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#### PLAN OF DECK OVERLAY AND APPROACH ROADWAY MILLING

NOTES



EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF BRIDGE DECK.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

ROADWAY SCARIFICATION IS INCLUDED TO ENSURE A SMOOTH TRANSITION ONTO THE BRIDGE FLOOR.DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SCARIFY AS REQUIRED TO PROVIDE A SMOOTH TRANSITION TO THE ROADWAY AT BOTH END OF THE BRIDGE.

THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN-OFF WATER, SEE "MANAGING HYDRODEMOLITION WATER" SPECIAL PROVISION.

FOR "HYRO-DEMOLITION AND DECK SCARIFICATION", SEE SPECIAL PROVISIONS.

FOR BRIDGE OVERLAY OF BRIDGE WITH "LATEX MODIFIED CONCRETE-VERY EARLY STRENGHT", SEE SPECIAL PROVISION.

FOR "FOAM JOINT SEALS", SEE SPECIAL PROVISIONS. FOR "ELASTOMERIC CONCRETE", SEE SPECIAL PROVIISONS. THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL SHALL BE  $2^{1}\!/_{2}"\!\cdot$ 

FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVIISONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REOUIREMENTS.

FOR TRAFFIC PHASING AND DETAILS, SEE TRAFFIC MANAGEMENT PLANS.

FOR APPROACH EXCAVATION AND SUBDRAIN INSTALLATION, SEE SHEET S-3  $\end{tabular}$ 

				T(	DTAL BILL O	F MATERIAL				
INCIDENTAL MILLING	SCARIFYING BRIDGE DECK	* CLASS I SURFACE PREPARATION	* CLASS II SURFACE PREPARATION	* CLASS III SURFACE PREPARATION	HYDRO- DEMOLITION	LATEX MODIFIED CONCRETE	PLACING & FINISHING LATEX MODIFIED CONCRETE	FOAM JOINT SEALS	GROOVING BRIDGE FLOOR	ASPHALT CONCRETE SURFACE COURSE TYPE SF 9.5A
SQ. YDS.	SQ. YDS.	SQ. YDS.	SQ.YDS.	SQ. YDS.	SQ.YDS.	CU. YDS.	SQ. YDS.	LUMP SUM	SQ.FT.	TON
230	778	0	263	0	778	68	778	LUMP SUM	6230	27
ASPHALT CONCRETE BASE COURSE TYPE B 25.0B	AGGREGATE BASE COURSE	SUBDRAIN COARSE AGGREGATE	GEOTEXTILE FOR SUBSURFACE DRAINS	4″DIA. PERFORATED SUBDRAIN PIPE	4″DIA. OUTLET PIPE	SUBDRAIN PIPE OUTLET	SUBDRAIN EXCAVATION			
TONS	TONS	CU.YDS.	SQ.YDS.	LIN.FT.	LIN.FT.	EA.	CU.YDS.			
29	10	100	140	68	40	2	120			

\_ DATE : 02/12 \_ DATE : 02/12 R.PUTEK DRAWN BY : CHECKED BY : D.MULLER

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PROJECT NOBP-5300F
PADKIN COUNTY BRIDGE NO: 102
SHEET 2 OF 6 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS
REVISIONS         SHEET NO.           NO.         BY:         DATE:         NO.         BY:         DATE:         S-2           1         3



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#### NOTES

FOR FOAM JOINT SEAL, SEE SPECIAL PROVISIONS. THE INSTALLED FOAM JOINT SEALS SHALL BE WATERTIGHT. NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE  $2^{1}\!/_{2}{}''$  AT BENTS. THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE FOAM JOINT SEAL IN LIEU OF SAWING THE JOINT.

MODIFIED TE OVERLAY						
	PROJE	T NO. Yadł	< <u> </u>	BF N	<u>-530</u> c	OF UNTY
и	BRIDG	E NO: DF 6		1	.02	
	DEPA	STAT RTMENT	E OF OF	NORTH CAR	NSPORTA	TION
		JOIN	Т	DE	TAILS	5
			TON	c		
	NO. BY:	DATE:	NO.	BY:	DATE:	S-4
	1 2		3 4			total sheets 7



(SHOWING TOP OF DECK)

SPAN	DECK	AREA	DELAMINAT	IONS	SPALL	S	PA	TCHES	5	CRACKS
1	1848.00	Sa.Ft.	306.42 Sa.Ft.	16.6%	6.85 Sa.Ft.	0.4%	240.06 S	a.Ft.	13.0%	26.0 Lin. Ft
2	1848.00	Sq.Ft.	452.01 Sq. Ft.	24.5%	0.93 Sq.Ft.	0.1%	132.22 S	g.Ft.	7.2%	155.0 Lin.Ft
3	1848.00	Sq.Ft.	38.50 Sq.Ft.	2.1%	8.02 Sq.Ft.	0.4%	0.00 S	q.Ft.	0.0%	112.0 Lin. Ft
4	1484.00	Sq.Ft.	204.60 Sq.Ft.	13.8%	2.53 Sq.Ft.	0.2%	0.00 S	q.Ft.	0.0%	42.0 Lin.Ft
TOTAL	5544.00	Sq.Ft.	796.94 Sq.Ft.	43.1%	15.80 Sq.Ft.	0.9%	372.27 S	q.Ft.	20.1%	293.0 Lin. Ft
II.CON TE	NCRETE ST	E AND	REINFORCEME		NCRETE	CH	LORIDE	CON	TENT	
LOCĀ	TION	B	AR COVER	ŠŤ	RENGTH	TOP	SAMPLE	BOTTO	M SAMPI	F
1			1.38 in.		3740 psi	1.97	lbs./yd3	0.14	lbs./yd3	3
2	2		1.38 in.		5784 psi	1.90	lbs./yd3	0.24	lbs./yd3	3
3	3		1.91 in.	6	6060 psi	0.06	lbs./yd3	0.01	lbs./yd3	3
4	1		1.80 in.		4180 psi	0.18	lbs./yd3	0.00	lbs./yd	3
5	5		1.80 in.	Ę	5600 psi	4.16	lbs./yd3	0.31	lbs./yd3	3
6	5		1.34 in.	4	4940 psi	3.34	lbs./yd3	2.17	lbs./yd3	5
7	7		1.10 in.		4180 psi	2.87	lbs./yd3	5.19	lbs./yd3	5
8	3		0.96 in.		3708 psi	5.58	lbs./yd3	2.95	lbs./yd3	5
ç	)		1.72 in.	4	4860 psi	0.27	lbs./yd3	0.00	lbs./yd	3
10	0		1.62 in.	4	4700 psi	5.24	lbs./yd3	4.09	lbs./yd	3
1	1		1.58 in.		3820 psi	2.68	lbs./yd3	0.92	lbs./yd	3
AVEF	RAGE		1.51 in.		4688 psi	2.57	lbs./yd3	1.46	lbs./yd3	3
						TOP	SAMPLE	вотто	M SAMPL	LE
				TC	)P SAMPLE	1.97	lbs./yd3	0.14	lbs./yd3	3
HIGH	1E21 (	HLURI	DE CONTENT	BOT	TOM SAMPLE	1.90	lbs./yd3	0.24	lbs./yd3	3
CHLORI	DE VALUE	S OVER 2	.00 lbs./yd3 IN T	OP SAMPL	E ARE SHOWN	IN BOLD	) TO	TAL NU	MBER = 6	6
CHLORI	DE VALUE	S OVER 2	.00 lbs./yd3 IN B	OTTOM SA	AMPLE ARE SHO	WN IN E	BOLD TO	TAL NU	MBER =	4

DRAWN BY : \_\_\_\_\_R.PUTEK CHECKED BY : \_\_\_\_D.MULLER \_\_\_\_ DATE : <u>01/12</u> \_\_\_\_ DATE : <u>01/12</u>

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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 FORM WORK FOR APPROVAL PRIOR TO BEGINNING WORK.

COST FOR INSTALLING AND REMOVING FORM WORK SHALL BE INCIDENTAL TO THE PRICE PER SO. YARD OF HYDRO-DEMOLITION.

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**INDEX OF SHEETS** 

### TITLE

TITLE SHEET AND INDEX OF SHEETS LEGEND AND LIST OF ROADWAY STANDARD DRAWINGS GENERAL NOTES AND PHASING YADKIN CO. BRIDGE #102 - SR 1570 ROAD CLOSURE YADKIN CO. BRIDGE #102 - SR 1570 DETOUR ROUTE

### TRAFFIC MANAGEMENT STRATEGY

PROPOSED REPAIRS TO BRIDGE WILL BE PERFORMED USING A HOLIDAY RESTRICTED ROAD CLOSURE. LANE CLOSURES BELOW THE BRIDGE ARE TIME AND HOLIDAY RESTRICTED. REFER TO SHEET TMP-2 FOR PHASING.

es Inc. -Suite 300	APPROVED LATELY LIGHTSAN	V
	SEAL	22
TRAFFIC ENGINEER	MG INC SAM	
RANSPORTATION DESIGNER	Winner (	l

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SHEET NO.

LEGEND	
DIRECTION OF TRAFFIC FLOW	
DIRECTION OF PEDESTRIAN TRAFFIC FLOW	
WORK AREA PAVEMENT REMOVAL	
NORTH ARROW	
TYPE III BARRICADE	
▲ CONE ● DRUM ⓒ SKINNY DRUM ⊚ TUBULAR MARKER	
CHANGEABLE MESSAGE SIGN (CMS)	
FLAGGER	
AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)	
FLASHING ARROW BUARD(TYPE C)	
TRUCK MOUNTED ATTENUATOR (TMA)	
PORTABLE CONCRETE BARRIER (PCB)	
K) WORK ZONE SIGN-PORTABLE ↓ WORK ZONE SIGN-STATIONARY	
<pre>b work zone sign-stationary or portable</pre>	
SIGNALS	
EXISTING PROPOSED	
PAVEMENT MARKINGS	
EXISTING PAVEMENT MARKING (GRAY) 	
MINI-SKIP LINES	
PAVEMENT MARKING SYMBOLS	
A A PAVEMENT MARKING SYMBOLS	
$\operatorname{Add}$ existing pavement marking symbols (hollow)	
NY PAVEMENT MARKING ALPHANUMERIC CHARACTERS	
PAVEMENT MARKERS	
YELLOW/YELLOW	

## ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

## STD. NO.

1101.01	WORK ZONE
1101.02	TEMPORARY
1101.03	TEMPORARY
1101.04	TEMPORARY
1101.11	TRAFFIC C
1110.01	STATIONAR
1110.02	PORTABLE
1115.01	FLASHING
1130.01	DRUMS
1145.01	BARRICADE
1150.01	FLAGGING
1165.01	WORK VEHI
1205.01	PAVEMENT
1205.02	PAVEMENT



PROJ. REFERENCE NO.	SHEET NO.
BP-5300F	TMP-1A

### TITLE

ADVANCE WARNING SIGNS LANE CLOSURES ROAD CLOSURES Y SHOULDER CLOSURES CONTROL DESIGN TABLES RY WORK ZONE SIGNS WORK ZONE SIGNS ARROW BOARDS

ES DEVICES ICLE LIGHTING SYSTEMS AND TMA DELINEATION MARKINGS - LINE TYPES AND OFFSETS MARKINGS - TWO LANE AND MULTILANE ROADWAYS

## **GENERAL NOTES**

LANE AND SHOULDER CLOSURE REQUIREMENTS

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 AND ROAD CLOSURE TIME RESTRICTIONS

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

ROAD NAME DAY AND TIME RESTRICTIONS

- US 421 6:00 A.M.-7:00 P.M. MONDAY THRU SUNDAY
- B) DO NOT CLOSE OR NARROW A LANE OF TRAFFIC, DETAIN AND/OR ALTER THE TRAFFIC FLOW AND DO NOT CLOSE ANY ROADWAY ON OR DURING HOLIDAYS, HOLIDAY WEEKENDS, OR ANY OTHER TIME WHEN TRAFFIC IS UNUSUALLY HEAVY, INCLUDING THE FOLLOWING SCHEDULES:

#### ROAD NAME US 421,SR 1570

### 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 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.
- 9) FOR ANY SPECIAL EVENTS SUCH AS SPORTING EVENTS, FESTIVALS, ETC., AS DIRECTED BY THE ENGINEER. ALL LANE CLOSURES AND LANE CLOSURE TIME SCHEDULES MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTING.

- 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.
   C) DEMONEL AND CLOSURE DEVINES FOR THE LANE WHEN WORK IS NOT DETING
- 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.

#### ROAD CLOSURES

- J) PROVIDE SIGNING AND DEVICES FOR ROAD CLOSURES ACCORDING TO THE TRAFFIC CONTROL PLAN. COVER OR REMOVE ALL SIGNS AND DEVICES FOR ROAD CLOSURES WHEN NOT IN EFFECT.
- K) PROVIDE OFF-SITE DETOUR ROUTE SIGNING AS SHOWN IN THE TRAFFIC CONTROL PLANS. COVER OR REMOVE OFF SITE DETOUR SIGNING WHEN THE DETOUR IS NOT IN OPERATION.
- 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.



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IO. SHEET NO.	PROJ. REFERENCE NO.
TMP-2	BP-5300F
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PAVEMENT MARKINGS AND MARKERS

0) REPLACE EXISTING PAVEMENT MARKINGS WITH 2 APPLICATIONS OF PAINT.

P) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

Q) ALL DIMENSIONS AND STATIONS IN THE TRAFFIC CONTROL PLAN AND PHASING ARE APPROXIMATE (+/-); FIELD ADJUST AS NECESSARY OR AS DIRECTED BY THE ENGINEER.

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

# PHASING

YADKIN #102

DURING BRIDGE REHABILITATION WORK ON SR 1570 IMPLEMENT DETOUR AND CLOSE SR 1570 FOR THE DURATION OF THE WORK AS SHOWN ON SHEETS TMP-3 AND 3A. REFER TO GENERAL NOTE B FOR HOLIDAY ROAD CLOSURE RESTRICTIONS.

IF LANE CLOSURES ARE REQUIRED BELOW BRIDGE USE RDWY. STANDARD DRAWING 1101.02, SHEET 3 OR 6.

GENERAL NOTES

PHASING



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