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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

BRIDGE NO.	LATITUDE	LONGITUDE
280157	35°-46'-37.16"	80°-17'-42.02"

TOTAL BILL OF MATERIAL

BRIDGE NO.	GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	RIP RAP CLASS B	GEOTEXTILE FOR DRAINAGE	SHOTCRETE REPAIRS	EPOXY RESIN INJECTION	FOAM JOINT SEALS FOR PRESERVATION	POLYESTER POLYMER CONCRETE MATERIALS	EPOXY POLYMER CONCRETE MATERIALS (ALTERNATE)	EPOXY COATING	CONCRETE DECK REPAIR FOR POLYMER CONCRETE OVERLAY	PLACING & FINISHING POLYMER CONCRETE OVERLAY	SCARIFYING BRIDGE DECK	SHOTBLASTING BRIDGE DECK	CLEANING & PAINTING EXISTING BEARING PLATES
	SQ. FT.	SQ. YDS.	TONS	SQ. YDS.	CU. FT.	LN. FT.	LN. FT.	CU. YDS.	CU. YDS.	SQ. FT.	SQ. YDS.	SQ. YDS.	SQ. YDS.	SQ. YDS.	EA.
TOTAL	15,328.0	15.9	496.0	551.0	4.4	25.3	116.6	62.8	62.8	1304.0	15.9	1798.0	1798.0	1798.0	16

NOTE

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

THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT FOR ANY DELAYS OF ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN WHAT IS SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATIONS OF THE BRIDGE DECK. THE CONTRACTOR SHALL TAKE CARE THAT ANY CONSTRUCTION DEBRIS THAT COLLECTS IN THE DRAINS IS CONTAINED. DRAINS IN SHOULDERS OF ADJACENT TRAVEL LANE(S) SHALL BE KEPT FREE AND CLEAR OF DEBRIS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

THE EXISTING BRIDGE DECK SHALL BR REPAIRED AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER AFTER SCARIFICATION AND PRIOR TO THE SURFACE PREPARATION AND APPLICATION OF THE PC OVERLAY. UNLESS OTHERWISE APPROVED, SUCH LOCATIONS SHALL BE REPAIRED WITH POLYMER CONCRETE.

FOR EPOXY RESIN INJECTIONS, SEE SPECIAL PROVISIONS.

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

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWING, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

ANY DAMAGE TO EXISTING REINFORCING STEEL, DURING CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AND PERFORMED AT NO ADDITIONAL COST TO THE DEPARTMENT.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, PC MATERIALS, AND PLACING AND FINISHING PC OVERLAY, SEE POLYMER CONCRETE BRIDGE DECK OVERLAY SPECIAL PROVISION.

FOR SCARIFYING BRIDGE DECK, SHOTBLASTING BRIDGE DECK AND CLASS II SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.

FOR CLASS B RIP RAP, SEE SPECIAL PROVISIONS.

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.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

FOR CLEANING AND PAINTING EXISTING BEARING PLATES, SEE SPECIAL PROVISIONS.

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

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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

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

UNANTICIPATED ITEMS:

ITEM NO.	DESCRIPTION	UNIT
1.	CONCRETE REPAIRS	CU. FT.

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**

SHEET 2 OF 2



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON
 I-85 SBL OVER
 SWEARING CREEK

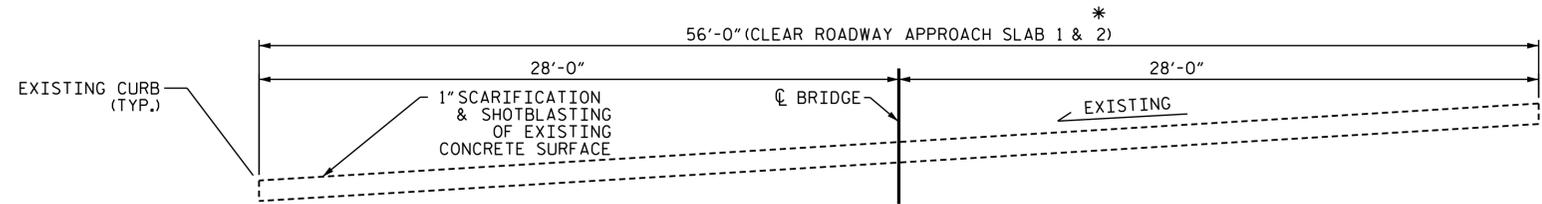
REVISIONS			SHEET NO.		
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

TOTAL SHEETS: 15

DRAWN BY : **GHOLAMREZA KOUICHEKI** DATE : **4/2022**
 CHECKED BY : **H.A. LOCKLEAR** DATE : **5/2022**

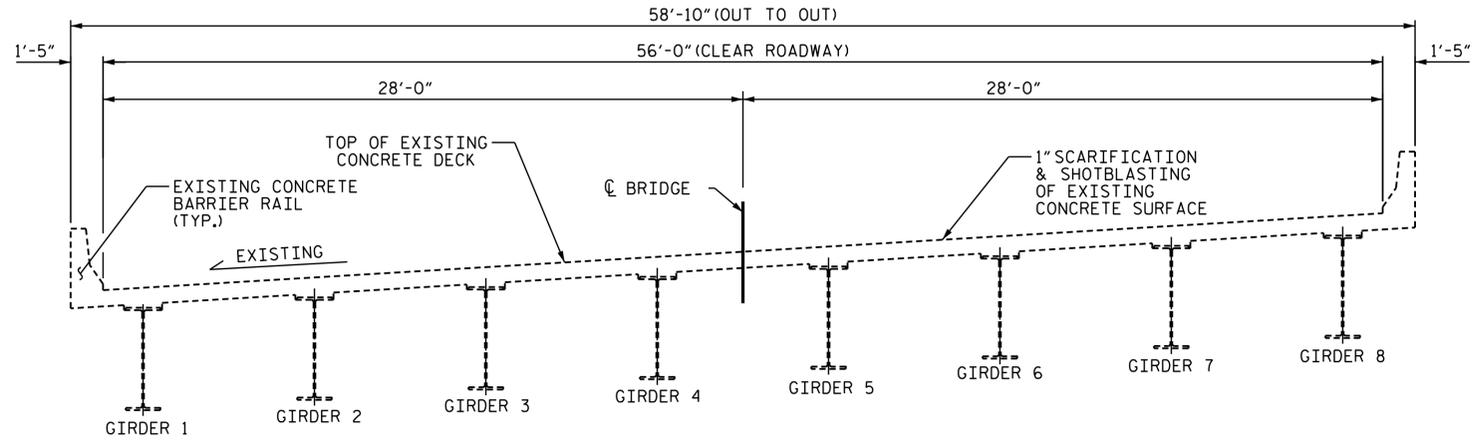
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTES
 SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF PC OVERLAY AND SURFACE PREPARATION.



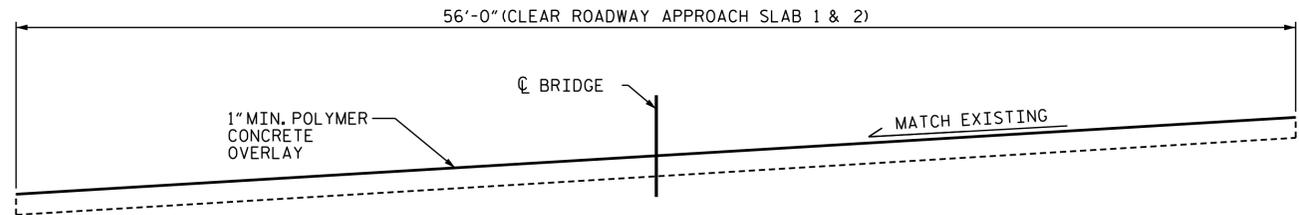
TYPICAL SECTION - APPROACH SLAB

(EXISTING)
 * 2'-9"± CURB & GUTTER ON LEFT SIDE ON APPROACH SLAB 2



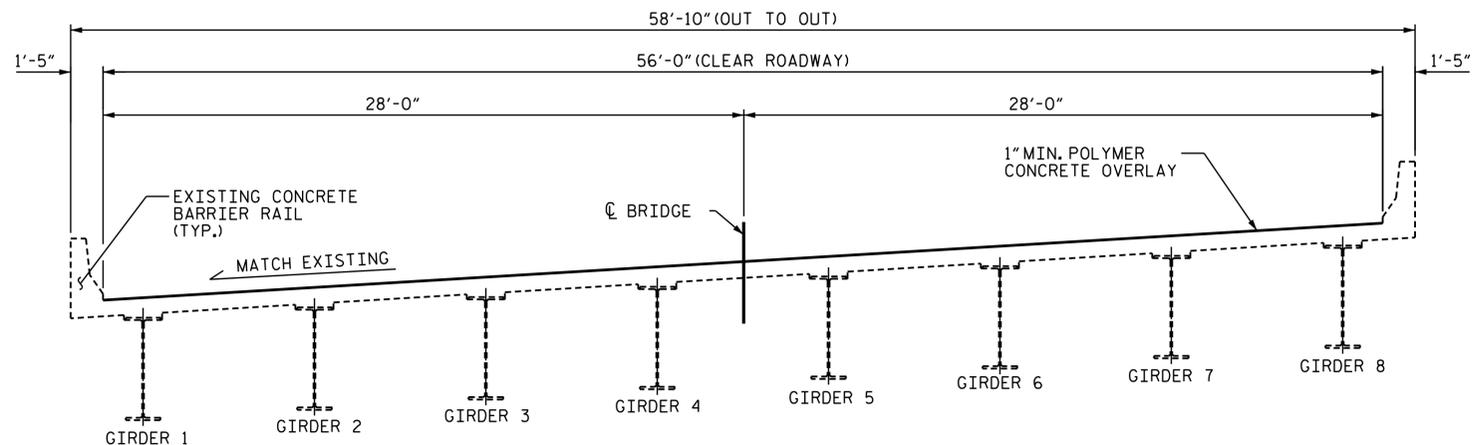
TYPICAL SECTION

(EXISTING)



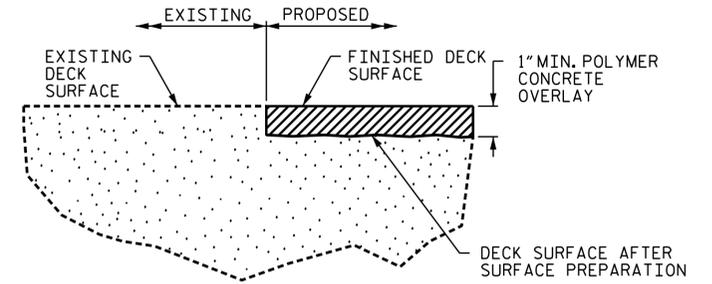
TYPICAL SECTION - APPROACH SLAB

(PROPOSED)



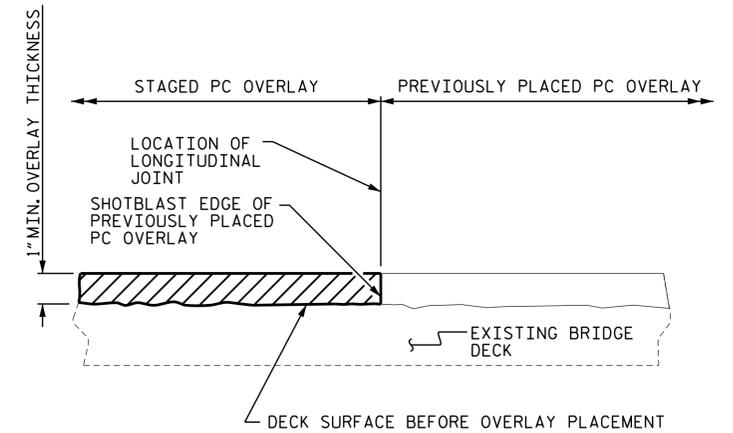
TYPICAL SECTION

(PROPOSED)



DETAIL FOR POLYMER CONCRETE OVERLAY

FINISHED SURFACE ELEVATION SHALL MATCH EXISTING CONCRETE SURFACE ELEVATION. ACTUAL THICKNESS OF PC OVERLAY MAY VARY.



STAGED PC OVERLAY JOINT

PROJECT NO. I-5950
DAVIDSON COUNTY
 BRIDGE NO. 280157



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 TYPICAL SECTION
 AND
 OVERLAY DETAILS

DRAWN BY : K. PUROHIT DATE : 9/2020
 CHECKED BY : A. SORSENGINH DATE : 9/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S7-03
2			4			TOTAL SHEETS 15

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.

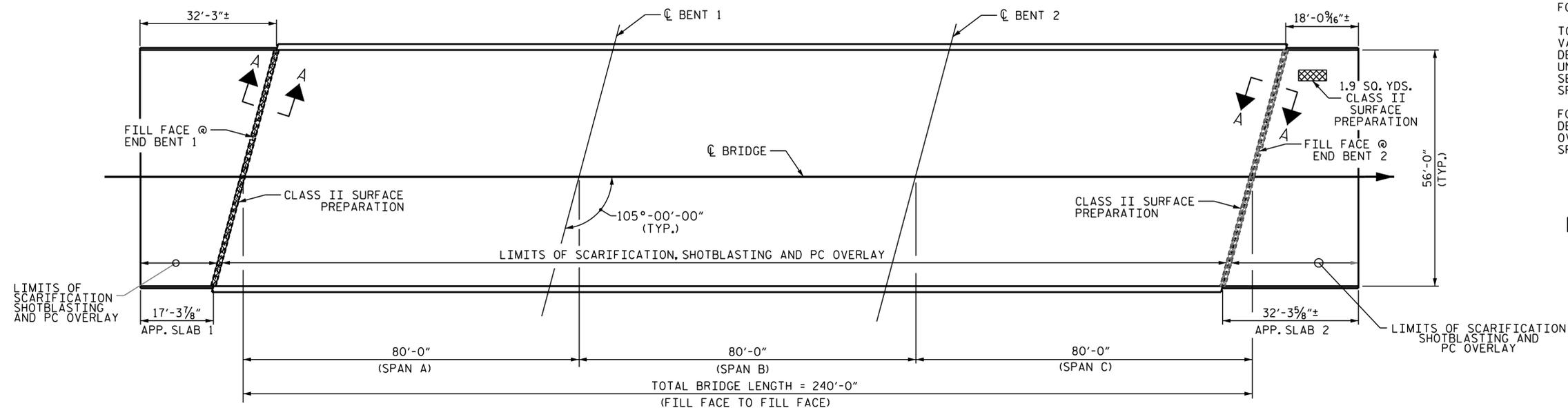
FOR CONCRETE DECK REPAIR FOR PC OVERLAY, PC MATERIALS, AND PLACING AND FINISHING PC OVERLAY, SEE POLYMER CONCRETE BRIDGE DECK OVERLAY SPECIAL PROVISION.

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

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.

FOR SCARIFYING BRIDGE DECK, SHOTBLASTING BRIDGE DECK AND CLASS II SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.

 CLASS II SURFACE PREPARATION



PLAN

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS	APPROACH SLAB 1		SPAN A		SPAN B		SPAN C		APPROACH SLAB 2	
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	151.0 SQ. YDS.		495.0 SQ. YDS.		498.0 SQ. YDS.		495.0 SQ. YDS.		159.0 SQ. YDS.	
SHOTBLASTING BRIDGE DECK	151.0 SQ. YDS.		495.0 SQ. YDS.		498.0 SQ. YDS.		495.0 SQ. YDS.		159.0 SQ. YDS.	
CLASS II SURFACE PREPARATION	3.5 SQ. YDS.		3.5 SQ. YDS.		0.0 SQ. YDS.		3.5 SQ. YDS.		5.4 SQ. YDS.	
CONCRETE DECK REPAIR FOR PC OVERLAY	3.5 SQ. YDS.		3.5 SQ. YDS.		0.0 SQ. YDS.		3.5 SQ. YDS.		5.4 SQ. YDS.	
POLYMER CONCRETE MATERIALS	5.4 CU. YDS.		17.3 CU. YDS.		17.3 CU. YDS.		17.3 CU. YDS.		5.5 CU. YDS.	
PLACING & FINISHING PC OVERLAY	151.0 SQ. YDS.		495.0 SQ. YDS.		498.0 SQ. YDS.		495.0 SQ. YDS.		159.0 SQ. YDS.	
GROOVING BRIDGE FLOOR	1296.0 SQ. FT.		4229.0 SQ. FT.		4240.0 SQ. FT.		4229.0 SQ. FT.		1334.0 SQ. FT.	

PROJECT NO. I-5950
DAVIDSON COUNTY
 BRIDGE NO. 280157

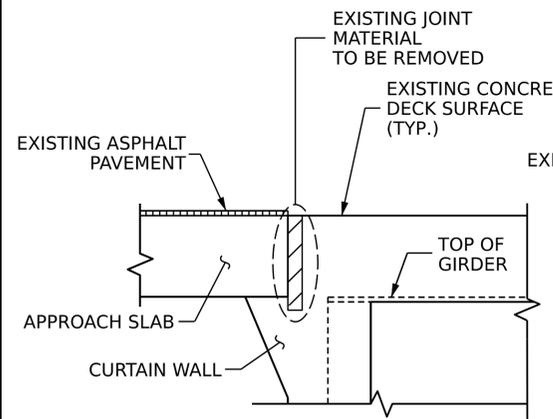


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**DECK SURFACE REPAIR
 AND
 APPROACH SLAB**

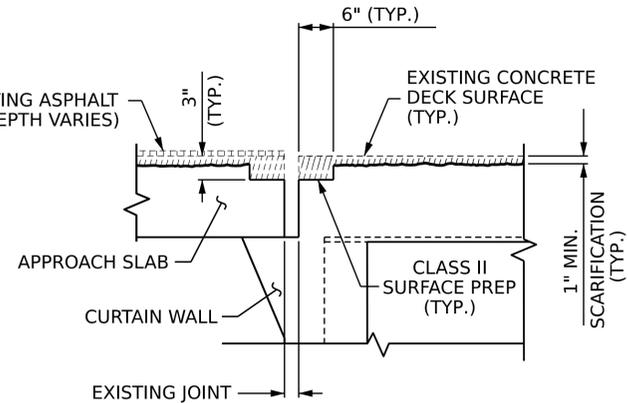
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1			3			S7-04
2			4			TOTAL SHEETS 15

DRAWN BY : K.PUROHIT DATE : 9/2020
 CHECKED BY : H.A. LOCKLEAR DATE : 5/2022

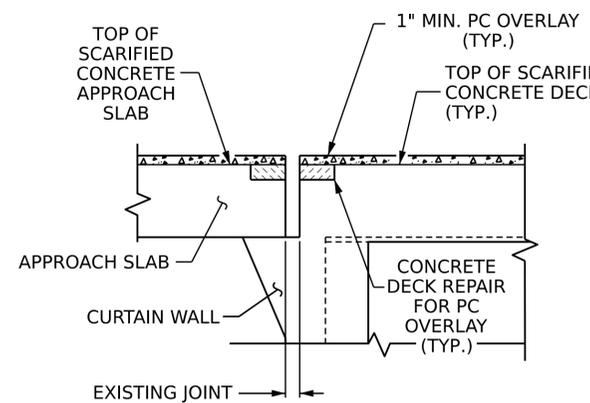
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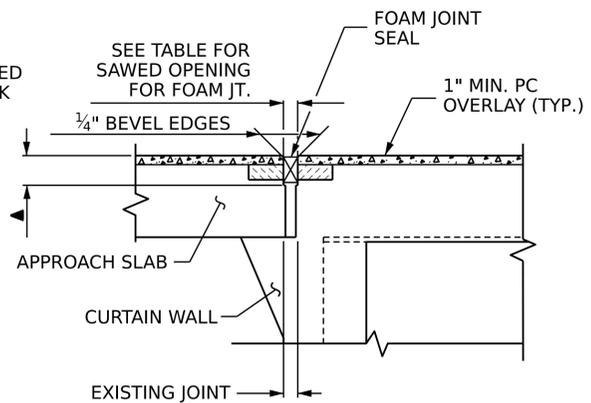
EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION AND SCARIFICATION



PROPOSED JOINT PRE-SAWED AND PC OVERLAY

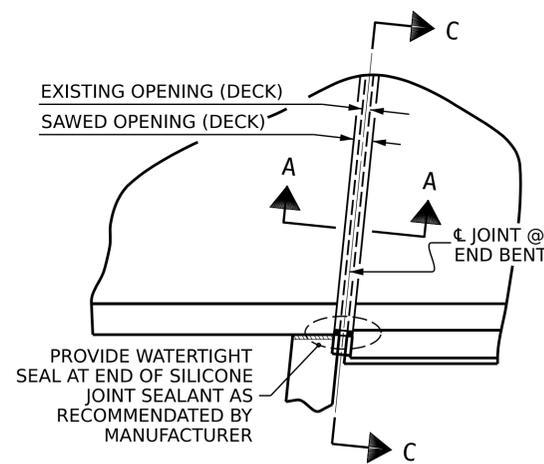


PROPOSED FOAM JOINT SEAL

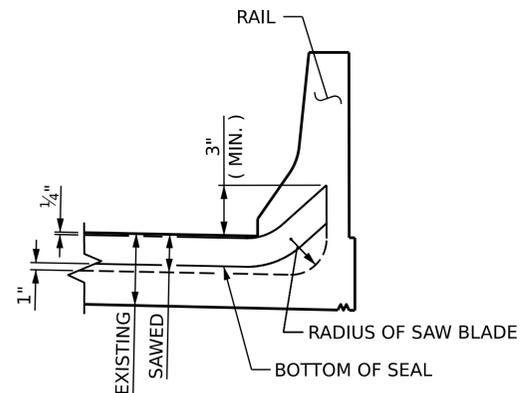
▲ SAWCUT SHALL BE 1" BELOW THE BOTTOM OF FOAM JOINT SEAL. SEE MANUFACTURE RECOMMENDATIONS.

JOINT INSTALLATION SEQUENCE AT END BENTS

SECTION A-A



PLAN
(@ END BENT)



SECTION C-C

LOCATION	SAWED JT. OPENING (PERPENDICULAR TO JT.)		
	AT 45°	AT 60°	AT 90°
END BENT 1	2 3/8"	1 15/16"	1 5/8"
END BENT 2	2 3/8"	1 15/16"	1 5/8"

	ESTIMATE	ACTUAL
FOAM JOINT SEAL FOR PRESERVATION		
END BENT 1	58.3 LIN. FT.	
END BENT 2	58.3 LIN. FT.	
TOTAL	116.6 LIN. FT.	

NOTES

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

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

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

DURING THE JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

A MANUFACTURER'S CERTIFIED TRAINED REPRESENTATIVE SHALL BE PRESENT DURING THE INSTALLATION OF THE FIRST JOINT OF THE PROJECT, OR UNTIL THE ENGINEER IS SATISFIED WITH THE INSTALLATION PROCESS.

THE INSTALLATION OF THE JOINT SEAL SHALL BE WATERTIGHT.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOAM JOINTS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE FOAM JOINTS SHALL MEET THE MANUFACTURER'S RECOMMENDATION'S FOR THE SIZE OF OPENING ON THE PLANS, AND ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS

DRAWN BY : GHOLAMREZA KOUCHEKI DATE : 4/2022
 CHECKED BY : H.A. LOCKLEAR DATE : 5/2022

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2			4			

AS-BUILT REPAIR QUANTITY TABLE

DECK UNDERSIDE REPAIRS SPAN A	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.4	0.2		
UNDERSIDE OF OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
UNDERSIDE OF OVERHANG	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CLEAR TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL 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 LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

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

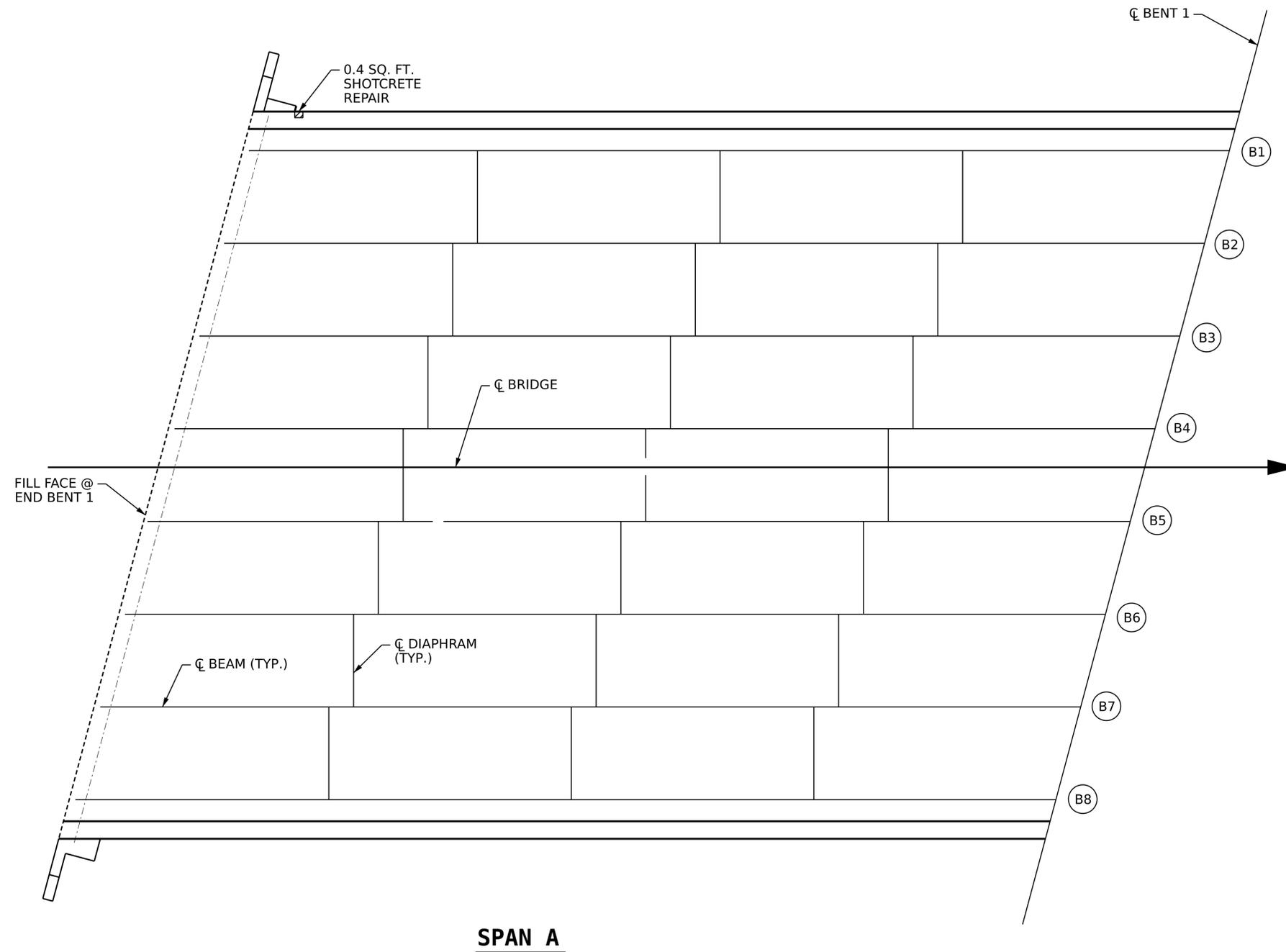
SHOTCRETE REPAIRS MAYBE SUBSTITUTED IN LIEU OF CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION - ERI
-  BEAM NUMBER



SPAN A

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
DECK UNDERSIDE REPAIR
SPAN A

DRAWN BY : **K. PUROHIT/REZA KOUCHEKI** DATE : **4/2022**
 CHECKED BY : **H.A. LOCKLEAR** DATE : **5/2022**

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1			3			TOTAL SHEETS
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AS-BUILT REPAIR QUANTITY TABLE

DECK UNDERSIDE REPAIRS SPAN B	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
UNDERSIDE OF OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
UNDERSIDE OF OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION	LINEAR FT		LINEAR FT	
UNDERSIDE OF DECK	7.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CLEAR TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

NOTES

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

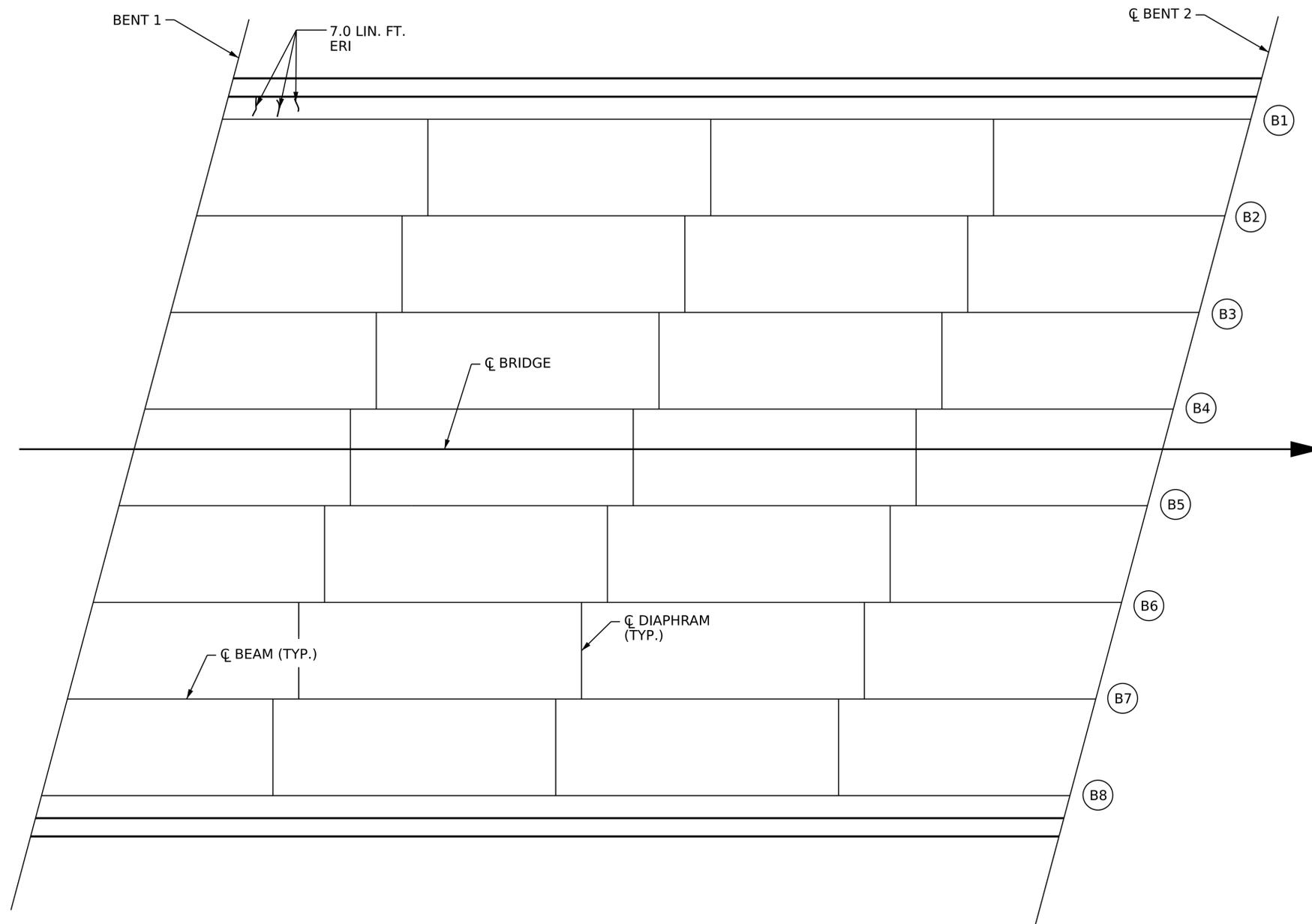
SHOTCRETE REPAIRS MAYBE SUBSTITUTED IN LIEU OF CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION - ERI
-  BEAM NUMBER



SPAN B

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**

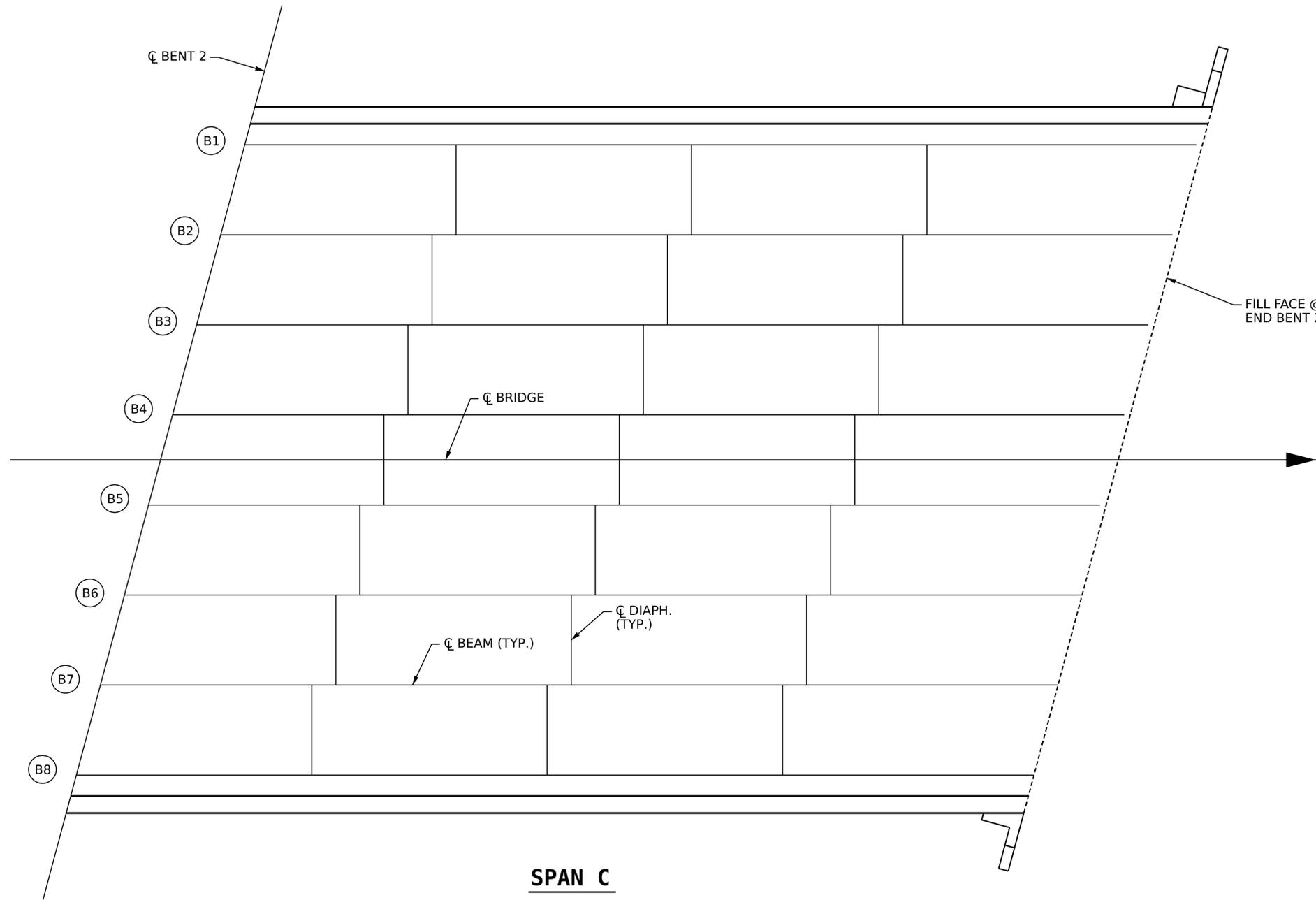


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
DECK UNDERSIDE REPAIR
SPAN B

DRAWN BY : **K. PUROHIT / REZA KOUCHEKI** DATE : **4/2022**
 CHECKED BY : **H.A. LOCKLEAR** DATE : **5/2022**

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1			3			15
2			4			



AS-BUILT REPAIR QUANTITY TABLE

DECK UNDERSIDE REPAIRS SPAN C	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
UNDERSIDE OF OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
UNDERSIDE OF OVERHANG	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CLEAR TO SAWCUT. SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

NOTES

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

SHOTCRETE REPAIRS MAYBE SUBSTITUTED IN LIEU OF CONCRETE 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.

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION - ERI
-  BEAM NUMBER

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**

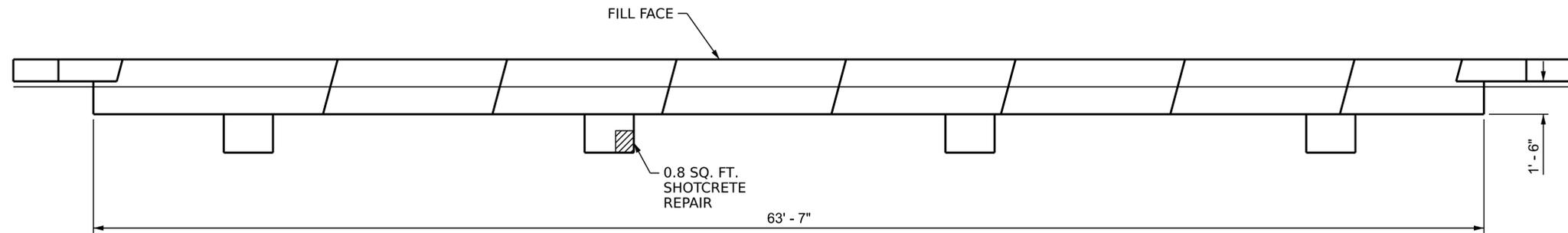


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
DECK UNDERSIDE REPAIR
SPAN C

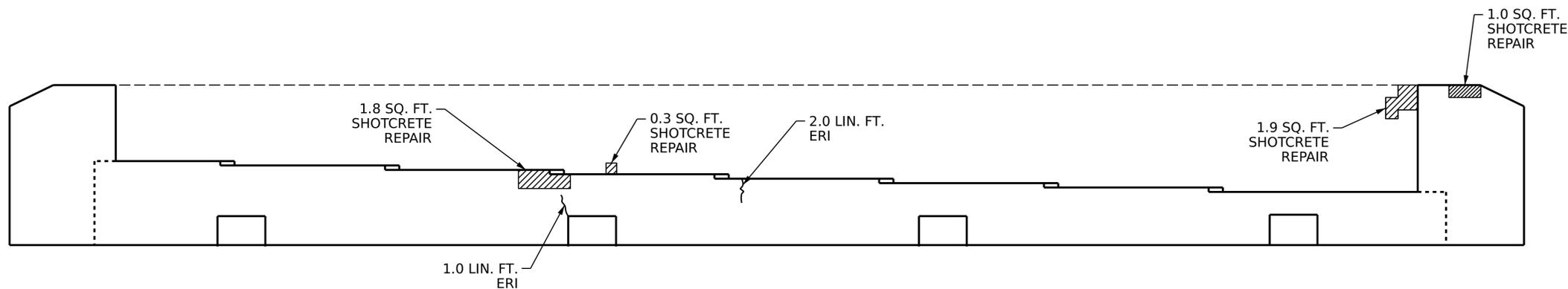
DRAWN BY : K. PUROHIT/ REZA KOUCHEKI DATE : 4/2022
 CHECKED BY : H.A. LOCKLEAR DATE : 5/2022

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

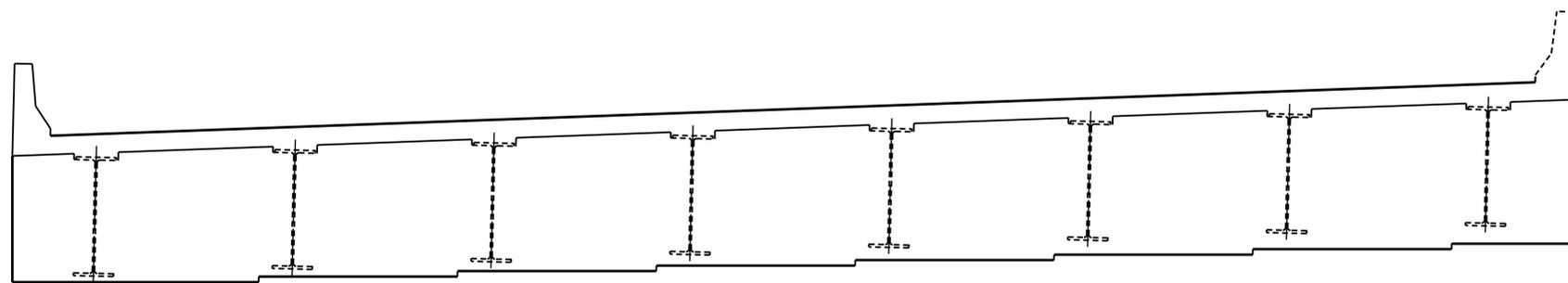
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			15



PLAN



ELEVATION



CURTAIN WALL ELEVATION

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION ERI

AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS - END BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	2.6	1.3		
CURTAIN WALL	2.2	1.1		
WINGWALL	1.0	0.5		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
CURTAIN WALL	0.0	0.0		
WINGWALL	0.0	0.0		
EPOXY RESIN INJECTION		LINEAR FT		LINEAR FT
CAP		0.0		
CURTAIN WALL		3.0		
WINGWALL		0.0		
EPOXY COATING		AREA SF		AREA SF
CAP		112.0		
CURTAIN WALL		250.0		

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.

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

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIR, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**

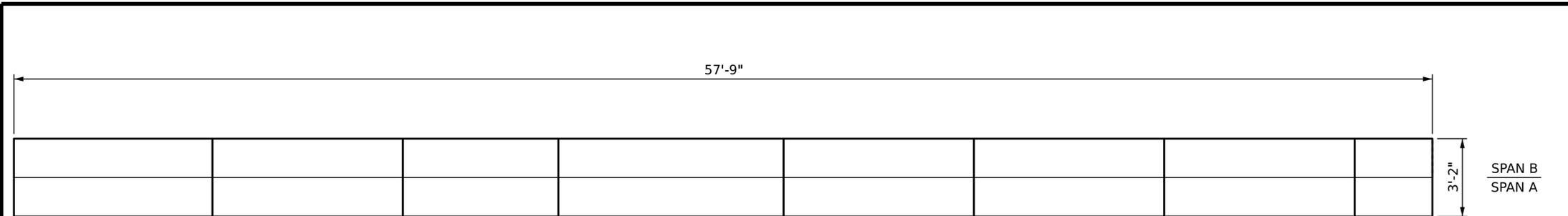


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE REPAIR
 END BENT 1**

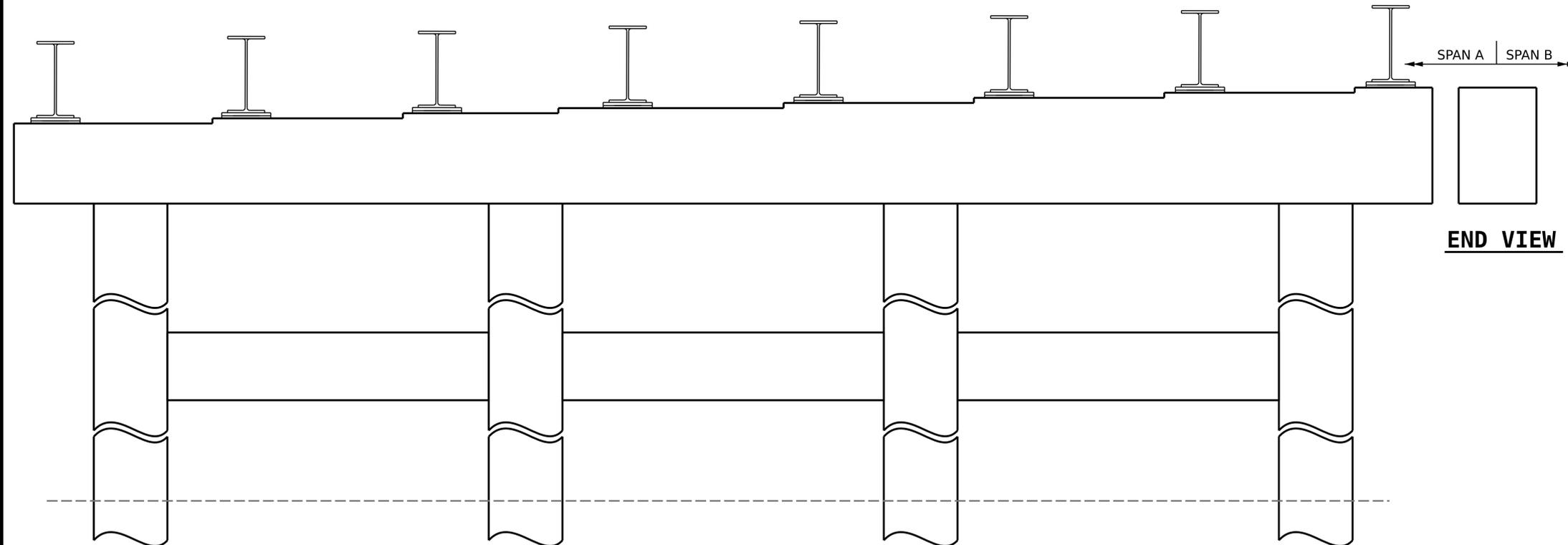
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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 15
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : K.PUROHIT/ REZA KOUCHEKI DATE : 4/2022
 CHECKED BY : H.A. LOCKLEAR DATE : 5/2022

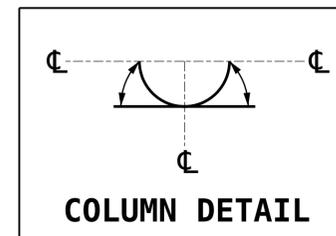


TOP OF CAP



END VIEW

**ELEVATION
SPAN A FACE**



AS-BUILT REPAIR QUANTITY TABLE

REPAIRS - BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0	0		
COLUMN	0	0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0	0		
COLUMN	0	0		
EPOXY RESIN INJECTION		LINEAR FT		LINEAR FT
CAP		0		
COLUMN		0		
EPOXY COATING		AREA SF		AREA SF
TOP OF BENT CAP		183.0		
STRUT		108.0		

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 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.

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CAP AND COLUMN REPAIR DETAIL, SEE "CAP AND COLUMN REPAIR DETAIL", SHEET.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

 SHOTCRETE REPAIR

 CONCRETE REPAIR

 EPOXY RESIN INJECTION - ERI

PROJECT NO. **I-5950**

DAVIDSON COUNTY

BRIDGE NO. **280157**

SHEET 1 OF 2



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE REPAIR
BENT 1
SPAN A FACE**

DRAWN BY : KANAK PUROHIT/REZA KOUCHEK DATE : 4/2022
CHECKED BY : H.A. LOCKLEAR DATE : 5/2022

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NO.	BY:	DATE:	NO.	BY:	DATE:	S7-10
1			3			TOTAL SHEETS
2			4			15

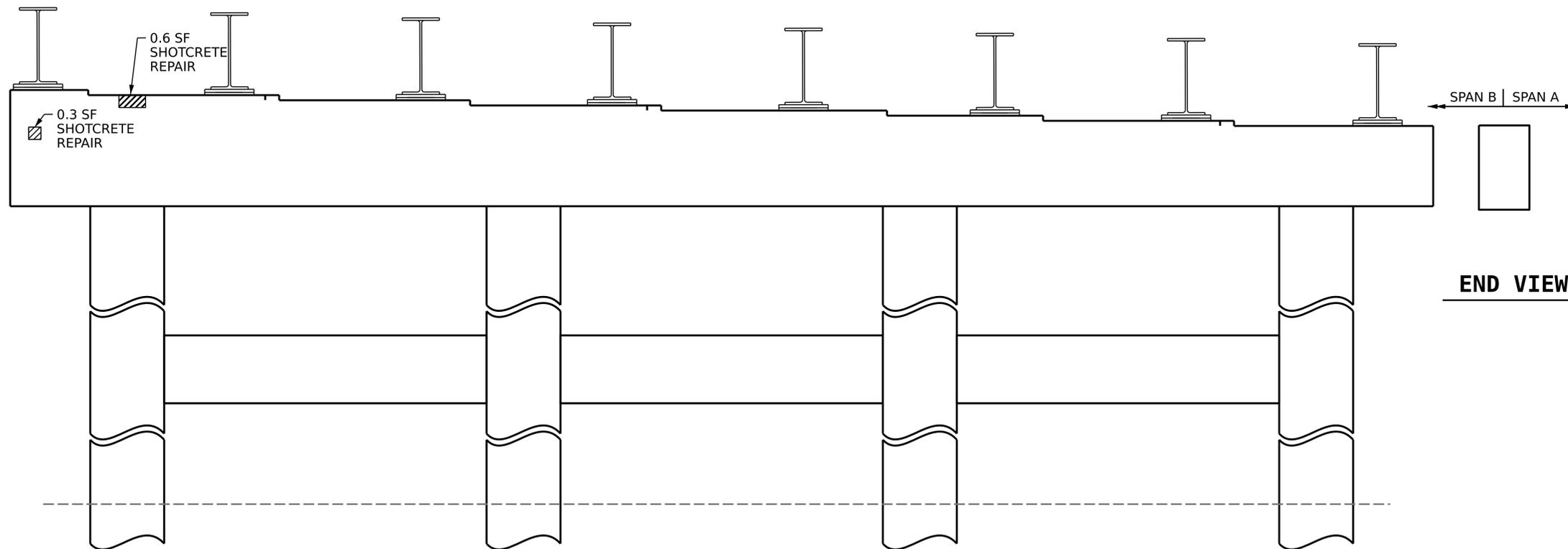
AS-BUILT REPAIR QUANTITY TABLE

REPAIRS - BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.9	0.5		
COLUMN	0	0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0	0		
COLUMN	0	0		
EPOXY RESIN INJECTION		LINEAR FT		LINEAR FT
CAP		0		
COLUMN		0		



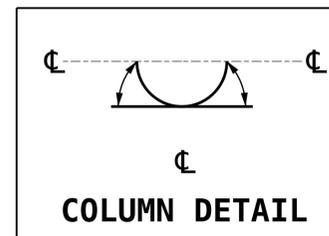
SPAN B
SPAN A

BOTTOM OF CAP



END VIEW

**ELEVATION
SPAN B FACE**



COLUMN DETAIL

NOTES

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.



SHOTCRETE REPAIR



CONCRETE REPAIR



EPOXY RESIN INJECTION - ERI

PROJECT NO. **I-5950**

DAVIDSON COUNTY

BRIDGE NO. **280157**

SHEET 2 OF 2



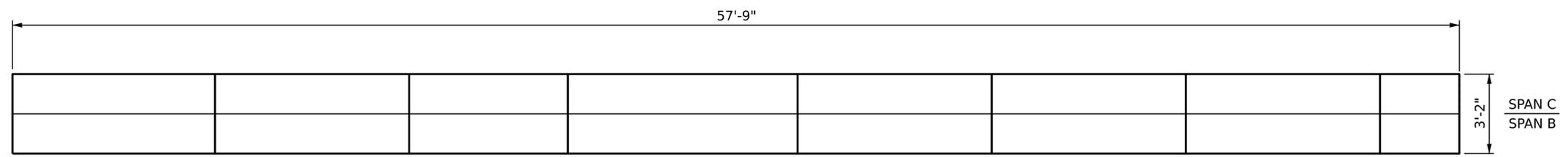
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE REPAIR
BENT 1
SPAN B FACE**

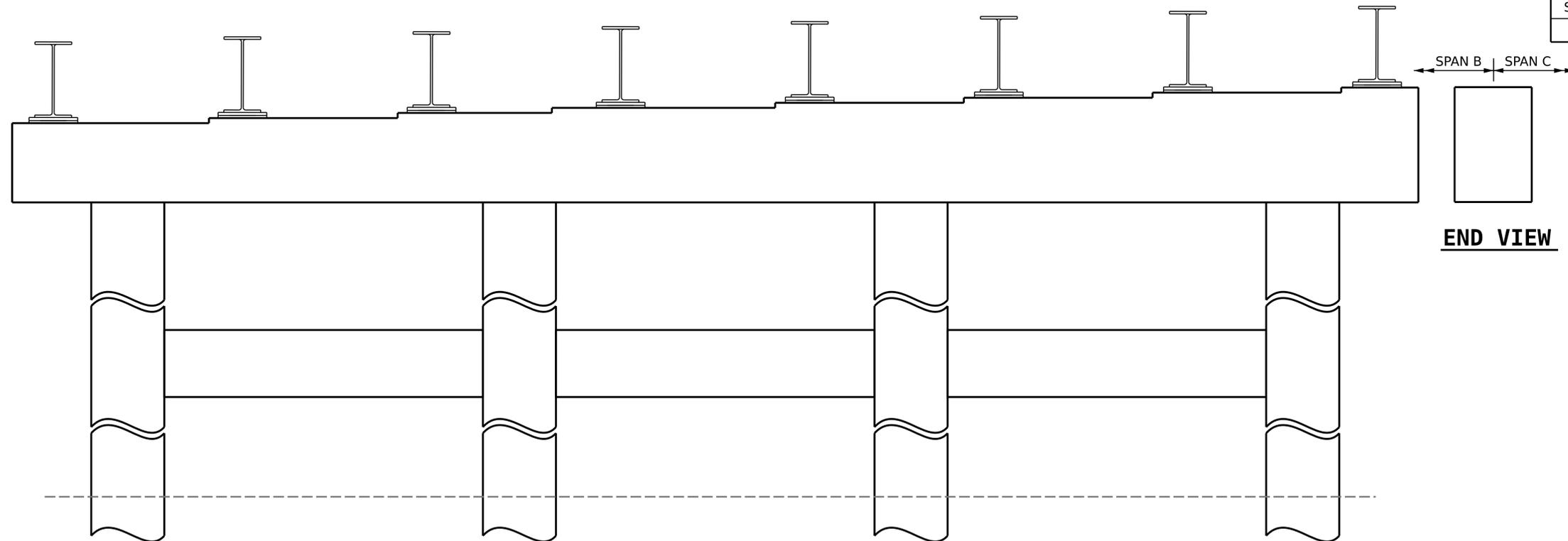
DRAWN BY : **K. PUROHIT/ REZA KOUCHEKI** DATE : **4/2022**
CHECKED BY : **H.A. LOCKLEAR** DATE : **5/2022**

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

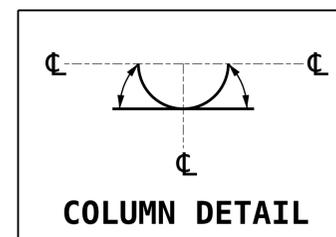
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NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			15
2			4			



TOP OF CAP



**ELEVATION
SPAN B FACE**



COLUMN DETAIL

AS-BUILT REPAIR QUANTITY TABLE

REPAIRS - BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
	AREA SF	VOLUME CF	AREA SF	VOLUME CF
SHOTCRETE REPAIRS				
CAP	0	0		
COLUMN	0	0		
CONCRETE REPAIRS				
CAP	0	0		
COLUMN	0	0		
EPOXY RESIN INJECTION		LINEAR FT		LINEAR FT
CAP		0		
COLUMN		0		
EPOXY COATING		AREA SF		AREA SF
TOP OF BENT CAP		183.0		
STRUT		108.0		

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 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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FOR CAP AND COLUMN REPAIR, SEE "CAP AND COLUMN REPAIR DETAIL", SHEET.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.



SHOTCRETE REPAIR



CONCRETE REPAIR



EPOXY RESIN INJECTION - ERI

PROJECT NO. **I-5950**

DAVIDSON COUNTY

BRIDGE NO. **280157**

SHEET 1 OF 2



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE REPAIR
BENT 2
SPAN B FACE**

DRAWN BY **KANAK PUROHIT/ REZA KOUCHEK** DATE : 4/2022
CHECKED BY : **H.A. LOCKLEAR** DATE : 5/2022

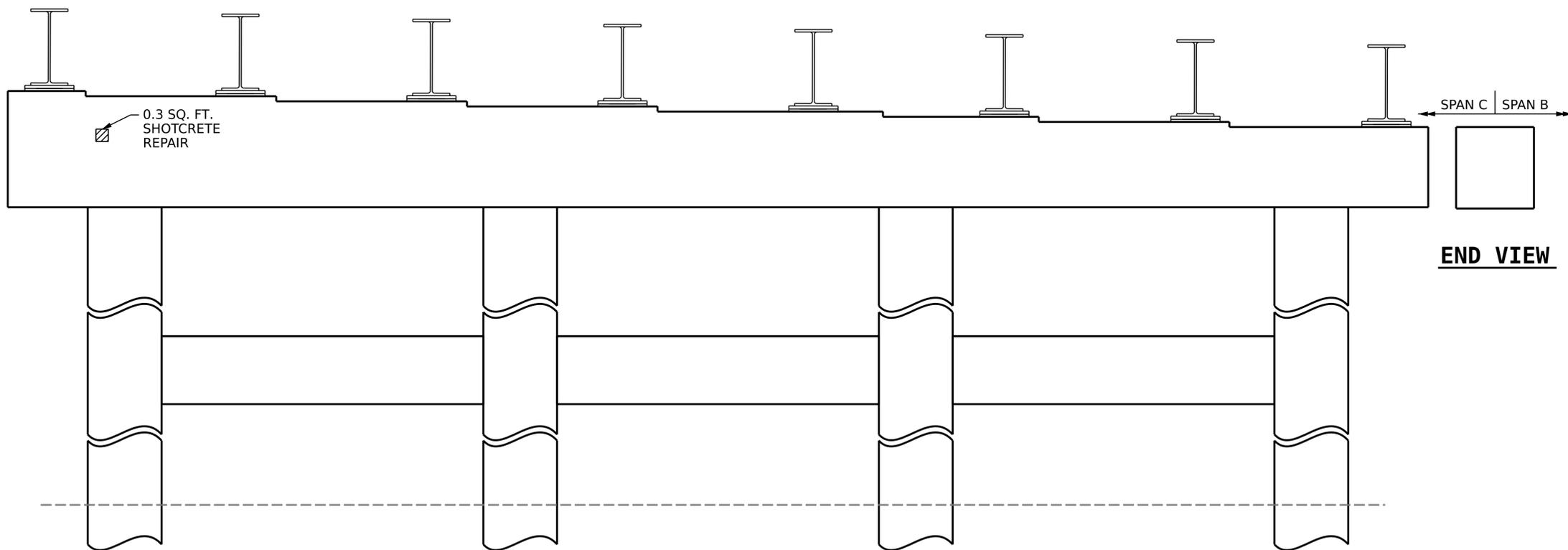
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NO.	BY:	DATE:	NO.	BY:	DATE:	
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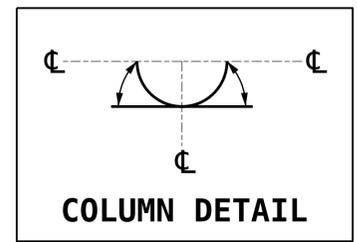
SPAN C
SPAN B

BOTTOM OF CAP



END VIEW

**ELEVATION
SPAN C FACE**



COLUMN DETAIL

AS-BUILT REPAIR QUANTITY TABLE

REPAIRS - BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.3	0.2		
COLUMN	0	0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0	0		
COLUMN	0	0		
EPOXY RESIN INJECTION		LINEAR FT		LINEAR FT
CAP		0		
COLUMN		0		

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 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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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION , SEE SPECIAL PROVISIONS.

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION -ERI

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**

SHEET 2 OF 2



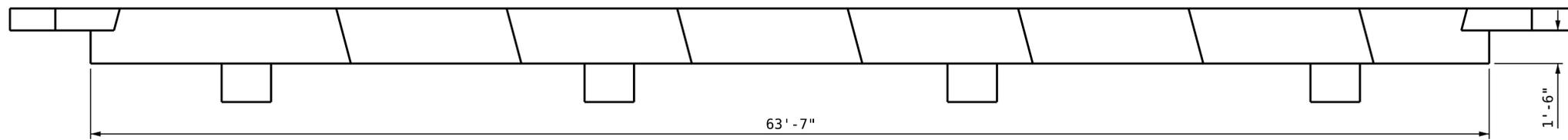
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTURCTURE REPAIR
 BENT 2
 SPAN C FACE**

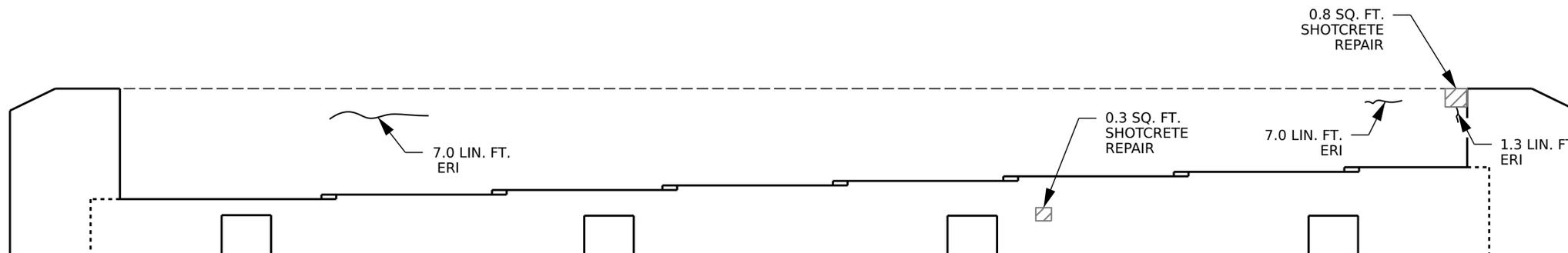
DRAWN BY **KANAK PUROHIT/ REZA KOUCHEK** DATE : **4/2022**
 CHECKED BY : **H.A. LOCKLEAR** DATE : **5/2022**

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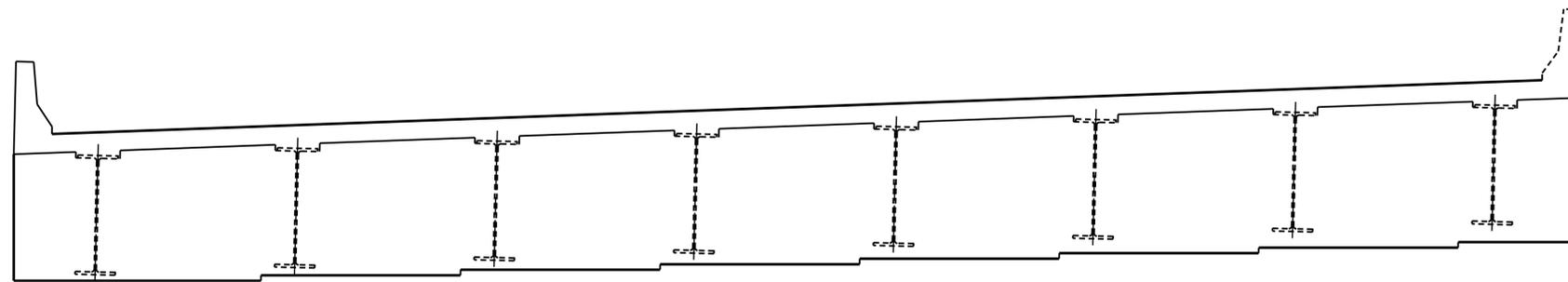
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NO.	BY:	DATE:	NO.	BY:	
1			3		TOTAL SHEETS 15
2			4		



PLAN



ELEVATION



CURTAIN WALL ELEVATION

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION - ERI

AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS - END BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.3	0.2		
CURTAIN WALL	0.8	0.4		
WINGWALL	0.0	0.0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
CURTAIN WALL	0.0	0.0		
WINGWALL	0.0	0.0		
EPOXY RESIN INJECTION		LINEAR FT		LINEAR FT
CAP		0.0		
CURTAIN WALL		15.3		
WINGWALL		0.0		
EPOXY COATING		AREA SF		AREA SF
CAP		112.0		
CURTAIN WALL		248.0		

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.

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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FOR CAP AND COLUMN REPAIRS, 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.

PROJECT NO. **I-5950**
DAVIDSON COUNTY
 BRIDGE NO. **280157**



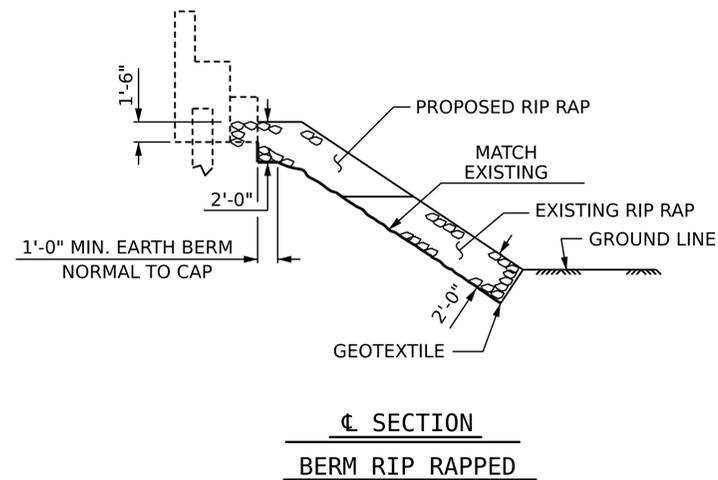
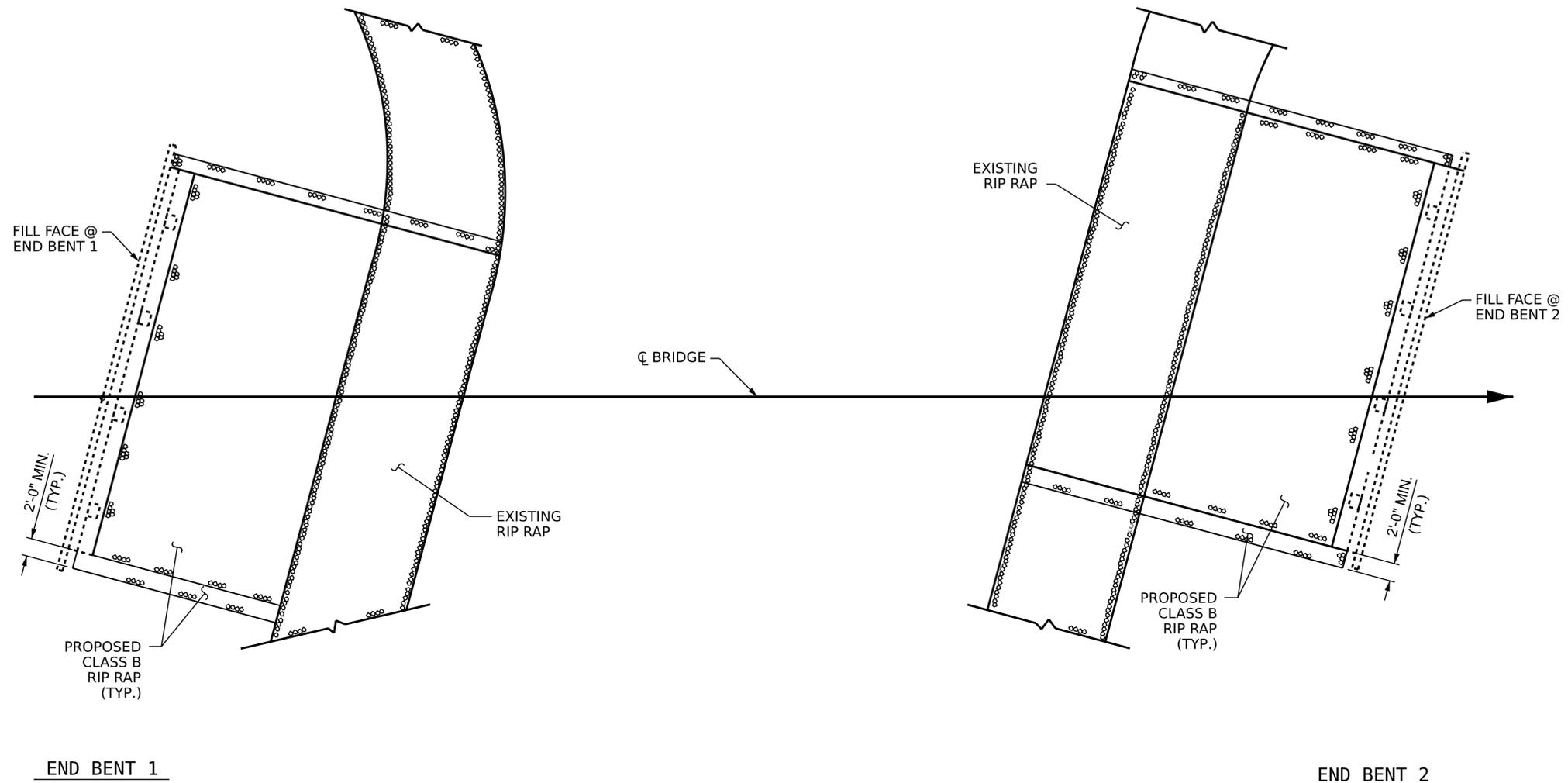
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE REPAIR
 END BENT 2**

DRAWN BY : K.PUROHIT/ REZA KOUCHEKI DATE : 4/2022
 CHECKED BY : H.A. LOCKLEAR DATE : 5/2022

DOCUMENT NOT CONSIDERED
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REVISIONS						SHEET NO. S7-14
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 15
2			4			

NOTE:
FOR CLASS B RIP RAP, SEE STANDARD SPECIFICATIONS
FOR ROADS AND STRUCTURES, 2018



ESTIMATED QUANTITIES		
BRIDGE NO. 280157	RIP RAP CLASS B (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE
	TONS	SQUARE YARDS
END BENT 1	285	317
END BENT 2	211	234

PROJECT NO. **I-5950**
DAVIDSON COUNTY
BRIDGE NO. **280157**



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**CLASS B
RIP RAP DETAILS**

REVISIONS					SHEET NO. S7-15
NO.	BY:	DATE:	NO.	DATE:	
1			3		TOTAL SHEETS 15
2			4		

DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

DRAWN BY : E. BAYISSA DATE : 05/2022
CHECKED BY : H.A. LOCKLEAR DATE : 05/2022

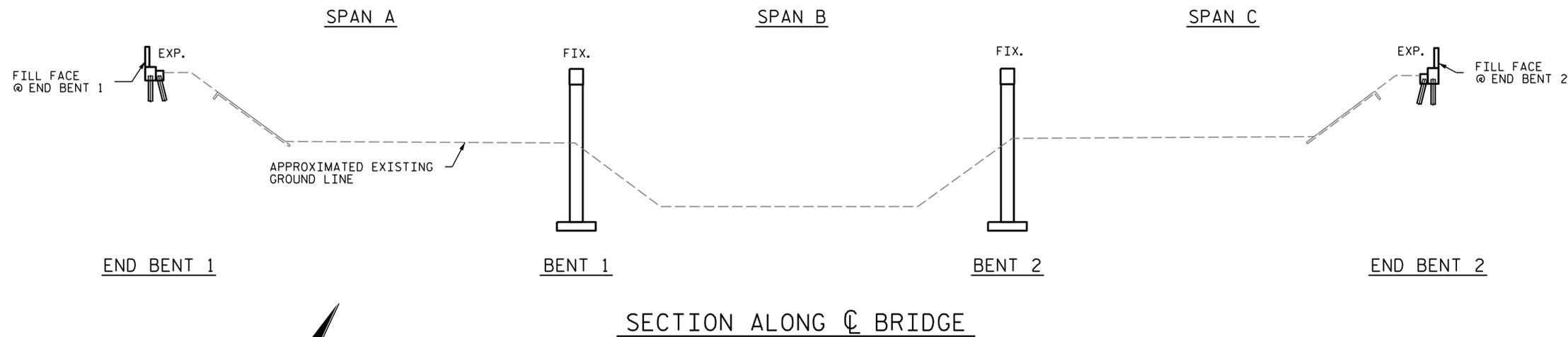
NOTES

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 05/08/2022.

BRIDGE ORIENTATION CONFORMS TO THE ORIGINAL BRIDGE PLANS/ROUTINE INSPECTION.

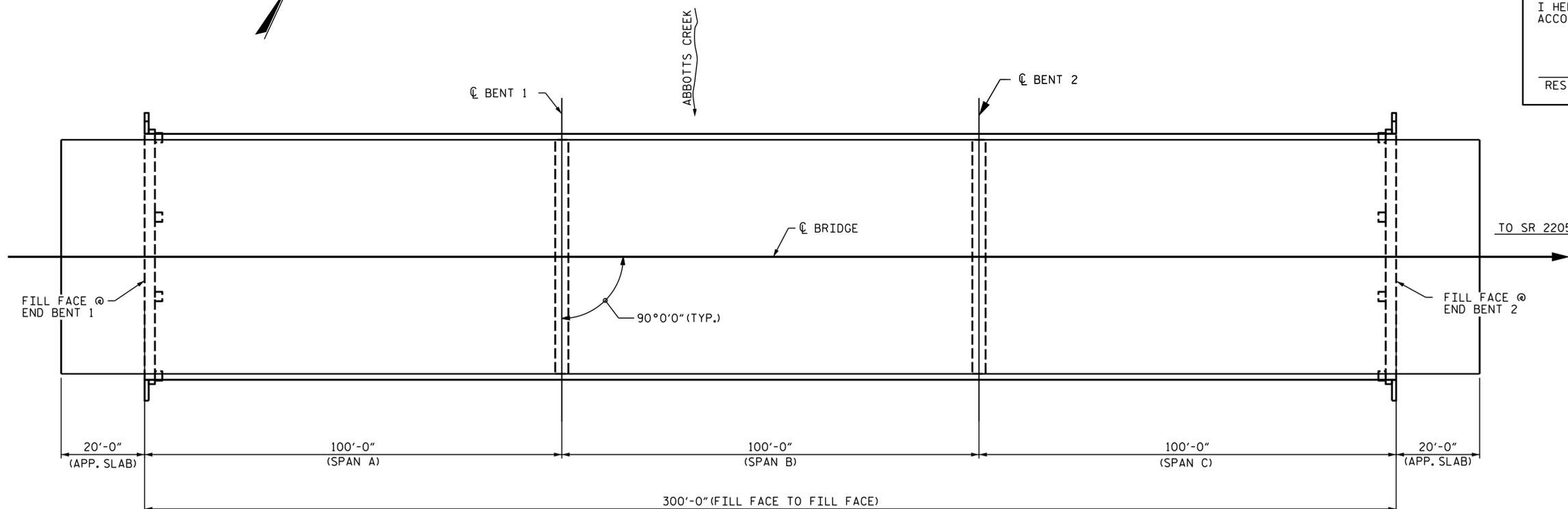
SCOPE OF WORK

- PARTIALLY REMOVE TOP OF BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- OVERLAY PREPARED TOP OF BRIDGE DECK WITH POLYMER CONCRETE (PC).
- REMOVE EXISTING JOINT MATERIALS AND INSTALL FOAM JOINT SEALS FOR PRESERVATION.
- GROOVE PC BRIDGE DECK.
- CLEAN AND PAINT EXISTING STEEL BEARINGS AT END BENTS.
- REMOVE DEBRIS FROM TOP OF EXISTING END BENT CAPS AND APPLY EPOXY COATING.
- EPOXY RESIN INJECTION OF CONCRETE CRACKS.
- REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING END BENT AND BENT AREAS FOR SHOTCRETE AND CONCRETE REPAIRS.
- PROPERLY PREPARE SPALLED AREAS IN EXISTING END BENTS AND BENTS AND PERFORM SHOTCRETE AND CONCRETE REPAIR.
- PLACE RIP RAP AND FLOWABLE FILL FOR SLOPE PROTECTION.



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

RESIDENT ENGINEER _____ DATE _____



PLAN

PROJECT NO. I-5950
DAVIDSON COUNTY
 BRIDGE NO. 280170

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING

FOR BRIDGE ON I85-N
 OVER ABBOTTS CREEK



DRAWN BY : C. RUIZ DATE : 09/2020
 CHECKED BY : E. BAYISSA/H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S8-01
1			3			TOTAL SHEETS
2			4			15

8/26/21



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°-47'-12.1"
LONGITUDE: - 80°-14'-07.3"

NOTES

- EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.
- THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN WHAT IS SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.
- 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.
- ANY DAMAGE TO EXISTING REINFORCING STEEL, DURING CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AND PERFORMED AT NO ADDITIONAL COST TO THE DEPARTMENT.
- PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASK FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.
- EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATIONS OF THE BRIDGE DECK. THE CONTRACTOR SHALL TAKE CARE THAT ANY CONSTRUCTION DEBRIS THAT COLLECTS IN THE DRAINS IS CONTAINED. DRAINS IN SHOULDERS OF ADJACENT TRAVEL LANE(S) SHALL BE KEPT FREE AND CLEAR OF DEBRIS.
- FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.
- LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.
- FOR SCARIFYING BRIDGE DECK, SHOTBLASTING BRIDGE DECK AND CLASS II SURFACE PREPARATION FOR POLYMER CONCRETE, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
- FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.
- FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.
- FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.
- FOR FLOWABLE FILL, SEE SPECIAL PROVISIONS.
- FOR CLASS B RIP RAP, SEE SPECIAL PROVISIONS.
- FOR CLEANING AND PAINTING EXISTING BEARING PLATES, SEE SPECIAL PROVISIONS.
- FOR CONCRETE DECK REPAIR FOR PC OVERLAY, PC MATERIALS, AND PLACING AND FINISHING PC OVERLAY, SEE POLYMER CONCRETE BRIDGE DECK OVERLAY SPECIAL PROVISIONS.

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

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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

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

UNANTICIPATED ITEMS:

ITEM NO.	DESCRIPTION	UNIT
1	CONCRETE REPAIRS	CU. FT.

PROJECT NO. I-5950
DAVIDSON COUNTY
 BRIDGE NO. 280170

TOTAL BILL OF MATERIALS																
BRIDGE NO. 280170	GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	RIP RAP CLASS B	GEOTEXTILE FOR DRAINAGE	SHOTCRETE REPAIRS	EPOXY RESIN INJECTION	FOAM JOINT SEALS FOR PRESERVATION	POLYESTER POLYMER CONCRETE MATERIALS	EPOXY POLYMER CONCRETE MATERIALS (ALTERNATE)	FLOWABLE FILL	EPOXY COATING	CONCRETE DECK REPAIR FOR POLYMER CONCRETE OVERLAY	PLACING & FINISHING POLYMER CONCRTE OVERLAY	SCARIFYING BRIDGE DECK	SHOTBLASTING BRIDGE DECK	CLEANING & PAINTING EXISTING BEARING PLATES
	SQ. FT.	SQ. YDS	TONS	SQ. YDS.	CU. FT.	LIN. FT.	LN. FT.	CU. YDS.	CU. YDS.	CU. YDS.	SQ. FT.	SQ. YDS	SQ. YDS.	SQ. YDS.	SQ. YDS.	EA.
TOTAL	17,853	13.5	80.0	89.0	5.2	106.0	116.6	73.0	73.0	3.0	536.8	13.5	2,102.2	2,102.2	2,102.2	16



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING

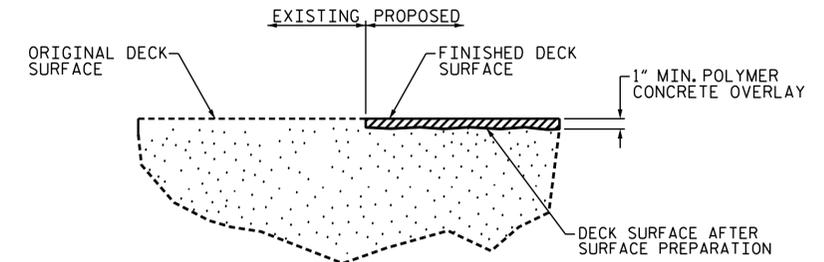
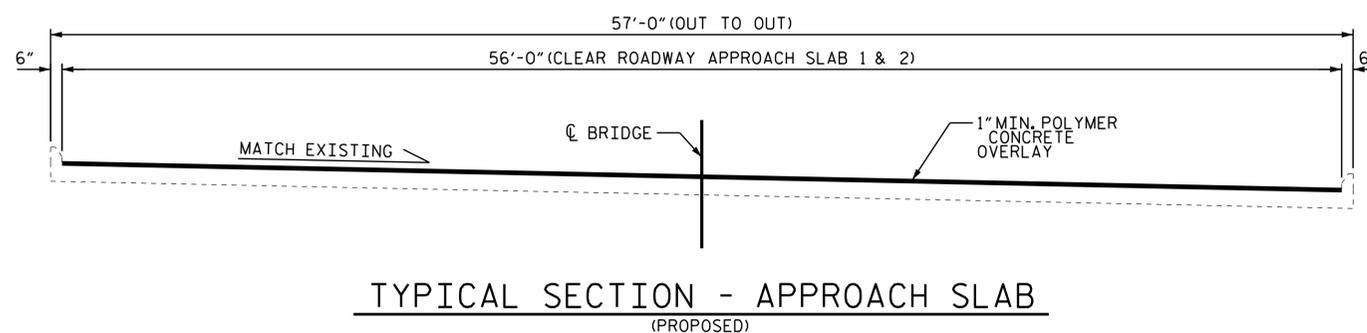
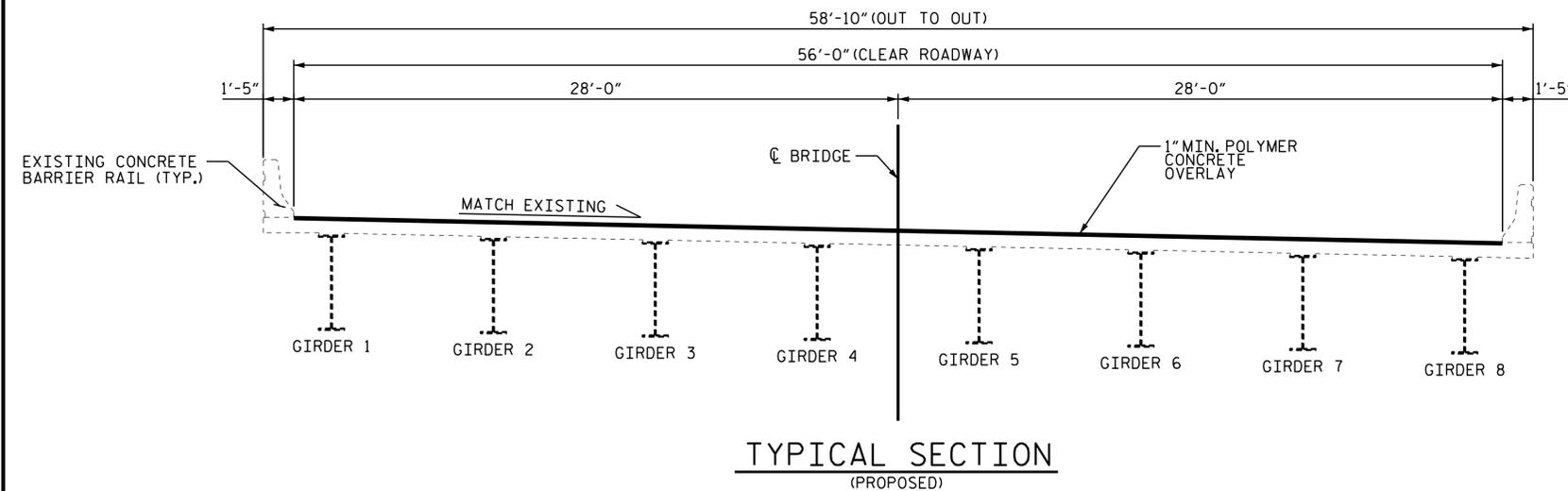
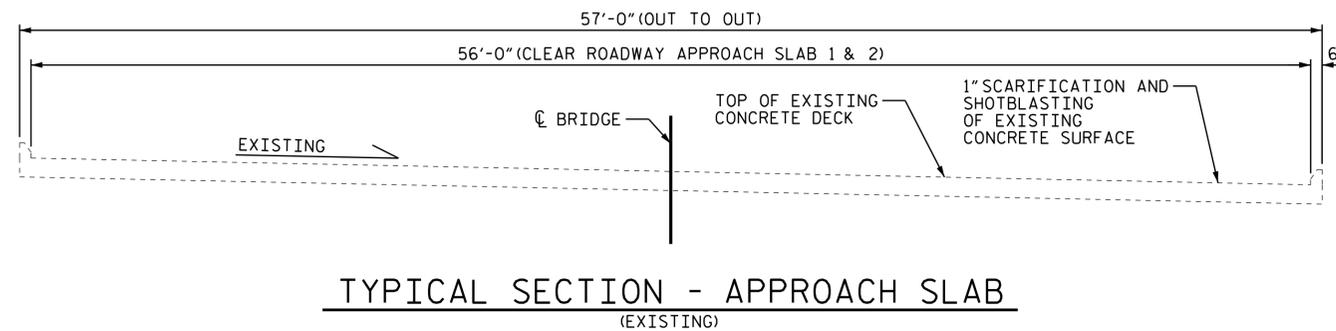
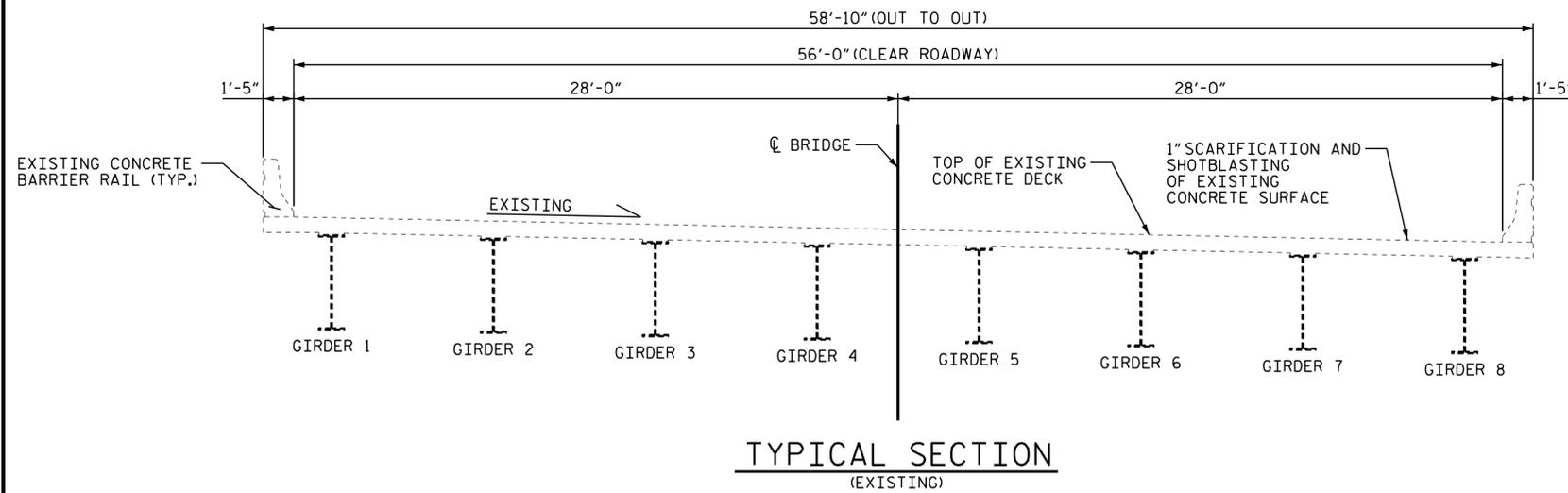
FOR BRIDGE ON I85-N
 OVER ABBOTTS CREEK

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S8-02
1			3			TOTAL SHEETS
2			4			15

DRAWN BY : C.RUIZ DATE : 04/2022
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

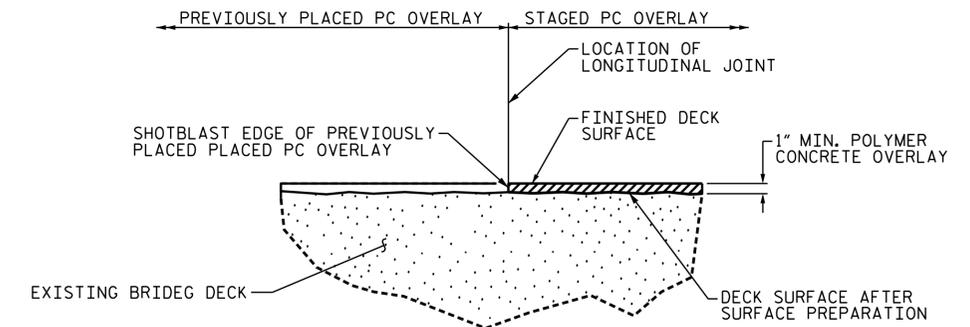
DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

NOTES:
 SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYMER CONCRETE PLACEMENT.



DETAIL FOR POLYMER CONCRETE OVERLAY

FINISHED SURFACE ELEVATION SHALL MATCH EXISTING CONCRETE SURFACE ELEVATION. ACTUAL THICKNESS OF PC OVERLAY MAY VARY.



STAGED PC OVERLAY JOINT

PROJECT NO. I-5950
DAVIDSON COUNTY
 BRIDGE NO. 280170



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 TYPICAL SECTION &
 PC OVERLAY DETAIL**

DRAWN BY : C. RUIZ DATE : 09/2020
 CHECKED BY : E. BAYISSA/H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			58-03
2			4			TOTAL SHEETS 15

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.

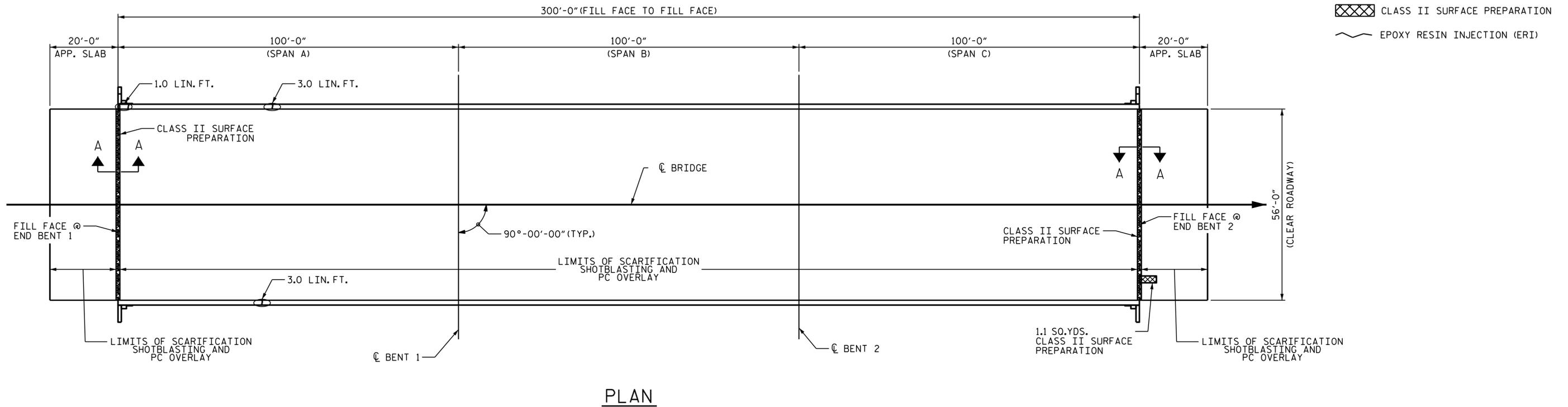
FOR SCARIFYING BRIDGE DECK, SHOTBLASTING BRIDGE DECK AND CLASS II SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, PC MATERIALS, AND PLACING AND FINISHING PC OVERLAY, SEE POLYESTER POLYMER CONCRETE BRIDGE DECK OVERLAY SPECIAL PROVISION.

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.

FOR SECTION A-A SEE "JOINT DETAILS" SHEET.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.



XXXX CLASS II SURFACE PREPARATION
 ~~~~~ EPOXY RESIN INJECTION (ERI)

**PLAN**

**AS-BUILT REPAIR QUANTITY TABLE**

| DECK SURFACE REPAIR                 | APPROACH SLAB 1 |        | SPAN A         |        | SPAN B         |        | SPAN C         |        | APPROACH SLAB 2 |        |
|-------------------------------------|-----------------|--------|----------------|--------|----------------|--------|----------------|--------|-----------------|--------|
|                                     | ESTIMATE        | ACTUAL | ESTIMATE       | ACTUAL | ESTIMATE       | ACTUAL | ESTIMATE       | ACTUAL | ESTIMATE        | ACTUAL |
| SCARIFYING BRIDGE DECK              | 121.1 SQ. YDS.  |        | 618.9 SQ. YDS. |        | 622.2 SQ. YDS. |        | 618.9 SQ. YDS. |        | 121.1 SQ. YDS.  |        |
| SHOTBLASTING BRIDGE DECK            | 121.1 SQ. YDS.  |        | 618.9 SQ. YDS. |        | 622.2 SQ. YDS. |        | 618.9 SQ. YDS. |        | 121.1 SQ. YDS.  |        |
| CLASS II SURFACE PREPARATION        | 3.1 SQ. YDS.    |        | 3.1 SQ. YDS.   |        | 0.0 SQ. YDS.   |        | 3.1 SQ. YDS.   |        | 4.2 SQ. YDS.    |        |
| CONCRETE DECK REPAIR FOR PC OVERLAY | 3.1 SQ. YDS.    |        | 3.1 SQ. YDS.   |        | 0.0 SQ. YDS.   |        | 3.1 SQ. YDS.   |        | 4.2 SQ. YDS.    |        |
| POLYMER CONCRETE MATERIALS          | 4.2 CU. YDS.    |        | 21.5 CU. YDS.  |        | 21.6 CU. YDS.  |        | 21.5 CU. YDS.  |        | 4.2 CU. YDS.    |        |
| PLACING & FINISHING PC OVERLAY      | 121.1 SQ. YDS.  |        | 618.9 SQ. YDS. |        | 622.2 SQ. YDS. |        | 618.9 SQ. YDS. |        | 121.1 SQ. YDS.  |        |
| GROOVING BRIDGE FLOOR               | 1014.0 SQ. FT.  |        | 5262.5 SQ. FT. |        | 5300.0 SQ. FT. |        | 5262.5 SQ. FT. |        | 1014.0 SQ. FT.  |        |
| RAIL REPAIR                         |                 |        |                |        |                |        |                |        |                 |        |
| EPOXY RESIN INJECTION               |                 |        | 7.0 LIN. FT.   |        | 0.0 LIN. FT.   |        | 0.0 LIN. FT.   |        |                 |        |

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**DECK SURFACE REPAIR**

DRAWN BY : C. RUIZ DATE : 09/2020  
 CHECKED BY : E. BAYISSA/H.A. LOCKLEAR DATE : 04/2022

| NO. | REVISIONS |       |  | NO. | REVISIONS |       |                 | SHEET NO. |
|-----|-----------|-------|--|-----|-----------|-------|-----------------|-----------|
|     | BY:       | DATE: |  |     | BY:       | DATE: |                 |           |
| 1   |           |       |  | 3   |           |       | S8-04           |           |
| 2   |           |       |  | 4   |           |       | TOTAL SHEETS 15 |           |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**NOTE**  
 THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN DETAIL BY MORE THAN 1/4", NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.

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

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

THE INSTALLATION OF THE JOINT SEAL SHALL BE WATERTIGHT.

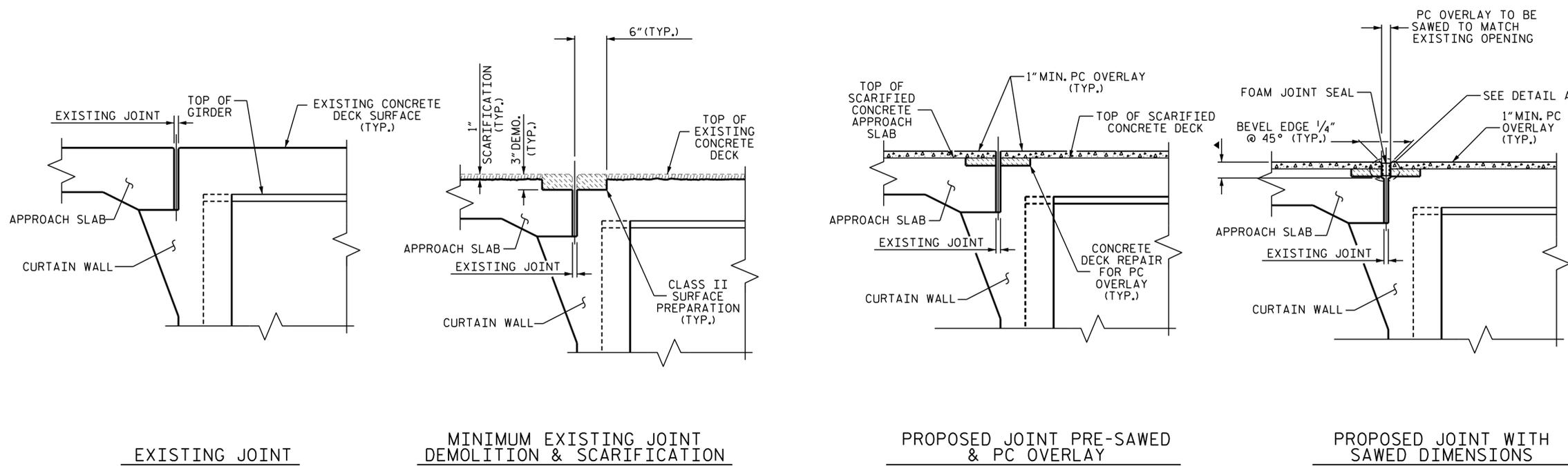
DURING THE JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

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 THAT ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

A MANUFACTURER'S CERTIFIED TRAINED REPRESENTATIVE SHALL BE PRESENT DURING THE INSTALLATION OF THE FIRST JOINT OF THE PROJECT, OR UNTIL THE ENGINEER IS SATISFIED WITH THE INSTALL PROCESS.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL OR ELASTOMERIC CONCRETE SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

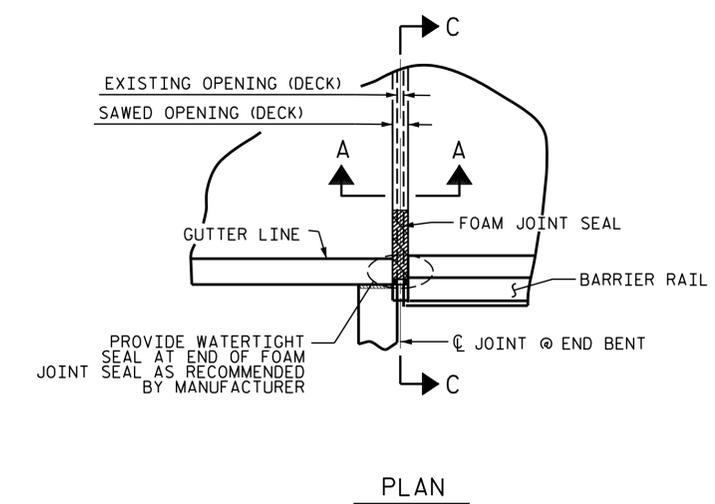


▲ SAW CUT SHALL BE 1" BELOW THE BOTTOM OF FOAM JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

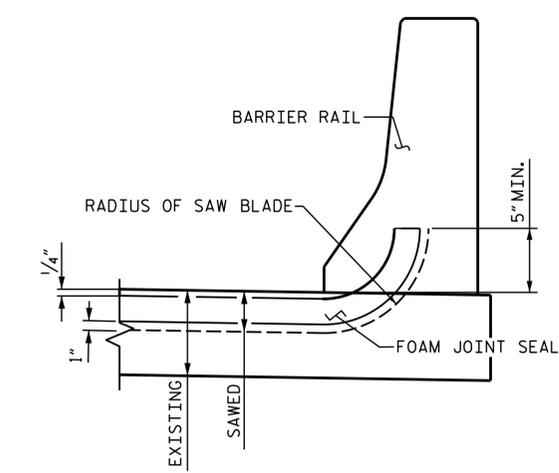
**JOINT INSTALLATION SEQUENCE AT END BENTS**  
 SECTION A-A

| JOINT REPAIR QUANTITY TABLE       |          |        |
|-----------------------------------|----------|--------|
|                                   | ESTIMATE | ACTUAL |
| FOAM JOINT SEALS FOR PRESERVATION |          |        |
| END BENT 1                        | 58.3 LF  |        |
| END BENT 2                        | 58.3 LF  |        |
| TOTAL                             | 116.6 LF |        |

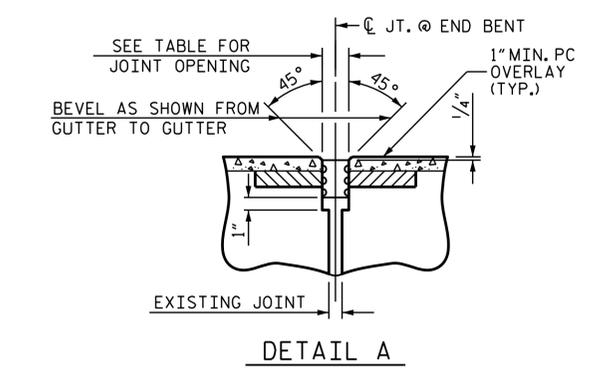
| SAWED JOINT OPENING TABLE |                                              |        |        |
|---------------------------|----------------------------------------------|--------|--------|
|                           | SAWED JOINT OPENING (PERPENDICULAR TO JOINT) |        |        |
| LOCATION                  | AT 45°                                       | AT 60° | AT 90° |
| END BENT 1                | 3/8"                                         | 3"     | 2 3/4" |
| END BENT 2                | 3/8"                                         | 3"     | 2 3/4" |



PLAN

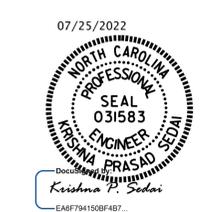


SECTION C-C



DETAIL A

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**JOINT DETAILS**

DRAWN BY : E. BAYISSA/C. RUIZ DATE : 09/2019  
 CHECKED BY : E. BAYISSA/H. LOCKLEAR DATE : 10/2020

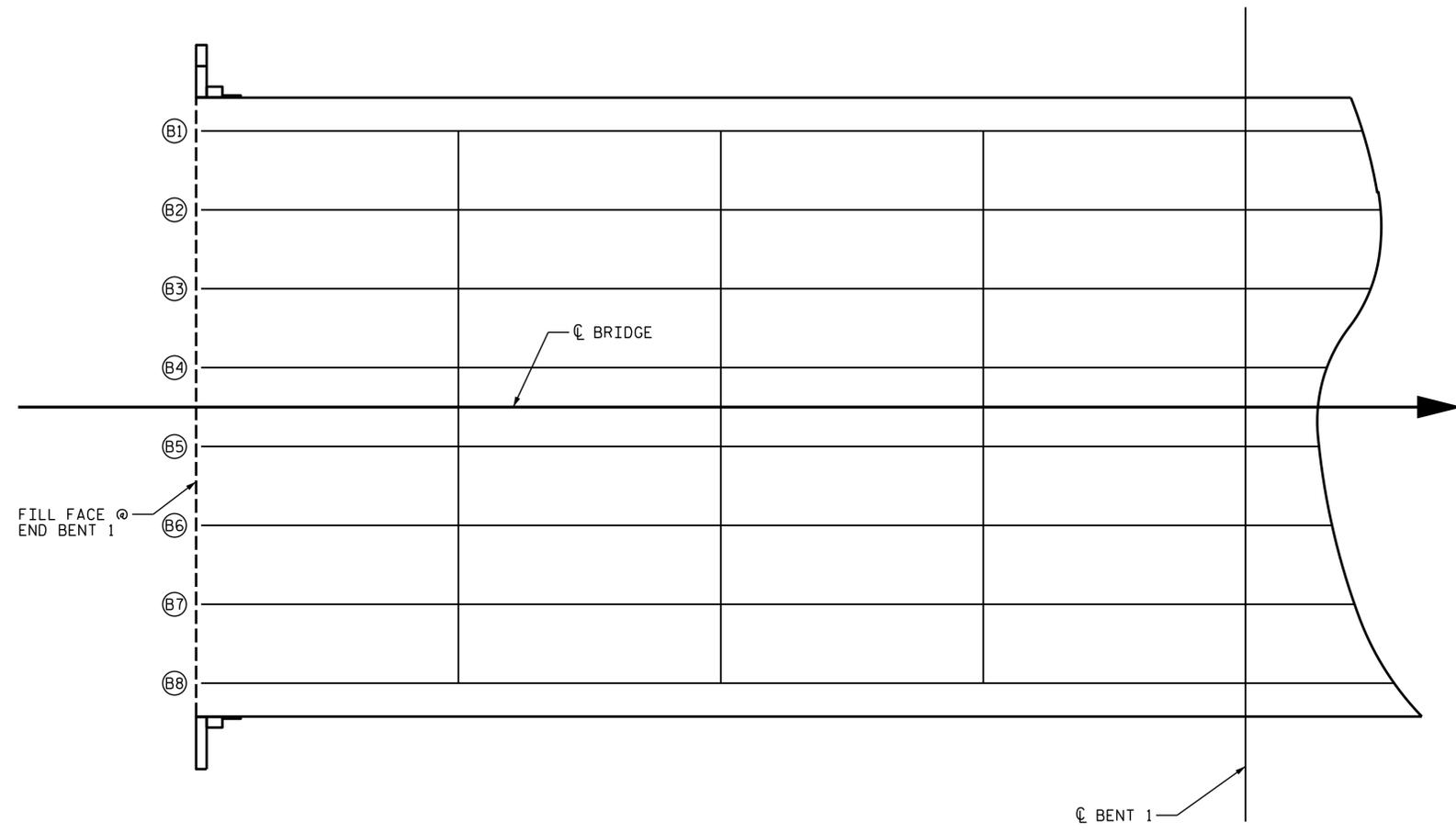
| NO. | REVISIONS |       |     | SHEET NO.                |
|-----|-----------|-------|-----|--------------------------|
|     | BY:       | DATE: | NO. |                          |
| 1   |           |       | 3   | S8-05<br>TOTAL SHEETS 15 |
| 2   |           |       | 4   |                          |

# AS-BUILT REPAIR QUANTITY TABLE

## UNDERSIDE OF DECK REPAIRS - SPAN A

| SHOTCRETE REPAIRS     | ESTIMATE     |                | ACTUAL       |                |
|-----------------------|--------------|----------------|--------------|----------------|
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS      | ESTIMATE     |                | ACTUAL       |                |
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION |              | LIN. FT.       | LIN. FT.     |                |
| UNDERSIDE OF DECK     |              | 0.0            |              |                |
| BENT DIAPHRAGM        |              | 0.0            |              |                |
| OVERHANG              |              | 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 "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.



SPAN A

### 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 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.

THE CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

(B1) BEAM NUMBER

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170

SHEET 1 OF 3



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

DECK UNDERSIDE  
 REPAIR  
 SPAN A

DRAWN BY : CRUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.       |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                 |
| 1         |     |       | 3   |     |       | 58-06           |
| 2         |     |       | 4   |     |       | TOTAL SHEETS 15 |

# AS-BUILT REPAIR QUANTITY TABLE

## UNDERSIDE OF DECK REPAIRS - SPAN B

| SHOTCRETE REPAIRS     | ESTIMATE     |                | ACTUAL       |                |
|-----------------------|--------------|----------------|--------------|----------------|
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS      | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION | LIN. FT.     |                | LIN. FT.     |                |
| UNDERSIDE OF DECK     | 0.0          |                |              |                |
| BENT DIAPHRAGM        | 0.0          |                |              |                |
| OVERHANG              | 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 "OVERHANG, DIAPHRAGM AND BRIDGE RAIL 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 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.

THE CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

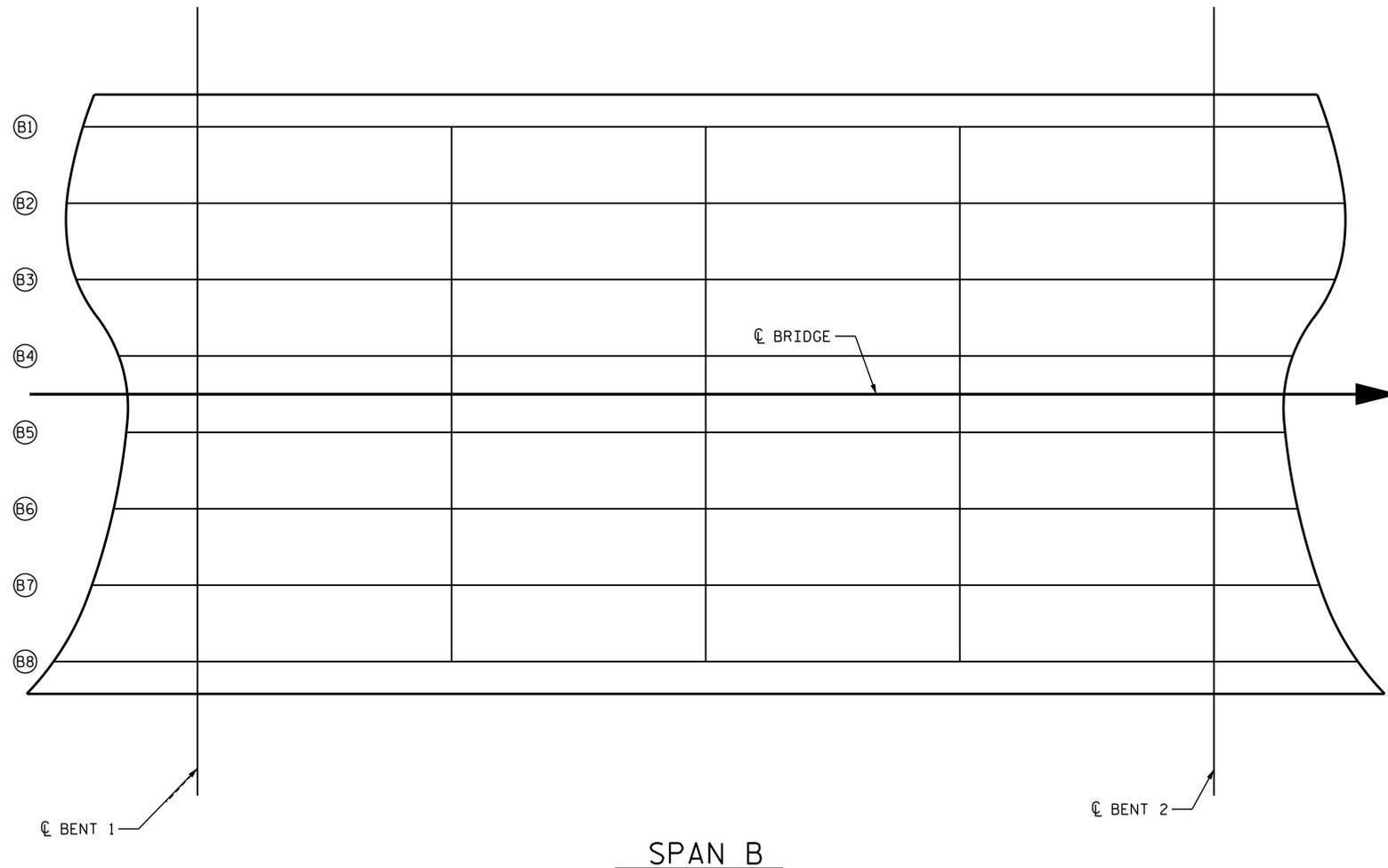
SHOTCRETE REPAIRS MAYBE SUBSTITUTED IN LIEU OF CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

(B1) BEAM NUMBER



PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170

SHEET 2 OF 3



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

DECK UNDERSIDE  
 REPAIR  
 SPAN B

DRAWN BY : CRUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S8-07        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 15           |

# AS-BUILT REPAIR QUANTITY TABLE

## UNDERSIDE OF DECK REPAIRS - SPAN C

| SHOTCRETE REPAIRS     | ESTIMATE     |                | ACTUAL       |  |
|-----------------------|--------------|----------------|--------------|--|
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. |  |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |  |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |  |
| OVERHANG              | 0.0          | 0.0            |              |  |
| CONCRETE REPAIRS      | ESTIMATE     |                | ACTUAL       |  |
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. |  |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |  |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |  |
| OVERHANG              | 0.0          | 0.0            |              |  |
| EPOXY RESIN INJECTION |              | LIN. FT.       | LIN. FT.     |  |
| UNDERSIDE OF DECK     |              | 0.0            |              |  |
| BENT DIAPHRAGM        |              | 0.0            |              |  |
| OVERHANG              |              | 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 "OVERHANG, DIAPHRAGM AND BRIDGE RAIL 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 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.

THE CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

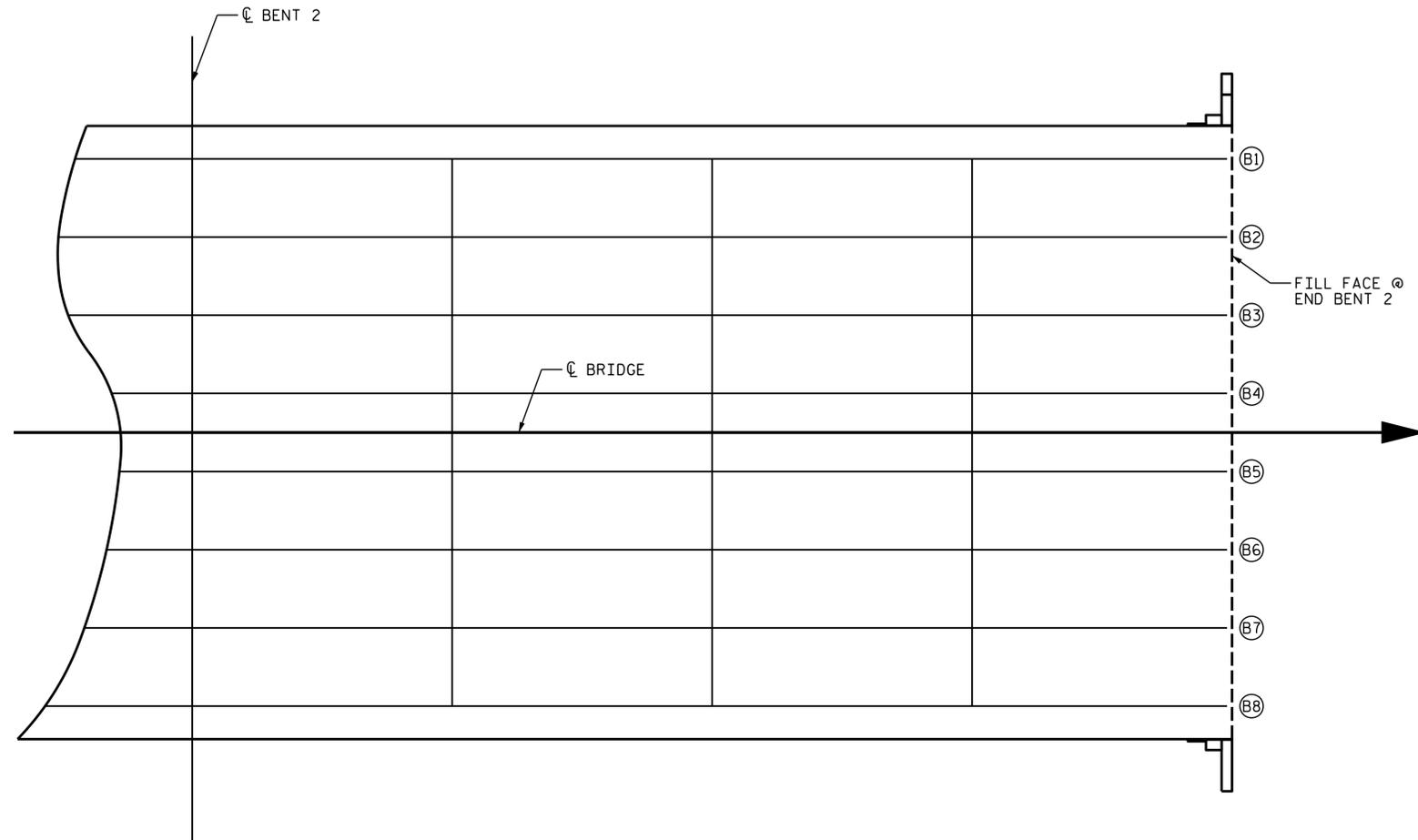
SHOTCRETE REPAIRS MAYBE SUBSTITUTED IN LIEU OF CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

(B1) BEAM NUMBER



SPAN C

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170

SHEET 3 OF 3



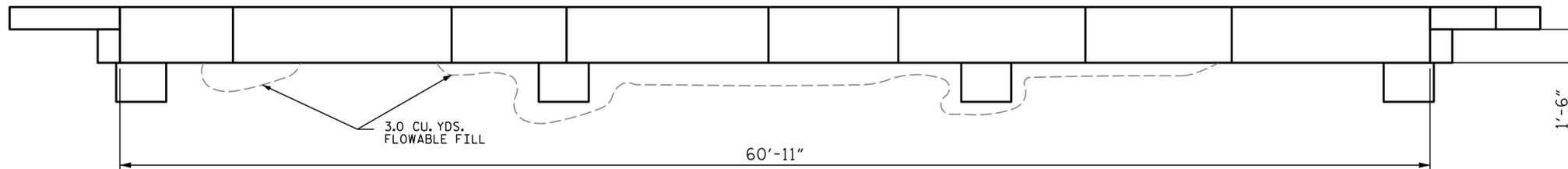
STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

DECK UNDERSIDE  
 REPAIR  
 SPAN C

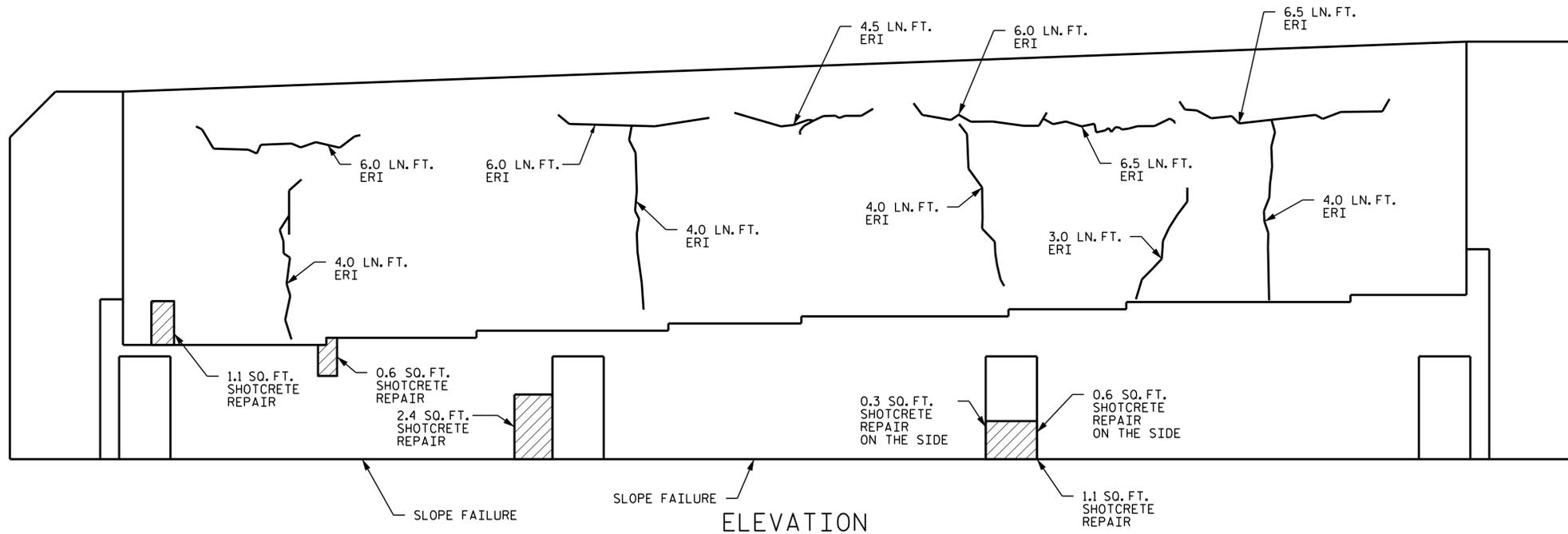
DRAWN BY : CRUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.          |
|-----------|-----|-------|-----|-----|-------|--------------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                    |
| 1         |     |       | 3   |     |       | S8-08              |
| 2         |     |       | 4   |     |       | TOTAL SHEETS<br>15 |



PLAN



ELEVATION

AS-BUILT REPAIR QUANTITY TABLE

| END BENT 1            | QUANTITIES   |                |              |                |
|-----------------------|--------------|----------------|--------------|----------------|
|                       | ESTIMATE     |                | ACTUAL       |                |
| SHOTCRETE REPAIRS     | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| CAP                   | 5.0          | 2.5            |              |                |
| CURTAIN WALL          | 1.1          | 0.6            |              |                |
| CONCRETE REPAIRS      | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| CAP                   | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION | LIN. FT.     |                | LIN. FT.     |                |
| CURTAIN WALL          | 54.5         |                |              |                |
| CAP                   | 0.0          |                |              |                |
| EPOXY COATING         | SQ. FT.      |                | SQ. FT.      |                |
| TOP OF END BENT CAP   | 91.4         |                |              |                |
| FLOWABLE FILL         | CU. YDS.     |                | SQ. FT.      |                |
| FRONT OF END BENT CAP | 3.0          |                |              |                |

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 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 CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

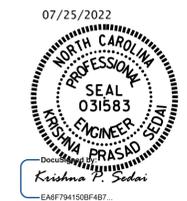
CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

FOR CAP AND COLUMN REPAIR DETAIL, SEE "CAP AND COLUMN REPAIR DETAIL" SHEET.

FOR FLOWABLE FILL, SEE SPECIAL PROVISIONS.

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

END BENT 1

DRAWN BY : CRUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

| NO. | BY: | DATE: | REVISIONS |     |       | SHEET NO.                   |
|-----|-----|-------|-----------|-----|-------|-----------------------------|
|     |     |       | NO.       | BY: | DATE: |                             |
| 1   |     |       | 3         |     |       | S8-09<br>TOTAL SHEETS<br>15 |
| 2   |     |       | 4         |     |       |                             |

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FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

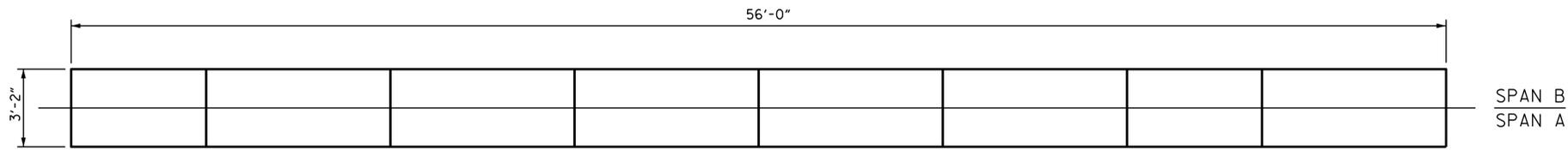
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

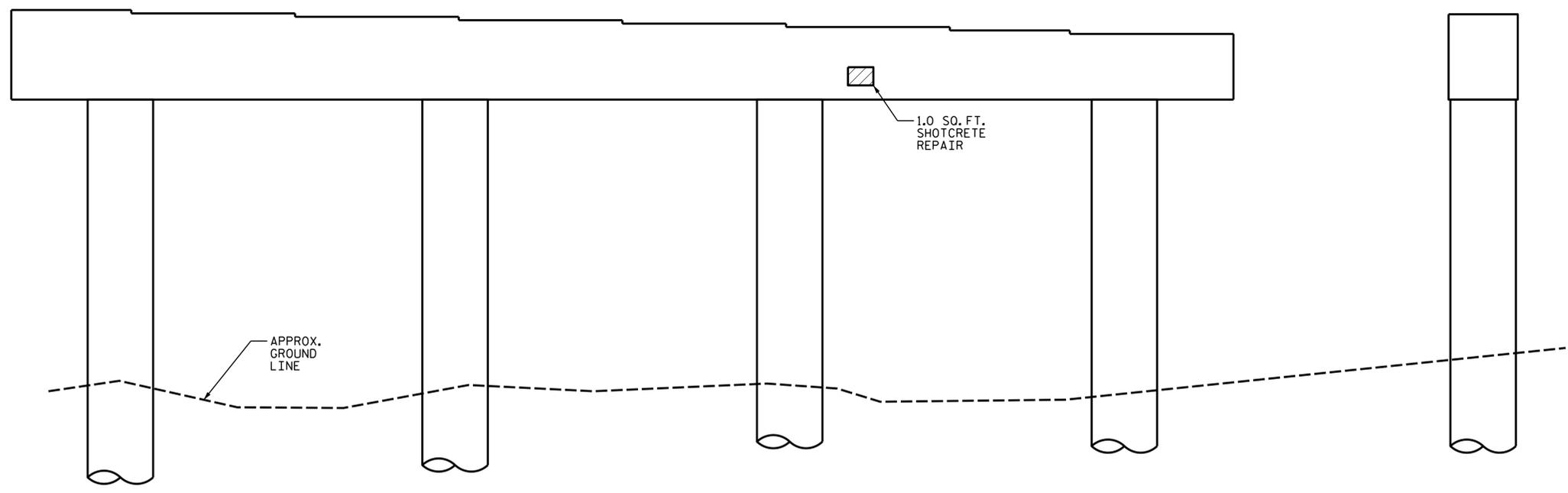
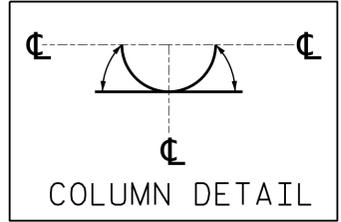
-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION - ERI

| AS-BUILT REPAIR QUANTITY TABLE |              |                |              |                |
|--------------------------------|--------------|----------------|--------------|----------------|
| BENT 1 SPAN A FACE             | QUANTITIES   |                |              |                |
|                                | ESTIMATE     |                | ACTUAL       |                |
| SHOTCRETE REPAIRS              | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                            | 1.0          | 0.5            |              |                |
| COLUMN                         | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS               | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                            | 0.0          | 0.0            |              |                |
| COLUMN                         | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION          |              | LIN. FT.       | LIN. FT.     |                |
| CAP                            |              | 0.0            |              |                |
| COLUMN                         |              | 0.0            |              |                |
| EPOXY COATING                  |              | AREA SF        | AREA SF      |                |
| TOP OF BENT CAP                |              | 177.0          |              |                |

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.



TOP OF CAP



ELEVATION

END VIEW

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170

1 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 1  
 SPAN A FACE**

DRAWN BY : C. RUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

| NO. | REVISIONS |       |     | SHEET NO.                   |
|-----|-----------|-------|-----|-----------------------------|
|     | BY:       | DATE: | NO. |                             |
| 1   |           |       | 3   | S8-10<br>TOTAL SHEETS<br>15 |
| 2   |           |       | 4   |                             |

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

 SHOTCRETE REPAIR

 CONCRETE REPAIR

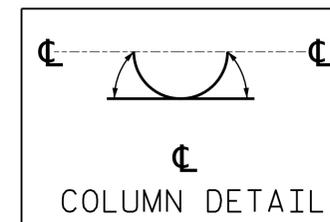
 EPOXY RESIN INJECTION - ERI

| AS-BUILT REPAIR QUANTITY TABLE |              |                |              |                |
|--------------------------------|--------------|----------------|--------------|----------------|
| BENT 1 SPAN B FACE             | QUANTITIES   |                |              |                |
|                                | ESTIMATE     |                | ACTUAL       |                |
| SHOTCRETE REPAIRS              | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                            | 0.0          | 0.0            |              |                |
| COLUMN                         | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS               | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                            | 0.0          | 0.0            |              |                |
| COLUMN                         | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION          |              | LIN. FT.       | LIN. FT.     |                |
| CAP                            |              | 0.0            |              |                |
| COLUMN                         |              | 0.0            |              |                |

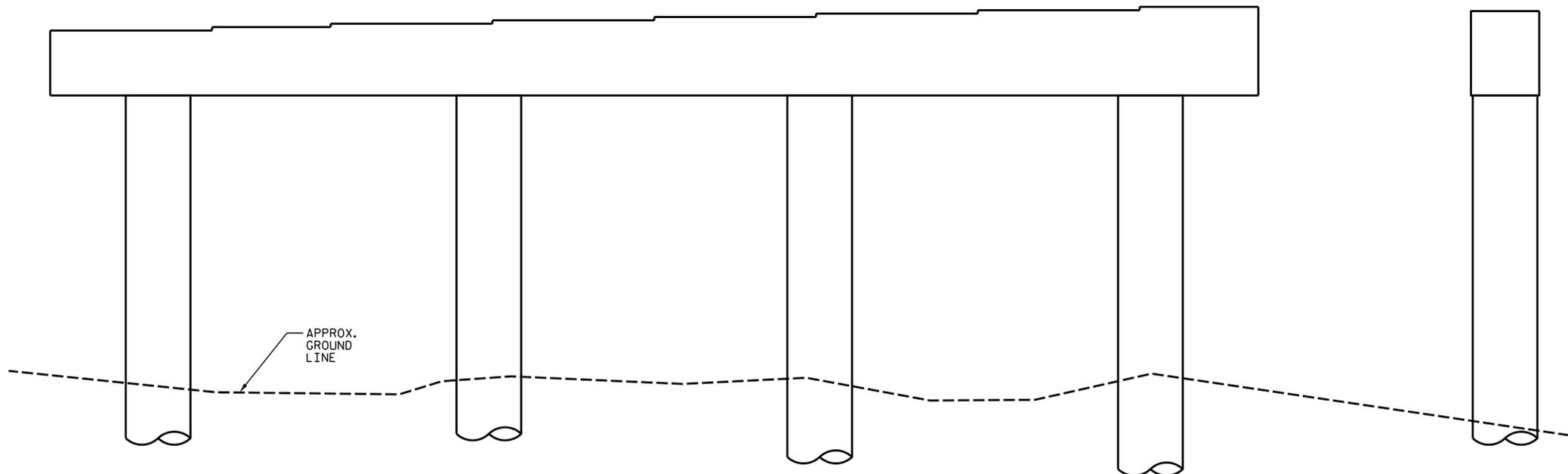
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEARANCE TO SAWCUT. SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.



BOTTOM OF CAP



COLUMN DETAIL



ELEVATION

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170

SHEET 2 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 1  
 SPAN B FACE**

DRAWN BY : C. RUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

| NO. | REVISIONS |       |     | SHEET NO. |
|-----|-----------|-------|-----|-----------|
|     | BY:       | DATE: | NO. |           |
| 1   |           |       | 3   | S8-11     |
| 2   |           |       | 4   |           |

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NOTES

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FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

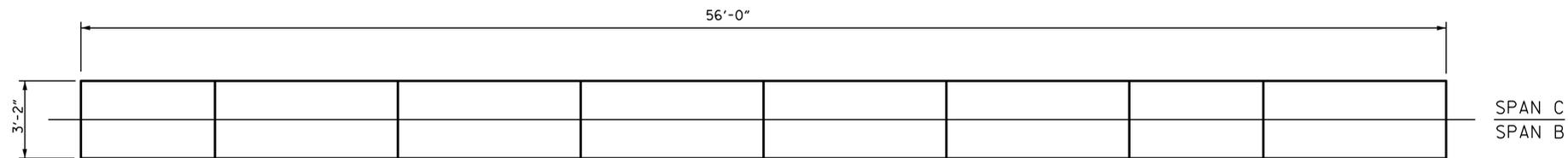
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

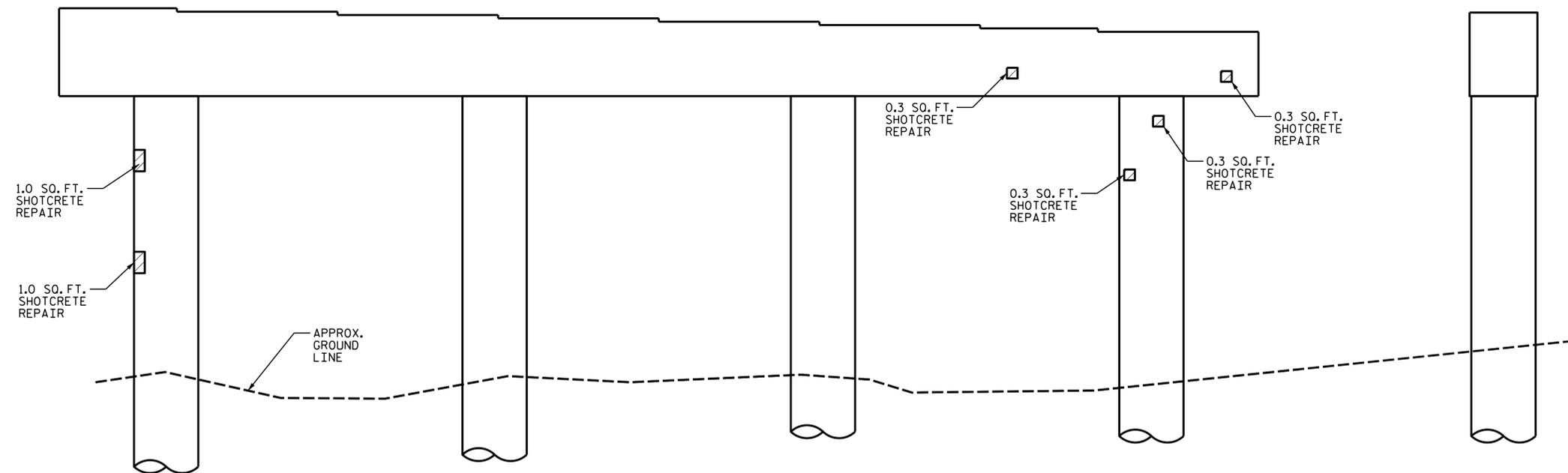
-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION - ERI

| AS-BUILT REPAIR QUANTITY TABLE |              |                |              |                |
|--------------------------------|--------------|----------------|--------------|----------------|
| BENT 2 SPAN B FACE             | QUANTITIES   |                |              |                |
|                                | ESTIMATE     |                | ACTUAL       |                |
| SHOTCRETE REPAIRS              | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                            | 0.6          | 0.3            |              |                |
| COLUMN                         | 2.6          | 1.3            |              |                |
| CONCRETE REPAIRS               | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                            | 0.0          | 0.0            |              |                |
| COLUMN                         | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION          |              | LIN. FT.       | LIN. FT.     |                |
| CAP                            |              | 0.0            |              |                |
| COLUMN                         |              | 0.0            |              |                |
| EPOXY COATING                  |              | AREA SF        | AREA SF      |                |
| TOP OF BENT CAP                |              | 177.0          |              |                |

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.



TOP OF CAP

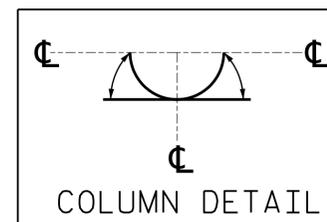


ELEVATION

SPAN B | SPAN C



END VIEW



PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170

SHEET 1 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 2  
 SPAN B FACE**

DRAWN BY : C. RUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S8-12        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 15           |

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

 SHOTCRETE REPAIR

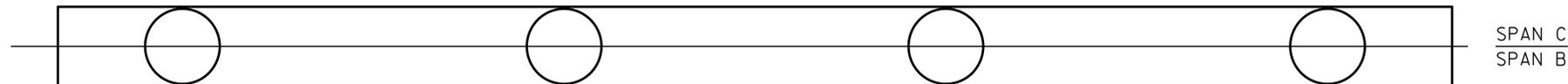
 CONCRETE REPAIR

 EPOXY RESIN INJECTION - ERI

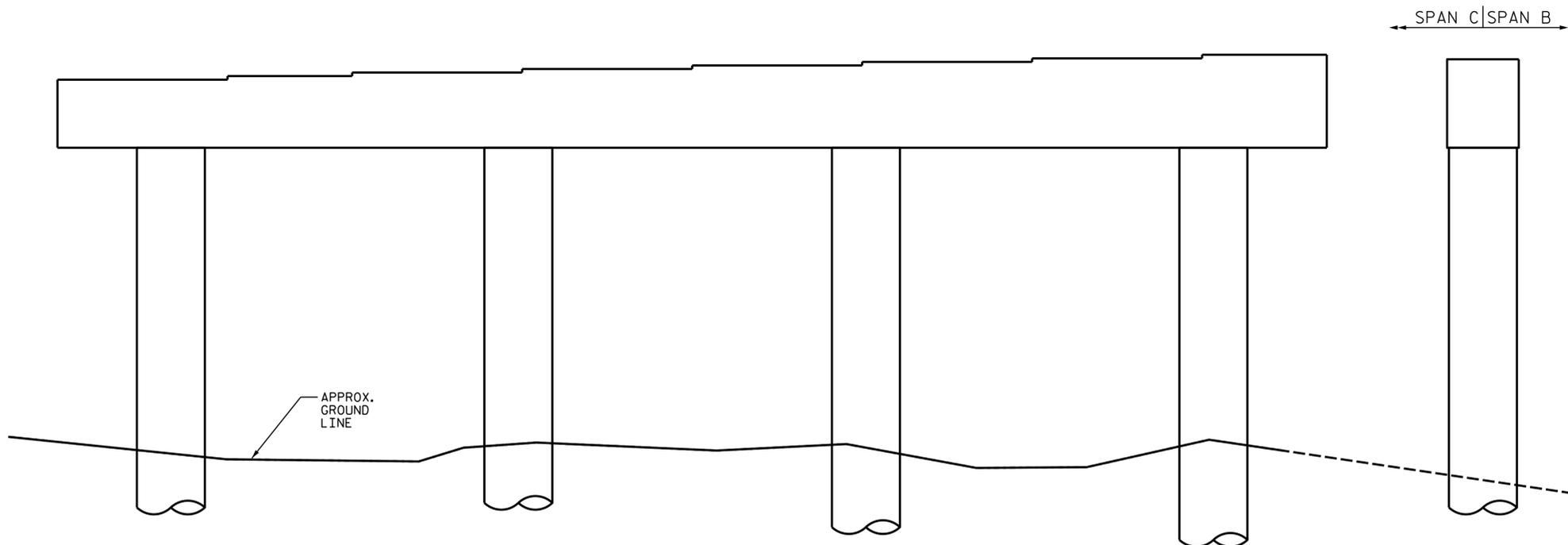
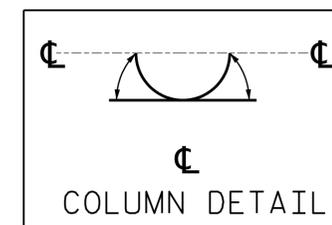
AS-BUILT REPAIR QUANTITY TABLE

| BENT 2 SPAN C FACE    | QUANTITIES   |                |              |                |
|-----------------------|--------------|----------------|--------------|----------------|
|                       | ESTIMATE     |                | ACTUAL       |                |
| SHOTCRETE REPAIRS     | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                   | 0.0          | 0.0            |              |                |
| COLUMN                | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS      | AREA SO. FT. | VOLUME CU. FT. | AREA SO. FT. | VOLUME CU. FT. |
| CAP                   | 0.0          | 0.0            |              |                |
| COLUMN                | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION | LIN. FT.     |                | LIN. FT.     |                |
| CAP                   | 0.0          |                |              |                |
| COLUMN                | 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.



BOTTOM OF CAP



ELEVATION

END VIEW

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170

SHEET 2 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 2  
 SPAN C FACE**

DRAWN BY : C. RUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

| NO. | REVISIONS |       |  | NO. | REVISIONS |       |  | SHEET NO.       |
|-----|-----------|-------|--|-----|-----------|-------|--|-----------------|
|     | BY:       | DATE: |  |     | BY:       | DATE: |  |                 |
| 1   |           |       |  | 3   |           |       |  | S8-13           |
| 2   |           |       |  | 4   |           |       |  | TOTAL SHEETS 15 |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**AS-BUILT REPAIR QUANTITY TABLE**

| END BENT 2            | QUANTITIES   |                |              |                |
|-----------------------|--------------|----------------|--------------|----------------|
|                       | ESTIMATE     |                | ACTUAL       |                |
| SHOTCRETE REPAIRS     | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| CAP                   | 0.0          | 0.0            |              |                |
| CURTAIN WALL          | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS      | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| CAP                   | 0.0          | 0.0            |              |                |
| CURTAIN WALL          | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION | LIN. FT.     |                | LIN. FT.     |                |
| CURTAIN WALL          | 44.5         |                |              |                |
| CAP                   | 0.0          |                |              |                |
| EPOXY COATING         | SQ. FT.      |                | SQ. FT.      |                |
| TOP OF END BENT CAP   | 91.4         |                |              |                |

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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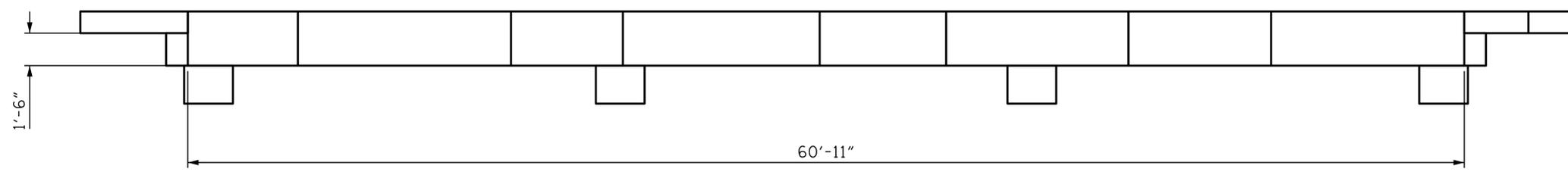
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

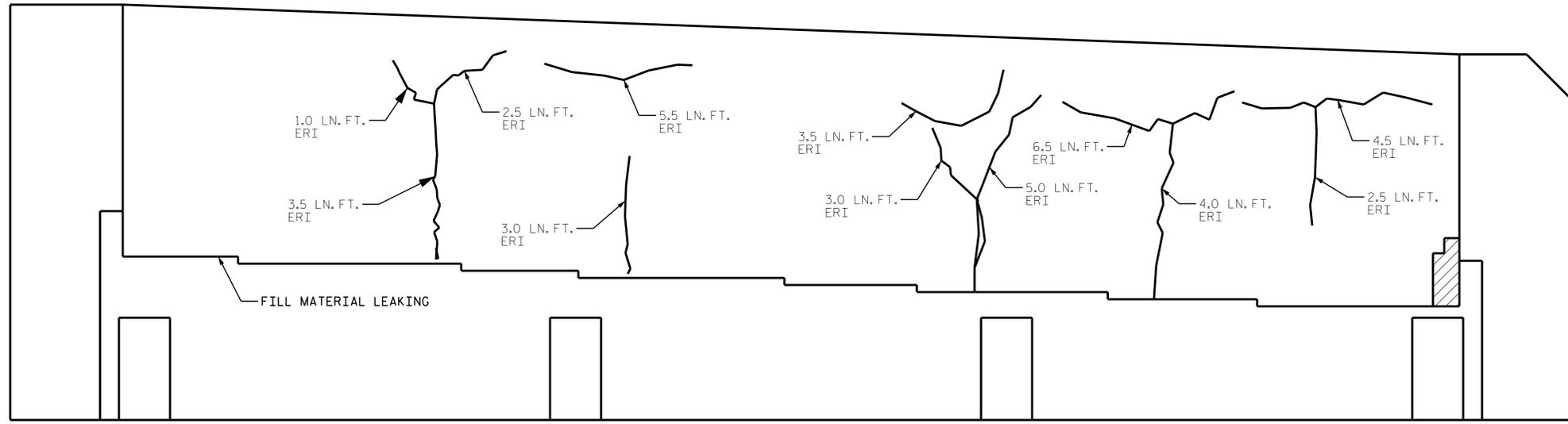
CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

FOR CAP AND COLUMN REPAIR DETAIL, SEE "CAP AND COLUMN REPAIR DETAIL", SHEET.

-  CONCRETE REPAIR AREA
-  SHOTCRETE REPAIR AREA
-  EPOXY RESIN INJECTION (ERI)

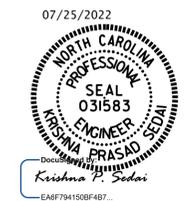


PLAN



ELEVATION

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280170



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

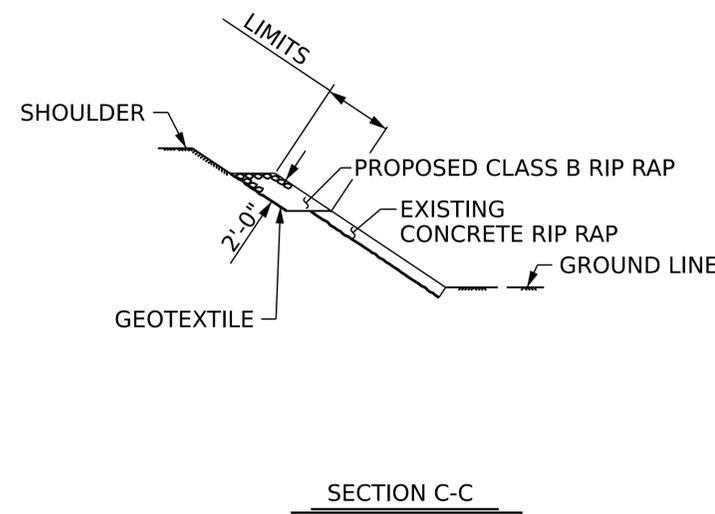
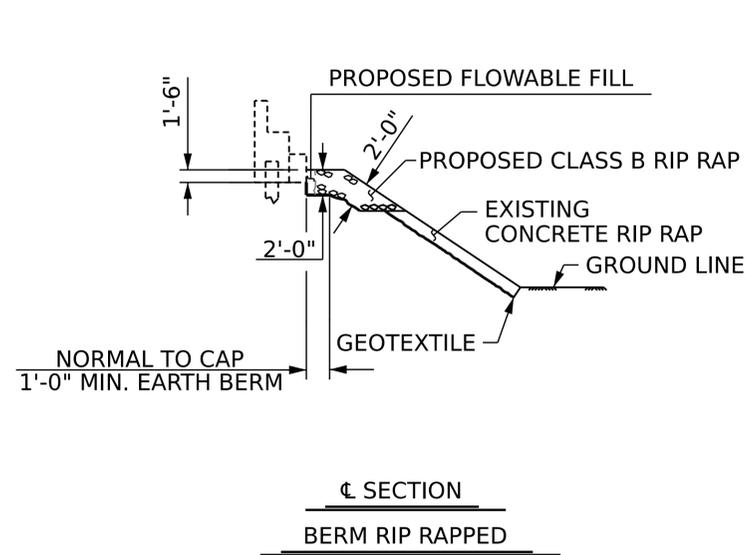
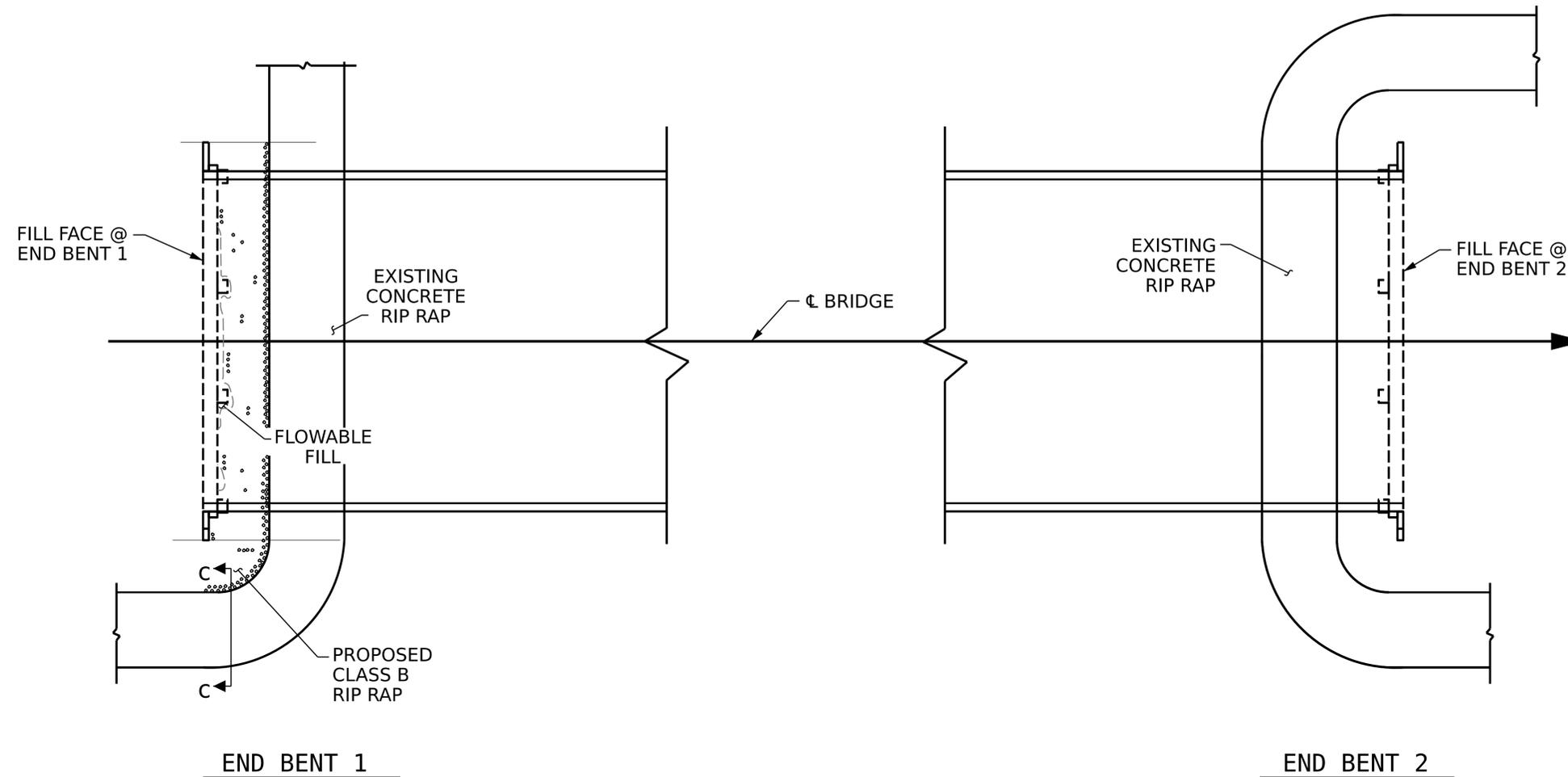
**END BENT 2**

DRAWN BY : CRUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

| NO. | REVISIONS |       |  | NO. | REVISIONS |       |                 | SHEET NO. |
|-----|-----------|-------|--|-----|-----------|-------|-----------------|-----------|
|     | BY:       | DATE: |  |     | BY:       | DATE: |                 |           |
| 1   |           |       |  | 3   |           |       | S8-14           |           |
| 2   |           |       |  | 4   |           |       | TOTAL SHEETS 15 |           |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**NOTE:**  
FOR CLASS B RIP RAP, SEE STANDARD SPECIFICATIONS  
FOR ROADS AND STRUCTURES, 2018



| ESTIMATED QUANTITIES |                                     |                               |
|----------------------|-------------------------------------|-------------------------------|
| BRIDGE NO.<br>280171 | RIP RAP<br>CLASS B<br>(2'-0" THICK) | GEOTEXTILE<br>FOR<br>DRAINAGE |
|                      | TONS                                | SQ. YDS.                      |
| END BENT 1           | 80.0                                | 89.0                          |

PROJECT NO. **I-5950**  
**DAVIDSON** COUNTY  
BRIDGE NO. **280170**



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

**CLASS B  
RIP RAP DETAILS**

DRAWN BY : **E. BAYISSA** DATE **07/2022**  
CHECKED BY : **K. SEDAI** DATE **07/2022**

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S8-15        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 15           |

**NOTES**

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 05/08/2022.

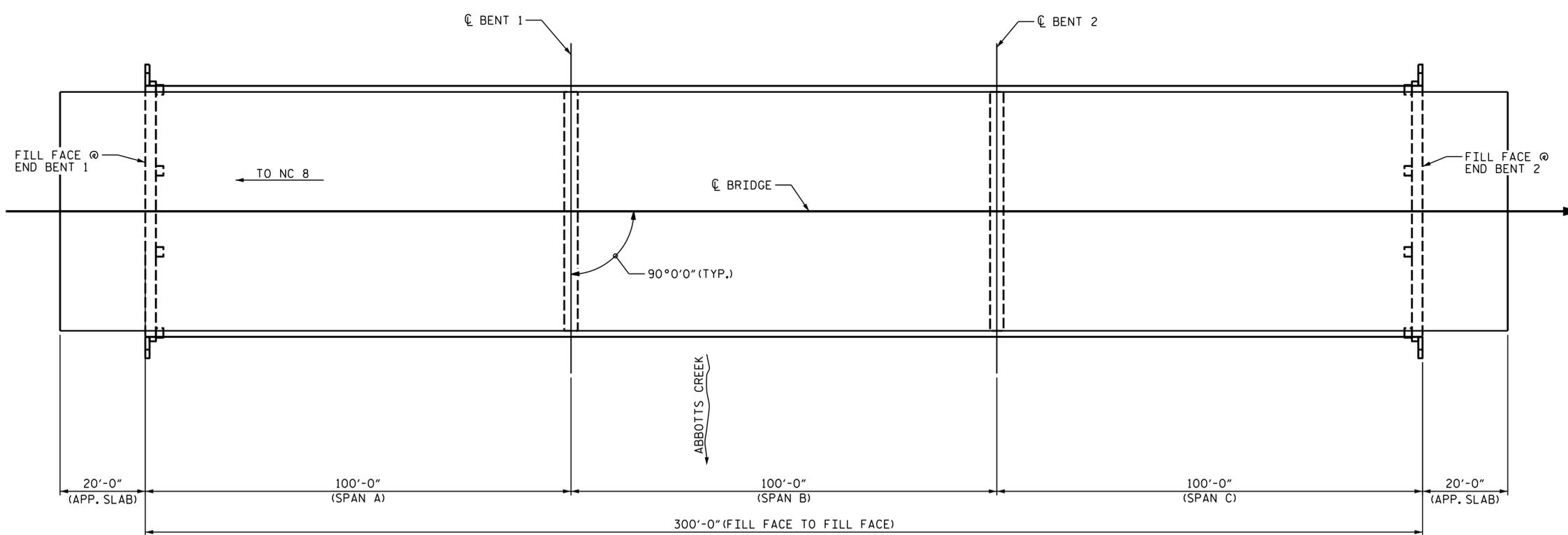
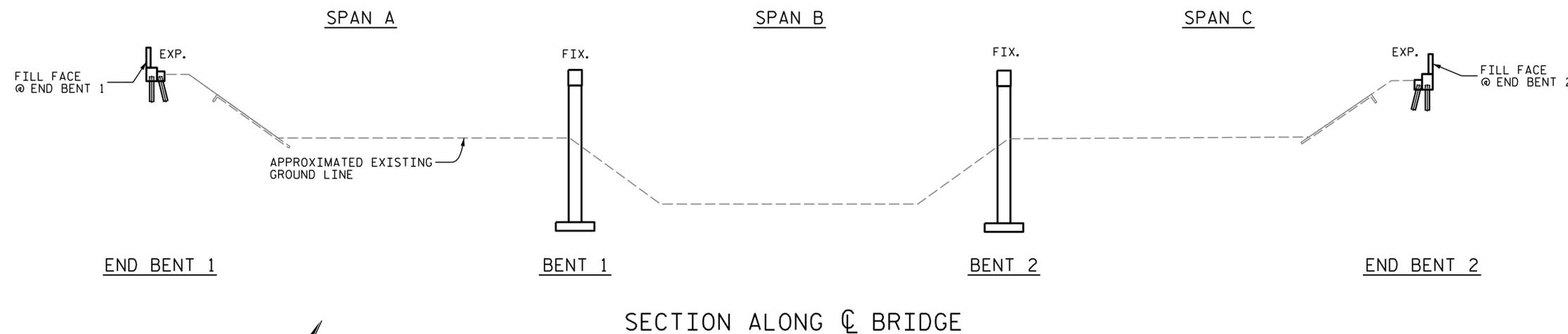
BRIDGE ORIENTATION CONFORMS TO THE ORIGINAL BRIDGE PLANS/ROUTINE INSPECTION.

**SCOPE OF WORK**

- PARTIALLY REMOVE TOP OF BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- OVERLAY PREPARED TOP OF BRIDGE DECK WITH POLYMER CONCRETE (PC).
- REMOVE EXISTING JOINT MATERIALS AND INSTALL FOAM JOINT SEALS FOR PRESERVATION.
- GROOVE PC BRIDGE DECK.
- CLEAN AND PAINT EXISTING STEEL BEARINGS AT END BENTS.
- REMOVE DEBRIS FROM TOP OF EXISTING END BENT CAPS AND APPLY EPOXY COATING.
- EPOXY RESIN INJECTION OF CONCRETE CRACKS.
- REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING END BENT AND BENT AREAS FOR SHOTCRETE AND CONCRETE REPAIRS.
- PROPERLY PREPARE SPALLED AREAS IN EXISTING END BENTS AND BENTS AND PERFORM SHOTCRETE AND CONCRETE REPAIRS.
- PLACE RIP RAP AND FLOWABLE FILL FOR SLOPE PROTECTION.

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

RESIDENT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_



**PLAN**

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280171

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

GENERAL DRAWING

FOR BRIDGE ON I85-S  
 OVER ABBOTTS CREEK



DRAWN BY : C. RUIZ DATE : 09/2020  
 CHECKED BY : E. BAYISSA/H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S9-01        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 15           |



**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°-47'-14.62"  
LONGITUDE: - 80°-14'-08.22"

**NOTES**

- EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.
- THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN WHAT IS SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.
- 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.
- ANY DAMAGE TO EXISTING REINFORCING STEEL, DURING CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AND PERFORMED AT NO ADDITIONAL COST TO THE DEPARTMENT.
- PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASK FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.
- FOR SCARIFYING BRIDGE DECK, SHOTBLASTING BRIDGE DECK AND CLASS II SURFACE PREPARATION FOR POLYMER CONCRETE, SEE SPECIAL PROVISIONS.
- FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.
- EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATIONS OF THE BRIDGE DECK. THE CONTRACTOR SHALL TAKE CARE THAT ANY CONSTRUCTION DEBRIS THAT COLLECTS IN THE DRAINS IS CONTAINED. DRAINS IN SHOULDERS OF ADJACENT TRAVEL LANE(S) SHALL BE KEPT FREE AND CLEAR OF DEBRIS.
- LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
- FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.
- FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.
- FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.
- FOR CLEANING AND PAINTING EXISTING BEARING PLATES, SEE SPECIAL PROVISIONS.
- FOR CONCRETE DECK REPAIR FOR PC OVERLAY, SEE SPECIAL PROVISIONS.
- FOR FLOWABLE FILL, SEE SPECIAL PROVISIONS.
- FOR CLASS B RIP RAP, SEE SPECIAL PROVISIONS.
- FOR ANCHOR BOLT NUT REPLACEMENT, SEE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN DETAIL BY MORE THAN 1/4", NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.
- 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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.
- FOR CLEANING AND PAINTING EXISTING BEARING PLATES, SEE SPECIAL PROVISIONS.

**NOTES**

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

UNANTICIPATED ITEMS:

| ITEM NO. | DESCRIPTION      | UNIT    |
|----------|------------------|---------|
| 1        | CONCRETE REPAIRS | CU. FT. |

**TOTAL BILL OF MATERIAL**

| BRIDGE NO.   | GROOVING BRIDGE FLOORS | CLASS II SURFACE PREPARATION | RIP RAP CLASS B | GEOTEXTILE FOR DRAINAGE | SHOTCRETE REPAIRS | EPOXY RESIN INJECTION | FOAM JOINT SEALS FOR PRESERVATION | POLYESTER POLYMER CONCRETE MATERIALS | EPOXY POLYMER CONCRETE MATERIALS (ALTERNATE) | FLOWABLE FILL | EPOXY COATING | CONCRETE DECK REPAIR FOR POLYMER CONCRETE OVERLAY | PLACING & FINISHING POLYMER CONCRETE OVERLAY | SCARIFYING BRIDGE DECK | SHOTBLASTING BRIDGE DECK | CLEANING & PAINTING EXISTING BEARING PLATES |
|--------------|------------------------|------------------------------|-----------------|-------------------------|-------------------|-----------------------|-----------------------------------|--------------------------------------|----------------------------------------------|---------------|---------------|---------------------------------------------------|----------------------------------------------|------------------------|--------------------------|---------------------------------------------|
|              | SQ. FT.                | SQ. YDS.                     | TONS            | SQ. YDS.                | CU. FT.           | LIN. FT.              | LN. FT.                           | CU. YDS.                             | CU. YDS.                                     | CU. YDS.      | SQ. FT.       | SQ. YDS.                                          | SQ. YDS.                                     | SQ. YDS.               | SQ. YDS.                 | EA.                                         |
| 280171       |                        |                              |                 |                         |                   |                       |                                   |                                      |                                              |               |               |                                                   |                                              |                        |                          |                                             |
| <b>TOTAL</b> | 17,853                 | 12.4                         | 155.0           | 172.0                   | 10.1              | 42.0                  | 116.6                             | 73.0                                 | 73.0                                         | 5.0           | 536.8         | 12.4                                              | 2,102.2                                      | 2102.2                 | 2,102.2                  | 16                                          |

DRAWN BY : C.RUIZ DATE : 02/2022  
CHECKED BY : H.A. LOCKLEAR DATE : 04/2022



PROJECT NO. I-5950  
DAVIDSON COUNTY  
BRIDGE NO. 280171

SHEET 2 OF 2

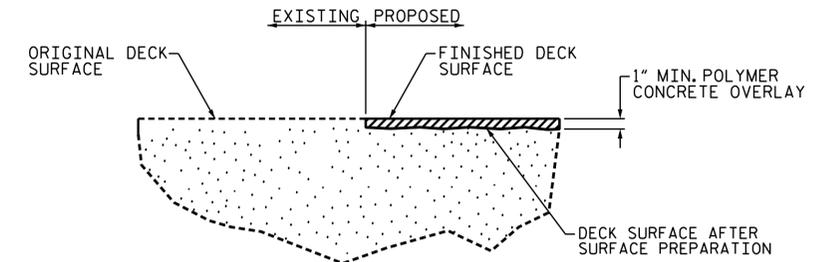
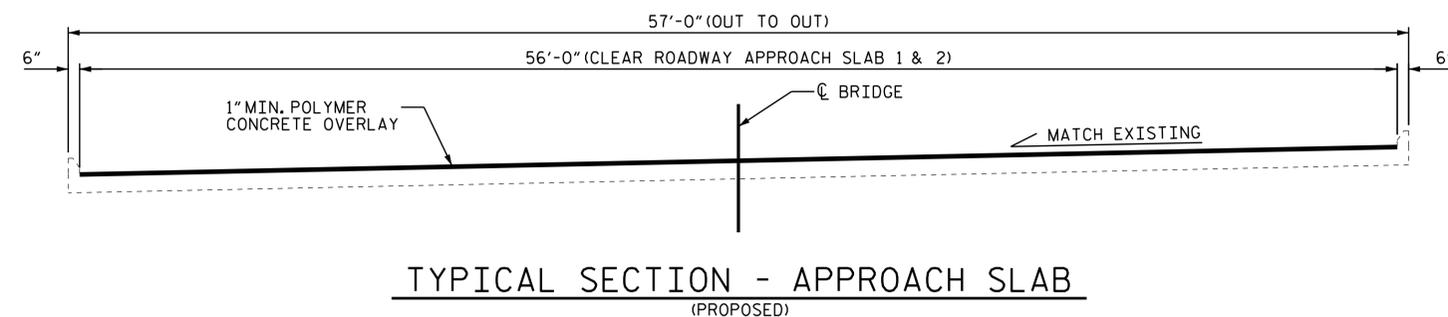
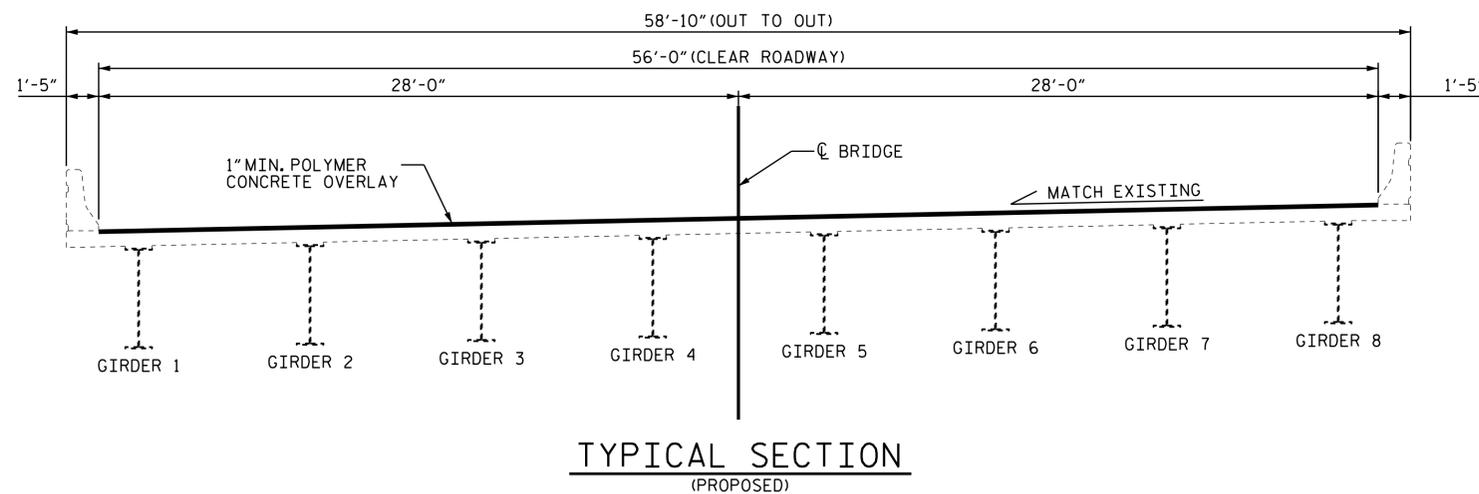
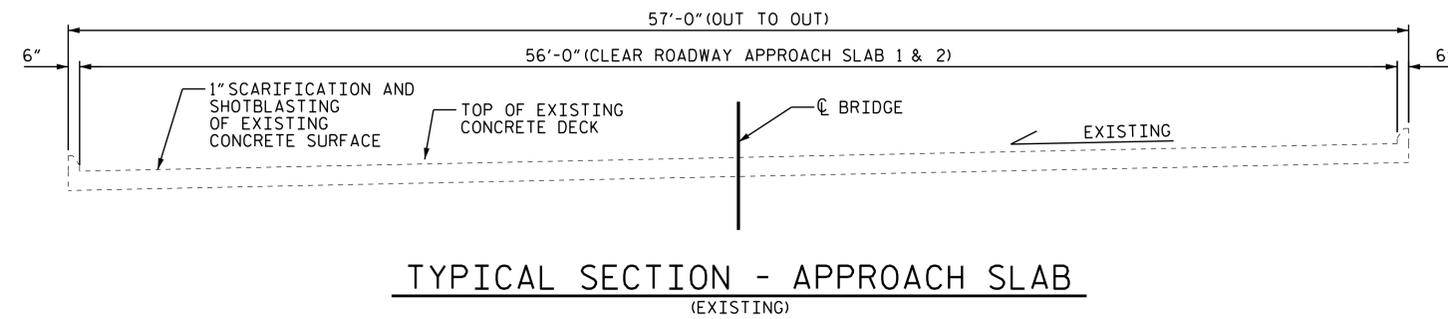
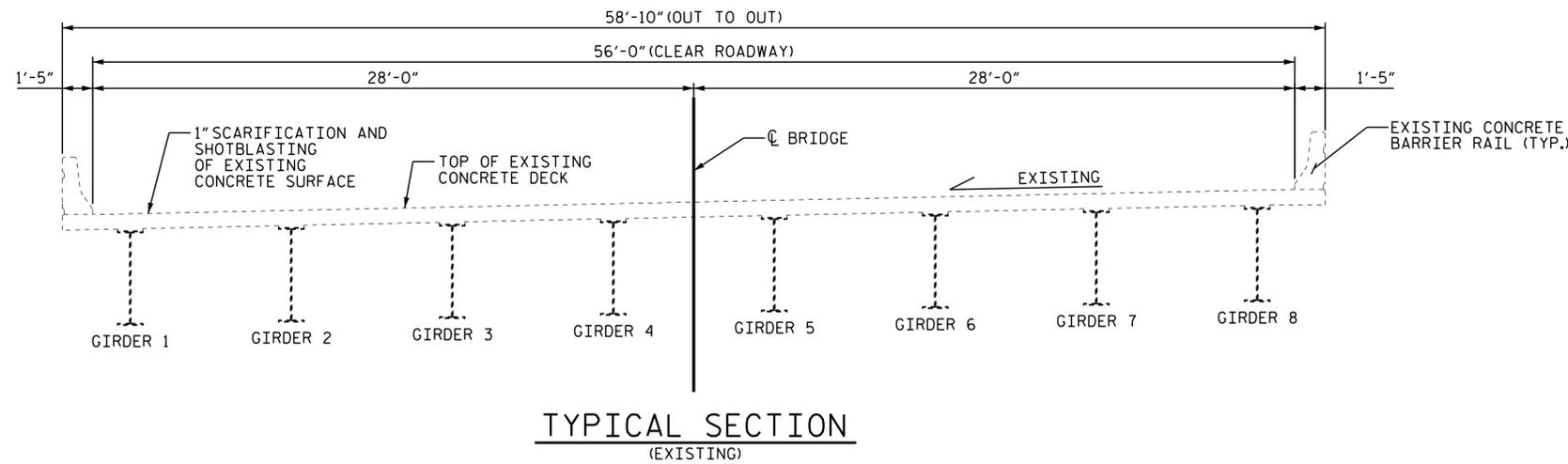
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

**GENERAL DRAWING**  
FOR BRIDGE ON I85-S  
OVER ABBOTTS CREEK

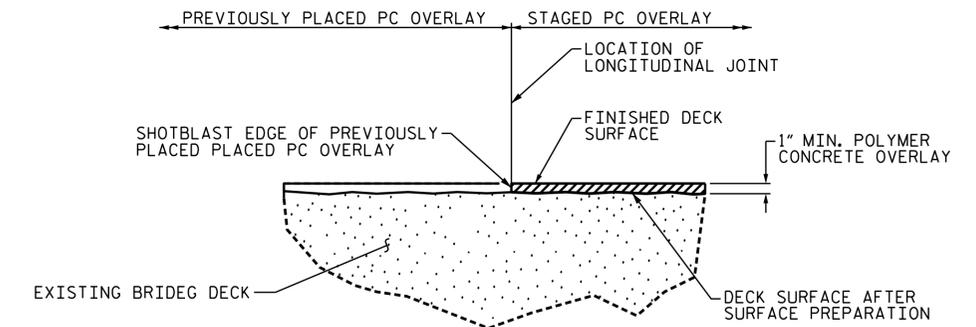
| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S9-02        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 15           |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**NOTES:**  
 SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYMER CONCRETE PLACEMENT.



**DETAIL FOR POLYMER CONCRETE OVERLAY**  
 FINISHED SURFACE ELEVATION SHALL MATCH EXISTING CONCRETE SURFACE ELEVATION. ACTUAL THICKNESS OF PC OVERLAY MAY VARY.



**STAGED PC OVERLAY JOINT**

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280171



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**SUPERSTRUCTURE  
 TYPICAL SECTION &  
 PC OVERLAY DETAIL**

DRAWN BY : C. RUIZ DATE : 09/2020  
 CHECKED BY : E. BAYISSA/H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.       |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                 |
| 1         |     |       | 3   |     |       | 99-03           |
| 2         |     |       | 4   |     |       | TOTAL SHEETS 15 |

**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.

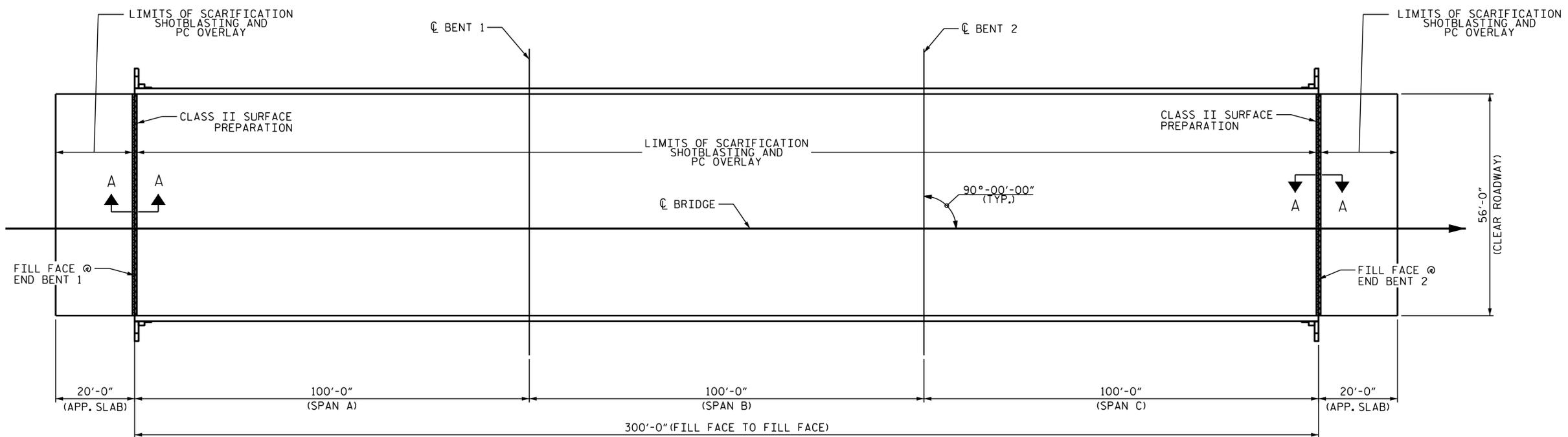
FOR SCARIFYING BRIDGE DECK, SHOTBLASTING BRIDGE DECK AND CLASS II SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, PC MATERIALS, AND PLACING AND FINISHING PC OVERLAY, SEE POLYMER CONCRETE BRIDGE DECK OVERLAY SPECIAL PROVISION.

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.

FOR SECTION A-A SEE "JOINT DETAILS" SHEET.

XXXXX CLASS II SURFACE PREPARATION



PLAN

**AS-BUILT REPAIR QUANTITY TABLE**

| DECK SURFACE REPAIR                 | APPROACH SLAB 1 |        | SPAN A         |        | SPAN B         |        | SPAN C         |        | APPROACH SLAB 2 |        |
|-------------------------------------|-----------------|--------|----------------|--------|----------------|--------|----------------|--------|-----------------|--------|
|                                     | ESTIMATE        | ACTUAL | ESTIMATE       | ACTUAL | ESTIMATE       | ACTUAL | ESTIMATE       | ACTUAL | ESTIMATE        | ACTUAL |
| SCARIFYING BRIDGE DECK              | 121.1 SQ. YDS.  |        | 618.9 SQ. YDS. |        | 622.2 SQ. YDS. |        | 618.9 SQ. YDS. |        | 121.1 SQ. YDS.  |        |
| SHOTBLASTING BRIDGE DECK            | 121.1 SQ. YDS.  |        | 618.9 SQ. YDS. |        | 622.2 SQ. YDS. |        | 618.9 SQ. YDS. |        | 121.1 SQ. YDS.  |        |
| CLASS II SURFACE PREPARATION        | 3.1 SQ. YDS.    |        | 3.1 SQ. YDS.   |        | 0.0 SQ. YDS.   |        | 3.1 SQ. YDS.   |        | 3.1 SQ. YDS.    |        |
| CONCRETE DECK REPAIR FOR PC OVERLAY | 3.1 SQ. YDS.    |        | 3.1 SQ. YDS.   |        | 0.0 SQ. YDS.   |        | 3.1 SQ. YDS.   |        | 3.1 SQ. YDS.    |        |
| POLYMER CONCRETE MATERIALS          | 4.2 CU. YDS.    |        | 21.5 CU. YDS.  |        | 21.6 CU. YDS.  |        | 21.5 CU. YDS.  |        | 4.2 CU. YDS.    |        |
| PLACING & FINISHING PC OVERLAY      | 121.1 SQ. YDS.  |        | 618.9 SQ. YDS. |        | 622.2 SQ. YDS. |        | 618.9 SQ. YDS. |        | 121.1 SQ. YDS.  |        |
| GROOVING BRIDGE FLOOR               | 1014.0 SQ. FT.  |        | 5262.5 SQ. FT. |        | 5300.0 SQ. FT. |        | 5262.5 SQ. FT. |        | 1014.0 SQ. FT.  |        |

PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280171



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**DECK SURFACE REPAIR**

DRAWN BY : C. RUIZ DATE : 09/2020  
 CHECKED BY : E. BAYISSA/H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
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 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.       |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                 |
| 1         |     |       | 3   |     |       | S9-04           |
| 2         |     |       | 4   |     |       | TOTAL SHEETS 15 |

**NOTE**  
 THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN DETAIL BY MORE THAN 1/4", NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.

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

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

THE INSTALLATION OF THE JOINT SEAL SHALL BE WATERTIGHT.

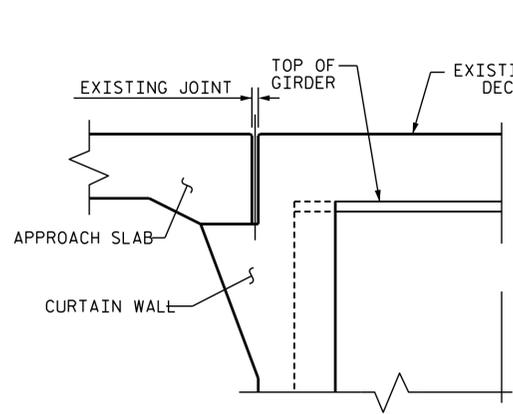
DURING THE JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

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 THAT ACCOMMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

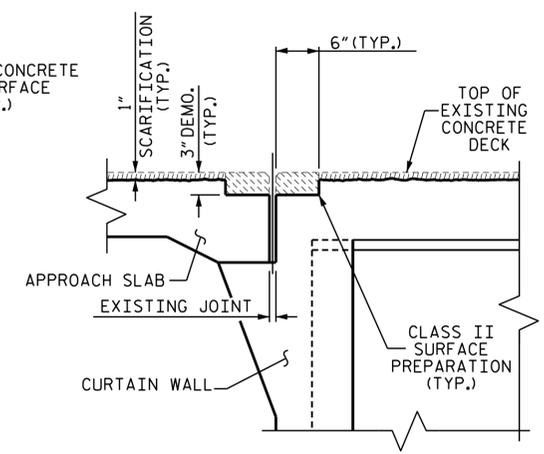
A MANUFACTURER'S CERTIFIED TRAINED REPRESENTATIVE SHALL BE PRESENT DURING THE INSTALLATION OF THE FIRST JOINT OF THE PROJECT, OR UNTIL THE ENGINEER IS SATISFIED WITH THE INSTALL PROCESS.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE.

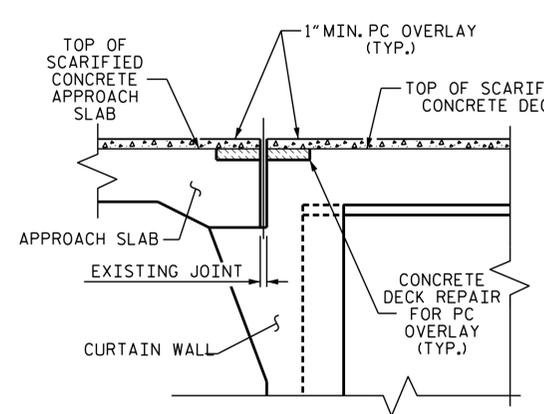
FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.



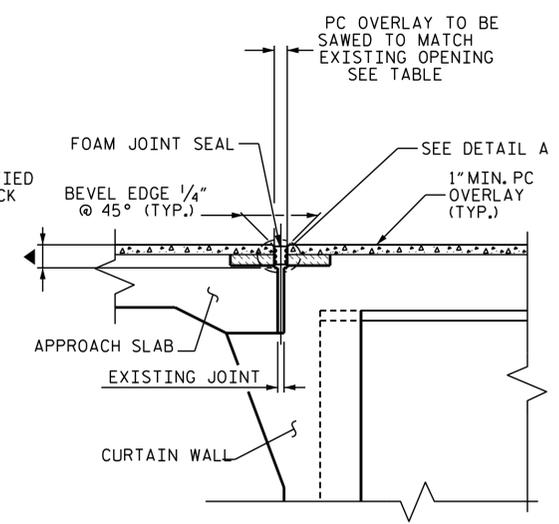
EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PC OVERLAY



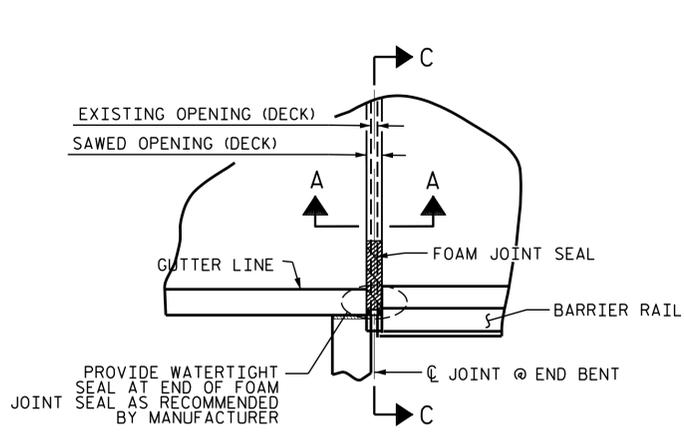
PROPOSED JOINT WITH SAWED DIMENSIONS

▲ SAW CUT SHALL BE 1" BELOW THE BOTTOM OF FOAM JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

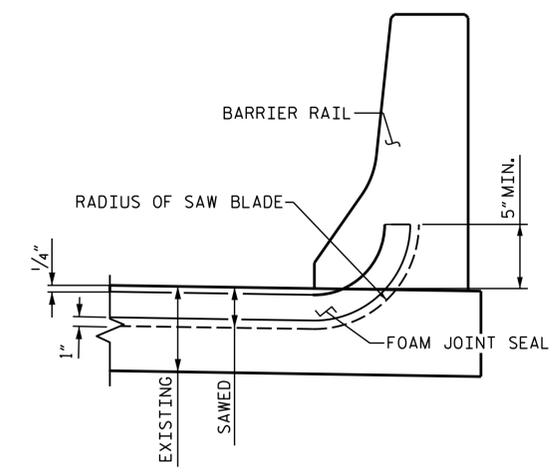
JOINT INSTALLATION SEQUENCE AT END BENTS  
 SECTION A-A

| JOINT REPAIR QUANTITY TABLE       |          |        |
|-----------------------------------|----------|--------|
|                                   | ESTIMATE | ACTUAL |
| FOAM JOINT SEALS FOR PRESERVATION |          |        |
| END BENT 1                        | 58.3 LF  |        |
| END BENT 2                        | 58.3 LF  |        |
| TOTAL                             | 116.6 LF |        |

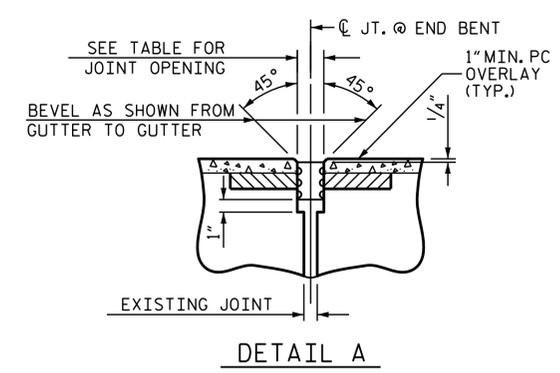
| SAWED JOINT OPENING TABLE |                                              |         |         |
|---------------------------|----------------------------------------------|---------|---------|
| LOCATION                  | SAWED JOINT OPENING (PERPENDICULAR TO JOINT) |         |         |
|                           | AT 45°                                       | AT 60°  | AT 90°  |
| END BENT 1                | 2 1/8"                                       | 1 5/16" | 1 1/16" |
| END BENT 2                | 2 1/8"                                       | 1 5/16" | 1 1/16" |



PLAN

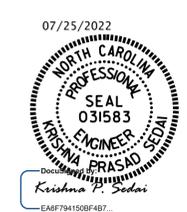


SECTION C-C



DETAIL A

PROJECT NO. I-5950  
 DAVIDSON COUNTY  
 BRIDGE NO. 280171



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

JOINT DETAILS

DRAWN BY : E. BAYISSA/C. RUIZ DATE : 09/2019  
 CHECKED BY : E. BAYISSA/H.A. LOCKLEAR DATE : 04/2022

| NO. | REVISIONS |       |  | NO. | REVISIONS |       |  | SHEET NO.                |
|-----|-----------|-------|--|-----|-----------|-------|--|--------------------------|
|     | BY:       | DATE: |  |     | BY:       | DATE: |  |                          |
| 1   |           |       |  | 3   |           |       |  | S9-05<br>TOTAL SHEETS 15 |
| 2   |           |       |  | 4   |           |       |  |                          |

# AS-BUILT REPAIR QUANTITY TABLE

## UNDERSIDE OF DECK REPAIRS - SPAN A

| SHOTCRETE REPAIRS     | ESTIMATE     |                | ACTUAL       |                |
|-----------------------|--------------|----------------|--------------|----------------|
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS      | ESTIMATE     |                | ACTUAL       |                |
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION |              | LIN. FT.       | LIN. FT.     |                |
| UNDERSIDE OF DECK     |              | 0.0            |              |                |
| BENT DIAPHRAGM        |              | 0.0            |              |                |
| OVERHANG              |              | 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 "OVERHANG, DIAPHRAGM AND BRIDGE RAIL 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 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.

THE CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

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

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

THE COST FOR THE REPAIR OF LOOSE SIP FORM IS INCIDENTAL AND CAN BE ADDED TO ANY OTHER ITEM.

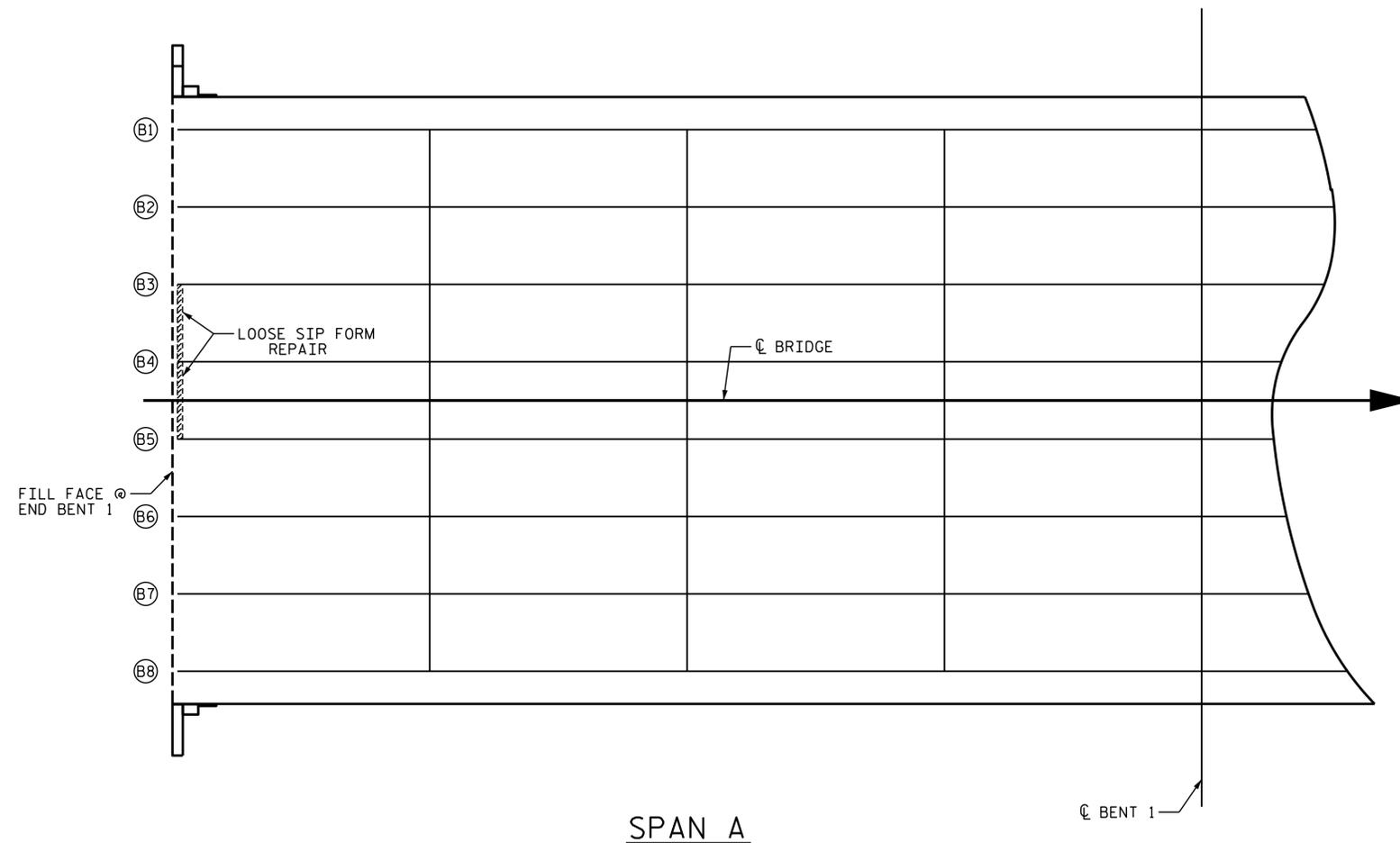
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

(B1) BEAM NUMBER

 LOOSE SIP FORM REPAIR

 EPOXY RESIN INJECTION (ERI)



PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280171

SHEET 1 OF 3



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

DECK UNDERSIDE  
 REPAIR  
 SPAN A

DRAWN BY : CRUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.       |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                 |
| 1         |     |       | 3   |     |       | S9-06           |
| 2         |     |       | 4   |     |       | TOTAL SHEETS 15 |

# AS-BUILT REPAIR QUANTITY TABLE

## UNDERSIDE OF DECK REPAIRS - SPAN B

| SHOTCRETE REPAIRS     | ESTIMATE     |                | ACTUAL       |                |
|-----------------------|--------------|----------------|--------------|----------------|
|                       | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| CONCRETE REPAIRS      | AREA SQ. FT. | VOLUME CU. FT. | AREA SQ. FT. | VOLUME CU. FT. |
| UNDERSIDE OF DECK     | 0.0          | 0.0            |              |                |
| BENT DIAPHRAGM        | 0.0          | 0.0            |              |                |
| OVERHANG              | 0.0          | 0.0            |              |                |
| EPOXY RESIN INJECTION | LIN. FT.     |                | LIN. FT.     |                |
| UNDERSIDE OF DECK     | 0.0          |                |              |                |
| BENT DIAPHRAGM        | 0.0          |                |              |                |
| OVERHANG              | 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 "OVERHANG, DIAPHRAGM AND BRIDGE RAIL 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 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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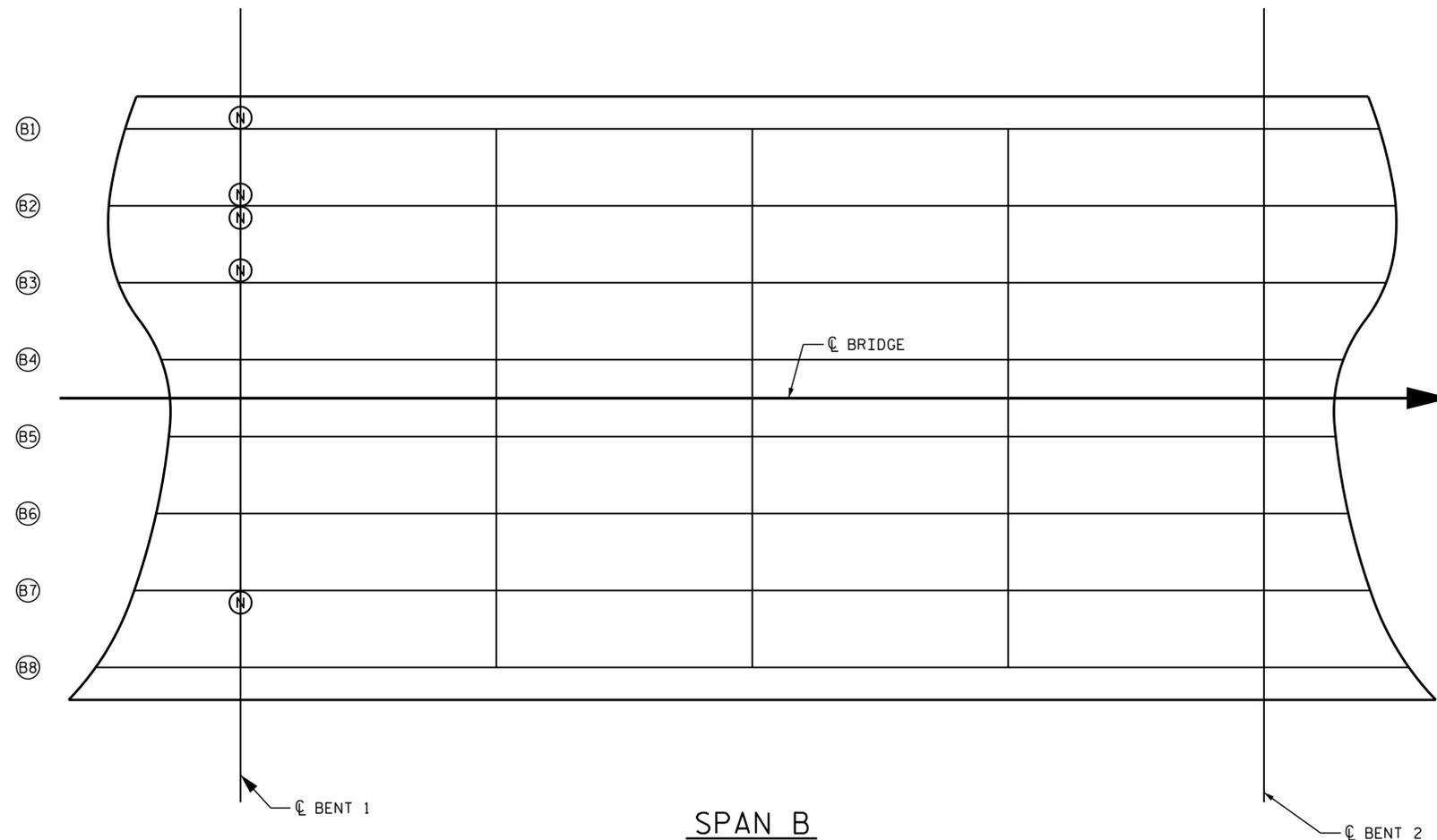
FOR UNDERSIDE DECK REPAIR, SEE "OVERHANG, DIAPHRAGM AND BRIDGE RAIL REPAIR DETAILS" SHEET.

THE COST FOR REPLACEMENT OF MISSING ANCHOR BOLT NUTS IS INCIDENTAL AND CAN BE ADDED TO ANY OTHER ITEMS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

- (B1) BEAM NUMBER
- (N) MISSING ANCHOR BOLT NUTS
-  SHOTCRETE REPAIR AREA
-  EPOXY RESIN INJECTION (ERI)



PROJECT NO. I-5950  
DAVIDSON COUNTY  
 BRIDGE NO. 280171

SHEET 2 OF 3



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

DECK UNDERSIDE  
 REPAIR  
 SPAN B

DRAWN BY : CRUIZ DATE : 09/2021  
 CHECKED BY : H.A. LOCKLEAR DATE : 04/2022

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

| REVISIONS |     |       |     |     |       | SHEET NO.       |
|-----------|-----|-------|-----|-----|-------|-----------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                 |
| 1         |     |       | 3   |     |       | 99-07           |
| 2         |     |       | 4   |     |       | TOTAL SHEETS 15 |