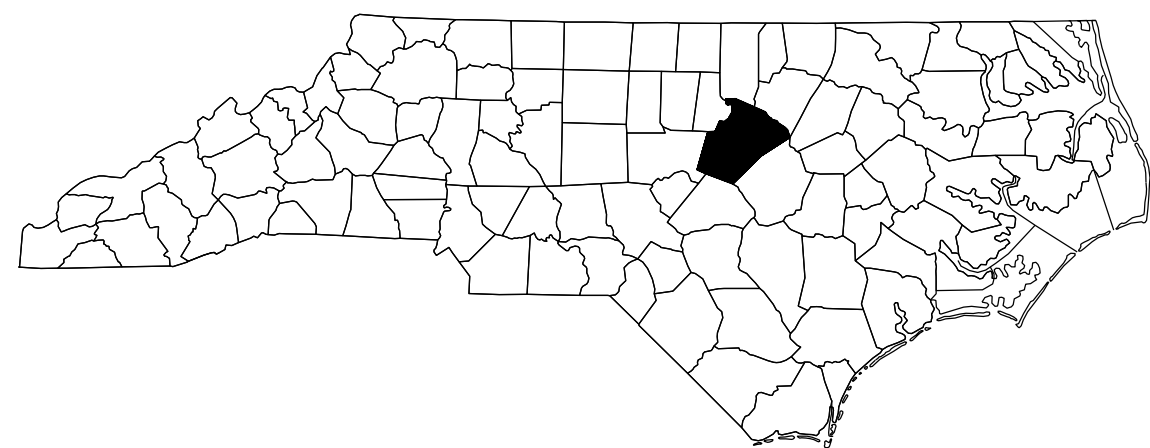


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

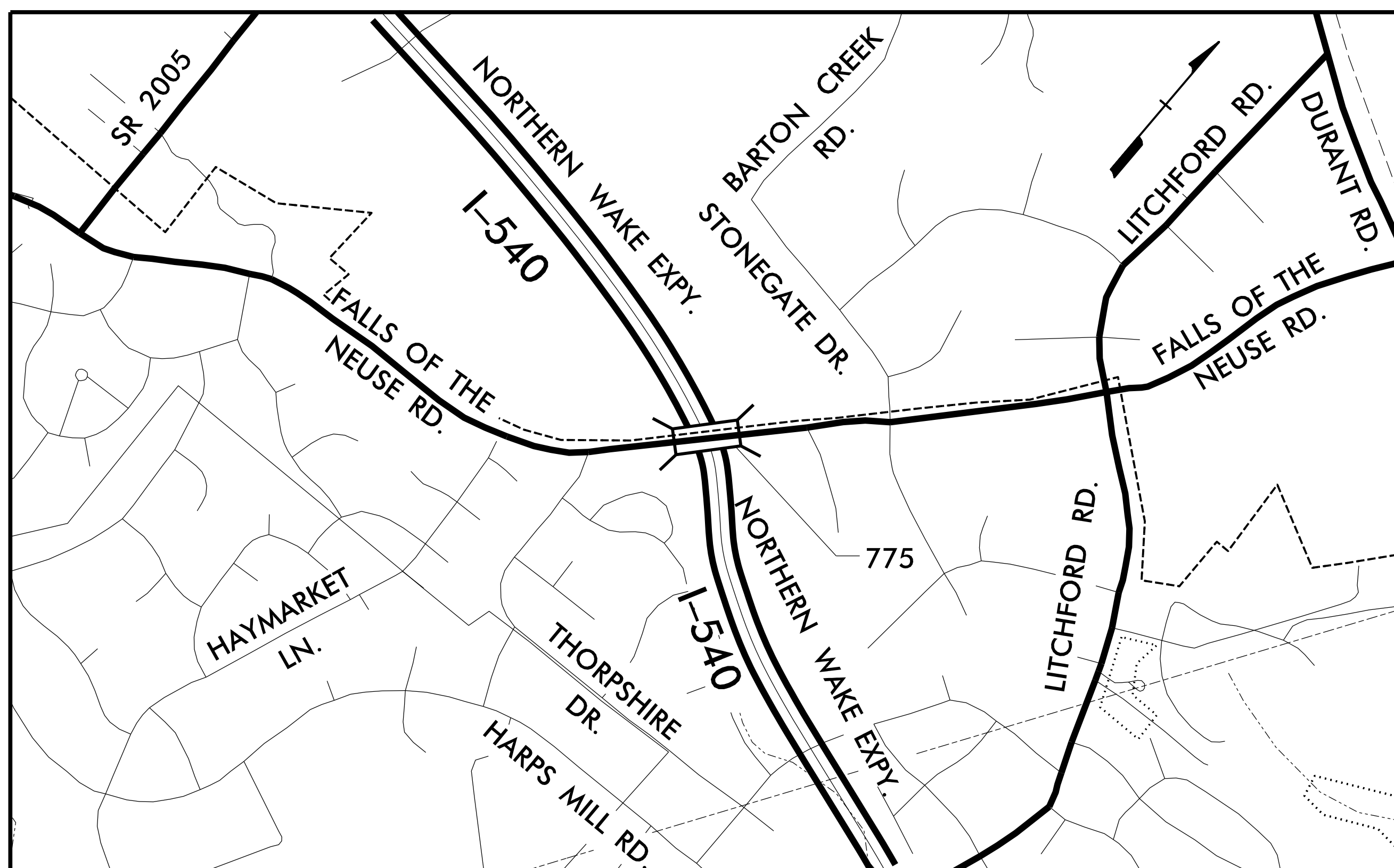
WAKE COUNTY



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5826	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44398.1.1		P.E.	
44398.3.1		CONST.	

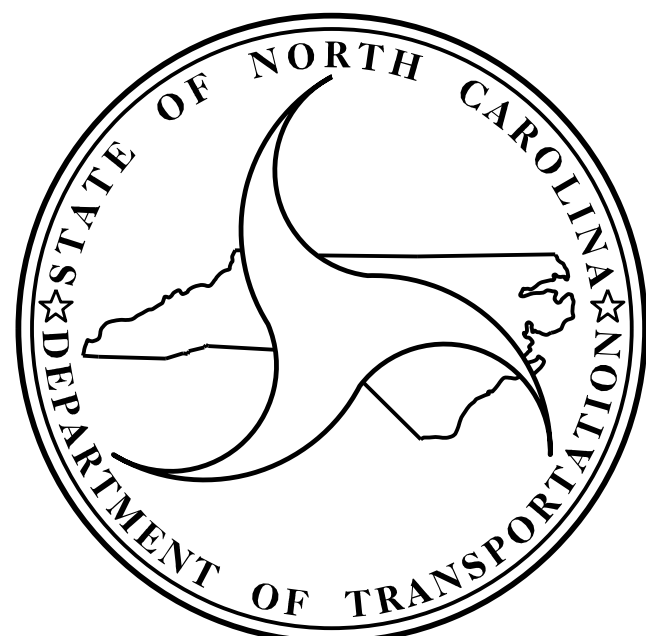
LOCATION: BRIDGE #775 ON SR 2000 (FALLS OF NEUSE ROAD) OVER I-540 (NORTHERN WAKE EXPY.)

TYPE OF WORK: BRIDGE PRESERVATION - SHOTBLASTING CONCRETE DECK, SILANE DECK TREATMENT, AND JOINT DEMOLITION AND REPLACEMENT.



PROJECT: U-5826

CONTRACT NO: C204380



DESIGN DATA

BRIDGE #775 - ADT 2013 - 44,000

PROJECT LENGTH

BRIDGE #775 - 0.05 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 :

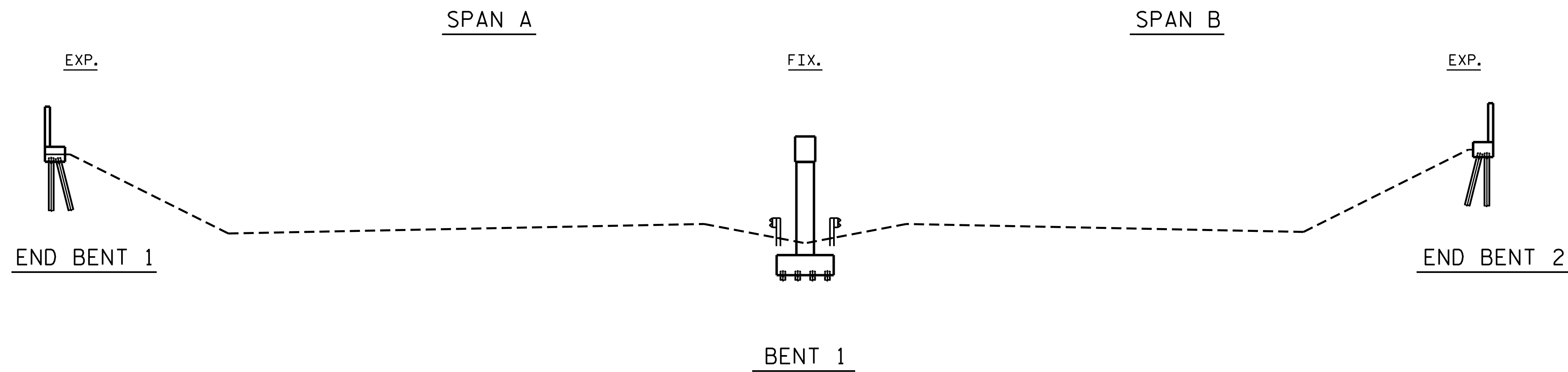
APRIL 18, 2023

KRISTY ALFORD, P.E.
PROJECT ENGINEER

FRANCESCA LEA, P.E.
PROJECT DESIGN ENGINEER

SCOPE OF WORK
 DEMOLISH EXISTING BRIDGE DECK JOINT.
 RECONSTRUCT BRIDGE DECK JOINTS AND INSTALL NEW JOINT SEALS.
 SHOTBLAST EXISTING CONCRETE DECK.
 APPLY SILANE DECK TREATMENT.

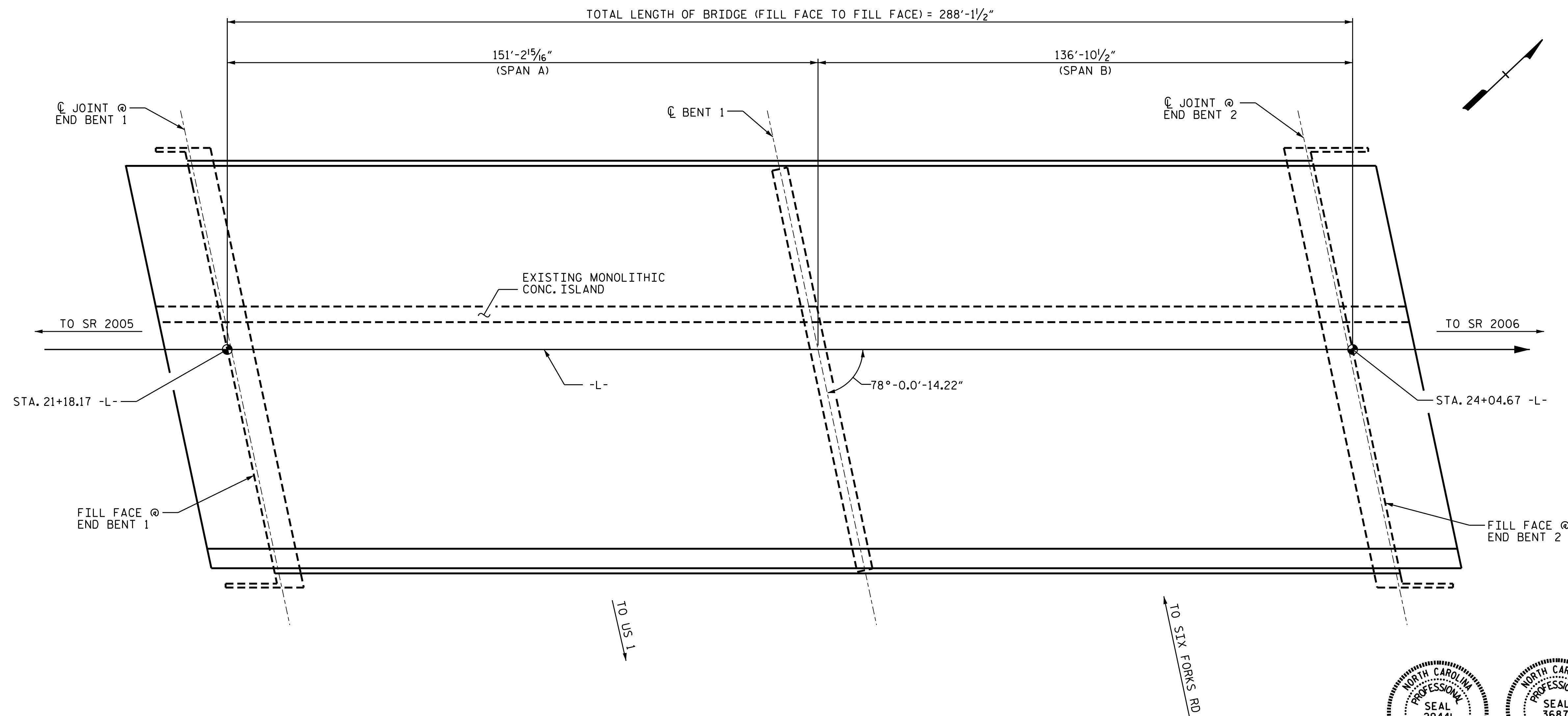
NOTES
 GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 06/26/2018.



ELEVATION
 (SECTION ALONG \bar{C} ROADWAY)

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

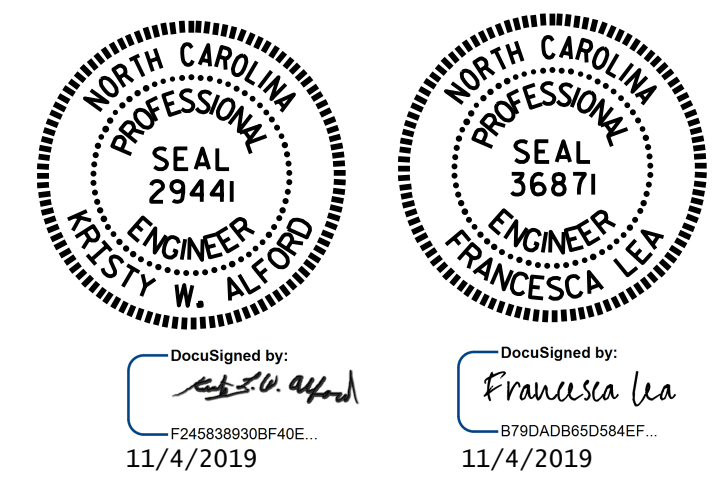
Resident Engineer _____ Date _____



PLAN
 (COLUMNS & FOOTINGS NOT SHOWN IN PLAN VIEW FOR CLARITY)

PROJECT NO. U-5826
 WAKE COUNTY
 BRIDGE NO. 910775

SHEET 1 OF 2
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 FOR BRIDGE ON SR 2000
 (FALLS OF NEUSE RD)
 OVER I-540 BETWEEN
 SR 2005 AND SR 2006

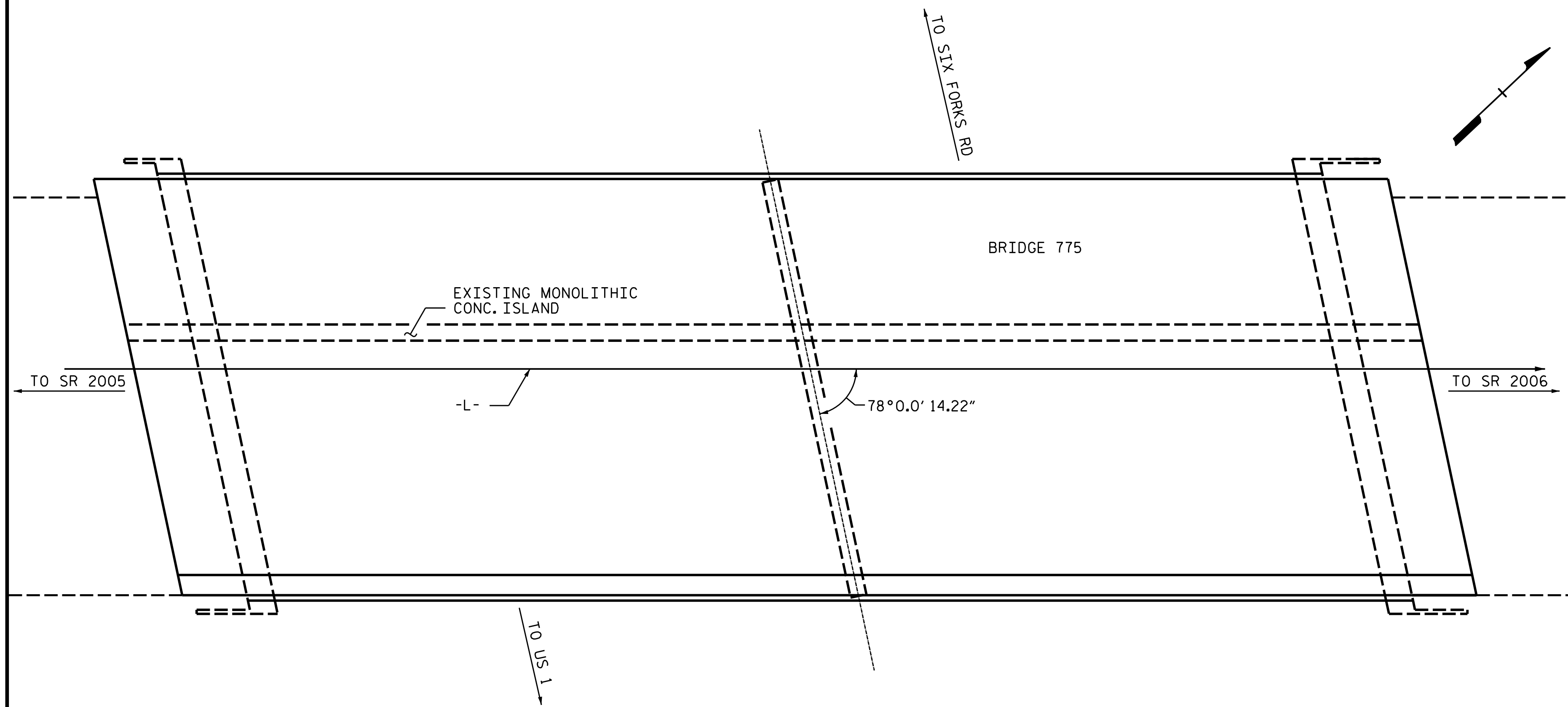


DRAWN BY : S. T. SANDOR / M. WELDON DATE : 06/2019
 CHECKED BY : W. D. REAMS DATE : 09/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

BM#1 BENCH TIE W/ YELLOW TAG IN 9" BIRCH, STA. 27+70.40 -L- 246.88' RT. ELEV. 439.59



LOCATION SKETCH

NOTES:

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION, ONLY. 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.

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.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR SILANE DECK TREATMENT AND SHOTBLASTING BRIDGE DECK, SEE "SILANE DECK TREATMENT" SPECIAL PROVISION.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

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

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

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

TOTAL BILL OF MATERIALS					
	FOAM JOINT SEALS FOR PRESERVATION	ELASTOMERIC CONCRETE FOR PRESERVATION	BRIDGE JOINT DEMOLITION	SHOTBLASTING BRIDGE DECK	SILANE DECK TREATMENT
	LN. FT.	CU. FT.	SQ. FT.	SQ. YD.	SQ. YD.
TOTAL	201	50.2	201.0	2975.3	2975.3

PROJECT NO. U-5826
WAKE COUNTY
 BRIDGE NO. 910775

SHEET 2 OF 2



DocuSigned by:
 Kristy Alford
 F2458389308F40E...
 02/08/2023



DocuSigned by:
 Francesca Lea
 B79DA2B65D584EF...
 02/08/2023

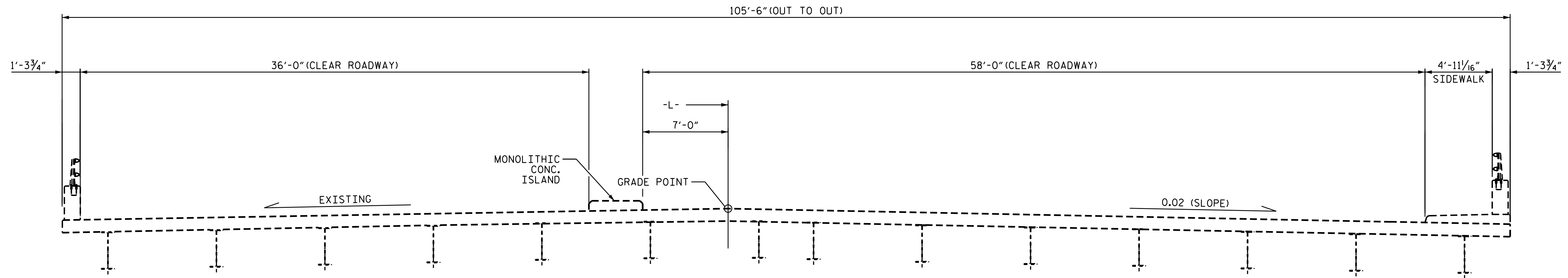
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE ON SR 2000
 (FALLS OF NEUSE RD.)
 OVER I-540 BETWEEN
 SR 2005 AND SR 2006

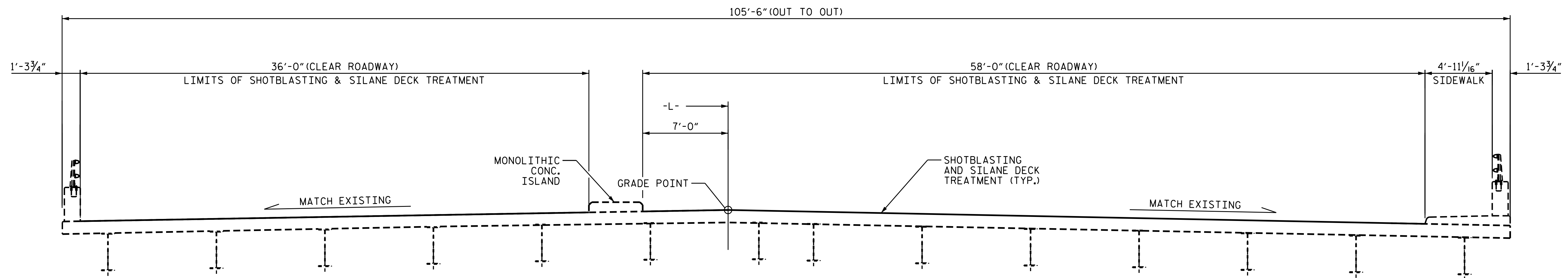
DRAWN BY : W. D. REAMS/ M. WELDON DATE : 09/2019
 CHECKED BY : W. D. REAMS DATE : 10/2019

DOCUMENT NOT CONSIDERED
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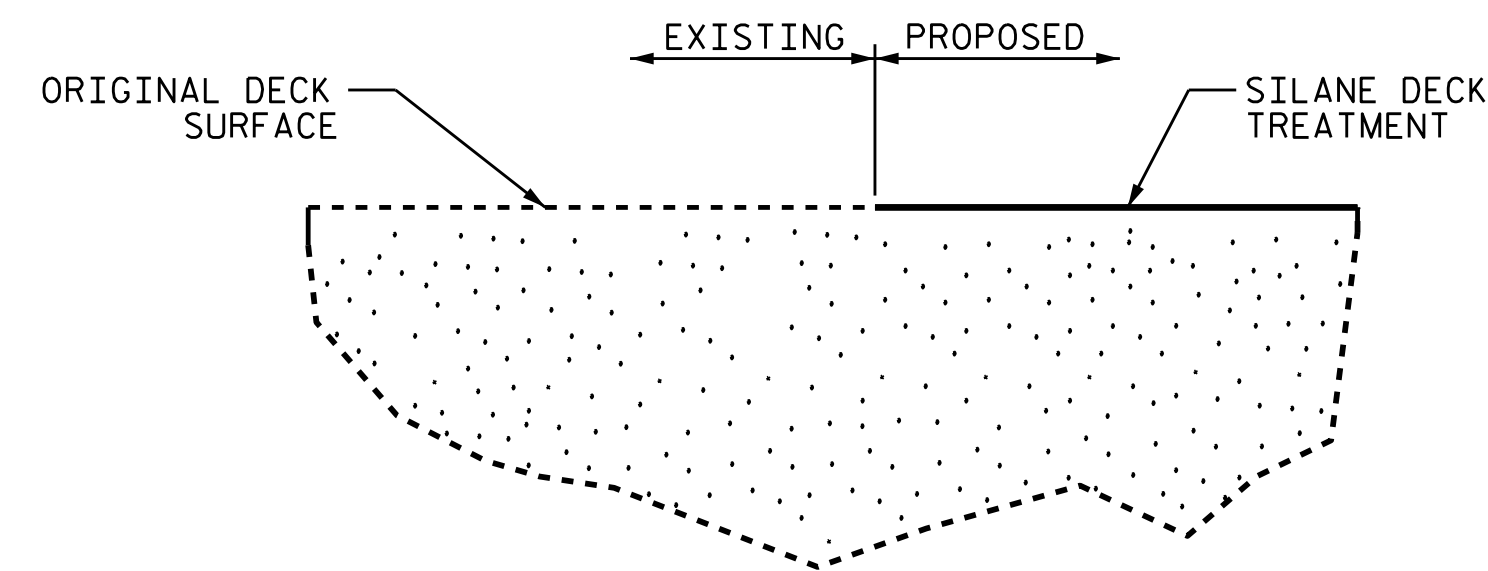
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S-2
2			4			TOTAL SHEETS 6



TYPICAL SECTION
(EXISTING)



TYPICAL SECTION
(PROPOSED)



DETAIL FOR
SILANE DECK TREATMENT

PROJECT NO. U-5826
WAKE COUNTY
 BRIDGE NO. 910775



DocuSigned by:
 Francesca Lea
 B79DAD865D8A6F...
 11/4/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 TYPICAL SECTION
 AND SILANE DECK
 TREATMENT DETAILS

DRAWN BY : S. T. SANDOR/ M. WELDON DATE : 09/2019
 CHECKED BY : W. D. REAMS DATE : 09/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

NOTES:

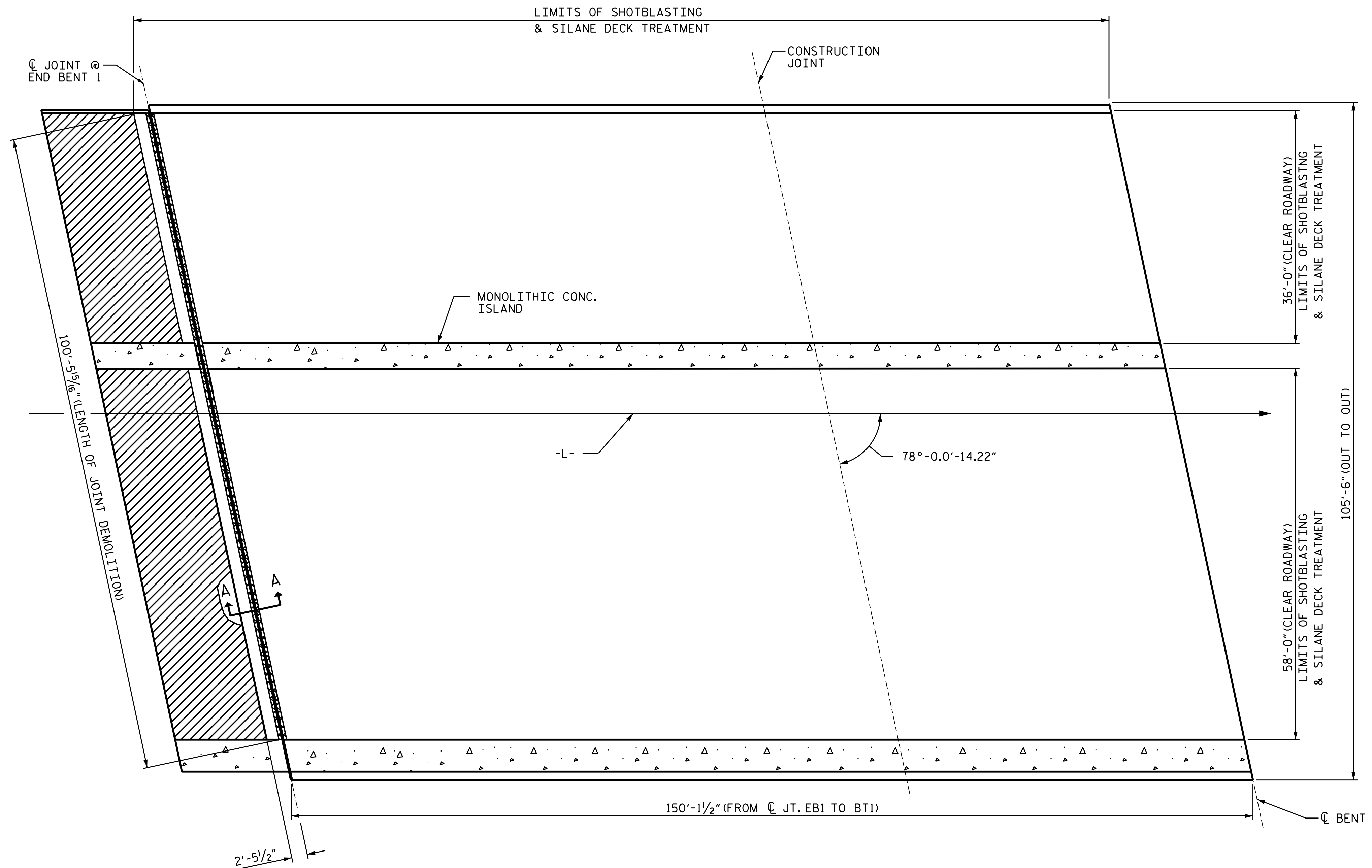
REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES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



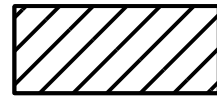

APPROACH SLAB QUANTITIES

	ESTIMATE	ACTUAL
	SO. YDS.	SO. YDS.
SHOTBLASTING AT APPROACH SLAB	20.4	
SILANE DECK TREATMENT	20.4	

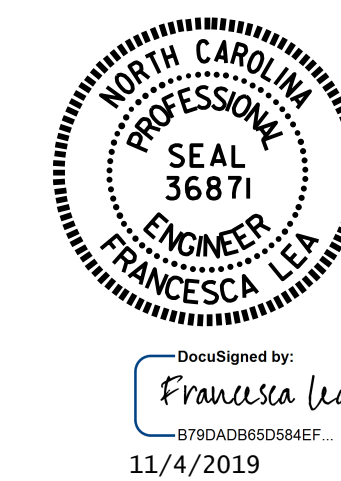
BRIDGE QUANTITIES

	ESTIMATE	ACTUAL
	AREA SO. FT.	AREA SO. FT.
BRIDGE JOINT DEMOLITION	100.5	
	ESTIMATE	ACTUAL
	SO. YDS.	SO. YDS.
SHOTBLASTING OF BRIDGE DECK	1562.7	
SILANE DECK TREATMENT	1562.7	



-  SHOTBLAST BRIDGE DECK & SILANE DECK TREATMENT
-  BRIDGE JOINT DEMOLITION
-  EXISTING ASPHALT WEARING SURFACE TO REMAIN
-  EXISTING MONOLITHIC CONC. ISLAND AND SIDEWALK TO REMAIN

PROJECT NO. U-5826
WAKE COUNTY
 BRIDGE NO. 910775



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SURFACE PREPARATION
 & SILANE DECK
 TREATMENT**
 (SPAN A)

PLAN - SPAN A
 FOR SECTION A-A, SEE "JOINT DETAIL" SHEET.

DRAWN BY : M. WELDON DATE : 09/2019
 CHECKED BY : W. D. REAMS DATE : 09/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

NOTES:

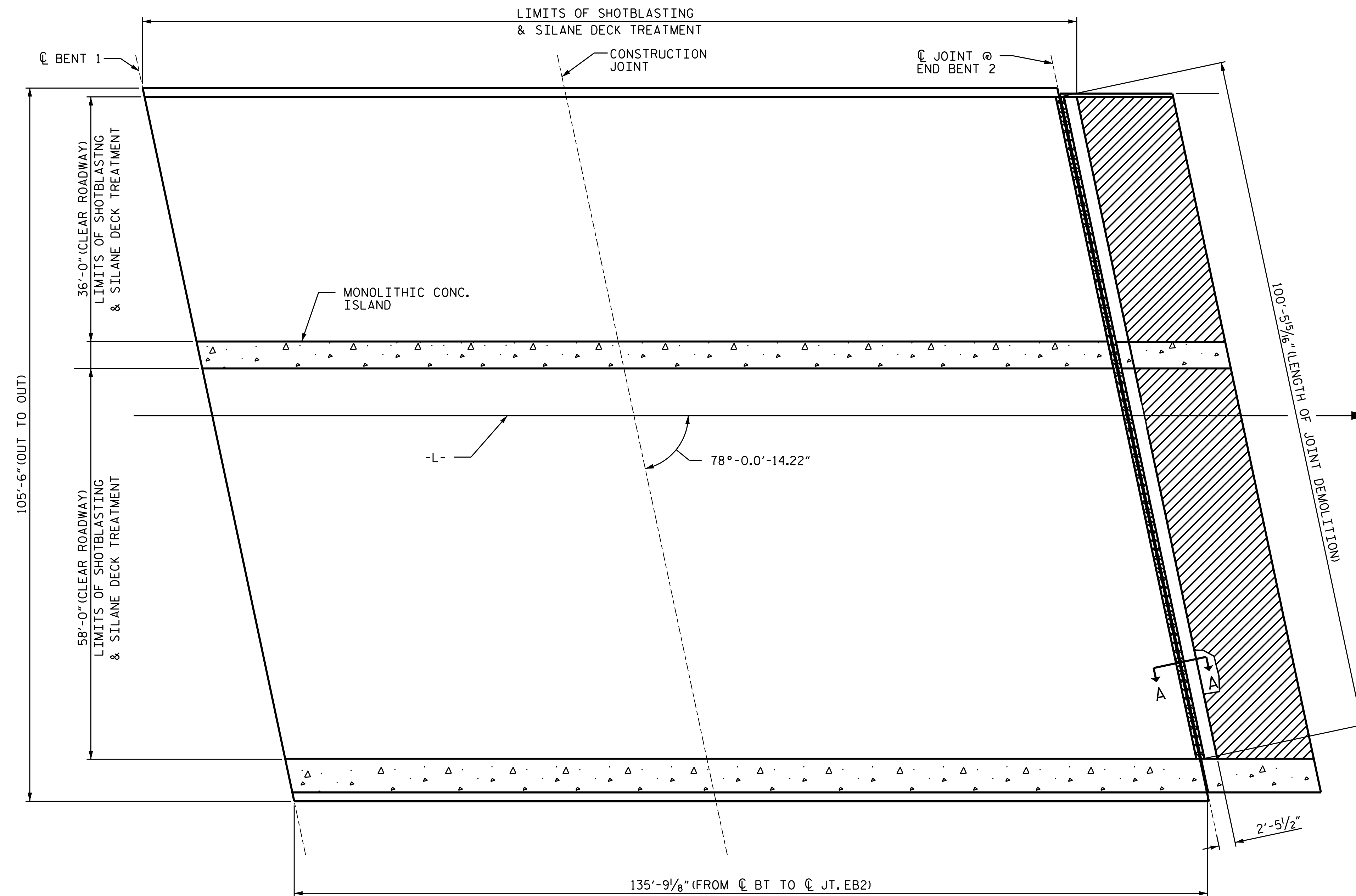
REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES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



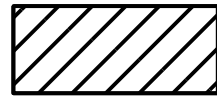

APPROACH SLAB QUANTITIES

	ESTIMATE	ACTUAL
	SO. YDS.	SO. YDS.
SHOTBLASTING AT APPROACH SLAB	20.4	
SILANE DECK TREATMENT	20.4	

BRIDGE QUANTITIES

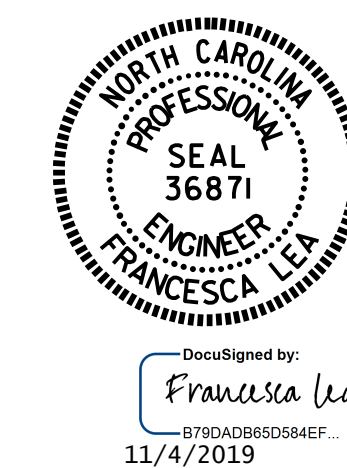
	ESTIMATE	ACTUAL
	AREA SO. FT.	AREA SO. FT.
BRIDGE JOINT DEMOLITION	100.5	
	ESTIMATE	ACTUAL
	SO. YDS.	SO. YDS.
SHOTBLASTING OF BRIDGE DECK	1412.6	
SILANE DECK TREATMENT	1412.6	



-  SHOTBLAST BRIDGE DECK & SILANE DECK TREATMENT
-  BRIDGE JOINT DEMOLITION
-  EXISTING ASPHALT WEARING SURFACE TO REMAIN
-  EXISTING MONOLITHIC CONC. ISLAND AND SIDEWALK TO REMAIN

PLAN - SPAN B
FOR SECTION A-A, SEE "JOINT DETAIL" SHEET.

PROJECT NO. U-5826
WAKE COUNTY
 BRIDGE NO. 910775

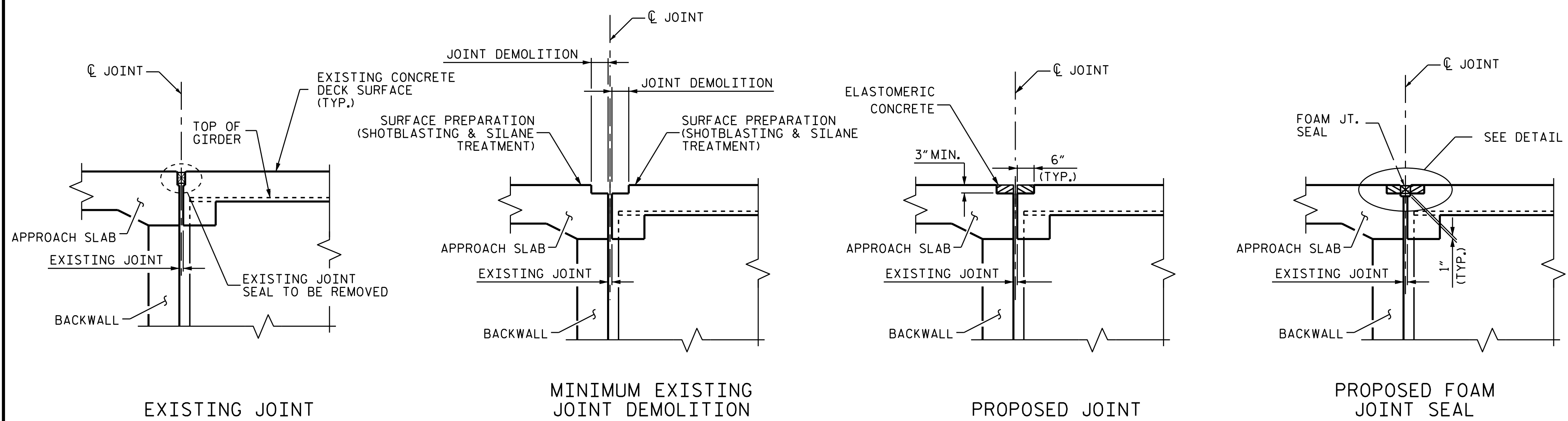


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SURFACE PREPARATION
 & SILANE DECK
 TREATMENT**
 (SPAN B)

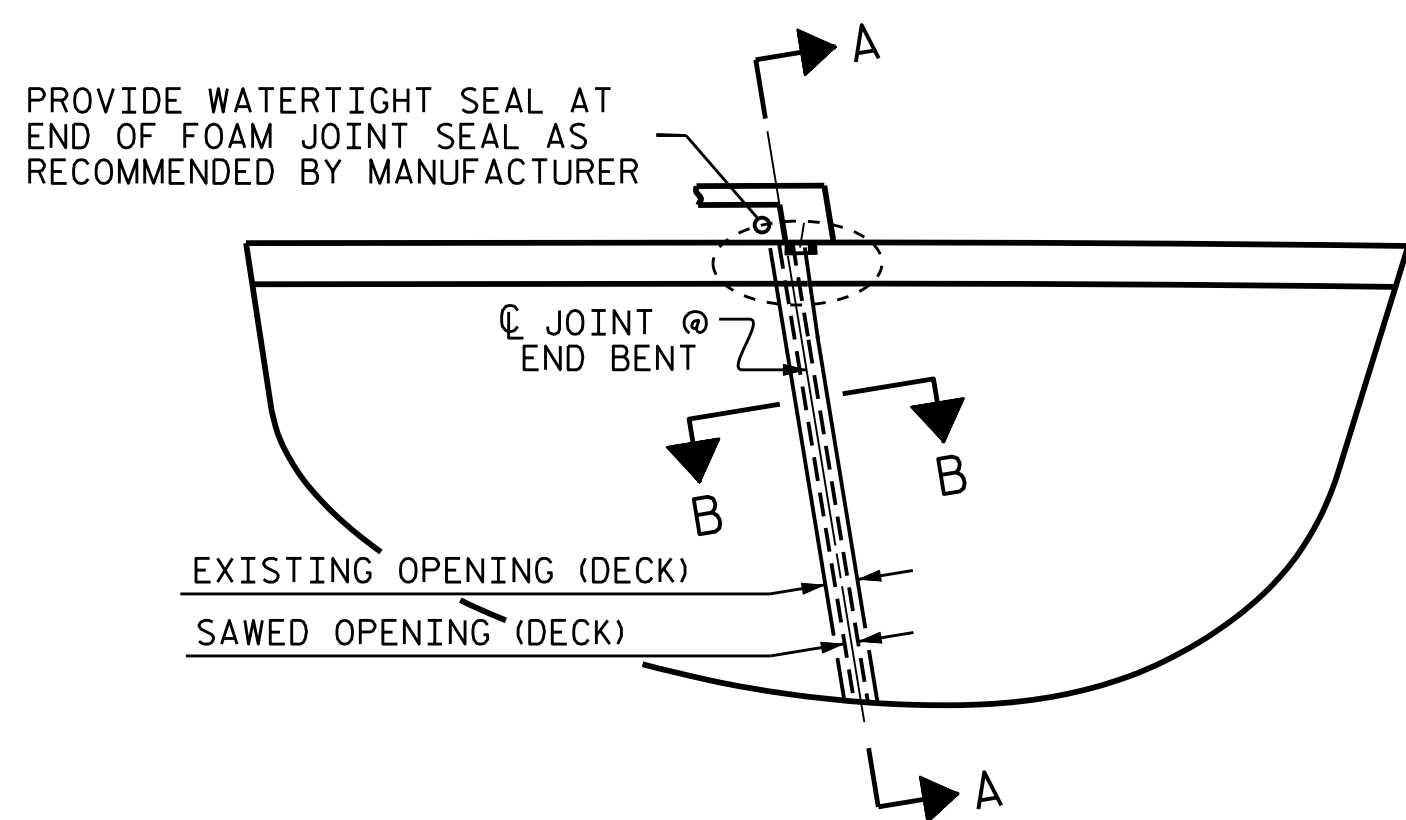
DRAWN BY : M. WELDON DATE : 09/2019
 CHECKED BY : W. D. REAMS DATE : 09/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

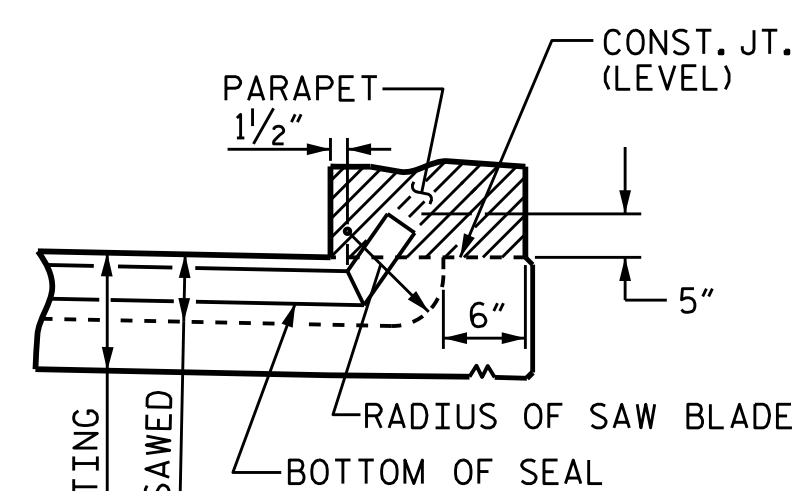
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
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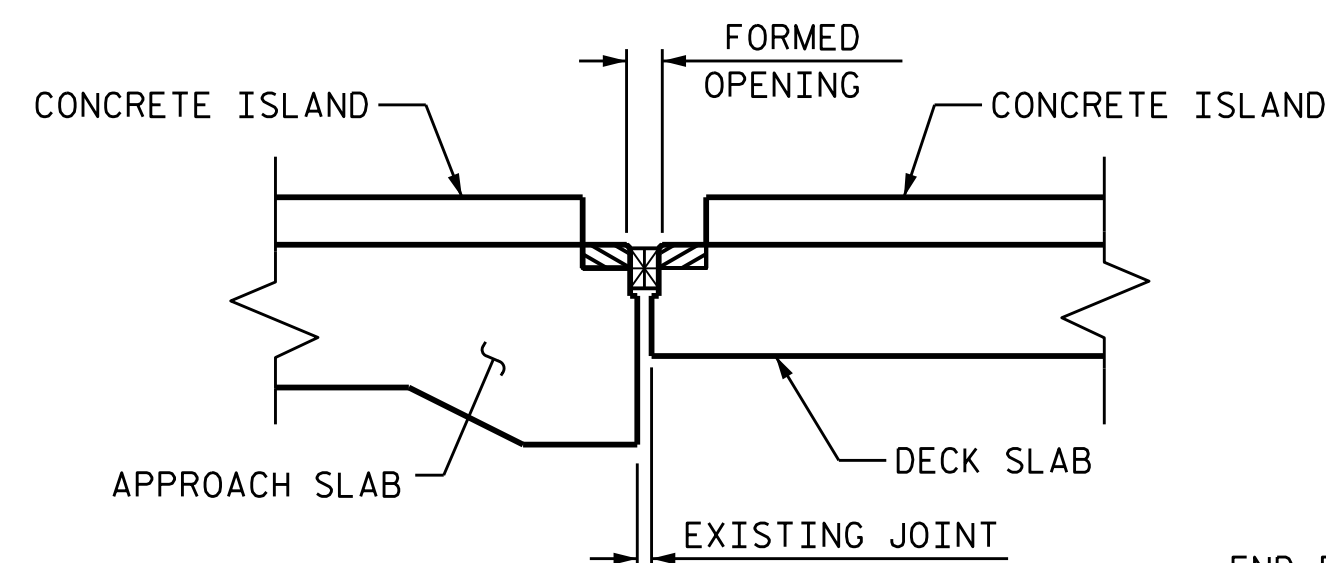
JOINT INSTALLATION SEQUENCE AT END BENTS 1 AND 2
(SECTION A-A)



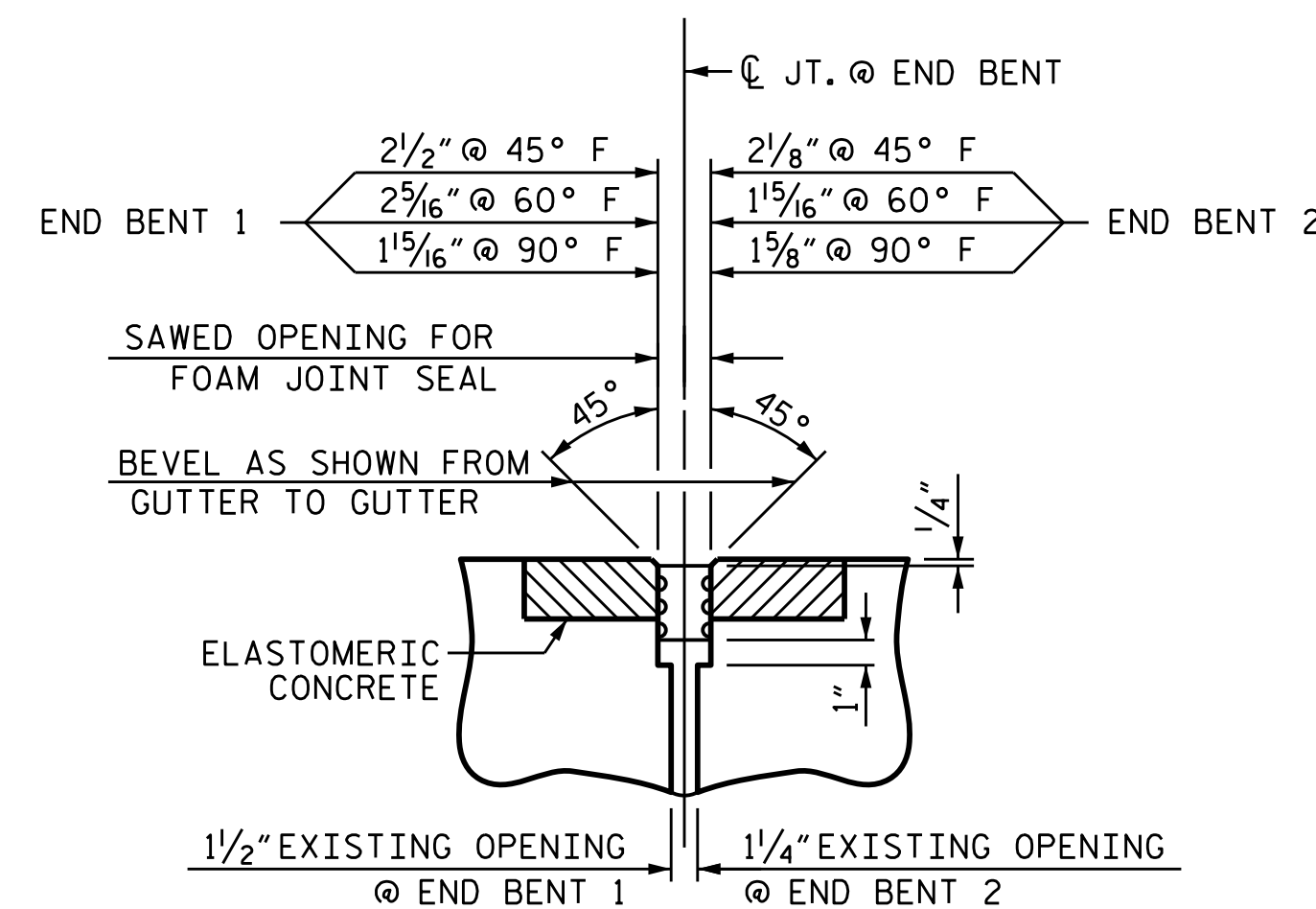
PLAN FOR PARAPET
END BENT 1
(END BENT 2 SIMILAR)



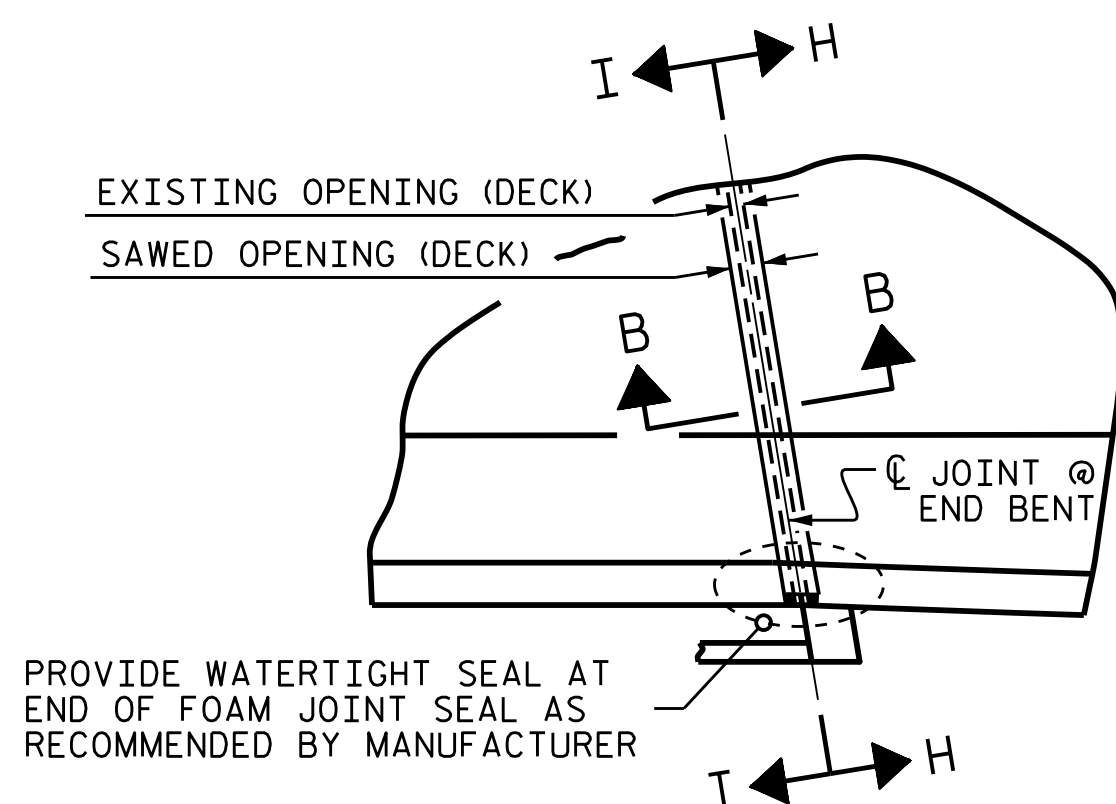
SECTION A-A
PARAPET DETAIL



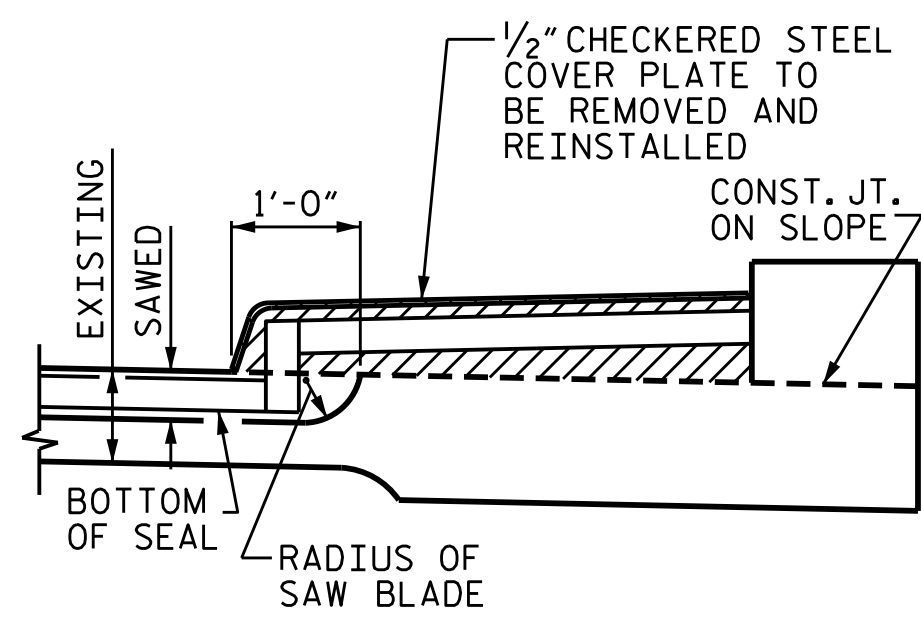
MONOLITHIC CONCRETE ISLAND
AT END BENTS (TYP.)



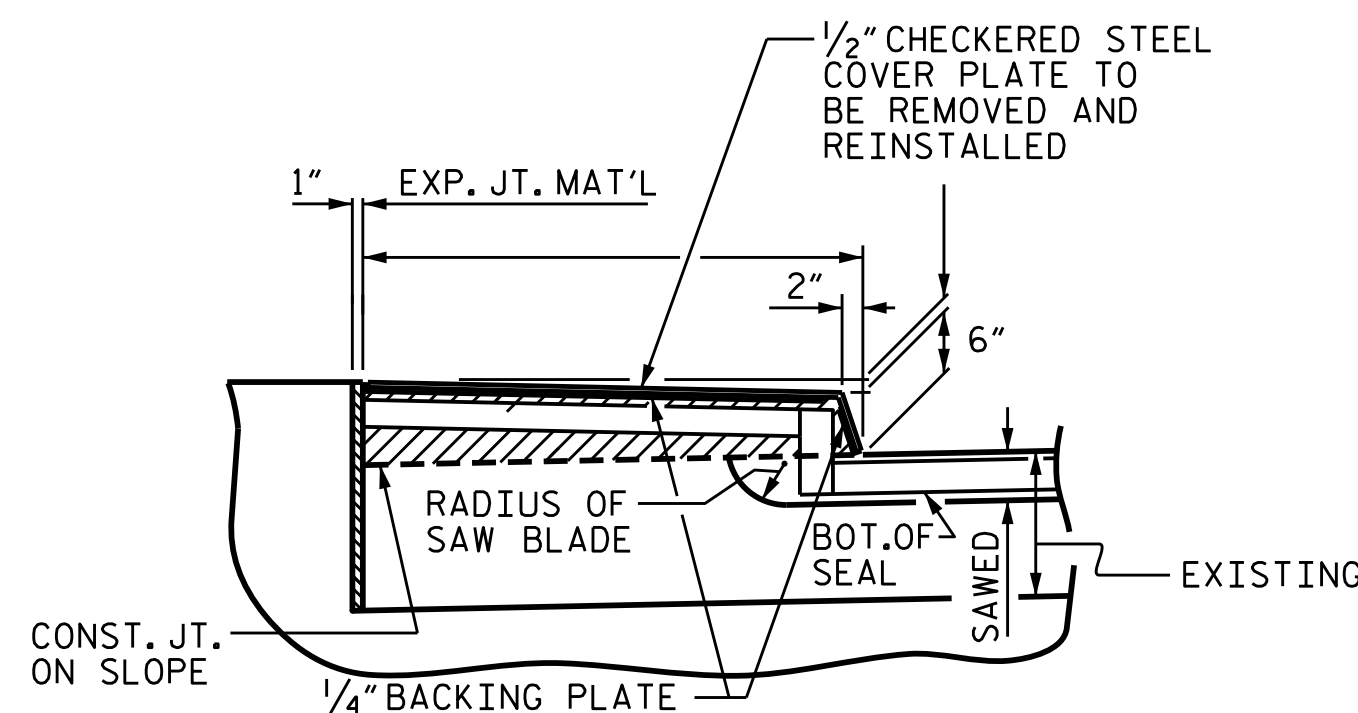
DETAIL A
SECTION B-B
FOAM JOINT SEAL
(EXPANSION)



PLAN FOR SIDEWALK
END BENT 1
(END BENT 2 SIMILAR)



SECTION H-H



SECTION I-I

SIDEWALK DETAILS

JOINT REPAIR QUANTITY TABLE		
END BENT 1		
	ESTIMATE	ACTUAL
ELASTOMERIC CONC. FOR PRESERVATION	25.1 CU. FT.	
FOAM JOINT SEALS FOR PRESERVATION	105.4 LIN. FT.	
END BENT 2		
ELASTOMERIC CONC. FOR PRESERVATION	25.1 CU. FT.	
FOAM JOINT SEALS FOR PRESERVATION	105.4 LIN. FT.	

NOTES:

THE WIDTH OF THE UNCOMPRESSED SEAL MATERIAL SHALL BE 2 1/2" AT END BENT 1 AND 3" AT END BENT 2.

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

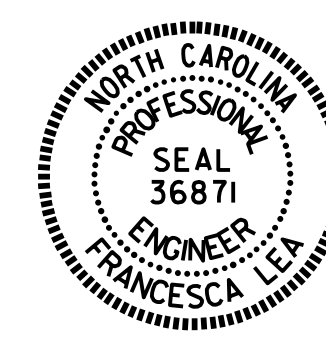
EXCAVATE EXISTING JOINT TO SOUND CONCRETE. IF SUCH EXCAVATION EXTENDS MORE THAN 2" BELOW THE PLANNED ELASTOMERIC CONCRETE HEADER, AS SHOWN, APPROVED REPAIR CONCRETE SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE ELASTOMERIC CONCRETE.

EXCAVATION OF EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE AND SUPPORT OF ELASTOMERIC CONCRETE.

COVER PLATE AND BOLTS AT SIDEWALK SHALL BE REMOVED FOR JOINT REPLACEMENT AND REINSTALLED. THERE IS NO ADDITIONAL PAY ITEM FOR REMOVAL AND REPLACEMENT OF COVER PLATE AND BOLTS. COST FOR SUCH WORK SHALL BE INCLUDED IN THE OTHER PAY ITEMS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

PROJECT NO. U-5826
WAKE COUNTY
 BRIDGE NO. 910775



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 JOINT DETAILS

DRAWN BY : M. WELDON DATE : 07/2019
 CHECKED BY : W. D. REAMS DATE : 09/2019

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

