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PROJECT: 15BPR.27

CONTRACT NO: C204231

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

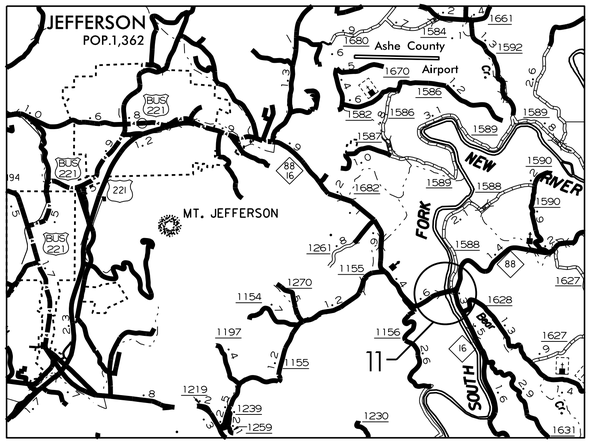
ASHE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	15BPR.27	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
15BPR.27		P.E.
15BPR.27	—	CONST.

LOCATION: ***ASHE COUNTY:***
BRIDGE #11 ON N.C. HIGHWAY 16 /88 OVER SOUTH FORK NEW RIVER.

TYPE OF WORK: ***BRIDGE PRESERVATION – SCARIFICATION, HYDRO–DEMOLITION, DECK REPAIR, LATEX MODIFIED CONCRETE OVERLAY, DECK JOINT DEMOLITION AND REPLACEMENT.***



VICINITY MAP – ASHE CO.

DESIGN DATA

BRIDGE #11 – ADT 2013 – 3,800

PROJECT LENGTH

BRIDGE #11 – 0.048 MILE

Prepared in the Office of:
DIVISION OF HIGHWAYS
STRUCTURES MANAGEMENT UNIT
1000 BIRCH RIDGE DR.
RALEIGH, N.C. 27610

2018 STANDARD SPECIFICATIONS

LETTING DATE :

FEBRUARY 19, 2019

A. KEITH PASCHAL
PROJECT ENGINEER

ADAM A. COLE
PROJECT DESIGN ENGINEER

PROJECT: 15BPR.27

CONTRACT: C204231

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ASHE COUNTY

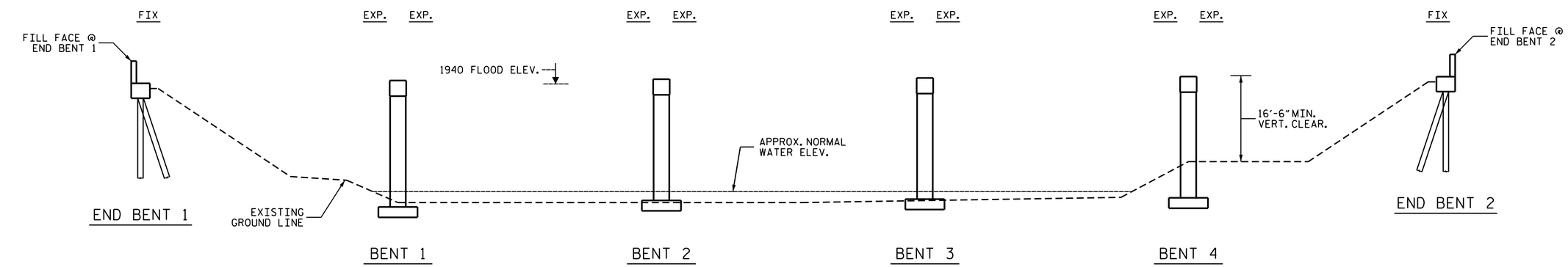
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	15BPR.27	1A	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
15BPR.27	–	P.E.
15BPR.27	—	CONST.

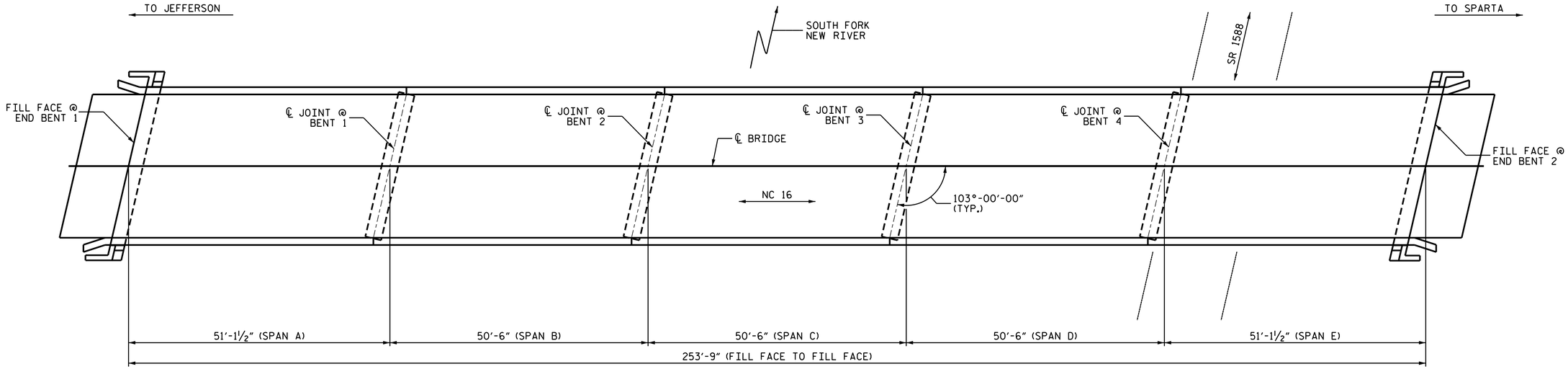
LOCATION: ***ASHE COUNTY:***
BRIDGE #11 ON N.C. HIGHWAY 16 /88 OVER SOUTH FORK NEW RIVER

TYPE OF WORK: ***BRIDGE PRESERVATION – SCARIFICATION, HYDRO–DEMOLITION, DECK REPAIR, LATEX MODIFIED CONCRETE OVERLAY, DECK JOINT DEMOLITION AND REPLACEMENT.***

INDEX OF SHEETS



SECTION ALONG ℄ BRIDGE



NOTES

PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 12/28/2015.

BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

SCOPE OF WORK

- PARTIALLY REMOVE WEARING SURFACE AND BRIDGE DECK CONCRETE BY SCARIFICATION AND HYDRO-DEMOLITION METHODS.
- DEMOLISH EXISTING BRIDGE DECK JOINTS AT END BENTS AND BENTS.
- CONSTRUCT BRIDGE DECK LINK SLAB AT JOINT LOCATIONS INDICATED.
- OVERLAY PREPARED BRIDGE DECK WITH LATEX MODIFIED CONCRETE EARLY STRENGTH (LMC-ES).
- RECONSTRUCT BRIDGE JOINTS AND INSTALL FOAM JOINT SEALS.
- GROOVE LMC-ES BRIDGE DECK.

PLAN

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

RESIDENT ENGINEER DATE

DocuSigned by: A. Keith Paschal F886AD6DB2FC48F...

1/7/2019

NORTH CAROLINA PROFESSIONAL SEAL 22005 ENGINEER A. KEITH PASCHAL

DocuSigned by: 02EE938FA5974C5...

NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON
N.C. 16 / 88 OVER
SOUTH FORK NEW RIVER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-1
1			3			TOTAL SHEETS
2			4			27

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DRAWN BY : R.L.PUTEK DATE : 06/17

CHECKED BY : T. M. SHERRILL DATE : 07/2017

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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.

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.

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

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

FOR SCARIFYING BRIDGE DECK, HYDRO-DEMOLITION OF BRIDGE DECK, AND CLASS II AND CLASS III SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

THE CONTRACTOR MUST COLLECT, TREAT, AND DISPOSE OF RUN-OFF WATER FROM THE HYDRO-DEMOLITION PROCESS, SEE OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS.

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

FOR OVERLAY OF BRIDGE DECK WITH LATEX MODIFIED CONCRETE EARLY STRENGTH, SEE SPECIAL PROVISIONS.

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

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

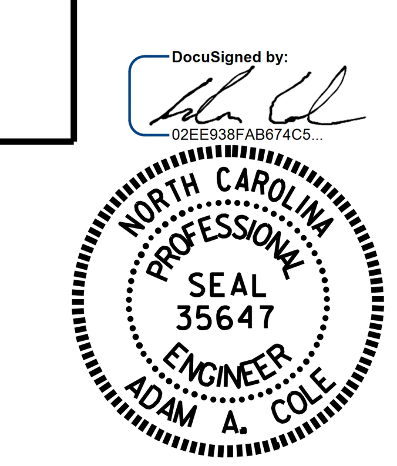
FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

FOR REPAIRS TO PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

TOTAL BILL OF MATERIAL

BRIDGE	GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	CLASS III SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY-EARLY STRENGTH	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY-EARLY STRENGTH	CONCRETE REPAIRS	SHOTCRETE REPAIRS	FOAM JOINT SEALS FOR PRESERVATION	VOLUMETRIC MIXER	CONCRETE FOR DECK REPAIR	ELASTOMERIC CONCRETE FOR PRESERVATION	REPAIRS TO PRESTRESSED CONCRETE GIRDERS	BRIDGE JOINT DEMOLITION	EPOXY COATING	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK
	SQ. FT.	SQ. YDS.	SQ. YDS.	CU. YDS.	SQ.YDS.	CU. FT.	CU. FT.	LIN. FT.	LUMP SUM	CU. FT.	CU. FT.	CU. FT.	SQ. FT.	SQ. FT.	SQ. YDS.	SQ.YDS.
ASHE #11	7,000	51.2	103.4	67.8	839	18.5	163.5	120.0	LUMP SUM	76.8	28.0	2.5	115.2	576.0	840.0	840.0



1/8/2019

PROJECT NO. 15BPR.27
ASHE COUNTY
BRIDGE NO. 11
SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON
N.C. 16 / 88 OVER
SOUTH FORK NEW RIVER

REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS
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CHECKED BY : A. A. COLE DATE : 11/2018

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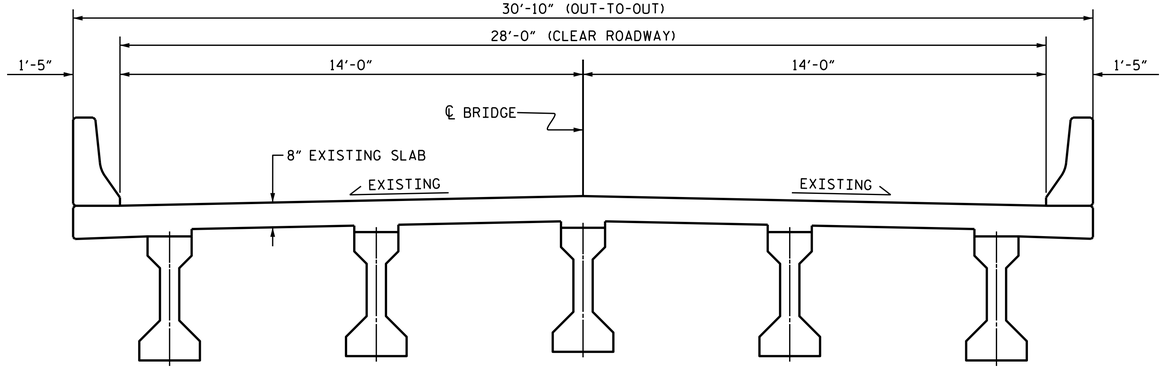
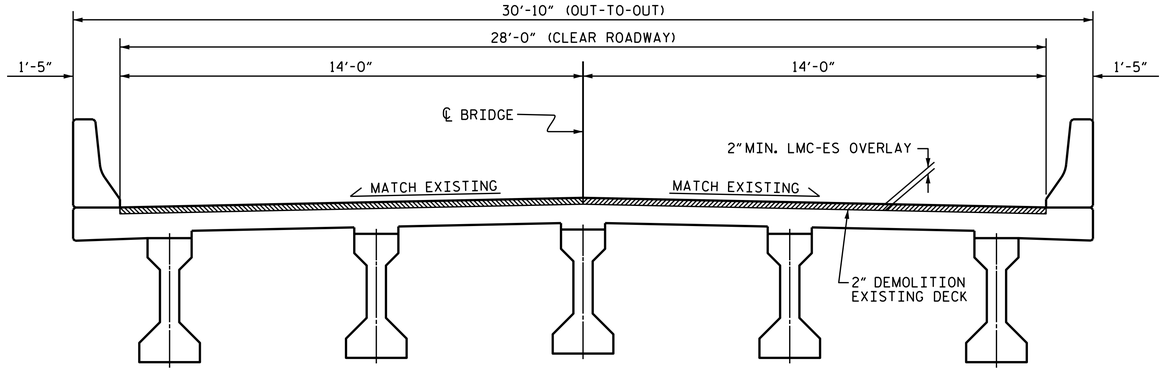


TYPICAL SECTION
(EXISTING)



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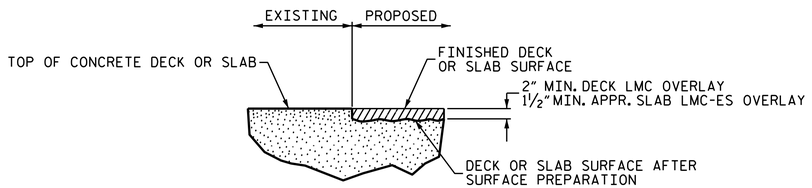
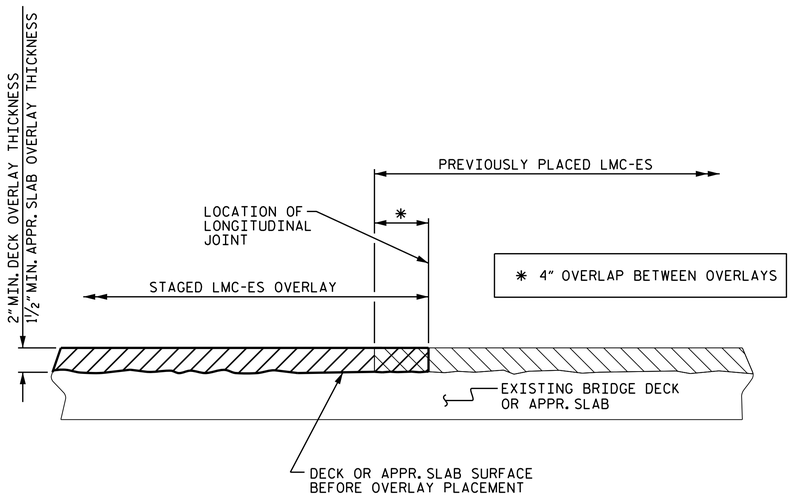


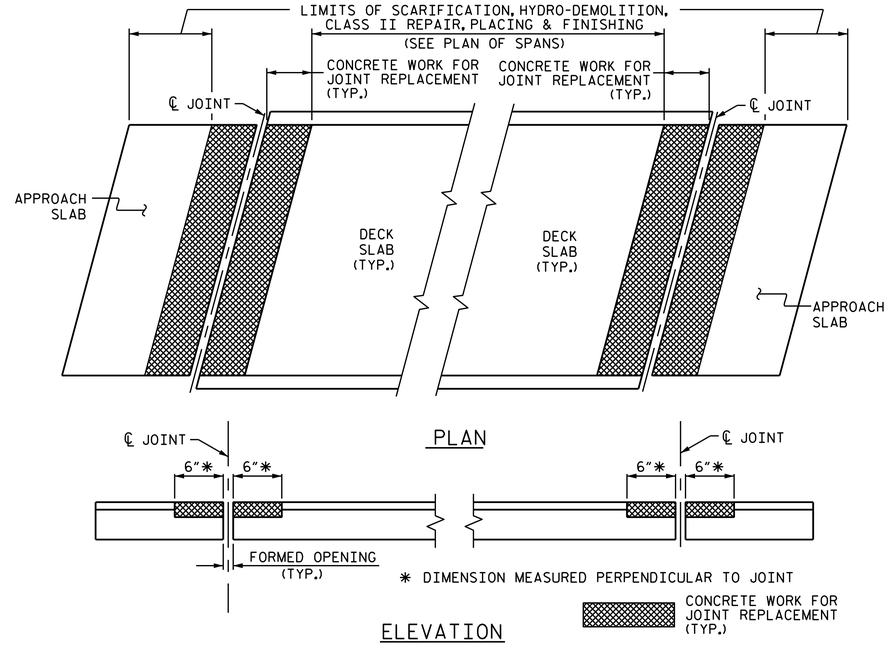
DETAIL FOR LMC-ES OVERLAY



STAGED LMC OVERLAY JOINT
(AS NEEDED)

NOTES

WHEN PREPARING THE SURFACE FOR AN LMC OVERLAY ADJACENT TO A PREVIOUSLY PLACED LMC-ES STAGE, THE PREVIOUSLY PLACED LMC-ES SHALL BE REMOVED FOR A DISTANCE OF 4 INCHES FROM THE EDGE OF THE LMC-ES. THE SURFACE OF THE NEW STAGE AREA, ALONG WITH THE 4 INCH OVERLAY AREA, SHALL BE PREPARED AS PER THE OVERLAY SURFACE PREPARATION SPECIAL PROVISION. NEW LMC-ES SHALL BE PLACED IN THE 4 INCH OVERLAP AS PART OF THE NEW LMC-ES STAGE PLACEMENT.



PAY LIMITS FOR OVERLAY BID ITEMS

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

DocuSigned by:
ADAM A. COLE
1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

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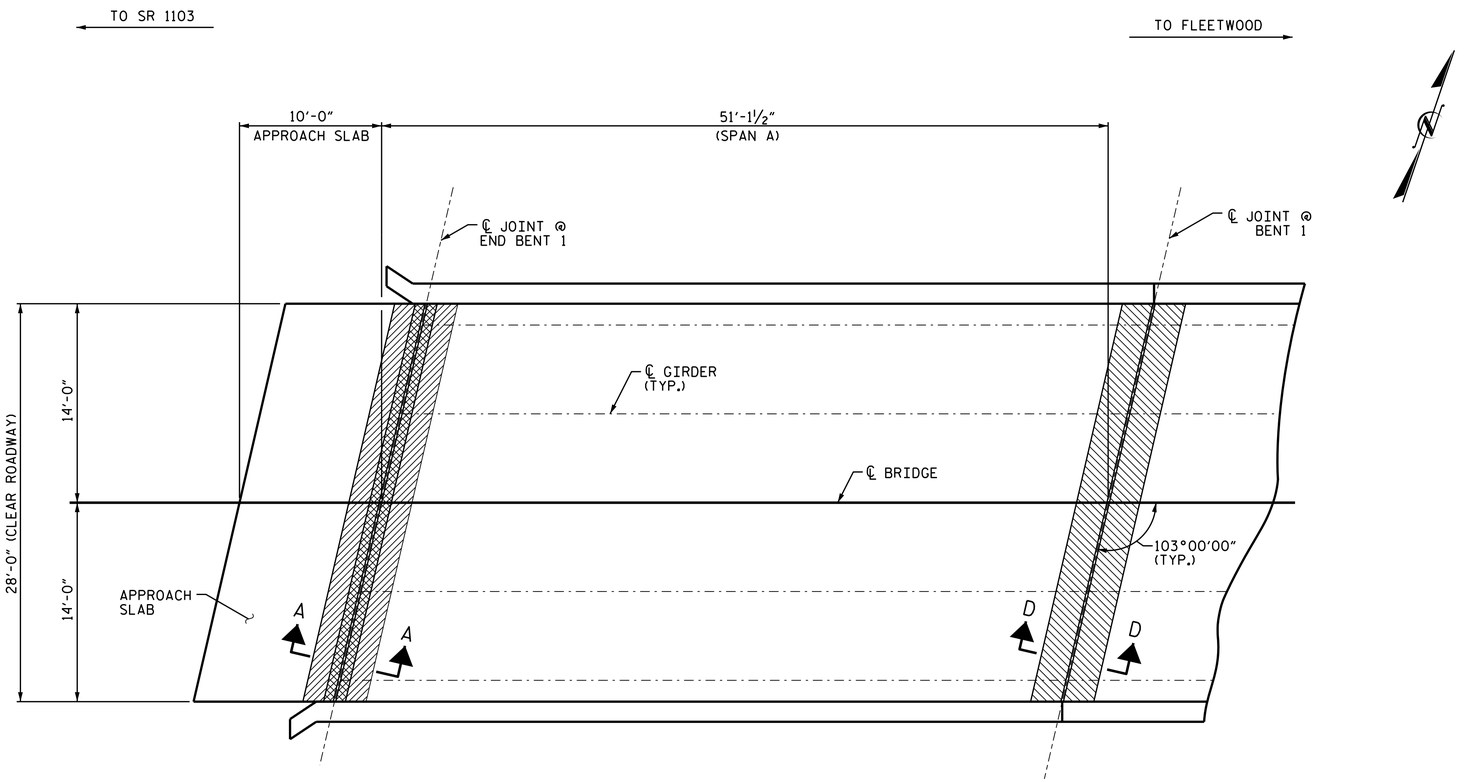

PLAN

AS-BUILT REPAIR QUANTITY TABLE

APPROACH SLAB @ END BENT 1

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	29.6 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	29.6 SY	
CLASS II SURFACE PREPARATION	6.4 SY	
CLASS III SURFACE PREPARATION	1.0 SY	
BRIDGE JOINT DEMOLITION	14.4 SF	
ELASTOMERIC CONCRETE	3.5 CF	
CONCRETE FOR DECK REPAIR	9.6 CF	
LATEX MODIFIED CONCRETE EARLY STRENGTH OVERLAY	1 CY	
PLACING & FINISHING LMC-ES OVERLAY	29.6 SY	
GROOVING BRIDGE FLOORS	224 SF	

SPAN A TOP OF DECK REPAIRS

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	157.5 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	157.5 SY	
CLASS II SURFACE PREPARATION	6.4 SY	
CLASS III SURFACE PREPARATION	25.1 SY	
BRIDGE JOINT DEMOLITION	14.4 SF	
ELASTOMERIC CONCRETE	3.5 CF	
CONCRETE FOR DECK REPAIR	9.6 CF	
LATEX MODIFIED CONCRETE EARLY STRENGTH OVERLAY	14.4 CY	
PLACING & FINISHING LMC-ES OVERLAY	157.5 SY	
GROOVING BRIDGE FLOORS	1320 SF	

NOTES

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

FOR SECTION A-A AND D-D, SEE "JOINT DETAILS AND LINK SLAB DETAILS" SHEETS.

EXISTING BRIDGE PLANS INDICATE A 2½" CONCRETE COVER FOR THE TOP MAT OF STEEL IN THE BRIDGE DECK AND 2" CONCRETE COVER FOR THE TOP MAT OF STEEL IN THE APPROACH SLAB.

APPROX. CLASS II AREA

APPROX. CLASS III AREA

BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 1 OF 5

DocuSigned by:
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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN OF SPAN
SPAN A
&
APPROACH SLAB

DRAWN BY : E.BAYISSA DATE : 10/2018
CHECKED BY : A.M.LEE DATE : 10/2018

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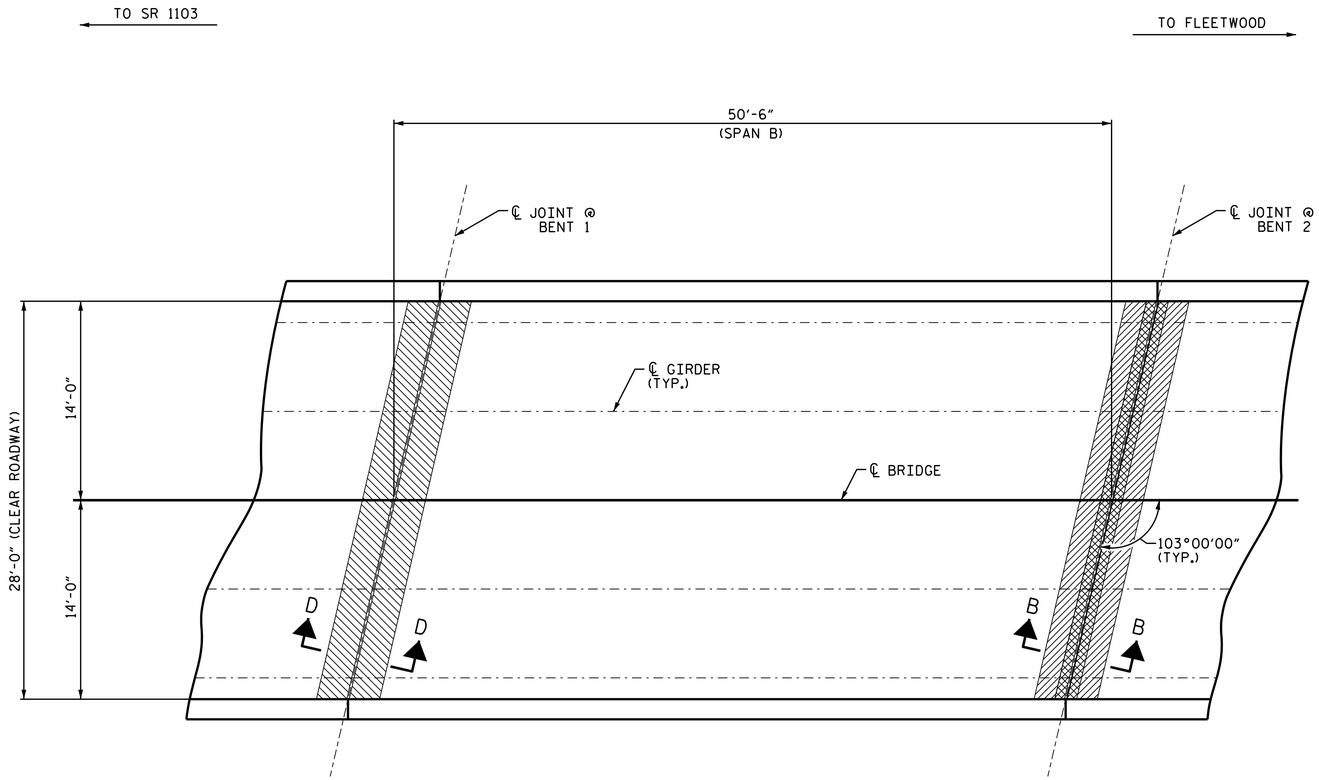
AS-BUILT REPAIR QUANTITY TABLE

SPAN B TOP OF DECK REPAIRS

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	155.6 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	155.6 SY	
CLASS II SURFACE PREPARATION	6.4 SY	
CLASS III SURFACE PREPARATION	25.1 SY	
BRIDGE JOINT DEMOLITION	14.4 SF	
ELASTOMERIC CONCRETE	3.5 CF	
CONCRETE FOR DECK REPAIR	9.6 CF	
LATEX MODIFIED CONCRETE EARLY STRENGTH OVERLAY	14.2 CY	
PLACING & FINISHING LMC-ES OVERLAY	155.6 SY	
GROOVING BRIDGE FLOORS	1305 SF	



PLAN

NOTES

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FOR SECTION B-B AND D-D, SEE "JOINT DETAILS AND LINK SLAB DETAILS" SHEETS.

EXISTING BRIDGE PLANS INDICATE A 2½" CONCRETE COVER FOR THE TOP MAT OF STEEL IN THE BRIDGE DECK.

APPROX. CLASS II AREA

APPROX. CLASS III AREA

BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 2 OF 5

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN OF SPAN
SPAN B

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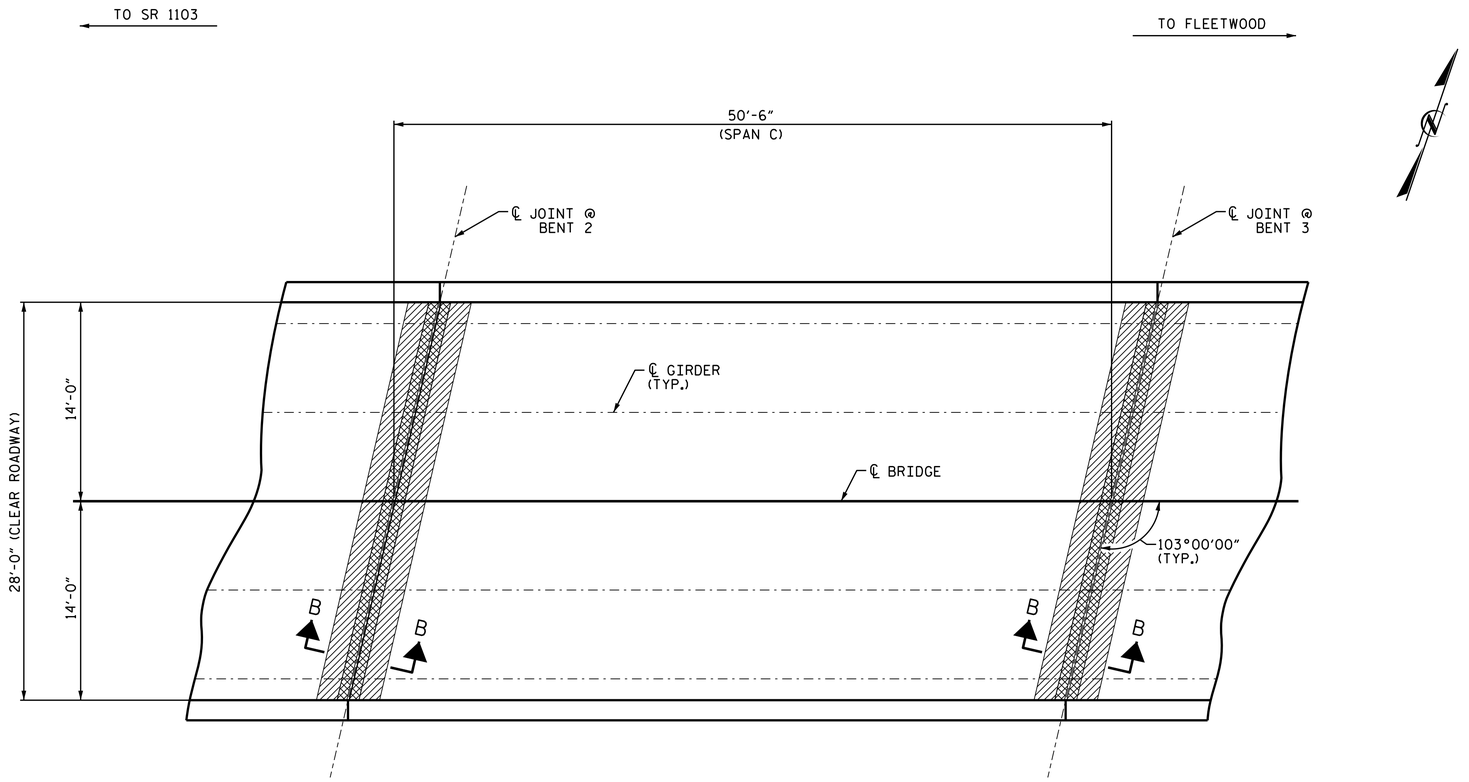
AS-BUILT REPAIR QUANTITY TABLE

SPAN C TOP OF DECK REPAIRS

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	154.0 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	154.0 SY	
CLASS II SURFACE PREPARATION	12.8 SY	
CLASS III SURFACE PREPARATION	1.0 SY	
BRIDGE JOINT DEMOLITION	28.8 SF	
ELASTOMERIC CONCRETE	7.0 CF	
CONCRETE FOR DECK REPAIR	19.2 CF	
LATEX MODIFIED CONCRETE EARLY STRENGTH OVERLAY	8.6 CY	
PLACING & FINISHING LMC-ES OVERLAY	154.0 SY	
GROOVING BRIDGE FLOORS	1302 SF	



PLAN

NOTES

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

EXISTING BRIDGE PLANS INDICATE A 2½" CONCRETE COVER FOR THE TOP MAT OF STEEL IN THE BRIDGE DECK.

APPROX. CLASS II AREA

BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 3 OF 5

DocuSigned by:
ADAM A. COLE
1/7/2019

NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN OF SPAN
SPAN C

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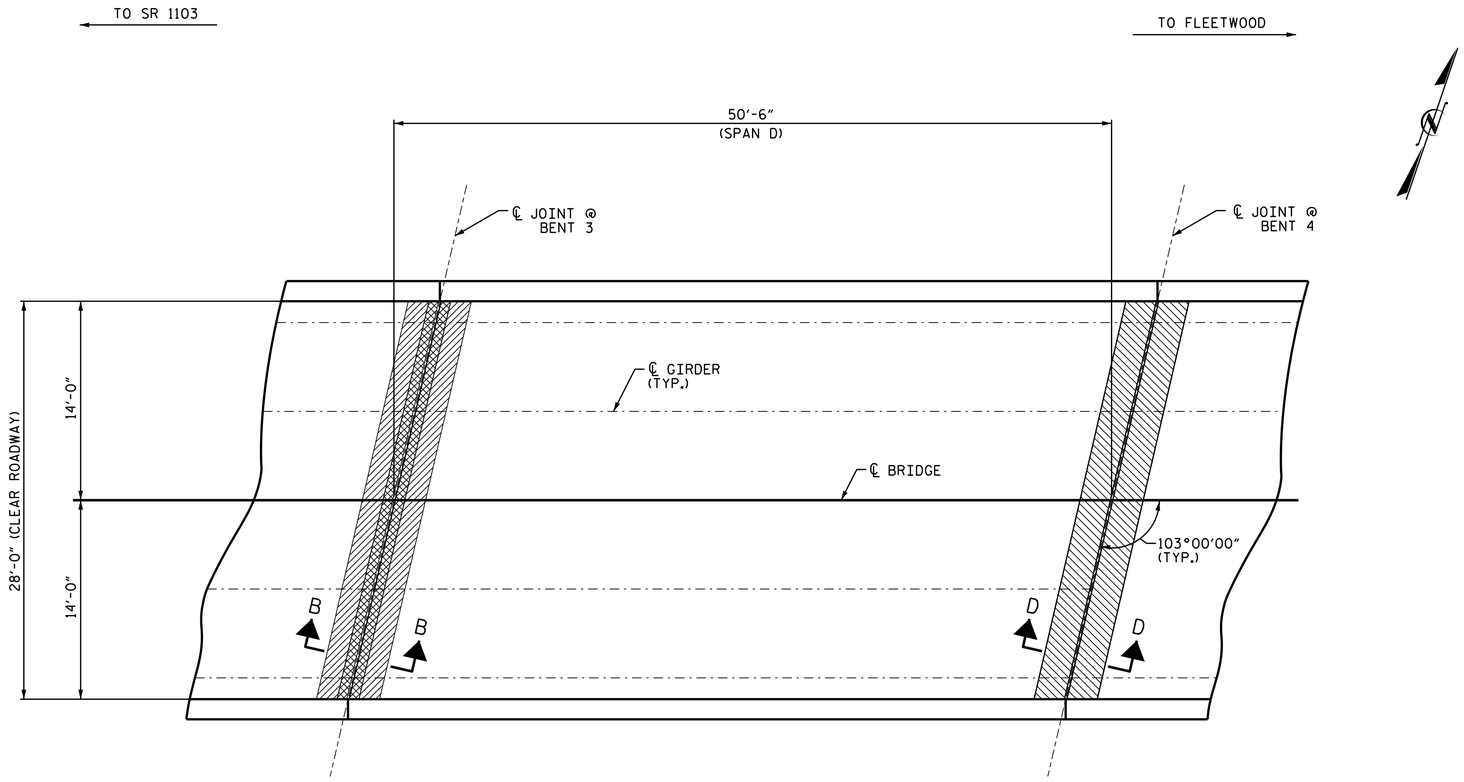
AS-BUILT REPAIR QUANTITY TABLE

SPAN D TOP OF DECK REPAIRS

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	155.6 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	155.6 SY	
CLASS II SURFACE PREPARATION	6.4 SY	
CLASS III SURFACE PREPARATION	25.1 SY	
BRIDGE JOINT DEMOLITION	14.4 SF	
ELASTOMERIC CONCRETE	3.5 CF	
CONCRETE FOR DECK REPAIR	9.6 CF	
LATEX MODIFIED CONCRETE EARLY STRENGTH OVERLAY	14.2 CY	
PLACING & FINISHING LMC-ES OVERLAY	155.6 SY	
GROOVING BRIDGE FLOORS	1305 SF	



PLAN

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FOR SECTION B-B AND D-D, SEE "JOINT DETAILS AND LINK SLAB DETAILS" SHEETS.

EXISTING BRIDGE PLANS INDICATE A 2½" CONCRETE COVER FOR THE TOP MAT OF STEEL IN THE BRIDGE DECK.

APPROX. CLASS II AREA

APPROX. CLASS III AREA

BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 4 OF 5

DocuSigned by:
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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN OF SPAN
SPAN D

REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS
2			4			27

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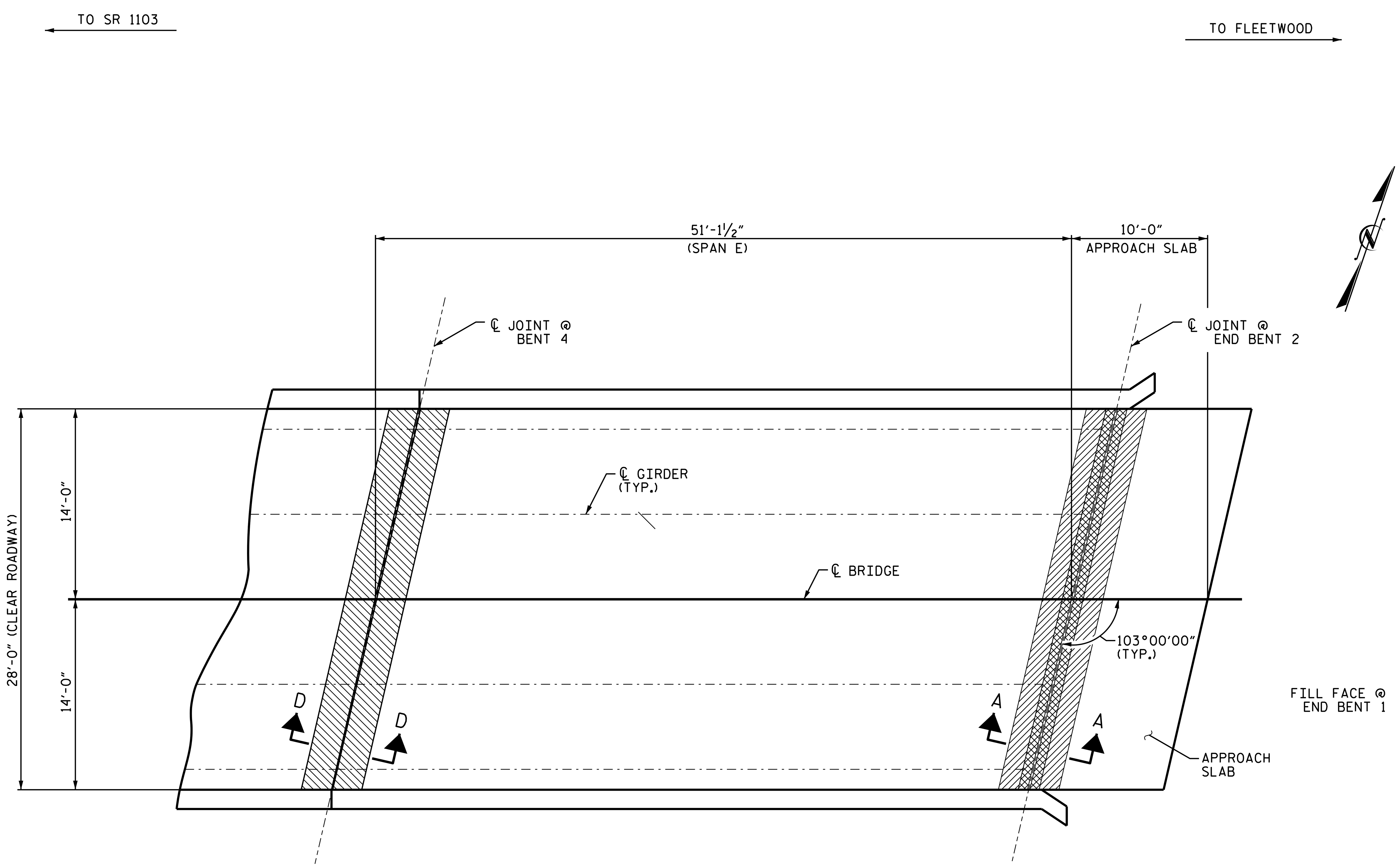

PLAN

AS-BUILT REPAIR QUANTITY TABLE

APPROACH SLAB @ END BENT 2	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	29.6 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	29.6 SY	
CLASS II SURFACE PREPARATION	6.4 SY	
CLASS III SURFACE PREPARATION	1.0 SY	
BRIDGE JOINT DEMOLITION	14.4 SF	
ELASTOMERIC CONCRETE	3.5 CF	
CONCRETE FOR DECK REPAIR	9.6 CF	
LATEX MODIFIED CONCRETE EARLY STRENGTH OVERLAY	1.0 CY	
PLACING & FINISHING LMC-ES OVERLAY	29.6 SY	
GROOVING BRIDGE FLOORS	224 SF	

SPAN E TOP OF DECK REPAIRS	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	157.5 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	157.5 SY	
CLASS II SURFACE PREPARATION	6.4 SY	
CLASS III SURFACE PREPARATION	25.1 SY	
BRIDGE JOINT DEMOLITION	14.4 SF	
ELASTOMERIC CONCRETE	3.5 CF	
CONCRETE FOR DECK REPAIR	9.6 CF	
LATEX MODIFIED CONCRETE EARLY STRENGTH OVERLAY	14.4 CY	
PLACING & FINISHING LMC-ES OVERLAY	157.5 SY	
GROOVING BRIDGE FLOORS	1320 SF	

NOTES

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

FOR SECTION A-A AND D-D, SEE "JOINT DETAILS AND LINK SLAB DETAILS" SHEETS.

EXISTING BRIDGE PLANS INDICATE A 2½" CONCRETE COVER FOR THE TOP MAT OF STEEL IN THE BRIDGE DECK AND 2" CONCRETE COVER FOR THE TOP MAT OF STEEL IN THE APPROACH SLAB.

APPROX. CLASS II AREA

APPROX. CLASS III AREA

BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 5 OF 5

STATE OF NORTH CAROLINA
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PLAN OF SPAN SPAN E & APPROACH SLAB

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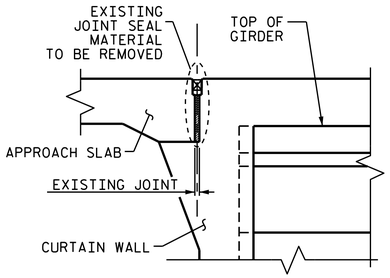
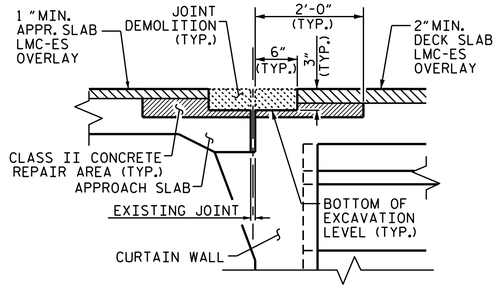
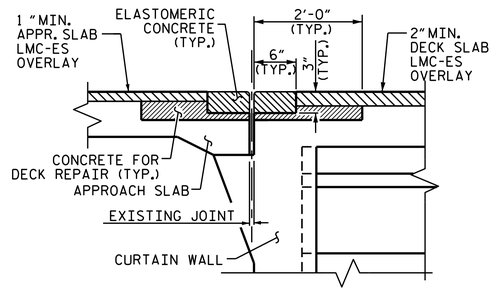


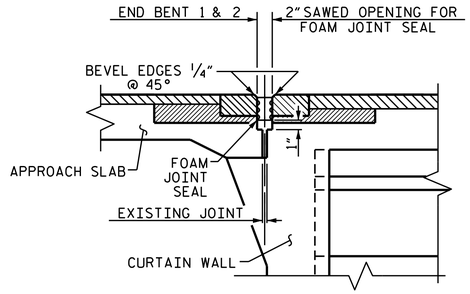
EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION

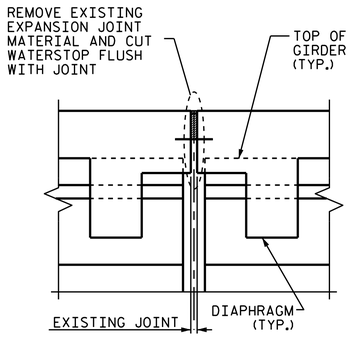


PROPOSED PRE-SAWED JOINT



PROPOSED FOAM JOINT SEAL

SECTION A-A



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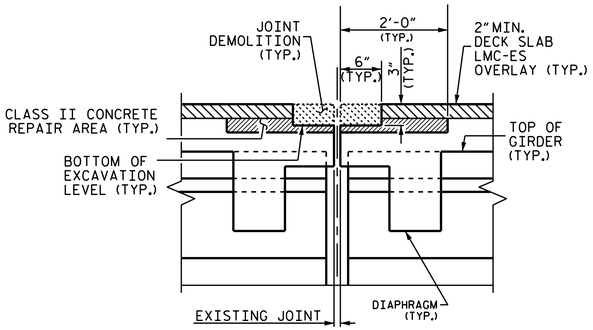
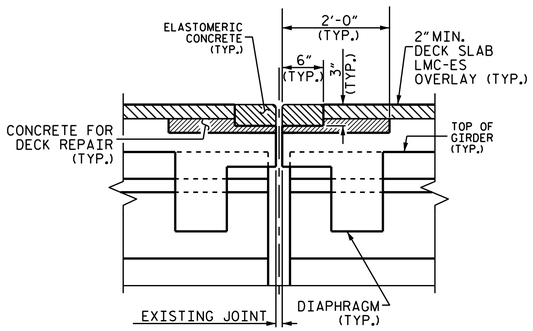


MINIMUM EXISTING JOINT DEMOLITION BENTS 2 & 3



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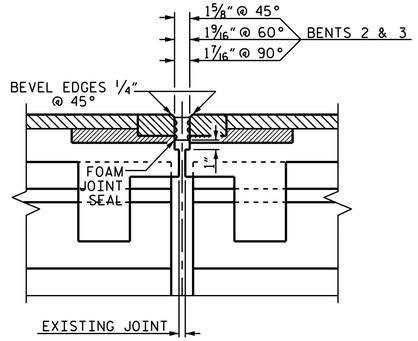
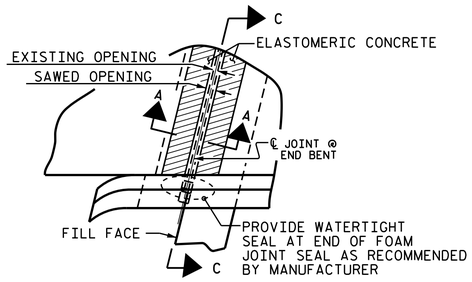
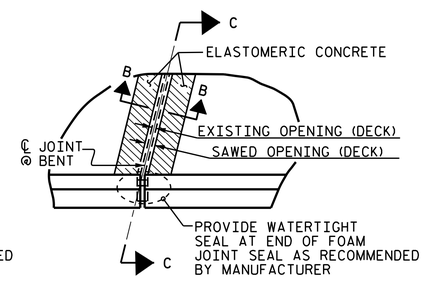


PROPOSED FOAM JOINT SEAL

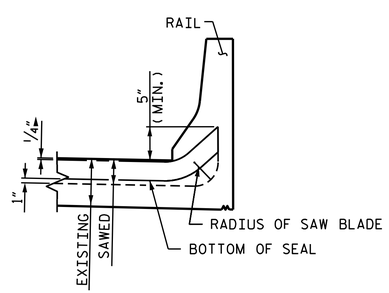
SECTION B-B



PLAN
(@ END BENT)



PLAN
(@ BENTS 2 & 3)



SECTION C-C

FOAM JOINT SEALS FOR PRESERVATION		
END BENT 1	30.0	(CU. FT.)
BENT 2	30.0	(CU. FT.)
BENT 3	30.0	(CU. FT.)
END BENT 2	30.0	(CU. FT.)
TOTAL	120.0	(CU. FT.)

ELASTOMERIC CONCRETE FOR PRESERVATION		
END BENT 1	7.2	(CU. FT.)
BENT 2	7.2	(CU. FT.)
BENT 3	7.2	(CU. FT.)
END BENT 2	7.2	(CU. FT.)
* TOTAL	28.8	(CU. FT.)

*BASED ON THE MINIMUM BLOCKOUT SHOWN.

JOINT SEAL DETAILS

DEMOLISH BRIDGE JOINT AREA TO THE NECESSARY DEPTH, SUCH THAT ELASTOMERIC CONCRETE SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE, NOT LATEX MODIFIED CONCRETE. IF SUCH EXCAVATION EXTENDS MORE THAN 2" BELOW THE BOTTOM OF THE PLANNED ELASTOMERIC CONCRETE HEADER, AS SHOWN, APPROVED REPAIR CONCRETE SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE ELASTOMERIC CONCRETE.

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT AND LEVEL, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF ELASTOMERIC CONCRETE.

NOTES:

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

THE INSTALLED FOAM JOINT SEAL SHALL BE WATER TIGHT.

NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL SHALL BE 2½" AT THE END BENTS AND 2" AT THE BENTS.

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

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

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BRIDGE NO. 11

STATE OF NORTH CAROLINA
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JOINT DETAIL

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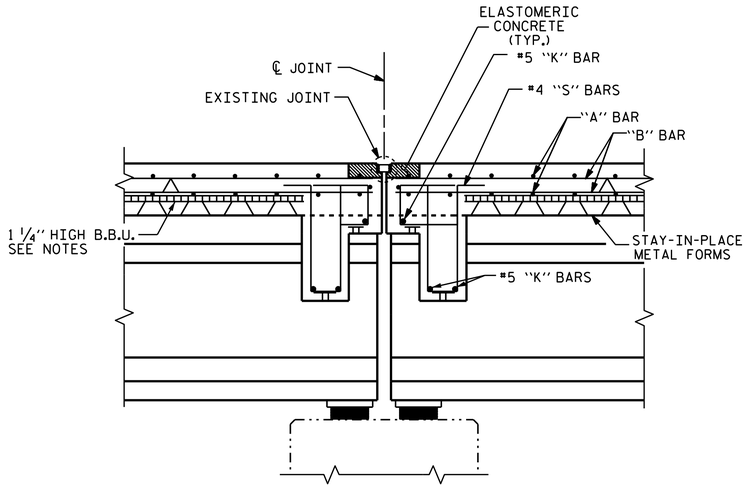
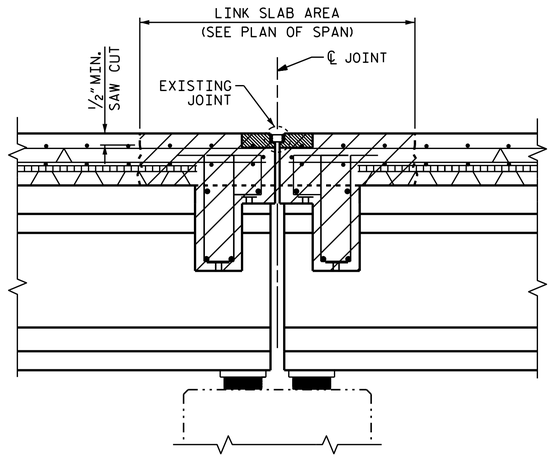


EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION

SPLICE LENGTHS		
BAR SIZE	EPOXY COATED	UNCOATED
#4	2'-0"	1'-9"
#5	2'-6"	2'-2"
#6	3'-0"	2'-7"

BILL OF MATERIAL					
LINK SLAB AT BENTS 1 &4					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
✱A	16	#4	STR	27'-6"	294
A	16	#4	STR	27'-8"	296
✱B	56	#6	STR	7'-4"	617
B	56	#6	STR	7'-4"	617
REINFORCING STEEL				LBS.	911
✱EPOXY COATED REINFORCING STEEL				LBS.	913

NOTES

SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF JOINT REPAIR.

FOR CONCRETE FOR DECK REPAIR QUANTITIES, SEE PLAN OF SPAN SHEETS.

FOR ESTIMATED CONCRETE WORK FOR JOINT REPLACEMENT QUANTITIES, SEE PLAN OF SPAN SHEETS.

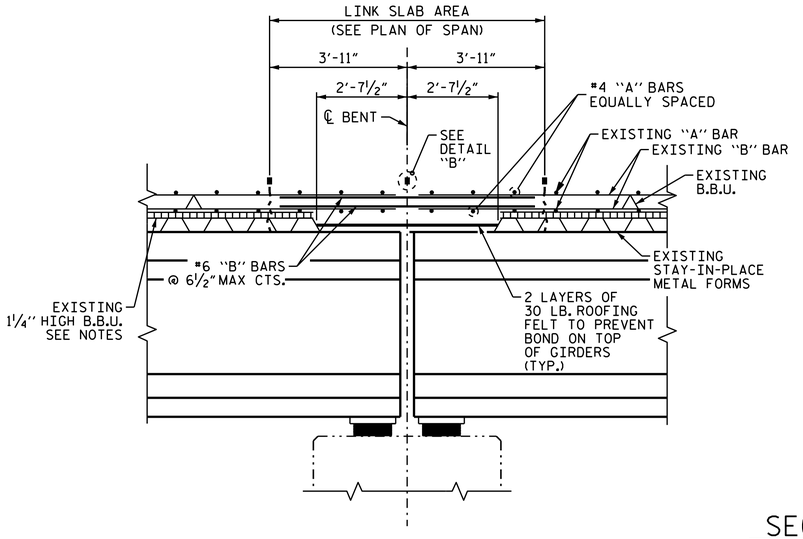
FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS

CONSTRUCTION SEQUENCE

1. CLOSE WORK AREA ACCORDING TO TRAFFIC MANAGEMENT PLANS.
2. MARK OUT PROPOSED LINK SLAB AREA AND REMOVE EXISTING JOINT MATERIAL.
3. SAW CUT ½"DEEP PERIMETER OF PROPOSED LINK SLAB AREA.
4. BEGIN FULL DEPTH DEMOLITION OF PROPOSED LINK SLAB AREA, BEING CAREFUL NOT TO DAMAGE EXISTING REINFORCING STEEL, BEAM FLANGES, OR STAY-IN-PLACE FORMS.
5. REMOVE DEMOLISHED MATERIALS AND CLEAN LINK SLAB AREA.
6. REMOVE SHEAR STUDS/STIRRUPS FROM FLANGE OF GIRDERS WITHIN THE LINK SLAB AREA.
7. COAT AND/OR REPAIR EXISTING REINFORCING STEEL THAT WAS DAMAGED DURING DEMOLITION.
8. PLACE ROOFING FELT AS INDICATED.
9. PLACE ADDITIONAL REINFORCING STEEL AS SHOWN.
10. LMC-ES SHALL BE PLACED IN FULL-DEPTH CONCRETE LINK SLAB AND PROPERLY CONSOLIDATED TO PREVENT VOIDS IN CONCRETE.
11. IF LMC-ES IN LINK SLAB IS NOT PLACED MONOLITHICALLY WITH OVERLAY, PLACE LMC-ES CONCRETE FROM BOTTOM OF LINK SLAB TO TOP OF BRIDGE DECK THAT HAS BEEN PROPERLY PREPARED FOR LMC-ES OVERLAY. RAKE THE TOP SURFACE OF LINK SLAB RECEIVING LMC-ES OVERLAY TO A DEPTH OF ⅜". RAKE TINE SPACING SHALL BE MAXIMUM APPROXIMATELY 1".
    A. SAW CUT CONTROL JOINT, AS INDICATED, IN LINK SLAB. DOT NOT PLACE JOINT SEALER IN SAW CUT.
    B. AFTER PROPER PREPARATION OF BRIDGE DECK, PLACE LMC-ES OVERLAY OVER ENTIRE BRIDGE DECK AND LINK SLAB.
12. AFTER FINAL SURFACE OF LMC-ES IS PLACED, SAW CUT CONTROL JOINT, AS INDICATED, IN LINK SLAB.

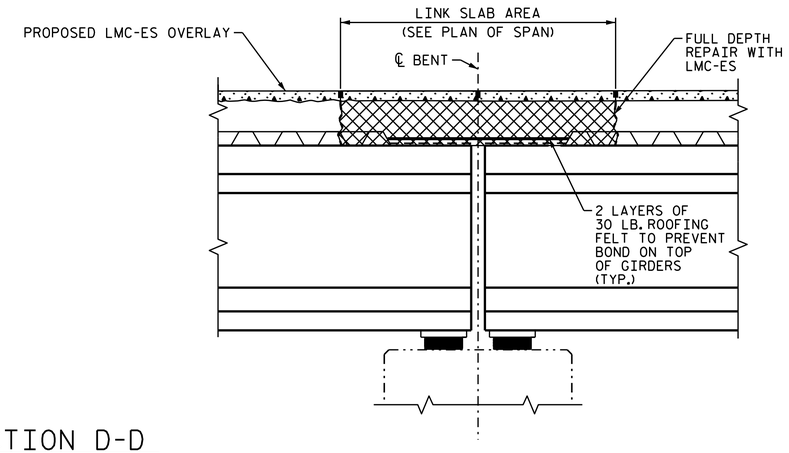
EXISTING CONCRETE OF DEMOLITION FOR LINK SLAB CONSTRUCTION

NEW CONCRETE WORK FOR JOINT REPLACEMENT

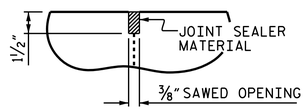


PROPOSED LINK SLAB CONSTRUCTION

SECTION D-D



PROPOSED LINK SLAB WITH LMC-ES OVERLAY



DETAIL "B"

A 1½"DEEP CONTRACTION JOINT AT BENT CONTROL LINE SHALL BE SAWN WITHIN 24 HOURS OF POURING THE LINK SLAB AND OR OVERLAY. FOR SAWCUT IN FINAL DECK SURFACE, THE JOINT SHALL BE FILLED WITH JOINT SEALER MATERIAL. THE JOINT SEALER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF TYPE B LOW MODULUS SILICONE SEALANT. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

PROJECT NO. 15BPR.27
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BRIDGE NO. 11

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

LINK SLAB DETAILS

ASSEMBLED BY : M. G. SHAIKH	DATE : 11/2018
CHECKED BY : A. A. COLE	DATE : 11/2018
DRAWN BY : NAP 08/18	
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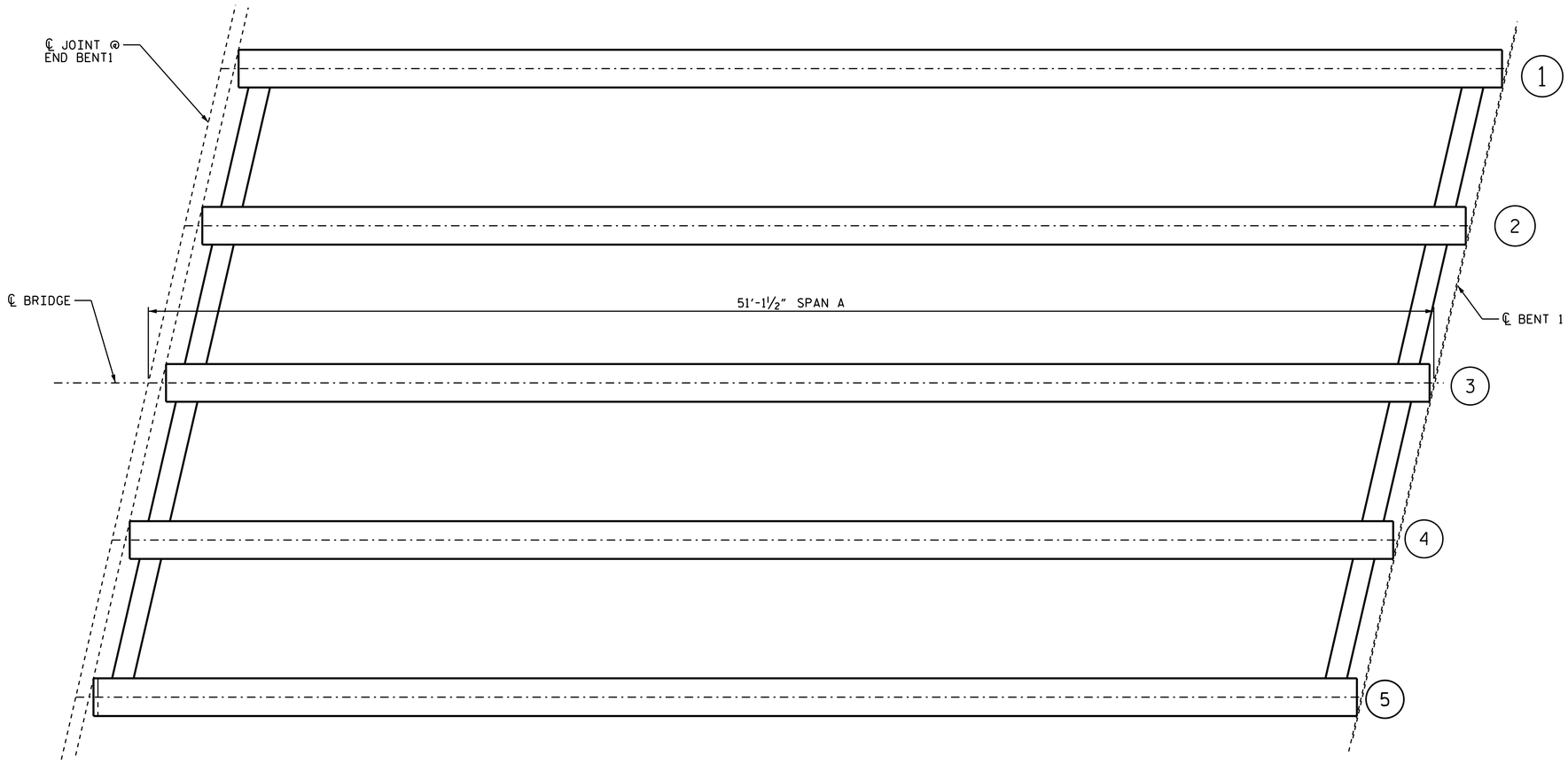

PRESTRESSED GIRDER REPAIR LOCATIONS

(OTHER LOCATIONS MAY EXIST, SEE NOTES)

NOTES

FOR PRESTRESSED GIRDER REPAIR AND PCG EPOXY COATING DETAILS, SEE "PRESTRESSED GIRDER REPAIR DETAILS" SHEET S-21.

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

POTENTIAL REPAIR LOCATION

(1) GIRDER NUMBER

POTENTIAL GIRDER REPAIR LOCATIONS			
GIRDER	LOCATION	REPAIR SIZE (LXW)	LABEL

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO: 11

SHEET 1 OF 5

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1/7/2019

STATE OF NORTH CAROLINA
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RALEIGH

PRESTRESSED GIRDER REPAIR LOCATIONS SPAN A

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NOTES

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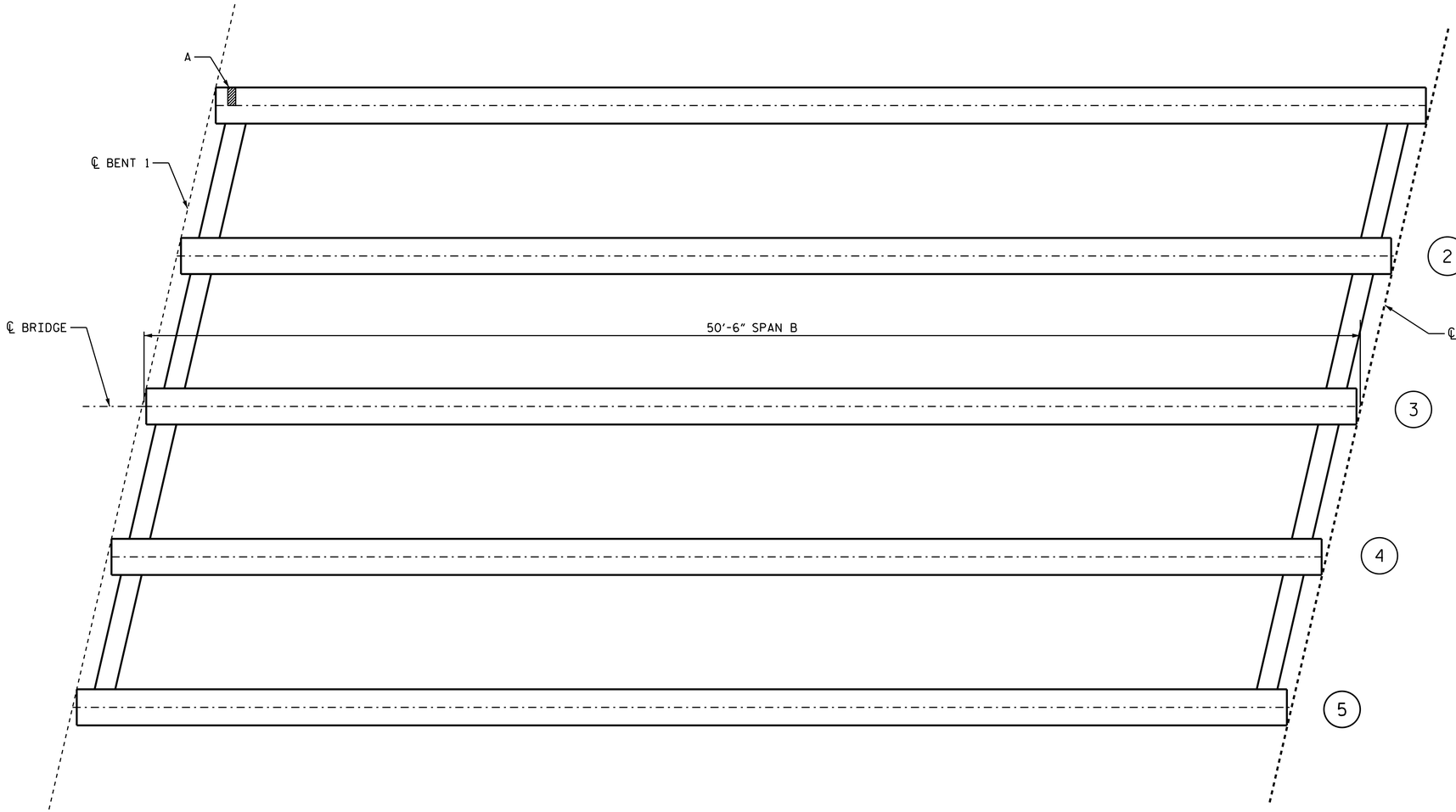
POTENTIAL REPAIR LOCATION

(1) GIRDER NUMBER



PRESTRESSED GIRDER REPAIR LOCATIONS

(OTHER LOCATIONS MAY EXIST, SEE NOTES)

POTENTIAL GIRDER REPAIR LOCATIONS

GIRDER	LOCATION	REPAIR SIZE (LXW)	LABEL
1	WEB	6"X 1'-3"	A

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 2 OF 5

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RALEIGH

PRESTRESSED GIRDER REPAIR LOCATIONS SPAN B

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NOTES

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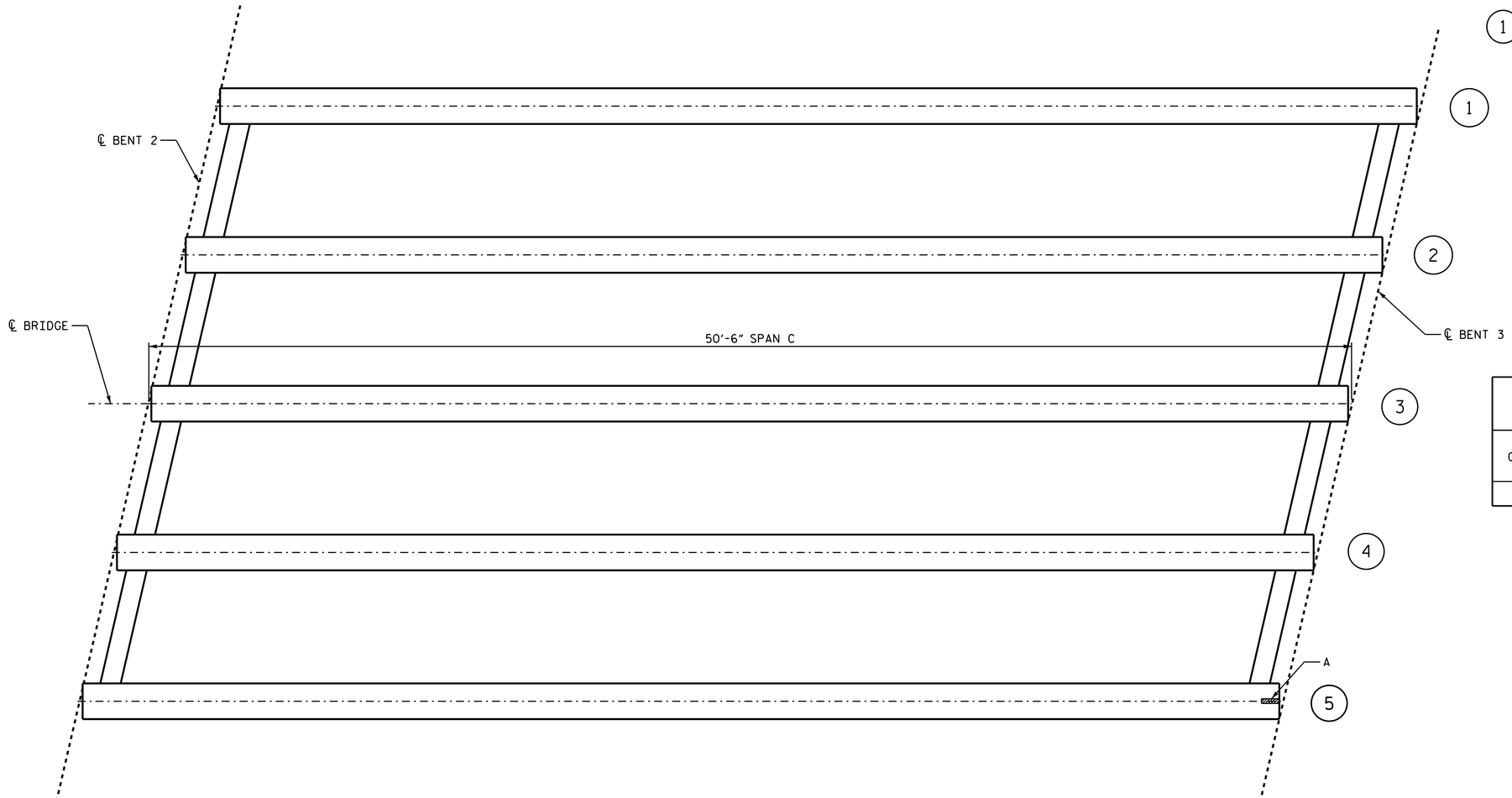
POTENTIAL REPAIR LOCATION

(1) GIRDER NUMBER



PRESTRESSED GIRDER REPAIR LOCATIONS

(OTHER LOCATIONS MAY EXIST, SEE NOTES)

POTENTIAL GIRDER REPAIR LOCATIONS			
GIRDER	LOCATION	REPAIR SIZE (LXW)	LABEL
5	WEB	6"X 1'-3"	A

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 3 OF 5

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1/7/2019

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RALEIGH

PRESTRESSED GIRDER REPAIR LOCATIONS SPAN C

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NOTES

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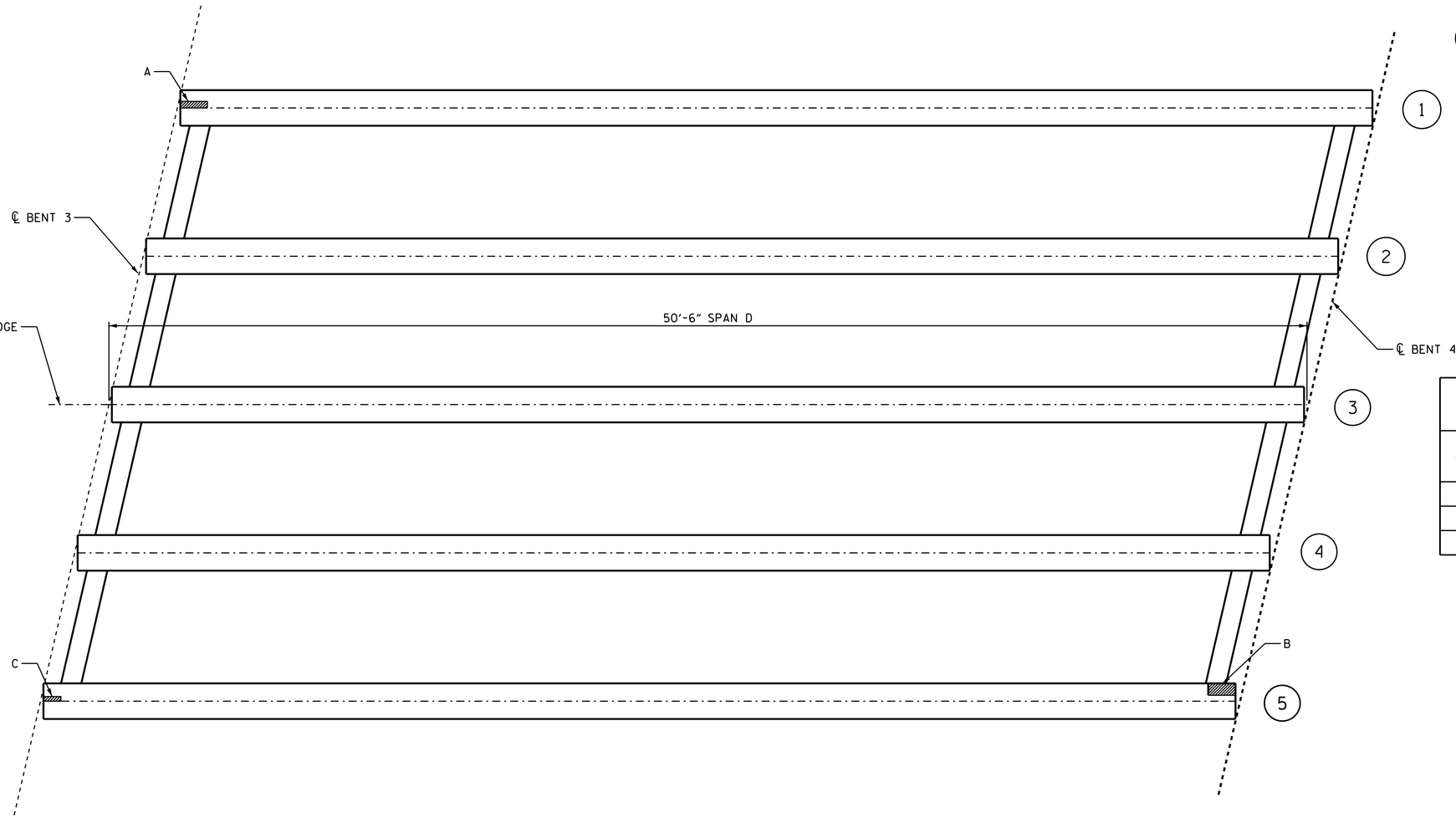

PRESTRESSED GIRDER REPAIR LOCATIONS

(OTHER LOCATIONS MAY EXIST, SEE NOTES)

POTENTIAL GIRDER REPAIR LOCATIONS

GIRDER	LOCATION	REPAIR SIZE (LXW)	LABEL
1	WEB	9"X 1'-3"	A
5	TOP OF B.FL.	6"X 1'-3"	B
5	WEB	6"X 1'-3"	C

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 4 OF 5

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PRESTRESSED GIRDER REPAIR LOCATIONS SPAN D

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NOTES

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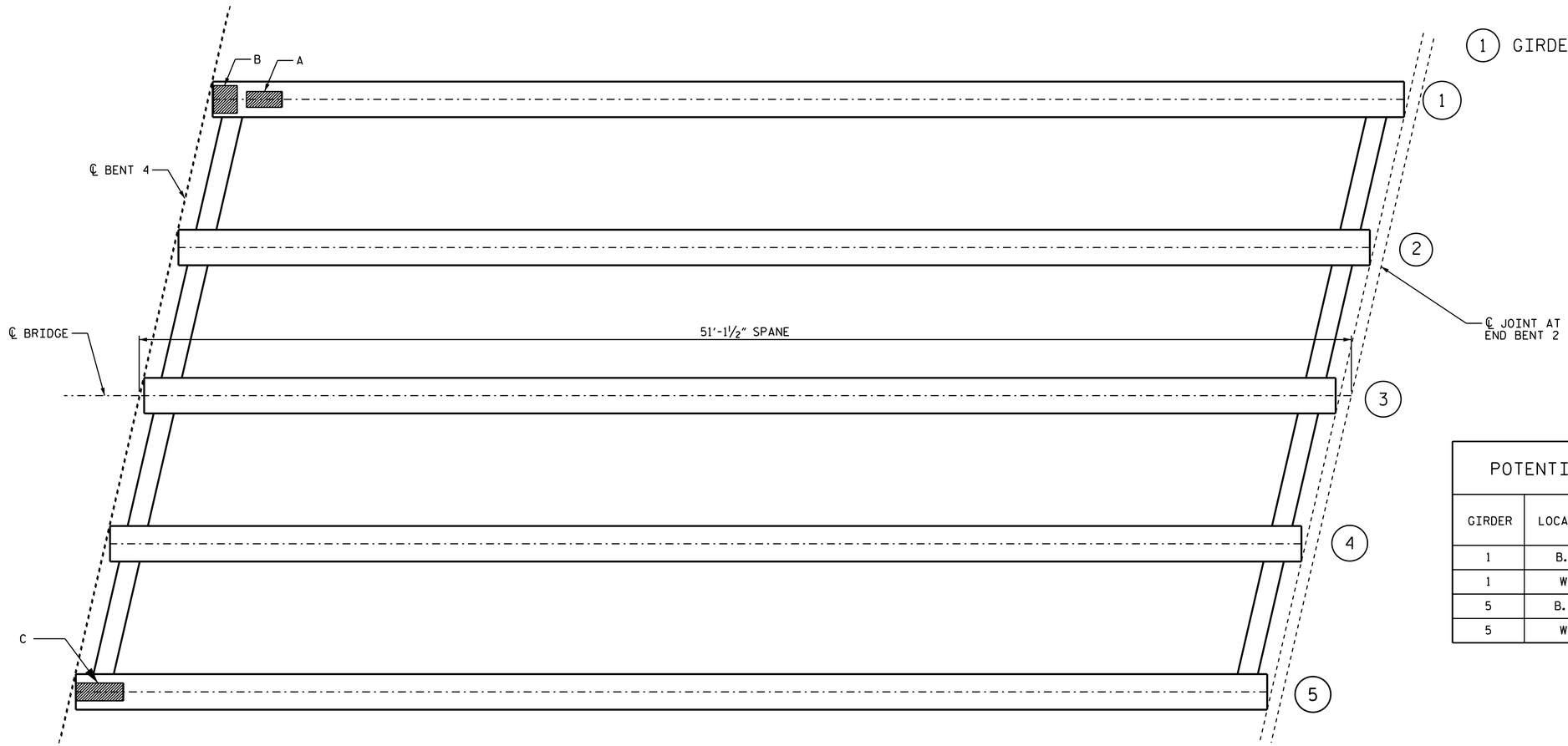
POTENTIAL REPAIR LOCATION

(1) GIRDER NUMBER



POTENTIAL GIRDER REPAIR LOCATIONS			
GIRDER	LOCATION	REPAIR SIZE (LXW)	LABEL
1	B. FL.	1'-6" X 8"	A
1	WEB	1'-3" X 1'-0"	B
5	B. FL.	10" X 1'-2"	C
5	WEB	10" X 1'-2"	C

PRESTRESSED GIRDER REPAIR LOCATIONS

(OTHER LOCATIONS MAY EXIST, SEE NOTES)

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

SHEET 5 OF 5

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PRESTRESSED GIRDER REPAIR LOCATIONS SPAN E

DRAWN BY : GHOLAMREZA KOUCHEKI DATE : 11/2018
CHECKED BY : A.A. COLE DATE : 11/2018

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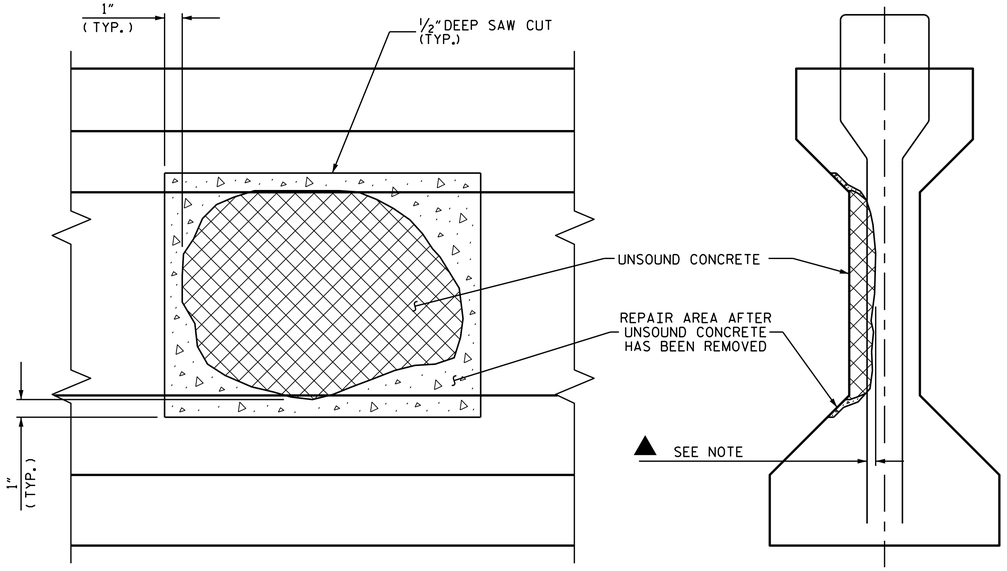
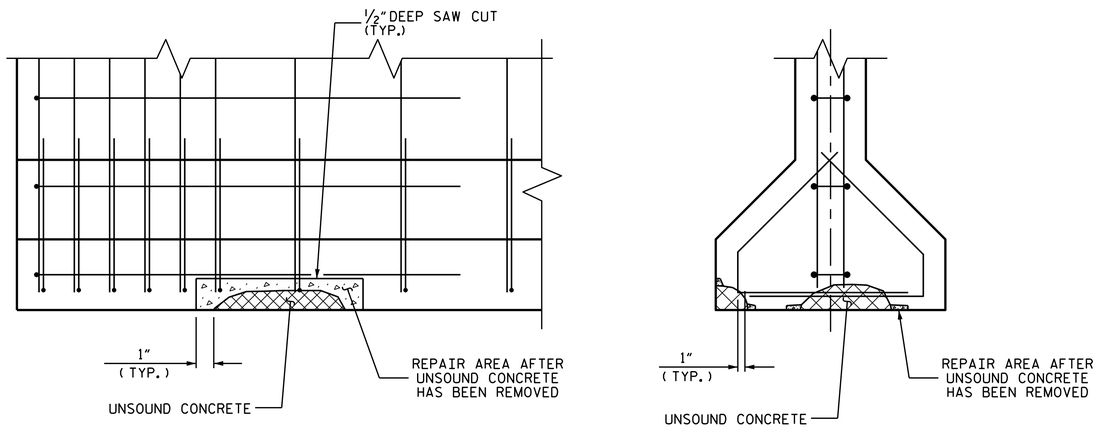


ELEVATION

SECTION

GIRDER WEB REPAIR



ELEVATION

SECTION

GIRDER FLANGE REPAIR

NOTES

FOR REPAIRS TO PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

▲ ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. THE CONTRACTOR SHALL USE EXTREME CARE TO NOT DAMAGE STRANDS.

GIRDER REPAIR QUANTITIES

REPAIRS TO PRESTRESSED CONCRETE GIRDERS	QUANTITIES			
	ESTIMATE		ACTUAL	
	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
SPAN A				
SPAN B	0.7	0.2		
SPAN C	0.7	0.2		
SPAN D	2.2	0.9		
SPAN E	4.2	1.4		
TOTAL	7.4	2.7		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CLEARANCE TO SAWCUT. FOR GIRDER REPAIR AREAS, SEE "PRESTRESSED GIRDER REPAIR LOCATIONS" SHEETS.

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

DocuSigned by:
ADAM A. COLE
NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE
1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PRESTRESSED GIRDER REPAIR DETAILS AND SUMMARY

DRAWN BY : GHOLAMREZA KOUCHEKI DATE : 11/2018
CHECKED BY : A. A. COLE DATE : 11/2018

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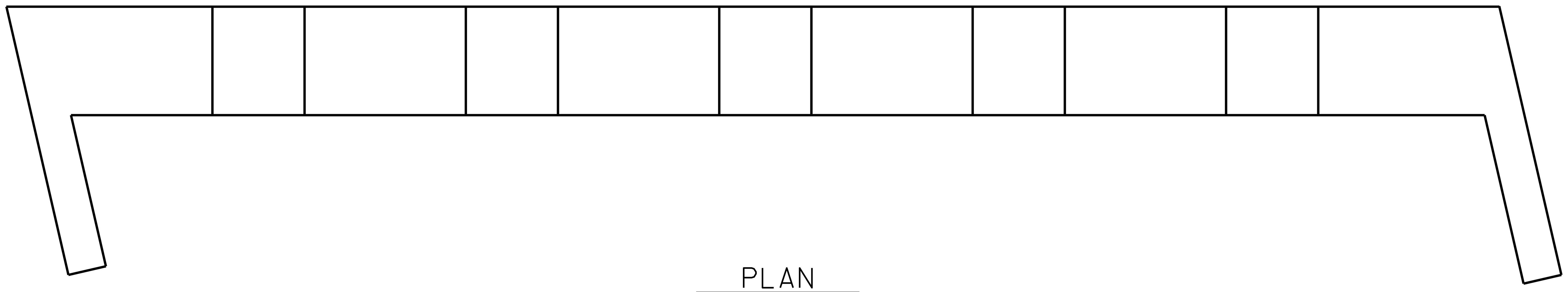
AS-BUILT REPAIR QUANTITY TABLE

END BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	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		
EPOXY RESIN INJECTION	LIN. FT.		LIN. FT.	
CURTAIN WALL	0.0			
CAP	0.0			
EPOXY COATING	SQ. FT.		SQ. FT.	
TOP OF END BENT CAP	104.0			
CURTAIN WALL	0.0			

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



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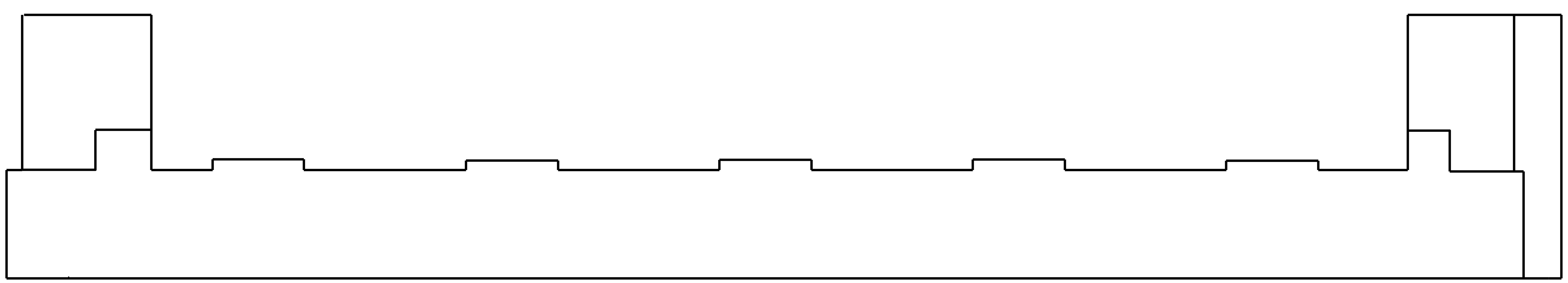


ELEVATION

NOTES:

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

CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF ½" 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 MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

CONCRETE REPAIRS

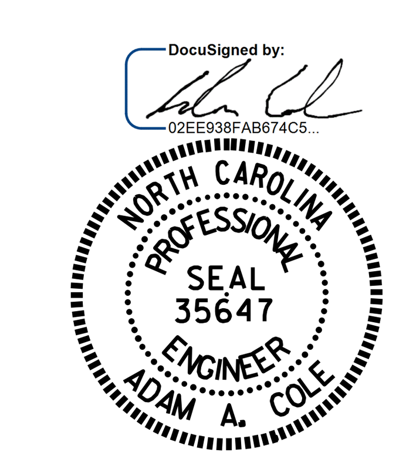
SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11



1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT 1

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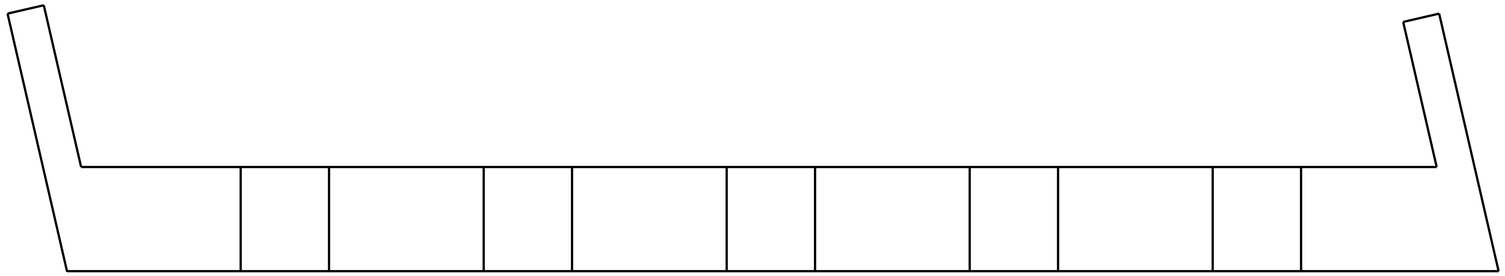
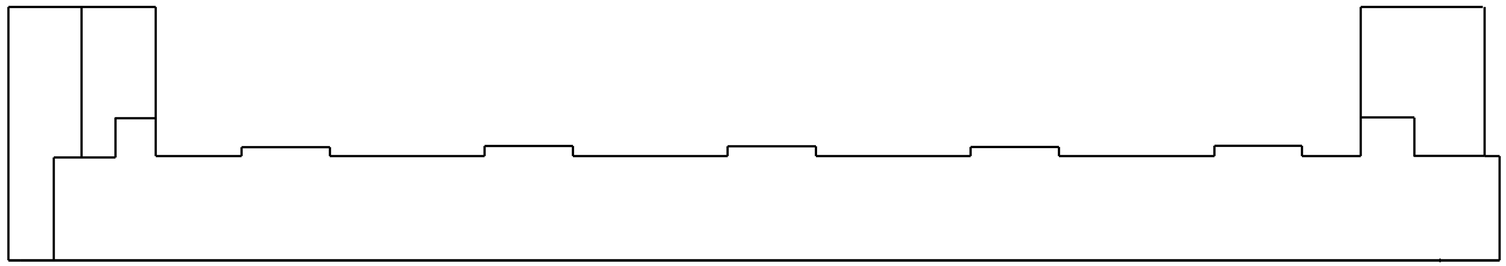


PLAN



ELEVATION

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		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
CURTAIN WALL		0.0		
CAP		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF END BENT CAP		104.0		
CURTAIN WALL		0.0		

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

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FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

CONCRETE REPAIRS

SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT 2

DRAWN BY : E.A.BAYISSA DATE : 04/2018
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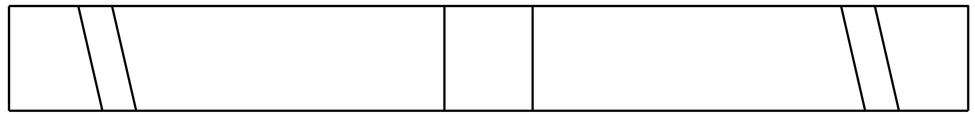


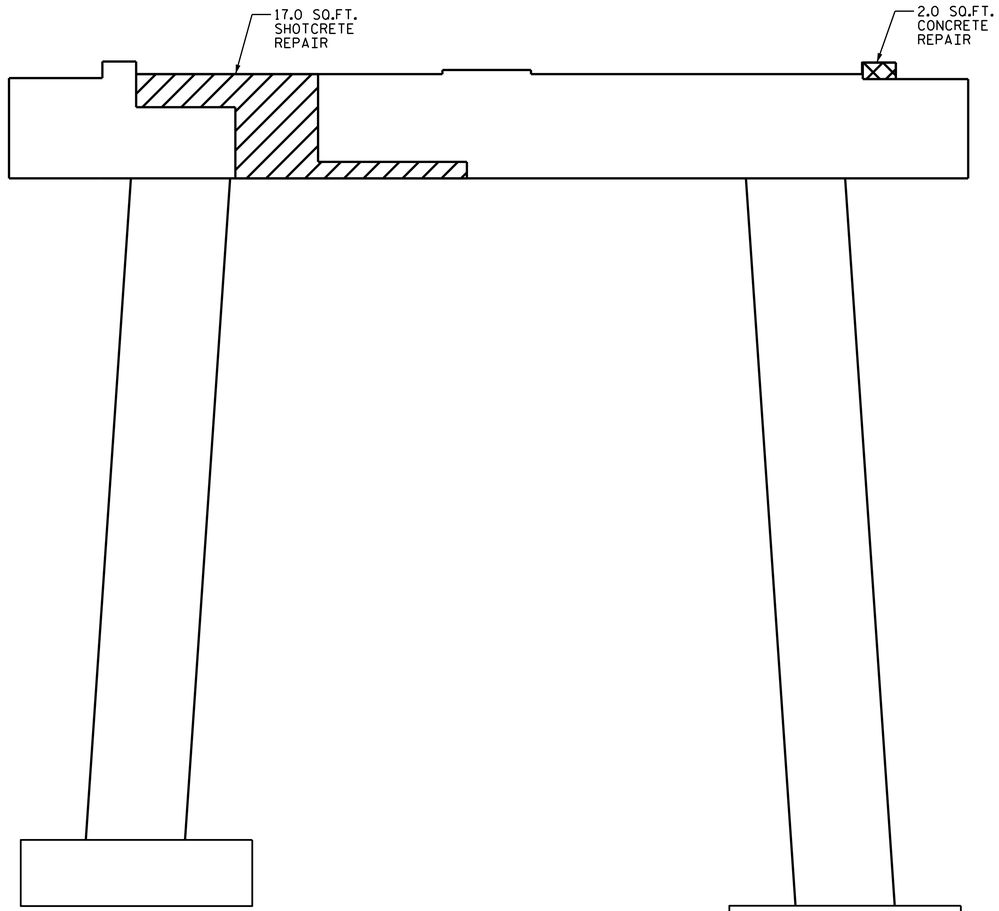
SPAN B
SPAN A

CONCRETE REPAIRS

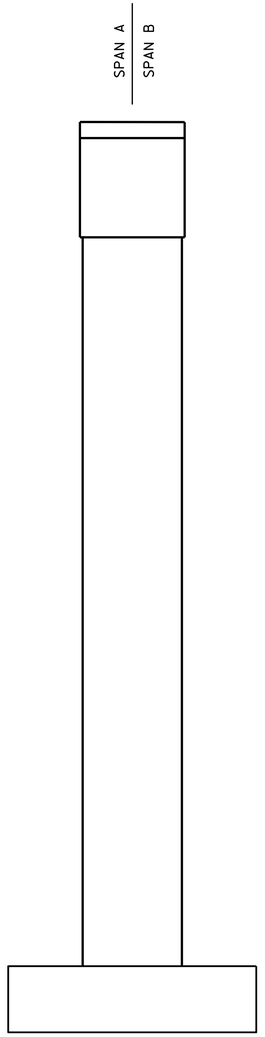
SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

TOP OF CAP



ELEVATION



END VIEW

AS-BUILT REPAIR QUANTITY TABLE

BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	17.0	8.5		
COLUMN	0.0	0.0		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	2.0	1.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		92.0		

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

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 1
SPAN A FACE

DRAWN BY : E.A.BAYISSA DATE : 04/2018
CHECKED BY : R.L.PUTEK DATE : 04/2018

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BOTTOM OF CAP

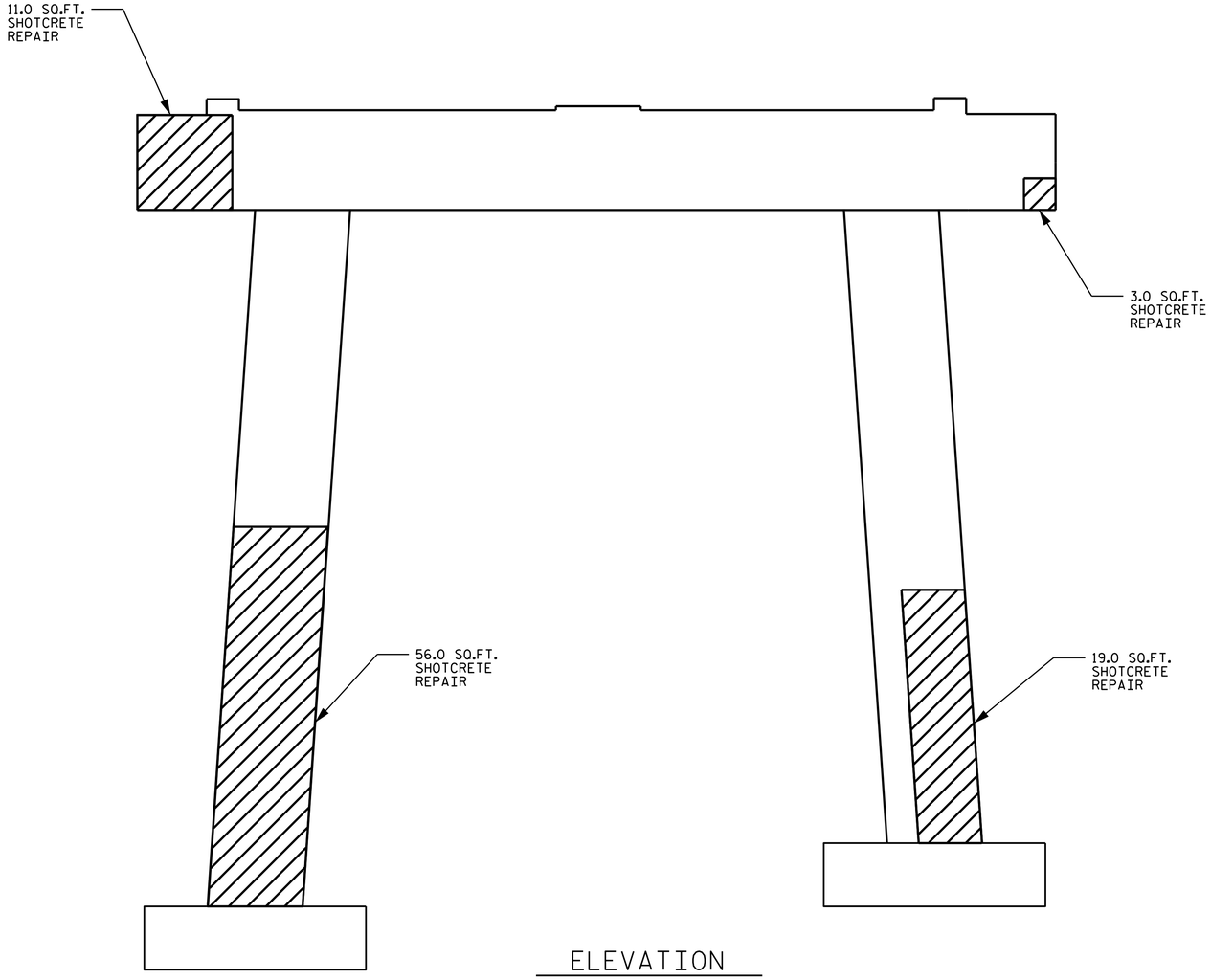
CONCRETE REPAIRS

SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

AS-BUILT REPAIR QUANTITY TABLE				
BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	20.0	10.0		
COLUMN	75.0	37.5		
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.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		0		

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



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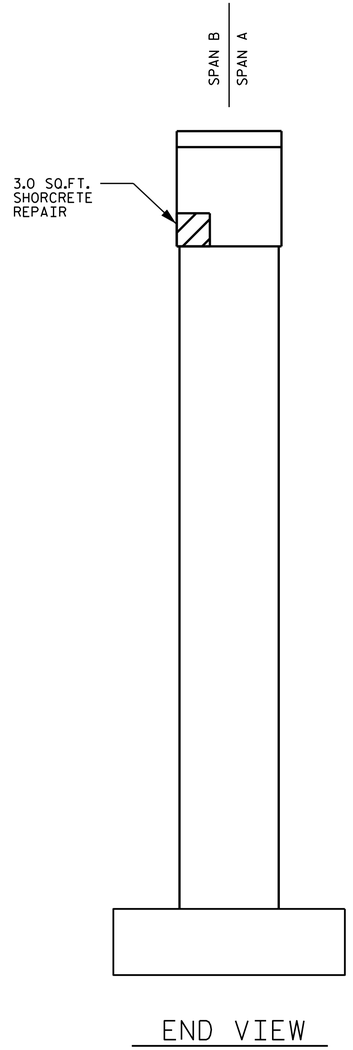

END VIEW

NOTES:

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

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FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 1
SPAN B FACE

DRAWN BY : E.A.BAYISSA DATE : 04/2018

CHECKED BY : R.L.PUTEK DATE : 04/2018

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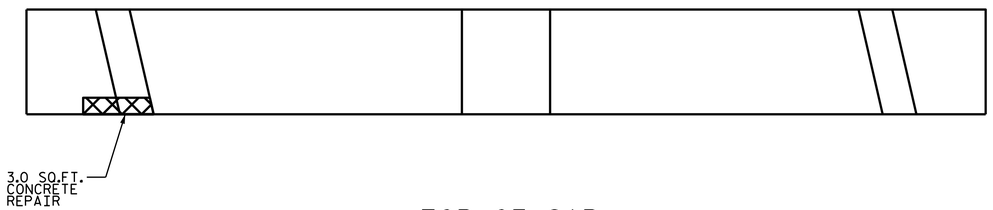
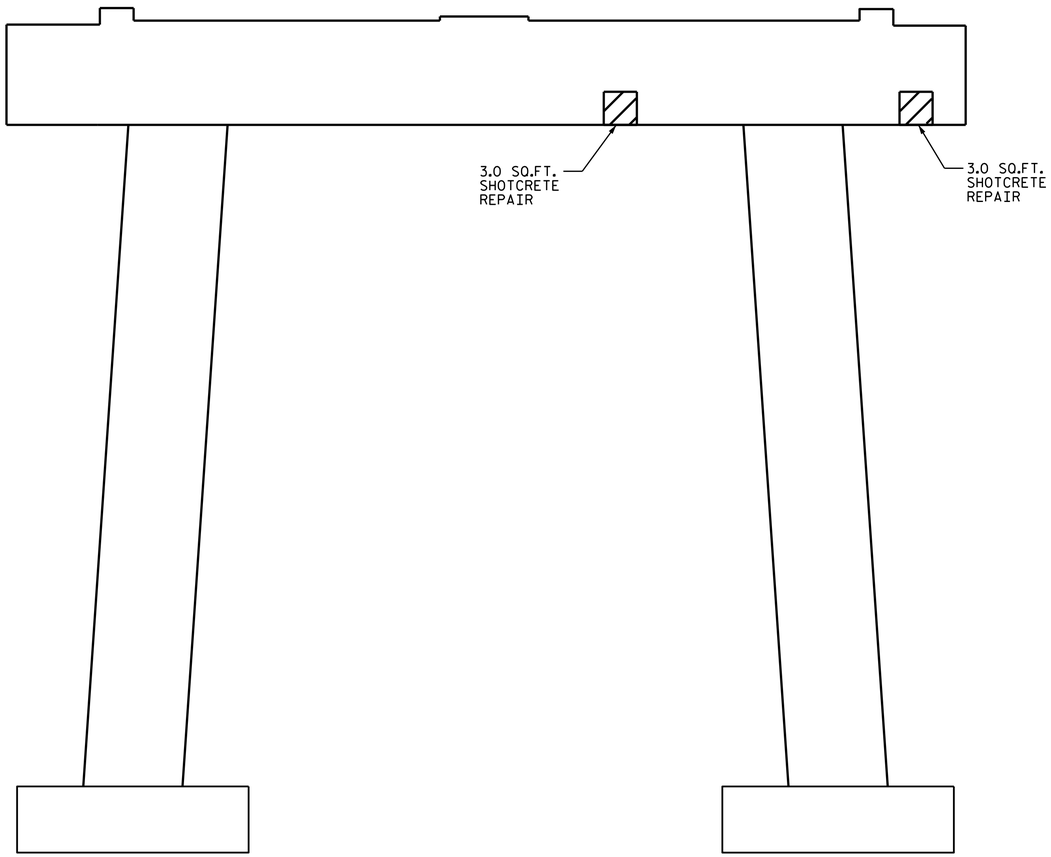


TOP OF CAP

CONCRETE REPAIRS

SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION



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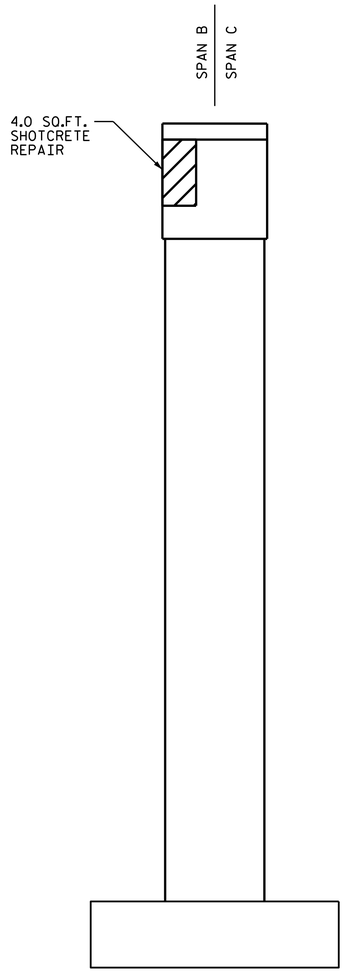

END VIEW

AS-BUILT REPAIR QUANTITY TABLE

BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	10.0	5.0		
COLUMN	0.0	0.0		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	3.0	1.5		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		92.0		

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

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 2
SPAN B FACE

DRAWN BY : E.A.BAYISSA DATE : 04/2018
CHECKED BY : R.L.PUTEK DATE : 04/2018

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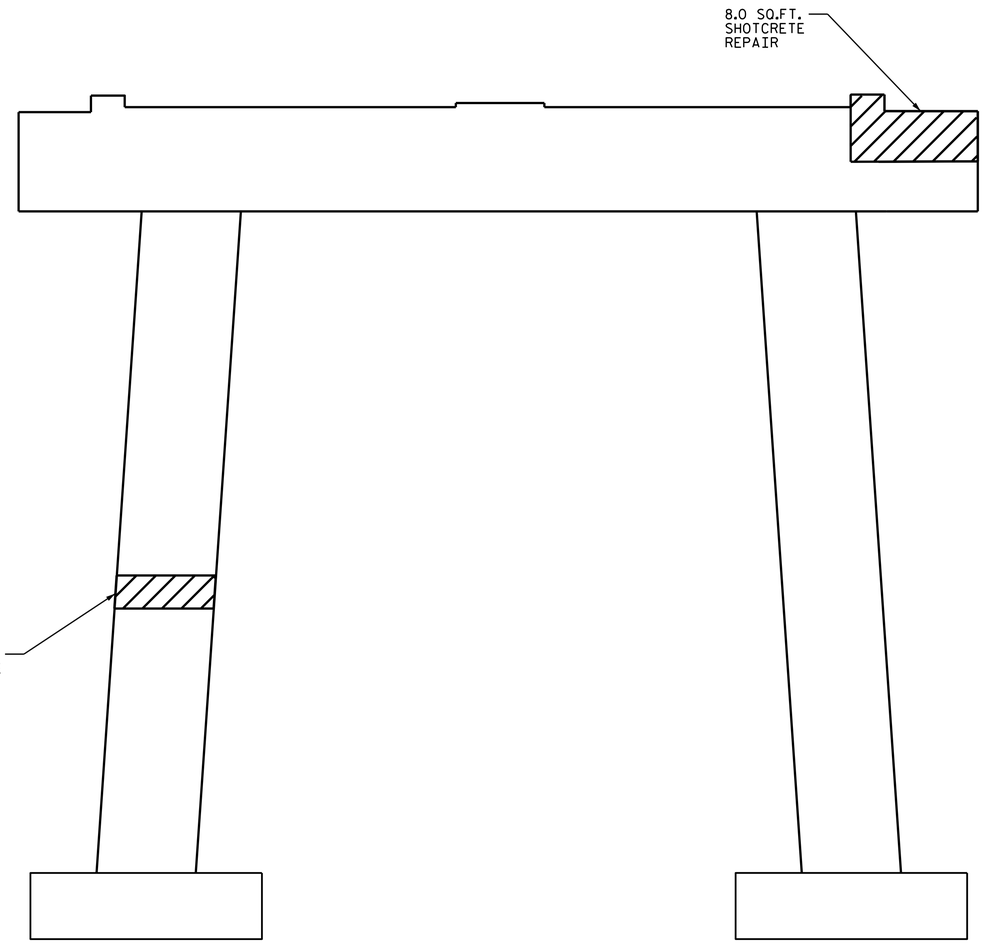
SPAN C
SPAN B

CONCRETE REPAIRS

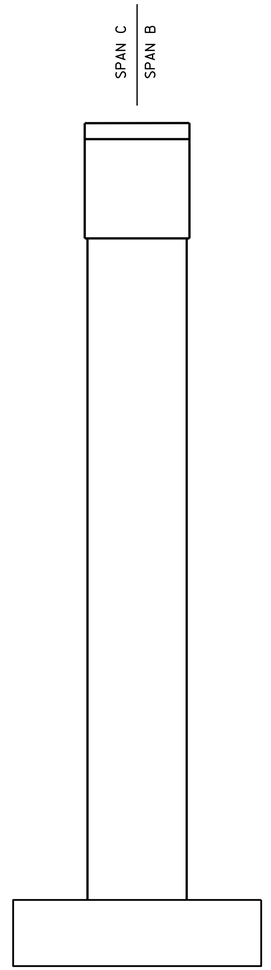
SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

BOTTOM OF CAP



ELEVATION



END VIEW

AS-BUILT REPAIR QUANTITY TABLE

BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	8.0	4.0		
COLUMN	5.0	2.5		
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.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		0		

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

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FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

DocuSigned by:
02EE93BFA8974C5...

NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 2
SPAN C FACE

DRAWN BY : E.A.BAYISSA DATE : 04/2018
CHECKED BY : R.L.PUTEK DATE : 04/2018

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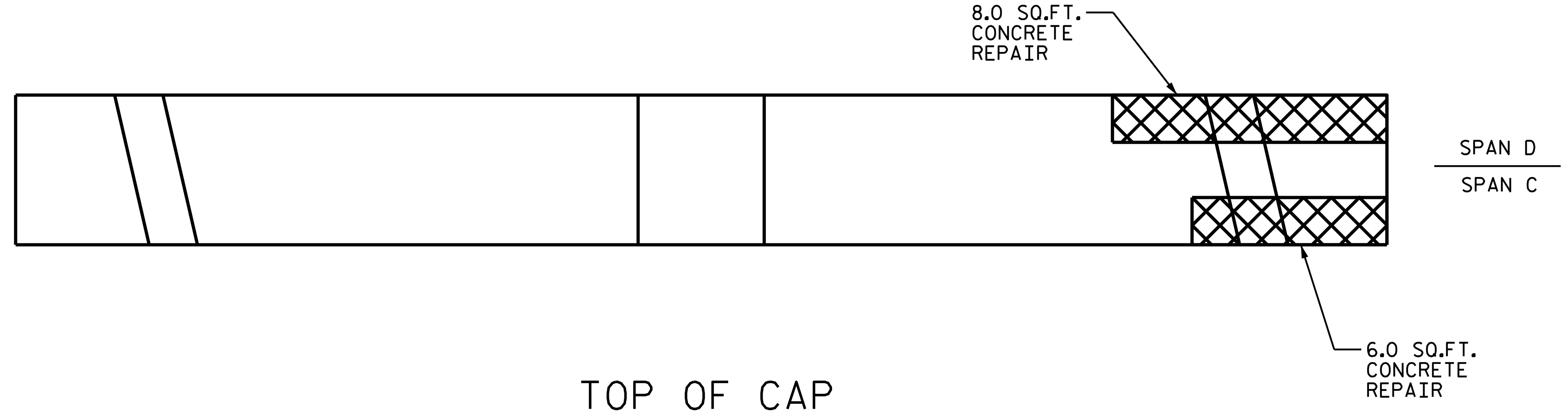
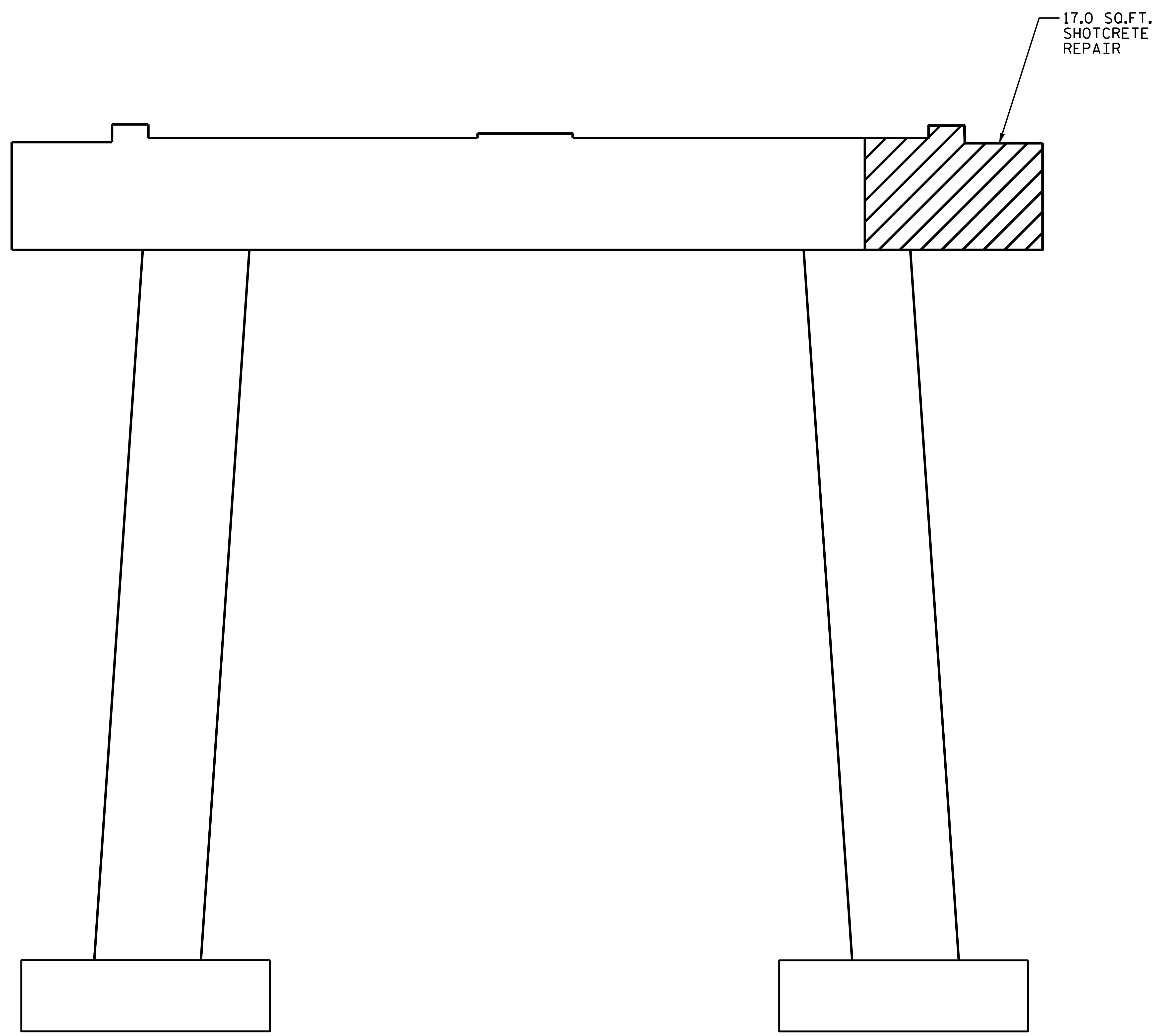
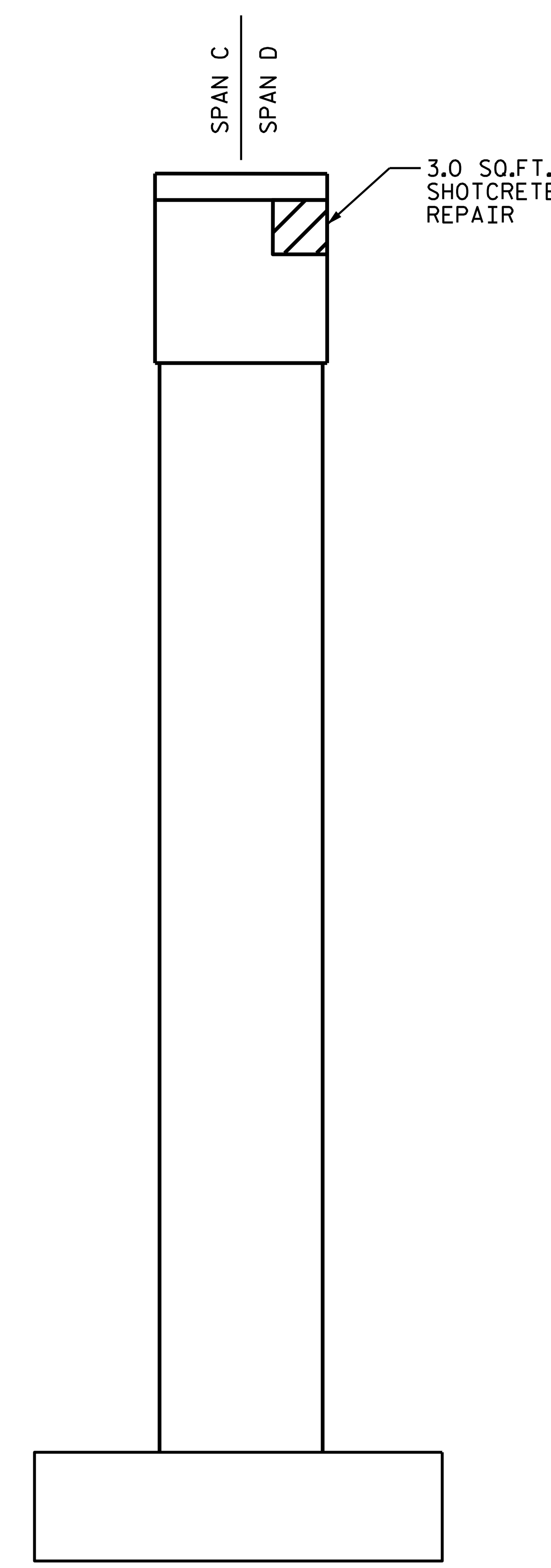


TOP OF CAP



ELEVATION



END VIEW

CONCRETE REPAIRS

SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

AS-BUILT REPAIR QUANTITY TABLE

BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
CAP	20.0	10.0		
COLUMN	0.0	0.0		
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
CAP	14.0	7.0		
EPOXY RESIN INJECTION		LIN.FT.		LIN.FT.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ.FT.		SQ.FT.
TOP OF BENT CAP		92.0		

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

NOTES:

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

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

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PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

DocuSigned by: 02EE938FAB674C5...

NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 3
SPAN C FACE

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SPAN D
SPAN C

BOTTOM OF CAP

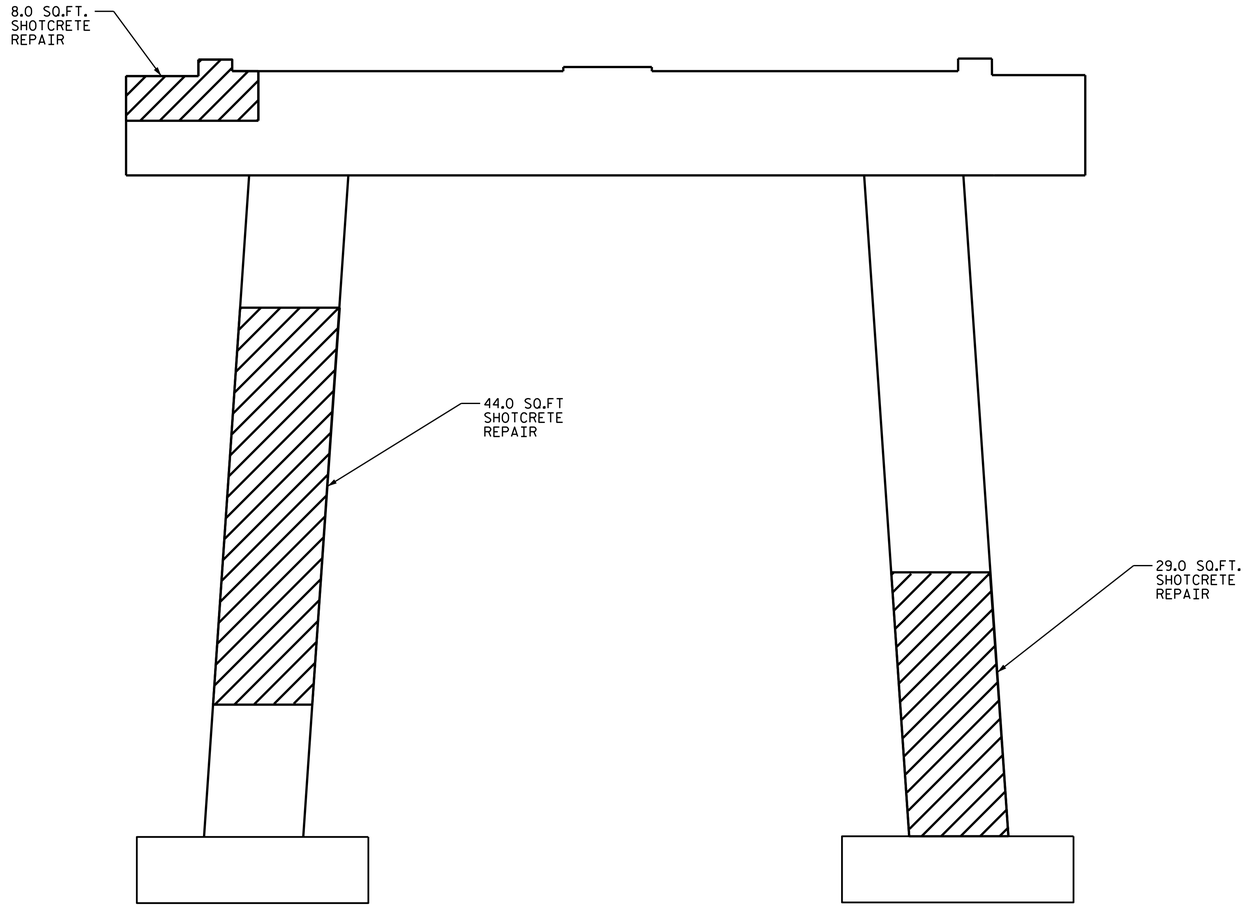
CONCRETE REPAIRS

SHOTCRETE REPAIR

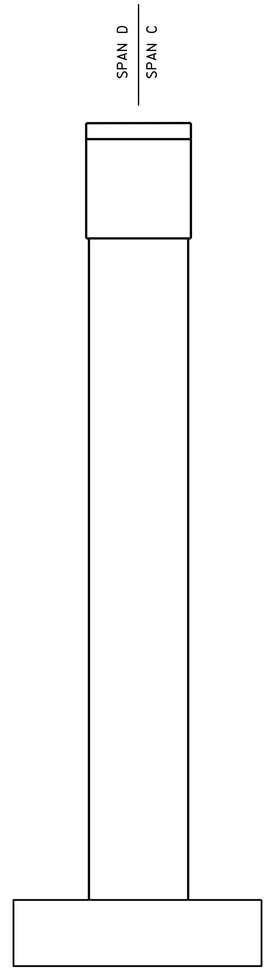
ERI EPOXY RESIN INJECTION

AS-BUILT REPAIR QUANTITY TABLE				
BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	8.0	4.0		
COLUMN	73.0	36.5		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	2.0	1.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		0.0		

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



ELEVATION



END VIEW

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PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

DocuSigned by:
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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 3
SPAN D FACE

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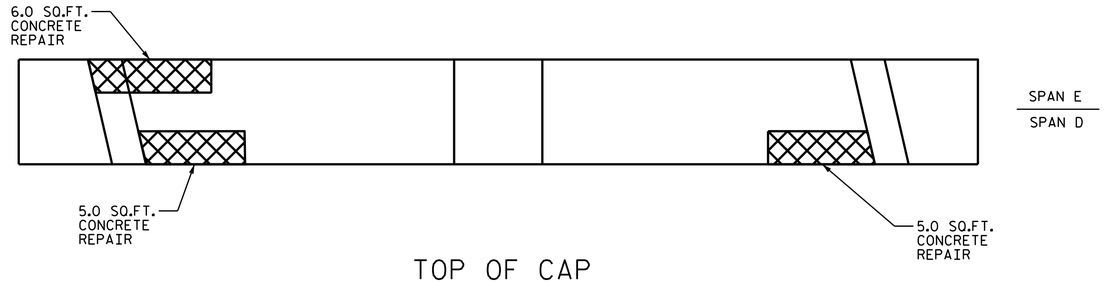


TOP OF CAP

CONCRETE REPAIRS

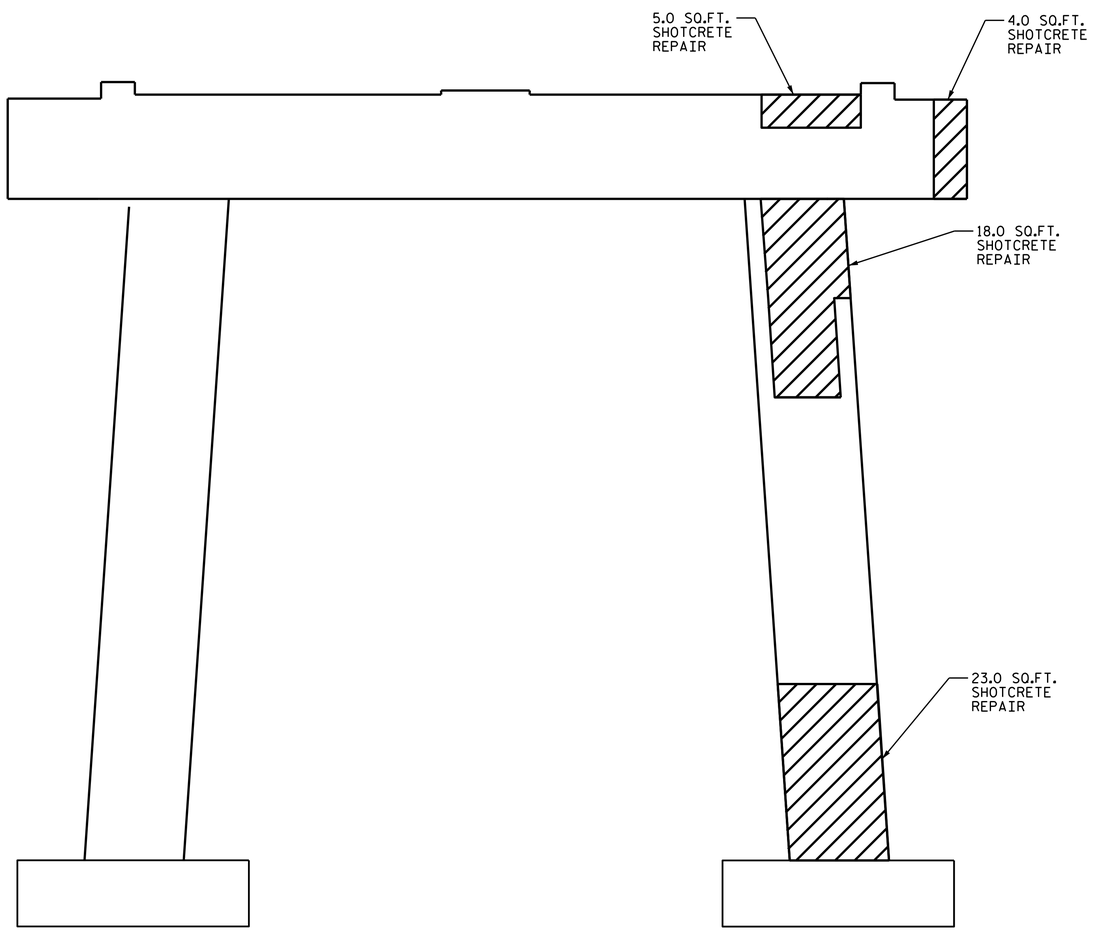
SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

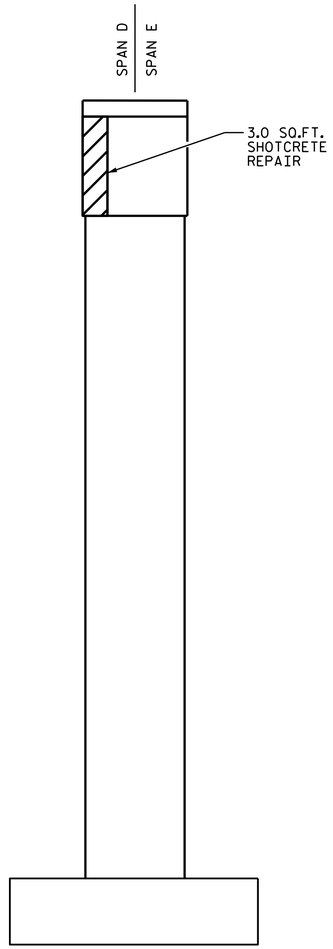
AS-BUILT REPAIR QUANTITY TABLE

BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	12.0	6.0		
COLUMN	41.0	20.5		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	16.0	8.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		92.0		

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



ELEVATION



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PROJECT NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

DocuSigned by:
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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 4
SPAN D FACE

DRAWN BY : E.A.BAYISSA DATE : 04/2018
CHECKED BY : R.L.PUTEK DATE : 04/2018

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AS-BUILT REPAIR QUANTITY TABLE				
BENT 1 SPAN A FACE	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
CAP	21.0	10.5		
COLUMN	17.0	8.5		
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.
CAP		0.0		
COLUMN		0.0		
EPOXY COATING		SQ.FT.		SQ.FT.
TOP OF BENT CAP		0.0		

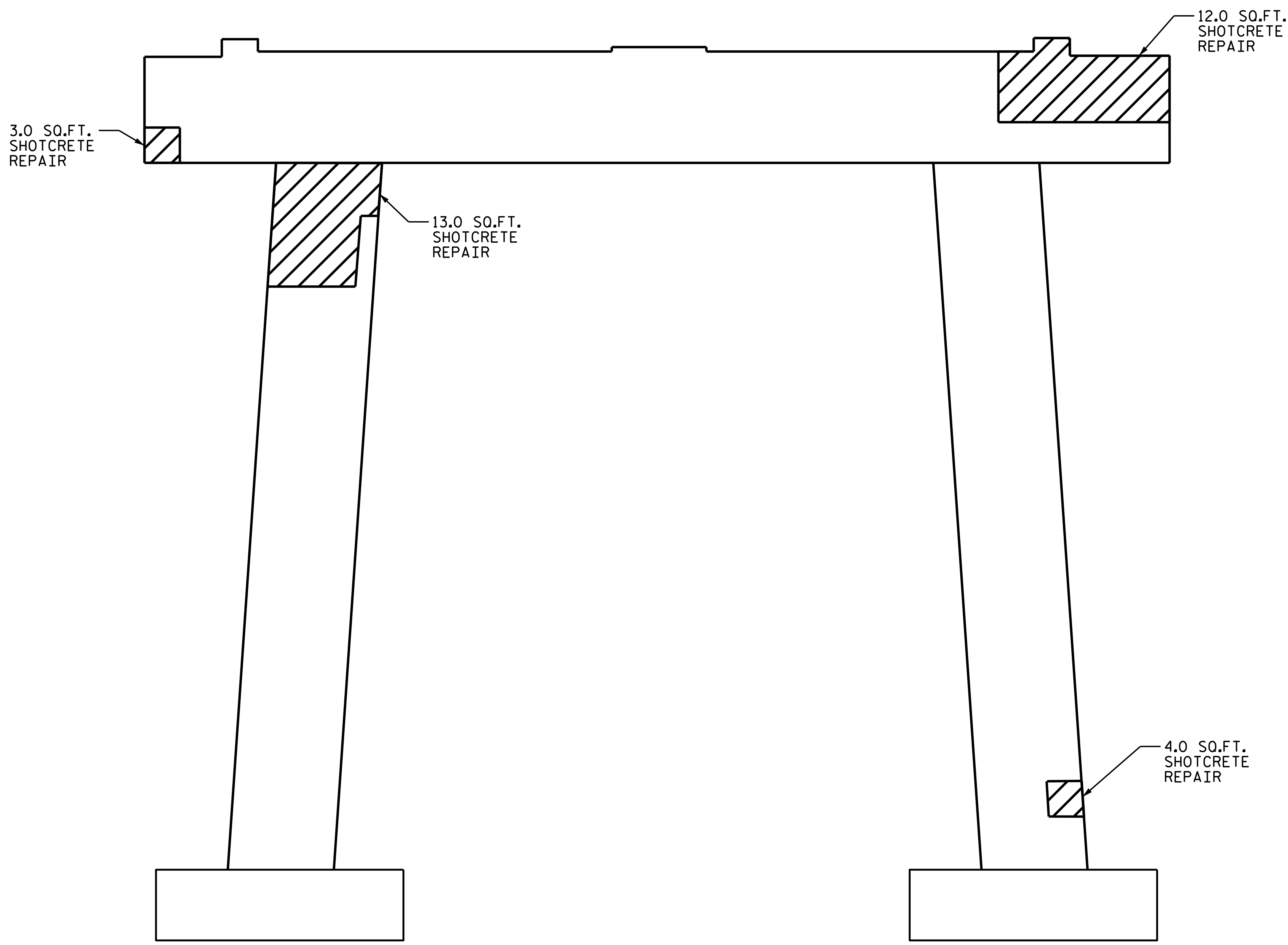
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

CONCRETE REPAIRS

SHOTCRETE REPAIR

ERI EPOXY RESIN INJECTION

BOTTOM OF CAP



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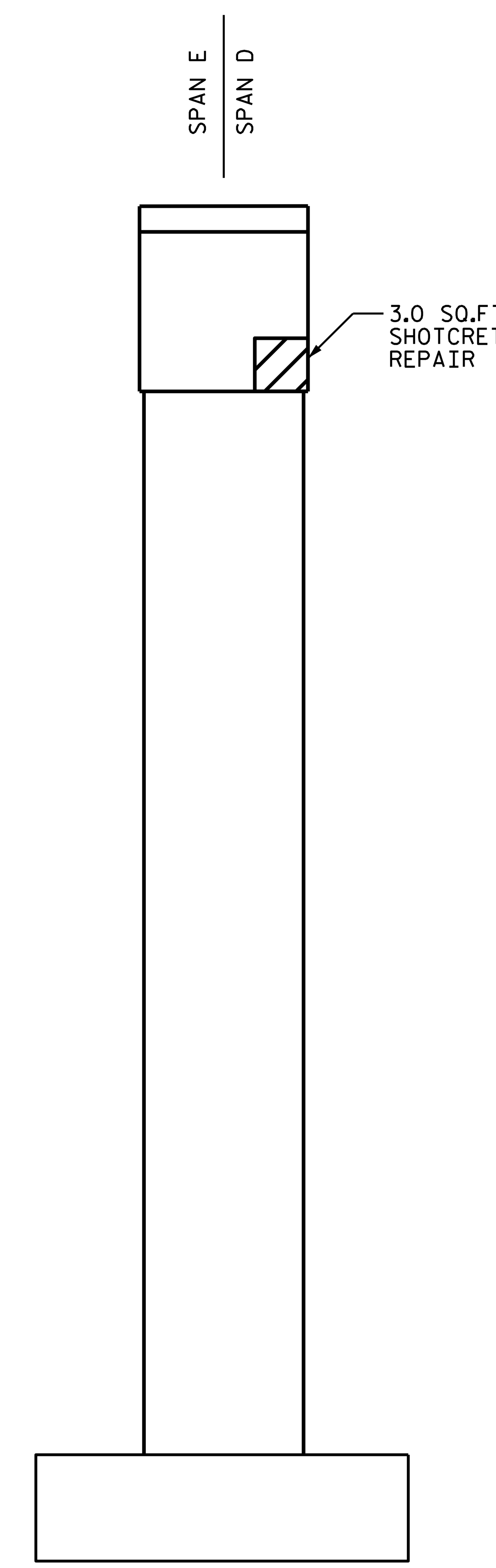

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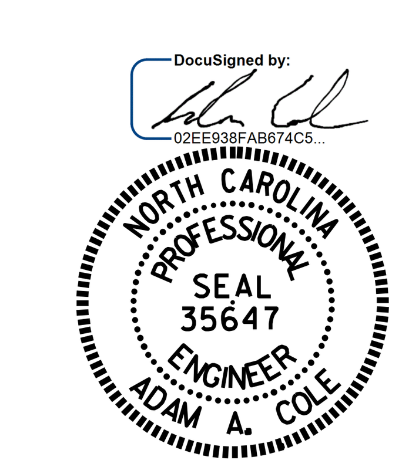
PROJECT NO. 15BPR.27
ASHE COUNTY
BRIDGE NO. 11



1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 4
SPAN E FACE

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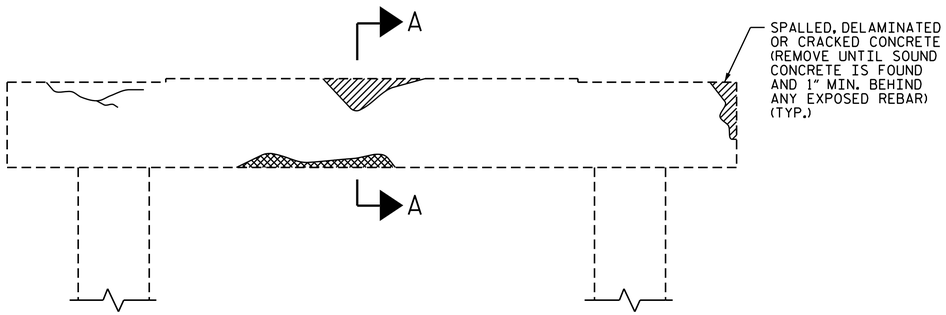
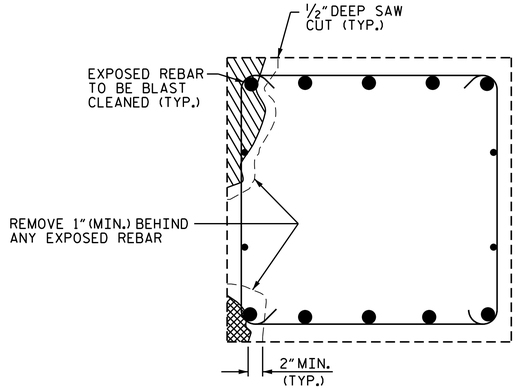
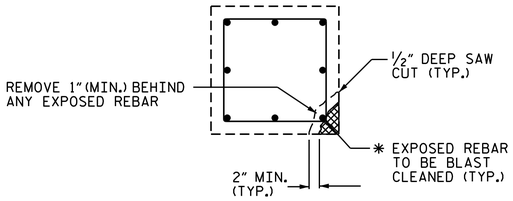


BENT CAP REPAIRS



SECTION A-A

CAP REPAIR



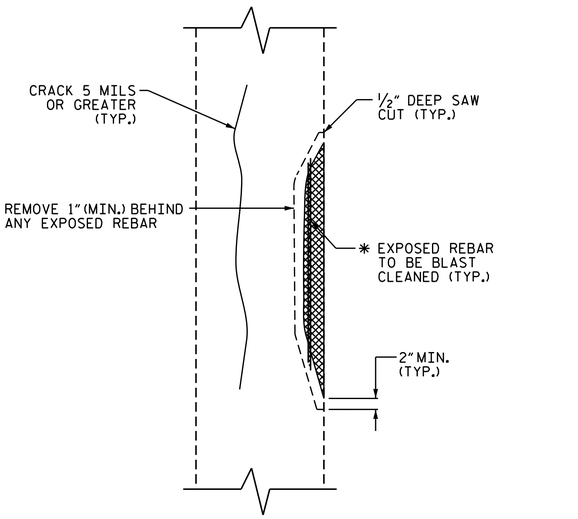
PLAN OF COLUMN

REPAIR KEY

CONCRETE REPAIR AREA (FORM AND POUR)

SHOTCRETE REPAIR AREA

EPOXY RESIN INJECTION (ERI)

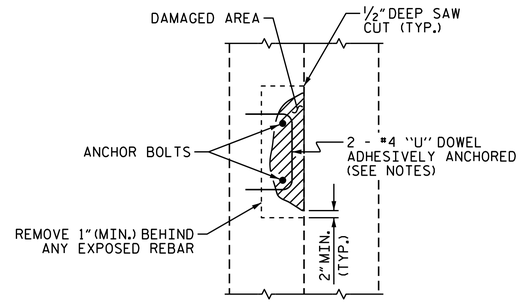


* REPAIR LENGTH SHALL NOT EXCEED 10 FEET.

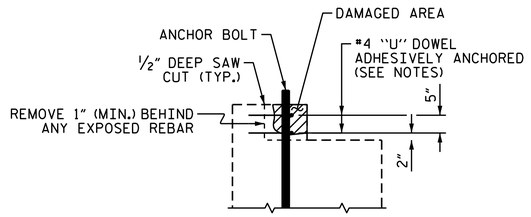
ELEVATION OF COLUMN

COLUMN REPAIR

SPLICE LENGTH TABLE	
BAR SIZE	MIN. SPLICE LENGTH
#4	2'-4"
#5	2'-9"
#6	4'-0"
#7	5'-3"
#8	6'-9"
#9	8'-6"
#10	10'-11"
#11	13'-4"



PLAN



ELEVATION

PEDESTAL WALL REPAIR

NOTES

TYPICAL BENT CAP REPAIRS ARE SHOWN. REPAIR DETAILS SIMILAR FOR END BENT CAPS AND STRUTS.

THE METHOD USED TO DELINEATE THE AREAS OF UNSOUND CONCRETE TO BE REPAIRED SHALL NOT PERMANENTLY MARK THE CONCRETE. LEAVE ANY RESIDUE AFTER REMOVAL OR REQUIRE HARSH CHEMICALS TO REMOVE.

THE CONTRACTOR SHALL REMOVE THE DETERIORATED CONCRETE IN ACCORDANCE WITH THE GUIDELINES SET IN THESE NOTES, IN THE SPECIAL PROVISIONS AND THE STANDARD SPECIFICATIONS.

REMOVE UNSOUND CONCRETE TO THE EXTENT NECESSARY, MINIMUM OF 1" BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT.

NO MORE THAN ONE-THIRD OF THE CAP OR COLUMN CROSS SECTIONAL AREA SHALL BE REMOVED AT ONE TIME. SHOULD IT BECOME NECESSARY TO REMOVE MORE THAN 30% OF A CAP OR COLUMN CROSS SECTIONAL AREA, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

SIMULTANEOUS REMOVAL OF UNSOUND CONCRETE MAY BE PERMITTED ON MORE THAN ONE FACE OF A CAP AND/OR COLUMN, IF THE AREAS OF REMOVAL ARE NOT ADJACENT TO OR DIRECTLY OPPOSITE ONE ANOTHER. IF REMOVAL EXTENDS MORE THAN 1½" BEHIND THE MAIN REINFORCING BARS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

REINFORCING STEEL WHICH IS DETERMINED BY THE ENGINEER TO BE REPLACED, SHALL BE REMOVED TO A POINT WHERE IT IS SOUND. THE PATCH SHALL EXTEND A SUFFICIENT DISTANCE BEYOND THIS POINT TO DEVELOP A SPLICE LENGTH SPECIFIED IN THE TABLE ON THIS SHEET.

THE #4 "U" DOWELS ARE REQUIRED ONLY AROUND THE ANCHOR BOLTS. THE EXISTING REINFORCING STEEL IN THE PEDESTAL WALL SHALL BE CLEANED, STRAIGHTENED AND REMAIN IN PLACE.

FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS.

COAT ALL REPAIR SURFACE AREAS ON THE TOP OF CAPS, INCLUDING CHAMFERS, WITH EPOXY PROTECTIVE COATING, OVERLAPPING THE REPAIR AREA BY A MINIMUM OF 3" ON ALL POSSIBLE SIDES.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

PROJ. NO. 15BPR.27

ASHE COUNTY

BRIDGE NO. 11

DocuSigned by:
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NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

1/7/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
TYPICAL CAP AND COLUMN REPAIR DETAILS

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ASSEMBLED BY : A. A. COLE	DATE : 1/3/19
CHECKED BY : A. M. LEE	DATE : 1/3/19
DRAWN BY : NAP 8/18	
CHECKED BY :	

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STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	SEE PLANS
IMPACT ALLOWANCE	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF	
STRUCTURAL STEEL - AASHTO M270 GRADE 36	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION	
GRADE 60	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR	
UNTREATED - EXTREME FIBER STRESS	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2018 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

ENGLISH

JANUARY, 1990

STD. NO. SN

REV. 6-16-95 EEM (/) RGW REV. 5-7-03 RWW (/) JTE REV. 10-1-11 MAA (/) GM
REV. 8-16-99 RWW (/) LES REV. 5-1-06 TLA (/) GM

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