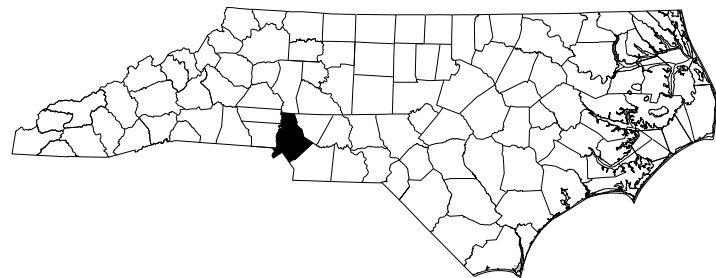


PROJECT: I-5960

CONTRACT NO:

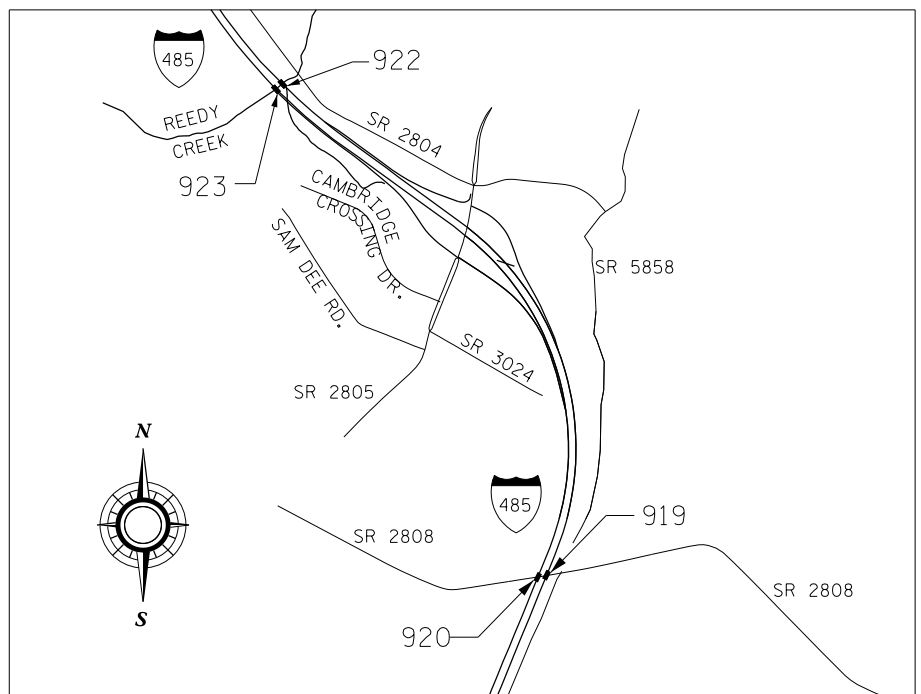


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

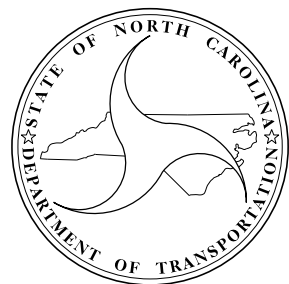
MECKLENBURG COUNTY

LOCATION: BRIDGE #919 ON I-485 NBL OVER SR 2808
BRIDGE #920 ON I-485 SBL OVER SR 2808
BRIDGE #922 ON I-485 NBL OVER REEDY CREEK
BRIDGE #923 ON I-485 SBL OVER REEDY CREEK

TYPE OF WORK: BRIDGE PRESERVATION - EPOXY OVERLAY OF EXISTING BRIDGE DECKS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5960	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44797.1.1		PE	
44797.3.1		CONST.	



DESIGN DATA

BRIDGE #919	ADT 2012	=	22,500
BRIDGE #920	ADT 2012	=	22,500
BRIDGE #922	ADT 2012	=	23,500
BRIDGE #923	ADT 2012	=	23,500

PROJECT LENGTH

BRIDGE #919	=	.035	MILE
BRIDGE #920	=	.031	MILE
BRIDGE #922	=	.036	MILE
BRIDGE #923	=	.036	MILE

Prepared in the Office of:
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURES MANAGEMENT UNIT
 1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610

E. E. MURRAY, P.E.
 PROJECT ENGINEER

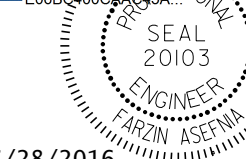
2012 STANDARD SPECIFICATIONS

LETTING DATE:
 NOVEMBER 16, 2016

DocuSigned by:

Farzin Asefnia

E06B0700C8A065A



7/28/2016

FARZIN ASEFNIA, P.E.
 PROJECT DESIGN ENGINEER

PROJECT: I-5960

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



MECKLENBURG COUNTY

LOCATION: BRIDGE #919 ON I-485 (NORTH) OVER SR 2808
BRIDGE #920 ON I-485 (SOUTH) OVER SR 2808
BRIDGE #922 ON I-485 (NORTH) OVER REEDY CREEK
BRIDGE #923 ON I-485 (SOUTH) OVER REEDY CREEK

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5960	1A	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44797.1.1		P.E.	
44797.3.1		CONST.	

TYPE OF WORK: BRIDGE PRESERVATION - EPOXY OVERLAY OF EXISTING BRIDGE DECKS

INDEX OF SHEETS

- 1* TITLE SHEET
- 1A* INDEX OF SHEETS
- S-1 - S-11* STRUCTURAL PLANS
- SN* STANDARD NOTES

NOTES

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

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

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

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 PLAN SHEETS.

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

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

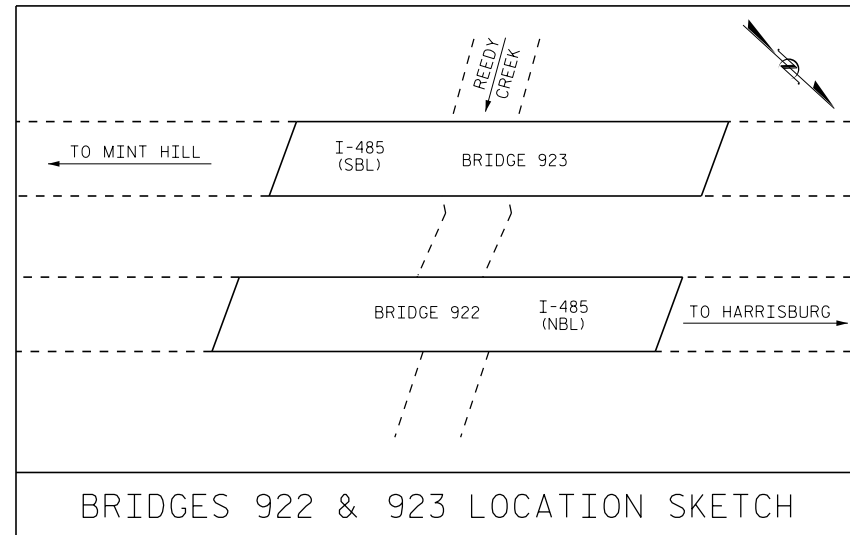
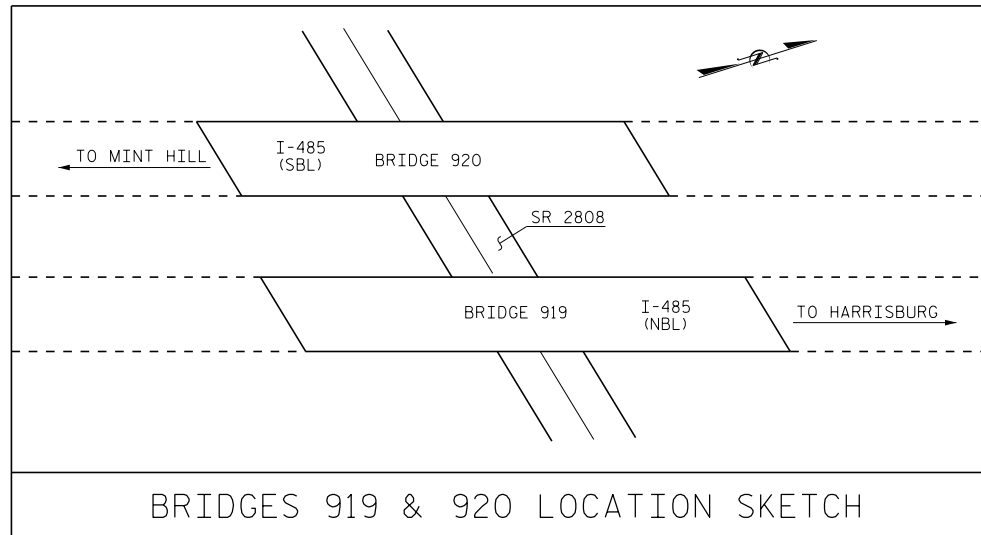
FOR EPOXY OVERLAY SYSTEM-MECHANICALLY DISTRIBUTED, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR EPOXY OVERLAY SYSTEM, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

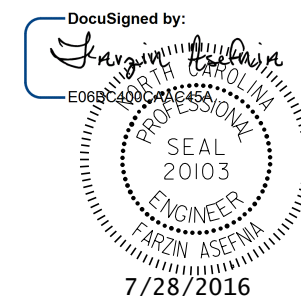
FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.



TOTAL BILL OF MATERIAL					
MECKLENBURG COUNTY BRIDGE NO.	FOAM JOINT SEALS	*CONCRETE DECK REPAIR FOR EPOXY OVERLAY	EPOXY OVERLAY SYSTEM-MECHANICALLY DISTRIBUTED	BRIDGE JOINT DEMOLITION	ELASTOMERIC CONCRETE
	LUMP SUM	SQ. FT.	SQ. FT.	SQ. FT.	CU. FT.
919	LUMP SUM	5	10,239	129	32
920	LUMP SUM	5	9,042	129	32
922	LUMP SUM	5	12,717	180	60
923	LUMP SUM	5	12,717	180	60
TOTAL	LUMP SUM	20	44,715	618	184

* CONCRETE DECK REPAIR FOR EPOXY OVERLAY IS NOT ANTICIPATED. TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSE IN CASE UNANTICIPATED REPAIR AREAS ARE ENCOUNTERED.

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 919, 920, 922, 923.



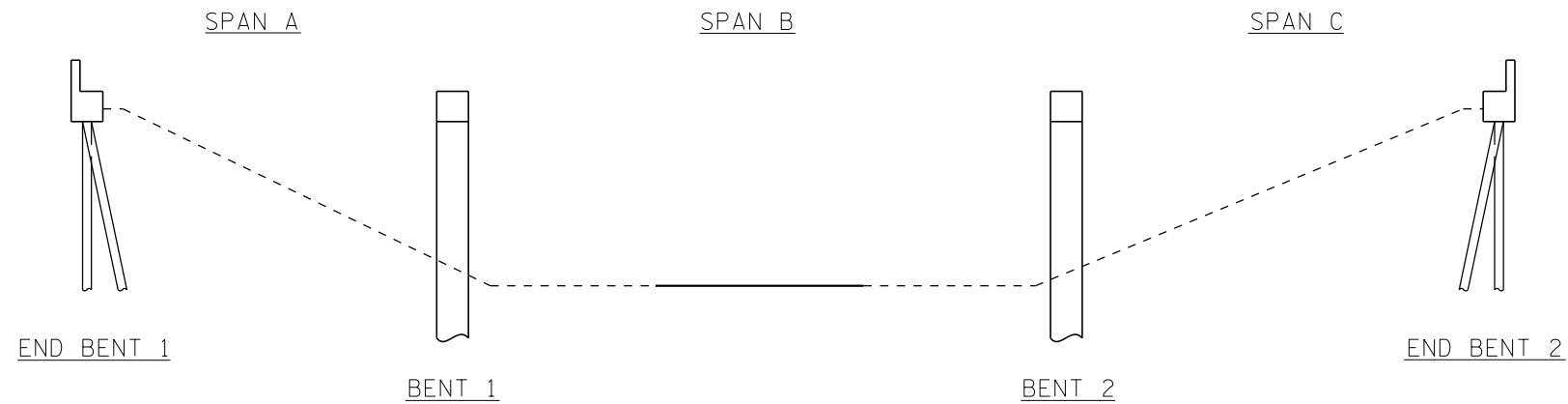
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

LOCATION SKETCHES
 & TOTAL BILL OF MATERIAL

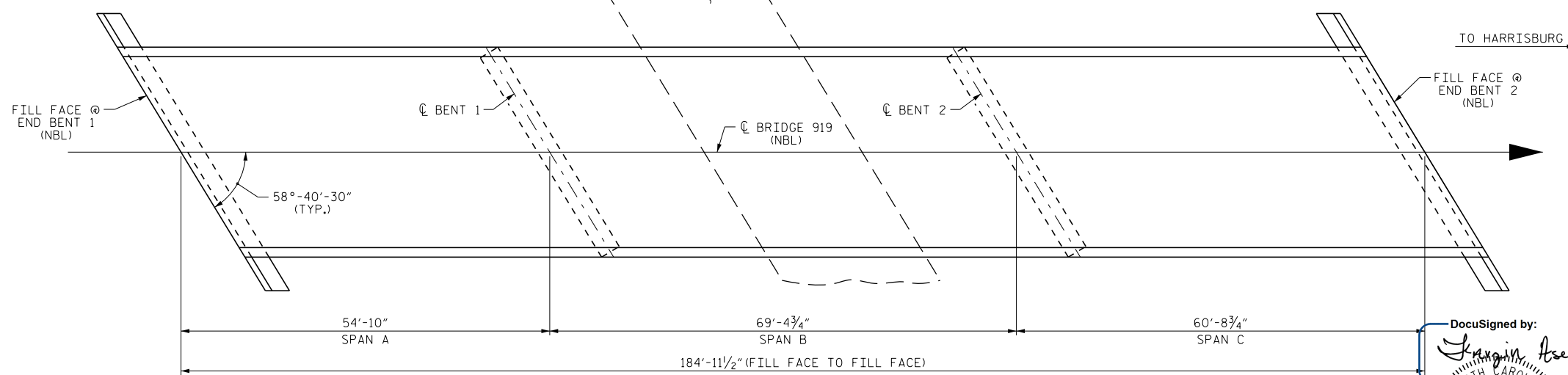
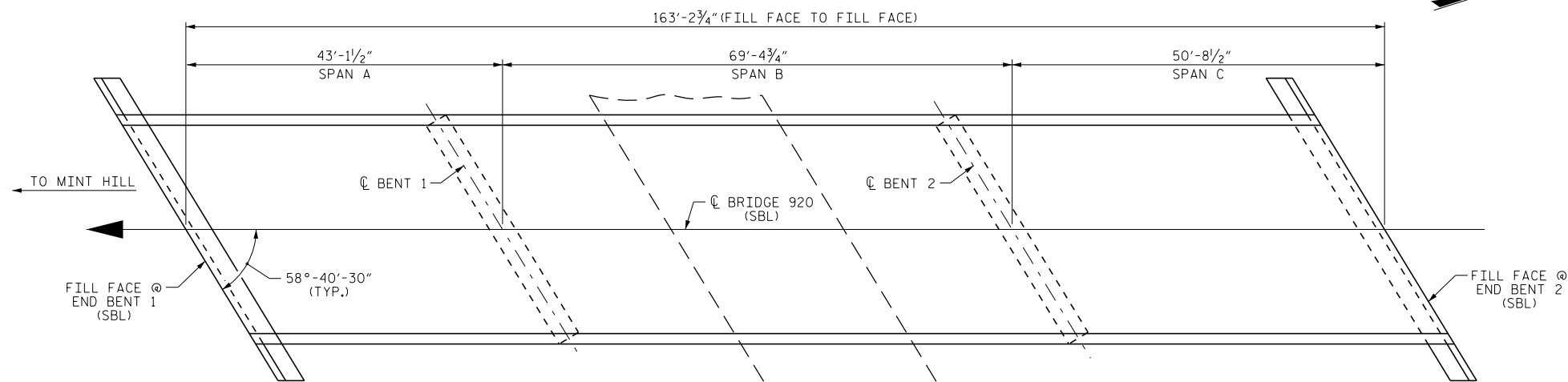
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-1
1			3			TOTAL SHEETS
2			4			11

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : M.K. BEARD DATE : 4/20/16
 CHECKED BY : W. C. SMITH DATE : 6/15/16



ELEVATION
SECTION ALONG C ROADWAY



PLAN
NORTH AND SOUTH BOUND LANES

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 919 & 920

DocuSigned by:
Farzin Asefnia
 PROFESSIONAL ENGINEER
 SEAL 20103
 FARZIN ASEFNIA

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 BRIDGE NO. 919 & 920
 OVER SR 2808

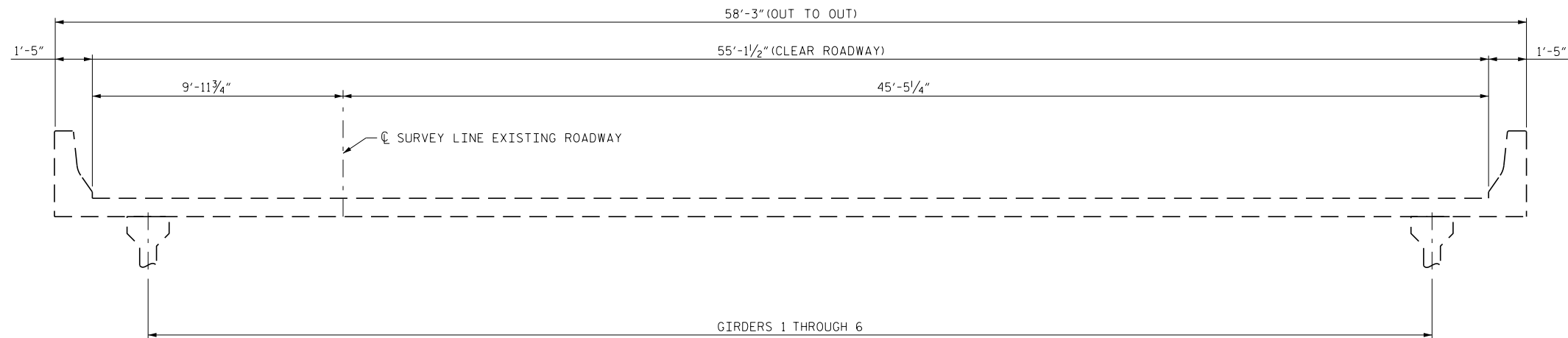
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NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
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2			4			

DRAWN BY : M.K. BEARD DATE : 4/19/16
 CHECKED BY : W. SMITH DATE : 7/19/16

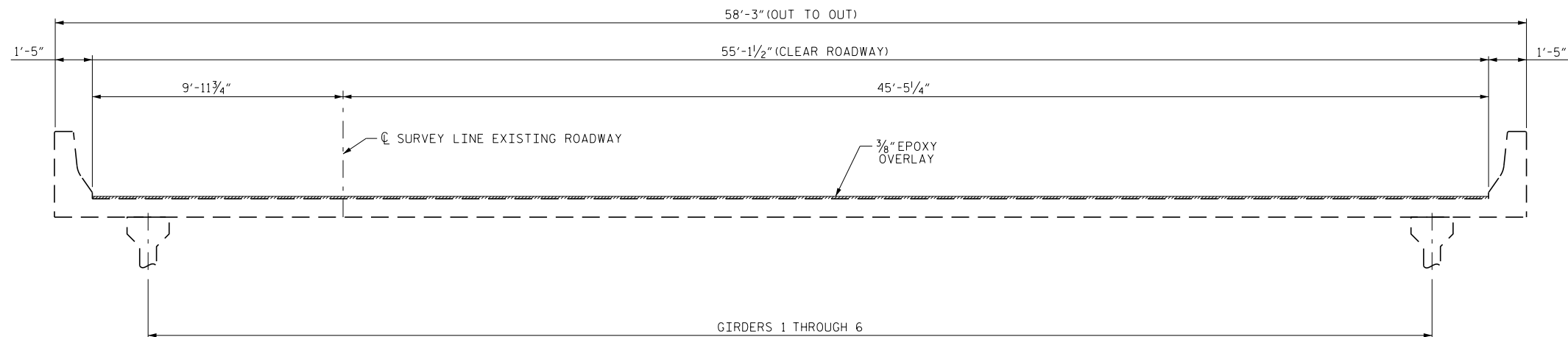
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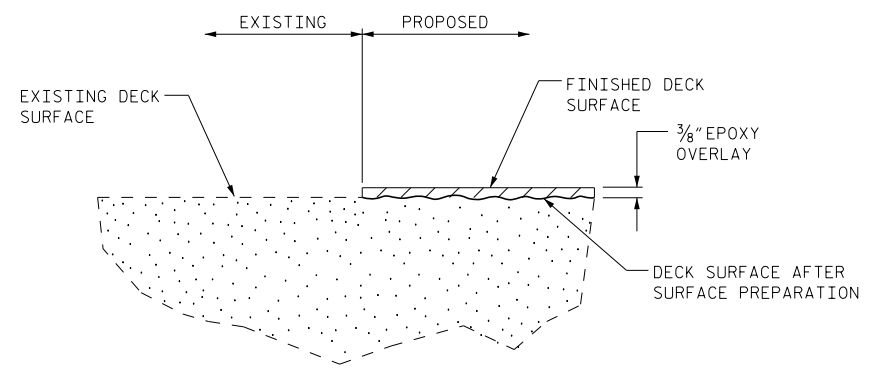
7/28/2016



TYPICAL SECTION
 (EXISTING BRIDGE 919 NORTHBOUND LANE SHOWN -
 BRIDGE 920 SOUTHBOUND LANE SIMILAR BY ROTATION)

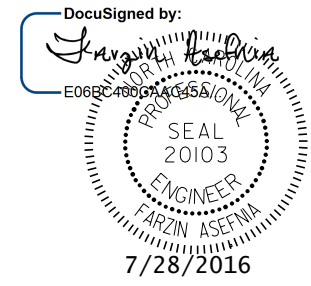


TYPICAL SECTION
 (EPOXY OVERLAY)



DETAIL OF EPOXY OVERLAY

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO.: 919 & 920



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTIONS
 &
 EPOXY OVERLAY
 DETAIL**

DRAWN BY : M.K. BEARD DATE : 4/22/16
 CHECKED BY : W. SMITH DATE : 7/19/16

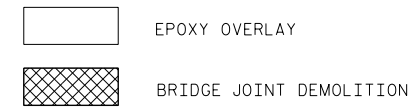
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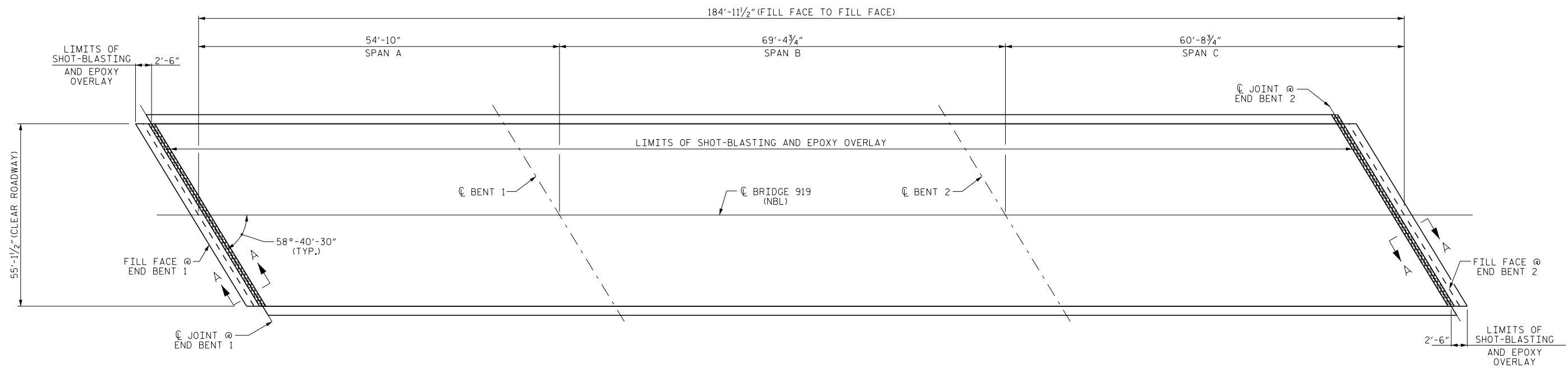
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SUMMARY OF QUANTITIES

	ESTIMATE	ACTUAL
CONCRETE DECK REPAIR FOR EPOXY OVERLAY	* 5 SQ. FT.	
EPOXY OVERLAY SYSTEM	10,239 SQ. FT.	
BRIDGE JOINT DEMOLITION	129 SQ. FT.	



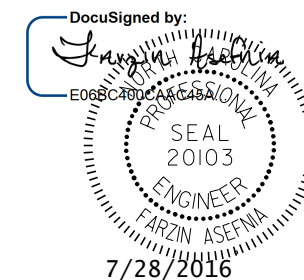
NOTE:
 * CONCRETE DECK REPAIR FOR EPOXY OVERLAY IS NOT ANTICIPATED. TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSE IN CASE UNANTICIPATED REPAIR AREAS ARE ENCOUNTERED.



PLAN
 (FOR SECTION A-A, SEE "JOINT DETAILS" SHEET S-6)

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 919

SHEET 1 OF 2



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 & EPOXY OVERLAY
 (NORTHBOUND LANE)

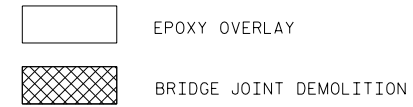
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 CHECKED BY : W. C. SMITH DATE : 6/14/16

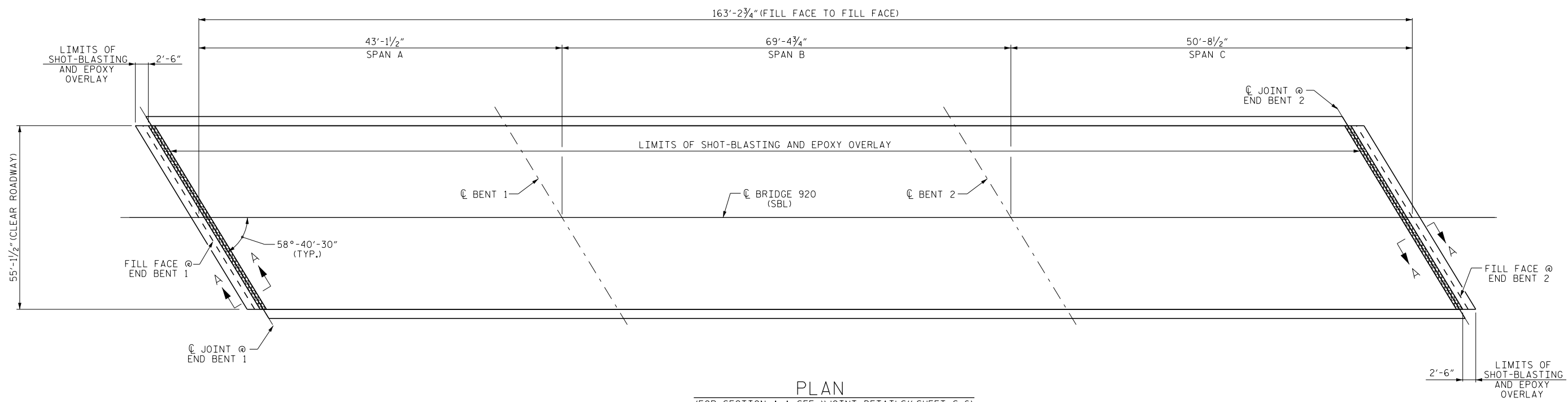
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 FINAL UNLESS ALL
 SIGNATURES COMPLETED

SUMMARY OF QUANTITIES

	ESTIMATE	ACTUAL
CONCRETE DECK REPAIR FOR EPOXY OVERLAY	* 5 SQ. FT.	
EPOXY OVERLAY SYSTEM	9,042 SQ. FT.	
BRIDGE JOINT DEMOLITION	129 SQ. FT.	



NOTE:
 * CONCRETE DECK REPAIR FOR EPOXY OVERLAY IS NOT ANTICIPATED. TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSE IN CASE UNANTICIPATED REPAIR AREAS ARE ENCOUNTERED.



PLAN
 (FOR SECTION A-A, SEE "JOINT DETAILS" SHEET S-6)

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 920

SHEET 2 OF 2

DocuSigned by:

 E068C400CA4C45A
 STATE OF NORTH CAROLINA
 PROFESSIONAL ENGINEER
 SEAL 20103
 FARZIN ASEFINA
 7/28/2016

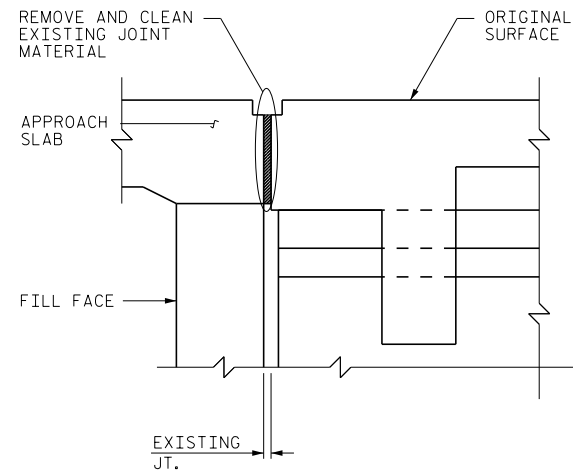
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION & EPOXY OVERLAY
 (SOUTHBOUND LANE)

DRAWN BY : M.K. BEARD DATE : 4/20/16
 CHECKED BY : W. C. SMITH DATE : 6/14/16

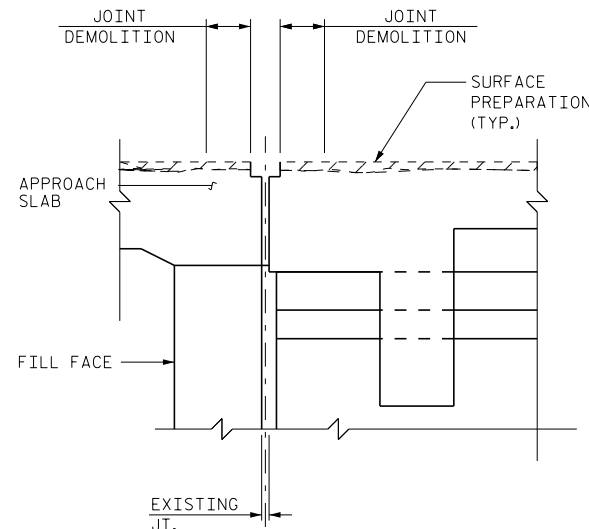
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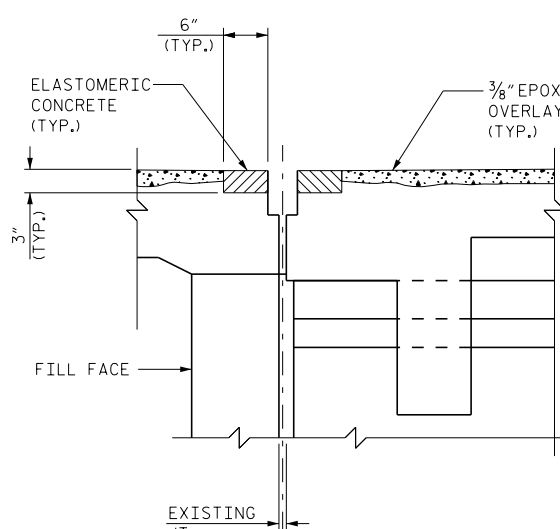
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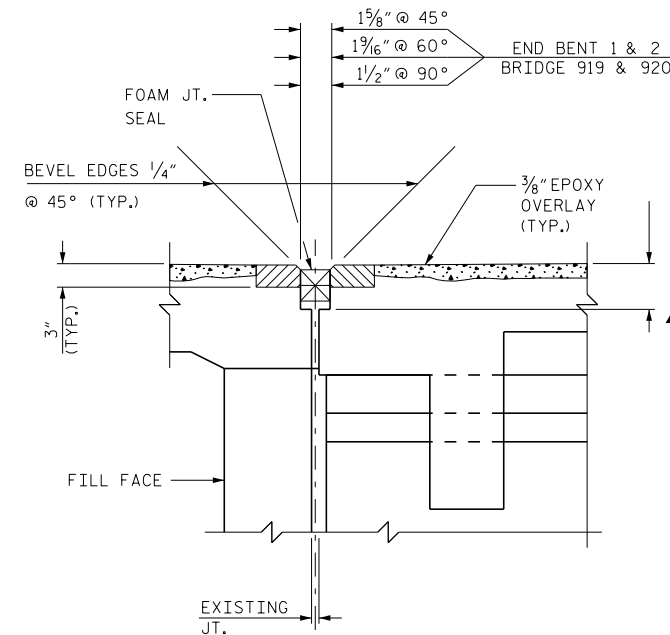
EXISTING JOINT



MINIMUM EXISTING JOINT DEMOLITION



PROPOSED JOINT



PROPOSED FOAM JOINT SEAL EXPANSION

▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

NOTES:

CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL.

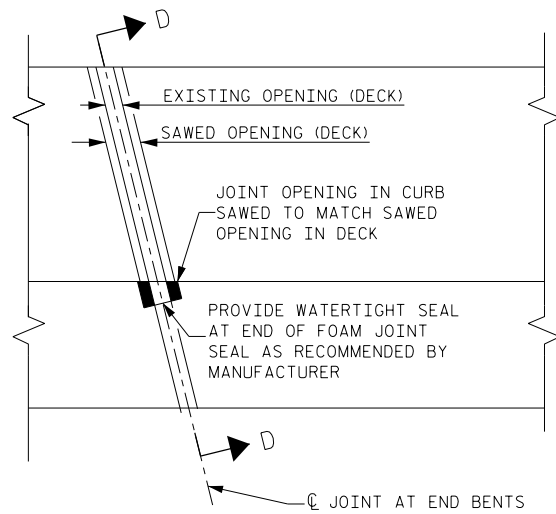
FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

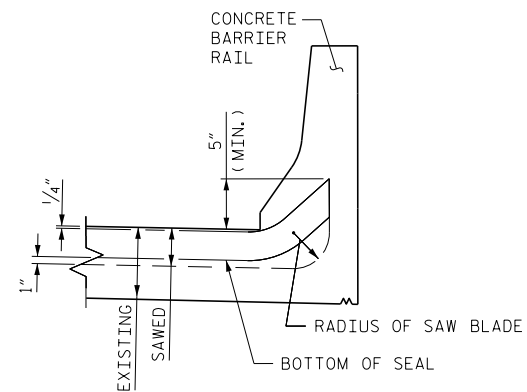
RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

THE WIDTH OF THE UNCOMPRESSED FOAM JOINT MATERIAL SHALL BE 2".

JOINT INSTALLATION SEQUENCE AT END BENTS
SECTION A-A



PLAN



SECTION D-D

PROJECT NO. I-5960
MECKLENBURG COUNTY
BRIDGE NO.: 919 & 920

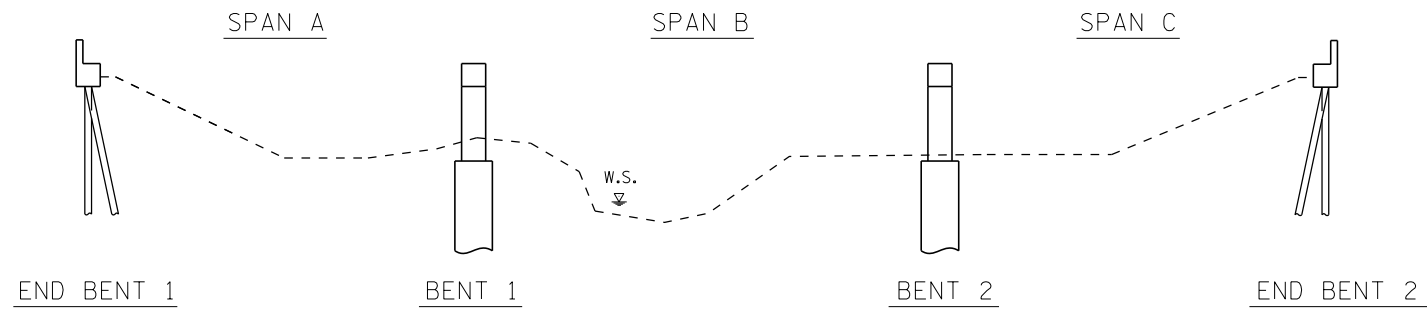
DocuSigned by:
Farzin Asefina
E06B6400C4AC15
STATE OF NORTH CAROLINA
PROFESSIONAL
SEAL
20103
ENGINEER
FARZIN ASEFINA
7/28/2016

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

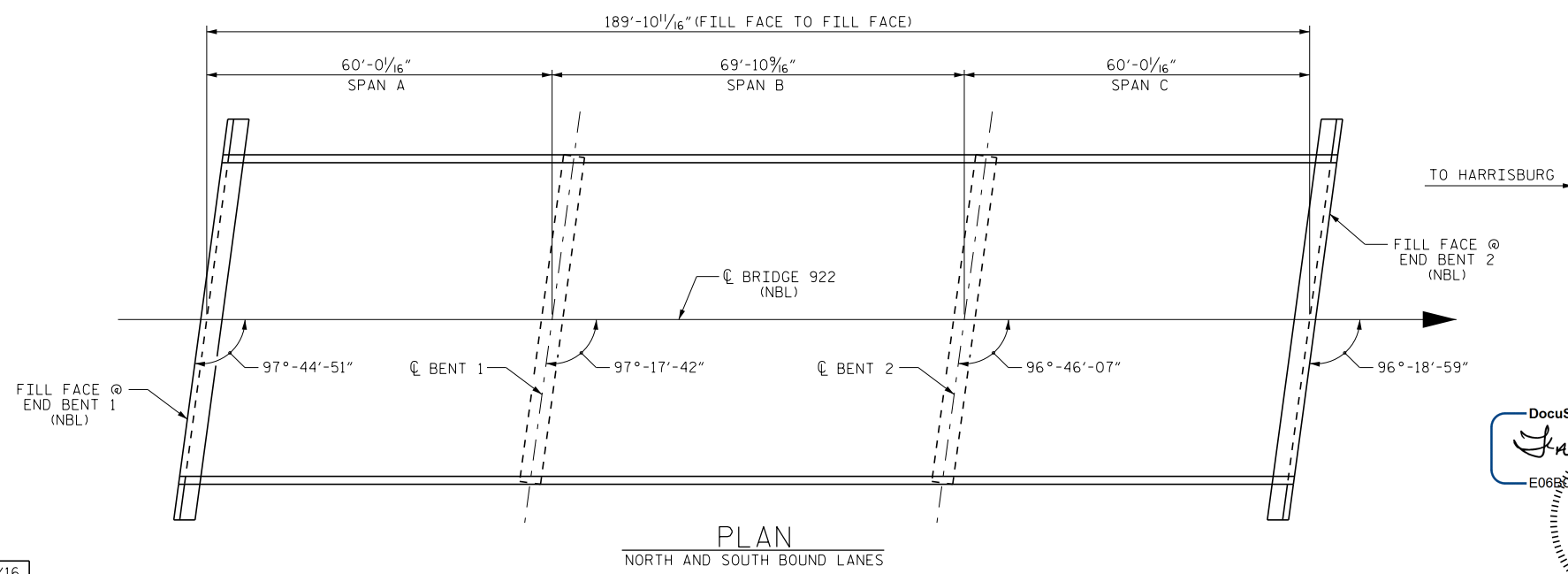
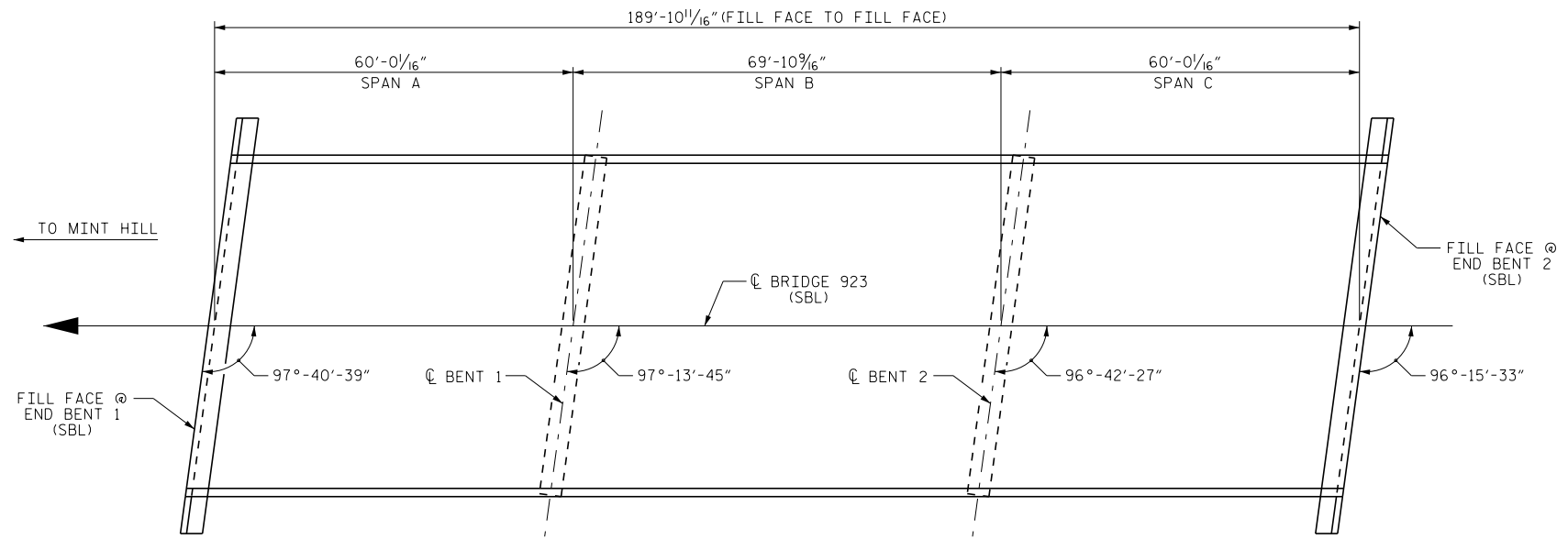
SUPERSTRUCTURE
JOINT DETAILS

DRAWN BY : M.K. BEARD DATE : 4/20/16
CHECKED BY : W. SMITH DATE : 7/19/16

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS
2			4			11



ELEVATION
SECTION ALONG \bar{C} ROADWAY

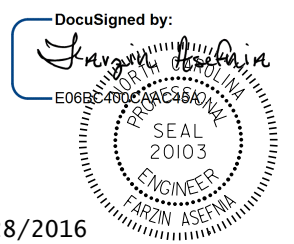


PLAN
NORTH AND SOUTH BOUND LANES

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 922 & 923

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGES 922 & 923
 OVER REEDY CREEK

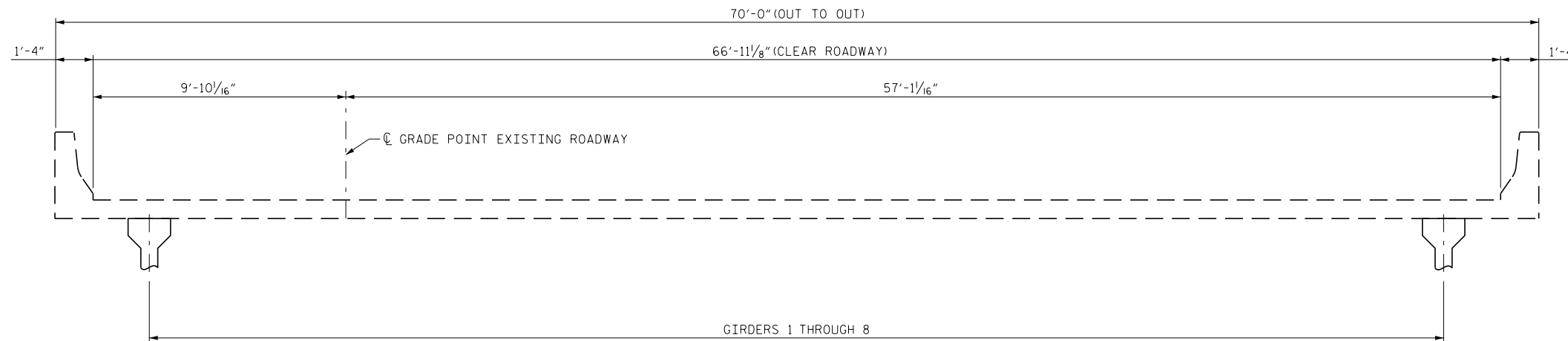


7/28/2016

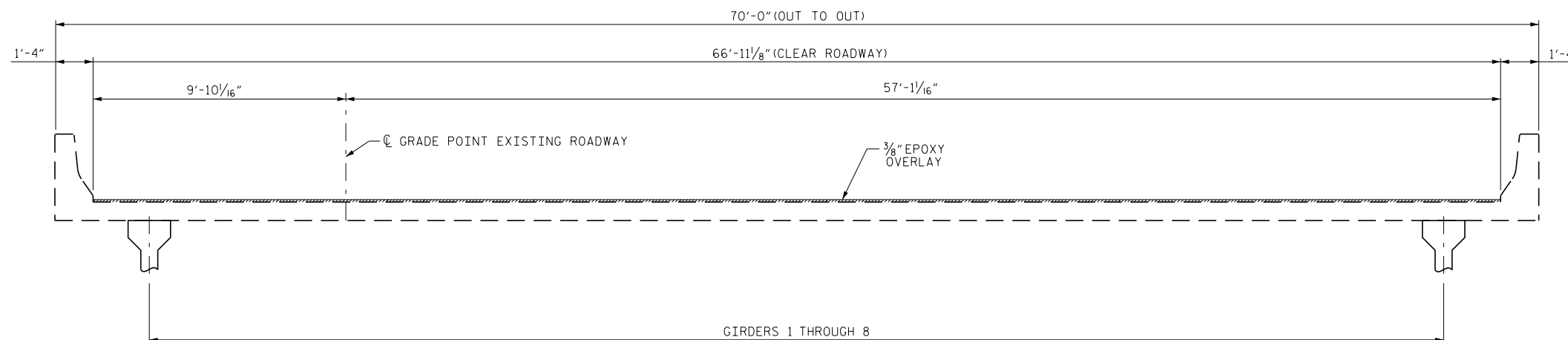
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 CHECKED BY : W. SMITH DATE : 7/19/16

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2			4			11

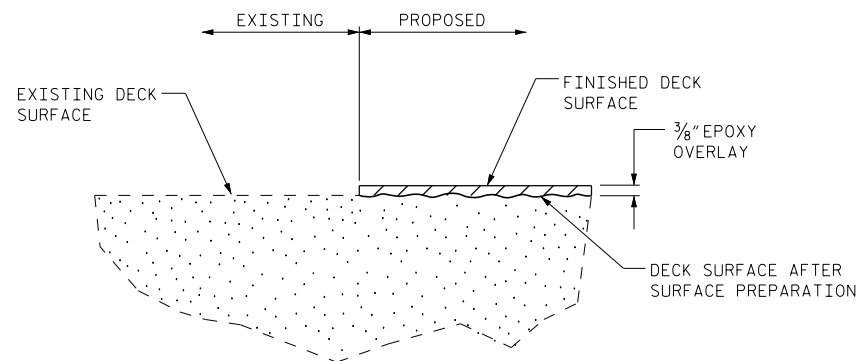
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TYPICAL SECTION
 (EXISTING BRIDGE 922 NORTHBOUND LANE SHOWN -
 BRIDGE 923 SOUTHBOUND LANE SIMILAR BY ROTATION)



TYPICAL SECTION
 (EPOXY OVERLAY)



DETAIL OF EPOXY OVERLAY

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 922 & 923

DocuSigned by:
Farzin Asefina
 E068C400C4E457A
 STATE OF NORTH CAROLINA
 PROFESSIONAL ENGINEER
 SEAL 2013
 FARZIN ASEFINA
 7/28/2016

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTIONS
 &
 EPOXY OVERLAY
 DETAIL**

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 CHECKED BY : W.C. SMITH DATE : 6/14/16

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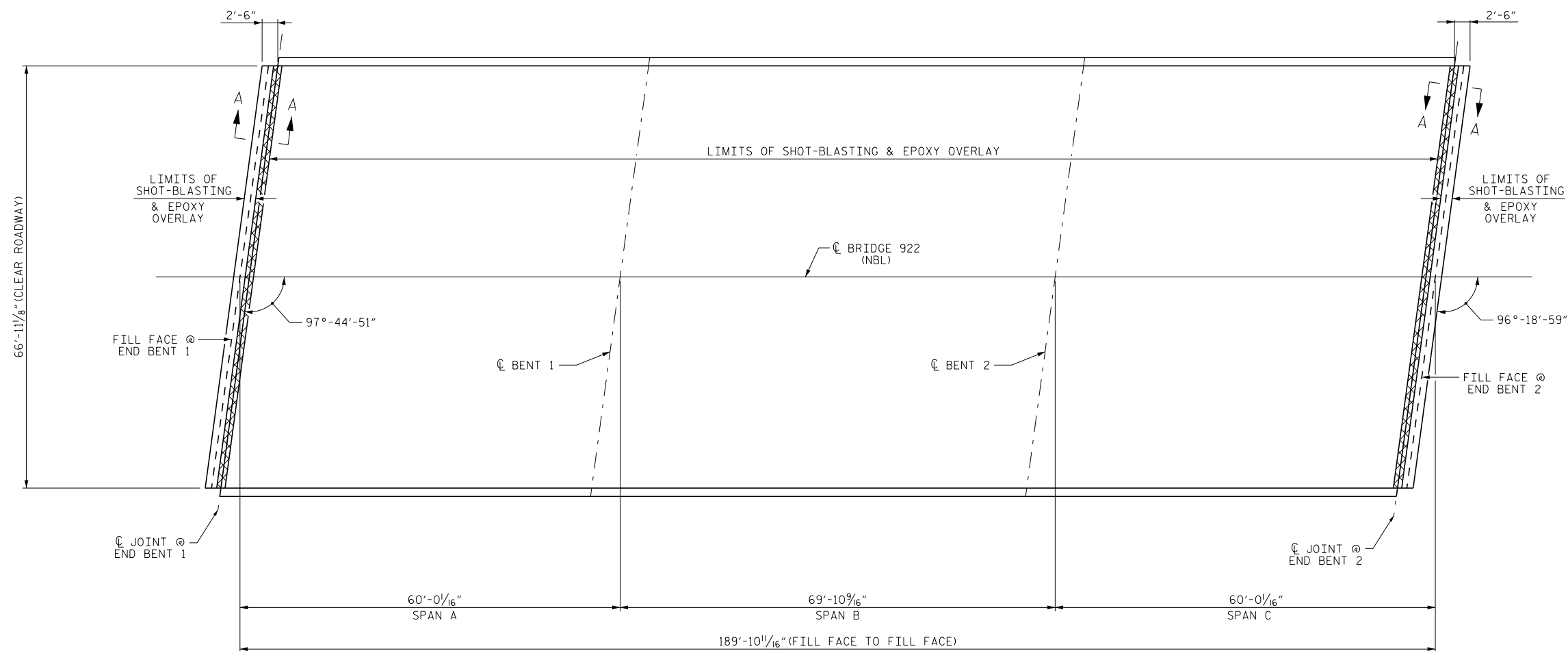
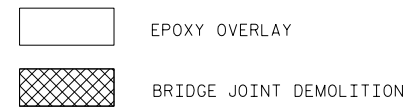
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-8
1			3			TOTAL SHEETS
2			4			11

SUMMARY OF QUANTITIES

	ESTIMATE	ACTUAL
CONCRETE DECK REPAIR FOR EPOXY OVERLAY	* 5 SQ. FT.	
EPOXY OVERLAY SYSTEM	12,717 SQ. FT.	
BRIDGE JOINT DEMOLITION	180 SQ. FT.	

NOTE:
 * CONCRETE DECK REPAIR FOR EPOXY OVERLAY IS NOT ANTICIPATED. TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSE IN CASE UNANTICIPATED REPAIR AREAS ARE ENCOUNTERED.



PLAN
 (FOR SECTION A-A, SEE "JOINT DETAILS" SHEET S-11)

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 922

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION & EPOXY OVERLAY
 (NORTHBOUND LANE)

DocuSigned by:
Farzin Asefina
 E06B0400C4AC45A
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 20103
 FARZIN ASEFINA
 7/28/2016

DRAWN BY : M.K. BEARD DATE : 4/20/16
 CHECKED BY : W. C. SMITH DATE : 6/14/16

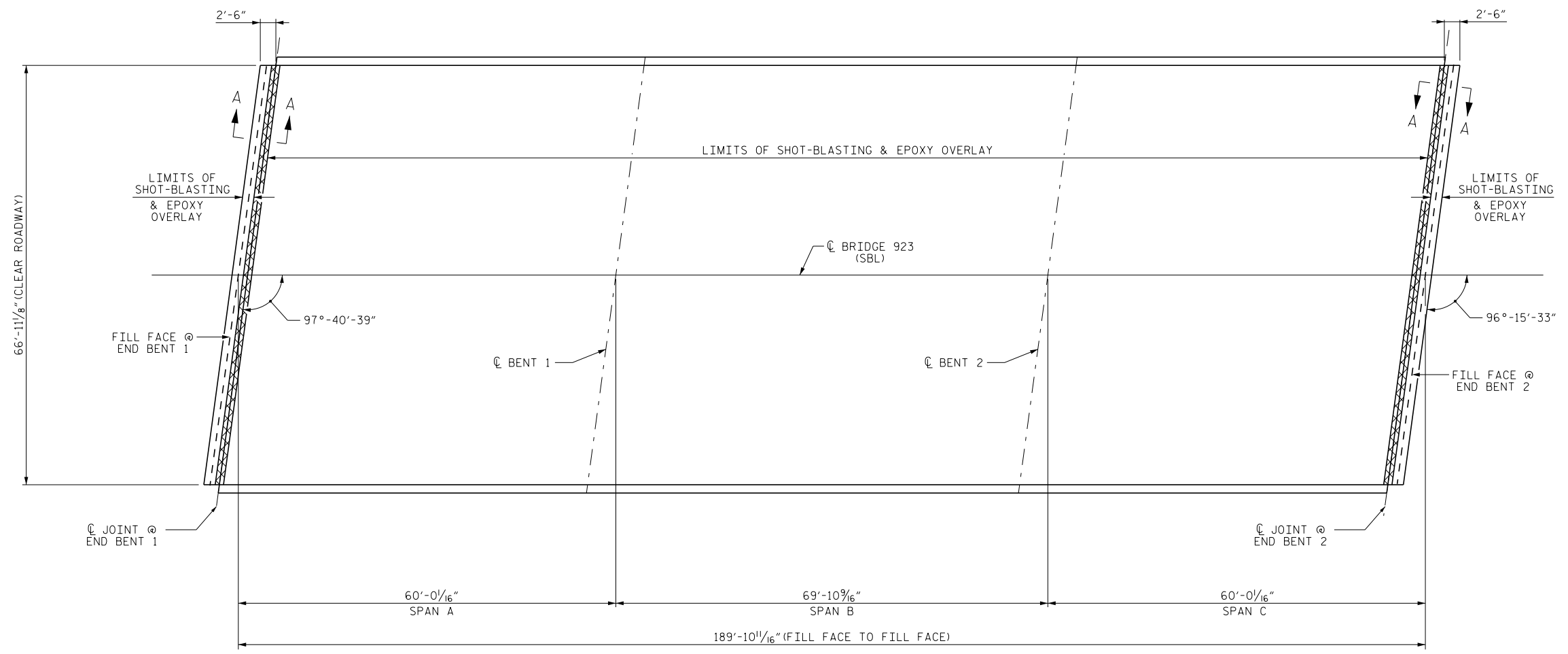
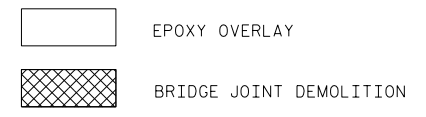
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2			4			11

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SUMMARY OF QUANTITIES

	ESTIMATE	ACTUAL
CONCRETE DECK REPAIR FOR EPOXY OVERLAY	* 5 SQ. FT.	
EPOXY OVERLAY SYSTEM	12,717 SQ. FT.	
BRIDGE JOINT DEMOLITION	180 SQ. FT.	

NOTE:
 * CONCRETE DECK REPAIR FOR EPOXY OVERLAY IS NOT ANTICIPATED. TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSE IN CASE UNANTICIPATED REPAIR AREAS ARE ENCOUNTERED.



PLAN
 (FOR SECTION B-B, SEE "JOINT DETAILS" SHEET S-11)

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 923

SHEET 2 OF 2

DocuSigned by:
Farzin Asefina
 ENGINEER
 SEAL 20103
 FARZIN ASEFINA
 7/28/2016

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

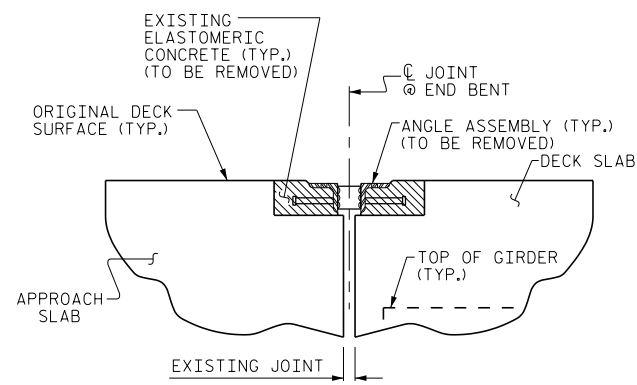
SURFACE PREPARATION & EPOXY OVERLAY
 (SOUTHBOUND LANE)

DRAWN BY : M.K. BEARD DATE : 4/20/16
 CHECKED BY : W. C. SMITH DATE : 6/14/16

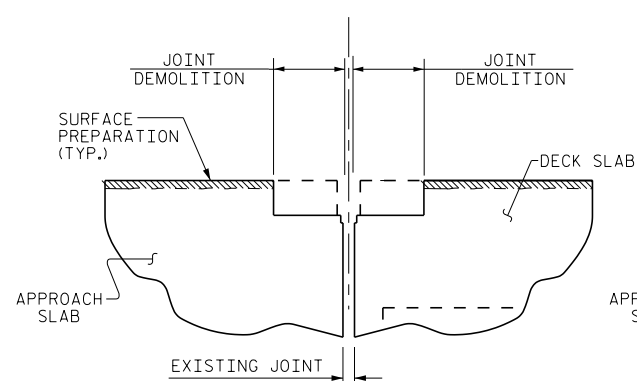
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-10
1			3			TOTAL SHEETS
2			4			11

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

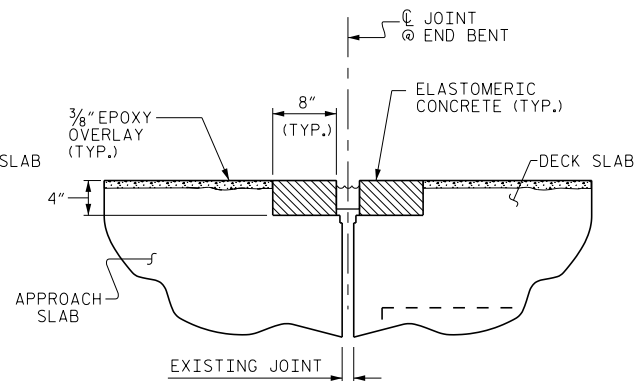
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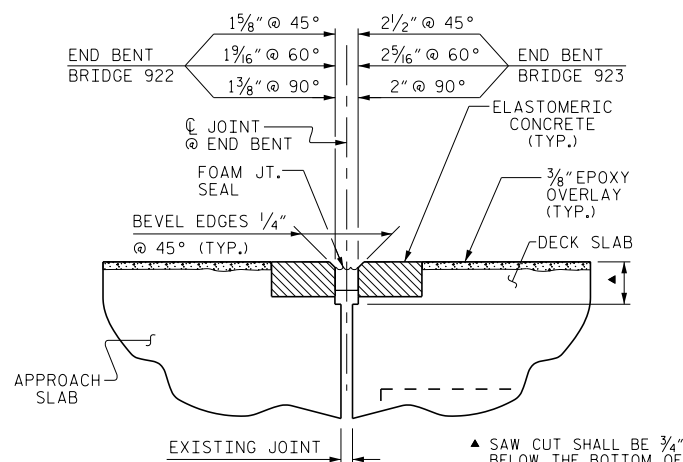
EXISTING



MINIMUM EXISTING JOINT DEMOLITION



PROPOSED JOINT



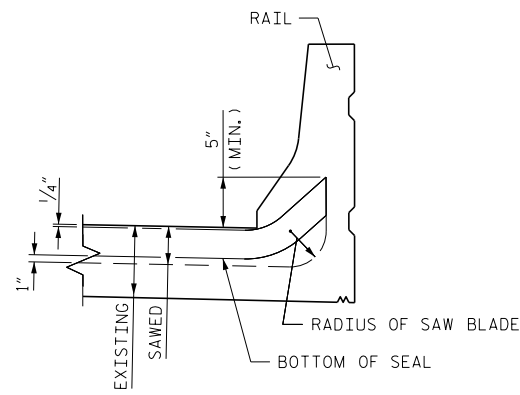
PROPOSED FOAM JOINT SEAL

BRIDGE 922 AND BRIDGE 923

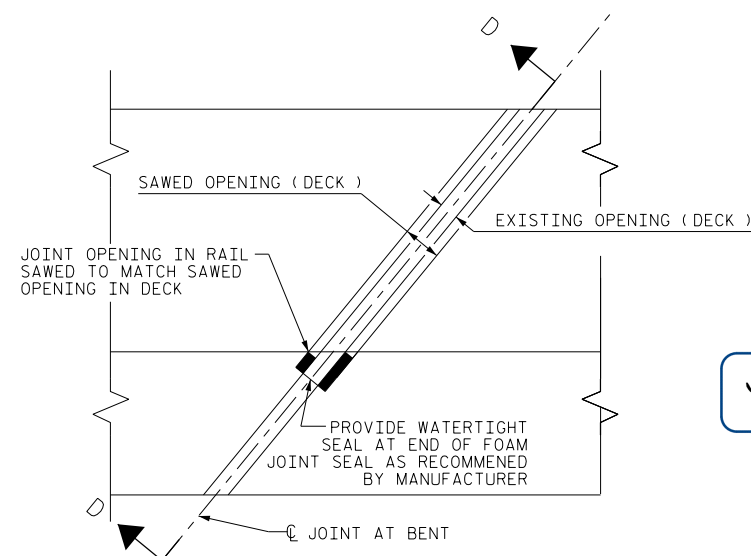
▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

JOINT SEAL DETAILS AT END BENT 1 & 2

SECTION A-A



SECTION D-D



PLAN

NOTES:

CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

THE WIDTH OF THE UNCOMPRESSED FOAM JOINT MATERIAL FOR BRIDGE 922 SHALL BE 2" & FOR BRIDGE 923 SHALL BE 2 3/4".

PROJECT NO. I-5960
MECKLENBURG COUNTY
 BRIDGE NO. 922 & 923

DocuSigned by:
Farzin Asetina
 E06BC400C0AC45A4
 PROFESSIONAL SEAL
 20103
 ENGINEER
 FARZIN ASETINA

7/28/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DEMOLITION
 DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-11
1			3			TOTAL SHEETS
2			4			11

DRAWN BY : D.V. JOYNER DATE : 4/2016
 CHECKED BY : W. SMITH DATE : 4/2016

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 2012 "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. FINIS 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