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CKLENE	BURG C	OUN	TY:								
BRIDGE	#590044	ON	INTE	RSTATE	E 277	(<i>US</i>	HWY	74) OV	ER I	NTERS	TATE
BRIDGE	#590048	ON	INTEF	RSTATE	E 277	(<i>US</i>	HWY	74) OV	YER I	NTERS	TATE
BRIDGE	#590138	ON	EAST	12 TH	STRE	CET C	OVER	TRYON	N STI	REET	
BRIDGE	#590320	ON	INTE	RSTATE	E 277	(<i>NC</i>	HWY	16) OV	TER I	N. BREV	'ARD
BRIDGE	#590322	ON	INTE	RSTATE	E 277	(<i>NC</i>	HWY	16) OV	TER (CHARLO)TTE
BRIDGE	#590326	ON	INTE	RSTATE	E 277	(<i>NC</i>	HWY	16) OV	YER	N. COLL	EGE
BRIDGE	#590327	ON	INTE	RSTATE	E 277	(<i>NC</i>	HWY	16) OV	YER	N. TRYO	N S
BRIDGE	#590328	ON	INTE	RSTATE	E 277	(<i>NC</i>	HWY	16) O V	YER	N. CHUF	RCH
BRIDGE	#590330	ON	INTE	RSTATE	E 277	(<i>NC</i>	HWY	16) O V	YER U	US HW	Y 29
BRIDGE	#590332	ON	INTEF JOHN	RSTATI SON S	E 277 S T. (CS	(NC SX A	HWY ND N	16) O O RFOI	VER LK &	NC MU , SOUI	J SIC THER

	PROJECT LENGTH	Prepared
=47,500 =47,500	MECKLENBURG COUNTY	DEPARTMENT O DIVISION
= 8,500 = 86,000	- #590044 = 0.071 MILE - #590048 = 0.076 MILE - #590128 = 0.022 MILE	STRUCTURES MANAGEMENT UN 1000 BIRCH RIDO
= 86,000 = 86,000	- #590138 = 0.032 MILE - #590320 = 0.023 MILE - #590322 = 0.038 MILE	A. KEITH
=96,500	$- #590326 = 0.026 \text{ MILE} \\ - #590327 = 0.035 \text{ MILE}$	2018 STAND
= 107,000 = 107,000 = 116,000	$\begin{array}{rcl} - \ \#590328 &=& 0.029 \ \ \text{MILE} \\ - \ \#590330 &=& 0.036 \ \ \text{MILE} \\ - \ \#590332 &=& 0.225 \ \ \text{MILE} \end{array}$	LETT OCTO

STATE	STAT	E PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS	
N.C.		I-5746C	1		
STAT	e proj. No.	F. A. PROJ. NO.	DESCRIPT	rion	
520	24.1.4	NHPIM-0277(19)	P.E	•	
520	24.1.5	NHPIM-0277(19)	P.E.		
520	24.3.4	NHPIM-0277(19)	CONST.		

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STREET AREA TRANSIT **STREET TREET STREET** /NC HWY 49 (N. GRAHAM ST.)

FACTORY BLVD. RN RAILROADS)

Ô 277 (16 11TH S DLK & SOUTHERN RAILROAD VICINITY MAP – MECKLENBURG CO. I in the Office of: **OF TRANSPORTATION OF HIGHWAYS** NIT – PRESERVATION & REPAIR GROUP GE DR. RALEIGH, N.C. 27610 [©] SEAL 35647 ACINES PASCHAL, P.E. ECT ENGINEER 8/23/20 DARD SPECIFICATIONS ADAM A. COLE, P.E. PROJECT DESIGN ENGINEER

TING DATE: DBER 21, 2021



MECKLENBURG COUNTY

MECKLENBURG COUNTY:

RIDGE	#590044	ON	INTEF	RSTATE	277	(US	HWY	74) OVE	R INT	ERSTA	TE
RIDGE	#590048	ON	INTEF	RSTATE	277	(<i>US</i>	HWY	74) OVE	CR INT	TERSTA	TE
RIDGE	#590138	ON	EAST	12TH S	STRE	ET C	OVER	TRYON	<i>RD</i> .		
RIDGE	#590320	ON	INTEF	RSTATE	277	(<i>NC</i>	HWY	16) OVE	R N. E	BREVAR	RD
RIDGE	#590322	ON	INTEF	RSTATE	277	(<i>NC</i>	HWY	16) OVE	R CH	4RLOT	ΓΕ
RIDGE	#590326	ON	INTEF	RSTATE	277	(<i>NC</i>	HWY	16) OVE	R N. C	COLLEG	E
RIDGE	#590327	ON	INTEF	RSTATE	277	(<i>NC</i>	HWY	16) OVE	R N. 7	RYON	S 7
RIDGE	#590328	ON	INTEF	RSTATE	277	(<i>NC</i>	HWY	16) OVE	R N. C	CHURCI	H
RIDGE	#590330	ON	INTEF	RSTATE	277	(<i>NC</i>	HWY	16) OVE	R US	HWY	29 /
RIDGE	#590332	ON	INTER	STATE	277	(NC	HWY	16) OVE	R NC	MUSIC	
		JOH	INSON	SI . CS	XO	NU NU	JKFOL	K SUUI	HEKN	KAILK	KUA.

BRIDGE PRESERVATION – DECK REPAIR, SUBSTRUCTURE REPAIR, AND PAINTING OF EXISTING BRIDGE STRUCTURES.

INDEX OF SHEETS

	TITLE SHEET
	INDEX OF SHEETS
HRU S-2	TOTAL BILL OF MATERIAL
HRU S1–17	STRUCTURAL PLANS – BRIDGE NO. 590044
THRU S2–12	STRUCTURAL PLANS – BRIDGE NO. 590048
THRU S3–14	STRUCTURAL PLANS – BRIDGE NO. 590138
THRU S4–16	STRUCTURAL PLANS – BRIDGE NO. 590320
THRU S5–19	STRUCTURAL PLANS – BRIDGE NO. 590322
THRU S6–16	STRUCTURAL PLANS – BRIDGE NO. 590326
THRU S7-20	STRUCTURAL PLANS – BRIDGE NO. 590327
THRU S8–20	STRUCTURAL PLANS – BRIDGE NO. 590328
THRU S9–21	STRUCTURAL PLANS – BRIDGE NO. 590330
THRU S10–112	STRUCTURAL PLANS – BRIDGE NO. 590332
<i>THRU S–274</i>	STANDARD REPAIR DETAILS
	STANDARD NOTES

STATE	STAT	E PROJECT REPERENCE NO.	SHEET NO.	TOTAL SHEETS			
N.C.		[-5746C	1A				
STATI	E PROJ. NO.	F. A. PROJ. NO.	DESCRIPT	non			
520	24.1.4	NHPIM-0277(19)	P.E.				
520	24.1.5	NHPIM-0277(19)	P.E.				
520	24.3.4	NHPIM-0277(19)	CONST.				

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STREET AREA TRANSIT **STREET** TREET **STREET** /NC HWY 49 (N. GRAHAM ST.) FACTORY BLVD. AD

	TOTAL BILL OF MATERIAL															
BRIDGE NO.	GROOVING BRIDGE FLOORS	POLLUTION CONTROL	CLASS II, SURFACE PREPARATION	CONCRETE REPAIRS	SHOTCRETE REPAIRS	EPOXY RESIN INJECTION	FOAM JOINT SEALS FOR PRESERVATION	CLEANING & PAINTING OF BRIDGE #	PAINTING CONTAINMENT FOR BRIDGE #	VOLUMETRIC MIXER	SPOT PAINTING OF STEEL STRUCTURE REPAIR AREAS	CONTAIMNENT OVER CHARLOTTE AREA TRANSIT SYSTEM RAIL LINE	MURAL PAINT REPAIR	POLYESTER POLYMER CONCRETE MATERIALS	EPOXY POLYMER CONCRETE MATERIALS (ALTERNATE)	LATEX MODIFIED CONCRETE-EARLY STRENGTH MATERIALS
	SQ.FT.	LUMP SUM	SQ. YDS.	CU.FT.	CU.FT.	LIN.FT.	LIN.FT.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	CU.YDS.	CU.YDS.	CU. YDS.
590044		LUMP SUM		16.0	38.2	24.0	123.6			LUMP SUM						
590048		LUMP SUM		10.8	57.0	129 . 5	131.3			LUMP SUM						
590138	8,246	LUMP SUM	15.4	15.3	25.1	14.0	249.3									43.1
590320	13,391	LUMP SUM	8.5	82.1	331.3	64.4	240.8	LUMP SUM	LUMP SUM					76.9	76.9	
590322	20,174	LUMP SUM	23.0	35.6	360.3	42.5	212.0		LUMP SUM			LUMP SUM	LUMP SUM	116.3	116.3	
590326	16,616	LUMP SUM	35.7	124.9	361.3	65.0	266.2		LUMP SUM		LUMP SUM			92.8	92.8	
590327	21,858	LUMP SUM	1.6	13.4	140.5	26.5	251.0		LUMP SUM		LUMP SUM			229.7	229.7	
590328	14,346	LUMP SUM		17.4	108.4	92.0	208.6		LUMP SUM		LUMP SUM			83.9	83.9	
590330	23,903	LUMP SUM	2.2	56.8	138.7	74.5	274.9	LUMP SUM	LUMP SUM					255.9	255.9	
590332	146,309	LUMP SUM	11.8	217.3	2,107.8	376.4	1,836.5		LUMP SUM		LUMP SUM			1,142.4	1,142.4	
TOTALS	264,863	LUMP SUM	98.2	589.6	3,668.6	908.8	3,794.2	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	1,997.9	1,997.9	43.1

DRAWN BY :	REZA KOUCHEKE	DATE	: 05/2021
CHECKED BY :	H.A. LOCKLEAR	DATE	: 05/2021
		07	ALLO 0001 11 5 4

PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>44,48,138,320,322</u> <u>326,327,328,330,332</u> SHEET 1 OF 2 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DOCUMENT NOT CONSIDERED

	TOTAL BILL OF MATERIAL																
BRIDGE NO.	CONCRETE FOR DECK REPAIR	ELASTOMERIC CONCRETE FOR PRESERVATION	BEAM REPAIR CUT-OUT	BEAM REPAIR PLATING	BRIDGE JOINT DEMOLITION	EPOXY COATING	SILANE DECK TREATMENT	CONCRETE DECK REPAIR FOR POLYMER CONCRETE OVERLAY	PLACING & FINISHING POLYMER CONCRETE OVERLAY	PLACING & FINISHING LATEX MODIFIED CONCRETE-EARLY STRENGTH OVERLAY	SCARIFYING BRIDGE DECK	SHOTBLASTING BRIDGE DECK	BEARING PLATE REPOSITIONING	BEARING REPLACEMENT	TYPE 1 BRIDGE JACKING	CLEANING & PAINTING EXISTING BEARINGS WITH HIGH RATIO CALCIUM SULFONATE	STEEL BEARING KEEPER ANGLE ASSEMBLY
	CU.FT.	CU.FT.	LBS.	LBS.	SQ.FT.	SQ.FT.	SQ. YDS.	SQ. YDS.	SQ. YDS.	SQ. YDS.	SQ.YDS.	SQ. YDS.	EA.	EA.	EA.	EA.	EA.
590044	2.0	27.9			122.3	758	1,672					1,672				72	
590048	19.3	32.8			130.1	796	1,845					1,845				78	
590138		83.3			232.4	324				1,035	1,035	1,035			1	48	
590320			434	75		1,118		8.5	1,582		1,582	1,582			1	96	
590322						1,810		23.0	2,391		2,391	2,391				68	_
590326			104	262		1,726		35.7	1,953		1,953	1,953			1	106	_
590327			5	615		2,358		1.6	2,545		2,545	2,545			1	102	
590328			15	150		1,142			1,727		1,727	1,727			1	84	
590330			275	25		1,310		2.2	2,835		2,835	2,835			1	142	25
590332			4,207	2,889		10,598		11.8	17,166		17,166	17,166	1	2	7	540	12
TOTALS	21.3	144.0	5,040	4,016	484.8	21,940	3,517	82.8	30,199	1,035	31,234	34,751	1	2	13	1,336	37

DRAWN BY :	REZA KOUCHEKI	DATE : <u>05/2021</u>
CHECKED BY :	H.A. LOCKLEAR	DATE : <u>05/2021</u>

PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>44,48,138,320,322</u> <u>326,327,328,330,332</u> SHEET 2 OF 2 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED DOCUMENT NOT CONSIDERED



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-	RECONSTRUCT END
-	SHOTBLAST EXISTI
-	APPLY SILANE FOR
-	REMOVE UNSOUNDED
-	PERFORM CONCRETE
-	CLEAN END BENT A
-	CLEAN AND PAINT
-	PERFORM SHOTCETE
-	REMOVE DEBRIS FR

F.A. PROJECT NO.: NHPLM - 0277 (19)





LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

BRIDGE COORDINATES LATITUDE: 35°-13'-27.78" LONGITUDE: 80°-51'-55.9"

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

WORK ON THE BRIDGES SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

CONTRACTOR SHALL DETERMINE EXTENT OF WORKING AREA, STAGING PROCESS, AND INSTALL COVER ₱ ASSEMBLY AS NECESSARY TO MEET THE REQUIREMENTS OF TRAFFIC MANAGEMENT PLANS.

AND/OR TRAFFIC.

DRAWN BY :	REZA KOUCHEKI	DATE :	07/2021
CHECKED BY :	H.A. LOCKLEAR	DATE :	07/2021

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NOTES

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE

THE AVAI THE DIFF	EXIST [LABLE PLANS ER.	ING 1 . THE AND	DIME CON NOT	INSI ITRA IFY
IT I SAFE	ES THE	CON QUIR	TRAC EMEN	CTOF
EXIS BEGI	STING NNING	JOIN SURI	TS A FACE	ND PR
FOR SEE	CONTR TRANSI	OL OF PORT	TR TIC	AFF N N
FOR	SHOTB	AST	ING	BRI
FOR	SILAN	E DEC	СК Т	REA
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FOR	SUBMI	TTAL	OF	WOF
FOR	FALSE	NORK	AND	FC
FOR	GROUT	FOR	STF	RUC1
FOR	CRANE	SAF	ΞΤΥ,	SEE
FOR	BRIDG	E JAC	CKIN	GS
FOR	EPOXY	COA	TINC	; AN
FOR	SHOTC	RETE	REP	AIR
FOR CLEA HRCS BEAR	PAINT NING A, SEE RINGS	ING AND F CLEA WITH	CONT PAIN NIN HRC	TAIN ITIN G A SA
FOR	CONCR	ETE F	REPA	IRS
FOR	EPOXY	RES	IN I	NJE
FOR WITH	EXTER: H DECK	IOR (AND	CONC	

NOTES

IONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION ACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON Y THE ENGINEER IF ACTUAL DIMENSIONS OR CONDITIONS R'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL DECK DRAINS SHALL BE SEALED PRIOR TO REPARATION OF BRIDGE DECK. FIC AND LIMITS ON PHASING OF CONSTRUCTION, MANAGEMENT PLANS. IDGE DECK SEE SPECIAL PROVISIONS. ATMENT SEE SPECIAL PROVISIONS. CK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS. R, SEE SPECIAL PROVISIONS. MOLITION. SEE SPECIAL PROVISIONS. CRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS. S FOR PRESERVATION, SEE SPECIAL PROVISIONS. RKING DRAWINGS.SEE SPECIAL PROVISIONS. ORMWORK, SEE SPECIAL PROVISIONS. TURES, SEE SPECIAL PROVISIONS. SPECIAL PROVISIONS. SEE SPECIAL PROVISIONS. ND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS. RS, SEE SPECIAL PROVISIONS. INMENT, POLLUTION CONTROL AND ING EXISTING BEARINGS WITH AND PAINTING EXISTING BRIDGE A SPECIAL PROVISION. S, SEE SPECIAL PROVISIONS.

ECTION, SEE SPECIAL PROVISIONS.

TE DIAPHRAGM REMOVAL, REMOVE CONCRETE FLUSH R AND EPOXY COAT ANY EXPOSED REBAR. THIS WORK WILL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS.

	PROJEC ME	CT NO.	I-5 NBURC	<u>746С</u> со	UNTY
	BRIDG	E NO	59	90044	
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02EE938FAB674C5	DEPA	STATE RTMENT	e of north card OF TRAN raleigh	NSPORTA	TION
SEAL 35647 WGINELR CONTINUE	GENERAL DRAWING for bridge on 1-277 over interstate 77				
8/23/2021					
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€ BRIDGE € LOOP C7	
APPROACH SLAB	
(۲» 	
	PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>590044</u>
DocuSigned by: 02EE938FAB674CS 02EE938FAB674CS 00EESSION 00FESSION 00FESSION 00FESSION 00FESSION 00FESSION 00FER 100 100 100 100 100 100 100 10	TYPICAL SECTION AND DECK CRACK SEAL PREPARATION
8/23/2021 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS SHEET NO. NO. BY: DATE: NO. BY: DATE: S1-3 1 3 TOTAL SHEETS 2 4 274

AS-BUILT REPAIR	QUAN	ITITY	ΤΑΒ	LE		
UNDERSIDE OF DECK REPAIRS						
	ESTI	ΜΑΤΕ	ACTUAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
UNDERSIDE OF DECK	0.0	0.0				
UNDERSIDE OF OVERHANG	2.50	0.9				
	ESTI	ΜΑΤΕ	ACT	UAL		
UNDERSIDE EPOXY RESIN INJECTION	0.0 LIN.FT.					

UNDERSIDE OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2"CLEAR TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

AT LOCATIONS INDICATED, CONCRETE, REINFORCING STEEL AND OTHER COMPONENTS OF EXTERIOR END DIAPHRAGMS SHALL BE REMOVED FLUSH TO THE BOTTOM OF THE DECK AND THE SIDE OF THE BEAMS/GIRDERS. AFTER REMOVAL, ENDS OF EXPOSED STEEL COMPONENTS SHALL BE COATED WITH EPOXY.NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. COSTS FOR THIS WORK SHALL BE INCLUDED IN OTHER PAY ITEMS.

*FOR UNDERSIDE OF DECK AND DIAPHRAGM REPAIRS, SEE ``OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS'' SHEET.

	PROJEC <u>ME</u> BRIDGE	CT NO. CKLEM	<u>I-</u> NBURC 590	<u>-5746</u> 5 co 0044	C UNTY		
DocuSigned by: DOZEE938FAB674CS DOZEE938FAB674	SHEET 1 OF 6 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH DECK UNDERSIDE REPAIRS SPAN A						
	REVISIONS SHEET NO.						
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PLAN

DRAWN BY :	REZA KOUCHEKI	DATE :5/	2021
CHECKED BY :	ASRA YASMEEN		2021

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AS-BUILT REPAIR	QUAN	ITITY	ΤΑΒ	LE		
UNDERSIDE OF DECK REPAIRS						
	ESTI	ΜΑΤΕ	ACTUAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
UNDERSIDE OF DECK	4.0	1.4				
UNDERSIDE OF OVERHANG	5.50	1.8				
	ESTI	ΜΑΤΕ	ACT	UAL		
UNDERSIDE EPOXY RESIN INJECTION	0.0 LIN.FT.					

UNDERSIDE OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2"CLEAR TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

AT LOCATIONS INDICATED, CONCRETE, REINFORCING STEEL AND OTHER COMPONENTS OF EXTERIOR END DIAPHRAGMS SHALL BE REMOVED FLUSH TO THE BOTTOM OF THE DECK AND THE SIDE OF THE BEAMS/GIRDERS. AFTER REMOVAL, ENDS OF EXPOSED STEEL COMPONENTS SHALL BE COATED WITH EPOXY.NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. COSTS FOR THIS WORK SHALL BE INCLUDED IN OTHER PAY ITEMS.

* FOR UNDERSIDE OF DECK AND DIAPHRAGM REPAIRS, SEE ``OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS'' SHEET.

DocuSigned by:	PROJEC <u>ME(</u> BRIDGE	CT NO. CKLEN E NO F 6	<u>IBI</u>	<u>I-</u> <u>JRG</u> 590	<u>5746</u> co)044	C UNTY
DZEE938FAB674C5 NUMPRIH CARO////////////////////////////////////	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH DECK UNDERSIDE REPAIRS SPAN B					
	REVISIONS SHEET NO.					
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AS-BUILT REPAIR	QUAN	ITITY	ΤΑΒ	LE		
UNDERSIDE OF DECK REPAIRS						
	ESTI	MATE	ACTUAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
UNDERSIDE OF DECK	0.0	0.0				
UNDERSIDE OF OVERHANG	4.0	1.4				
INTERIOR DIAPHRAGMS	0.0	0.0				
	ESTIMATE ACTUAL			UAL		
UNDERSIDE EPOXY RESIN INJECTION	0.0 L	EN.FT.				

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AS-BUILT REPAIR	QUAN	ITITY	ΤΑΒ	LE		
UNDERSIDE OF DECK REPAIRS						
	ESTI	MATE	ACT	ACTUAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
UNDERSIDE OF DECK	12.5	4.2				
UNDERSIDE OF OVERHANG	2.0	0.7				
INTERIOR DIAPHRAGMS	0.0	0.0				
	ESTI	ΜΑΤΕ	ACT	UAL		
UNDERSIDE EPOXY RESIN INJECTION	0.0 LI	EN.FT.				

UNDERSIDE OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2"CLEAR TO SAWCUT.

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

AT LOCATIONS INDICATED, CONCRETE, REINFORCING STEEL AND OTHER COMPONENTS OF EXTERIOR END DIAPHRAGMS SHALL BE REMOVED FLUSH TO THE BOTTOM OF THE DECK AND THE SIDE OF THE BEAMS/GIRDERS. AFTER REMOVAL, ENDS OF EXPOSED STEEL COMPONENTS SHALL BE COATED WITH EPOXY. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. COSTS FOR THIS WORK SHALL BE INCLUDED IN OTHER PAY ITEMS.

* FOR UNDERSIDE OF DECK AND DIAPHRAGM REPAIRS, SEE ``OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

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-3.0 SF SHOTCRETE REPAIR UNDERSIDE OF OVERHANG

© JOINT @ BENT 5	
BRIDGE	

AS-BUILT REPAIR	QUAN	ITITY	ΤΑΒ	LE			
UNDERSIDE OF DECK REPAIRS							
	ESTI	MATE	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
UNDERSIDE OF DECK	0.0	0.0					
UNDERSIDE OF OVERHANG	6.0	2.0					
INTERIOR DIAPHRAGMS	0.0	0.0					
	ESTIMATE ACTUAL						
UNDERSIDE EPOXY RESIN INJECTION	0.0 LI	EN.FT.					

UNDERSIDE OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2"CLEAR TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

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FOR UNDERSIDE OF DECK AND DIAPHRAGM REPAIRS, SEE ``OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS'' SHEET.

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AS-BUILT REPAIR	QUAN	ITITY	ΤΑΒ	LE			
UNDERSIDE OF DECK REPAIRS							
	ESTI	ΜΑΤΕ	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
UNDERSIDE OF DECK	0.0	0.0					
UNDERSIDE OF OVERHANG	1.5	0.5					
INTERIOR DIAPHRAGMS	0.0	0.0					
	ESTI	ΜΑΤΕ	ACT	UAL			
UNDERSIDE EPOXY RESIN INJECTION	0.0 L	EN.FT.					

UNDERSIDE OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2"CLEAR TO SAWCUT. SEE REPAIR DETAILS.

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* FOR UNDERSIDE OF DECK AND DIAPHRAGM REPAIRS, SEE ``OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS'' SHEET.

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ELASTOMERIC CONCRETE FOR PRESERVATION

END BENT 1	13.5	CU.FT.
END BENT 2	14.4	CU.FT.
* TOTAL	27.9	CU.FT.

* BASED ON THE MINIMUM BLOCKOUT SHOWN.

DRAWN BY :	REZA KOUCHEKI	DATE : <u>05/2021</u>
CHECKED BY :	ASRA YASMEEN	DATE : <u>05/2021</u>

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			CONTRAC ORDERIN THE OPE
JOINT REPIAR QUANTITY	′ TABLE		THE MAN
	ESTIMATE	ACTUAL	FOAM JO
FOAM JOINT SEALS FOR PRESERVATION			THE CON ANY MAT
END BENT 1	54.5 LF.		THE MAT
END BENT 2	69.1 LF.		IF THE EMPLOYE
TOTAL	123.6 LF.		

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING THE JOINT DEMOLITION, THE ENTIRE CONCRETE DEPTH TO THE WATERSTOP SHALL BE REMOVED. IF SUCH EXCAVATION EXTENDS MORE THAN 2"BELOW THE BOTTOM OF THE PLANNED ELASTOMERIC CONCRETE HEADER, AS SHOWN, APPROVED REPAIR CONCRETE SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE ELASTOMERIC CONCRETE. EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT AND LEVEL, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF ELASTOMERIC CONCRETE.

APPROACH SLAB-

SIGNATURES COMPLETED

SECTION B-B

FOAM JOINT SEAL SHALL BE FACTORY FORMED OR CUT, HEAT WELDED AND TURNED UP PARALLEL TO FACE OF CURB.

NOTES

TOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO G JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM NING INDICATED IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.

UFACTURER IS TO RECOMMEND AND PROVIDE THE NOMINAL UNCOMPRESSED SEAL OF FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS.)INT SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

TRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP TERIALS BELOW THE BRIDGE, WITHOUT PROTECTIVE DEVICES BELOW TO CATCH ERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE OR ARE NOT BEING ED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

THE INSTALLED FOAM JOINT SEALS SHALL BE WATERTIGHT.

QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PERSERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE 2". THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT IN LIEU OF SAWING THE JOINT.

FOR FOAM JOINT SEAL FOR PRESERVATION. SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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AS-BUILT REPAIR QUANTITY TABLE							
END DENT 1		QUANT	ITIES				
ENU DENI I	ESTI	MATE	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
CURTAIN WALL	0.0	0.0					
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
EPOXY RESIN INJEC	TION	LIN.FT.		LIN.FT.			
CAP & CURTAIN WALL		0.0					
EPOXY COATING		AREA SQ. FT		AREA SQ. FT			
САР		175.0					

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

CONCRETE REPAIR AREA

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WRTH CAR

SEAL 35647

8/23/2021

SHOTCRETE REPAIR AREA

----- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 1-5746C MECKLENBURG COUNTY BRIDGE NO. 590044

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

END BENT 1

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AS-BUILT REPA	IR QU	JANTI	ΤΥ ΤΑ	BLE
		QUANT	ITIES	
DENT Z CAP	ESTI	ΜΑΤΕ	ACT	UAL
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	0.0	0.0		
EPOXY RESIN INJEC	TION	LIN.FT		LIN.FT
САР		0.0		
COLUMN				
EPOXY COATING		AREA SQ.FT.		AREA SQ.FT.
TOP OF BENT CAP		135		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR CAP REPAIRS, SEE `` TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEETS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

PROJEC1	NO]	<u>[-5746C</u>
MEC	<u>KLENBUF</u>	COUNTY
BRIDGE	NO. <u>59</u>	90044

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AS-BUILT REPAIR QUANTITY TABLE						
		QUANT	ITIES			
DENT Z CAP	ESTI	ΜΑΤΕ	ACT	UAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	3.5	1.8				
COLUMN	1.2	0.6				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	13.2	6.6				
EPOXY RESIN INJEC	TION	LIN.FT		LIN.FT		
САР		0.0				
COLUMN						
EPOXY COATING		AREA SQ.FT.		AREA SQ.FT.		
TOP OF BENT CAP		135				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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FOR CAP REPAIRS, SEE `` TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEETS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

CONCRETE REPAIR AREA

----- EPOXY RESIN INJECTION (ERI)

SHOTCRETE REPAIR AREA

PEDESTAL WALL REPAIR, SEE ``TYPICAL CAP AND COLUMN REPAIR DETAIL"SHEETS.

PROJECT NO.	<u>I-5746C</u>
MECKLENBUR	RG COUNTY
BRIDGE NO. 5	90044

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AS-BUILT REPAIR QUANTITY TABLE						
DENT 3 CAD		QUANT	ITIES			
	ESTI	ΜΑΤΕ	ACT	UAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	7.5	3.8				
COLUMN	1.0	0.5				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	0.0	0.0				
EPOXY RESIN INJE	CTION	LIN.FT.		LIN.FT.		
САР		19.0				
COLUMN		0.0				
EPOXY COATING		AREA SQ.FT		AREA SQ.FT		
TOP OF BENT CAP		0.0				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR CAP REPAIRS, SEE `` TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEETS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

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CONCRETE REPAIR AREA

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SHOTCRETE REPAIR AREA EPOXY RESIN INJECTION (ERI)

PROJEC	T NO.	<u> </u>	46C
MEC	KLE	NBURG	COUNTY
BRIDGE	NO	59004	14

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AS-BUILT REPAIR QUANTITY TABLE					
		QUANT	ITIES		
DENI 4 CAP	ESTI	ΜΑΤΕ	ACT	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	14.0	7.0			
COLUMN	1.8	0.9			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	1.2	0.6			
EPOXY RESIN INJE	CTION	LIN.FT.		LIN.FT.	
САР		0.0			
COLUMN		0.0			
EPOXY COATING		AREA SQ.FT		AREA SQ.FT	
САР		0.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR CAP REPAIRS, SEE `` TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEETS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

----- EPOXY RESIN INJECTION (ERI)

PROJECT	NO	<u>I-57</u>	46C
<u>MEC</u>	<u>KLENBI</u>	JRG	COUNTY
BRIDGE	NO	59004	4

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AS-BUILT REPAIR QUANTITY TABLE					
		QUANT	ITIES		
DENT 3 CAF	ESTI	ΜΑΤΕ	ACT	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	14.3	7.2			
COLUMN	8.0	2.7			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	12.0	6.0			
EPOXY RESIN INJE	CTION	LIN.FT.		LIN.FT.	
САР		0.0			
COLUMN		0.0			
EPOXY COATIN	G	AREA SQ.FT		AREA SQ.FT	
САР		135			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR CAP REPAIRS, SEE `` TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEETS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

----- EPOXY RESIN INJECTION (ERI)

PEDESTAL WALL REPAIR, SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS' SHEETS.

> PROJECT NO. I-5746C MECKLENBURG COUNTY BRIDGE NO. 590044

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AS-BUILT REPAIR QUANTITY TABLE						
		QUANT	ITIES			
ENU DENT Z	ESTI	ΜΑΤΕ	ACT	UAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
CAP	0.0	0.0				
CURTAIN WALL	1.5	0.8				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	5.6	2.8				
EPOXY RESIN INJEC	TION	LIN.FT.		LIN.FT.		
CAP & CURTAIN WALL		5.0				
EPOXY COATING		AREA SQ.FT		AREA SQ.FT		
САР		178.0				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

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----- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 1-5746C MECKLENBURG COUNTY BRIDGE NO. 590044

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

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THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL

WORK ON THE BRIDGES SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

CONTRACTOR SHALL DETERMINE EXTENT OF WORKING AREA, STAGING PROCESS, AND INSTALL COVER ₱ ASSEMBLY AS NECESSARY TO MEET THE REQUIREMENTS OF TRAFFIC MANAGEMENT PLANS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.

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NOTES

DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION E CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON D NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS OR CONDITIONS ITRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL REMENTS. NTS AND DECK DRAINS SHALL BE SEALED PRIOR TO REPARATION OF BRIDGE DECK. OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, ATION MANAGEMENT PLANS. ING BRIDGE DECK, SEE SPECIAL PROVISION. CK TREATMENT, SEE SPECIAL PROVISION. FOR DECK REPAIR, SEE SPECIAL PROVISIONS. IC MIXER, SEE SPECIAL PROVISIONS. INT DEMOLITION, SEE SPECIAL PROVISIONS. RIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS. NT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS. OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS. K AND FORMWORK, SEE SPECIAL PROVISIONS. STRUCTURES, SEE SPECIAL PROVISIONS. ETY, SEE SPECIAL PROVISIONS. CKING SEE SPECIAL PROVISIONS. TING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS. REPAIRS. SEE SPECIAL PROVISIONS. CONTAINMENT, POLLUTION CONTROL AND PAINTING EXISTING BEARINGS WITH EANING AND PAINTING EXISTING BRIDGE H HRCSA SPECIAL PROVISION. REPAIRS, SEE SPECIAL PROVISION. IN INJECTION, SEE SPECIAL PROVISION.

CONCRETE DIAPHRAGM REMOVAL, REMOVE CONCRETE CK AND GIRDER AND EPOXY COAT ANY EXPOSED REBAR. L BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS.

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THE REPAIRS AND REPAIR QUANTITY	CONCRETE DECK REP	FOR	EST 19.3	IMATE CU.FT.	ACTUAL	-
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ELASTOMERIC CONCRETE FOR PRESERVATION						
END BENT 1	20.3	CU.FT.				
END BENT 2	12.5	CU.FT.				
* TOTAL	32.8	CU.FT.				

* BASED ON THE MINIMUM BLOCKOUT SHOWN.

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JOINT REPIAR QUANTITY	TABLE	
	ESTIMATE	ACTUAL
FOAM JOINT SEALS FOR PRESERVATION		
END BENT 1	81.6 LF.	
END BENT 2	49.7 LF.	
TOTAL	131.3 LF.	

SECTION A-A

IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING THE JOINT DEMOLITION, THE ENTIRE CONCRETE DEPTH TO THE WATERSTOP SHALL BE REMOVED. IF SUCH EXCAVATION EXTENDS MORE THAN 2"BELOW THE BOTTOM OF THE PLANNED ELASTOMERIC CONCRETE HEADER, AS SHOWN, APPROVED REPAIR CONCRETE SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE ELASTOMERIC CONCRETE. EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT AND LEVEL, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF ELASTOMERIC CONCRETE.

NOTES

THE MANUFACTURER IS TO RECOMMEND AND PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS FOAM JOINT SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATION.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIALS BELOW THE BRIDGE, WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVE AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE OR ARE NOT BEING EMPLOYED. THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECION IS PROVIDED.

SAWING THE JOINT.

QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PERSERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

FOR FOAM JOINT SEAL FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT IN LIEU OF

THE INSTALLED FOAM JOINT SEALS SHALL BE WATERTIGHT.

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8/23/2021

PROJECT NO. <u>I-5746C</u> MECKLENBURG COUNTY BRIDGE NO. 590048

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

JOINT DETAILS

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NOTES:

AS-BUILT REPAI	IR QL	JANTI	ΤΥ Τ	ABLE			
UNDERSIDE OF DECK REPAIRS							
	ESTI	MATE	ACT	UAL			
SHOICREIE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF			
UNDERSIDE OF DECK	0.0	0.0					
UNDERSIDE OF OVERHANG	21.8	7.3					
OVERHANG DIAPHRAGMS	0.0	0.0					
CONCRETE DEDATES	ESTIMATE		ACTUAL				
CUNCRETE REFAIRS	VOLUME CF		VOLUME CF				
CONCRETE FOR DECK REPAIR	0.0		0.0				
	ESTIMATE		ACTUAL				
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF					

AS-BUILT REPAIR QUANTITY TABLE							
		QUANTITIES					
	ESTI	MATE	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
BACKWALL	7.4	3.7					
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
EPOXY RESIN INJEC	TION	LIN.FT.		LIN.FT.			
BACKWALL		16.0					
САР		6.0					
AS-BUILT REPA	IR QI	UANT]	<u>ΣΤΥ</u> Τ	ABLE			
END RENT 2		QUANT	ITIES				
	ESTI	MATE	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	12.0	6.0					
BACKWALL	4.5	2.3					
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
EPOXY RESIN INJEC	TION	LIN.FT.		LIN.FT.			
	EPUXT RESIN INJECTION			<u>L</u>			
BACKWALL		0.0					

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR CAP REPAIRS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTIONS, SEE SPECIAL PROVISIONS.

	CONCRETE
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EPOXY RESIN INJECTION (ERI)

SHOTCRETE REPAIR AREA

REPAIR AREA

PROJECT NO. 1-5746C MECKLENBURG COUNTY BRIDGE NO. 590048

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AS-BUILT REPAIR	QUAN	1 T I T V	Y TA	BLE
REPAIRS		QUANT	ITIES	
BENT 1	ESTI	MATE	ACT	UAL
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
САР	0.0	0.0		
COLUMN	0.3	0.2		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	4.3	2.2		
EPOXY RESIN INJECTI	ON	LN.FT.		LN.FT.
CAP		4.0		
COLUMN		0.0		
EPOXY COATING		SQ.FT.		SQ.FT.
TOP OF BENT CAP		194.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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FOR REPAIR DETAILS, SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS' SHEET.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH APPROVE OF THE ENGINEER.

FOR SHOTCRETE REPAIR SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIR SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING, EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP, THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES, FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

└── ERI - EPOXY RESIN INJECTION

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AS-BUILT REPAIR	QUAN	1 T I T V	Y TA	BLE
REPAIRS		QUANT	ITIES	
BENT 2	ESTI	MATE	ACT	UAL
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
COLUMN	1.7	0.9		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
EPOXY RESIN INJECTI	ON	LN.FT.		LN.FT.
CAP		16.0		
COLUMN		0.0		
EPOXY COATING		SQ.FT.		SQ.FT.
TOP OF BENT CAP		165.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

FOR REPAIR DETAILS, SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS'' SHEET.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH APPROVE OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR SETAILS SHEET.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING, EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP, THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECTIAL PROVISIONS.

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

└── ERI - EPOXY RESIN INJECTION

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8/23/2021

PROJECT NO.	I-57	746C
MECKLEN	BURG	_ COUNTY
BRIDGE NO	5900	48

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

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AS-BUILT REPAIR	QUAN	1 T I T V	Y TA	BLE
REPAIRS		QUANT	ITIES	
BENT 3	ESTI	MATE	ACT	UAL
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	3.8	1.9		
COLUMN	60.7	30.4		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
EPOXY RESIN INJECTI	ON	LN.FT.		LN.FT.
САР		5.5		
COLUMN		19.0		
EPOXY COATING	SO.FT.		SQ.FT.	
TOP OF BENT CAP		151.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH APPROVE OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR DETAILS SHEET.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING, EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP, THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES, FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

DocuSigned by:

WRTH CARN

OFESSION

SEAL 35647

AM A. C

8/23/2021

ERI - EPOXY RESIN INJECTION

PROJECT NO. 1-5746C MECKLENBURG COUNTY BRIDGE NO. 590048

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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AS-BUILT REPAIR	QUAN	1 T I T V	Y TA	BLE
REPAIRS		QUANT	ITIES	
BENT 4	ESTI	ΜΑΤΕ	ACT	UAL
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	1.9	1.0		
COLUMN	0.0	0.0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	17.2	8.6		
EPOXY RESIN INJECTI	ON	LN.FT.		LN.FT.
CAP		4.0		
COLUMN		36.0		
EPOXY COATING		SQ.FT.		SQ.FT.
TOP OF BENT CAP		145.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH APPROVE OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR DETAILS SHEET.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING, EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP, THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES, FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

└── ERI - EPOXY RESIN INJECTION

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MECKLENBL	<u>JRG</u> coi	JNTY
BRIDGE NO	590048	

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AS-BUILT REPAIR	QUAN	1 T I T Y	Y TA	BLE
REPAIRS		QUANT	ITIES	
BENT 5	ESTI	ESTIMATE		UAL
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	3.9	2.0		
COLUMN	1.0	0.5		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
EPOXY RESIN INJECTI	ON	LN.FT.		LN.FT.
САР		7.0		
COLUMN	16.0			
EPOXY COATING	SQ.FT.		SQ.FT.	
TOP OF BENT CAP		141.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

FOR REPAIR DETAILS, SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS' SHEET.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH APPROVE OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR DETAILS SHEET.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING, EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP, THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONARY PLATES, FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

└── ERI - EPOXY RESIN INJECTION

PROJECT NO. 1-5746C MECKLENBURG COUNTY BRIDGE NO. 590048

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F.A. PROJECT NO.:NHPLM - 0277 (19)

NOTES

PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND ROUTINE INSPECTION REPORT DATED 05/06/2020. BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

SCOPE OF WORK

REMOVE ASPHALT WEARING SURFACE FROM APPROACH SLABS AND PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND HYDRODEMOLITION METHODS. OVERLAY PREPARED TOP OF BRIDGE DECK WITH LATEX MODIFIED CONCRETE-EARLY STRENGTH (LMC-ES). GROOVE LATEX MODIFIED CONCRETE-EARLY STRENGTH BRIDGE DECK. REMOVE AND REPLACE EXISTING FOAM JOINTS. CLEAN AND PAINT BEARINGS WITH HRCSA. REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE SHOTCRETE AND CONCRETE REPAIR AREAS. PERFORM SHOTCRETE AND CONCRETE REPAIRS IN PREPARED AREAS. EPOXY INJECTION OF CONCRETE CRACKS. REMOVE DEBRIS FROM TOP OF BENT CAPS AND APPLY EPOXY COATING.

I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.

RESIDENT ENGINEER

TO N. COLLEGE ST

DATE

I-277 OFF RAMP

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	ME	CKLEN	<u>NBURC</u>	<u>;</u> CO	UNTY	
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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION, ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

BRIDGE COORDINATES

LATITUDE: 35°-14'-42.1" LONGITUDE: 80°-50'-50.85"

> THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

> WORK ON THE BRIDGES SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

CONTRACTOR SHALL DETERMINE EXTENT OF WORKING AREA, STAGING PROCESS, AND INSTALL COVER ₱ ASSEMBLY AS NECESSARY TO MEET THE REQUIREMENTS OF TRAFFIC MANAGEMENT PLANS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.

RAWN BY :	E. BAYISSA	DATE : 06/2021
HECKED BY :	H. A. LOCKLEAR	DATE : 06/2021

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NOTES

AT THE TIME OF PREPARATION OF THESE PLANS, IT WAS NOT ANTICIPATED THAT SHOWN BELOW WOULD BE REQUIRED. HOWEVER, IT MAY BE DETERMINED IN THE FI THESE ITEMS, OR OTHER WORK WILL BE NECESSARY TO PROPERLY COMPLETE THE BRIDGE PRESERVATION/REHABILITATION WORK. THE CONTRACTOR SHALL BE PREPA SUCH WORK IN A TIMELY MANNER. AS DETERMINED IN THE FIELD. SUCH WORK SHA CONSIDERED EXTRA WORK AND SHALL BE ADDRESSED AS PER ARTICLE 104-7 OF T SPECIFICATIONS. PROJECT SPECIAL PROVISIONS THAT OUTLINE REQUIREMENTS I ADDITIONAL WORK ITEMS HAVE BEEN PROVIDED IN PROJECT DOCUMENTS, BUT NO BEEN LISTED. ACTUAL PAY ITEMS, QUANTITIES, AND COSTS WILL BE ESTABLISHED IF EXTRA WORK IS ENCOUNTERED.

UNANTICIPATED ITEMS: DESCRIPTION ITEM NO. CLASS III SURFACE PREPARATION

UNIT LIN.FT.

NOTES ONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION NTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON TIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS CTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL HALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF OR ANY DELAYS OR ADDITIONAL COST INCURRED BADED ON EEN THAT SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS TE. RAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE ANAGEMENT PLANS. FION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE WATER DOES NOT MIGRATE INTO ACTIVE TRAVEL LANES. GES SHALL BE PERFORMED SO AS NOT TO ALLOW DEBIS E CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION ITH ARTICLE 402-2 OF THE STANDARD SPECIFICATION AND TIAL PROVISIONS. XISTING REINFORING STEEL, DURING CONTRACTOR'S OPERATIONS D AS DIRCTED BY THE ENGINEER AND PERFORMED AT NO TO THE DEPARTMENT. ND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING IDGE DECKS. RIDGE DECK, HYDRO-DEMOLITION OF BRDGE DECK, AND PREPARATION, SEE OVERLAY SURFACE PREPARATION UST COLLECT, TREAT AND DISPOSE OF RUN-OFF WATER FROM TION PROCESS, SEE OVERLAY SURFACE PREPARATION SPECIAL HALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW ECK. DEMOLITION, SEE SPECIAL PROVISIONS. BRIDGE WITH LATEX MODIFIED CONCRETE-EARLY STRENGTH, SEE SPECIAL ISTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE GE OF TRAVEL LANES. CONCRETE FOR PRESERVATION. SEE SPECIAL PROVISIONS. SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS. WORKING DRAWINGS, SEE SPECIAL PROVISIONS. ND FORMWORK.SEE SPECIAL PROVISIONS. TRUCTURES, SEE SPECIAL PROVISIONS. SEE SPECIAL PROVISIONS. DECK REPAIRS, SEE SPECTIAL PROVISION. PAIRS, SEE SPECIAL PROVISIONS. PAIRS.SEE SPECIAL PROVISIONS. NG, SEE SPECIAL PROVISIONS. PAITING WITH BEARINGS WITH HRCSA, SEE SPECIAL PROVISIONS.

TITEMS ELD THAT INTENDED ARED TO PERFORM ALL BE HE STANDARD FOR THESE POTENTIAL QUANTITIES HAVE D, AS REQUIRED,	PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> CO BRIDGE NO. <u>590138</u> SHEET 2 OF 2	UNTY
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HECKED BY :	H.A. LOCKLEAR	DATE : 05/2021

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AS-BL TOP OF DECK REPAIRS CLASS II SURFACE PREPARATION SCARIFYING BRIDGE DECK HYDRO-DEMOLITION OF BRIDGE DEC PLACING & FINISHING LMC-ES OVE LMC-ES MATERIALS GROOVING BRIDGE FLOORS BRIDGE JOINT DEMOLITION

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR LATEX MODIFIED CONCRETE-EARLY STRENGTH (LMC-ES) AFTER REMOVAL OF UNSOUND CONCRETE. (MIN. 2"CLEAR TO SAWCUT). SEE OVERLAY SURFACE PREPARATION FOR LMC-ES SPECIAL PROVISION.

NOTES

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

PAYMENT FOR CLASS II SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS. FOR SECTION A-A, AND B-B. SEE ``JOINT DETAILS", SHEET. FOR LMC MATERIAL, SEE SPECIAL PROVISION.



CLASS II SURFACE REPAIR

BRIDGE JOINT DEMOLITION

SCARIFICATION & HYDRO-DEMOLITION

JILT	REPAIR	QUANTI	TY TABLE	
	APPROACI	h SLAB 1	SPA	N A
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
	0.0 SQ. YDS.		2.4 SQ. YDS.	
	106.7 SQ. YDS.		163.1 SQ. YDS.	
СК	106.7 SQ. YDS.		163.1 SQ. YDS.	
ERLAY	106.7 SQ. YDS.		163.1 SQ. YDS.	
	4.4 CU.YDS.		6.8 CU. YDS.	
	866.0 SQ.FT.		1375.0 SQ.FT.	
	51.1 SQ.FT.		27.8 SQ.FT.	

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AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS					
	ESTIMATE	ACTUAL			
CLASS II SURFACE PREPARATION	12.4 SQ. YDS.				
SCARIFYING BRIDGE DECK	446.4 SQ. YDS.				
HYDRO-DEMOLITION OF BRIDGE DECK	446.4 SQ.YDS.				
PLACING & FINISHING LMC-ES OVERLAY	446.4 SO. YDS.				
LMC-ES MATERIALS	18.6 CU. YDS.				
GROOVING BRIDGE FLOORS	3508.0 SQ.FT.				
BRIDGE JOINT DEMOLITION	57.8 SQ.FT.				

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR LATEX MODIFIED CONCRETE-EARLY STRENGTH (LMC-ES) AFTER REMOVAL OF UNSOUND CONCRETE. (MIN. 2"CLEAR TO SAWCUT). SEE OVERLAY SURFACE PREPARATION FOR LMC-ES SPECIAL PROVISION.

NOTES

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

PAYMENT FOR CLASS II SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

FOR SECTION B-B.SEE "JOINT DETAILS", SHEET.

FOR LMC MATERIAL, SEE SPECIAL PROVISION.

CLASS II SURFACE REPAIR



BRIDGE JOINT DEMOLITION



SCARIFICATION & HYDRO-DEMOLITION

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AS-BUILT REPAIR QUANTITY TABLE							
TOP OF DECK REPAIRS	APPROA	CH SLAB					
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL			
LASS II SURFACE PREPARATION	0.6 SQ. YDS.		0.0 SQ. YDS.				
CARIFYING BRIDGE DECK	208.3 SQ. YDS.		110.7 SQ. YDS.				
YDRO-DEMOLITION OF BRIDGE DECK	208.3 SQ. YDS.		110.7 SQ. YDS.				
LACING & FINISHING LMC-ES OVERLAY	208.3 SQ. YDS.		110.7 SQ. YDS.				
MC-ES MATERIALS	8.7 CU.YDS.		4.6 CU.YDS.				
GROOVING BRIDGE FLOORS	1635.0 SQ FT.		862.0 SQ.FT.				
BRIDGE JOINT DEMOLITION	30.0 SQ FT.		65.7 SQ.FT.				

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR LATEX MODIFIED CONCRETE-EARLY STRENGTH (LMC-ES) AFTER REMOVAL OF UNSOUND CONCRETE. (MIN.2"CLEAR TO SAWCUT). SEE OVERLAY SURFACE PREPARATION FOR LMC-ES SPECIAL PROVISION.

NOTES

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS. FOR SECTION A-A, AND B-B. SEE ``JOINT DETAILS", SHEET. FOR LMC MATERIALS, SEE SPECIAL PROVISION.



BRIDGE JOINT DEMOLITION

SCARIFICATION & HYDRO-DEMOLITION

SPAN C

PROJEC	CT NO.	<u> </u>	<u>5746C</u>	
ME	CKLEN	NBURC	<u>)</u> co	UNTY
BRIDG	E NO	59	0138	
SHEET 3 C)F 3			
DEPA	STAT	e of north car OF TRAI raleigh	NSPORTA	TION
DEC	k suf	RFACE	E REP	PAIR
	S	PAN	С	
	REVIS	SIONS		SHEET NO.
NO. BY:	DATE:	NO. BY:	DATE:	S3-06
1		3		TOTAL SHEETS 274
	PROJEC ME BRIDGE SHEET 3 C DEPA DEC	PROJECT NO. MECKLEN BRIDGE NO SHEET 3 OF 3 DEPARTMENT DECK SUF S REVIS NO. BY: DATE: 1 2	PROJECT NO. <u>1-5</u> <u>MECKLENBUR(</u> BRIDGE NO. <u>59</u> SHEET 3 OF 3 STATE OF NORTH CAR DEPARTMENT OF TRAI RALEIGH DECK SURFACE SPAN REVISIONS NO. BY: DATE: NO. BY: 1 2 4 3 2 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1	PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> CC BRIDGE NO. <u>590138</u> SHEET 3 OF 3 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTA RALEIGH DECK SURFACE REP SPAN C <u>REVISIONS</u> NO. BY: DATE: NO. BY: DATE: 1 3 4



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NOTES:
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE LMC OVERLAY IS COMPLETE.
THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL.IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.
THE MANUFACTURER IS TO RECOMMEND AND PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.
FOAM JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.
THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE, WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.
THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.
THE INSTALLED FOAM JOINTS SHALL BE WATER TIGHT.
QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE ARE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.
FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, CONCRETE FOR DECK REPAIR SHALL BE PLACED IN THE EXCAVATION AREA TO THE ELEVATION AT THE BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOW.

NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE 2".

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

ELASTOMERI FOR PRESE	C CONCRETE ERVATION
END BENT 1	17.0 CU.FT.
BENT 1	18.5 CU.FT.
BENT 2	22.8 CU.FT.
END BENT 2	25.0 CU.FT.
TOTAL	83.3 CU.FT.

JOINT REPAIR QUANTITY TABLE							
	ESTIMATED	ACTUAL					
FOAM JOINTS SEALS FOR PRESERVATION	249.3 LN.FT.						

PROJECT NO.	<u>I-5746C</u>
MECKLEN	BURG COUNTY
BRIDGE NO	590138

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

JOINT DETAILS

		REVISIONS					SHEET NO.
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FINAL UNLESS ALL	1			3			TOTAL SHEETS
SIGNATURES COMPLETED	2			4			274

DocuSigned by:

WINTH CARO.

NO FESSION

SEAL 35647

AM A.

8/23/2021

BEAM REPAIR QUANTITY TABLE							
STEEL	PLATES	STIFF	ENER	STEEL DI	APHRAGM	BRIDGE	JACKING
LB	S.	LB	S.	LB	S.	E	Δ.
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
0.0		0.0		0.0		1	



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DRAWN BY :	E.BAYISSA	DATE : <u>05/2021</u>
CHECKED BY :	H.A.LOCKLEAR	DATE : <u>06/2021</u>

ANCHOR E	BOLT UNIT
E	۹.
ESTIMATE	ACTUAL
1	

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE. FOR UNDERSIDE OF DECK AND DIAPHRAGM REPAIRS, SEE ``OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET. FOR ANCHOR BOLT REPAIR, SEE SPECIAL PROVISIONS. UNDERSIDE DECK REPAIR

DIAPHRAGM REPAIR

----- ERI - EPOXY RESIN INJECTION

167'-3"(FILL FACE TO FILL FACE)

IR QL	JANTI	ΤΥ Τ	ABLE		
UNDERSIDE OF DECK REPAIRS					
ESTI	MATE	ACT	ACTUAL		
AREA SF	VOLUME CF	AREA SF	VOLUME CF		
0.0	0.0				
3.8	1.3				
0.0	0.0				
0.0	0.0				
ESTI	MATE	ACT	UAL		
6.0) LF				
· · · · · ·	RQLDECKESTIAREASF0.03.80.00.0ESTI6.0	RQUANTIDECKREPAIRESTIMATEAREAVOLUMESFCF0.00.03.81.30.00.00.00.00.00.0ESTIMATE6.0 LF	R QUANTITY TDECK REPAIRSESTIMATEACTAREA SFVOLUME CFAREA SF0.00.00.03.81.30.00.00.00.00.00.00.0ESTIMATEACT 6.0 LFACT		

VALUES REPRESENT ESTIMATED UNDERSIDE OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2"CLEAR TO SAWCUT. SEE REPAIR DETAILS.



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AS-BUILT REPAIR QUANTITY TABLE						
END BENT 1		QUANTITIES				
	ESTI	ΜΑΤΕ	ACT	UAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	3.4	1.7				
CURTAIN WALL	15.3	7.7				
WING WALL	0.0	0.0				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	0.0	0.0				
CURTAIN WALL	0.0	0.0				
WING WALL	0.0	0.0				
EPOXY COATING		SQ.FT.	S0 .	FT.		
САР		0.0				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

END BENT INFORMATION IS TAKEN FROM THE BRIDGE MAINTENANCE UNIT/DATA ON EXISTING STRUCTURE DATED 06/23/1983.

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER THE CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.



SHOTCRETE REPAIR AREA



CONCRETE REPAIR AREA

PROJECT NO.	<u>I-5746C</u>
<u>MECKLEN</u>	<u>BURG</u> COUNTY
BRIDGE NO	590138

DocuSigned by: STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WINNTH CARO. RALEIGH SEAL 35647 NGINER END BENT 1 8/23/2021 REVISIONS SHEET NO NO. BY: DATE: S3-09 DATE: BY: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED total sheets 274



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AS-BUILT REPAIR QUANTITY TABLE						
BENT 1 SPAN A FACE						
	ESII	MAIE	ACI	UAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	0.0	0.0				
COLUMN	11.8	5.9				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
CAP	30.5	15.3				
COLUMN	0.0	0.0				
EPOXY RESIN INJECTION	N	LIN.FT.	LIN	.FT.		
CAP		0.0				
COLUMN		0.0				
EPOXY COATING		SQ.FT.	SQ .	FT.		
TOP OF BENT CAP		142				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS'' SHEET.

NOTES

BENT INFORMATION IS TAKEN FROM THE ROUTINE INSPECTION REPORT DATED 05/06/2020.

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

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CONCRETE REPAIRS MAYBE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR DETAILS SHEET.

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TH CAROLINA	DEPARTMENT OF TRANSPORTATION RALEIGH BENT 1 SPAN A FACE					
SEAL P 35647						
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AS-BUILT REPAIR QUANTITY TABLE					
RENT 1 SPAN R EACE		QUANTITIES			
DENT I SFAN D FACE	ESTI	ΜΑΤΕ	ACTUAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	1.9	1.0			
COLUMN	3.4	1.7			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	0.0	0.0			
COLUMN	0.0	0.0			
EPOXY RESIN INJECTION		LIN.FT.	LIN	.FT.	
САР		8.0			
COLUMN		0.0			
EPOXY COATING		SQ.FT.	S0 .	FT.	
TOP OF BENT CAP		0.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS'' SHEET.

NOTES

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR DETAILS SHEET.

	PROJEC ME BRIDGE	CT NO. <u>CKLEN</u> E NO.	<u>- I</u> <u>NBURG</u> 590	-5746 C0 0138	C UNTY
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AS-BUILT REPAIR QUANTITY TABLE							
BENT 2 SPAN B FACE	QUANTITIES						
DENT 2 STAN D TACE	ESTI	ΜΑΤΕ	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
CAP	5.7	2.9					
COLUMN	0.0	0.0					
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
CAP COLUMN	0.0 0.0	0.0 0.0					
EPOXY RESIN INJECTIC	LIN.FT.	LIN.	.FT.				
САР		0.0					
COLUMN		0.0					
EPOXY COATING	SQ.FT.	SQ.	FT.				
TOP OF BENT CAP		182					

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR DETAILS SHEET.

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

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W ESSION

SEAL 35647

ADAM A.

8/23/2021

AREA PREVIOUSLY ACCOUNTED FOR ON ADJACENT FACE

ERI - EPOXY RESIN INJECTION

PROJECT NO.	I-5	746C
MECKLENE	BURG	COUNTY
		70

BRIDGE NO. _ 590138

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

BENT 2 SPAN B FACE

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SIGNATURES COMPLETED	2			4			274



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AS-BUILT REPAIR QUANTITY TABLE							
DENIT 2 SDAN C EACE	QUANTITIES						
DEINI Z SFAN C FACE	ESTI	ΜΑΤΕ	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
COLUMN	0.0	0.0					
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
CAP	0.0	0.0					
COLUMN	0.0	0.0					
EPOXY RESIN INJECTIC	LIN.FT.	LIN.	.FT.				
САР		0.0					
COLUMN		0.0					
EPOXY COATING		SQ.FT.	SQ.	FT.			
TOP OF BENT CAP		0.0					

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS' SHEET.

NOTES

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CONCRETE REPAIRS MAYBE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP REPAIRS, SEE TYPICAL CAP AND COLUMN REPAIR DETAILS SHEET.

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AS-BUILT REPAIR QUANTITY TABLE									
END BENT 2		QUANTITIES							
	ESTI	ΜΑΤΕ	ACT	UAL					
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.					
САР	0.0	0.0							
CURTAIN WALL	5.7	2.9							
WING WALL	0.0	0.0							
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.					
САР	0.0	0.0							
CURTAIN WALL	0.0	0.0							
WING WALL	0.0	0.0							
EPOXY COATING		SQ.FT.	SQ.	FT.					
САР		0.0							

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

END BENT INFORMATION IS TAKEN FROM THE BRIDGE MAINTENANCE UNIT/DATA ON EXISTING STRUCTURE DATED 06/23/1983.

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SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.



SHOTCRETE REPAIR AREA



DocuSigned by:

WRTH CARO.

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SEAL 35647

MGINEE

8/23/2021

CONCRETE REPAIR AREA

PROJECT NO	I-5	746C
MECKLENE	BURG	_ COUNTY
BRIDGE NO	5901	38

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

END BENT 2

		REVISIONS					SHEET NO.
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FINAL UNLESS ALL	1			3			TOTAL SHEETS
SIGNATURES COMPLETED	2			4			274



- REPAIR AREAS.

F.A PROJECT NO.: NHPLM - 0277 (19)

NOTES:

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 07/14/2020. BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

SCOPE OF WORK

- REMOVE ASPHALT WEARING SURFACE AND PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.

- OVERLAY PREPARED BRIDGE DECK WITH POLYMER CONCRETE (PC).

- GROOVE POLYMER CONCRETE (PC) BRIDGE DECK.

- CLEAN AND PAINT BEARINGS WITH HRCSA.

- CLEAN, REPAIR, AND PAINT STEEL I-BEAMS.

- INSTALL FOAM JOINT SEALS.

- REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE SHOTCRETE AND CONCRETE

- PERFORM SHOTCRETE AND CONCRETE REPAIRS IN PREPARED AREAS.

- EPOXY INJECTION OF CONCRETE CRACKS.

- REMOVE DEBRIS FROM TOP OF BENT AND END BENT CAPS AND APPLY EPOXY COATING.

DATE

I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.

RESIDENT ENGINEER

	PROJEC ME BRIDGE	CT NO. CKLEN E NO	<u>IBI</u>	<u>I-</u> JRC 590	<u>5746</u> <u></u> co 0320	C UNTY
DocuSigned by:	SHEET 1 (DF 2				
02EE938FAB674C5	DEPA	STAT RTMENT	e of NO OF RAI	DRTH CARC TRAN LEIGH	NSPORTA	TION
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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES. ROADWAYS. UTILITIES. THE SURROUNDING AREA. AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

> THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

WORK ON THE BRIDGES SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE. THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

CONTRACTOR SHALL DETERMINE EXTENT OF WORKING AREA, STAGING PROCESS, AND INSTALL COVER ₱ ASSEMBLY AS NECESSARY TO MEET THE REQUIREMENTS OF TRAFFIC MANAGEMENT PLANS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.

DRAWN BY : _	R.L.PUTEK/E.BAYISSA	DATE :	05/2021
CHECKED BY :	H.A. LOCKLEAR	DATE :	07/2021

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THE EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CON THE PLANS AND NO DIFFER.

IT IS THE CONTRAC SAFETY REQUIREMEN

THE CONTRACTOR SH OF THE DECK.

FOR SCARIFYING B PREPARATION, SEE SPECIAL PROVISION

EXISTING JOINTS OF BRIDGE DECKS.

THE EXISTING BRID AS DETERMINED BY SURFACE PREPARAT APPROVED. SUCH LOC

FOR CONCRETE DECK FINISHING PC OVER SPECIAL PROVISION

FOR CONTROL OF TR SEE TRANSPORTATIO

LONGITUDINAL CONS CENTERLINE OR EDO

FOR PAINTING CON BRIDGE, SEE CLEAN]

FOR FOAM JOINT SE

FOR SUBMITTAL OF

FOR FALSEWORK AND FOR GROUT FOR STI

FOR CRANE SAFETY,

FOR PAINTING CON EXISTING BEARING BEARINGS WITH HRO

FOR BEAM REPAIR, FOR BRIDGE JACKIN

FOR EPOXY RESIN

FOR SHOTCRETE REF

FOR CONCRETE REPA

FOR EPOXY COATIN

BRIDGE COORDINATES

LATITUDE: 35°-13'-49.42" LONGITUDE: 80°-49'-54.33"

NOTES

AT THE TIME OF PREPARATION OF THESE PLANS, IT WAS NOT ANTICIPATED THA SHOWN BELOW WOULD BE REQUIRED. HOWEVER, IT MAY BE DETERMINED IN THE F THESE ITEMS, OR OTHER WORK WILL BE NECESSARY TO PROPERLY COMPLETE THE BRIDGE PRESERVATION/REHABILITATION WORK. THE CONTRACTOR SHALL BE PREP SUCH WORK IN A TIMELY MANNER, AS DETERMINED IN THE FIELD. SUCH WORK SH CONSIDERED EXTRA WORK AND SHALL BE ADDRESSED AS PER ARTICLE 104-7 OF SPECIFICATIONS. PROJECT SPECIAL PROVISIONS THAT OUTLINE REQUIREMENTS ADDITIONAL WORK ITEMS HAVE BEEN PROVIDED IN PROJECT DOCUMENTS, BUT NO BEEN LISTED. ACTUAL PAY ITEMS, QUANTITIES, AND COSTS WILL BE ESTABLISHE IF EXTRA WORK IS ENCOUNTERED. UNANTICIPATED ITEMS:

DESCRIPTION ITEM NO. CLASS III SURFACE PREPARATION

UNIT LIN.FT.

NOTES

NTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON TIFY THE ENGINEER IF ACTUAL DIMENSIONS OR CONDITIONS
CTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL NTS.
HALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH
RIDGE DECK, SHOTBLASTING BRIDGE DECK, AND CLASS II SURFACE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE N.
AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR
DGE DECK SHALL BE REPAIRED AS SHOWN ON THE PLANS OR THE ENGINEER AFTER SCARIFICATION AND PRIOR TO THE ION AND APPLICATION OF THE PC OVERLAY.UNLESS OTHERWISE CATIONS SHALL BE REPAIRED WITH PC.
K REPAIR FOR PC OVERLAY,PC MATERIALS,AND PLACING & RLAY,SEE POLYMER CONCRETE BRIDGE DECK OVERLAY N.
RAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, ON MANAGEMENT PLANS.
STRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE GE OF TRAVEL LANES.
TAINMENT, POLLUTION CONTROL, AND CLEANING & PAINTING EXISTING ING & PAINTING OF EXISTING STRUCTURE SPECIAL PROVISION.
EALS FOR PRESERVATION, SEE SPECIAL PROVISONS.
WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
D FORMWORK, SEE SPECIAL PROVISIONS.
RUCTURES, SEE SPECIAL PROVISIONS.
SEE SPECIAL PROVISIONS.
TAINMENT,POLLUTION CONTROL,AND CLEANING & PAINTING S WITH HRCSA,SEE CLEANING & PAINTING EXISTING CSA SPECIAL PROVISION.
SEE SPECIAL PROVISIONS.
NG, SEE SPECIAL PROVISIONS.
INJECTION, SEE SPECIAL PROVISIONS.
PAIRS, SEE SPECIAL PROVISIONS.
AIRS, SEE SPECIAL PROVISIONS.
G AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

T ITEMS IELD THAT INTENDED PARED TO PERFORM IALL BE THE STANDARD FOR THESE POTENTIAL QUANTITIES HAVE ID, AS REQUIRED,	PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>590320</u> Sheet 2 of 2
OZEE938FAB674C5 OZEE938FAB674C5 TH CAROLINA OF ESSION SEAL 35647 MCINEER 400 100 100 100 100 100 100 100	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH GENERAL DRAWING FOR BRIDGE ON I-277
8/23/2021	OVER N. BREVARD STREET REVISIONS SHEET NO. NO. BY: DATE: NO.
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AS-BUILT REPAIR QL	JANTITY	T
TOP OF DECK R	EPAIRS	
	ESTIMATE	
SCARIFYING BRIDGE DECK	514 SQ.YDS.	
CLASS II SURFACE PREPARATION	6.2 SQ. YDS.	
CONCRETE DECK REPAIR FOR PC OVERLAY	6.2 SQ. YDS.	
SHOTBLASTING BRIDGE DECK	514 SQ.YDS.	
PC MATERIALS	25.0 CU. YDS.	
PLACING AND FINISHING PC OVERLAY	514 SQ.YDS.	
GROOVING BRIDGE FLOORS	4342 SQ.FT.	

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY AFTER REMOVAL OF UNSOUND CONCRETE.(MIN.2"CLEAR TO SAWCUT).SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.

DRAWN BY :	R.L.PUTEK/E. BAYISSA	DATE : <u>07/2021</u>
CHECKED BY :	H.A. LOCKLEAR	DATE : 07/2021

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NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER,THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SECTION B-B, SEE "JOINT DETAILS" SHEET.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, SEE SPECIAL PROVISION. FOR PC MATERIALS, SEE SPECIAL PROVISION.

APPROX.CLASS II SURFACE PREPARATION

EPOXY RESIN INJECTION (ERI)



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	AS-BUILT REPAIR QU	IANTITY	TABLE
	TOP OF DECK R	EPAIRS	
		ESTIMATE	ACTUAL
	SCARIFYING BRIDGE DECK	728 SQ.YDS.	
	CLASS II SURFACE PREPARATION	2.3 SQ. YDS.	
	CONCRETE DECK REPAIR FOR PC OVERLAY	2.3 SQ. YDS.	
	SHOTBLASTING BRIDGE DECK	728 SQ.YDS.	
	PC MATERIALS	35.4 CU.YDS.	
	PLACING AND FINISHING PC OVERLAY	728 SQ.YDS.	
	GROOVING BRIDGE FLOORS	6181 SQ.FT.	
	TOP OF DECK REPAIR QUANTITIES REPRESEN II SURFACE PREPARATION AND CONCRETE DEC AFTER REMOVAL OF UNSOUND CONCRETE.(MIN. OVERLAY SURFACE PREPARATION FOR POLYME	F ESTIMATED VAL CK REPAIR FOR F 2″CLEAR TO SAW R CONCRETE SPEC	UES OF CLASS C OVERLAY CUT).SEE IAL PROVISION.
DRAWN BY :R.L.PUTEK/E CHECKED BY :H.A.LOCK	BAYISSA DATE : <u>07/2021</u> CLEAR DATE : <u>07/2021</u>		

€ JOINT ----@ BENT 2 © JOINT ---⁄ @ BENT 1



NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER,THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SECTION B-B, SEE "JOINT DETAILS" SHEET.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, SEE SPECIAL PROVISION.

FOR PC MATERIALS, SEE SPECIAL PROVISION.



APPROX.CLASS II SURFACE PREPARATION

----- EPOXY RESIN INJECTION (ERI)

	<u> </u>
2.0 SY CLASS II RFACE PREP.	
0.3 SY CLASS II SURFACE PREP.	
	PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>590320</u> SHEET 2 OF 3
DZEE938FAB674C5	DEPARTMENT OF TRANSPORTATION RALEIGH DECK SURFACE REPAIR SPAN B
8/23/2021 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS SHEET NO. NO. BY: DATE: NO. BY: DATE: S4-5 1 3 5 1 5 1 5 2 4 2 274 274



TOP OF DECK REPAIRS				
	ESTIMATE	ACT		
SCARIFYING BRIDGE DECK	340 SQ.YDS.			
CLASS II SURFACE PREPARATION	0.0 SQ. YDS.			
CONCRETE DECK REPAIR FOR PC OVERLAY	0.0 SQ. YDS.			
SHOTBLASTING BRIDGE DECK	340 SQ.YDS.			
PC MATERIALS	16.5 CU YDS.			
PLACING AND FINISHING PC OVERLAY	340 SQ.YDS.			
GROOVING BRIDGE FLOORS	2868 SQ.FT.			

DRAWN BY :	R.L.PUTEK/E. BAYISSA	
CHECKED BY :	H.A. LOCKLEAR	





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PROPOSED FOAM JOINT SEAL

NOTES:

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE PC OVERLAY IS COMPLETE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN $\frac{1}{4}$, NOTIFY THE ENGINEER.

THE MANUFACTURER IS TO RECOMMEND AND PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

FOAM JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE, WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

THE INSTALLED FOAM JOINTS SHALL BE WATER TIGHT.

NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE 2".

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

JOINT REPAIR QUANTITY TABLE

TH CAR SEESSION

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AM A.

8/23/2021

	ESTIMATE	ACTUAL
FOAM JOINT SEALS FOR PRESERVATION		
BENT 1	114.7 LF.	
BENT 2	126.1 LF.	
TOTAL	240.8 LF.	

PROJECT NO.	<u>I-5746C</u>
MECKLENB	URG COUNTY
BRIDGE NO	590320

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

FOAM JOINT DETAILS

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DRAWN BY : _	R.L.PUTEK/E. BAYISSA	DATE :	07/2021
CHECKED BY :	H.A. LOCKLEAR	DATE :	07/2021

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	BE	AM REF	PAIR (QUANTI	ΤΥ ΤΑ	BLE	
BEAM END REPAIR PLATING REPAIR STIFFENER REPAIR DIAPHRAGM REPAIR							
LBS. LBS. LBS. LBS.					BS.		
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
58.0		0		0		0	

		ANTICIPA	TED BEAM	REPAIR L	OCATIONS	
SPAN	BEAM	LOCATION	DIM ``A''	DIM ``B''	DIM ``C''	DIM ``D''
А	1	END BENT 1	8″	16″	-	-
А	9	BENT 1	8″	6″	3″	6″
A	14	BENT 1	12″	9″	1"	6"



DocuSigned by: J2EE938FAB674C5 J2EE938FAB674C5 J2EE938FAB674C5 JCARONING SEAL J JOINTON SEAL J JOINTON JOINTON JOINTA JO	PROJEC <u>ME</u> BRIDGE SHEET 1 OF DEPA	CKLEN CKLEN NO NO STATI	I - NBUR(59(59(E OF NORTH CAR OF TRA RALEIGH E DE(PAN	- <u>5746</u> <u>-5746</u> <u>0</u> 0 0 0 0 0 0 0 0 0 0 0 0 0	C UNTY TION PAIR
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		BE	AM REF	PAIR (JUANTI	TY TA	BLE	
	BEAM END REPAIR		PLATING REPAIR		STIFFENER REPAIR		DIAPHRAGM REPAIR	
	LBS.		LBS.		LBS.		LBS.	
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
	0		0		0		0	
DRAWN CHECKE	BY:F ED BY:	R.L.PUTEK/E. BAY H.A. LOCKLE	(<u>ISSA </u>	DATE : <u>07/2021</u> DATE : <u>07/2021</u>	-			

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AS-BUILT REPAI	R QU	ANTI	ΤΥ Τ,	ABL
UNDERSIDE OF	DECK	REPAIR	S	
SHOTCRETE REPAIRS	ESTI AREA SQ.FT.	MATE VOLUME CU.FT.	ACT AREA SQ.FT.	UAL VOLU CU.
JNDERSIDE OF DECK	3.8	1.3		
JNDERSIDE OF OVERHANG	50.5	17.0		
INTERIOR DIAPHRAGMS	0.0	0.0		
	ESTI	MATE	ACT	UAL
JNDERSIDE EPOXY RESIN INJECTION	0.0 L	IN.FT.		
JNDERSIDE EPOXY COATING	75 S	Q.FT.		

SIGNATURES COMPLETED

274

		ANTICIPA	TED BEAM	REPAIR L	OCATIONS	
SPAN	BEAM	LOCATION	DIM ``A''	DIM ``B''	DIM ``C''	DIM ``D''
-	-	_	-	-	-	-



AS-BUILT REPAIR	QUA	NTIT	Υ ΤΑ	BLE
UNDERSIDE OF	DECK I	REPAIR	S	
	ESTI	ΜΑΤΕ	ACT	UAL
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
UNDERSIDE OF DECK	143.2	47.7		
UNDERSIDE OF OVERHANG	18.5	6.2		
INTERIOR DIAPHRAGMS	39.2	13.1		
	ESTI	ΜΑΤΕ	ACT	UAL
UNDERSIDE EPOXY RESIN INJECTION	0.0 L]	[N.FT.		
UNDERSIDE EPOXY COATING	44 S	Q.FT.		

VALUES REPRESENT ESTIMATED UNDERSIDE OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2"CLEAR TO SAWCUT.SEE REPAIR DETAILS.

	BE	AM REF	PAIR	QUANT]	TY TA	BLE	
BEAM EN	BEAM END REPAIR PLATING REPAIR		REPAIR	STIFFENER REPAIR		DIAPHRAGM REPAIR	
LBS.		LE	S.	LE	BS.	L	BS.
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
210		75		0		166	

DRAWN BY :	R.L.PUTEK/E. BAYISSA	DATE :	07/2021
CHECKED BY :	H.A. LOCKLEAR	DATE :	07/2021

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PLAN

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR UNDERSIDE OF DECK AND DIAPHRAGM REPAIRS, SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

FOR BEAM REPAIR DETAILS, SEE "BEAM SECTION REPAIR DETAILS" SHEET.

FOR BEAM PLATING DETAILS, SEE "BEAM PLATING REPAIR DETAILS" SHEET.

FOR BRIDGE JACKING DETAILS, SEE "JACKING DETAILS" SHEET.

THE LOCATIONS AND DIMENSIONS OF THE AREAS FOR REPAIR ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER, SHALL VERIFY THE LOCATION AND EXTENT OF REPAIR AREAS PRIOR TO STEEL FABRICATION.

UNDERSIDE EPOXY COATING UNDERSIDE REPAIR DIAPHRAGM REPAIR (1) BEAM NUMBER

B BEAM END REPAIR

(P) PLATING REPAIR

- S STIFFENER REPAIR
- (D) STEEL DIAPHRAGM REPAIR

		ANTICIPA	TED BEAM	REPAIR	LOCATIONS	
SPAN	BEAM	LOCATION	DIM ``A''	DIM ``B''	DIM ``C''	DIM ``
С	4	BENT 2	2'-3"	9″	9″	3'-0"
С	3	BENT 2	1'-0"	2'-0"	-	_







SOUTHBOUND

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING TO THE TOP SURFACES OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

RAWN BY : _	:R.L.PUTEK	DATE : <u>05/2021</u>
HECKED BY :	Y :H.A.LOCKLEAR	DATE : <u>07/2021</u>
		DATE :

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ELEVATION

AS-BUILT REPAIR	QUAN	1 T I T V	Y TA	BLE
END BENT 1		QUANT	ITIES	
	ESTI	ΜΑΤΕ	ACT	UAL
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	0.0	0.0		
CURTAIN WALL	51.2	25.6		
WING WALL	3.0	1.5		
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	2.8	1.4		
EPOXY RESIN INJECTIC	N	LIN.FT.	LIN.FT.	
САР		9.0		
CURTAIN WALL		3.0		
EPOXY COATING		SQ.FT.	SQ.FT.	
TOP OF END BENT CAP		184		

SHOTCRETE REPAIR AREA CONCRETE REPAIR AREA

← EPOXY RESIN INJECTION (ERI)

DocuSigned by:

× SEAL 35647

CINE

8/23/2021

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

PROJECT NO. 1-5746C MECKLENBURG COUNTY BRIDGE NO. 590320

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

END BENT 1

		REVISIONS				SHEET NO.	
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AS-BUILT REPAIR QUANTITY TABLE					
		QUANT	ITIES		
BENT 1 (NORTHBOUND)	ESTI	ΜΑΤΕ	ACT	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	39.2	19.6			
COLUMNS	3.5	1.8			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	8.7	4.4			
EPOXY RESIN INJECT	ION	LIN.FT.		LIN.FT.	
САР		6.4			
COLUMNS		0.0			
EPOXY COATING		SQ.FT.		SQ.FT.	
TOP OF BENT CAP		149			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.



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8/23/2021

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

← EPOXY RESIN INJECTION (ERI)

PROJECT NO.	<u> </u>	46C
MECKLEN	BURG	_ COUNTY
BRIDGE NO	5903	20

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

BENT 1 (NORTHBOUND)

	REVISIONS				SHEET NO.		
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AS-BUILT REPAIR QUANTITY TABLE					
		QUANT	ITIES		
BENT 1 (SOUTHBOUND)	ESTI	ΜΑΤΕ	ACT	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	59.7	29.9			
COLUMNS	3.6	1.8			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	12.5	6.3			
EPOXY RESIN INJECT	ION	LIN.FT.		LIN.FT.	
CAP		6.0			
COLUMNS		0.0			
EPOXY COATING		SQ.FT.		SQ.FT.	
TOP OF BENT CAP		164			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.



SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

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8/23/2021

EPOXY RESIN INJECTION (ERI)

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

MECKLENBURG COUNTY

PROJECT NO. 1-5746C

BRIDGE NO. <u>590320</u>

BENT 1 (SOUTHBOUND)

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AS-BUILT REPA	IR QL	JANTI	ΓΥ ΤΑ	BLE
		QUANT	ITIES	
BENT 2 (NORTHBOUND)	ESTI	ΜΑΤΕ	ACT	UAL
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	89.0	44.5		
COLUMNS	12.6	6.3		
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	49.2	32.8		
EPOXY RESIN INJECT	ION	LIN.FT.		LIN.FT.
САР		3.5		
COLUMNS		0.0		
EPOXY COATING		SQ.FT.		SQ.FT.
TOP OF BENT CAP		173		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR PEDESTAL WALL REPAIR, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIR AREA



CONCRETE REPAIR AREA

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8/23/2021

EPOXY RESIN INJECTION (ERI)

MECKLENBURG COUNTY BRIDGE NO. 590320

PROJECT NO. 1-5746C

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

BENT 2 (NORTHBOUND)

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AS-BUILT REPAIR QUANTITY TABLE						
		QUANT	ITIES			
	ESTI	ΜΑΤΕ	ACT	UAL		
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
CAP	89.1	44.6				
COLUMNS	1.7	0.9				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
CAP	46.0	30.7				
EPOXY RESIN INJECT	ION	LIN.FT.		LIN.FT.		
CAP		4.5				
COLUMNS		0.0				
EPOXY COATING		SQ.FT.		SQ.FT.		
TOP OF BENT CAP		128				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR PEDESTAL WALL REPAIR, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIR AREA

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8/23/2021

CONCRETE REPAIR AREA

----- EPOXY RESIN INJECTION (ERI)

PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>590320</u>

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

BENT 2 (SOUTHBOUND)

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AS-BUILT REPAIR	QUAN	1 T I T V	Y TA	BLE
END BENT 2		QUANT	ITIES	
	ESTI	MATE	ACT	UAL
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	28.5	14.3		
CURTAIN WALL	1.8	0.9		
WING WALL	0.0	0.0		
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	13.0	6.5		
EPOXY RESIN INJECTIO	N	LIN.FT.	LIN.FT.	
CAP		21.5		
CURTAIN WALL		10.5		
EPOXY COATING		SQ.FT.	SQ.FT.	
TOP OF END BENT CAP		217		



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F.A. PROJECT NO.: NHPLAM - 0277 (19)

NOTES

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 10/24/2020.

BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

SCOPE OF WORK

REMOVE ASPHALT WEARING SURFACE AND PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
OVERLAY PREPARED BRIDGE DECK WITH POLYMER CONCRETE (PC).
GROOVE POLYMER CONCRETE (PC) BRIDGE DECK.
INSTALL FOAM JOINT SEALS.
CLEAN AND PAINT BEARINGS WITH HRCSA.
CLEAN GIRDER ENDS AND APPLY EPOXY COATINGS.
PERATE DAMAGED MURAL RAINT WITH PRIMER AND TOPCOAT. - REPAIR DAMAGED MURAL PAINT WITH PRIMER AND TOPCOAT. - REMOVE UNSOUNDED CONCRETE AND PROPERLY PREPARE SHOTCRETE AND CONCRETE REPAIR AREAS. - REMOVE DEBRIS FROM TOP OF END BENT AND BENT CAPS AND APPLY EPOXY COATING.

CATS MILEPOST BLN 0.61-1 12TH STREET CROSSING.

I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.

RESIDENT ENGINEER

DATE

	PROJ. N	NO Cklei	I-5 VBURC	<u>746C</u> 5 co	UNTY
	BRIDG	E NO	590	0322	
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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION, ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

	BRIDGE COORDINATES	BF
N0	LATITUDE: 35°-13′-52.79″ LONGITUDE: 80°-49′-58.2″	L
THE CONTRACTOR SHALL PROVIDE INDEPENDENT AS REINFORCING STEEL AS FOLLOWS: FOR PROJECTS F 400 TONS OF REINFORCING STEEL, ONE 30 INCH S BAR USED, AND FOR PROJECTS REQUIRING OVER 40 STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR WHICH THE SAMPLES ARE TAKEN MUST THEN BE SP BARS OF THE SIZE AND LENGTH OF THE SAMPLE, P OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SA SHALL BE CONSIDERED INCIDENTAL TO VARIOUS P		
WORK ON THE BRIDGES SHALL BE PERFORMED SO A FALL BELOW. THE CONTRACTOR SHALL SUBMIT PLA ACCORDANCE WITH ARTICLE 402-2 OF THE STANDA PROJECT SPECIAL PROVISIONS.		
THE CONTRACTOR SHALL PERFORM ALL WORK WITH STRUCTURE WHICH IS TO REMAIN IN PLACE WILL CONTRACTOR DAMAGES ANY PART OF THE EXISTING IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED SATISFACTORY TO THE ENGINEER AT NO ADDITION		
CONTRACTOR SHALL DETERMINE EXTENT OF WORKIN INSTALL COVER & ASSEMBLY AS NECESSARY TO ME MANAGEMENT PLANS.		
PRIOR TO BEGINNING WORK, THE CONTRACTOR SHAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERA AND/OR TRAFFIC.	EZA KOUCHEKI DATE : 07/2021 BY : H.A. LOCKLEAR DATE : 07/2021	RAWN BY : HECKED BY :

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THE EXISTING DIMENS AVAILABLE. THE CONTR THE PLANS AND NOTIF DIFFER.

IT IS THE CONTRACTO SAFETY REQUIREMENTS.

THE CONTRACTOR SHALL OF THE DECK.

FOR SCARIFYING BRID PREPARATION, SEE OVER SPECIAL PROVISION.

EXISTING JOINTS AND OF BRIDGE DECKS.

THE EXISTING BRIDGE OR AS DETERMINED BY PREPARATION AND APP SUCH LOCATIONS SHAL

FOR CONCRETE DECK RE FINISHING PC OVERLA SPECIAL PROVISION.

FOR CONTROL OF TRAFI SEE TRANSPORTATION

LONGITUDINAL CONSTR CENTERLINE OR EDGE

FOR FOAM JOINT SEAL

FOR FALSEWORK AND FO

FOR GROUT FOR STRUC FOR CRANE SAFETY, SEE

FOR SUBMITTAL OF WO

FOR POLLUTION CONTRO SEE SPOT PAINTING OF

FOR PAINTING CONTAI

EXISTING BEARINGS WI BEARINGS WITH HRCSA

FOR BEAM REPAIR, SEE

FOR EPOXY RESIN INJE

FOR SHOTCRETE REPAIR

FOR CONCRETE REPAIRS FOR EPOXY COATING A

FOR BRIDGE JACKING,

SHOTCRETE REPAIRS MA OF THE ENGINEER.

FOR CONTAMINANT. PRO OR ADJACENT TO THE RAILROAD GENERAL SPE FOR MURAL PAINT REP FOR MANAGMENT AND P PLANS AND RAILROAD

)TES

SSURANCE SAMPLES OF REQUIRING UP TO SAMPLE OF EACH SIZE OO TONS OF REINFORCING USED. THE BARS FROM PLICED WITH REPLACEMENT LUS A MINIMUM LAP SPLICE AMPLES OF REINFORCING STEEL PAY ITEMS.

AS NOT TO ALLOW DEBRIS TO NS FOR CONSTRUCTION IN RD SPECIFICATIONS AND THE

CARE SO THAT THE EXISTING NOT BE DAMAGED. IF THE NG STRUCTURE WHICH IS TO REMAIN OR REPLACED IN A MANNER NAL COST TO THE DEPARTMENT.

NG AREA, STAGING PROCESS, AND EET THE REQUIREMENTS OF TRAFFIC

LL SUBMIT FOR REVIEW AND APPROVAL TION AFFECTING THE BRIDGE SURFACE

AT THE TIME OF PREPARATION OF THESE PLANS, IT WAS NOT ANTICIPATED THAT SHOWN BELOW WOULD BE REQUIRED. HOWEVER. IT MAY BE DETERMINED IN THE FIEL THESE ITEMS, OR OTHER WORK WILL BE NECESSARY TO PROPERLY COMPLETE THE IN BRIDGE PRESERVATION/REHABILITATION WORK. THE CONTRACTOR SHALL BE PREPARE SUCH WORK IN A TIMELY MANNER, AS DETERMINED IN THE FIELD. SUCH WORK SHAL CONSIDERED EXTRA WORK AND SHALL BE ADDRESSED AS PER ARTICLE 104-7 OF THE SPECIFICATIONS. PROJECT SPECIAL PROVISIONS THAT OUTLINE REQUIREMENTS FO ADDITIONAL WORK ITEMS HAVE BEEN PROVIDED IN PROJECT DOCUMENTS, BUT NO QU BEEN LISTED. ACTUAL PAY ITEMS, QUANTITIES, AND COSTS WILL BE ESTABLISHED, IF EXTRA WORK IS ENCOUNTERED. UNANTICIPATED ITEMS:

ITEM NO. DESCRIPTION CLASS III SURFACE PREPARATION

UNIT LIN.FT.

NOTES	
SIONS AND BRIDGE CONDITION ARE ACTOR SHALL FIELD VERIFY THE IN Y THE ENGINEER IF ACTUAL DIMEN	FROM THE BEST INFORMATION NFORMATION SHOWN ON SIONS OR CONDITIONS
PR'S RESPONSIBILITY TO FOLLOW A	LL STATE AND FEDERAL
'. L PROVIDE A METHOD OF HANDLING	UNEXPECTED BLOW THROUGH
GE DECK, SHOTBLASTING BRIDGE DE RLAY SURFACE PREPARATION FOR P	CK, AND CLASS II SURFACE OLYMER CONCRETE
DECK DRAINS SHALL BE SEALED PR	RIOR TO BEGINNING REPAIR
DECK SHALL BE REPAIRED AT LOCA THE ENGINEER AFTER SCARIFICAT LICATION OF THE PC OVERLAY. UN L BE REPAIRED WITH PC.	ATIONS SHOWN ON THE PLANS ION AND PRIOR TO THE SURFACE LESS OTHERWISE APPROVED,
EPAIR FOR PC OVERLAY, PC MATERI Y, SEE POLYMER CONCRETE BRIDGE	ALS AND PLACING & DECK OVERLAY
FIC AND LIMITS ON PHASING OF C MANAGEMENT PLANS.	ONSTRUCTION,
UCTION JOINTS OF OVERLAYS SHAL OF TRAVEL LANES.	L BE LOCATED ALONG THE
S FOR PRESERVATION, SEE SPECIAL	PROVISONS.
ORMWORK, SEE SPECIAL PROVISIONS	•
TURES, SEE SPECIAL PROVISIONS.	
E SPECIAL PROVISIONS.	
RKING DRAWINGS, SEE SPECIAL PRO	VISIONS.
OL AND SPOT PAINTING OF STEEL F STEEL STRUCTURE REPAIR AREAS	STRUCTURE REPAIR AREAS, SPECIAL PROVISION.
NMENT, POLLUTION CONTROL, AND CL ITH HRCSA, SEE CLEANING & PAINI SPECIAL PROVISION.	_EANING & PAINTING ING EXISTING
SPECIAL PROVISIONS.	
ECTION, SEE SPECIAL PROVISIONS.	
RS, SEE SPECIAL PROVISIONS.	
S, SEE SPECIAL PROVISIONS.	
ND DEBRIS REMOVAL, SEE SPECIAL	PROVISIONS.
SEE SPECIAL PROVISIONS.	
AY BE REPLACE WITH CONCRETE RE	PAIRS WITH THE APPROVAL
DTECTION AND OTHER REQUIREMENTS CHARLOTTE AREA TRANSIT SYSTEM ECIAL PROVISIONS.	S FOR WORKING ON,OVER, RIGHT OF WAY,SEE
AIR, SEE SPECIAL PROVISIONS.	
PROTECTION OF PEDESTRIAN TRAFF GENERAL SPECIAL PROVISIONS.	IC, SEE TRAFFIC CONTROL
ITEMS	PPOLNO T-FTAC
ITENDED	
ED IU PERFURM L BE E STANDARD	MECKLENBURG COUNTY
R THESE POTENTIAL	BRIDGE NO. 590322
AS REQUIRED,	SHEET 2 OF 2
02EE938FAB674C5	STATE OF NORTH CAROLINA
THURTH CARO	DEPARTMENT OF TRANSPORTATION RALEIGH
SESSION AT	
	FOR BRIDGE
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AS-BUILT REPAIR QUANTITY TABLE				
TOP OF DECK R	EPAIRS			
	ESTIMATE	ACTUAL		
SCARIFYING BRIDGE DECK	848 SQ.YDS.			
CLASS II SURFACE PREPARATION	15.1 SQ. YDS.			
CONCRETE DECK REPAIR FOR PC OVERLAY	15.1 SQ. YDS.			
SHOTBLASTING BRIDGE DECK	848 SQ.YDS.			
PC MATERIALS	41.2 CU. YDS.			
PLACING AND FINISHING PC OVERLAY	848 SQ.YDS.			
GROOVING BRIDGE FLOORS	7160 SQ.FT.			

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY AFTER REMOVAL OF UNSOUND CONCRETE.(MIN. 2"CLEAR TO SAWCUT).SEE OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE SPECIAL PROVISION.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SECTION B-B, SEE "JOINT DETAILS" SHEET.

APPROX.CLASS II SURFACE PREPARATION

	PROJ.NO	<u>I-57460</u>	×		
	MECKLEN	<u>IBURG</u> co	DUNTY		
	BRIDGE NO	RIDGE NO. 590322			
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SEAL 35647	B/23/2021 DECK SURFACE REPAIR SFAN A SPAN A				
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SIGNATURES COMPLETED	2	4	274		



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AS-BUILT REPAIR QU	ANTITY	TABLE
TOP OF DECK RE	PAIRS	
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	789 SQ.YDS.	
CLASS II SURFACE PREPARATION	5.9 SQ.YDS.	
CONCRETE DECK REPAIR FOR PC OVERLAY	5.9 SQ.YDS.	
SHOTBLASTING BRIDGE DECK	789 SQ.YDS.	
PC MATERIALS	38.4 CU.YDS.	
PLACING AND FINISHING PC OVERLAY	789 SQ.YDS.	
GROOVING BRIDGE FLOORS	6654 SQ.FT.	

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY AFTER REMOVAL OF UNSOUND CONCRETE.(MIN.2″CLEAR TO SAWCUT).SEE OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE SPECIAL PROVISION.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SECTION B-B, SEE "JOINT DETAILS" SHEET.

APPROX.CLASS II SURFACE PREPARATION

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AS-BUILT REPAIR QU	JANTITY	TABLE
TOP OF DECK RI	EPAIRS	
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	754 SQ.YDS.	
CLASS II SURFACE PREPARATION	2.0 SQ. YDS.	
CONCRETE DECK REPAIR FOR PC OVERLAY	2.0 SQ. YDS.	
SHOTBLASTING BRIDGE DECK	754 SQ.YDS.	
PC MATERIALS	36.7 CU.YDS.	
PLACING AND FINISHING PC OVERLAY	754 SQ.YDS.	
GROOVING BRIDGE FLOORS	6360 SQ.FT.	

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY AFTER REMOVAL OF UNSOUND CONCRETE.(MIN.2″CLEAR TO SAWCUT).SEE OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE SPECIAL PROVISION.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE. FOR SECTION B-B, SEE "JOINT DETAILS" SHEET.

APPROX.CLASS II SURFACE PREPARATION

Г@ 2	PROJ.NO. <u>I-5746C</u> <u>MECKLENBURG</u> county BRIDGE NO. <u>590322</u>
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OZEE938FAB674C5 DZEE938FAB674C5 TH CAROL NUMBER SEAL 35647 MCINEER HIMANAA	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH DECK SURFACE REPAIR SPAN C
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	NOTES:
	FINAL JOINT SEALS NOT BE INSTALLED UNTIL THE PC OVERLAY IS COMPLETE.
	THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL.IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.
BENT 2	THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.
	FOAM JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.
MIN.PC OVERLAY	THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE, WITHOUT PROTECTIVE DEVICES RELOW TO CATCH THE MATERIAL ANY MATERIAL THAT
TOP OF BEAM (TYP.)	FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.
	THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.
(114.)	THE INSTALLED FOAM JOINTS SHALL BE WATERTIGHT.
	FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.
<u>L</u>	NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE 2".
	FOR CONCRETE FOR DECK REPAIR SEE SPECIAL PROVISIONS.

JOINT REPAIR QUAN	NTITY TA	BLE
	ESTIMATE	ACTUAL
FOAM JOINT SEALS FOR PRESERVATION		
BENT 1	106.0 LF.	
BENT 2	106.0 LF.	
TOTAL	212.0 LF.	

PROJECT NO. 1-5746C MECKLENBURG COUNTY BRIDGE NO. 590322

DocuSigned by: STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WITH CARO, RALEIGH * * GEESSION SEAL 35647 DAM A. COL FOAM JOINT DETAILS 8/23/2021 SHEET NO REVISIONS NO. BY: DATE: S5-07 DATE: BY: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED total sheets 274



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AS-BUILT REPAIR QUANTITY TABLE					
		QUANT	ITIES		
	ESTI	ΜΑΤΕ	ACT	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	16.0	8.0			
CURTAIN WALL	0.0	0.0			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
САР	3.4	1.7			
EPOXY RESIN INJECTION		LIN.FT.		LIN.FT.	
CURTAIN WALL		0.0			
EPOXY COATING		SQ.FT.		SQ.FT.	
TOP OF BENT CAP		86			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISION.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISION.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISTACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS AS APPROPRIATE.



SHOTCRETE REPAIR AREA

----- EPOXY RESIN INJECTION (ERI)

	PROJ. NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>590322</u>			
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SEAL 35647	END BENT 1 SOUTHBOUND			
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AS-BUILT REPA	IR Q	JANT]	[ΤΥ Τ	ABLE
		QUANT	ITIES	
END DENT I	ESTI	ΜΑΤΕ	ACT	UAL
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	5.9	3.0		
CURTAIN WALL	19.3	9.7		
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	1.0	0.5		
EPOXY RESIN INJE	CTION	LIN.FT.		LIN.FT.
CURTAIN WALL		5.0		
EPOXY COATING		SQ.FT.		SQ.FT.
TOP OF BENT CAP		88		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISION.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISION.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISTACTORY COMPLETION OF SHOTCRETE,CONCRETE AND ERI REPAIRS,REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS AS APPROPRIATE.

CONCRETE REPAIR AREA



SHOTCRETE REPAIR AREA EPOXY RESIN INJECTION (ERI)

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	BRIDGE	NO	59	0322	
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TOP OF CAP



ELEVATION

BENT 1 NORTHBOUND

DRAWN BY :	R.L. PUTEK	DATE : 05/2021
CHECKED BY :	H.A. LOCKLEAR	DATE : 05/2021

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		SPAN B
		SPAN A

END VIEW

AS-BUILT REPAIR QUANTITY TABLE					
	QUANTITIES				
DENT I NORTHBOUND	ESTI	MATE	ACT	TUAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	59.7	29.9			
COLUMN & STRUTS	13.0	6.5			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	9.1	4.6			
COLUMN & STRUTS	0.0	0.0			
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.	
CAP		4.0			
COLUMN & STRUTS		1.0			
EPOXY COATING		SO. FT.		SQ. FT.	
TOP OF BENT CAP & STRUTS	S	316			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUATITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISIONS

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND STRUTS. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP AND STRUTS. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISFACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

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	ME	MECKLENBURG C				
	BRIDG	BRIDGE NO. 590322				
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CHECKED BY :	H. A. LOCKLEAR	DATE :	05/2021

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AS-BUILT REPAIR QUANTITY TABLE					
		QUANTI	TIES		
DENT I NURTHBUUND	ESTI	MATE	AC1	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	73.1	36.7			
COLUMN & STRUTS	88.0	44.0			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	4.0	2.0			
COLUMN & STRUTS	0.0	0.0			
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.	
CAP		7.0			
COLUMN & STRUTS		0.0			
EPOXY COATING		SQ. FT.		SQ. FT.	
TOP OF BENT CAP & STRUTS	5	0.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS"SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUATITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND STRUTS. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP AND STRUTS. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISFACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

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HECKED BY :	H.A. LOCKLEAR	DATE :	05/2021

AS-BUILT REPAIR QUANTITY TABLE					
DENT 1 SOLITUROUND		QUANTI	TIES		
DEINT I SUUTIDUUND	ESTI	MATE	AC1	TUAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	13.6	6.8			
COLUMN & STRUTS	30.8	15.4			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	13.1	6.6			
COLUMN & STRUTS	0.0	0.0			
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.	
CAP		1.0			
COLUMN & STRUTS		0.0			
EPOXY COATING		SQ. FT.		SQ. FT.	
TOP OF BENT CAP & STRUTS	5	276			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUATITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND STRUTS.EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP AND STRUTS.THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISFACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

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RAWN BY :	R.L. PUTEK	DATE :	05/2021
HECKED BY :	H.A. LOCKLEAR	DATE :	05/2021

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AS-BUILT REPAIR QUANTITY TABLE					
DENT 1 SOUTHROUND		QUANTI	TIES		
DENT I SUUTEUUNU	ESTI	MATE	ACI	TUAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	9.2	4.6			
COLUMN & STRUTS	64.9	32.5			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	0.0	0.0			
COLUMN & STRUTS	0.0	0.0			
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.	
CAP		1.0			
COLUMN & STRUTS		0.0			
EPOXY COATING		SQ. FT.		SQ. FT.	
TOP OF BENT CAP & STRUTS	S	0.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUATITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISION.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND STRUTS.EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP AND STRUTS.THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISFACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

	PROJ.N <u>ME(</u> BRIDGE	NO CKLEN E NO	NBI	<u>I-5</u> URC 590	5746C co 5322	UNTY	
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02EE938FAB674C5	DocuSigned by: DOZEE0338FAB674C5 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						
SEAL 35647 ************************************		E SOL SPAI	BEN JTH N	NT 1B0 B F	1 UND FACE		
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		SPAN B

AS-BUILT REPAIR QUANTITY TABLE					
		QUANTI	QUANTITIES		
BEINT Z INUKIHOUUNU	ESTI	MATE	ACI	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	43.3	21.7			
COLUMN & STRUTS	6.6	3.3			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	12.0	6.0			
COLUMN & STRUTS	0.0	0.0			
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.	
CAP		1.0			
COLUMN & STRUTS		4.0			
EPOXY COATING		SQ. FT.		SQ. FT.	
TOP OF BENT CAP & STRUT	S	316			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUATITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISION.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISION.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND STRUTS.EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP AND STRUTS. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISFACTORY COMPLETION OF SHOTCRETE. CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

	PROJ.N	10	I-	57460	· · · · · · · · · · · · · · · · · · ·
	ME	CKLEN	NBUR	<u> </u>	DUNTY
	BRIDGE	E NO	59	0322	
DocuSigned by:	SHEET 1 OF	2			
02EE938FAB674C5	DEPA	stat RTMENT	E OF NORTH C OF TR RALEIGH	AROLINA ANSPORTA	TION
SEAL 35647		E NOR	SENT THB	2 DUND	
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DRAWN BY : _	R.L. PUTEK	DATE : 05/2021
CHECKED BY :	H.A. LOCKLEAR	DATE : 05/2021

BOTTOM OF CAP

AS-BUILT REPAIR QUANTITY TABLE					
		QUANTI	TIES		
BEINI Z INUKINDUUNU	ESTI	MATE	ACT	UAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	48.5	24.3			
COLUMN & STRUTS	60.6	30.3			
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.	
CAP	7.2	3.6			
COLUMN & STRUTS	0.0	0.0			
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.	
CAP		0.0			
COLUMN & STRUTS		1.0			
EPOXY COATING		SO. FT.		SQ. FT.	
TOP OF BENT CAP & STRUT	S	0.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUATITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRET REPAIRS, SEE SPECIAL PROVISION.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISION.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND STRUTS.EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP AND STRUTS.THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISFACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

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CHECKED BY :	H.A. LOCKLEAR	DATE : <u>05/2021</u>

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BENT 2 SOUTHBOUND

AS-BUILT REPAIR QUANTITY TABLE						
DENT 2 CONTUROUND		QUANTI	TIES			
BENT Z SOUTHBOUND	ESTI	MATE	ACTUAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	11.4	5.7				
COLUMN & STRUTS	0.0	0.0				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
CAP	5.3	2.7				
COLUMN & STRUTS	0.0	0.0				
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.		
CAP		1.0				
COLUMN & STRUTS		0.0				
EPOXY COATING		SQ. FT.		SQ. FT.		
TOP OF BENT CAP & STRUT	S	277				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS"SHEET.

NOTES

REPAIR LOCATIONS AND ESTIMATE OF QUATITIES ARE GIVEN BASED ON THE BEST INFORMATION AVAILABLE.IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISION.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISION.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND STRUTS. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP AND STRUTS. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

AFTER SATISFACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

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AS-BUILT REPAIR QUANTITY TABLE						
PENT 2 CONTUROUND		QUANTITIES				
BEINI Z SOUTHBOUIND	ESTI	MATE	ACTUAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
САР	82.4	41.2				
COLUMN & STRUTS	17.5	8.8				
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.		
CAP	0.0	0.0				
COLUMN & STRUTS	0.0	0.0				
EPOXY RESIN INJEC	CTION	LIN. FT.		LIN. FT.		
CAP		7.0				
COLUMN & STRUTS		0.0				
EPOXY COATIN	SQ. FT.		SQ. FT.			
TOP OF BENT CAP & STRUT	S	0				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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AFTER SATISFACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS, AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

	PROJ.N <u>ME</u> BRIDGE	NO CKLEN E NO	<u>I-</u> <u>NBUR</u> 59	<u>57460</u> <u>G</u> cc 0322) UNTY			
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AS-BUILT REPAIR QUANTITY TABLE								
		QUANTITIES						
	ESTI	ΜΑΤΕ	ACT	UAL				
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.				
САР	20.4	10.2						
CURTAIN WALL	35.4	17.7						
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.				
САР	15.8	7.9						
EPOXY RESIN INJE	CTION	LIN.FT.		LIN.FT.				
CURTAIN WALL		9.5						
EPOXY COATIN	G	SQ.FT.		SQ.FT.				
TOP OF BENT CAP		88						

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISION.

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AFTER SATISTACTORY COMPLETION OF SHOTCRETE, CONCRETE AND ERI REPAIRS, REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS AS APPROPRIATE.



CONCRETE REPAIR AREA



SHOTCRETE REPAIR AREA

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	BRIDGE NO	590322	
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AS-BUILT REPA	IR Q	JANT]	[ΤΥ Τ	ABLE			
		QUANTITIES					
	ESTI	ΜΑΤΕ	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
CURTAIN WALL	0.0	0.0					
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	0.0	0.0					
EPOXY RESIN INJE	CTION	LIN.FT.		LIN.FT.			
CURTAIN WALL		0.0					
EPOXY COATIN	G	SQ.FT.		SQ.FT.			
TOP OF BENT CAP		86					

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.SEE ``TYPICAL CAP AND COLUMN REPAIR DETAILS' SHEET.

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AFTER SATISTACTORY COMPLETION OF SHOTCRETE,CONCRETE AND ERI REPAIRS,REPAIR EXISTING MURAL PAINT ON BENTS AND GIRDERS AS APPROPRIATE.

CONCRETE REPAIR AREA

SHOTCRETE REPAIR AREA

	PROJ.N <u>ME(</u> BRIDGE	NO CKLEN E NO	١B	<u>I-5</u> SURC 590	746C <u>c</u> c 0322	DUNTY
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DRAWN BY :	R.L.PUTEK/E. BAYISSA	DATE :	07/2021
CHECKED BY :	H.A. LOCKLEAR	DATE :	07/2021

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F.A. PROJECT NO.: NHPLM - 0277 (19)

NOTES:

PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 06/30/2020. BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

SCOPE OF WORK

- REMOVE ASPHALT WEARING SURFACE AND PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.

- OVERLAY PREPARED BRIDGE DECK WITH POLYMER CONCRET (PC).

- GROOVE POLYMER CONCRET (PC) BRIDGE DECK.

- CLEAN BEARINGS AND APPLY HRCSA.

- CLEAN AND REPAIR STEEL I-BEAMS.

- SPOT PAINTING OF STEEL STRUCTURE REPAIR AREAS.

- INSTALL FOAM JOINT SEALS.

- REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE SHOTCRETE AND CONCRETE REPAIR AREAS.

- PERFORM SHOTCRETE AND CONCRETE REPAIRS IN PREPARED AREAS.

- EPOXY INJECTION OF CONCRETE CRACKS.

- REMOVE DEBRIS FROM TOP OF END BENT AND BENT CAPS AND APPLY EPOXY COATING.

I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.

RESIDENT ENGINEER

DATE

[PROJEC ME BRIDGE	CT NO. CKLEM E NO	<u>NB</u>	<u>I-5</u> URC 59(<u>746C</u> ; co)326	UNTY	
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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION, ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

BRIDGE COORDINATES

LATITUDE: 35°-13'-55.7" LONGITUDE: 80°-50'-01.5"

> THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

> WORK ON THE BRIDGES SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

CONTRACTOR SHALL DETERMINE EXTENT OF WORKING AREA. STAGING PROCESS. AND INSTALL COVER P ASSEMBLY AS NECESSARY TO MEET THE REQUIREMENTS OF TRAFFIC MANAGEMENT PLANS.

PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE

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R.L.PUTEK/E. BAYISSA H.A. LOCKLEAR

_ DATE : 07/2021 DATE : 07/2021

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NOTES

AT THE TIME OF PREPARATION OF THESE PLANS, IT WAS NOT ANTICIPATED THA SHOWN BELOW WOULD BE REQUIRED. HOWEVER, IT MAY BE DETERMINED IN THE FI THESE ITEMS, OR OTHER WORK WILL BE NECESSARY TO PROPERLY COMPLETE THE BRIDGE PRESERVATION/REHABILITATION WORK. THE CONTRACTOR SHALL BE PREP SUCH WORK IN A TIMELY MANNER, AS DETERMINED IN THE FIELD. SUCH WORK SHA CONSIDERED EXTRA WORK AND SHALL BE ADDRESSED AS PER ARTICLE 104-7 OF SPECIFICATIONS. PROJECT SPECIAL PROVISIONS THAT OUTLINE REQUIREMENTS ADDITIONAL WORK ITEMS HAVE BEEN PROVIDED IN PROJECT DOCUMENTS, BUT NO BEEN LISTED. ACTUAL PAY ITEMS, QUANTITIES, AND COSTS WILL BE ESTABLISHE IF EXTRA WORK IS ENCOUNTERED.

UNANTICIPATED ITEMS: ITEM NO.

DESCRIPTION CLASS III SURFACE PREPARATION UNIT LIN.FT.

NOTES THE EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION NTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON TIFY THE ENGINEER IF ACTUAL DIMENSIONS OR CONDITIONS CTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL NTS. HALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH BRIDGE DECK, SHOTBLASTING BRIDGE DECK, AND CLASS II SURFACE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR DGE DECK SHALL BE REPAIRED AT LOCATIONS SHOWN ON THE PLANS D BY THE ENGINEER AFTER SCARIFICATION AND PRIOR TO THE SURFACE APPLICATION OF THE PC OVERLAY. UNLESS OTHERWISE APPROVED. SHALL BE REPAIRED WITH PC. REPAIR FOR PC OVERLAY, PC MATERIALS AND PLACING & RLAY, SEE POLYMER CONCRETE BRIDGE DECK OVERLAY RAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, ON MANAGEMENT PLANS. ISTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE GE OF TRAVEL LANES. SEALS FOR PRESERVATION, SEE SPECIAL PROVISONS. ID FORMWORK.SEE SPECIAL PROVISIONS. FRUCTURES, SEE SPECIAL PROVISIONS. SEE SPECIAL PROVISIONS. WORKING DRAWINGS, SEE SPECIAL PROVISIONS. NTROL AND SPOT PAINTING OF STEEL STRUCTURE REPAIR AREAS, IG OF STEEL STRUCTURE REPAIR AREAS SPECIAL PROVISION. NTAINMENT, POLLUTION CONTROL, AND CLEANING & PAINTING GS WITH HRCSA, SEE CLEANING & PAINTING EXISTING CSA SPECIAL PROVISION. SEE SPECIAL PROVISIONS. INJECTION, SEE SPECIAL PROVISIONS. PAIRS, SEE SPECIAL PROVISIONS.

AIRS, SEE SPECIAL PROVISIONS.

NG AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

NG, SEE SPECIAL PROVISIONS.

RS MAY BE REPLACE WITH CONCRETE REPAIRS WITH THE APPROVAL

T ITEMS ELD THAT INTENDED ARED TO PERFORM ALL BE THE STANDARD FOR THESE POTENTIAL QUANTITIES HAVE D, AS REQUIRED,	PROJECT NO. <u>I-5746C</u> <u>MECKLENBURG</u> COUNTY BRIDGE NO. <u>590326</u> SHEET 2 OF 2
DZEE938FAB674CS DZEE938FAB674CS NORTH CAROLINA OF ESSION SEAL 35647 SEAL 35647 MA. COLINIA MA. COLINIA 8/23/2021	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH GENERAL DRAWING FOR BRIDGE ON I-277 OVER N. COLLEGE STREET
	REVISIONS SHEET NO.
DOCUMENT NOT CONSTDERED	NO. BY: DATE: NO. BY: DATE: S6-2
FINAL UNLESS ALL	TOTAL SHEETS
SIGNATURES COMPLETED	274 (4) 274



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NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTERTHE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SECTION B-B, SEE `JOINT DETAILS' SHEET.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, SEE SPECIAL PROVISIONS.

FOR PC MATERIALS, SEE SPECIAL PROVISIONS.

 \square APPROX.CLASS II SURFACE PREPARATION

EPOXY RESIN INJECTION (ERI)

DRAWN BY :	R.L.PUTEK/E. BAYISSA	DATE : <u>07/2021</u>
CHECKED BY :	H.A. LOCKLEAR	DATE : 07/2021

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PLAN

AS-BUILT REPAIR	QUANTITY	TABLE				
TOP OF DECK REPAIRS						
	ESTIMATE	ACTUAL				
SCARIFYING BRIDGE DECK	493 SQ. YDS.					
CLASS II SURFACE PREPARATION	0.0 SQ. YDS.					
CONCRETE DECK REPAIR FOR PC OVERLAY	0.0 SQ. YDS.					
SHOTBLASTING BRIDGE DECK	493 SQ. YDS.					
PLACING AND FINISHING PC OVERLAY	493 SQ. YDS.					
GROOVING BRIDGE FLOORS	4,195 SQ.FT.					
PC MATERIALS	23.9 CU. YDS.					

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY AFTER REMOVAL OF UNSOUND CONCRETE. (MIN. 2" CLEAR TO SAWCUT). SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.





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REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE. FOR SECTION B-B, SEE ``JOINT DETAILS' SHEET. FOR CONCRETE DECK REPAIR FOR PC OVERLAY, SEE SPECIAL PROVISIONS. FOR PC MATERIALS, SEE SPECIAL PROVISIONS. APPROX.CLASS II SURFACE PREPARATION ← EPOXY RESIN INJECTION (ERI)

DRAWN BY :	R.L.PUTEK/E. BAYISSA	DATE : <u>07/2021</u>
CHECKED BY : _	H.A. LOCKLEAR	DATE : <u>07/2021</u>

PLAN

AS-BUILT REPAIR QL	JANTITY T	ABLE				
TOP OF DECK REPAIRS						
	ESTIMATE	ACTUAL				
SCARIFYING BRIDGE DECK 964 SQ.YDS.						
CLASS II SURFACE PREPARATION	26.3 SQ. YDS.					
CONCRETE DECK REPAIR FOR PC OVERLAY	26.3 SQ. YDS.					
SHOTBLASTING BRIDGE DECK 964 SQ.YDS.						
PLACING AND FINISHING PC OVERLAY 964 SQ.YDS.						
GROOVING BRIDGE FLOORS	8,225 SQ.FT.					
PC MATERIALS	44.8 CU. YDS.					

TOP OF DECK REPAIR QUANTITIES REPRESENT ESTIMATED VALUES OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PC OVERLAY AFTER REMOVAL OF UNSOUND CONCRETE. (MIN. 2"CLEAR TO SAWCUT). SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.

>--- 2.3 SY
CLASS II
SURFACE PREP.

	PROJEC <u>ME(</u> BRIDGE	CT NO. CKLEN NO	IBL	<u>I-</u> JRG 590	<u>5746</u> co) <u>326</u>	C UNTY
Council State of the second se	SHEET 2 0	F 3				
DOCENSILATION DEEP38FAB674C5 TH CAROUNT TH CAROUNT OF ESSION SE AL 35647	depa DEC	rtment K SUF		TRAN LEIGH ACE	ISPORTA REP	TION
A. COLINI		C				
8/23/2021						
		REVIS	SIONS			SHEET NO.
DOCUMENT NOT CONSTDERED	NO. BY:	DATE:	NO.	BY:	DATE:	S6-5
FINAL UNLESS ALL	1		3			TOTAL SHEETS
SIGNATURES COMPLETED	2		4			274



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REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTERTHE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SECTION B-B, SEE ``JOINT DETAILS'' SHEET.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, SEE SPECIAL PROVISIONS.

FOR PC MATERIALS, SEE SPECIAL PROVISIONS.

APPROX.CLASS II SURFACE PREPARATION

EPOXY RESIN INJECTION (ERI)

DRAWN BY :	R.L.PUTEK/E. BAYISSA	DATE :	07/2021
CHECKED BY	H.A. LOCKLEAR	DATE :	07/2021

PLAN

AS-BUILT REPAIR	QUANTITY	TABLE	F -	PROJECT NO MECKLENE	<u>I-5746</u> SURG c	SC OUNTY
TOP OF DECK	REPAIRS		E	BRIDGE NO.	590326	
	ESTIMATE	ACTUAL				
SCARIFYING BRIDGE DECK	496 SQ.YDS.		DocuSigned by:	SHEEL 3 OF 3		
CLASS II SURFACE PREPARATION	9.4 SQ. YDS.		02EE938FAB674C5		NORTH CAROLINA	
CONCRETE DECK REPAIR FOR PC OVERLAY	9.4 SQ. YDS.		TH CARO	DEPARIMENT OF	RALEIGH	AIION
SHOTBLASTING BRIDGE DECK	496 SQ.YDS.		CEESSION A THE			
PLACING AND FINISHING PC OVERLAY	496 SQ.YDS.		SEAL F	DECK SUN	ACL NL	ATU
GROOVING BRIDGE FLOORS	4,196 SQ.FT.		ACINER L	SP		
PC MATERIALS	24.1 CU. YDS.		THE AM A. COLUMN			
FOP OF DECK REPAIR QUANTITIES REPRESENT E PREPARATION AND CONCRETE DECK REPAIR FOR	STIMATED VALUES OF PC OVERLAY AFTER F	F CLASS SURFACE REMOVAL OF UNSOUND	8/23/2021			
CONCRETE SPECIAL PROVISION.	ALAT SURFALE PREPA	KAILUN FUR PULIMER		REVISION	IS	SHEET NO.
			DOCUMENT NOT CONSIDERED	NO. BY: DATE: NO.	BY: DATE:	S6-6
			FINAL UNLESS ALL SIGNATURES COMPLETED	1 3 2 4		SHEETS