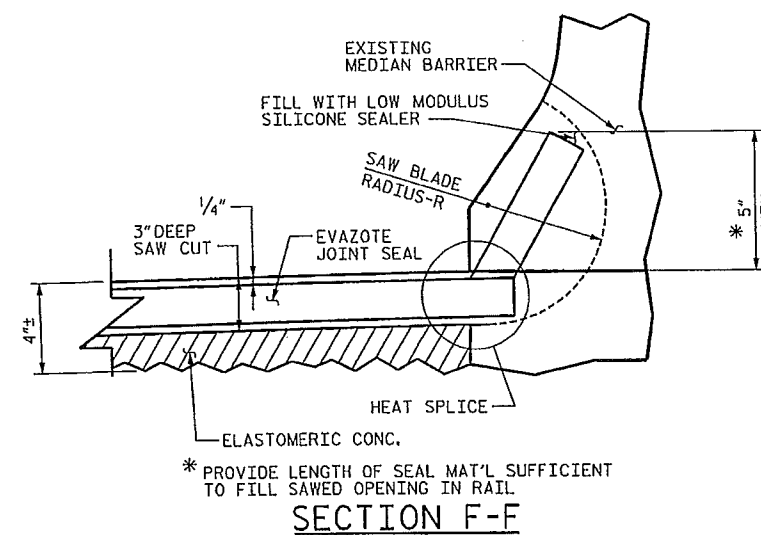
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EXPANSION JOINT DETAILS					
DECK REHAB. FOR BRIDGE NO. 57					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					SHEET NO. S-7
					TOTAL SHEETS 8

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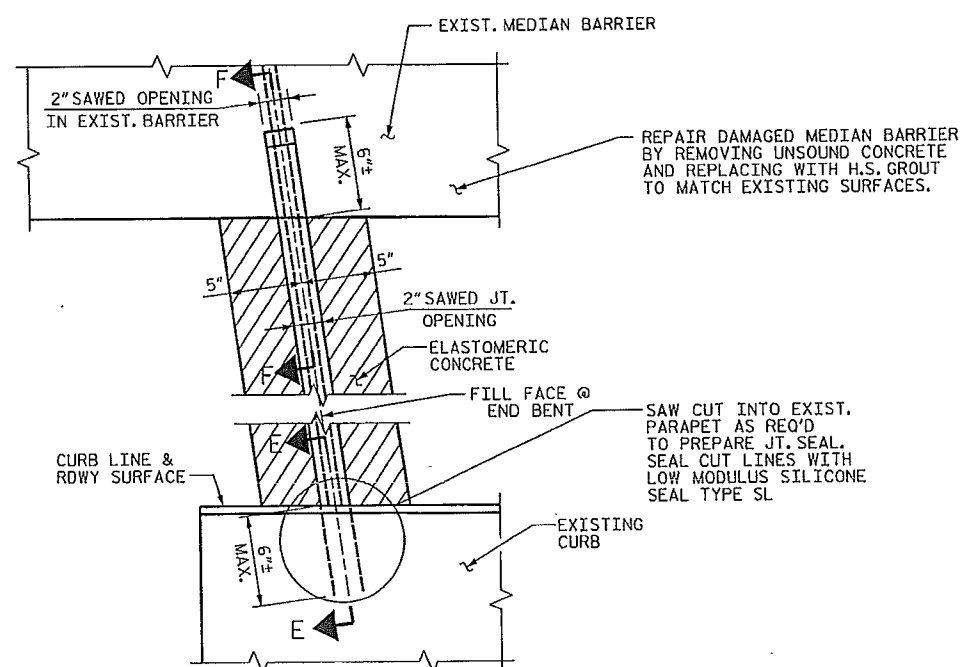
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CHECKED BY: J. T. KELVINGTON DATE: 2/11

229903 PM sUSER\$ 3/4/2011 2011BP5300X Bridge 57-Drawing\BP-5300X57 Det.dgn

SECTION E-E



SECTION F-F



PARTIAL PLAN @ END BENT #1
(END BENT #2 SIMILAR)



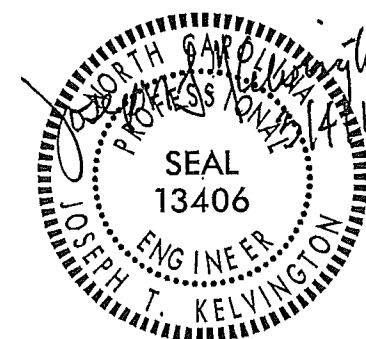
DRAWN BY : B M PALMER DATE : 2/11
CHECKED BY : J T KELVINGTON DATE : 2/11

PROJECT NO. BP-5300X
HAYWOOD COUNTY
 STATION:

END BENT JOINT SEAL
DETAILS

DECK REHAB. FOR BRIDGE NO. 57

REVISIONS						SHEET NO. S-8 TOTAL SHEETS 8
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			



PROJECT: BP-5300X

WBS 45438.1.1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
TRAFFIC CONTROL

HAYWOOD COUNTY

LOCATION: I-40 BRIDGE NO.57.

TYPE OF WORK: TRAFFIC CONTROL FOR BRIDGE REHABILITATION

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARD DRAWINGS 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
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, & INDEX OF SHEETS
TCP-2	GENERAL NOTES AND TRAFFIC CONTROL PHASING
TCP-3	I-40 EB CLOSURE
TCP-4	I-40 WB CLOSURE
TCP-5	TYPICAL RIGHT LANE CLOSURE IN ADVANCE OF ALL TRAFFIC EXITING AT EXIT 7

STATE PROJECT REFERENCE NO.
BP-5300X

SHEET NO.
TCP-1

LEGEND

GENERAL

- ← DIRECTION OF TRAFFIC FLOW
→ NORTH ARROW
■ WORK AREA

TRAFFIC CONTROL DEVICES

- //// TYPE III BARRICADE
▲ CONE
● DRUM ● SKINNY DRUM
→ ● FLASHING ARROW PANEL (TYPE C)
└ STATIONARY SIGN
└ PORTABLE SIGN
○ STATIONARY OR PORTABLE SIGN
— PORTABLE CONCRETE BARRIER (PCB)
~ TEMPORARY CRASH CUSHION
◀ CHANGEABLE MESSAGE SIGN (CMS)
▣ TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
▣ LAW ENFORCEMENT (LAW)
■ FLAGGER

APPROVED: *Betsy L. Watson*
DATE: 3/7/11



PLAN PREPARED BY:



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BETSY L. WATSON, PE

TRAFFIC CONTROL ENGINEER

GEORGE KARAGEORGE

TRAFFIC CONTROL DESIGNER

GENERAL NOTES

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
ALL ROADS	BEGINNING ON MAY 26, 2011 AND FOR THE REMAINING DURATION OF THE CONTRACT TIME DO NOT CLOSE LANES AS FOLLOWS: 6:00 A.M.- 7:00 P.M. SUNDAY THRU THURSDAY AND 6:00 A.M. - 9:00 P.M. FRIDAY AND SATURDAY

BEFORE MAY 26, 2011 THERE WILL BE NO LANE CLOSURE RESTRICTIONS.

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

- 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 9:00 P.M. JANUARY 2nd. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
- 3) FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
- 4) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY TO 9:00 P.M. TUESDAY.
- 5) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 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 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- 6) FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 9:00 P.M. TUESDAY.
- 7) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
- 8) FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) 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.
- D) INSTALL ALL LANE CLOSURES ACCORDING TO THE TRAFFIC CONTROL PLAN, ROADWAY STANDARD DRAWINGS (1101.02), OR AS DIRECTED BY THE ENGINEER.
- 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.
- F) INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- G) 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.
- H) 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.
- I) 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.
- J) UNLESS OTHERWISE SHOWN IN THE PLANS, PLACE ARROW PANELS ON THE ROADWAY SHOULDER. IF SHOULDERS DO NOT EXIST, PLACE ARROW PANELS WITHIN THE MERGE TAPER BEHIND THE CHANNELIZING DEVICES OF THE LANE CLOSURE. IF NEEDED, EXTEND LANE CLOSURES TO PROVIDE STOPPING SIGHT DISTANCE TO THE ARROW PANEL (REFER TO ROADWAY STANDARD DRAWING 1101.11 SHEET 2).
- K) PLACE LANE CLOSURE DRUMS IN TAPERS AT A MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT (MPH). ALONG BUFFER SPACES AND WORK AREAS SPACE DRUMS AT A MAXIMUM SPACING EQUAL IN FEET TO TWICE THE POSTED SPEED LIMIT (MPH). IN ALL CASES, CHANNELIZING DEVICES ARE TO BE SPACED IN SUCH A MANNER AS TO POSITIVELY ACHIEVE THE INTENDED VISUAL CHANNELIZATION. CHANNELIZING DEVICES SHOULD BE Laterally OFFSET 3 FT INSIDE THE CLOSED LANE AS ROOM PERMITS.
- L) DO NOT EXCEED LANE CLOSURES LENGTHS LONGER THAN 2 MILES MEASURED FROM THE ARROW PANEL TO WHERE THE LANE CLOSURE ENDS.

MISCELLANEOUS

- M) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- N) ALL DIMENSIONS AND STATIONS IN THE TRAFFIC CONTROL PLAN AND PHASING ARE APPROXIMATE (+/-); FIELD ADJUST AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- O) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.

TRAFFIC CONTROL PHASING

SIMULTANEOUS WORK ON BOTH DIRECTIONS OF I-40 WILL BE ALLOWED.

BRIDGE NO.57 TYPICAL TRAFFIC CONTROL PROCEDURE FOR I-40 WB/EB:

- FOR I-40 EB SEE SHEET TCP-3
- FOR I-40 WB SEE SHEET TCP-4
- FOR RIGHT LANE CLOSURE SIGNS AND DEVICES SEE SHEET TCP-5

STEP 1:
INSTALL STOP & STOP AHEAD SIGNS ON FOREST SERVICE/HARMON DEN RD.

STEP 2:
INSTALL CHANGEABLE MESSAGE SIGNS AND INSTALL RIGHT LANE CLOSURE ON I-40.

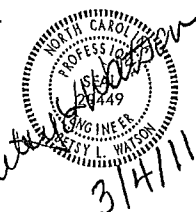
STEP 3:
USING PACE VEHICLES BRING I-40 TRAFFIC TO A TEMPORARY 5 MINUTE STOP AND INSTALL DEVICES SHIFTING TRAFFIC ONTO THE EXIT RAMP AND CLOSE I-40. I-40 TRAFFIC IS DETOURED USING THE EXIT/ENTRANCE RAMPS.

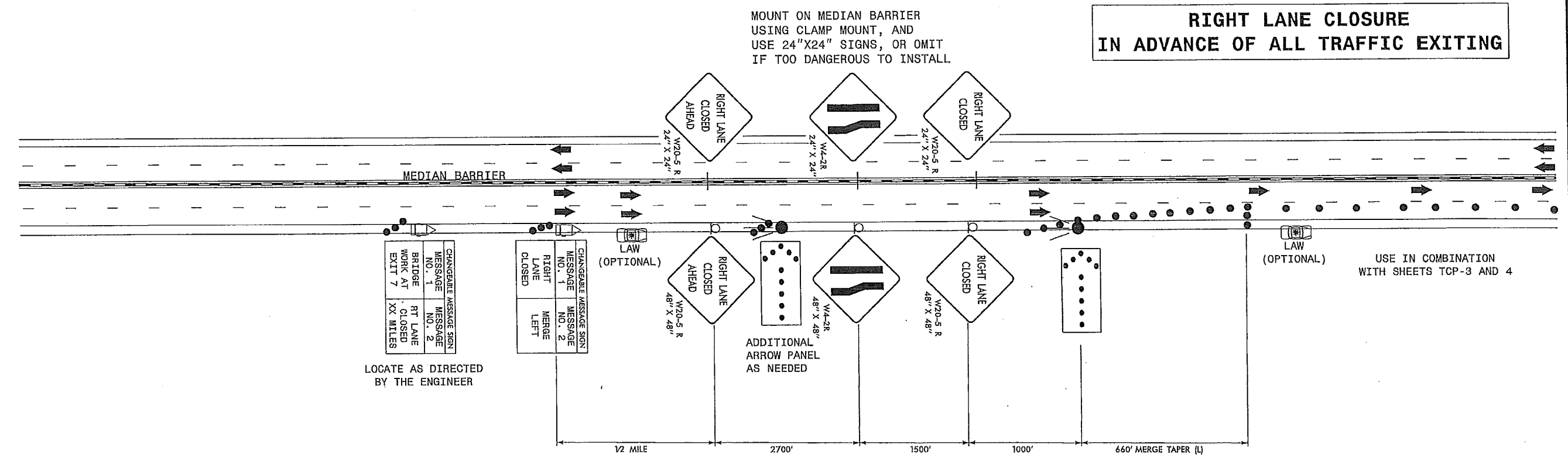
STEP 4:
CONSTRUCT BRIDGE REHABILITATION WORK BRINGING BRIDGE DECK TO FINAL ELEVATION BEFORE RE-OPENING TO TRAFFIC. REPLACE PAVEMENT MARKINGS WITH PAINT MARKINGS.

STEP 5:
USING PACE VEHICLES BRING I-40 TRAFFIC TO A TEMPORARY 5 MINUTE STOP AND REMOVE ROAD CLOSURE DEVICES AND OPEN I-40 TO A SINGLE LANE. REMOVE DEVICES ON HARMON DEN RD./FOREST SERVICE RD.

STEP 6:
REMOVE THE RIGHT LANE CLOSURE.

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 Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6865 Fax. (919) 851-7024 www.stantec.com License No. F-0672	SEAL  3/4/11	GENERAL NOTES TRAFFIC CONTROL PHASING							
		SCALE: NONE DATE: JAN. 2011 DWG. BY: GK DESIGN BY: GK REVIEWED BY: BLW	REVISIONS <table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>						



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5. CHANGEABLE MESSAGE SIGN MESSAGES SHOWN ARE EXAMPLES. OTHER MESSAGES MAY BE USED AS CONDITIONS WARRANT. ALL MESSAGES AND LOCATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO INCORPORATING.
6. IF THE LANE CLOSURE WILL BE IN EFFECT FOR LONGER THAN 3 DAYS USE STATIONARY SIGNS INSTEAD OF PORTABLE SIGNS. IN THE EVENT THAT STATIONARY SIGNS CANNOT BE INSTALLED DUE TO TERRAIN OR OTHER FACTORS THEN USE PORTABLE SIGNS.

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 Stantec 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		TYPICAL RIGHT LANE CLOSURE IN ADVANCE OF ALL TRAFFIC EXITING AT EXIT 7							
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