LOCATION SKETCH

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

BRIDGE COORDINATES

LAT: 35.8389
LONG: -82.52364

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE.

THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

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

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

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

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

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

FOR 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 TRAFFIC CONTROL AND LIMITS OF PHASING OF CONSTRUCTION, SEE TRAFFIC CONTROL SPECIAL PROVISIONS.

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

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

THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE DECK DURING HYDRO-DEMOLITION.

FOR PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY-EARLY STRENGTH (LMC-ES), SEE LATEX MODIFIED CONCRETE-EARLY STRENGTH SPECIAL PROVISIONS.

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

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT MIGRATE INTO ACTIVE TRAVEL LANES.

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

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEAL FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

FOR VOLUMETRIC MIXER, SEE SPECIAL PROVISIONS.

PROJ. NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560541

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE ON
I-26/US-23
OVER US-19
(WESTBOUND)

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

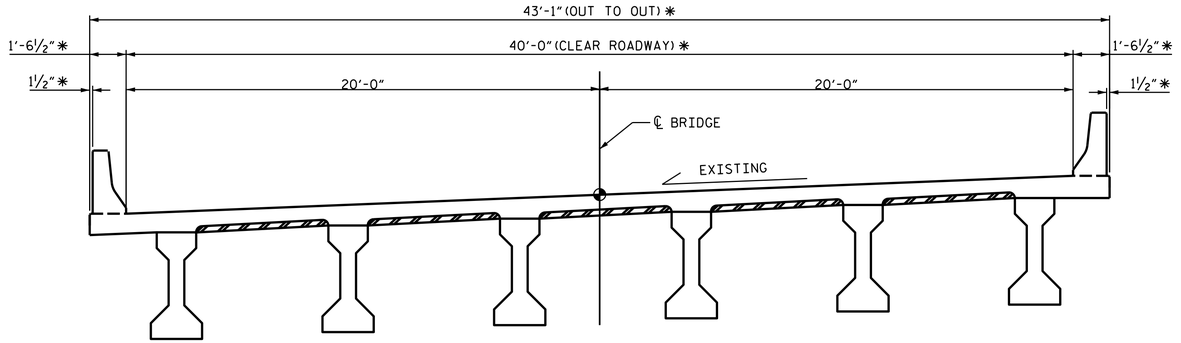
DocuSigned by: Amber Miller 05/02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-02
1			3			TOTAL SHEETS
2			4			6

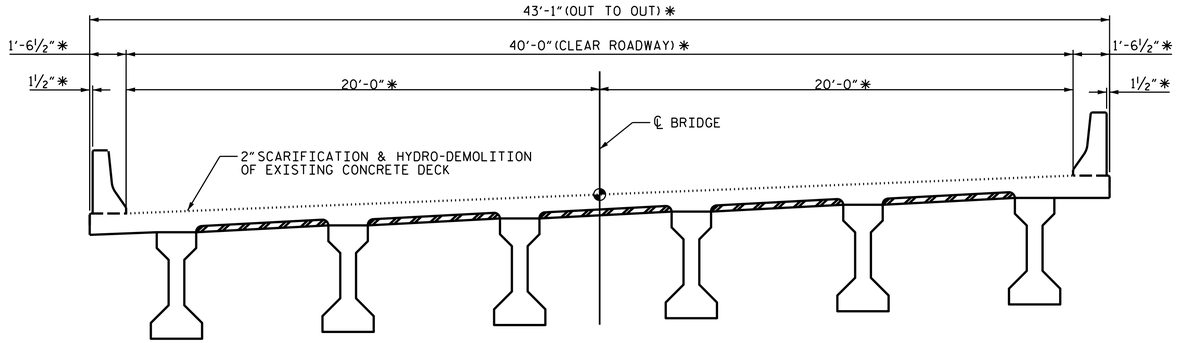
DRAWN BY : M.ALINAGHIAN DATE : 06/2019
CHECKED BY : H. A. LOCKLEAR DATE : 02/2022

5/2/2022
R:\Structures\Final Plans\402_003_I5831_SMU_LS_S2-02_560541.dgn
amlee



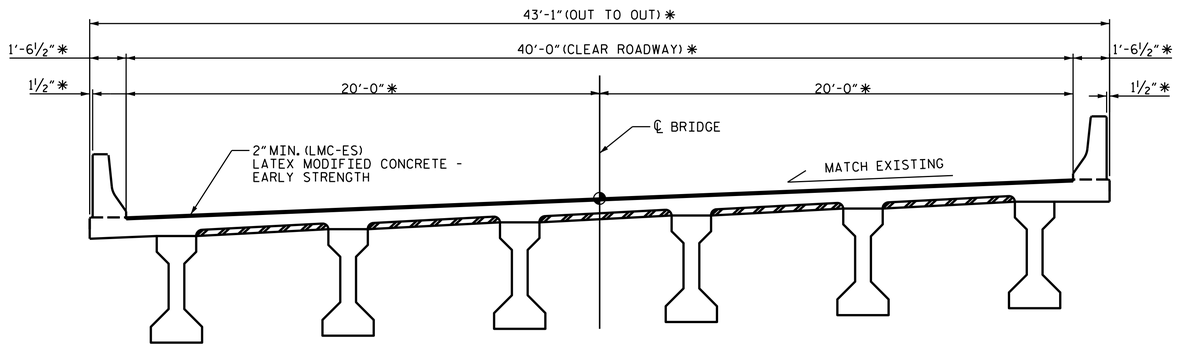
EXISTING TYPICAL SECTION

* RADIAL DIMENSION



PROPOSED TYPICAL SECTION

* RADIAL DIMENSION



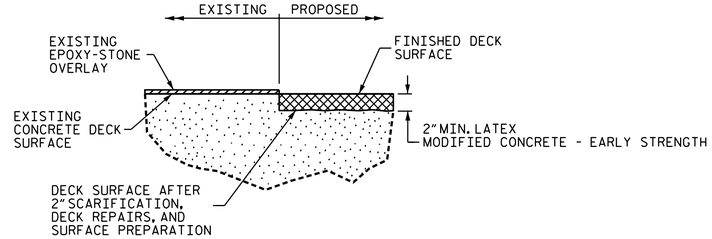
PROPOSED TYPICAL SECTION

* RADIAL DIMENSION

NOTE

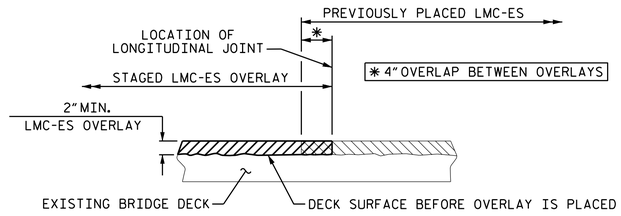
SEE TRAFFIC CONTROL SPECIAL PROVISIONS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEAUSRES FOR STAGING OF OVERLAY SURAFCE PREPARATION AND LMC-ES PLACEMENT.

WHEN PREPARING THE SURFACE FOR LMC-ES OVERLAY ADJACENT TO THE PREVIOSLY PLACED LMC-ES STAGE. THE PREVISOULY PLACED LMC-ES SHALL BE SAW - CUT TO THE FULL DEPTH OF THE LMC-ES AT THE CENTERLINE OF THE BRIDGE AND ALL LMC-ES IN THE 4" OVERLAP SHALL BE REMOVED WITH HAND TOOLS PRIOR TO PLACEMENT OF LMC-ES IN THE SECOND STAGE.



DETAIL FOR LMC-ES OVERLAY

(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE - EARLY STRENGTH IS APPROXIMATE)



SECTION THRU DECK

STAGED LMC-ES OVERLAY JOINT

(AS NEEDED)

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560541

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

TYPICAL SECTION & LMC-ES OVERLAY DETAIL

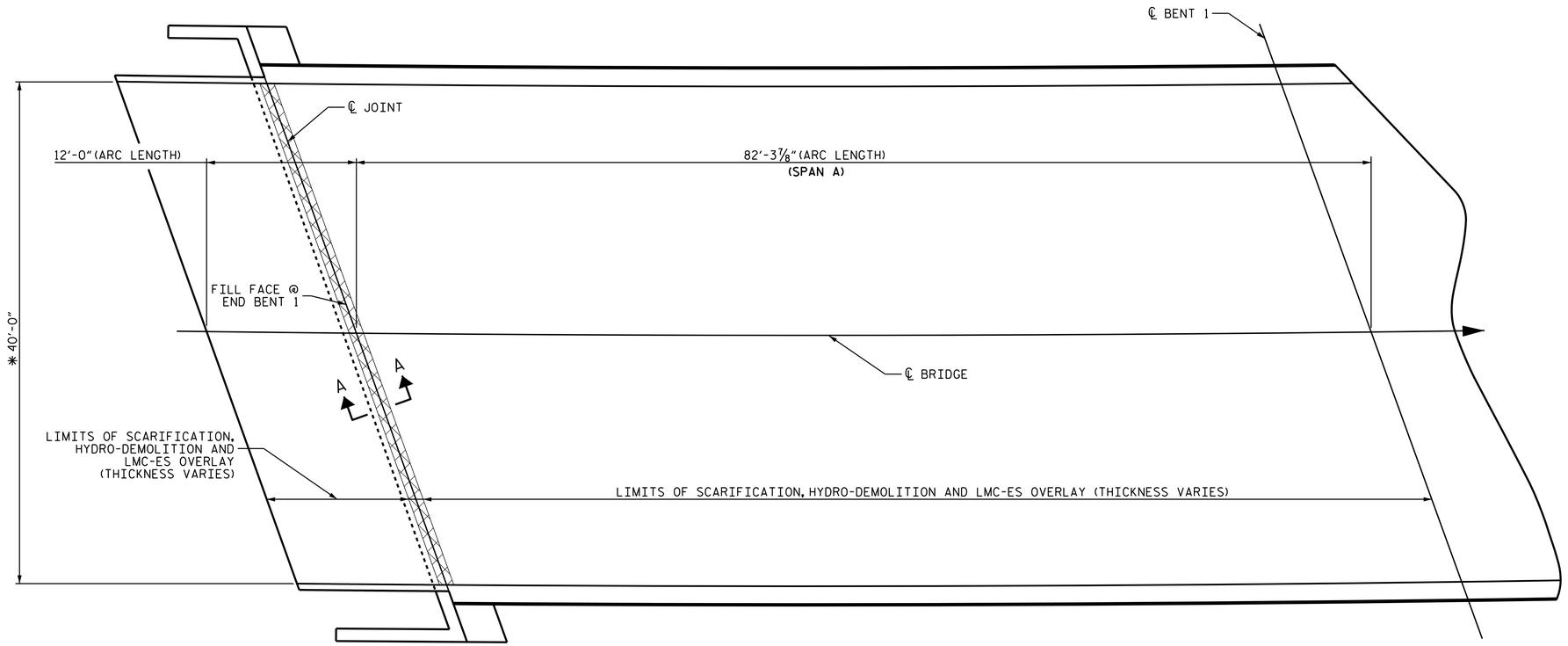
NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee
B04B5A4F2FAD484...
05/02/2022

DRAWN BY : C. RUIZ DATE : 01/2019
CHECKED BY : H. LOCKLEAR DATE : 02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-03
1			3			TOTAL SHEETS
2			4			6



APPROACH SLAB 1

SPAN A

*RADIAL DIMENSION

NOTES

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

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

FOR BRIDGE JOINT DEMOLITION QUANTITIES, SEE FOAM JOINT DETAILS SHEET.

CLASS II SURFACE PREPARATION

EPOXY RESIN INJECTION (ERI)

BRIDGE JOINT DEMOLITION

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - APPROACH SLAB 1	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0.0 SQ. YDS.	
LATEX MODIFEID CONCRETE - EARLY STRENGTH	3.2 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	51.0 SQ. YDS.	
SCARIFYING BRIDGE DECK	51.0 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	51.0 SQ. YDS.	
GROOVING BRIDGE FLOORS	443.3 SQ. FT.	

DECK SURFACE REPAIRS - SPAN A	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0.0 SQ. YDS.	
LATEX MODIFIED CONCRETE - EARLY STRENGTH	22.7 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	363.5 SQ. YDS.	
SCARIFYING BRIDGE DECK	363.5 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	363.5 SQ. YDS.	
GROOVING BRIDGE FLOORS	3257.8 SQ. FT.	

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560541

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK SURFACE REPAIR APPROACH SLAB 1 & SPAN A

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee 03/18/2022

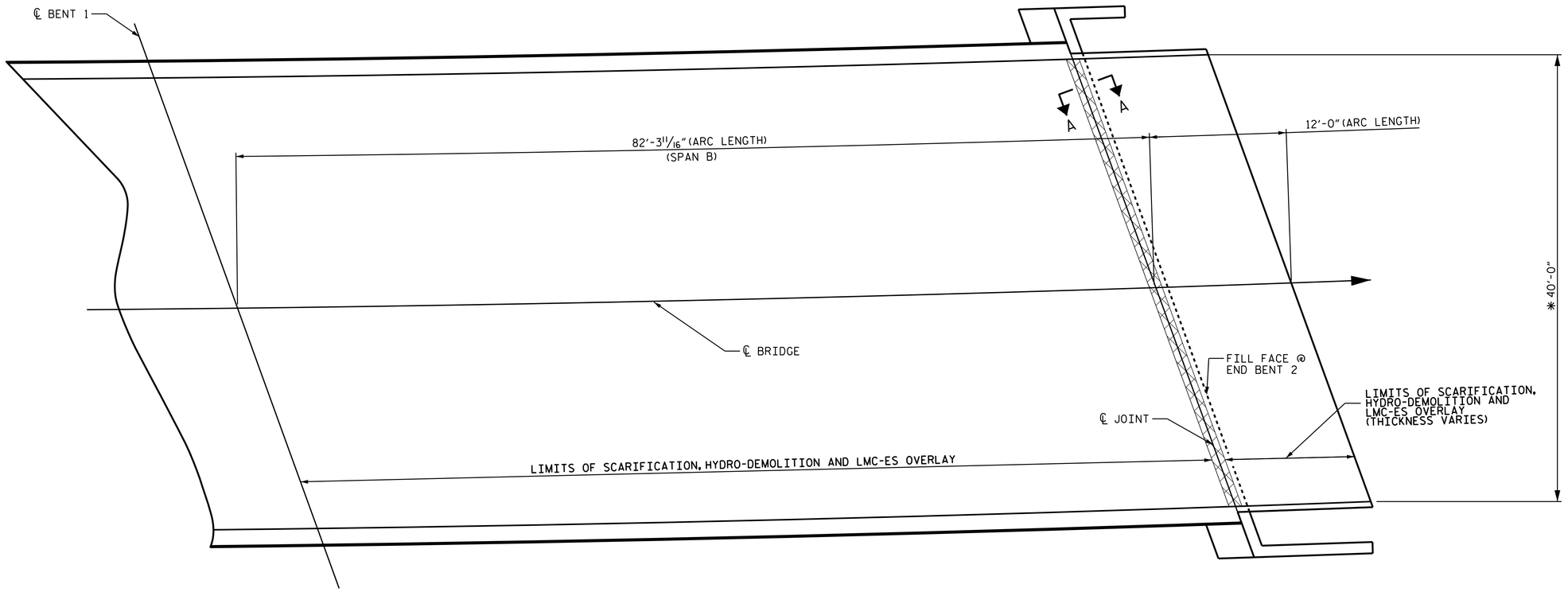
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-04
1			3			TOTAL SHEETS
2			4			6

DRAWN BY : E. CABBELL DATE : 02/2022

CHECKED BY : H. A. LOCKLEAR DATE : 02/2022

3/18/2022
R:\Structures\Final Plans\402_007_I5831_SMU_DSR_A_S2-04_560541.dgn
amlee



SPAN B
∗ RADIAL DIMENSION

APPORACH SLAB 2
∗ RADIAL DIMENSION

NOTES

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

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

FOR BRIDGE JOINT DEMOLITION QUANTITIES, SEE FOAM JOINT DETAILS SHEET.

CLASS II SURFACE PREPARATION

EPOXY RESIN INJECTION (ERI)

BRIDGE JOINT DEMOLITION

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - APPROACH SLAB 2			DECK SURFACE REPAIRS - SPAN B		
	ESTIMATE	ACTUAL		ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0.0 SQ. YDS.		CLASS II SURFACE PREPARATION	0.0 SQ. YDS.	
LATEX MODIFIED CONCRETE-EARLY STRENGTH	3.2 CU. YDS.		LATEX MODIFIED CONCRETE-EARLY STRENGTH	22.7 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	51.0 SQ. YDS.		PLACING AND FINISHING LMC-ES OVERLAY	363.3 SQ. YDS.	
SCARIFYING BRIDGE DECK	51.0 SQ. YDS.		SCARIFYING BRIDGE DECK	363.3 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	51.0 SQ. YDS.		HYDRO-DEMOLITION OF BRIDGE DECK	363.3 SQ. YDS.	
GROOVING BRIDGE FLOORS	443.3.0 SQ. FT.		GROOVING BRIDGE FLOORS	3257.5 SQ. FT.	

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560541

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK SURFACE REPAIR APPROACH SLAB 2 & SPAN B

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by:
Amber Mlee
03/18/2022

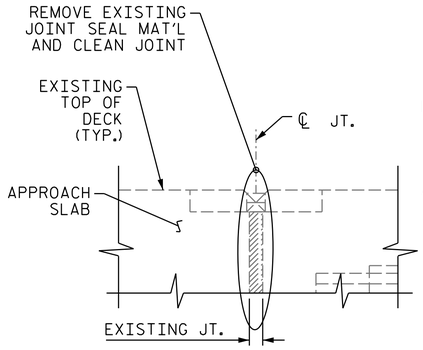
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-05
1			3			TOTAL SHEETS
2			4			6

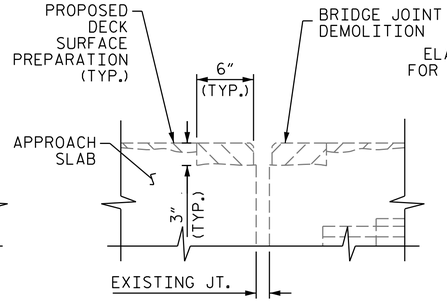
DRAWN BY : E. CABBELL DATE : 02/2022

CHECKED BY : H. A. LOCKLEAR DATE : 02/2022

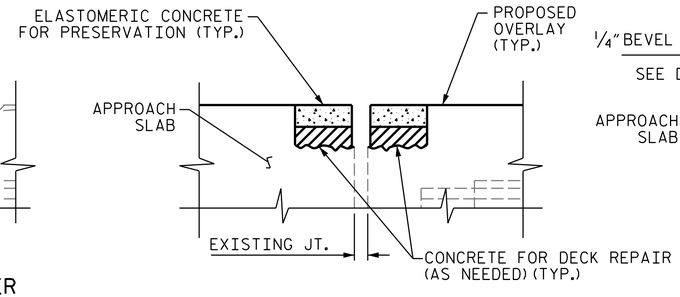
3/18/2022
R:\Structures\Final Plans\402_009_I5831_SMU_DSR_B_S2-05_560541.dgn
amlee



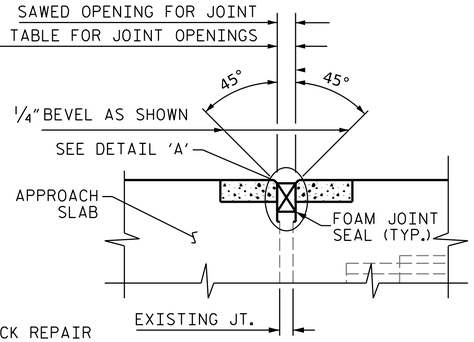
EXISTING JOINT SEAL



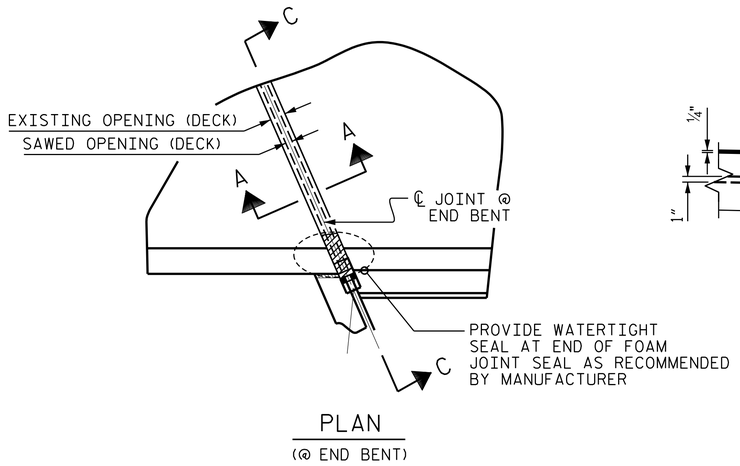
EXISTING JOINT AFTER JOINT DEMOLITION



PROPOSED JOINT PRIOR TO SAWING

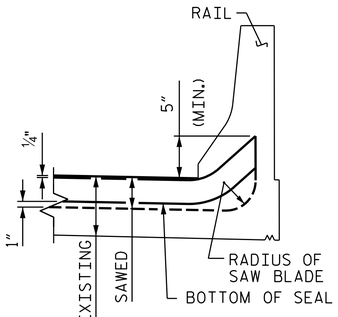


PROPOSED FOAM JOINT SEAL

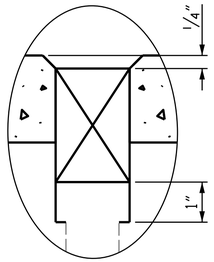


PLAN
(@ END BENT)

SECTION A-A
(TYP. AT END BENTS)



SECTION C-C



DETAIL 'A'

SAWED JOINT OPENING TABLE			
	SAWED JT. OPENING (PERPENDICULAR TO JT.)		
LOCATION	AT 45°	AT 60°	AT 90°
END BENT 1	1 5/8"	1 9/16"	1 3/8"
END BENT 2	1 5/8"	1 9/16"	1 1/16"

ELASTOMERIC CONCRETE FOR PRESERVATION		
LOCATION	ESTIMATED (CU.FT.)	ACTUAL (CU.FT.)
END BENT 1	10.7	
END BENT 2	10.5	
TOTAL	21.2	

JOINT REPAIR QUANTITY TABLE		
	ESTIMATED	ACTUAL
FOAM JOINT SEALS FOR PRESERVATION	87.1 FT.	

BRIDGE JOINT DEMOLITION	
END BENT 1	42.8 SQ.FT.
END BENT 2	42.0 SQ.FT.
TOTAL	84.8 SQ.FT.

NOTES

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

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN ¼", NOTIFY THE ENGINEER.

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

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

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

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

THE INSTALLED FOAM JOINTS SHALL BE WATER TIGHT.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

THE 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.

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

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

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

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560541

ASSEMBLED BY : E. CABBELL	DATE : 2/2022
CHECKED BY : H. A. LOCKLEAR	DATE : 2/2022
DRAWN BY : NAP 08/2018	
CHECKED BY : -	

3/18/2022
R:\Structures\Final Plans\402_011_I5831_SMU_JT_S2-06_560541.dgn
amlee

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee 03/18/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARDS

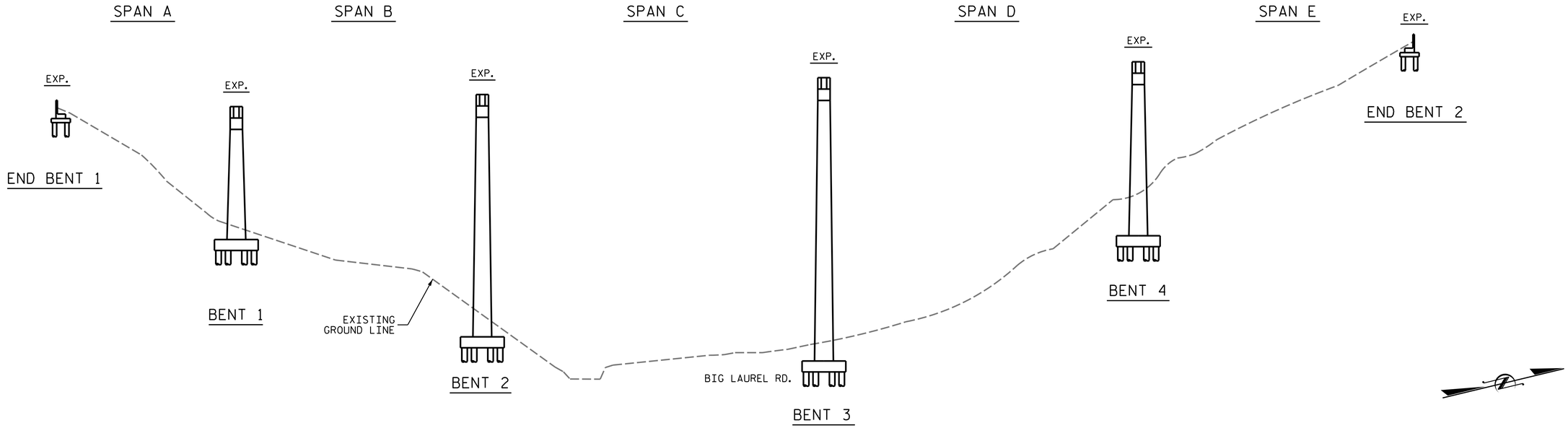
FOAM JOINT SEALS FOR PRESERVATION DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-06
1			3			TOTAL SHEETS
2			4			6

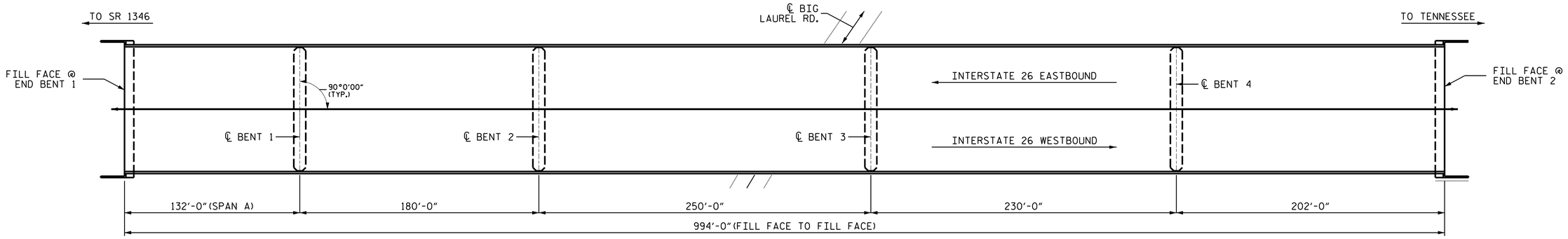
NOTES

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 09/02/2020.

BRIDGE ORIENTATION CONFORMS TO THE ORIGINAL BRIDGE PLANS.



SECTION ALONG ℄ ROADWAY



PLAN

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 1 OF 2

SCOPE OF WORK

-PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND HYDRO-DEMOLITION METHODS.
-OVERLAY PREPARED TOP OF BRIDGE DECK WITH EARLY STRENGTH LATEX MODIFIED CONCRETE- EARLY STRENGTH (LMC-ES).
-REMOVE EXISTING JOINT MATERIALS AND INSTALL MOLDED RUBBER SEGMENTAL EXPANSION JOINT.
-GROOVE LMC-ES BRIDGE DECK.
-CLEAN AND PAINT WEATHERING STEEL BEAM ENDS.
-REMOVE DEBRIS FROM TOP OF END BENTS, BENT CAPS AND APPLY EPOXY COATING
-EPOXY RESIN INJECTION OF CONCRETE CRACKS.
-REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING END BENT AND BENT AREAS FOR SHOTCRETE AND CONCRETE REPAIRS.
-PERFORM SHOTCRETE AND CONCRETE REPAIRS.
-PERFORM REPAIRS TO DECK DRAINS.

DRAWN BY : E. CABBELL DATE : 02/2022

CHECKED BY : H. LOCKLEAR DATE : 02/2022

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

RESIDENT ENGINEER DATE

NORTH CAROLINA PROFESSIONAL SEAL 35647 ENGINEER ADAM A. COLE

DocuSigned by: 03/18/2022

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: 03/18/2022

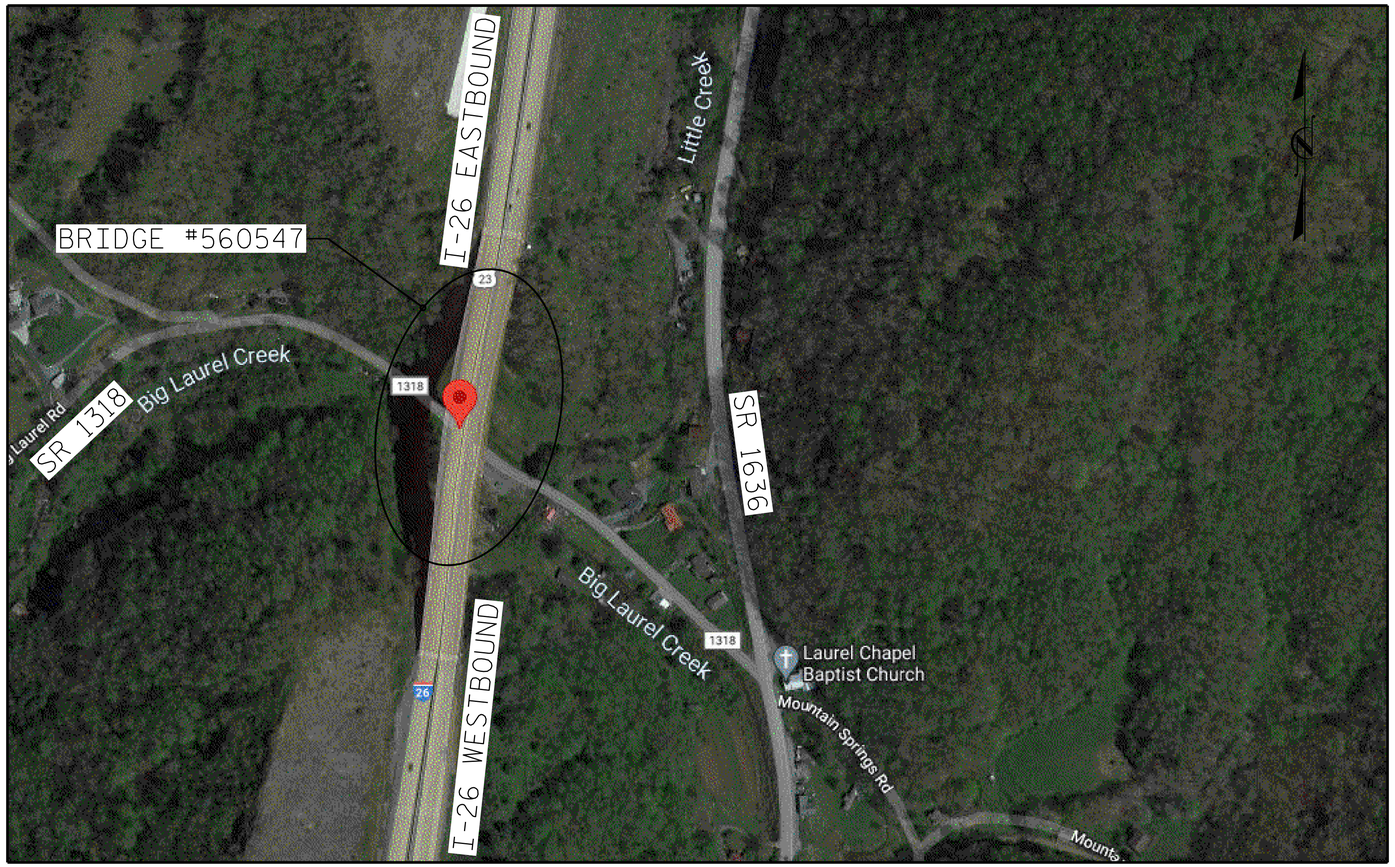
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON INTERSTATE 26 EASTBOUND OVER SR 1318 (BIG LAUREL RD.)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-01
1			3			TOTAL SHEETS
2			4			24

3/18/2022
R:\Structures\Final Plans\403_001_I5831_SMU_GD_S3-01_560547.dgn
amlee



LOCATION SKETCH

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

BRIDGE COORDINATES

LAT: 35.91704°
LONG: -82.55788°

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE.

THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

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

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

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

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

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

FOR 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 TRAFFIC CONTROL AND LIMITS OF PHASING OF CONSTRUCTION, SEE TRAFFIC CONTROL SPECIAL PROVISIONS.

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

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

THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE DECK DURING HYDRO-DEMOLITION.

FOR PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY-EARLY STRENGTH (LMC-ES), SEE LATEX MODIFIED CONCRETE-EARLY STRENGTH SPECIAL PROVISIONS.

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

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT MIGRATE INTO ACTIVE TRAVEL LANES.

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

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR PAINTING CONTAINTMENT, POLLUTION CONTROL, AND CLEANING AND PAINTING EXISTING WEATHERING STEEL, SEE PAINTING EXISTING WEATHERING STEEL STRUCTURE SPECIAL PROVISIONS.

FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

FOR JOINT REPAIRS, SEE SPECIAL PROVISIONS.

FOR DECK DRAIN REPAIRS, SEE SPECIAL PROVISIONS.

FOR LATEX MODIFIED CONCRETE OVERLAY - EARLY STRENGTH, SEE SPECIAL PROVISIONS.

PROJ. NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON
INTERSTATE 26
EASTBOUND
OVER SR 1318
(BIG LAUREL RD.)

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

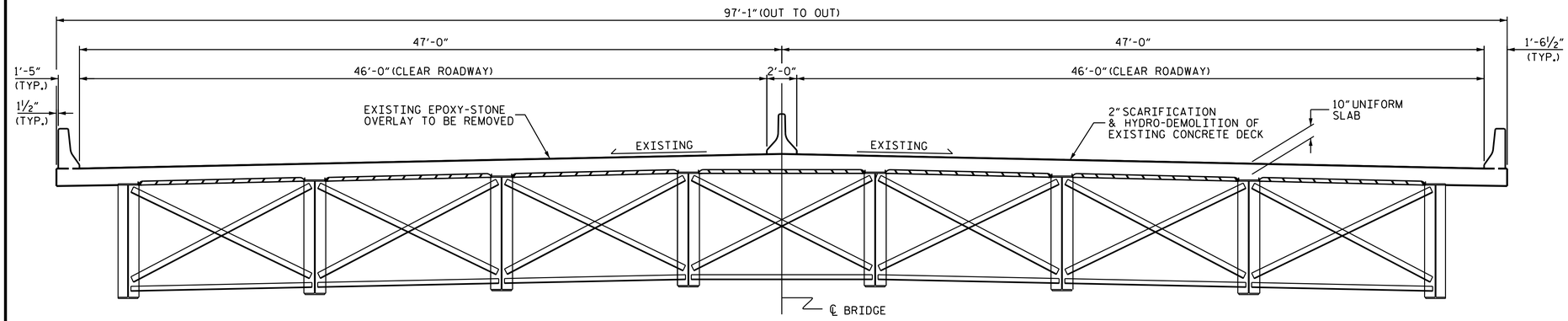
Docusigned by: Amber Mlee 05/02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

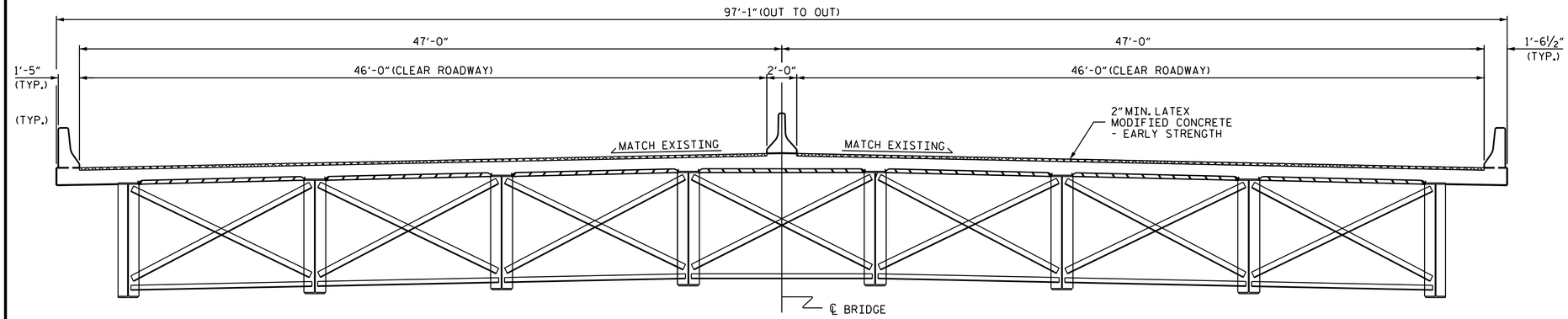
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-02
1			3			TOTAL SHEETS
2			4			24

DRAWN BY : M.ALINAGHIAN DATE : 07/2019
CHECKED BY : H. LOCKLEAR DATE : 02/2022

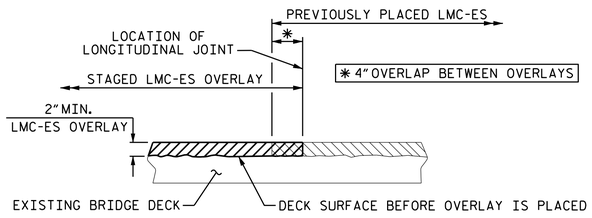
5/2/2022
R:\Structures\Final Plans\403_003_I5831_SMU_LS_S3-02_560547.dgn
amlee



TYPICAL SECTION
(EXISTING ASPHALT WEARING SURFACE)

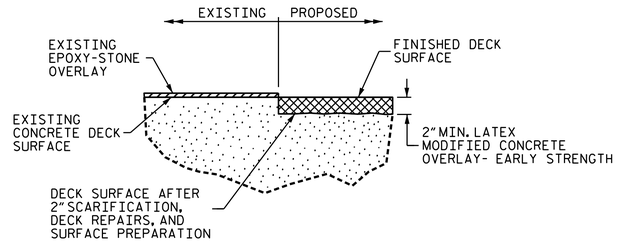


TYPICAL SECTION
(PROPOSED LMC WEARING SURFACE)



SECTION THRU DECK

STAGED LMC-ES OVERLAY JOINT
(AS NEEDED)



DETAIL FOR LMC-ES OVERLAY
(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE OVERLAY- EARLY STRENGTH IS APPROXIMATE)

NOTES

WHEN PREPARING THE SURFACE FOR LMC-ES OVERLAY ADJACENT TO THE PREVIOUSLY PLACED LMC-ES STAGE, THE PREVIOUSLY PLACED LMC-ES SHALL BE SAW-CUT TO THE FULL DEPTH OF THE LMC-ES AT THE CENTERLINE OF THE BRIDGE AND ALL LMC-ES IN THE 4" OVERLAP SHALL BE REMOVED WITH HAND TOOLS PRIOR TO PLACEMENT OF LMC-ES IN THE SECOND STAGE.

SEE TRAFFIC CONTROL SPECIAL PROVISIONS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND LMC-ES PLACEMENT.

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee
B04B5A4F2FAD484...
05/02/2022

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION

DRAWN BY : E. CABBELL DATE : 02/2022
CHECKED BY : A.M. LEE DATE : 02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-03
1			3			TOTAL SHEETS
2			4			24

5/2/2022
R:\Structures\Final Plans\403_005_I5831_SMU_TS_S3-03_560547.dgn
amlee

APPROACH SLAB 1

SPAN A

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - APPROCH SLAB 1			DECK SURFACE REPAIRS - SPAN A		
	ESTIMATE	ACTUAL		ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0.2 SQ. YDS.		CLASS II SURFACE PREPARATION	0.1 SQ. YDS.	
LATEX MODIFIEC CONCRETE-EARLY STRENGTH	9.4 CU. YDS.		LATEX MODIFIED CONCRETE-EARLY STRENGTH	82.0 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	149.8 SQ. YDS.		PLACING AND FINISHING LMC-ES OVERLAY	1312.0 SQ. YDS.	
SCARIFYING BRIDGE DECK	149.8 SQ. YDS.		SCARIFYING BRIDGE DECK	1312.0 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	149.8 SQ. YDS.		HYDRO-DEMOLITION OF BRIDGE DECK	1312.0 SQ. YDS.	
GROOVING BRIDGE FLOORS	1232 SQ. FT.		GROOVING BRIDGE FLOORS	11024 SQ. FT.	

NOTES

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

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

FOR LMC-ES OVERLAY, SEE SPECIAL PROVISIONS.

FOR JOINT REPAIR QUANTITIES, SEE SHEET S3-13.

▨ CLASS II SURFACE PREPARATION

▩ JOINT REPAIR

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee
03/18/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 1 OF 5

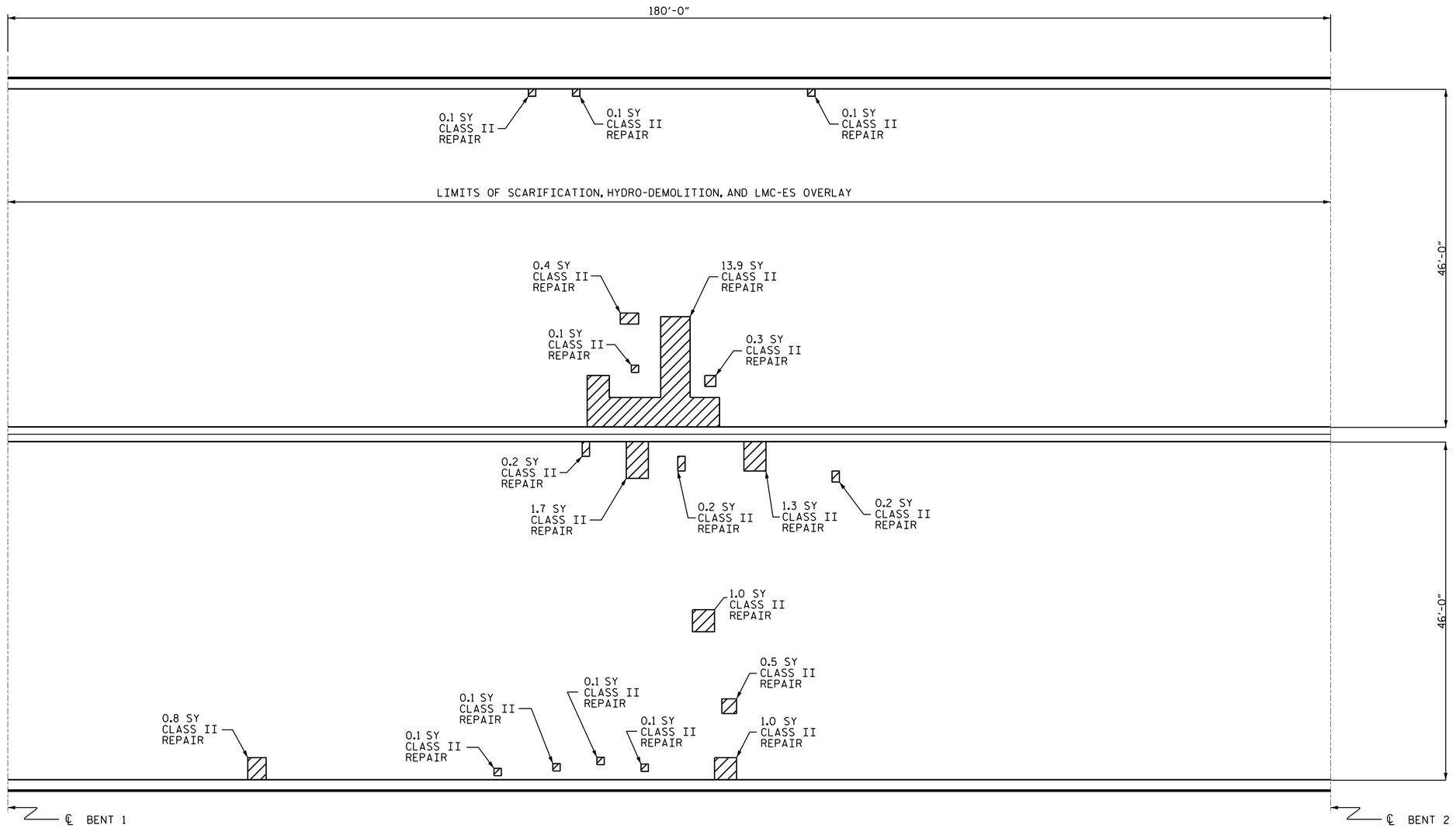
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK SURFACE REPAIR APPROACH SLAB 1 AND SPAN A

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-04
1			3			TOTAL SHEETS
2			4			24

DRAWN BY : E. CABBELL DATE : 02/2022
CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

3/18/2022
R:\Structures\Final Plans\403_007_I5831_SMU_DSR_A_S3-04_560547.dgn
amlee



SPAN B

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPAN B

	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	22.3 SQ. YDS.	
LATEX MODIFIED CONCRETE-EARLY STRENGTH	115.0 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	1840.0 SQ. YDS.	
SCARIFYING BRIDGE DECK	1840.0 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	1840.0 SQ. YDS.	
GROOVING BRIDGE FLOORS	15480.0 SQ. FT.	

NOTES

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

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

FOR LMC-ES OVERLAY, SEE SPECIAL PROVISIONS.

▨ CLASS II SURFACE PREPARATION

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee 03/18/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 2 OF 5

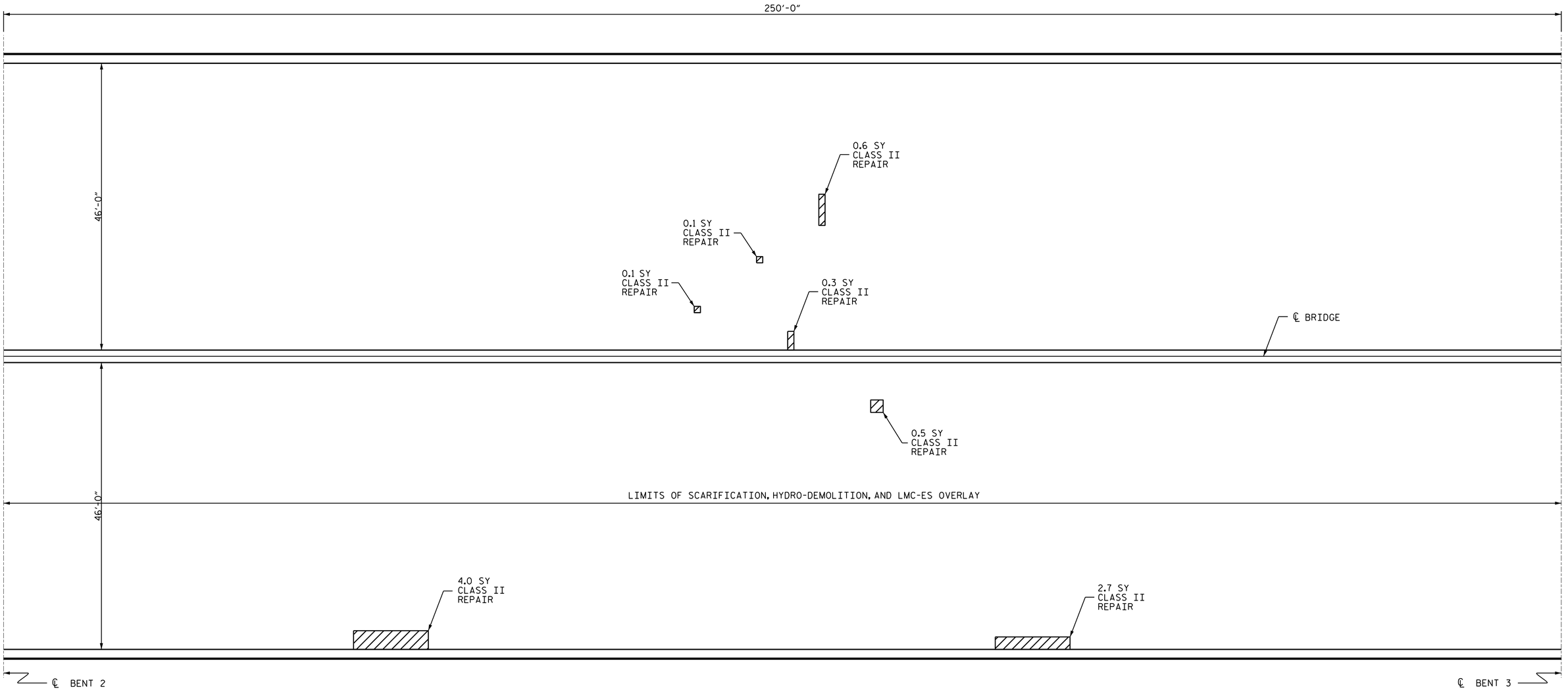
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK SURFACE REPAIR SPAN B

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-05
1			3			TOTAL SHEETS
2			4			24

DRAWN BY : E. CABBELL DATE : 02/2022
CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

3/18/2022
R:\Structures\Final Plans\403_009_I5831_SMU_DSR_B_S3-05_560547.dgn
amlee



SPAN C

AS-BUILT REPAIR QUANTITY TABLE		
DECK SURFACE REPAIRS - SPAN C		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	8.3 SQ. YDS.	
LATEX MODIFIED CONCRETE-EARLY STRENGTH	159.7 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	2555.6 SQ. YDS.	
SCARIFYING BRIDGE DECK	2555.6 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	2555.6 SQ. YDS.	
GROOVING BRIDGE FLOORS	21500.0 SQ. FT.	

NOTES

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

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

FOR LMC-ES OVERLAY, SEE SPECIAL PROVISIONS.

▨ CLASS II SURFACE PREPARATION

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Locklear 03/18/2022

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 3 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

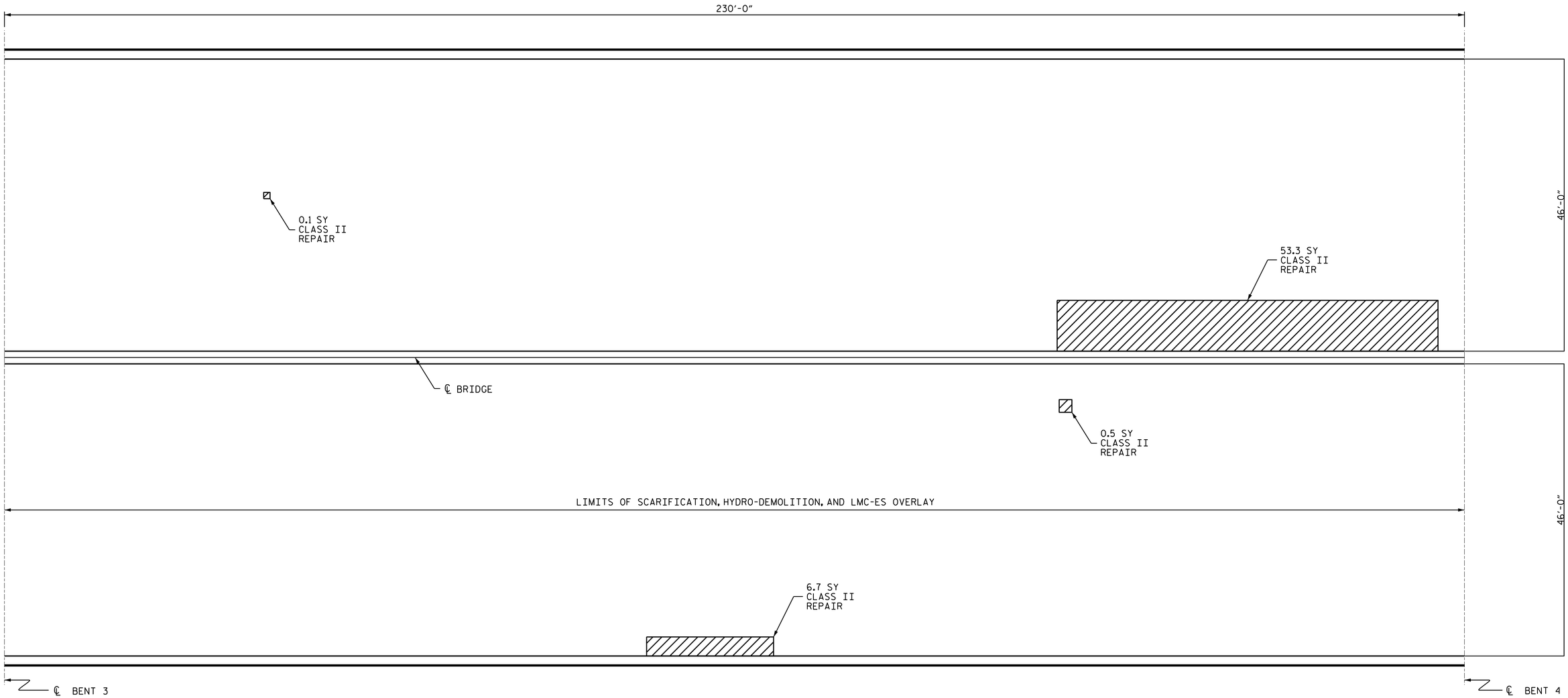
DECK SURFACE REPAIR SPAN C

DRAWN BY : E. CABBELL DATE : 02/2022
CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-06
1			3			TOTAL SHEETS
2			4			24

3/18/2022
R:\Structures\Final Plans\403_011_I5831_SMU_DSR_C_S3-06_560547.dgn
amlee



SPAN D

AS-BUILT REPAIR QUANTITY TABLE		
DECK SURFACE REPAIRS - SPAN D		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	60.6 SQ. YDS.	
LATEX MODIFIED CONCRETE-EARLY STRENGTH	146.9 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	2351.1 SQ. YDS.	
SCARIFYING BRIDGE DECK	2351.1 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	2351.1 SQ. YDS.	
GROOVING BRIDGE FLOORS	19780.0 SQ. FT.	

NOTES

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

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

FOR LMC-ES OVERLAY, SEE SPECIAL PROVISIONS.

▨ CLASS II SURFACE PREPARATION

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by:
03/18/2022

DRAWN BY : E. CABBELL DATE : 02/2022
CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

3/18/2022
R:\Structures\Final Plans\403_013_I5831_SMU_DSR_D_S3-07_560547.dgn
amlee

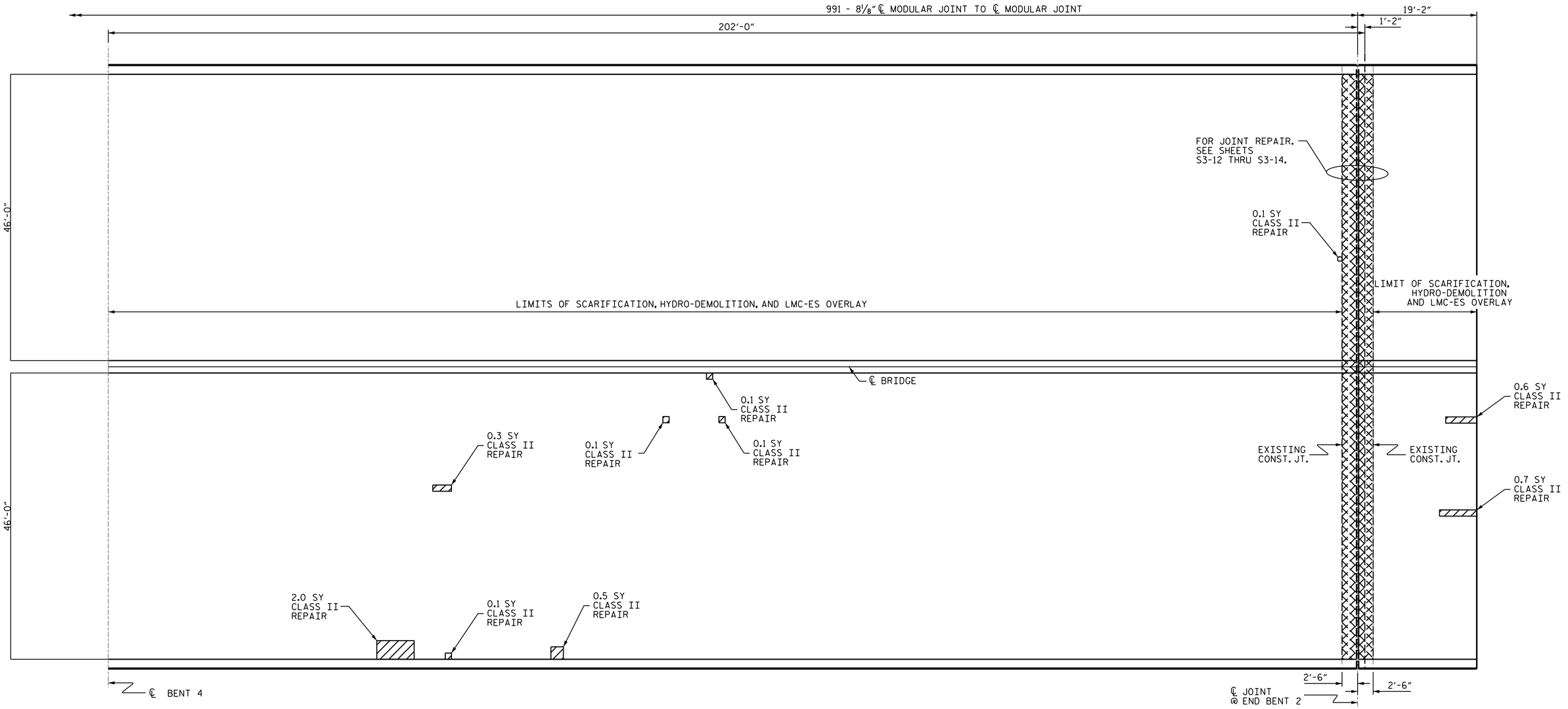
PROJECT NO. I-5831A
MADISON COUNTY
BRIDGE NO. 560547

SHEET 4 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DECK SURFACE REPAIR SPAN D

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-07
1			3			TOTAL SHEETS
2			4			24



SPAN E

APPROACH SLAB 2

AS-BUILT REPAIR QUANTITY TABLE

DECK SURFACE REPAIRS - SPAN E	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	6.0 SQ. YDS.	
LATEX MODIFIED CONCRETE-EARLY STRENGTH	126.7 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	2027.4 SQ. YDS.	
SCARIFYING BRIDGE DECK	2027.4 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	2027.4 SQ. YDS.	
GROOVING BRIDGE FLOORS	17044 SQ. FT.	

DECK SURFCACE REPAIRS - APPROCH SLAB 2	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	1.3 SQ. YDS.	
LATEX MODIFIED CONCRETE-EARLY STRENGTH	10.6 CU. YDS.	
PLACING AND FINISHING LMC-ES OVERLAY	170.4 SQ. YDS.	
SCARIFYING BRIDGE DECK	170.4 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	170.4 SQ. YDS.	
GROOVING BRIDGE FLOORS	1404.0 SQ. FT.	

NOTES

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

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

FOR LMC-ES OVERLAY, SEE SPECIAL PROVISIONS.

FOR JOINT REPAIR QUANTITIES, SEE SHEET S3-13.

▨ CLASS II SURFACE PREPARATION

◇◇◇ JOINT REPAIR

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Miller 03/18/2022

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 5 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

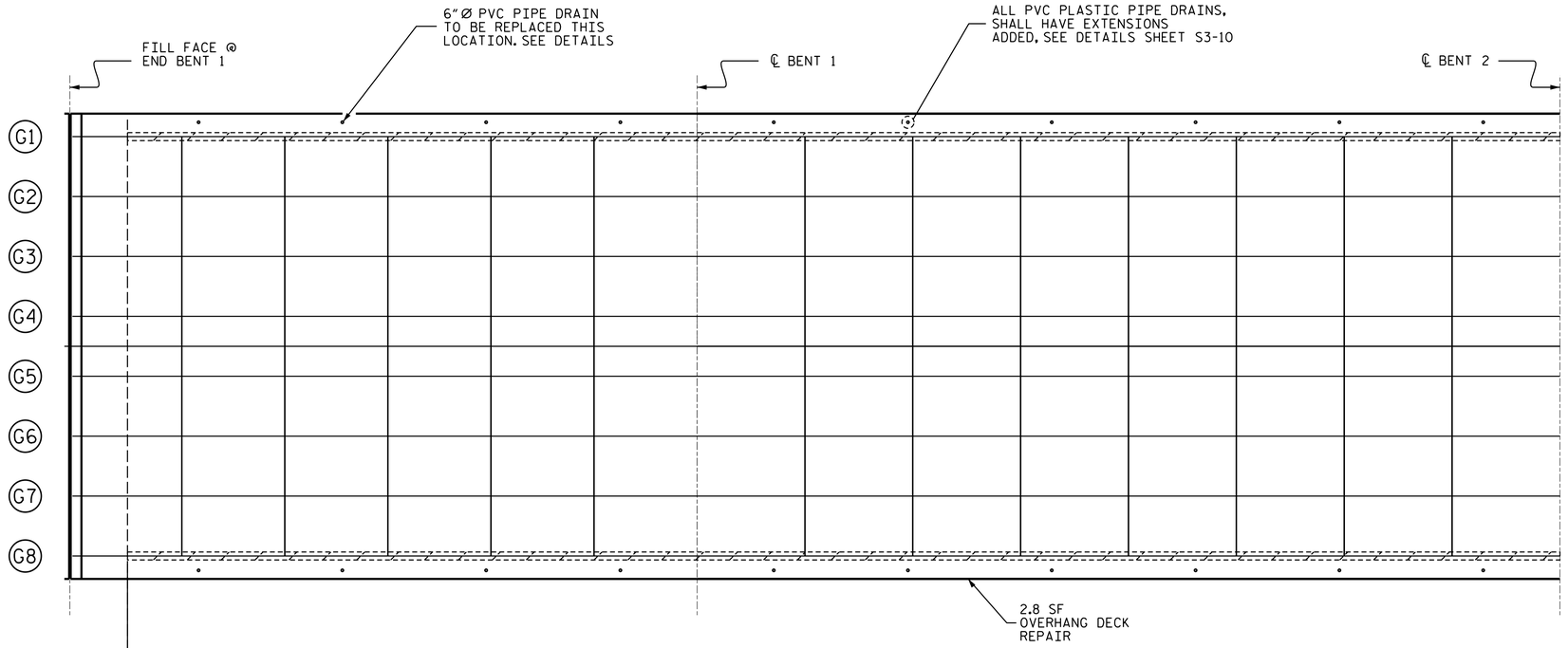
DECK SURFACE REPAIR SPAN E AND APPROACH SLAB 2

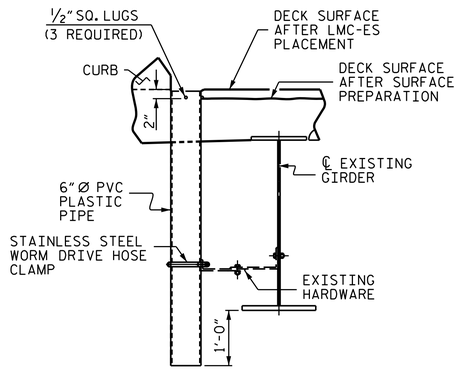
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-08
1			3			TOTAL SHEETS
2			4			24

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : E. CABBELL DATE : 02/2022
CHECKED BY : H.A. LOCKEAR DATE : 02/2022

3/18/2022
R:\Structures\Final Plans\403_015_I5831_SMU_DSR_E_S3-08_560547.dgn
amlee





PIPE DRAIN REPLACEMENT DETAIL

NOTES:

REPLACEMENT OF 6"Ø PIPE DRAIN SHALL TAKE PLACE BEFORE PLACEMENT OF LMC OVERLAY.

THE AREA AROUND THE EXISTING PIPE DRAIN SHALL BE EXCAVATED PRIOR TO REMOVING AND INSTALLING THE NEW PIPE DRAIN.

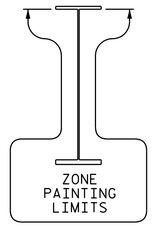
COUPLING IN DRAIN PIPE WILL BE PERMITTED AS APPROVED BY THE ENGINEER.

TOP OF FLOOR DRAIN TO BE SET ⅜"BELOW SURFACE OF OVERLAY.

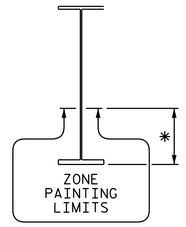
3- ½" SQUARE LUGS TO BE GLUED TO THE PVC PLASTIC PIPE AT EQUAL SPACES AROUND THE PIPE DRAIN APPROXIMATELY 2"FROM THE TOP OF THE PIPE.

STAINLESS STEEL WORM DRIVE HOSE CLAMP SHALL BE COMMERCIAL QUALITY.

THE 6"Ø PVC PLASTIC PIPE AND FITTINGS SHALL BE SCHEDULE 40 AND CONFORM TO ASTM D1785.



DETAIL A
(STANDARD BEAM END)



DETAIL B
(ADDITIONAL BEAM AREA)

ZONE PAINTING LIMITS

AS-BUILT REPAIR QUANTITY TABLE				
UNDERSIDE OF DECK REPAIRS - SPAN A				
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
UNDERSIDE OF DECK		0.0		
END BENT DIAPHRAGM		0.0		
OVERHANG		0.0		
DECK DRAIN REPAIR		EACH	EACH	
DECK DRAIN REPAIR		8.0		

AS-BUILT REPAIR QUANTITY TABLE				
UNDERSIDE OF DECK REPAIRS - SPAN B				
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	2.8	0.9		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
UNDERSIDE OF DECK		0.0		
END BENT DIAPHRAGM		0.0		
OVERHANG		0.0		
DECK DRAIN REPAIR		EACH	EACH	
DECK DRAIN REPAIR		12.0		

NOTES

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

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

FOR DECK DRAIN REPAIRS, SEE SPECIAL PROVISIONS.

FOR PAINTING EXISTING WEATHERING STEEL, SEE SPECIAL PROVISIONS.

ADDITIONAL BEAM PAINTING SHALL BE UNDER THE PAY BID ITEM "PAINTING EXISTING WEATHERING STEEL."

SHOTCRETE REPAIR AREA

ADDITIONAL BEAM PAINT AREA

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee 03/18/2022

DRAWN BY : E CABBELL DATE : 02/2022
CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. I-5831A
MADISON COUNTY
BRIDGE NO. 560547

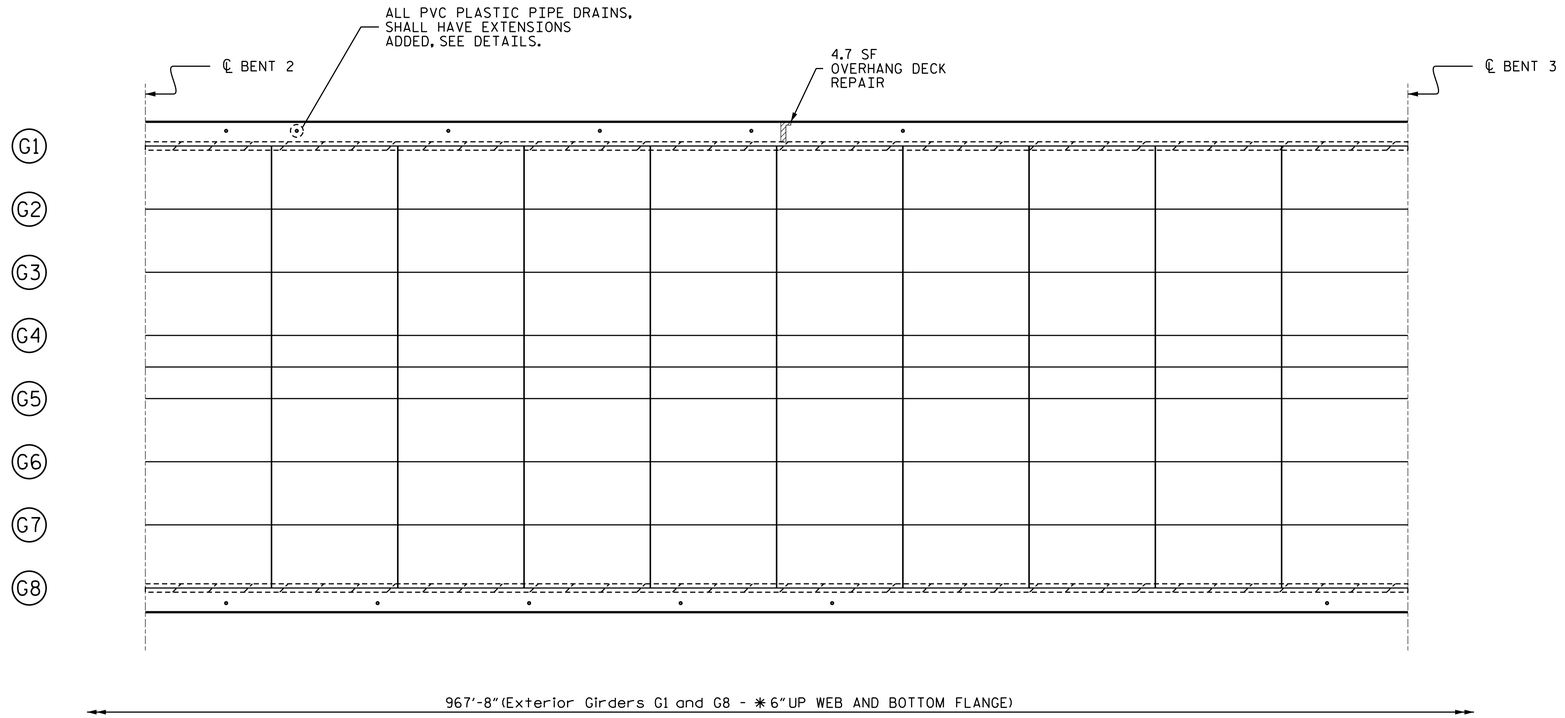
SHEET 1 OF 3

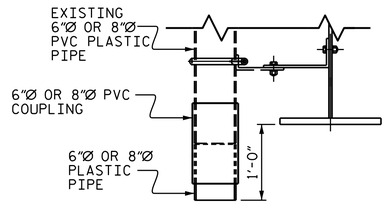
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

UNDERSIDE DECK REPAIRS SPANS A & B

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-09
1			3			TOTAL SHEETS
2			4			24

3/18/2022
R:\Structures\Final Plans\403_017_I5831_SMU_DUR_A_B_S3-09_560547.dgn
amlee





6"OR 8" PIPE DRAIN EXTENSION DETAIL

NOTES

STAINLESS STEEL WORM DRIVE HOSE CLAMP SHALL BE COMMERCIAL QUALITY.

THE PVC PLASTIC PIPE, COUPLER AND FITTINGS SHALL BE SCHEDULE 40 AND CONFORM TO ASTM D1785.

SPAN C

AS-BUILT REPAIR QUANTITY TABLE

UNDERSIDE OF DECK REPAIRS - SPAN C

	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	4.7	1.6		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
UNDERSIDE OF DECK		0.0		
END BENT DIAPHRAGM		0.0		
OVERHANG		0.0		
DECK DRAIN REPAIR		EACH	EACH	
DECK DRAIN REPAIR		11		

NOTES

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

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

FOR DECK DRAIN REPAIRS, SEE SPECIAL PROVISIONS.

FOR PAINTING EXISTING WEATHERING STEEL, SEE SPECIAL PROVISIONS.

ADDITIONAL BEAM PAINTING SHALL BE UNDER THE PAY BID ITEM "PAINTING EXISTING WEATHERING STEEL."

SHOTCRETE REPAIR AREA

ADDITIONAL BEAM PAINT AREA

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 2 OF 3

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Locklear 03/18/2022

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

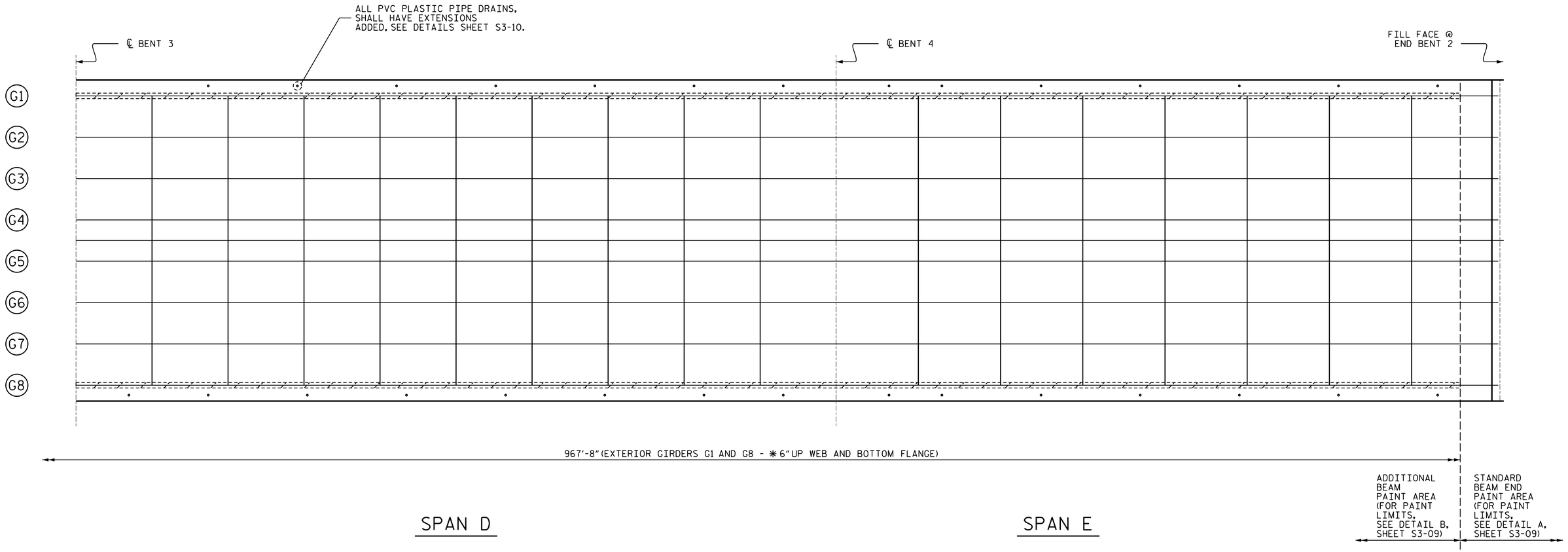
UNDERSIDE DECK REPAIRS SPAN C

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-10
1			3			TOTAL SHEETS
2			4			24

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : E CABBELL DATE : 02/2022
CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

3/18/2022
R:\Structures\Final Plans\403_019_I5831_SMU_DUR_C_S3-10_560547.dgn
amlee



AS-BUILT REPAIR QUANTITY TABLE				
UNDERSIDE OF DECK REPAIRS - SPAN D				
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
UNDERSIDE OF DECK		0.0		
END BENT DIAPHRAGM		0.0		
OVERHANG		0.0		
DECK DRAIN REPAIR		EACH	EACH	
DECK DRAIN REPAIR		16		

AS-BUILT REPAIR QUANTITY TABLE				
UNDERSIDE OF DECK REPAIRS - SPAN E				
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
UNDERSIDE OF DECK	0.0	0.0		
END BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
UNDERSIDE OF DECK		0.0		
END BENT DIAPHRAGM		0.0		
OVERHANG		0.0		
DECK DRAIN REPAIR		EACH	EACH	
DECK DRAIN REPAIR		14		

NOTES

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

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

FOR DECK DRAIN REPAIRS, SEE SPECIAL PROVISIONS.

FOR PAINTING EXISTING WEATHERING STEEL, SEE SPECIAL PROVISIONS.

ADDITIONAL BEAM PAINTING SHALL BE UNDER THE PAY BID ITEM "PAINTING EXISTING WEATHERING STEEL."

SHOTCRETE REPAIR AREA

ADDITIONAL BEAM PAINT AREA

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 3 OF 3

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by: Amber Lee 03/18/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

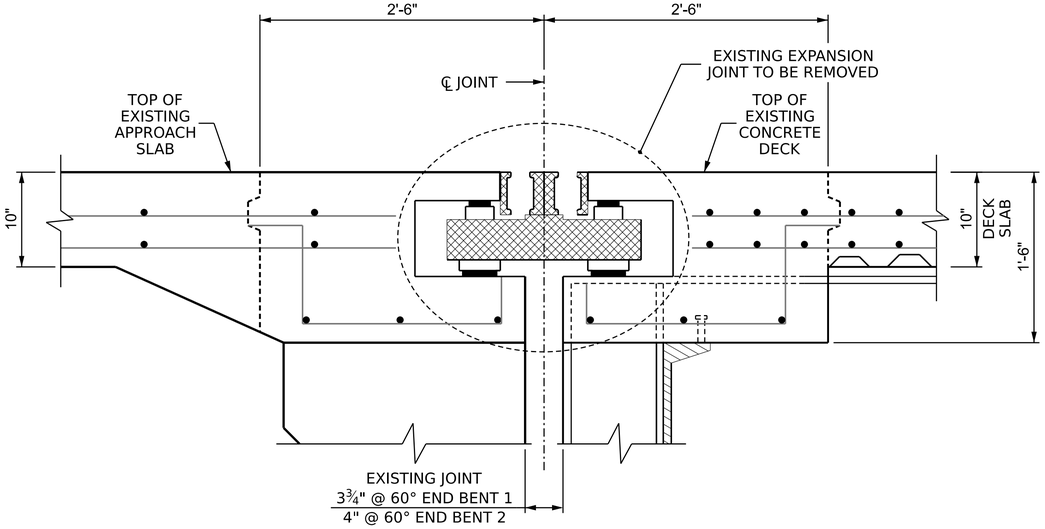
UNDERSIDE DECK REPAIRS SPANS D & E

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-11
1			3			TOTAL SHEETS
2			4			24

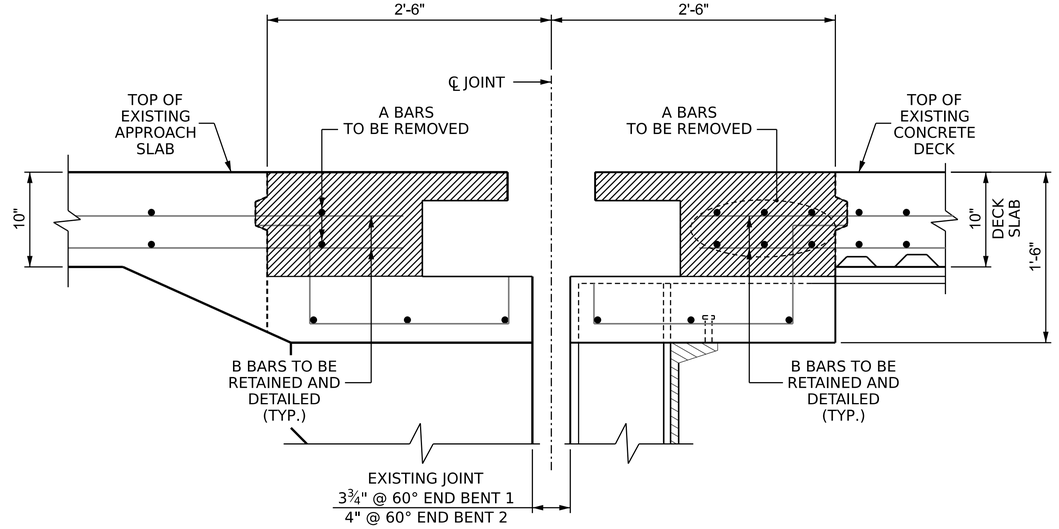
DRAWN BY : E CABBELL DATE : 02/2022

CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

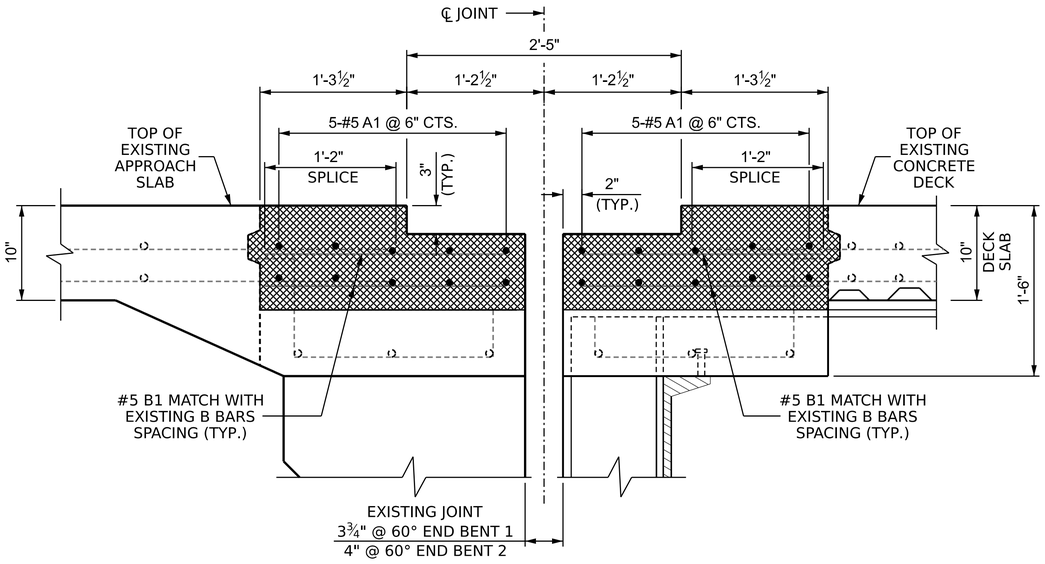
3/18/2022
R:\Structures\Final Plans\403_021_I5831_SMU_DUR_D_E_S3-11_560547.dgn
amlee



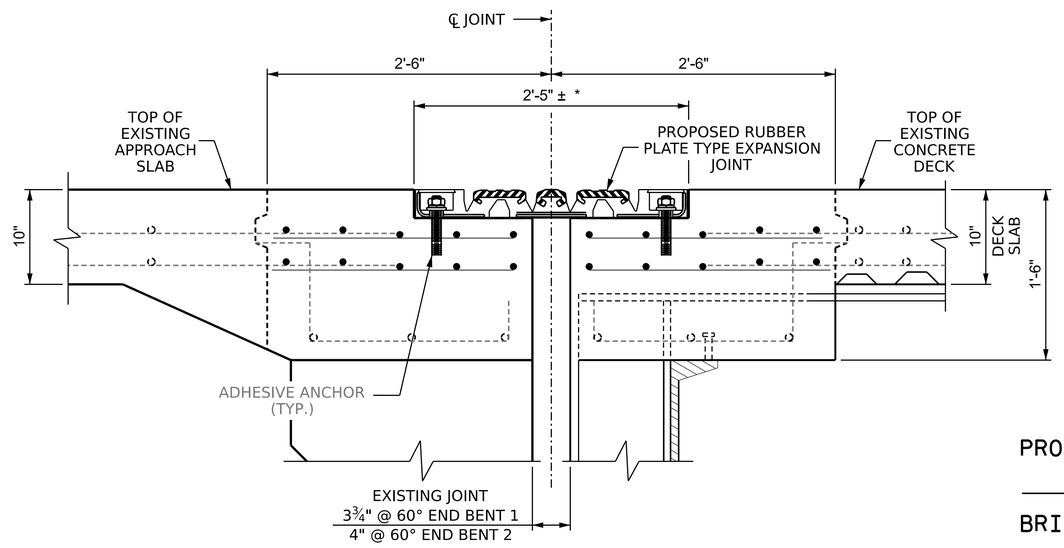
EXISTING MODULAR JOINT
(AT MODULAR JT. BOXES)



MODULAR JOINT REMOVED
(AT MODULAR JT. BOXES)



CONCRETE AND REINFORCING STEEL REPLACEMENT
(AT MODULAR JT. BOXES)



PROPOSED JOINT REPAIR
(AT MODULAR JT. BOXES)
(REINFORCING MAY BE SHIFTED SLIGHTLY)

SECTION A-A

NOTES

EXISTING MODULAR EXPANSION JOINT DETAIL ARE SHOWN FOR INFORMATION ONLY. ACTUAL FIELD CONDITIONS MAY VARY. THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT IF ACTUAL CONDITIONS VARY FROM WHAT IS SHOWN IN THESE PLANS.

THE CONTRACTOR SHALL HAVE A REPRESENTATIVE FROM THE JOINT MANUFACTURER PRESENT DURING INSTALLATION OF PROPOSED EXPANSION JOINT SEAL.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

THE CONTRACTOR SHALL PREPARE THE BOTTOM SURFACE OF BLOCKOUT TO BE PARALLEL WITH THE PLANE OF THE ROADWAY AND PROVIDE A UNIFORM SURFACE.

ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

FOR JOINT REPAIR, SEE SPECIAL PROVISIONS.

FOR JOINT REPAIR QUANTITIES, SEE SHEET S3-13.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

EXISTING CONCRETE TO BE REMOVED

NEW CONCRETE FOR DECK REPAIR

* TO BE VERIFIED BY MANUFACTURER

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 1 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENTS MODULAR JOINT REPLACEMENT

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

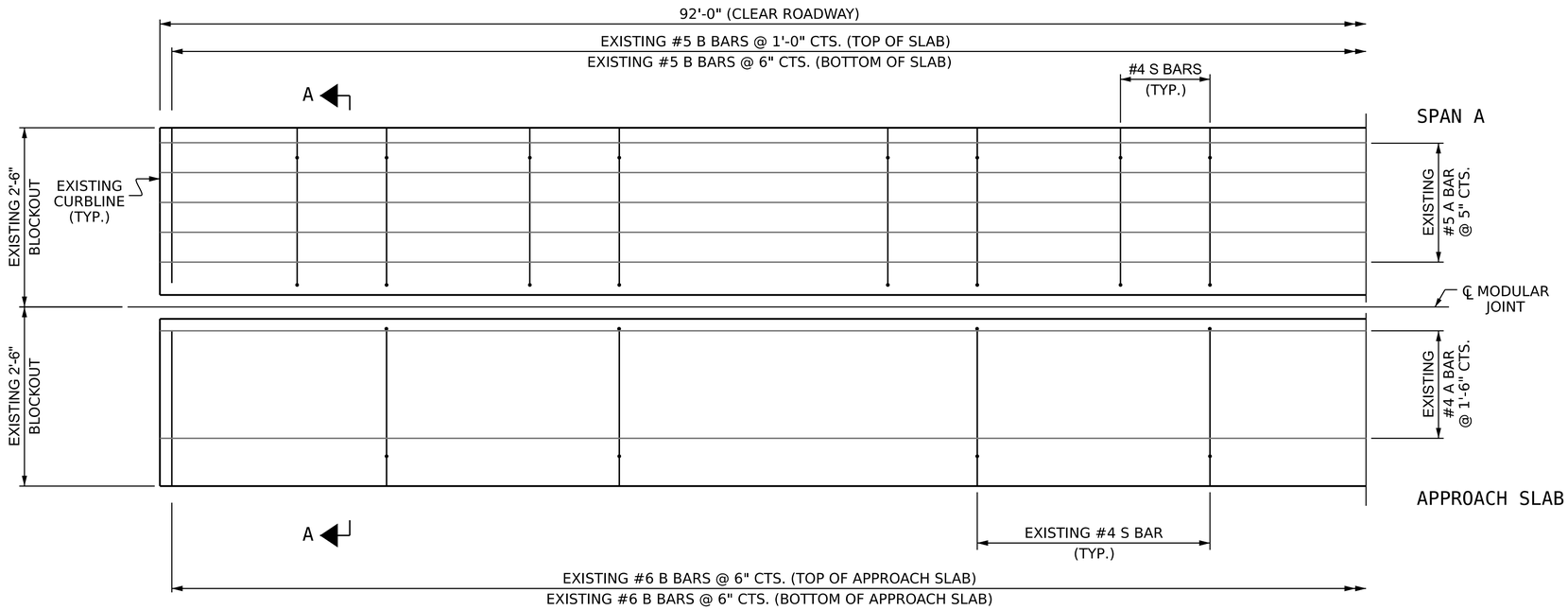
DocuSigned by: Amber Lee
03/18/2022

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-12
1			3			TOTAL SHEETS
2			4			24

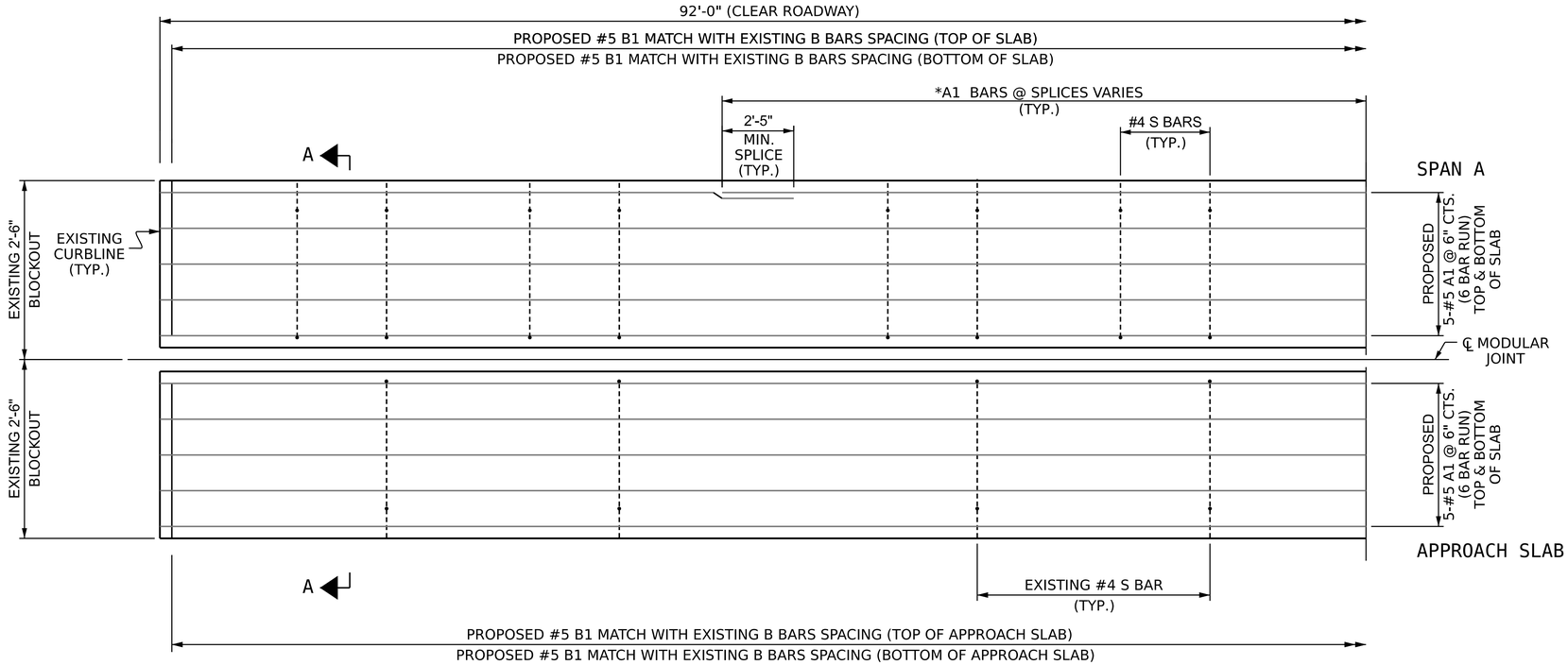
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : A. SORSENGINH DATE : 2/2022
CHECKED BY : H. A. LOCKLEAR DATE : 2/2022

3/18/2022
R:\Structures\FinalPlans\403_023_I5831_SMU_JT_S3-12_560547.dgn
amlee



EXISTING PARTIAL PLAN



PROPOSED PARTIAL PLAN

BILL OF MATERIAL

FOR END BENT 1 OR 2

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	120	#5	STR	18'-0"	2253
* B1	192	#5	STR	2'-2"	434

EPOXY COATED REINFORCING STEEL	2687 LBS.
LATEX MODIFIED CONCRETE-EARLY STRENGTH	13.7 CU.YD.
JOINT REPAIR	432.0 SQ.FT.
MOLDED RUBBER SEGMENTAL EXPANSION JOINT	96'-0" LIN. FT.

NOTES

FOR JOINT REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

THE EPOXY COATED REINFORCING STEEL LENGTH IS SPECIFIED FOR THE ANTICIPATED LANE CLOSURES. THE CONTRACTOR MAY ADJUST THE LENGTH OF THE REBAR BASED ON THE ACTUAL PLANNED LANE CLOSURES.

PROJECT NO. I-5831A

MADISON COUNTY

BRIDGE NO. 560547

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PARTIAL PLAN MODULAR JOINT REPLACEMENT AT END BENT 1 END BENT 2 SIMILAR

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

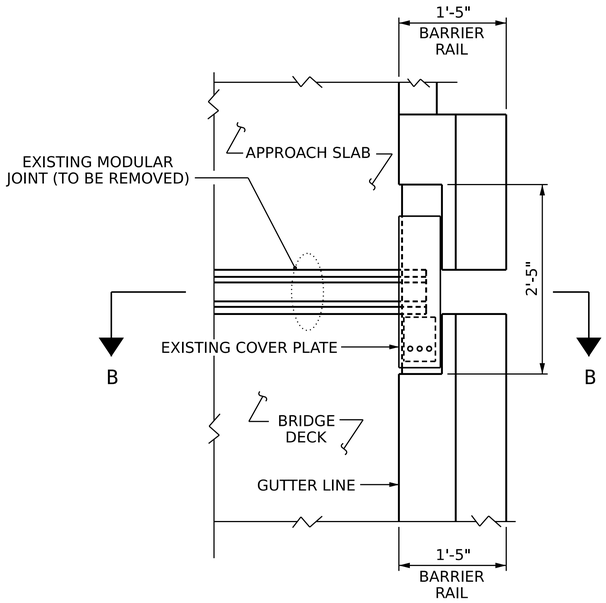
DocuSigned by: Amber Lee 03/18/2022

DRAWN BY : A. SORSENGINH DATE : 2/2022
CHECKED BY : H. A. LOCKLEAR DATE : 2/2022

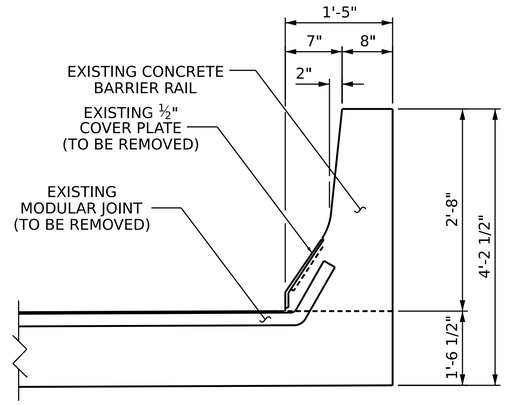
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-13
1			3			TOTAL SHEETS
2			4			24

3/18/2022
R:\Structures\Final Plans\403_025_I5831_SMU_JT_S3-13_560547.dgn
amlee



PLAN OF EXISTING MODULAR
EXPANSION JOINT SEAL



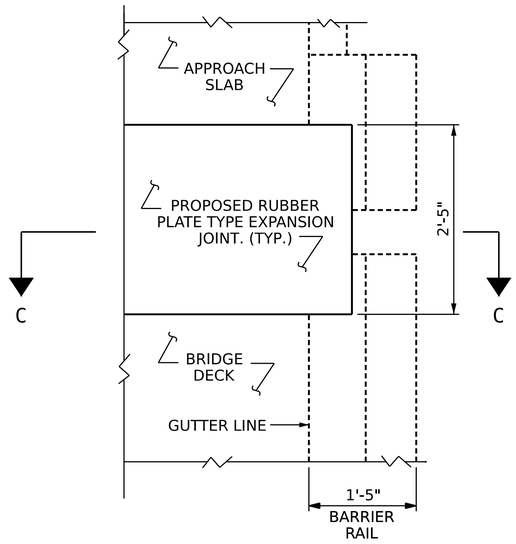
SECTION B-B

NOTES

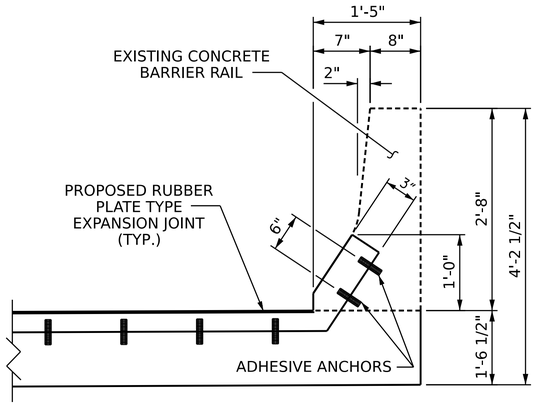
THE CONTRACTOR SHALL CUT THE EXISTING #5 "S" REBARS EXTENDING INTO THE BARRIER FROM THE DECK AND THE LONGITUDINAL #5 REBAR WITHIN THE LIMIT OF THE PROPOSED RUBBER PLATE JOINT. ALL EXPOSED ENDS OF THESE BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.

FOR JOINT REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.



PLAN OF PROPOSED
EXPANSION JOINT SEAL



SECTION C-C

(THE NEW RUBBER PLATE BRIDGE JOINT SHALL BE TURNED UP AND FLUSH WITH THE FACE OF THE BARRIER)

PROJECT NO. I-5831A

MADISON COUNTY

STATION: 560547

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT DETAIL AT THE BARRIER RAIL END BENT 1 END BENT 2 SIMILAR

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

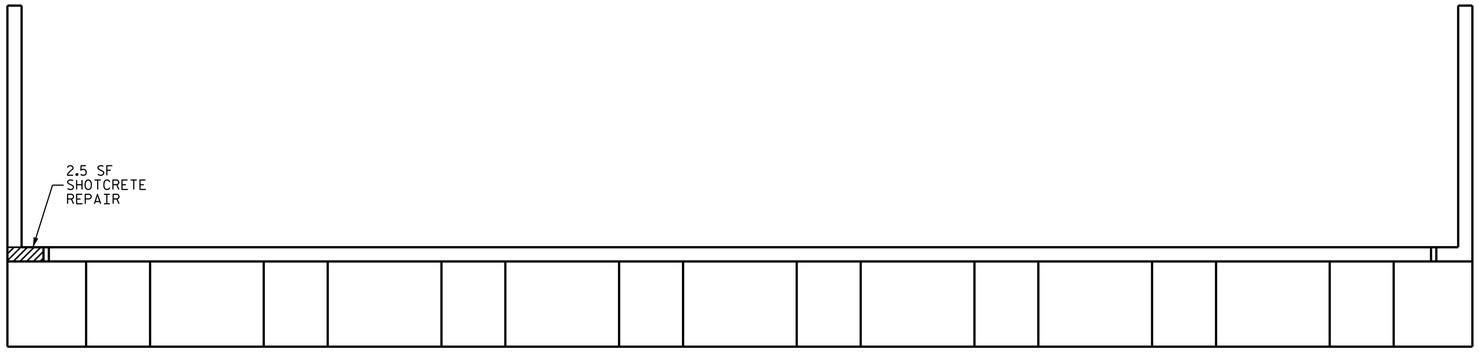
DocuSigned by:
Amber Lee
03/18/2022

REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO. S3-14
1			3			TOTAL SHEETS 24
2			4			

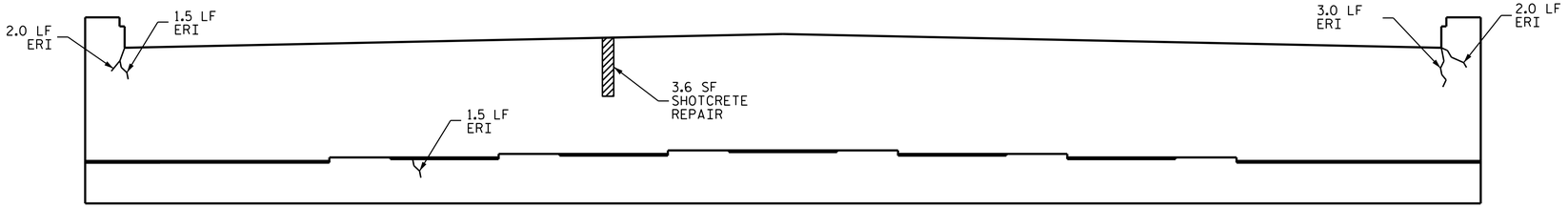
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : A. SORSENGINH DATE : 2/2022
CHECKED BY : H. A. LOCKLEAR DATE : 2/2022

3/18/2022
R:\Structures\FinalPlans\403_027_I5831_SMU_JT_S3-14_560547 .dgn
amlee



PLAN
(END BENT 1)



ELEVATION
(END BENT 1)

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	3.6	1.8		
WING WALL	2.5	1.3		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	0.0	0.0		
CURTAIN WALL	0.0	0.0		
WING WALL	0.0	0.0		
EPOXY RESIN INJECTION		LIN. FT.	LIN. FT.	
CAP		1.5		
CURTAIN WALL		4.5		
WING WALL		4.0		
EPOXY COATING		SQ. FT.	SQ. FT.	
CAP		618.5		

NOTES

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

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR "TYPICAL CAP AND COLUMN REPAIR DETAILS," SEE SHEET SD-01.

SHOTCRETE REPAIR AREA

CONCRETE REPAIR AREA

ERI - EPOXY RESIN INJECTION

PROJECT NO. I-5831A
MADISON COUNTY
BRIDGE NO. 560547

NORTH CAROLINA PROFESSIONAL SEAL 031021 ENGINEER AMBER M. LEE

DocuSigned by:
Amber Lee
03/18/2022

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT 1

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-15
1			3			TOTAL SHEETS
2			4			24

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : CL BRIGHT DATE : 04/2019
CHECKED BY : H.A. LOCKLEAR DATE : 02/2022

3/18/2022
R:\Structures\Final Plans\403_029_I5831_SMU_EBI_S3-15_560547.dgn
amlee