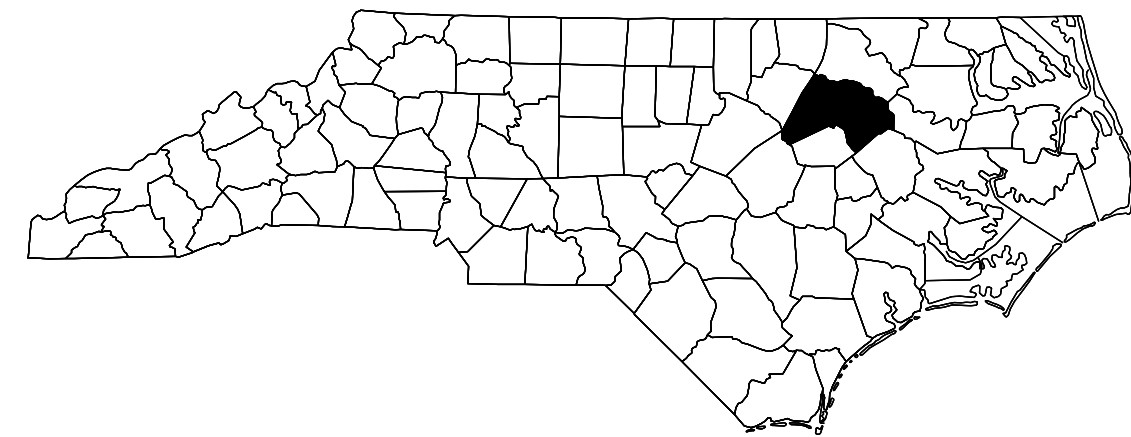


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CONTRACT NO: C204453 PROJECT: 15BPR.47



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

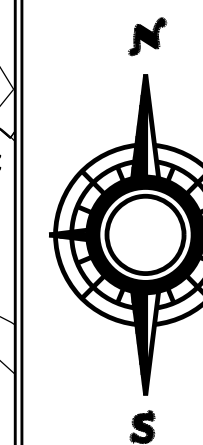
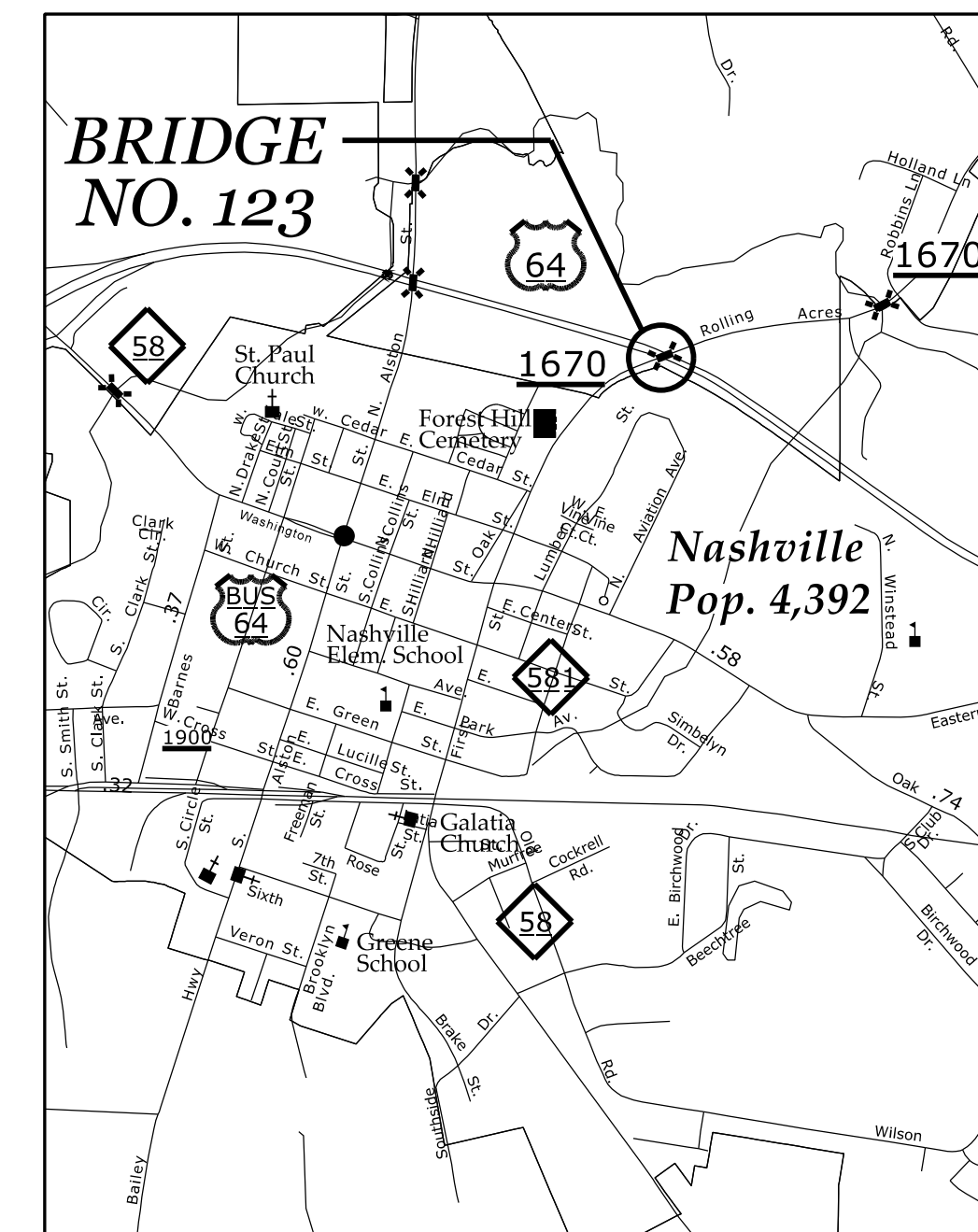
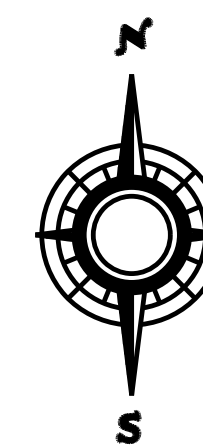
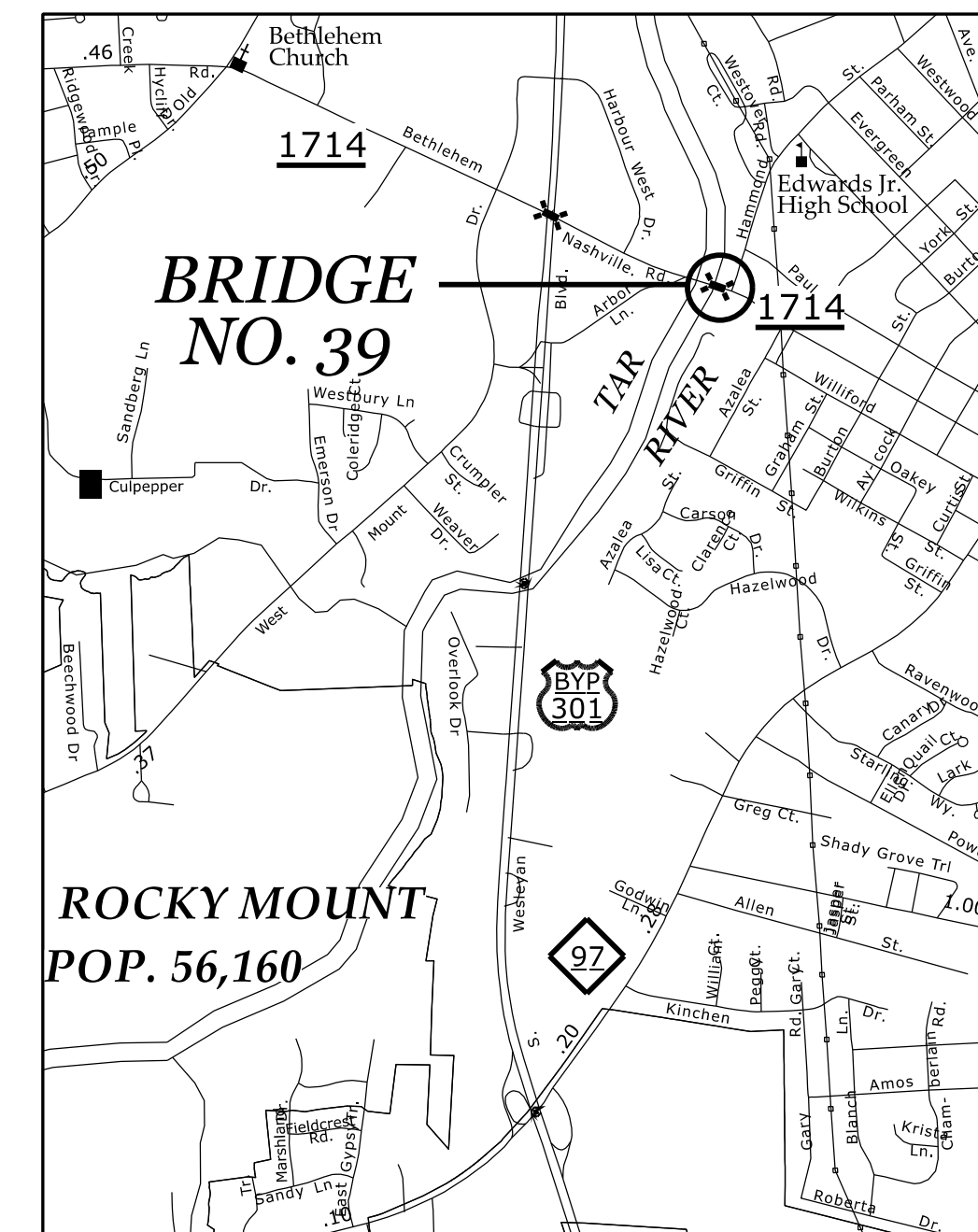
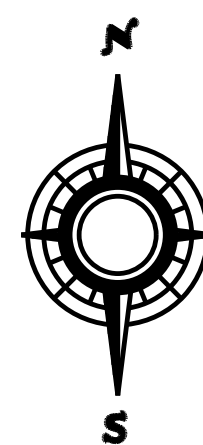
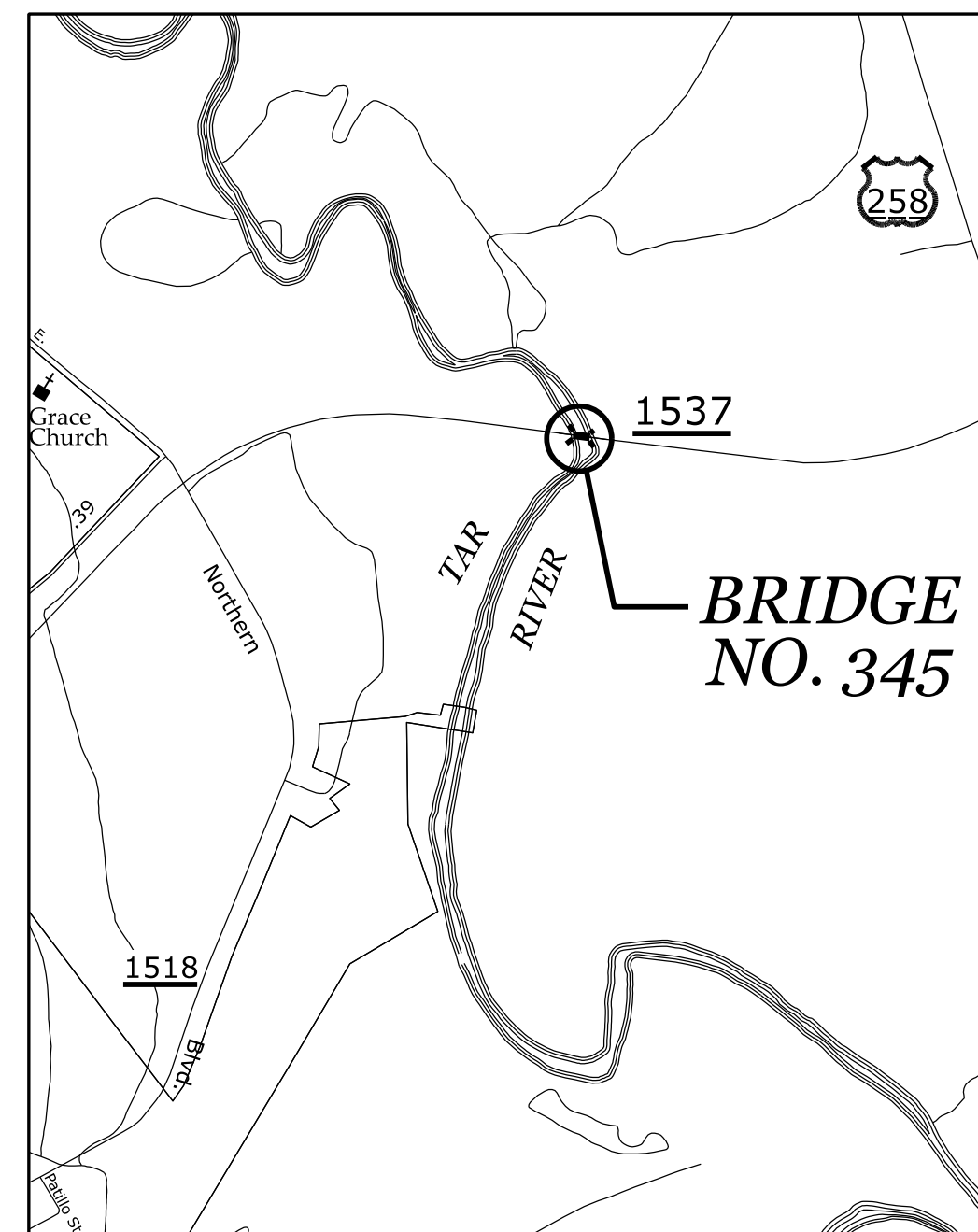
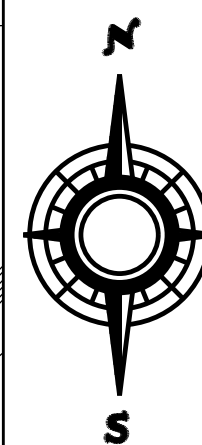
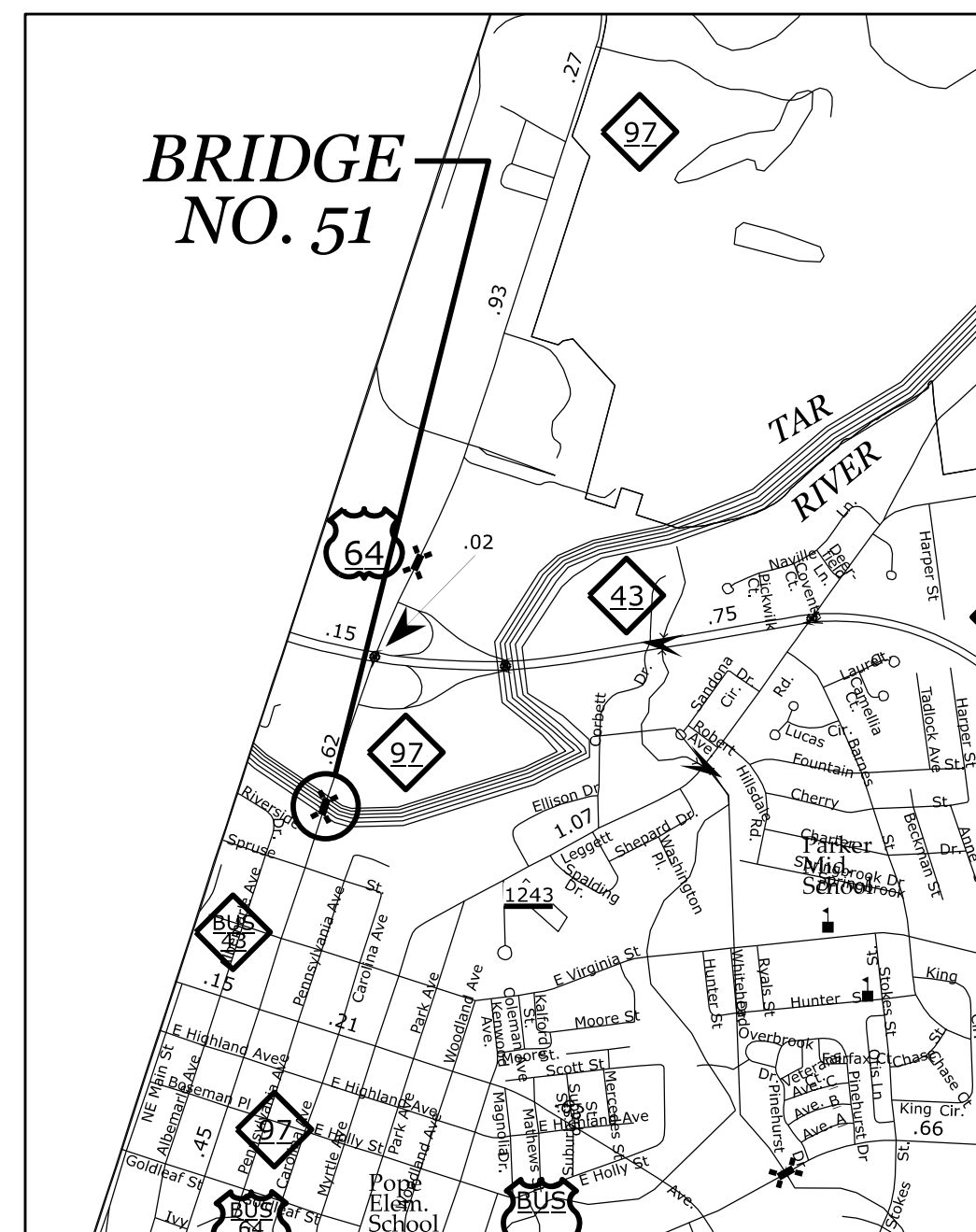
EDGECOMBE & NASH COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	15BPR.47	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
15BPR.47		P.E.	
15BPR.47		CONST.	

LOCATION: **EDGECOMBE CO.:** BRIDGE #320051 ON NC 97 OVER TAR RIVER.
BRIDGE #320345 ON SR 1537 OVER TAR RIVER.

NASH CO.: BRIDGE #630039 ON SR 1714 OVER TAR RIVER.
BRIDGE #630123 ON SR 1670 OVER US 64.

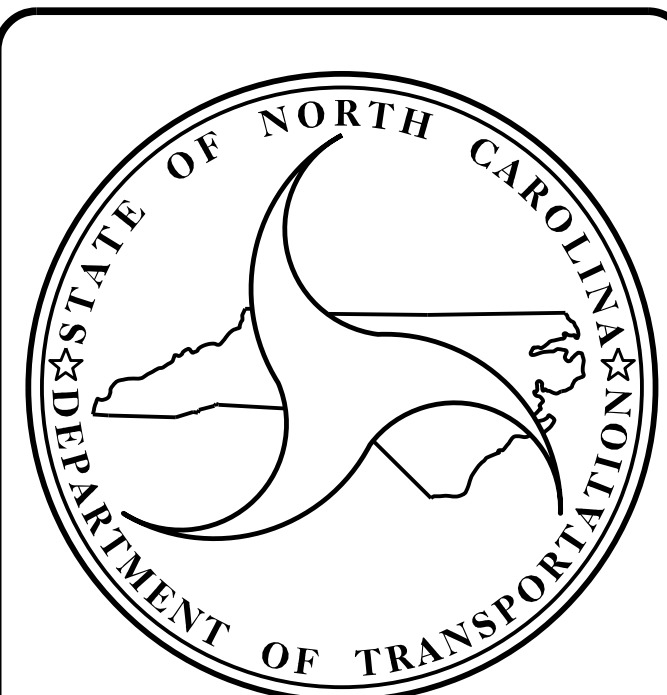
TYPE OF WORK: CONCRETE BRIDGE DECK REHABILITATION BY SCARIFICATION, HYDRO-DEMOLITION, PLACEMENT OF LATEX MODIFIED CONCRETE, SHOTBLASTING AND SILANE DECK TREATMENT; DEMOLITION AND RECONSTRUCTION OF BRIDGE DECK JOINTS AND SEALS; 2 BAR METAL RAIL RETROFIT; STEEL BEAM REPAIRS, PAINTING OF EXISTING BRIDGE STRUCTURES, AND SUBSTRUCTURE REPAIRS WITH SHOTCRETE.



EDGECOMBE COUNTY

NASH COUNTY

VICINITY MAP



DESIGN DATA

BRIDGE #320051 ADT 2019	=	5,800
BRIDGE #320345 ADT 2018	=	1,500
BRIDGE #630039 ADT 2017	=	14,000
BRIDGE #630123 ADT 2018	=	2,600

PROJECT LENGTH

BRIDGE #320051	=	0.054 MILES
BRIDGE #320345	=	0.292 MILES
BRIDGE #630039	=	0.045 MILES
BRIDGE #630123	=	0.053 MILES

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

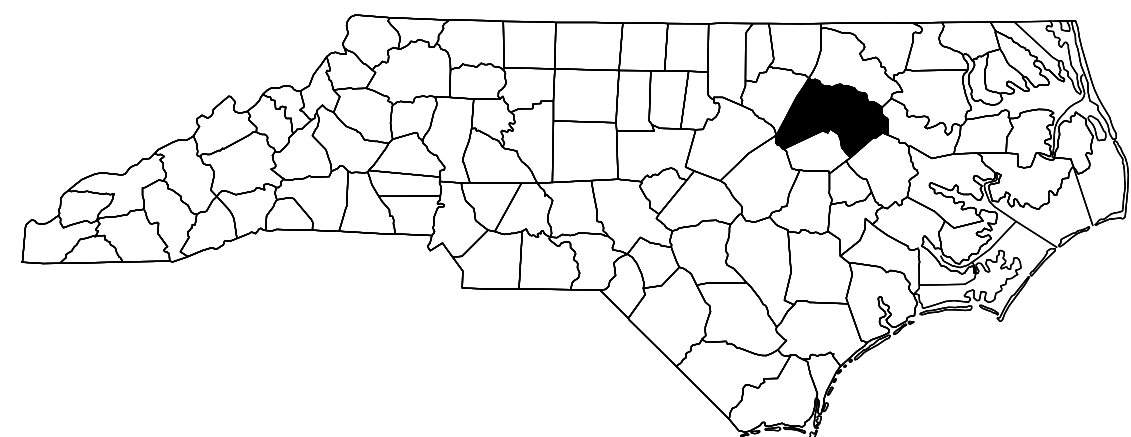
2018 STANDARD SPECIFICATIONS

LETTING DATE :
JULY 19, 2022

Kristy W. Alford, P.E., CPM
PROJECT ENGINEER

Aster G. Abraha, P.E.
PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS



EDGECOMBE & NASH COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	15BPR.47	1A	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
15BPR.47		P.E.	
15BPR.47	---	CONST.	

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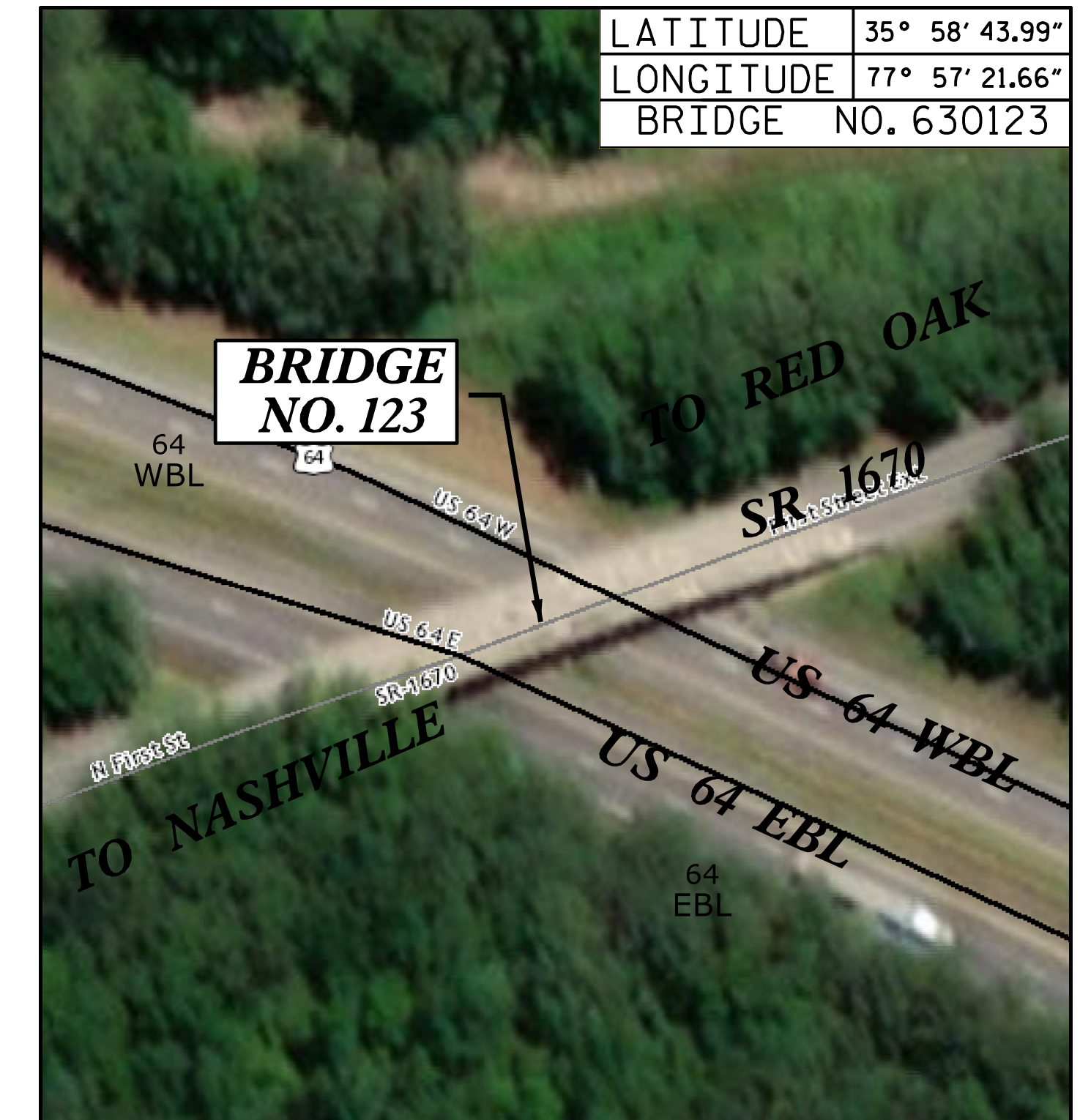
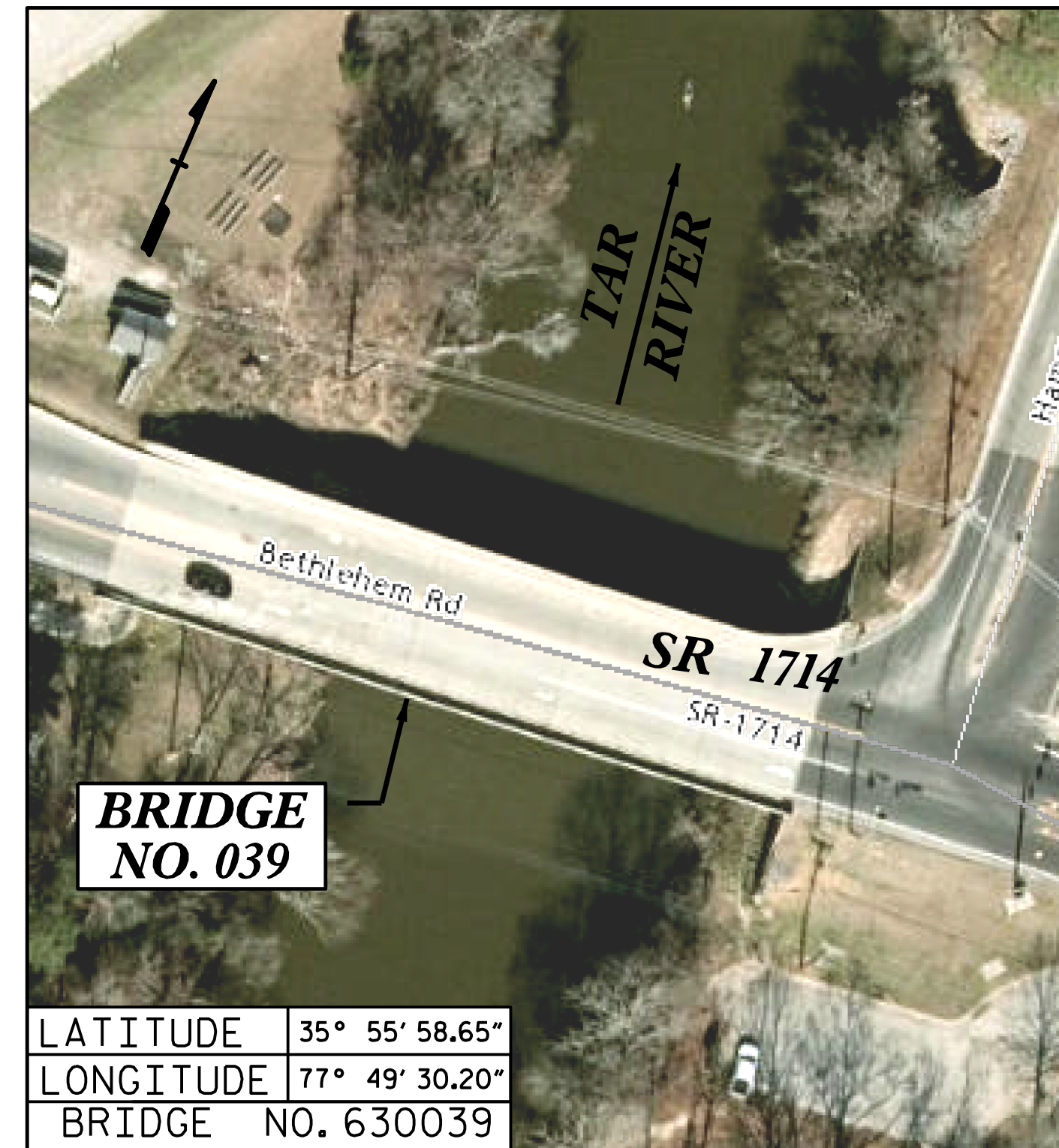
TYPE OF WORK: CONCRETE BRIDGE DECK REHABILITATION BY SCARIFICATION, HYDRO-DEMOLITION AND PLACEMENT OF LATEX MODIFIED CONCRETE, SHOTBLASTING AND SILANE DECK TREATMENT; DEMOLITION AND RECONSTRUCTION OF BRIDGE DECK JOINTS AND SEALS; 2 BAR METAL RAIL RETROFIT; STEEL BEAM REPAIRS; PAINTING OF EXISTING BRIDGE STRUCTURES; AND SUBSTRUCTURE REPAIRS WITH SHOTCRETE.

INDEX OF SHEETS

<u>SHEET No.</u>	<u>DESCRIPTION</u>	<u>SHEET No.</u>	<u>DESCRIPTION</u>	<u>SHEET No.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET	STRUCTURE No. 320345		S3-32	STEEL KEEPER ANGLE ASSEMBLY DETAILS
1A	INDEX OF SHEETS	S2-1 THRU S2-2	GENERAL DRAWING	S3-33	SUBSTRUCTURE REPAIR DETAILS
S-1	LOCATION SKETCHES	S2-3	TYPICAL SECTION	STRUCTURE No. 630123	
S-2	TOTAL BILL OF MATERIALS	S2-4	SILANE DECK TREATMENT	S4-1	GENERAL DRAWING
STRUCTURE No. 320051		STRUCTURE No. 630039		S4-2	TYPICAL SECTION
S1-1	GENERAL DRAWING	S3-1	GENERAL DRAWING	S4-3 THRU S4-6	SURFACE PREPARATION
S1-2	TYPICAL SECTION	S3-2 THRU S3-3	TYPICAL SECTION	S4-7 THRU S4-8	UNDERSIDE DECK REPAIRS
S1-3 THRU S1-9	SURFACE PREPARATION	S3-4 THRU S3-8	SURFACE PREPARATION	S4-9	JOINT REPAIR DETAILS
S1-10 THRU S1-15	UNDERSIDE DECK REPAIR	S3-9 THRU S3-13	UNDERSIDE DECK REPAIRS	S4-10	END BENTS
S1-16 THRU S1-17	JOINT REPAIR DETAILS	S3-14	JOINT REPAIR DETAILS	S4-11 THRU S4-13	BENTS
S1-18	END BENTS	S3-15 THRU S3-19	2 BAR METAL RAIL	S4-14	APPROACH MILLING
S1-19 THRU S1-23	BENTS	S3-20	END BENTS	S4-15	DECK REPAIR DETAILS
S1-24	APPROACH MILLING	S3-21 THRU S3-24	BENTS	S4-16	OVERHANG & DIAPHRAGM REPAIR DETAILS
S1-25	DECK REPAIR DETAILS	S3-25	APPROACH MILLING	S4-17	STRUCTURAL STEEL REPAIR DETAILS
S1-26	OVERHANG & DIAPHRAGM REPAIR DETAILS	S3-26	DECK REPAIR DETAILS	S4-18	SUBSTRUCTURE REPAIR DETAILS
S1-27 THRU S1-28	STRUCTURAL STEEL REPAIR DETAILS	S3-27	OVERHANG & DIAPHRAGM REPAIR DETAILS	SN	STANDARD SHEETS
S1-29	BRIDGE JACKING DETAILS	S3-28 THRU S3-30	STRUCTURAL STEEL REPAIR DETAILS		STANDARD NOTES
S1-30	DECK DRAIN EXTENSION DETAILS	S3-31	BRIDGE JACKING DETAILS		
S1-31	SUBSTRUCTURE REPAIRS				

PROJECT: 15BPR.47

CONTRACT NO: C204453



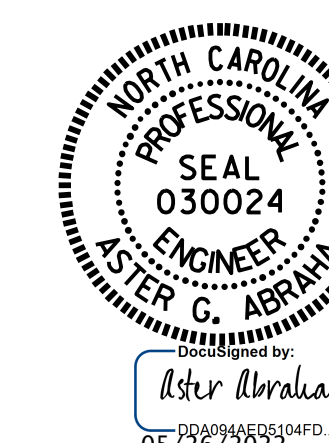
LOCATION SKETCHES

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.

PROJECT NO. 15BPR.47

EDGECOMBE & NASH COUNTIES

BRIDGES NO. : 320051, 320345, 630039 & 630123



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
LOCATION SKETCHES

DRAWN BY : S. T. SANDOR/A. Y. GODFREY DATE : 08/2021
CHECKED BY : S. WANCE DATE : 04/2022

5/26/2022
R:\Structures\Plans\400.005.15BPR.47_SMU.LS.S01.dgn
aygodfrey

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GENERAL NOTES:

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT DUE TO THE NATURE OF PRESERVATION PROJECTS, THE EXTENT OF WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO COMMENCEMENT OF WORK. REPAIR LOCATIONS AND ESTIMATES 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 SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS.

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

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

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

WORK ON THE BRIDGE(S) SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW, EXCEPT WHERE THE CONTRACTOR PLANS TO USE PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES TO CATCH THE MATERIAL. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

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

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

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

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

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.

ALL PAVEMENT MARKINGS WILL BE IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

FOR 2 BAR METAL RAIL RETROFIT, SEE SPECIAL PROVISIONS.

FOR CONCRETE ATTACHMENT POST, SEE "2 BAR METAL RAIL RETROFIT" SPECIAL PROVISION.

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

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

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

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

FOR LATEX MODIFIED CONCRETE OVERLAY, PLACING & FINISHING OF LATEX MODIFIED CONCRETE OVERLAY AND GROOVING BRIDGE FLOORS, SEE "LATEX MODIFIED CONCRETE OVERLAY" SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

FOR BEAM REPAIR-PLATING, SEE SPECIAL PROVISIONS.

FOR BEAM REPAIR-CUT OUT, SEE SPECIAL PROVISIONS.

FOR BOLTED BEAM REPAIR, SEE SPECIAL PROVISIONS.

FOR CLEANING AND PAINTING EXISTING BEARINGS WITH HRCSA, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR PAINTING CONTAINMENT AND POLLUTION CONTROL, SEE "PAINTING EXISTING STRUCTURE" SPECIAL PROVISION.

FOR PAINTING EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EXTENSION OF EXISTING DECK DRAINS, SEE SPECIAL PROVISIONS.

FOR VOLUMETRIC MIXER, SEE SPECIAL PROVISIONS.

FOR BRIDGE JACKING, SEE SPECIAL PROVISIONS.

FOR SHOTBLASTING BRIDGE DECK AND SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

FOR KEEPER ANGLE ASSEMBLY, SEE SPECIAL PROVISIONS.

FOR ANCHOR BOLT REPAIR, SEE SPECIAL PROVISIONS.

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

ITEM	DESCRIPTION	UNIT
1	CONCRETE DECK REPAIR FOR SILANE TREATMENT	SO. FT.
2	ANCHOR BOLT REPAIR	EA.
3	STEEL KEEPER ANGLE ASSEMBLY	EA.
4	TYPE II BRIDGE JACKING BRIDGE NO.	EA.

TOTAL BILL OF MATERIAL

BRIDGE NO.	INCIDENTAL MILLING	ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	ASPHALT BINDER FOR PLANT MIX	GROOVING BRIDGE FLOORS	POLLUTION CONTROL	CLASS II SURFACE PREPARATION	CLASS III SURFACE PREPARATION	LATEX MODIFIED CONCRETE OVERLAY	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY	CONCRETE REPAIRS	SHOTCRETE REPAIRS	CLEANING AND REPAINTING OF BRIDGE #..	EXTENSION OF EXISTING DECK DRAINS	PAINTING CONTAINMENT FOR BRIDGE #..	VOLUMETRIC MIXER
	SO. YDS.	TONS	TONS	SO. FT.	LUMP SUM	SO. YD.	SO. YD.	CU. YD.	SO. YD.	CU. FT.	CU. FT.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM
320051	273.4	30.0	5.0	14,138.9	LUMP SUM	53.2	0.0	74.2	1,690.2	14.3	176.7	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM
320345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
630039	477.8	60.0	5.0	9,524.3	LUMP SUM	75.6	0.0	84.2	1,142.2	5.9	37.7	LUMP SUM	-	LUMP SUM	LUMP SUM
630123	250.8	30.0	5.0	6,837.1	LUMP SUM	164.0	3.6	68.0	855.6	0.0	234.6	LUMP SUM	-	LUMP SUM	LUMP SUM
TOTAL	1,002.0	120.0	15.0	30,500.3	LUMP SUM	292.8	3.6	226.4	3,688.0	20.2	449.0	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM

BRIDGE NO.	2 BAR METAL RAIL	CONCRETE ATTACHMENT POST	POURABLE SILICONE JOINT SEALANT	ELASTOMERIC CONCRETE FOR PRESERVATION	BEAM REPAIR CUT-OUT	BEAM REPAIR PLATING	BOLTED BEAM REPAIR	BRIDGE JOINT DEMOLITION	HYDRO-DEMOLITION OF BRIDGE DECK	SCARIFYING BRIDGE DECK	SHOTBLASTING BRIDGE DECK	SILANE DECK TREATMENT	CLEANING & PAINTING EXISTING BEARINGS WITH HIGH RATIO CALCIUM SULFONATE	TYPE I BRIDGE JACKING FOR BRIDGE NO. --
	LN. FT.	LN. FT.	LN. FT.	CU. FT.	LBS.	LBS.	LBS.	SO. FT.	SO. YD.	SO. YD.	SO. YD.	SO. YD.	EA.	EA.
320051	-	-	403.9	59.1	-	3,376.1	991.5	315.3	1,690.2	1,690.2	-	-	96	3
320345	-	-	-	-	-	-	-	-	-	-	6,326	6,326	-	-
630039	451.2	14.5	231.7	30.3	77.5	50.9	384.1	161.3	1,142.2	1,142.2	-	-	72	1
630123	-	-	145.7	21.4	0.0	42.3	0.0	114.0	855.6	855.6	-	-	32	-
TOTAL	451.2	14.5	781.3	110.8	77.5	3,469.3	1,375.6	590.6	3,688.0	3,688.0	6,326	6,326	200	4

PROJECT NO. 15BPR.47
 EDGEcombe & NASH COUNTIES
 BRIDGE NO. : 320051, 320345
630039 & 630123



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**BILL OF MATERIAL
 AND GENERAL NOTES**

DRAWN BY : A. Y. GODFREY DATE : 03/2022
 CHECKED BY : S. WANCE DATE : 04/2022

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

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.
	--	27,000 LBS. PER SQ. IN.
	--	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60	----	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS	----	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	-----	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	-----	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

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

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

CONCRETE:

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

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED $\frac{3}{4}$ " WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO $\frac{1}{2}$ " RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A $\frac{1}{4}$ " 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 $\frac{1}{4}$ " 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 $\frac{7}{8}$ " \emptyset SHEAR STUDS FOR THE $\frac{3}{4}$ " \emptyset STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - $\frac{7}{8}$ " \emptyset STUDS FOR 4 - $\frac{3}{4}$ " \emptyset STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF $\frac{7}{8}$ " \emptyset STUDS ALONG THE BEAM AS SHOWN FOR $\frac{3}{4}$ " \emptyset STUDS BASED ON THE RATIO OF 3 - $\frac{7}{8}$ " \emptyset STUDS FOR 4 - $\frac{3}{4}$ " \emptyset 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 $\frac{3}{16}$ " 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 $\frac{1}{16}$ " INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

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

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

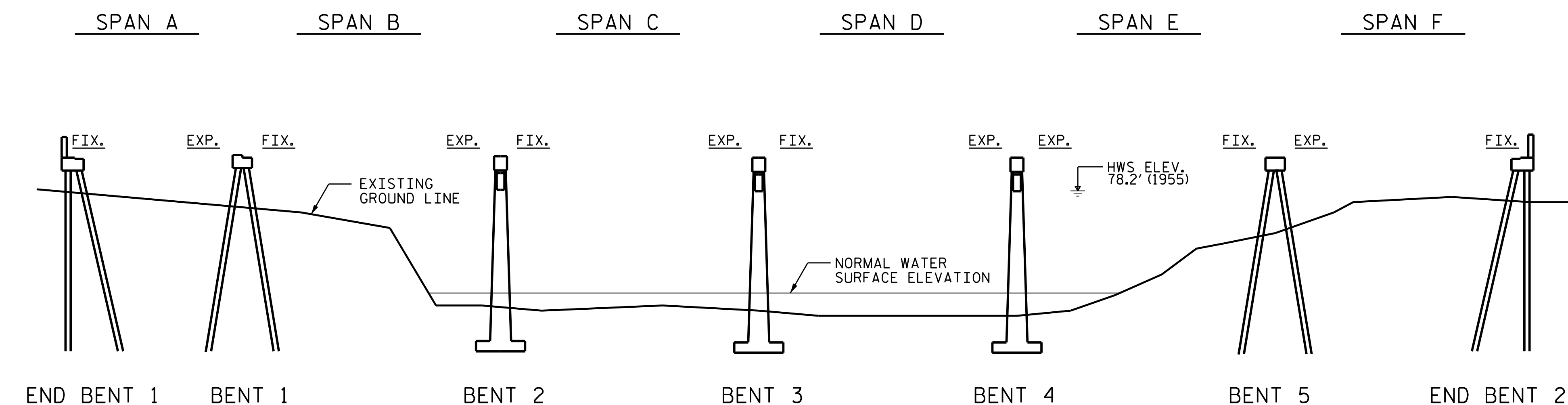
SPECIAL NOTES:

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

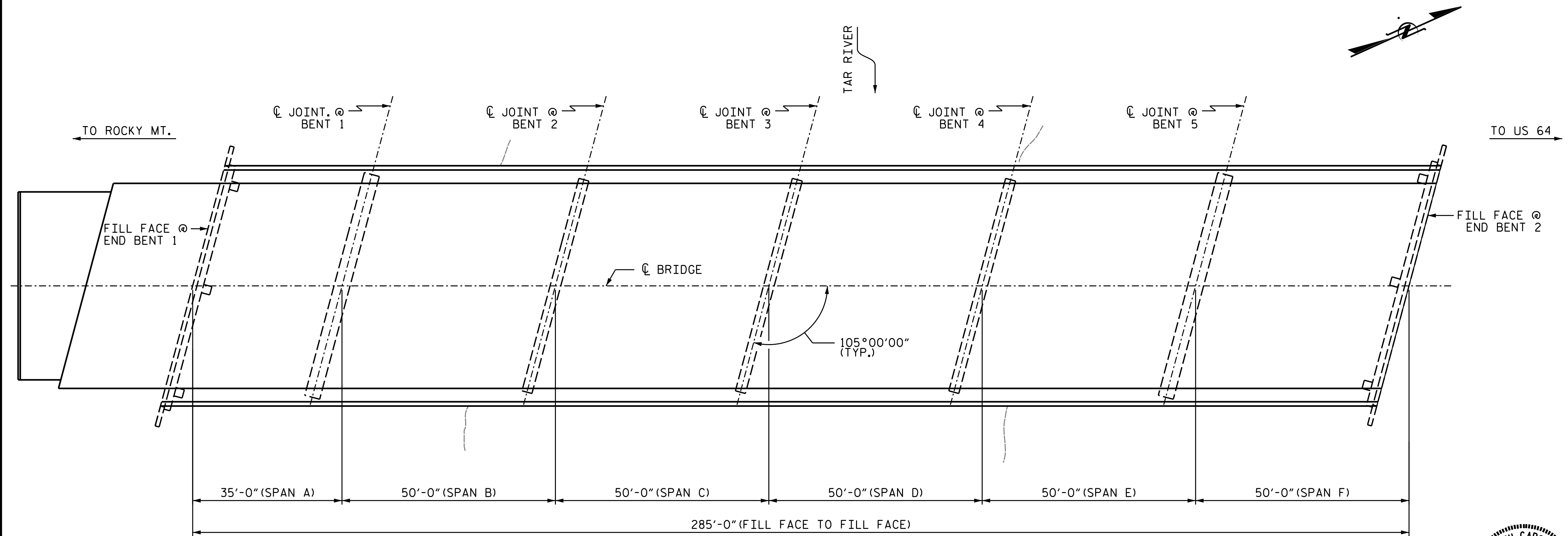
ENGLISH

JANUARY, 1990

STD. NO. SN



SECTION ALONG $\text{\textcircled{C}}$ ROADWAY



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

SCOPE OF WORK

- PARTIALLY REMOVE TOP OF BRIDGE DECK CONCRETE BY SCARIFICATION AND HYDRO-DEMOLITION METHODS.
- PERFORM CONCRETE DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED TOP OF BRIDGE DECK WITH LATEX MODIFIED CONCRETE (LMC).
- DEMOLISH EXISTING BRIDGE DECK JOINTS.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND POURABLE SILICONE JOINT SEALANT.
- GROOVE LATEX MODIFIED CONCRETE BRIDGE DECK.
- CLEAN, REPAIR, AND PAINT EXISTING STRUCTURAL STEEL.
- CLEAN AND PAINT EXISTING BEARINGS WITH HRSCA.
- REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE AREAS FOR CONCRETE AND SHOTCRETE REPAIRS.
- PERFORM CONCRETE AND SHOTCRETE REPAIRS.
- MILL AND PAVE ASPHALT ROADWAY APPROACHES.

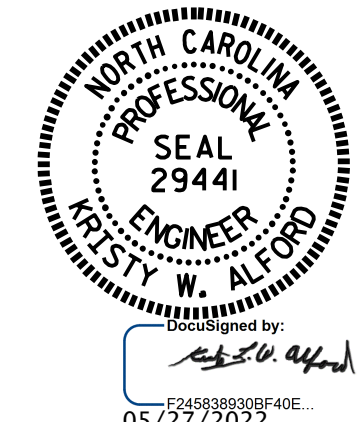
NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 01/19/2021.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

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

Resident Engineer _____ Date _____

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE OVER TAR RIVER
ON NC 97 BETWEEN
ROCKY MT. & US 64

DRAWN BY : A. Y. GODFREY DATE : 10/2021
CHECKED BY : G. AYES DATE : 02/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

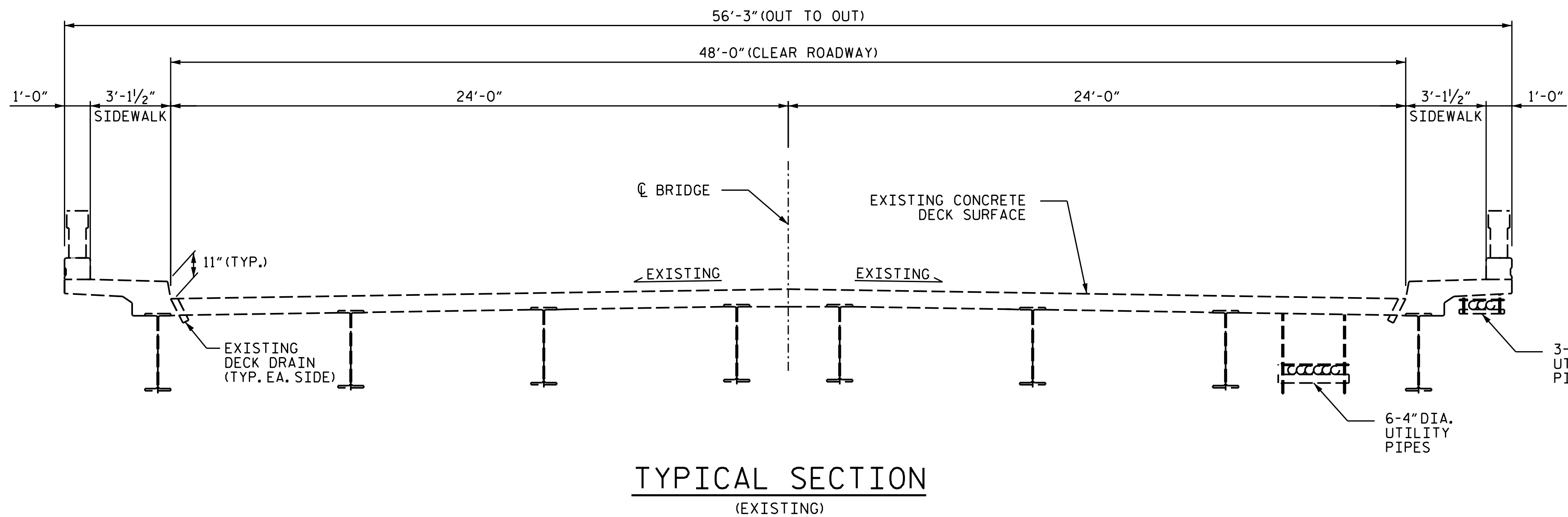
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-1
1			3			TOTAL SHEETS
2			4			31

NOTES

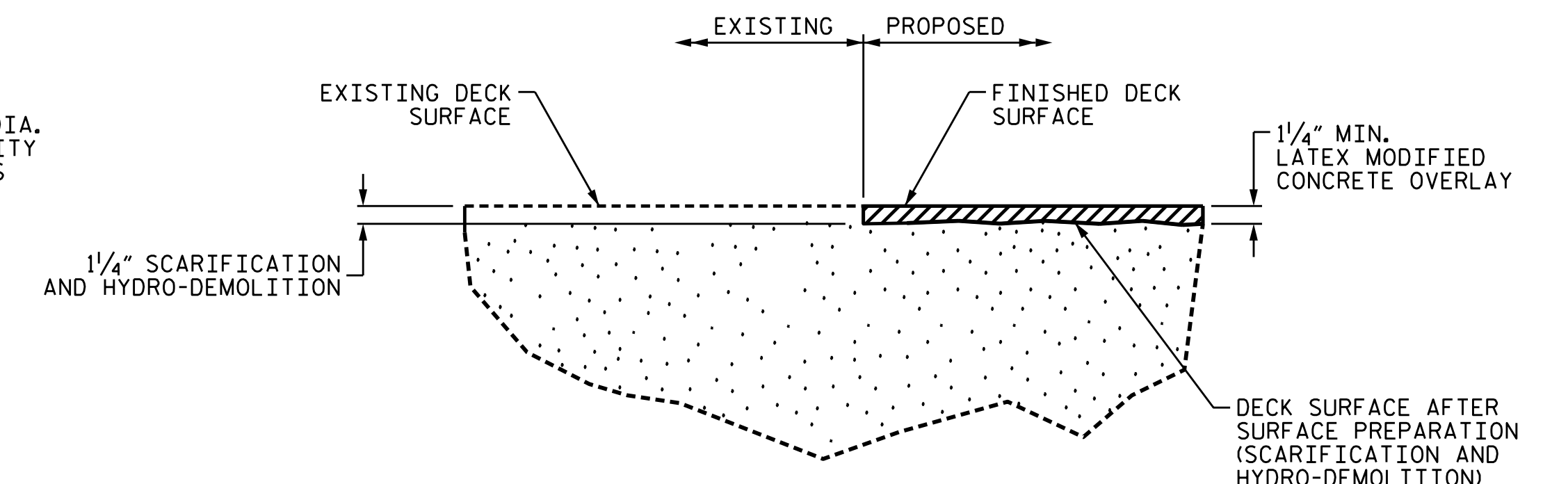
WHEN PREPARING THE SURFACE FOR LMC OVERLAY ADJACENT TO THE PREVIOUSLY PLACED LMC STAGE, THE PREVIOUSLY PLACED LMC SHALL BE SAW-CUT TO THE FULL DEPTH OF THE LMC AT THE CENTERLINE OF THE BRIDGE AND ALL LMC IN THE 4" OVERLAP SHALL BE REMOVED WITH HAND TOOLS PRIOR TO PLACEMENT OF LMC IN THE SECOND STAGE

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

SEE SHEET S1-30 FOR DECK DRAIN EXTENSION DETAILS.

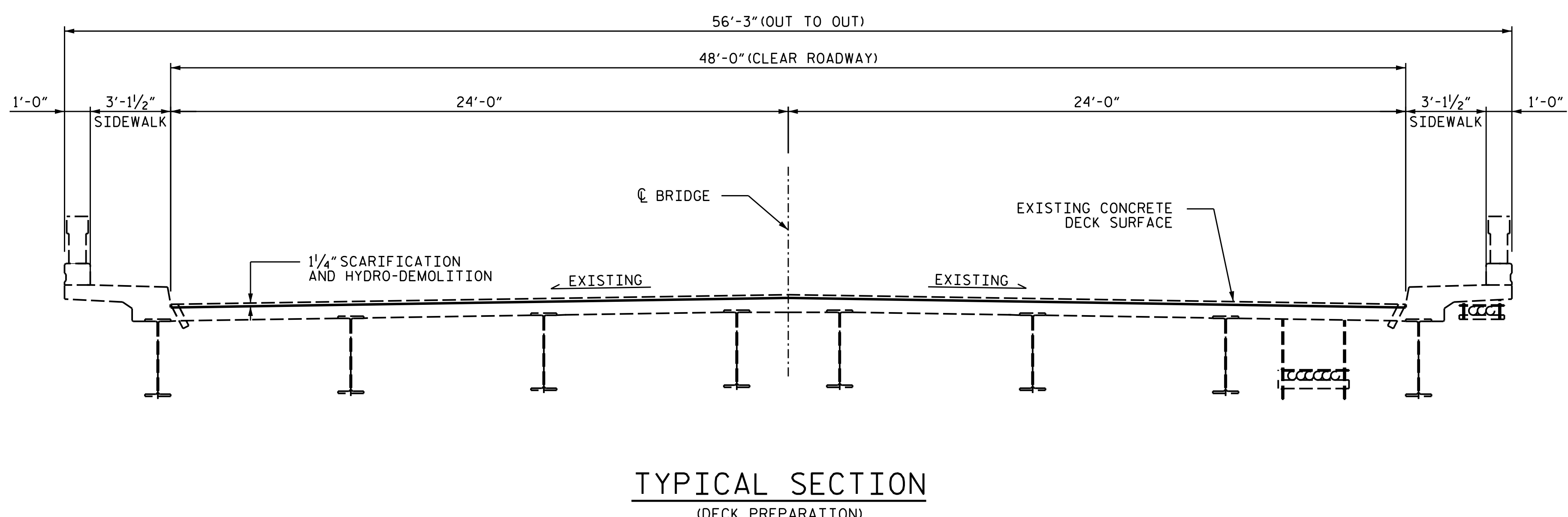


TYPICAL SECTION
(EXISTING)

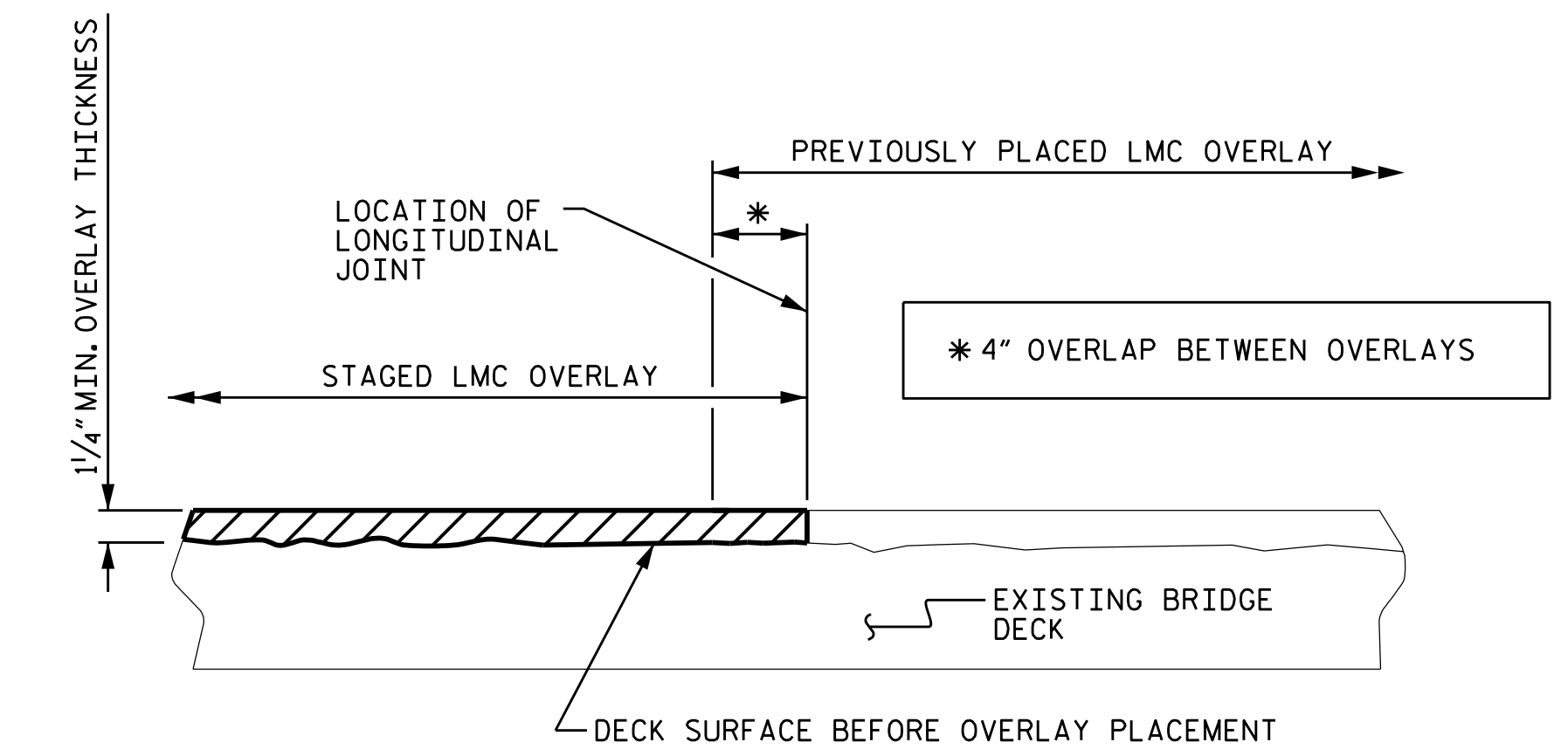


DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY

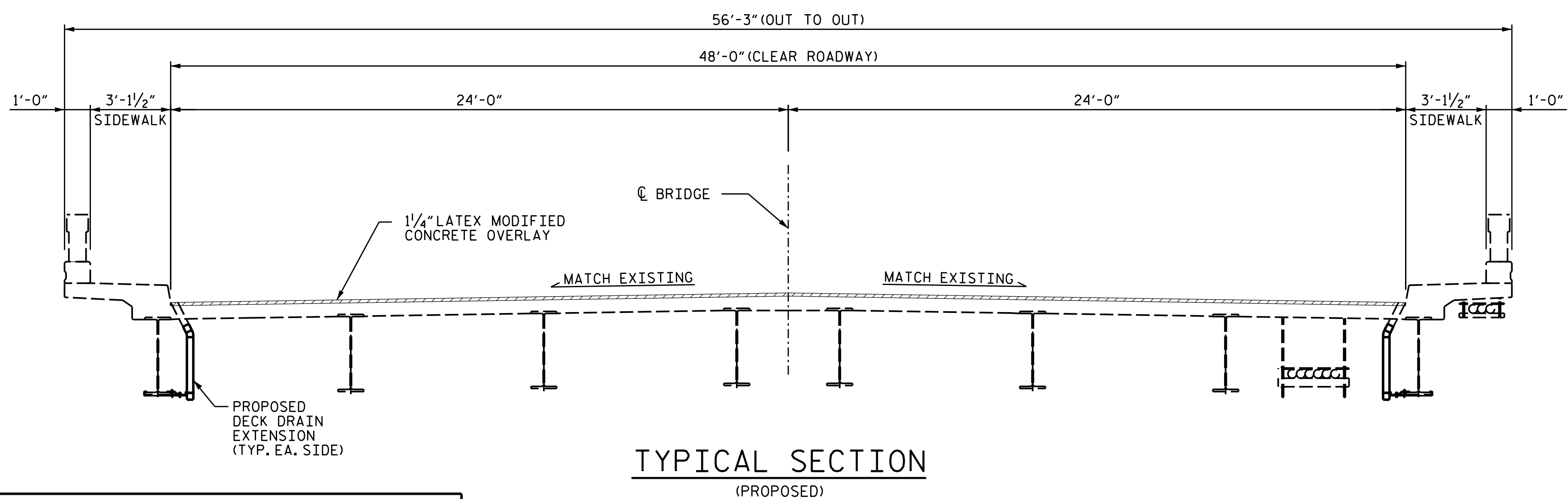
(FINISHED SURFACE OF THE LATEX MODIFIED CONCRETE OVERLAY IS APPROX.)



TYPICAL SECTION
(DECK PREPARATION)



STAGED LMC OVERLAY JOINT
(AS NEEDED)



TYPICAL SECTION
(PROPOSED)

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

DRAWN BY : A. Y. GODFREY DATE : 01/2022
 CHECKED BY : G. AYES DATE : 02/2022

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-2
1			3			TOTAL SHEETS
2			4			31

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**SUMMARY OF QUANTITIES FOR
APPROACH SLABS @ END BENT 1**

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	200.8 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	200.8 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LATEX MODIFIED CONCRETE OVERLAY	8.4 CY	
PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY	200.8 SY	
GROOVING BRIDGE DECK	1,660.7 SF	
BRIDGE JOINT DEMOLITION	64.5 SF	

QUANTITIES FOR LMC OVERLAY ARE BASED ON OVERLAY DEPTH PLUS AN ADDITIONAL 1/4" TO ACCOUNT FOR IRREGULARITIES IN HYDRO-DEMOLITION/SCARIFICATION PROCESSES.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN 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 SUMMARY OF QUANTITIES TABLE.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS II (PARTIAL DEPTH) SURFACE PREPARATION ARE APPROXIMATE AND MAY NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AT THE PROJECT SITE.

PAYMENT FOR CLASS II AND CLASS III SURFACE PREP. BASED UPON SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF BRIDGE DECK, SEE "LMC OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

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

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

FOR OVERLAY OF APPROACH SLABS AND BRIDGE WITH LATEX MODIFIED CONCRETE, SEE SPECIAL PROVISIONS.

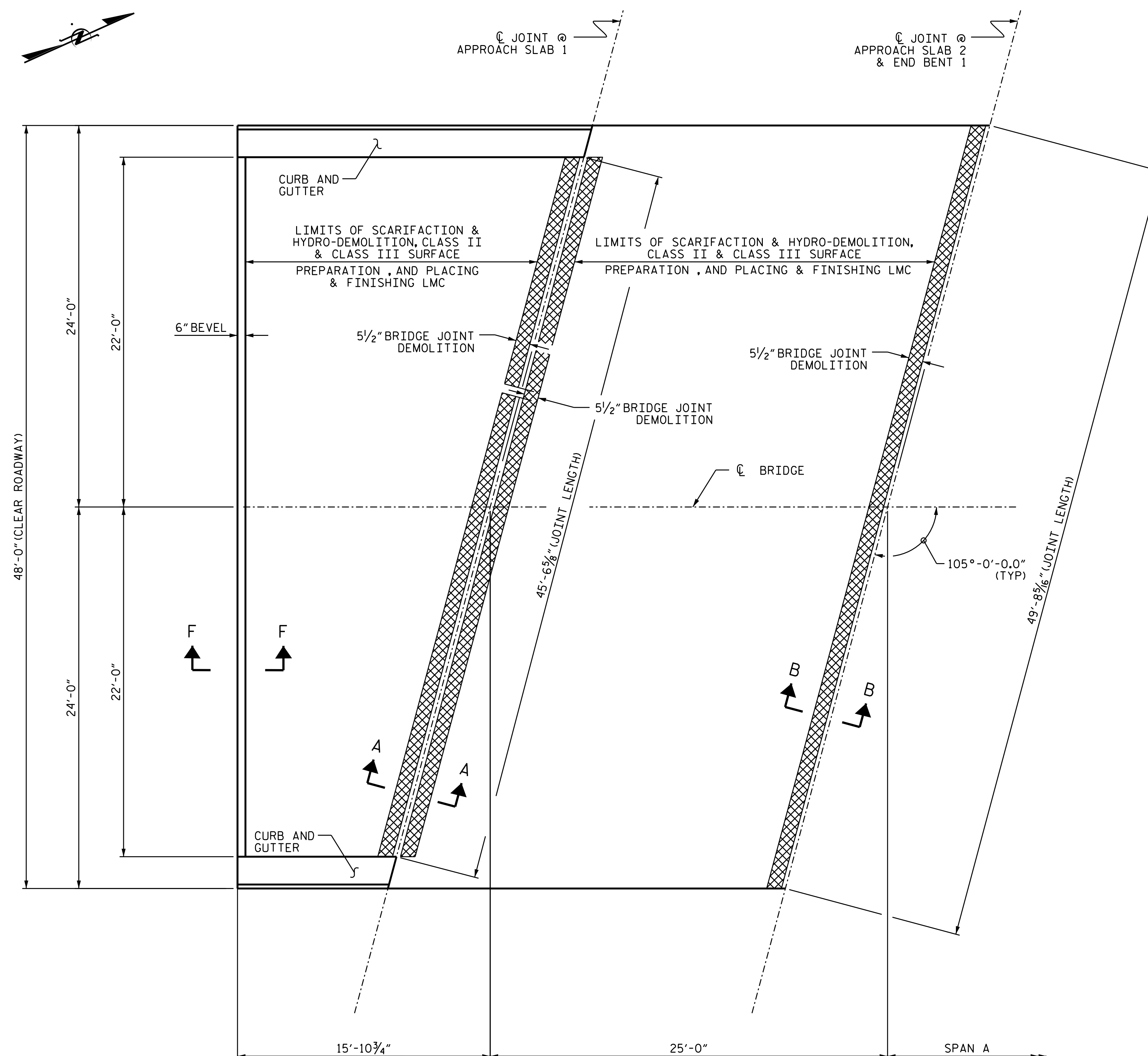
FOR LMC OVERLAY SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

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

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

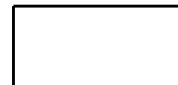


FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR DECK REPAIR DETAILS, SEE "DECK REPAIR DETAILS" SHEET S1-25.



**PLAN OF APPROACH
SLABS @ END BENT 1**

(SEE SHEET NO. S1-16 FOR SECTIONS A-A AND B-B)

-  - SCARIFYING AND HYDRO-DEMOLITION OF BRIDGE DECK FOR LMC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - BRIDGE JOINT DEMOLITION



PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**APPROACH SLABS
(WEST APPROACH)**

REVISIONS

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

SHEET NO.

S1-3
 TOTAL SHEETS
 31

DRAWN BY : A. Y. GODFREY DATE : 11/2021
 CHECKED BY : G. AYES DATE : 02/2022

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 FINAL UNLESS ALL
 SIGNATURES COMPLETED

SUMMARY OF QUANTITIES FOR SPAN A

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	181.1 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	181.1 SY	
CLASS II SURFACE PREPARATION	1.8 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LATEX MODIFIED CONCRETE OVERLAY	7.7 CY	
PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY	181.1 SY	
GROOVING BRIDGE DECK	1,513.3 SF	
BRIDGE JOINT DEMOLITION	45.6 SF	

QUANTITIES FOR LMC OVERLAY ARE BASED ON OVERLAY DEPTH PLUS AN ADDITIONAL 1/4" TO ACCOUNT FOR IRREGULARITIES IN HYDRO-DEMOLITION/SCARIFICATION PROCESSES.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE SUMMARY OF QUANTITIES TABLE.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS II (PARTIAL DEPTH) SURFACE PREPARATION ARE APPROXIMATE AND MAY NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AT THE PROJECT SITE.

PAYMENT FOR CLASS II AND CLASS III SURFACE PREP. BASED UPON SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF BRIDGE DECK, SEE "LMC OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

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

WORK ON THE BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW, EXCEPT WHERE THE CONTRACTOR'S PLAN USE PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES TO CATCH THE MATERIAL. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.

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

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

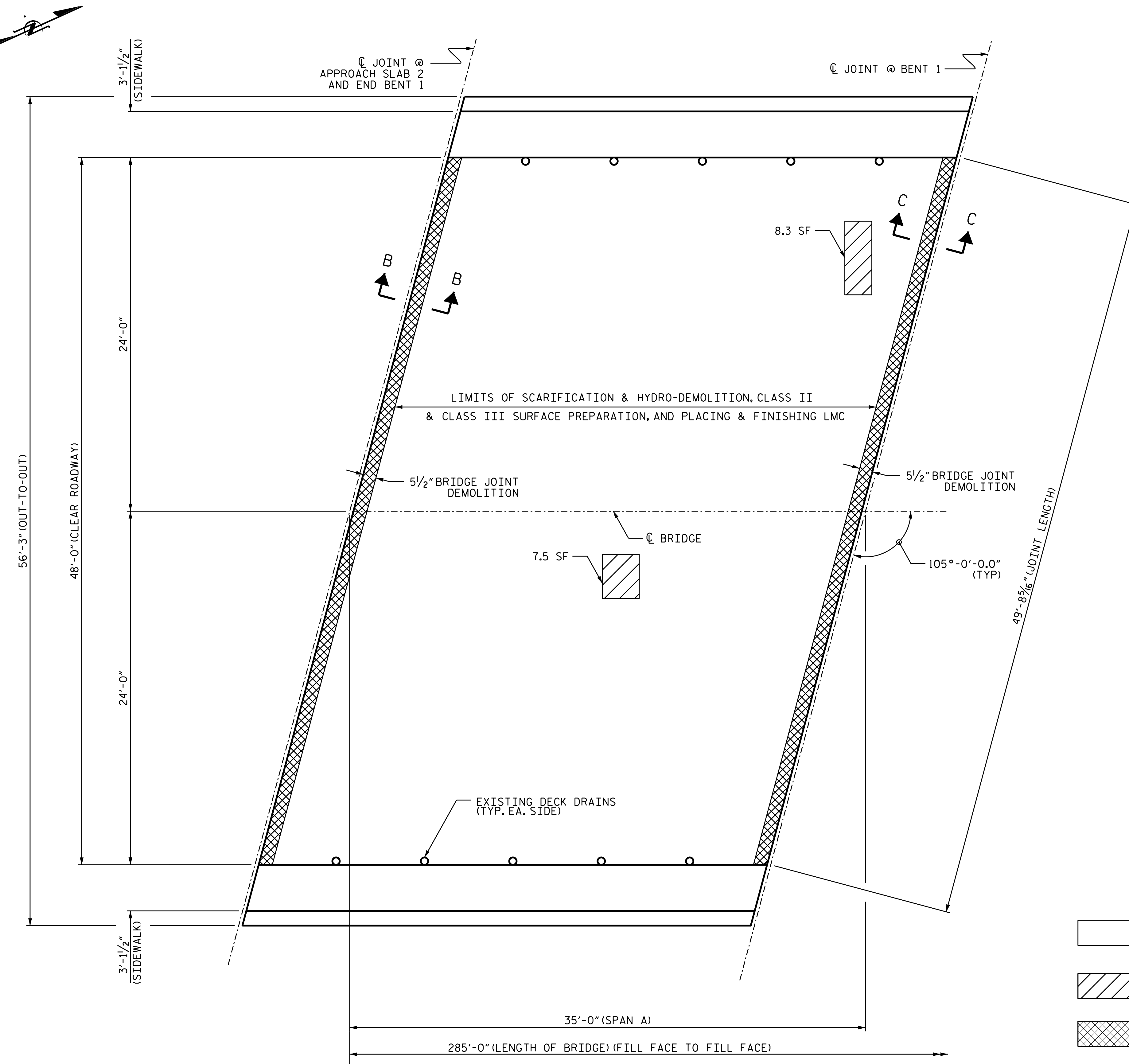
FOR LMC OVERLAY SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

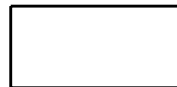

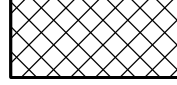
THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN-OFF WATER FROM THE HYDRO-DEMOLITION PROCESS, SEE LMC OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

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

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR DECK REPAIRS, SEE "DECK REPAIR DETAILS" SHEET S1-25.



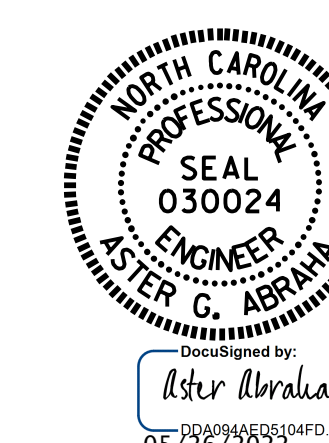
-  - SCARIFYING AND HYDRO-DEMOLITION OF BRIDGE DECK FOR LMC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - BRIDGE JOINT DEMOLITION

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 1 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN A



PLAN OF SPAN A
 (SEE SHEET NO. S1-16 & S1-17 FOR SECTIONS B-B AND C-C)

DRAWN BY : A. Y. GODFREY DATE : 11/2021
 CHECKED BY : G. AYES DATE : 02/2022

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1			3			S1-4
2			4			TOTAL SHEETS 31

SUMMARY OF QUANTITIES FOR SPAN B

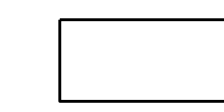
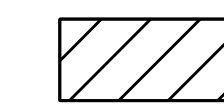
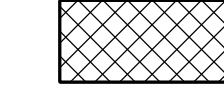
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	261.1 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	261.1 SY	
CLASS II SURFACE PREPARATION	7.3 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LATEX MODIFIED CONCRETE OVERLAY	11.4 CY	
PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY	261.1 SY	
GROOVING BRIDGE DECK	2,188.3 SF	
BRIDGE JOINT DEMOLITION	45.6 SF	

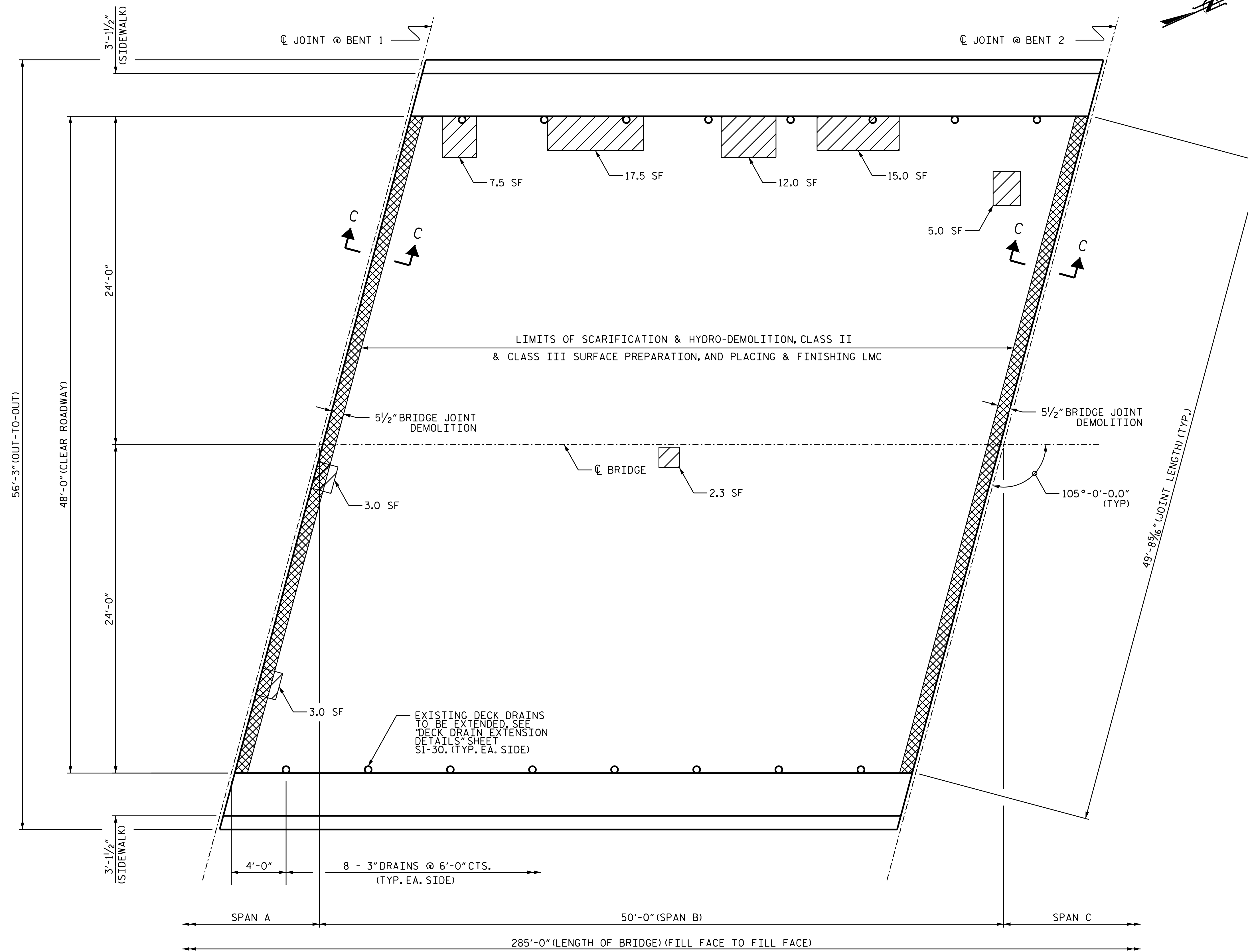
QUANTITIES FOR LMC OVERLAY ARE BASED ON OVERLAY DEPTH PLUS AN ADDITIONAL 1/4" TO ACCOUNT FOR IRREGULARITIES IN HYDRO-DEMOLITION/SCARIFICATION PROCESSES.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE SUMMARY OF QUANTITIES TABLE.

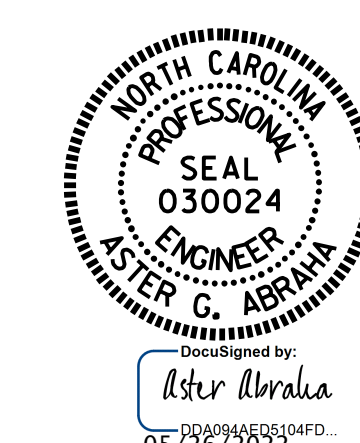
FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

-  - SCARIFYING AND HYDRO-DEMOLITION OF BRIDGE DECK FOR LMC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - BRIDGE JOINT DEMOLITION



PROJECT NO. 15BPR.47
 EDGECOMBE COUNTY
 BRIDGE NO. 320051

SHEET 2 OF 6



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN B

DRAWN BY : A. Y. GODFREY DATE : 11/2021
 CHECKED BY : G. AYES DATE : 02/2022

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1			3			S1-5
2			4			TOTAL SHEETS 31

SUMMARY OF QUANTITIES FOR SPAN C




	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	261.1 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	261.1 SY	
CLASS II SURFACE PREPARATION	10.0 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LATEX MODIFIED CONCRETE OVERLAY	11.6 CY	
PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY	261.1 SY	
GROOVING BRIDGE DECK	2,188.3 SF	
BRIDGE JOINT DEMOLITION	45.6 SF	

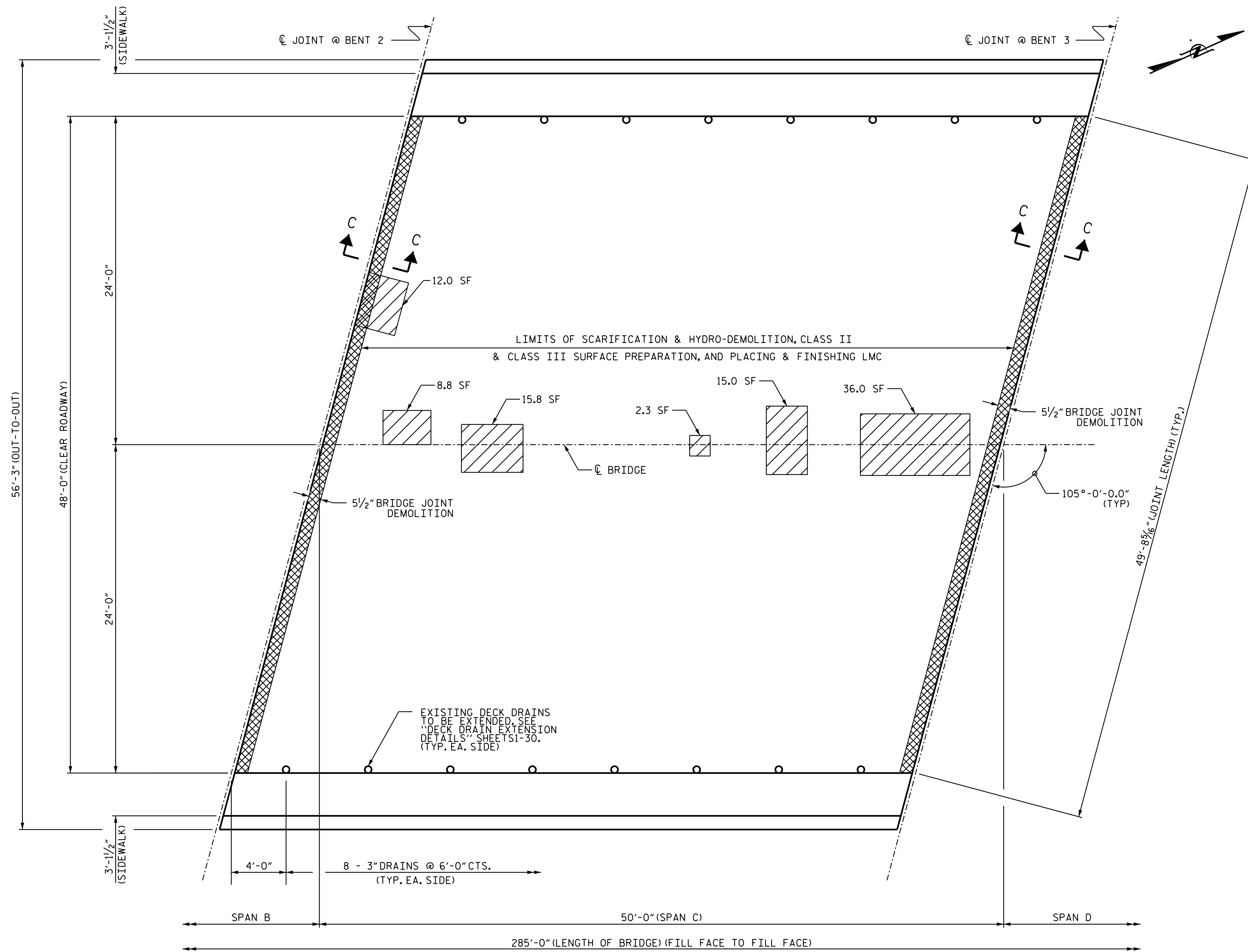
QUANTITIES FOR LMC OVERLAY ARE BASED ON OVERLAY DEPTH PLUS AN ADDITIONAL 1/4" TO ACCOUNT FOR IRREGULARITIES IN HYDRO-DEMOLITION/SCARIFICATION PROCESSES.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE SUMMARY OF QUANTITIES TABLE.

FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

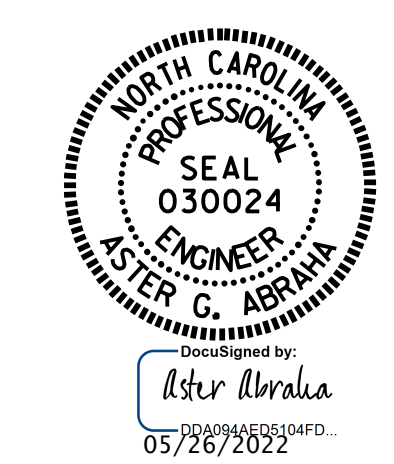
-  - SCARIFYING AND HYDRO-DEMOLITION OF BRIDGE DECK FOR LMC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - BRIDGE JOINT DEMOLITION



PLAN OF SPAN C
(SEE SHEET NO. S1-17 FOR SECTION C-C)

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051

SHEET 3 OF 6



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SURFACE PREPARATION
SPAN C

DRAWN BY : A. Y. GODFREY DATE : 11/2021
CHECKED BY : G. AYES DATE : 02/2022

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-6
1			3			TOTAL SHEETS
2			4			31

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SUMMARY OF QUANTITIES FOR SPAN D

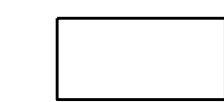
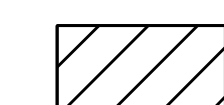
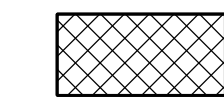
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	261.1 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	261.1 SY	
CLASS II SURFACE PREPARATION	13.2 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LATEX MODIFIED CONCRETE OVERLAY	11.8 CY	
PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY	261.1 SY	
GROOVING BRIDGE DECK	2,188.3 SF	
BRIDGE JOINT DEMOLITION	45.6 SF	

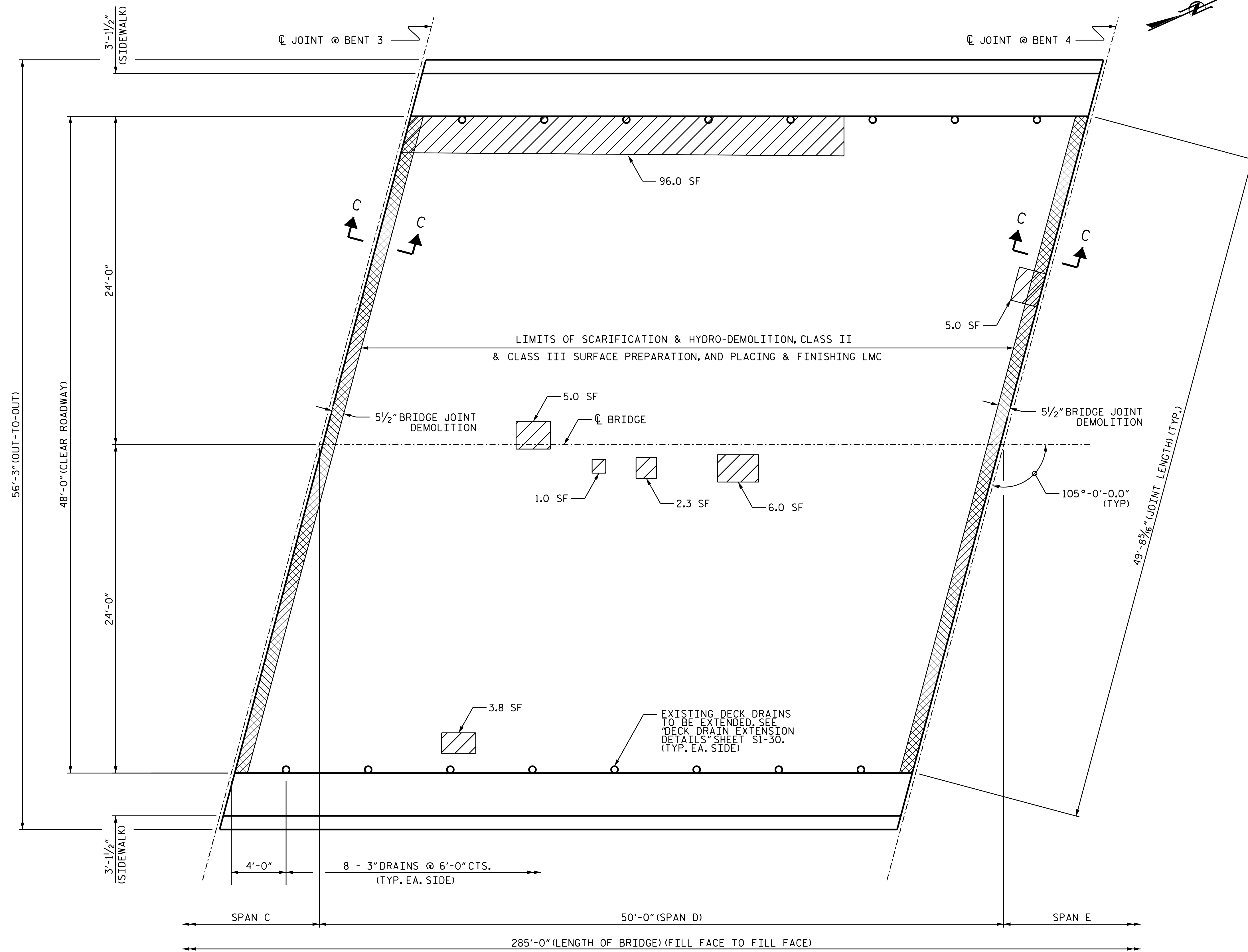
QUANTITIES FOR LMC OVERLAY ARE BASED ON OVERLAY DEPTH PLUS AN ADDITIONAL 1/4" TO ACCOUNT FOR IRREGULARITIES IN HYDRO-DEMOLITION/SCARIFICATION PROCESSES.

NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE SUMMARY OF QUANTITIES TABLE.

FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

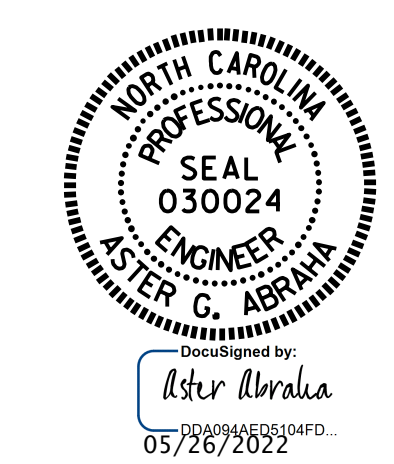
-  - SCARIFYING AND HYDRO-DEMOLITION OF BRIDGE DECK FOR LMC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - BRIDGE JOINT DEMOLITION



PLAN OF SPAN D
(SEE SHEET NO. S1-17 FOR SECTION C-C)

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051

SHEET 4 OF 6



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SURFACE PREPARATION
SPAN D

DRAWN BY : A. Y. GODFREY DATE : 11/2021
CHECKED BY : G. AYES DATE : 02/2022

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S1-7
2			4			TOTAL SHEETS 31

SUMMARY OF QUANTITIES FOR SPAN E

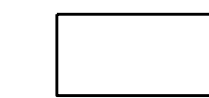
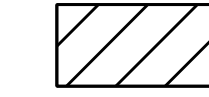

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	261.1 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	261.1 SY	
CLASS II SURFACE PREPARATION	10.5 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LATEX MODIFIED CONCRETE OVERLAY	11.6 CY	
PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY	261.1 SY	
GROOVING BRIDGE DECK	2,188.3 SF	
BRIDGE JOINT DEMOLITION	45.6 SF	

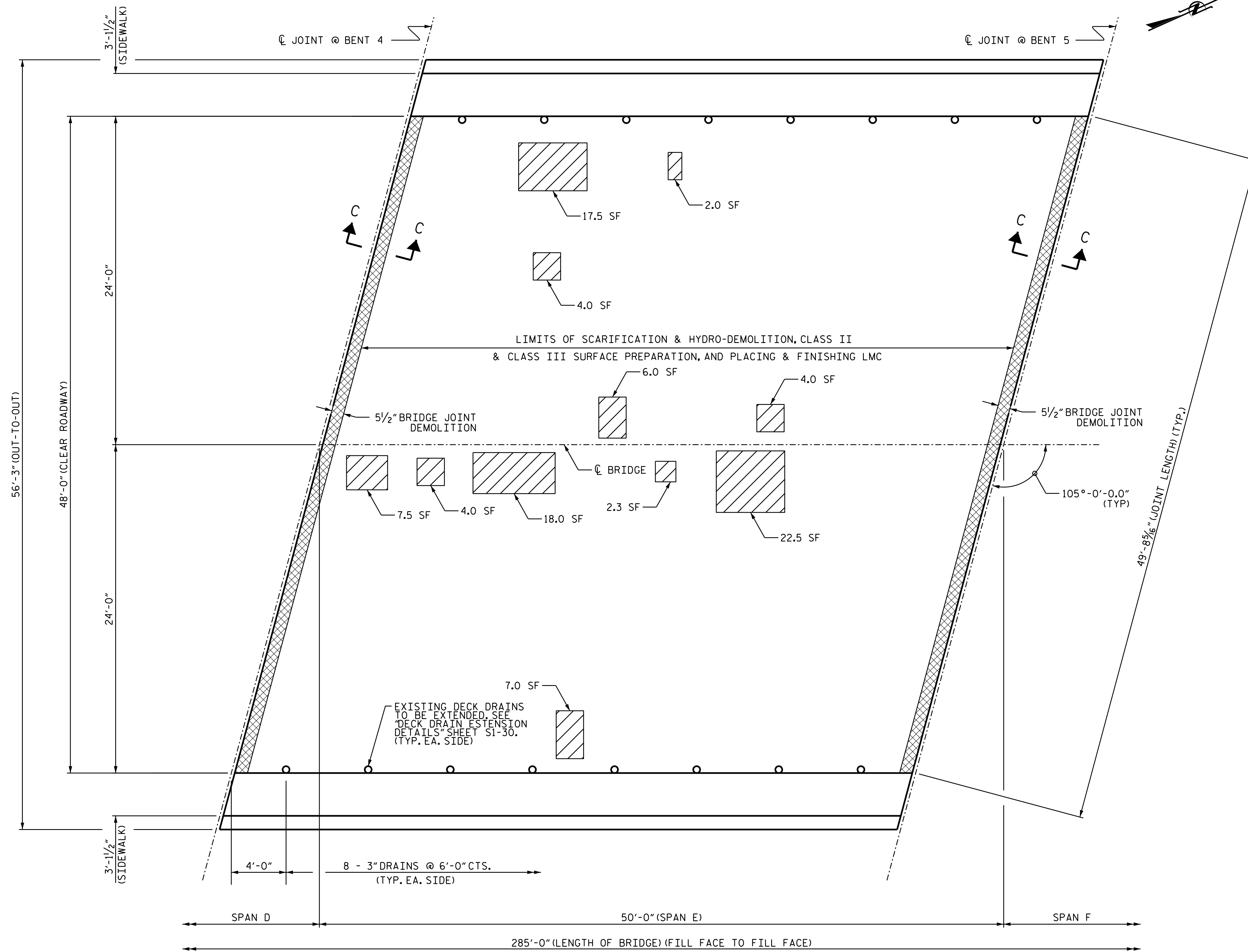
QUANTITIES FOR LMC OVERLAY ARE BASED ON OVERLAY DEPTH PLUS AN ADDITIONAL 1/4" TO ACCOUNT FOR IRREGULARITIES IN HYDRO-DEMOLITION/SCARIFICATION PROCESSES.

NOTES:

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FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

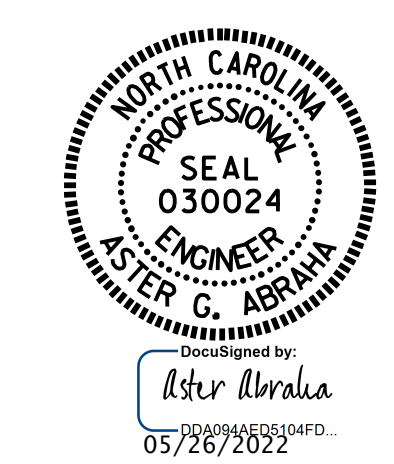
-  - SCARIFYING AND HYDRO-DEMOLITION OF BRIDGE DECK FOR LMC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - BRIDGE JOINT DEMOLITION



PLAN OF SPAN E
(SEE SHEET NO. S1-17 FOR SECTION C-C)

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051

SHEET 5 OF 6



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SURFACE PREPARATION
SPAN E

DRAWN BY : A. Y. GODFREY DATE : 11/2021
CHECKED BY : G. AYES DATE : 02/2022

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-8
1			3			TOTAL SHEETS
2			4			31

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SUMMARY OF QUANTITIES FOR SPAN F


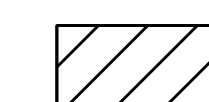
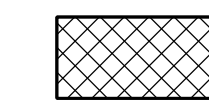
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	263.9 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	263.9 SY	
CLASS II SURFACE PREPARATION	10.4 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LATEX MODIFIED CONCRETE OVERLAY	11.7 CY	
PLACING AND FINISHING LATEX MODIFIED CONCRETE OVERLAY	263.9 SY	
GROOVING BRIDGE DECK	2,211.7 SF	
BRIDGE JOINT DEMOLITION	22.8 SF	

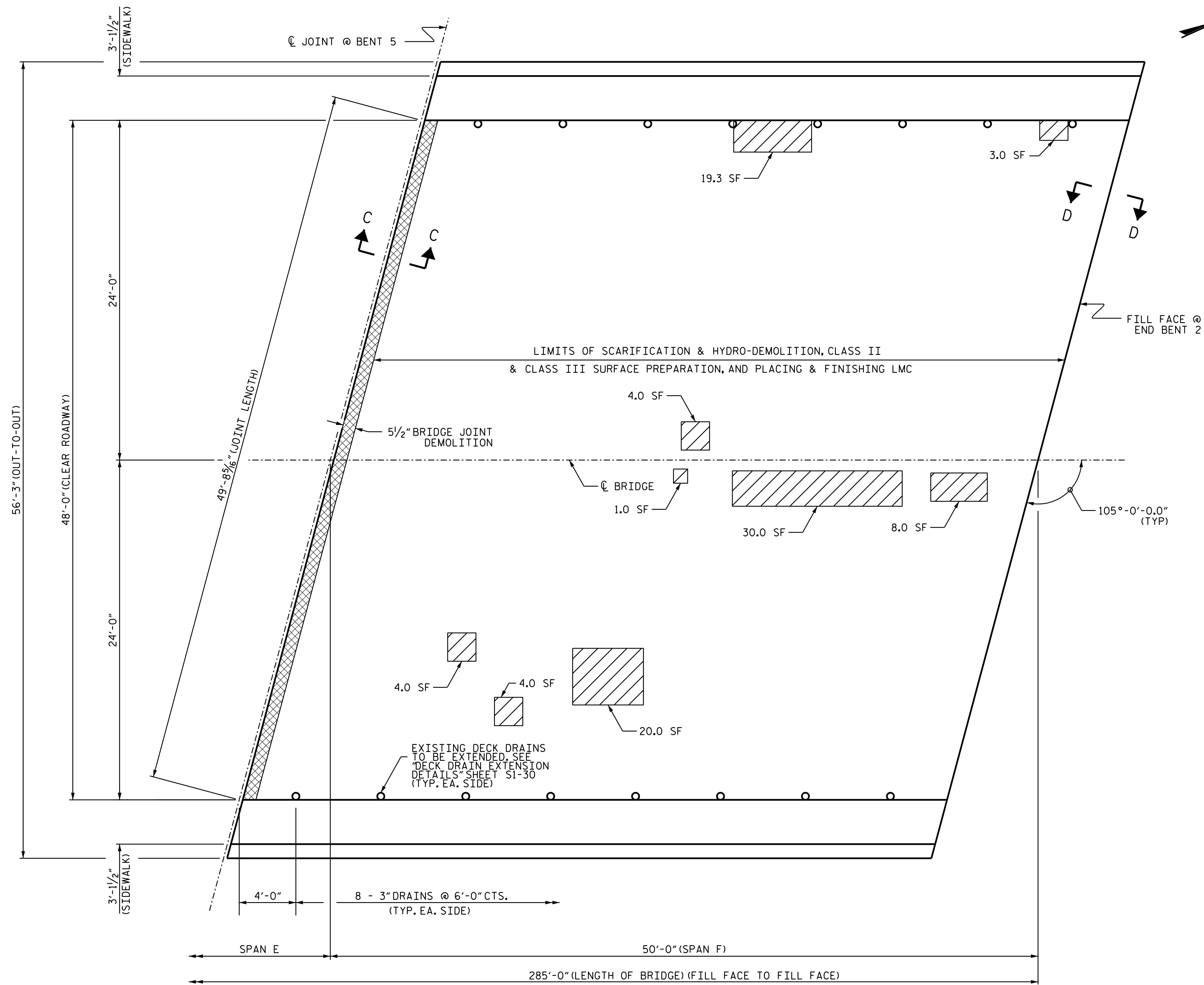
QUANTITIES FOR LMC OVERLAY ARE BASED ON OVERLAY DEPTH PLUS AN ADDITIONAL 1/4" TO ACCOUNT FOR IRREGULARITIES IN HYDRO-DEMOLITION/SCARIFICATION PROCESSES.

NOTES:

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FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

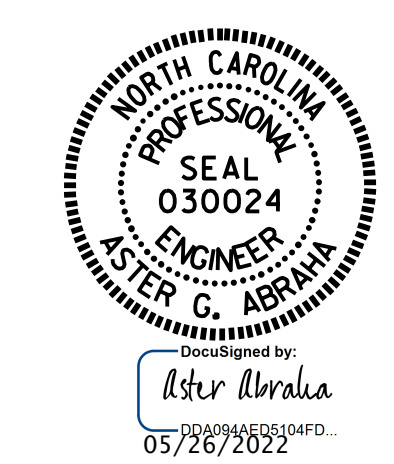
-  - SCARIFYING AND HYDRO-DEMOLITION OF BRIDGE DECK FOR LMC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - BRIDGE JOINT DEMOLITION



PLAN OF SPAN F
(SEE SHEET NO. S1-17 FOR SECTIONS C-C AND D-D)

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051

SHEET 6 OF 6



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SURFACE PREPARATION
SPAN F**

DRAWN BY : A. Y. GODFREY DATE : 11/2021
CHECKED BY : G. AYES DATE : 02/2022

DOCUMENT NOT CONSIDERED
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S1-9
2			4			TOTAL SHEETS 31

REPAIR QUANTITY TABLE

UNDERSIDE OF DECK REPAIRS - SPAN A	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	3.0	1.0		
OVERHANG	2.0	0.7		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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FOR BEAM PLATING REPAIR, SEE "BEAM PLATING REPAIR DETAILS" SHEET S1-27.

FOR BOLTED STEEL PLATES REPAIR, SEE "BEAM PLATING REPAIR DETAIL" SHEET S1-28.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.


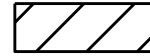
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

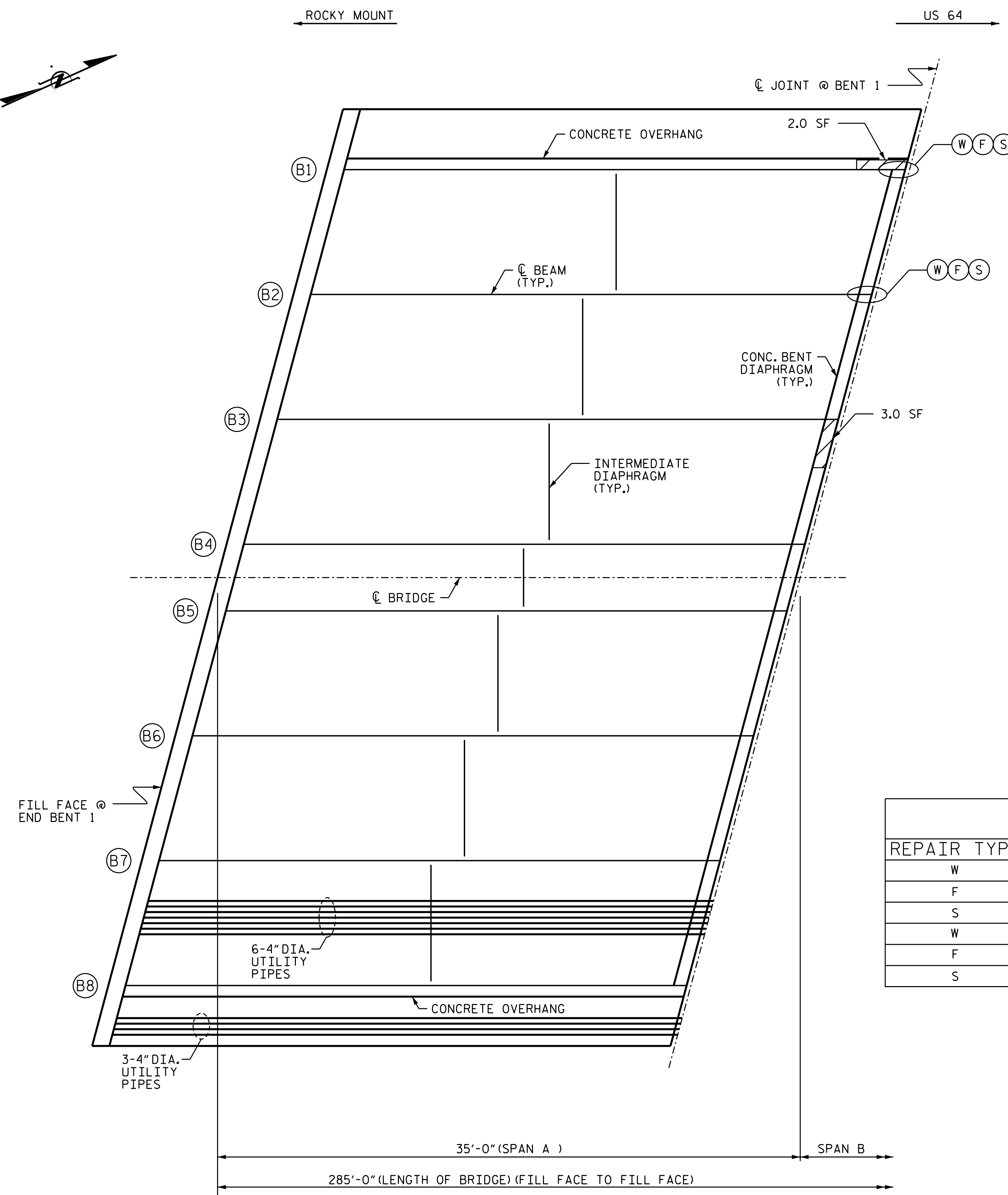
FOR UNDERSIDE OF DECK REPAIRS, SEE "DECK REPAIR DETAILS" SHEET S1-25.

FOR OVERHANG REPAIRS, SEE "OVERHANG & DIAPHRAGM REPAIR DETAILS" SHEET S1-26.

FOR DIAPHRAGM REPAIRS SEE "OVERHANG & DIAPHRAGM REPAIR DETAILS" SHEET S1-26.

FOR BRIDGE JACKING, SEE "BRIDGE JACKING DETAILS" SHEET.

-  - CONCRETE REPAIR AREA
-  - SHOTCRETE REPAIR AREA
- (B#) BEAM NUMBER
- (W) WEB PLATING REPAIR
- (S) STIFFENER REPAIR
- (F) BOTTOM FLANGE PLATING REPAIR
- (BW) BOLTED WEB PLATE REPAIR
- (BF) BOLTED FLANGE PLATE REPAIR



REPAIR TYPE	SPAN	BEAM	LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"
W	A	1	BENT 1	8"	84"	-	-
F	A	1	BENT 1	4 1/2"	84"	-	-
S	A	1	BENT 1	8"	-	-	-
W	A	2	BENT 1	5"	48"	-	-
F	A	2	BENT 1	4 1/2"	24"	-	-
S	A	2	BENT 1	5"	-	-	-

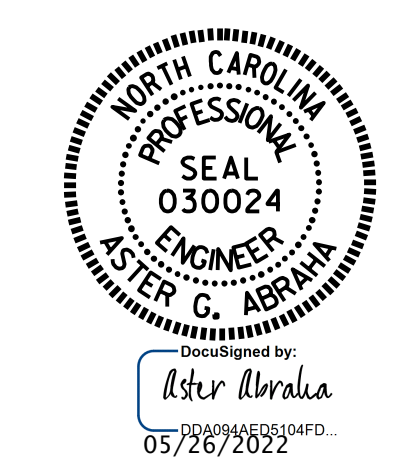
(SEE SHEETS S1-27 AND S1-28 FOR BEAM REPAIR DETAILS AND DIMENSIONS.)

SPAN A (UNDERSIDE)

BOLTED STEEL PLATES		STEEL PLATES		STIFFENER		STEEL DIAPHRAGM		BEAM END CUT-OUT	
LBS.		LBS.		LBS.		LBS.		LBS.	
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
0		360.3		19.9		0		0	

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 1 OF 6



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

UNDERSIDE DECK REPAIRS SPAN A

DRAWN BY : A. Y. GODFREY DATE : 01/2022
 CHECKED BY : G. AYES DATE : 02/2022

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	DATE:	
1				S1-10
2				TOTAL SHEETS 31

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REPAIR QUANTITY TABLE

UNDERSIDE OF DECK REPAIRS - SPAN B	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	12.2	4.1		
OVERHANG	1.9	0.7		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		

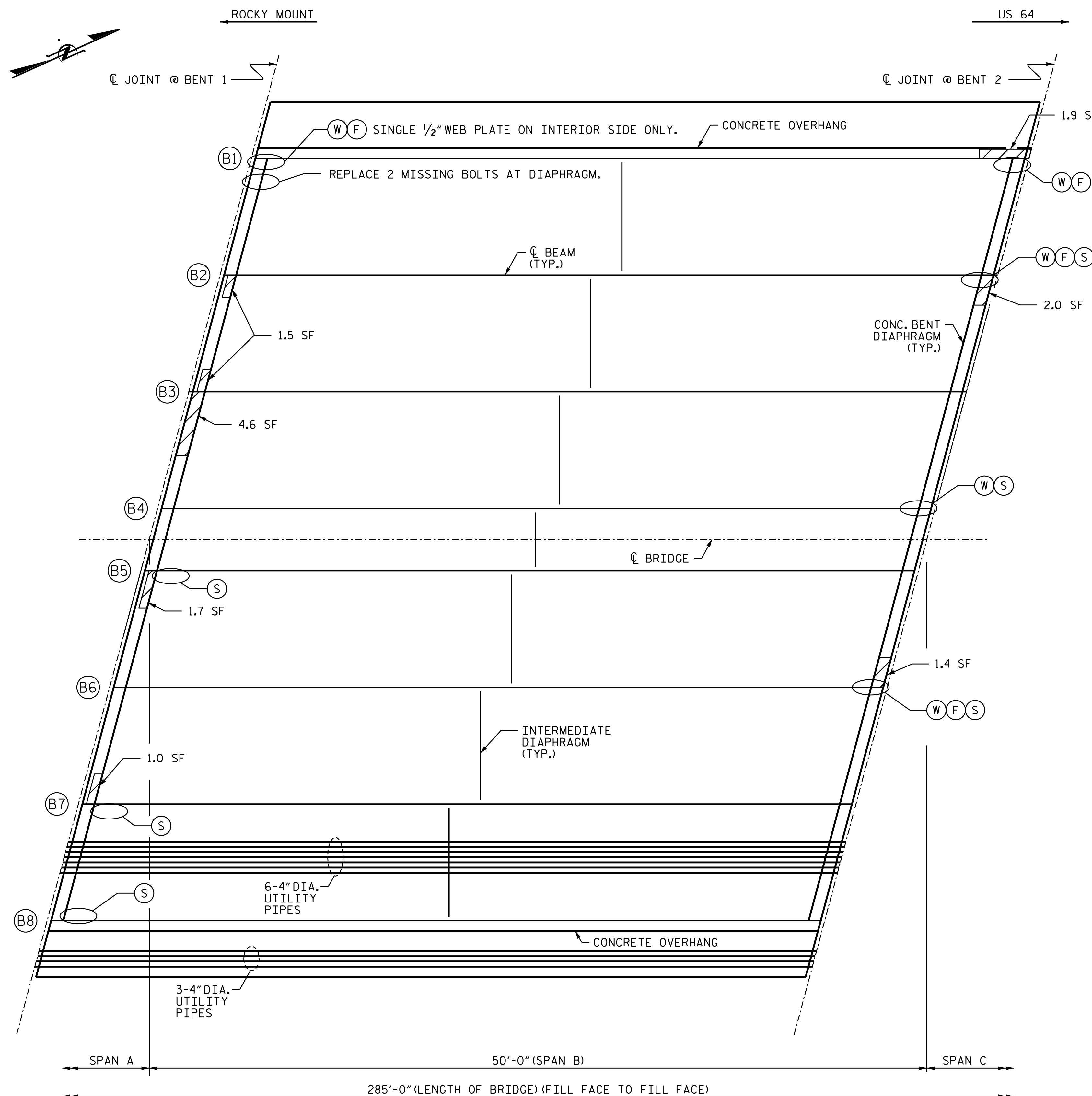
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

- CONCRETE REPAIR AREA
- SHOTCRETE REPAIR AREA
- (B*) BEAM NUMBER
- (W) WEB PLATING REPAIR
- (S) STIFFENER REPAIR
- (F) BOTTOM FLANGE PLATING REPAIR
- (BW) BOLTED WEB PLATE REPAIR
- (BF) BOLTED FLANGE PLATE REPAIR



STEEL REPAIR LOCATIONS

REPAIR	SPAN	BEAM	LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"
W	B	1	BENT 1	-	-	7"	60"
F	B	1	BENT 1	5/4"	-	-	60"
S	B	5	BENT 1	3"	-	-	-
S	B	7	BENT 1	4"	-	-	-
S	B	8	BENT 1	4"	-	-	-
W	B	1	BENT 2	-	-	5"	60"
F	B	1	BENT 2	5/4"	-	-	36"
W	B	2	BENT 2	5"	48"	-	-
F	B	2	BENT 2	5/4"	48"	-	-
S	B	2	BENT 2	5"	-	-	-
W	B	4	BENT 2	11"	12"	6"	25"
S	B	4	BENT 2	34"	-	-	-
W	B	6	BENT 2	10"	10"	-	-
F	B	6	BENT 2	5"	24"	-	-
S	B	6	BENT 2	10"	-	-	-

(SEE SHEETS S1-27 AND S1-28 FOR BEAM REPAIR DETAILS AND DIMENSIONS.)

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 2 OF 6



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**UNDERSIDE DECK REPAIRS
 SPAN B**

SPAN B (UNDERSIDE)

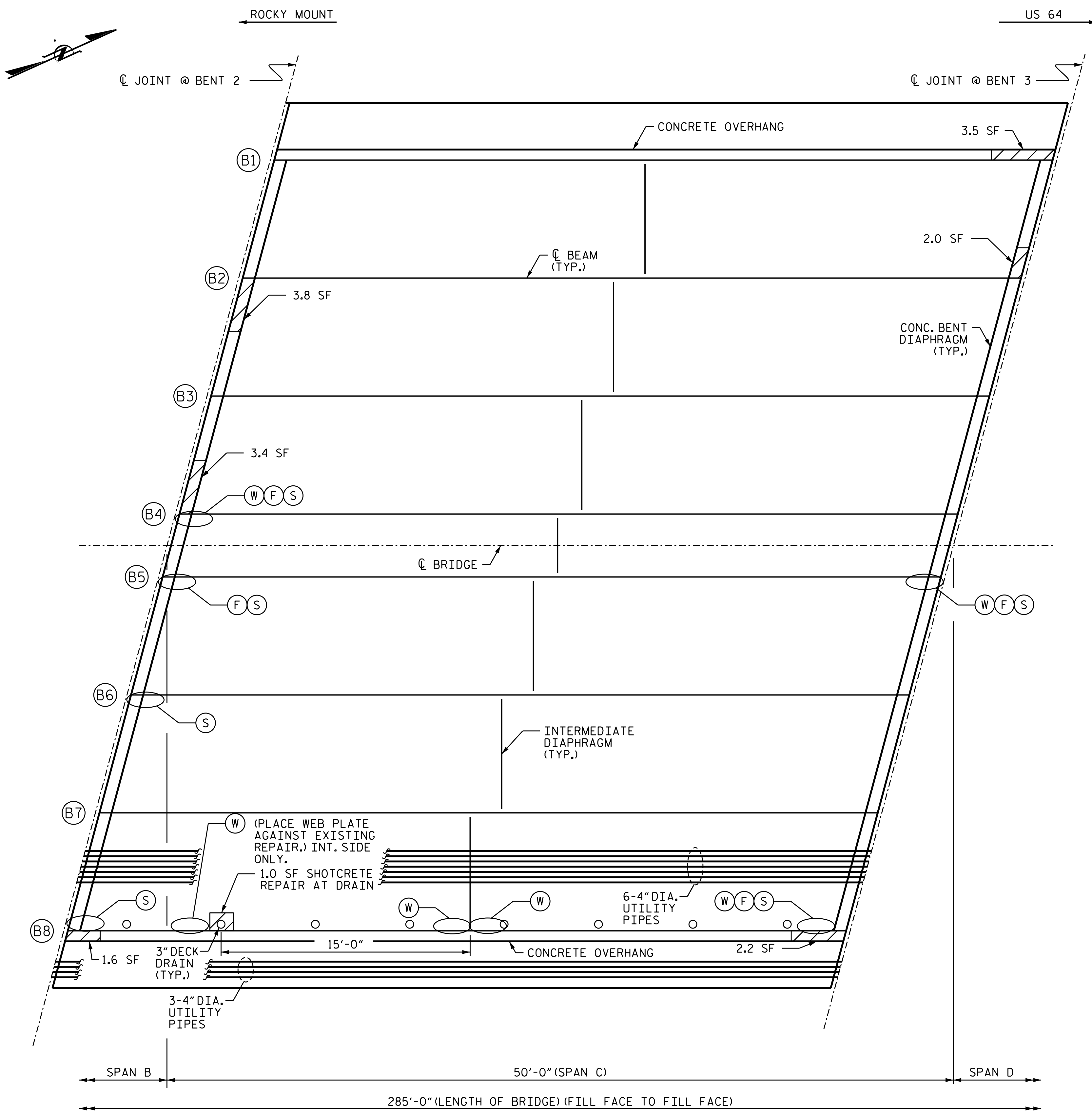
BEAM REPAIR QUANTITY TABLE

BOLTED STEEL PLATES		STEEL PLATES		STIFFENER		STEEL DIAPHRAGM		BEAM END CUT-OUT	
LBS.		LBS.		LBS.		LBS.		LBS.	
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
0		545.5		106.4		3.2		0	

DRAWN BY : A. Y. GODFREY DATE : 01/2022
 CHECKED BY : G. AYES DATE : 02/2022

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1			3			TOTAL SHEETS
2			4			31



- CONCRETE REPAIR AREA
- SHOTCRETE REPAIR AREA
- (B#) BEAM NUMBER
- (W) WEB PLATING REPAIR
- (S) STIFFENER REPAIR
- (F) BOTTOM FLANGE PLATING REPAIR
- (BW) BOLTED WEB PLATE REPAIR
- (BF) BOLTED FLANGE PLATE REPAIR

REPAIR QUANTITY TABLE				
UNDERSIDE OF DECK REPAIRS - SPAN C	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	1.0	0.4		
CONCRETE BENT DIAPHRAGM	9.2	3.1		
OVERHANG	7.3	2.5		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

NOTES:
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 FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

STEEL REPAIR LOCATIONS							
REPAIR	SPAN	BEAM	LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"
W	C	4	BENT 2	7"	11"	-	-
F	C	4	BENT 2	5"	24"	-	-
S	C	4	BENT 2	7"	-	-	-
F	C	5	BENT 2	5"	18"	-	-
S	C	5	BENT 2	3"	-	-	-
S	C	6	BENT 2	5"	-	-	-
S	C	8	BENT 2	4"	-	-	-
W	C	8	INTERMEDIATE	6"	14'-1"	-	-
W	C	8	INTERMEDIATE	9"	15"	-	-
W	C	8	INTERMEDIATE	9"	9"	-	-
W	C	5	BENT 3	8"	9"	-	-
F	C	5	BENT 3	5 1/4"	24"	-	-
S	C	5	BENT 3	5"	-	-	-
W	C	8	BENT 3	34"	9 1/2"	6"	96"
F	C	8	BENT 3	5 1/4"	36"	-	-
S	C	8	BENT 3	34"	-	-	-

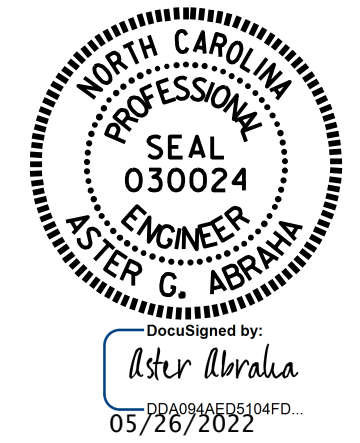
(SEE SHEETS S1-27 AND S1-28 FOR BEAM REPAIR DETAILS AND DIMENSIONS.)

SPAN C
(UNDERSIDE)

BEAM REPAIR QUANTITY TABLE									
BOLTED STEEL PLATES		STEEL PLATES		STIFFENER		STEEL DIAPHRAGM		BEAM END CUT-OUT	
LBS.		LBS.		LBS.		LBS.		LBS.	
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
0		489.9		75.0		0		0	

DRAWN BY : A. Y. GODFREY DATE : 11/2021
 CHECKED BY : G. AYES DATE : 02/2022

PROJECT NO. 15BPR.47
 EDGEcombe COUNTY
 BRIDGE NO. 320051
 SHEET 3 OF 6



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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S1-12
2			4			TOTAL SHEETS 31

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REPAIR QUANTITY TABLE



UNDERSIDE OF DECK REPAIRS - SPAN D	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	6.4	2.2		
OVERHANG	4.8	1.6		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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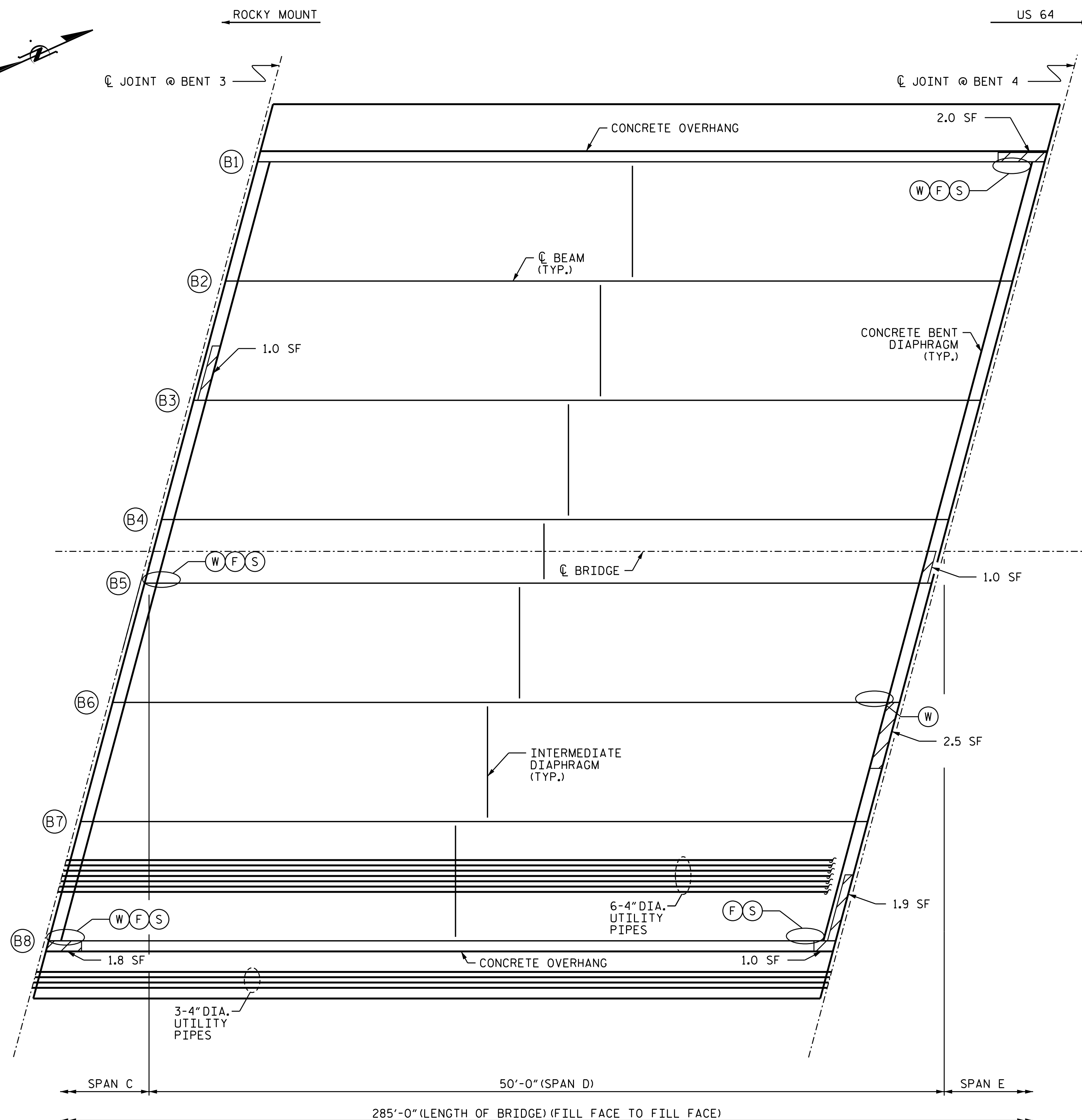
FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

-  - CONCRETE REPAIR AREA
-  - SHOTCRETE REPAIR AREA
- (B#) BEAM NUMBER
- (W) WEB PLATING REPAIR
- (S) STIFFENER REPAIR
- (F) BOTTOM FLANGE PLATING REPAIR
- (BW) BOLTED WEB PLATE REPAIR
- (BF) BOLTED FLANGE PLATE REPAIR

STEEL REPAIR LOCATIONS

REPAIR	SPAN	BEAM	LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"
W	D	5	BENT 3	5"	39"	-	-
F	D	5	BENT 3	5 1/4"	39"	-	-
S	D	5	BENT 3	5"	-	-	-
W	D	8	BENT 3	5"	72"	-	-
F	D	8	BENT 3	5 1/4"	39"	-	-
S	D	8	BENT 3	5"	-	-	-
W	D	1	BENT 4	5"	80"	-	-
F	D	1	BENT 4	5 1/4"	36"	-	-
S	D	1	BENT 4	5"	-	-	-
W	D	6	BENT 4	34"	9"	-	-
F	D	8	BENT 4	5 1/2"	16"	-	-
S	D	8	BENT 4	3"	-	-	-

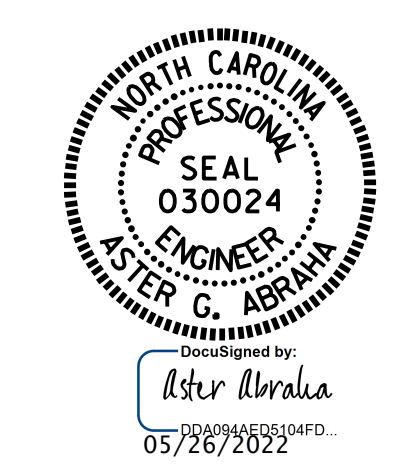
(SEE SHEETS S1-27 AND S1-28 FOR BEAM REPAIR DETAILS AND DIMENSIONS.)



SPAN D (UNDERSIDE)

BEAM REPAIR QUANTITY TABLE									
BOLTED STEEL PLATES		STEEL PLATES		STIFFENER		STEEL DIAPHRAGM		BEAM END CUT-OUT	
LBS.		LBS.		LBS.		LBS.		LBS.	
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
0		534.1		33.9		0		0	

DRAWN BY : A. Y. GODFREY DATE : 01/2022
 CHECKED BY : G. AYES DATE : 02/2022



PROJECT NO. 15BPR.47
 EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 4 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

UNDERSIDE DECK REPAIRS SPAN D

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-13
1			3			TOTAL SHEETS 31
2			4			

REPAIR QUANTITY TABLE

UNDERSIDE OF DECK REPAIRS - SPAN E	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	12.7	4.3		
OVERHANG	4.5	1.5		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

STEEL REPAIR LOCATIONS

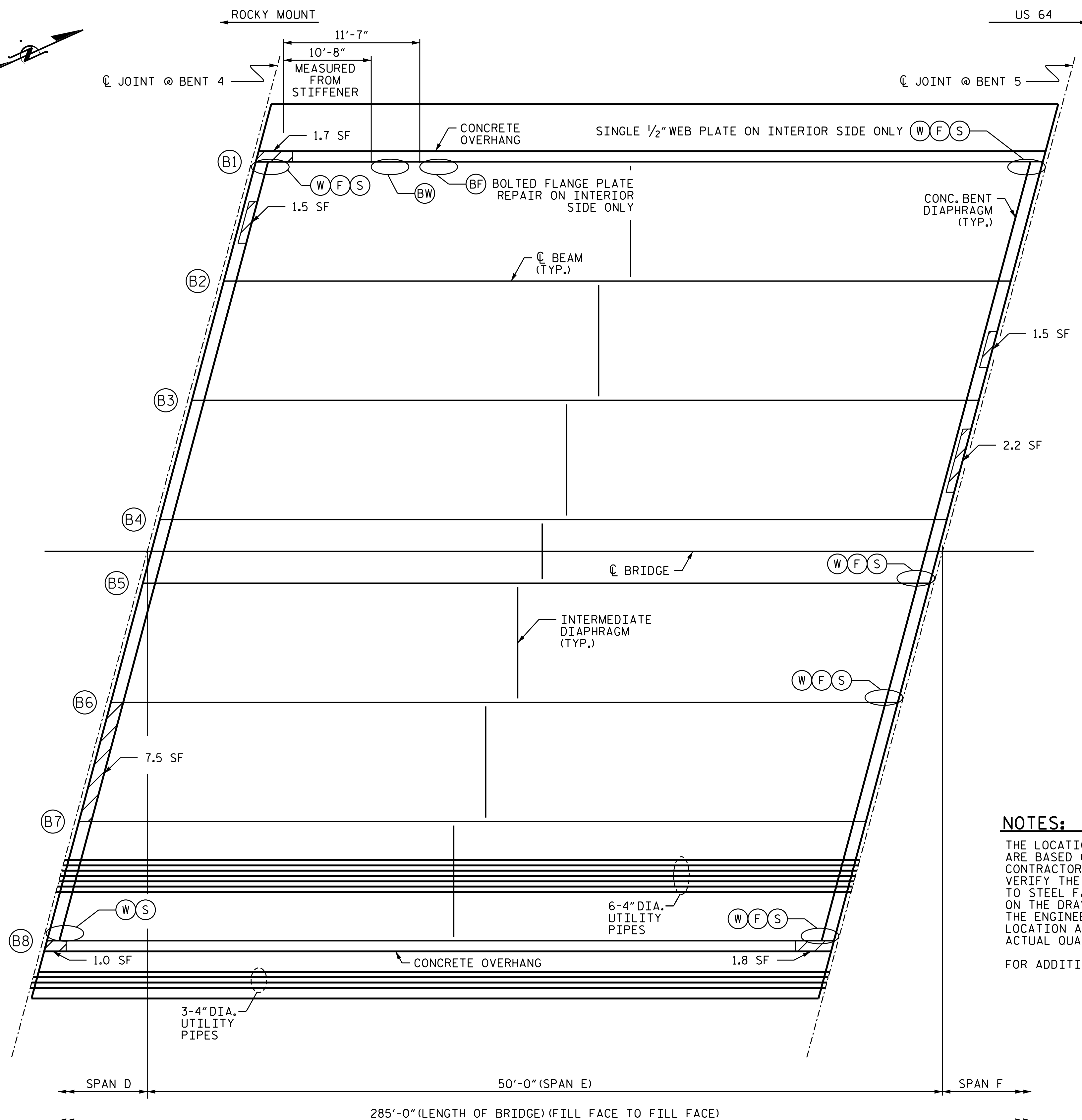
REPAIR	SPAN	BEAM	LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"
W	E	1	BENT 4	6"	108"	-	-
F	E	1	BENT 4	5 1/4"	108"	-	-
S	E	1	BENT 4	10"	-	-	-
BW	E	1	INTERMEDIATE	8"	120"	-	-
BF	E	1	INTERMEDIATE	-	72"	-	-
W	E	8	BENT 4	5"	72"	-	-
S	E	8	BENT 4	5"	-	-	-
W	E	1	BENT 5	4"	46"	-	-
F	E	1	BENT 5	5 1/4"	46"	-	-
S	E	1	BENT 5	4"	-	-	-
W	E	5	BENT 5	6"	9"	-	-
F	E	5	BENT 5	5 1/4"	36"	-	-
S	E	5	BENT 5	4"	-	-	-
W	E	6	BENT 5	34"	9"	-	-
F	E	6	BENT 5	5 1/4"	18"	-	-
S	E	6	BENT 5	3"	-	-	-
W	E	8	BENT 5	9"	60"	-	-
F	E	8	BENT 5	5 1/4"	60"	-	-
S	E	8	BENT 5	9"	-	-	-

(SEE SHEETS S1-27 AND S1-28 FOR BEAM REPAIR DETAILS AND DIMENSIONS.)

NOTES:

THE LOCATIONS AND DIMENSIONS OF THE AREAS FOR REPAIR ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER, SHALL VERIFY THE LOCATION AND EXTENT OF REPAIR AREAS PRIOR TO STEEL FABRICATION. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE REPAIR QUANTITY TABLE.

FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.



BEAM REPAIR QUANTITY TABLE

BOLTED STEEL PLATES		STEEL PLATES		STIFFENER		STEEL DIAPHRAGM		BEAM END CUT-OUT	
LBS.		LBS.		LBS.		LBS.		LBS.	
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
991.5		859.1		58.1		0		0	

SPAN E
(UNDERSIDE)

DRAWN BY : A. Y. GODFREY DATE : 01/2022
CHECKED BY : G. AYES DATE : 02/2022



PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051

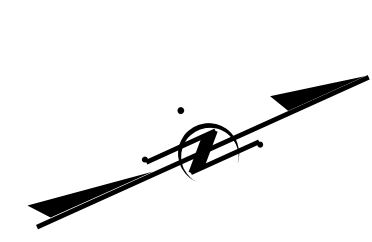
SHEET 5 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

UNDERSIDE
DECK REPAIRS
SPAN E

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

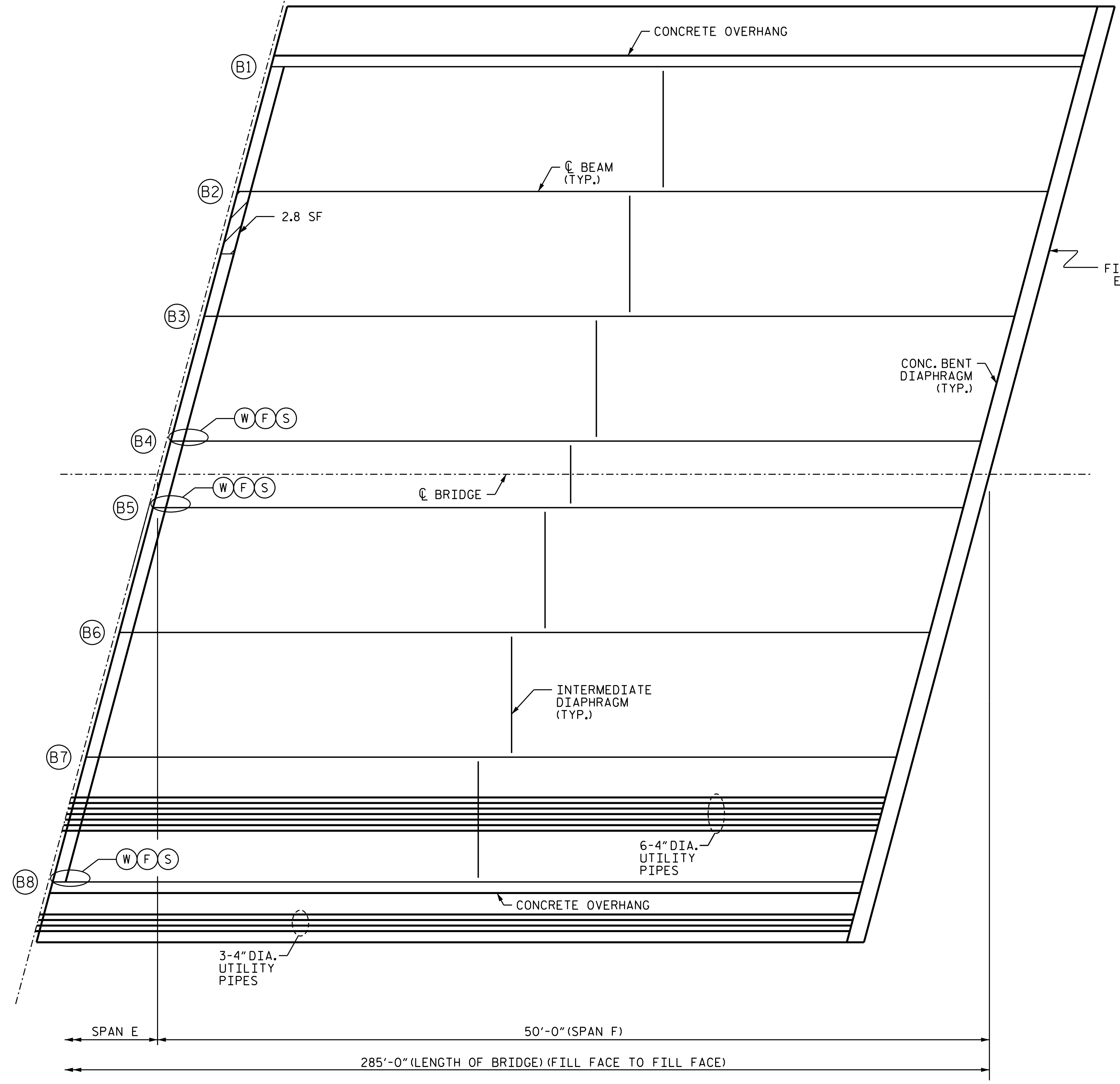
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-14
1			3			TOTAL SHEETS
2			4			31



ROCKY MOUNT

US 64

CL JOINT @ BENT 5



SPAN E
50'-0" (SPAN F)
285'-0" (LENGTH OF BRIDGE) (FILL FACE TO FILL FACE)

SPAN F
(UNDERSIDE)

- CONCRETE REPAIR AREA
- SHOTCRETE REPAIR AREA
- (B*) BEAM NUMBER
- (W) WEB PLATING REPAIR
- (S) STIFFENER REPAIR
- (F) BOTTOM FLANGE PLATING REPAIR
- (BW) BOLTED WEB PLATE REPAIR
- (BF) BOLTED FLANGE PLATE REPAIR

FILL FACE @
END BENT 2

REPAIR QUANTITY TABLE

UNDERSIDE OF DECK REPAIRS - SPAN F	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	2.8	1.0		
OVERHANG	0.0	0.0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
CONCRETE BENT DIAPHRAGM	0.0	0.0		
OVERHANG	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

THE LOCATIONS AND DIMENSIONS OF THE AREAS FOR REPAIR ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER, SHALL VERIFY THE LOCATION AND EXTENT OF REPAIR AREAS PRIOR TO STEEL FABRICATION. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE REPAIR QUANTITY TABLE.

FOR ADDITIONAL NOTES, SEE SHEET 1 OF 6.

STEEL REPAIR LOCATIONS

REPAIR TYPE	SPAN	BEAM	LOCATION	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"
W	F	4	BENT 5	6"	9"	-	-
F	F	4	BENT 5	5 1/4"	24"	-	-
S	F	4	BENT 5	3"	-	-	-
W	F	5	BENT 5	6"	9"	-	-
F	F	5	BENT 5	5 1/4"	24"	-	-
S	F	5	BENT 5	4"	-	-	-
W	F	8	BENT 5	8"	60"	-	-
F	F	8	BENT 5	5 1/4"	60"	-	-
S	F	8	BENT 5	5"	-	-	-

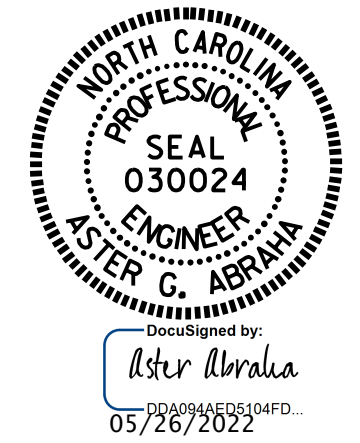
(SEE SHEETS S1-27 AND S1-28 FOR BEAM REPAIR DETAILS AND DIMENSIONS.)

BEAM REPAIR QUANTITY TABLE

BOLTED STEEL PLATES		STEEL PLATES		STIFFENER		STEEL DIAPHRAGM		BEAM END CUT-OUT	
LBS.		LBS.		LBS.		LBS.		LBS.	
ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
0		271.3		19.4		0		0	

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051

SHEET 6 OF 6

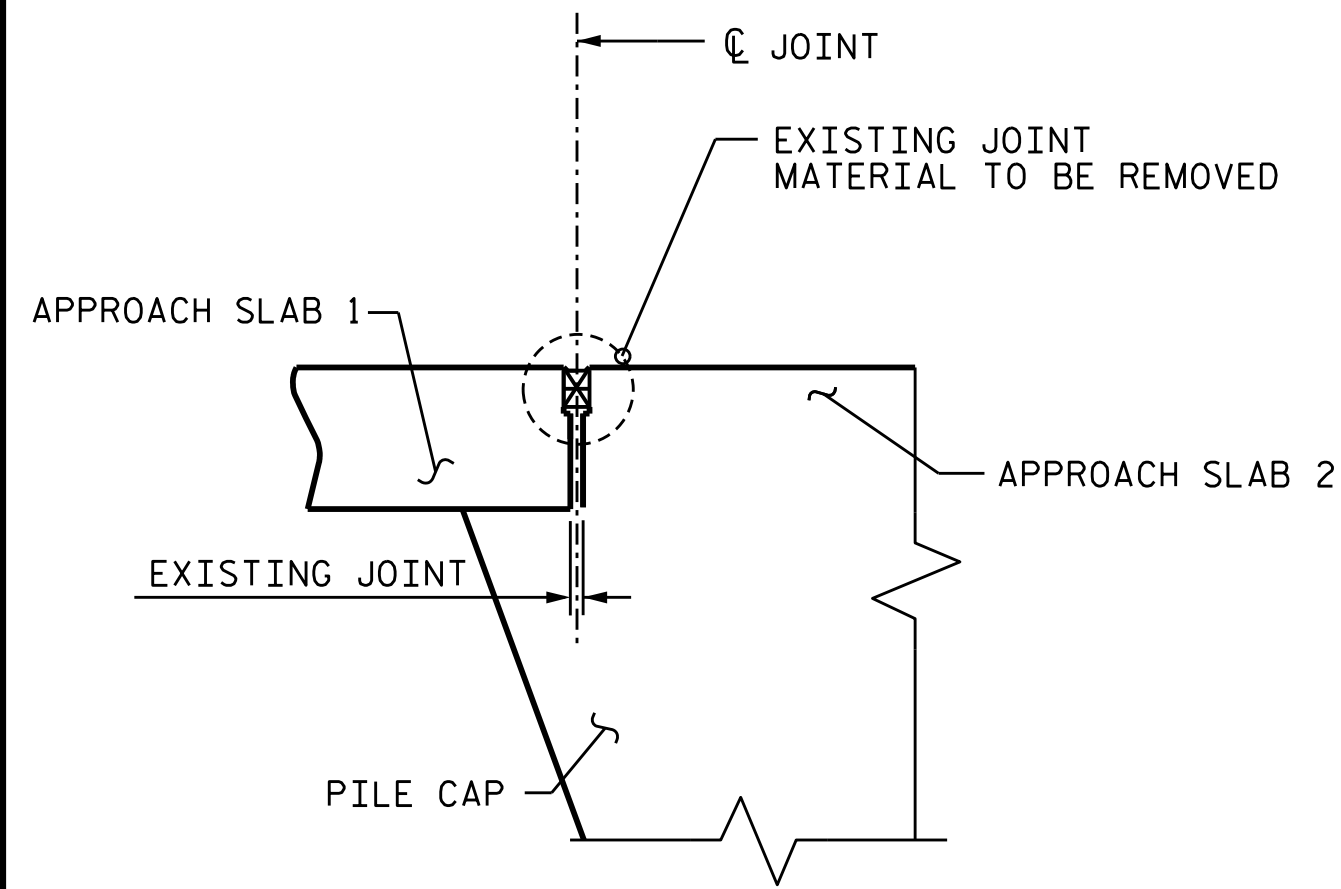


STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
UNDERSIDE
DECK REPAIRS
SPAN F

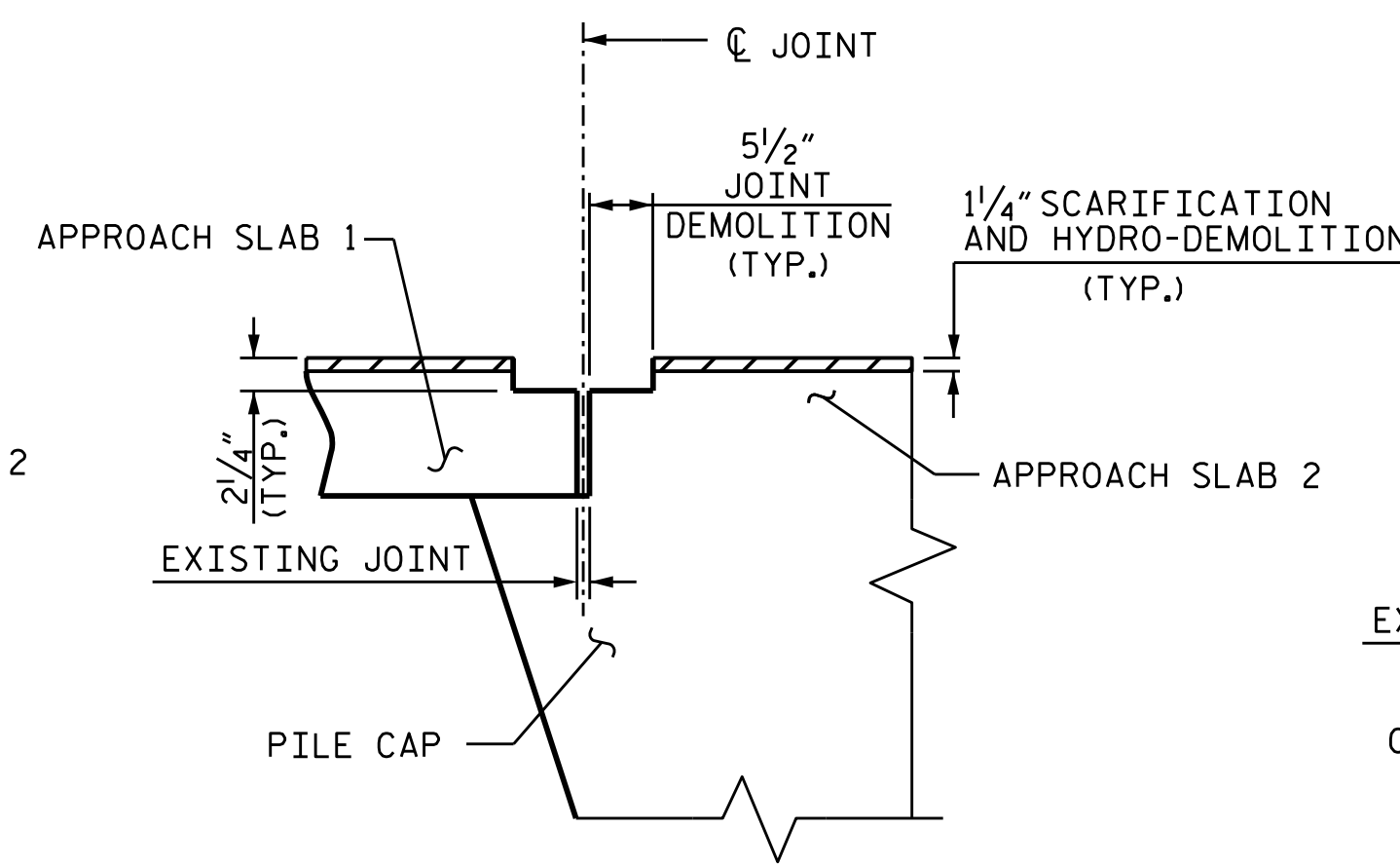
DRAWN BY : A. Y. GODFREY DATE : 11/2021
CHECKED BY : G. AYES DATE : 02/2022

NO.	REVISIONS			SHEET NO.
	BY:	DATE:	NO.	
1			3	S1-15
2			4	TOTAL SHEETS 31

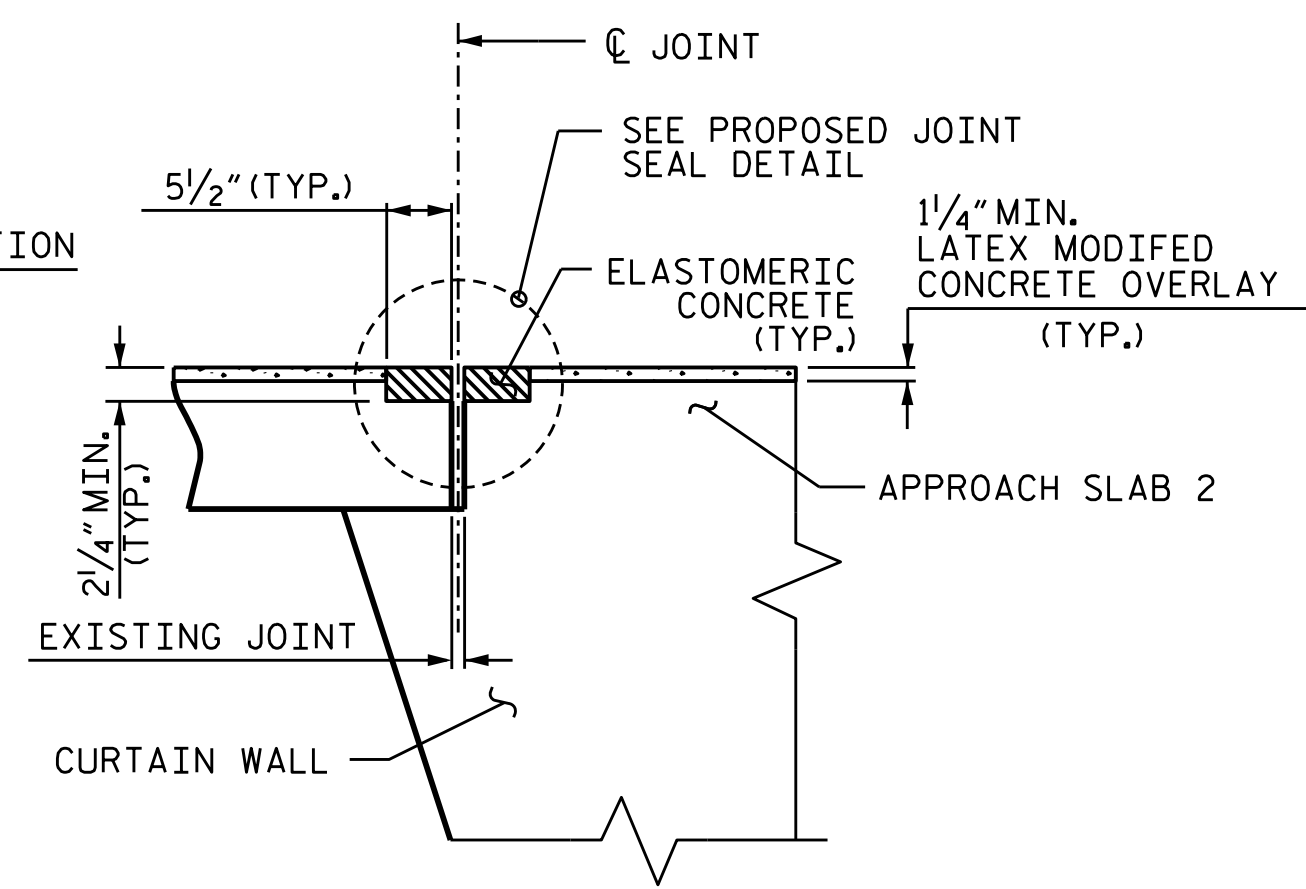
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EXISTING JOINT

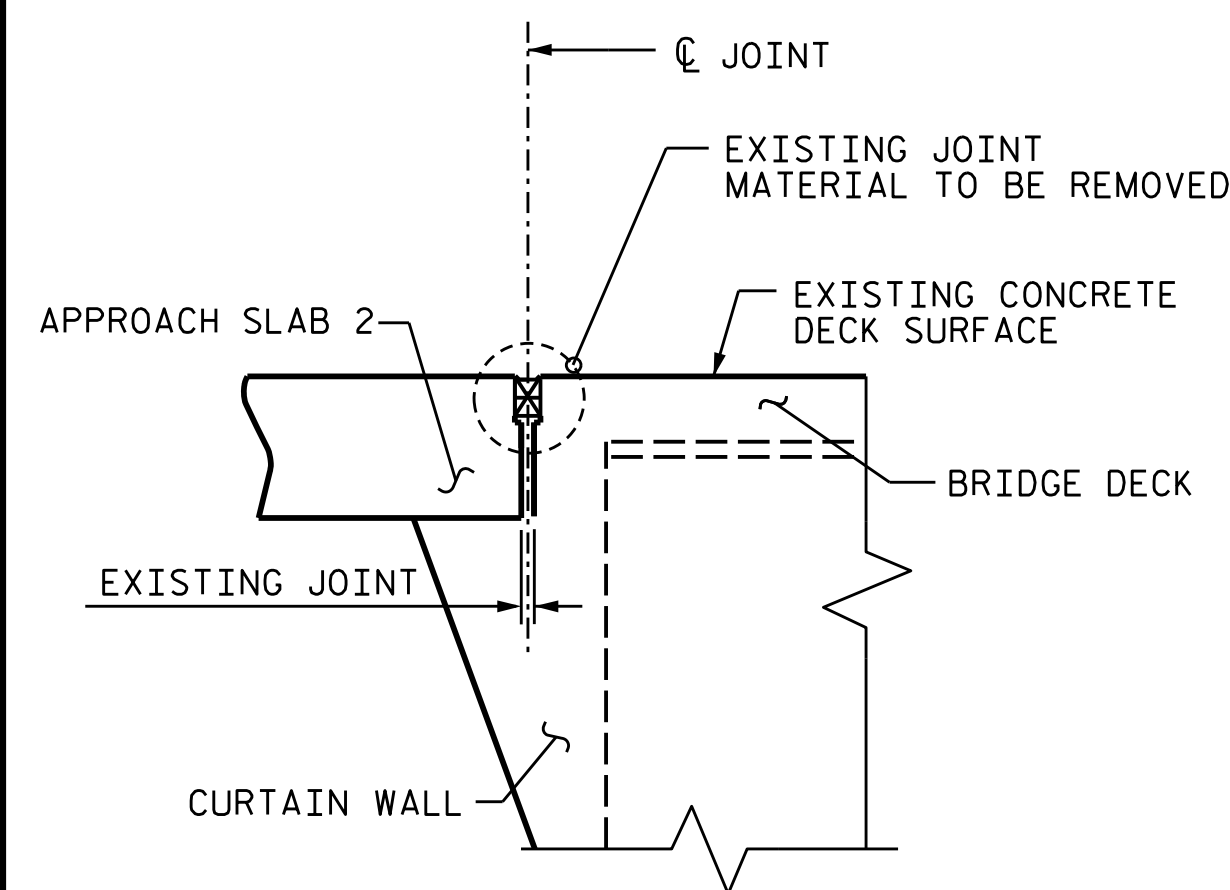


MINIMUM EXISTING JOINT DEMOLITION

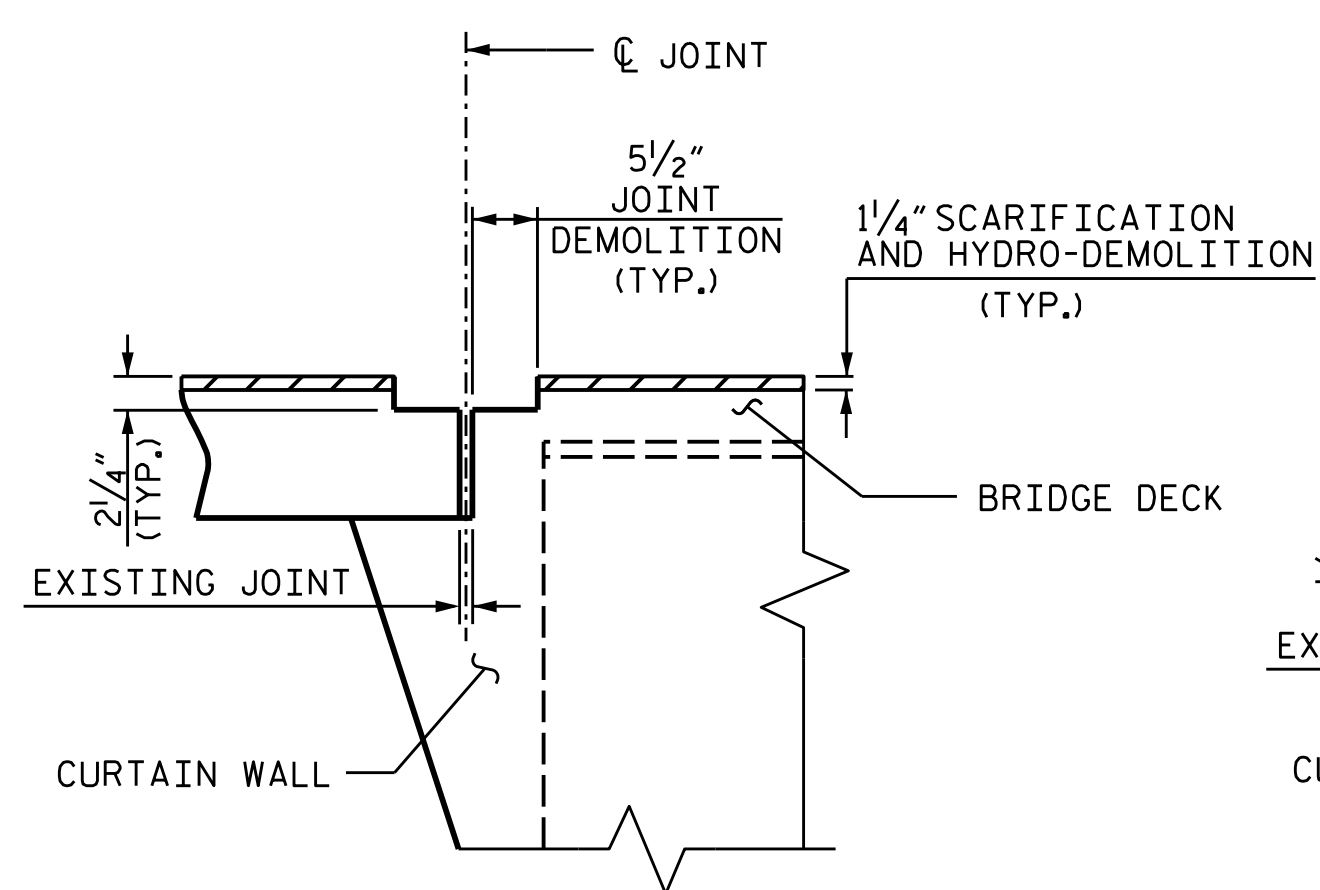


PROPOSED JOINT PRE-SAWED

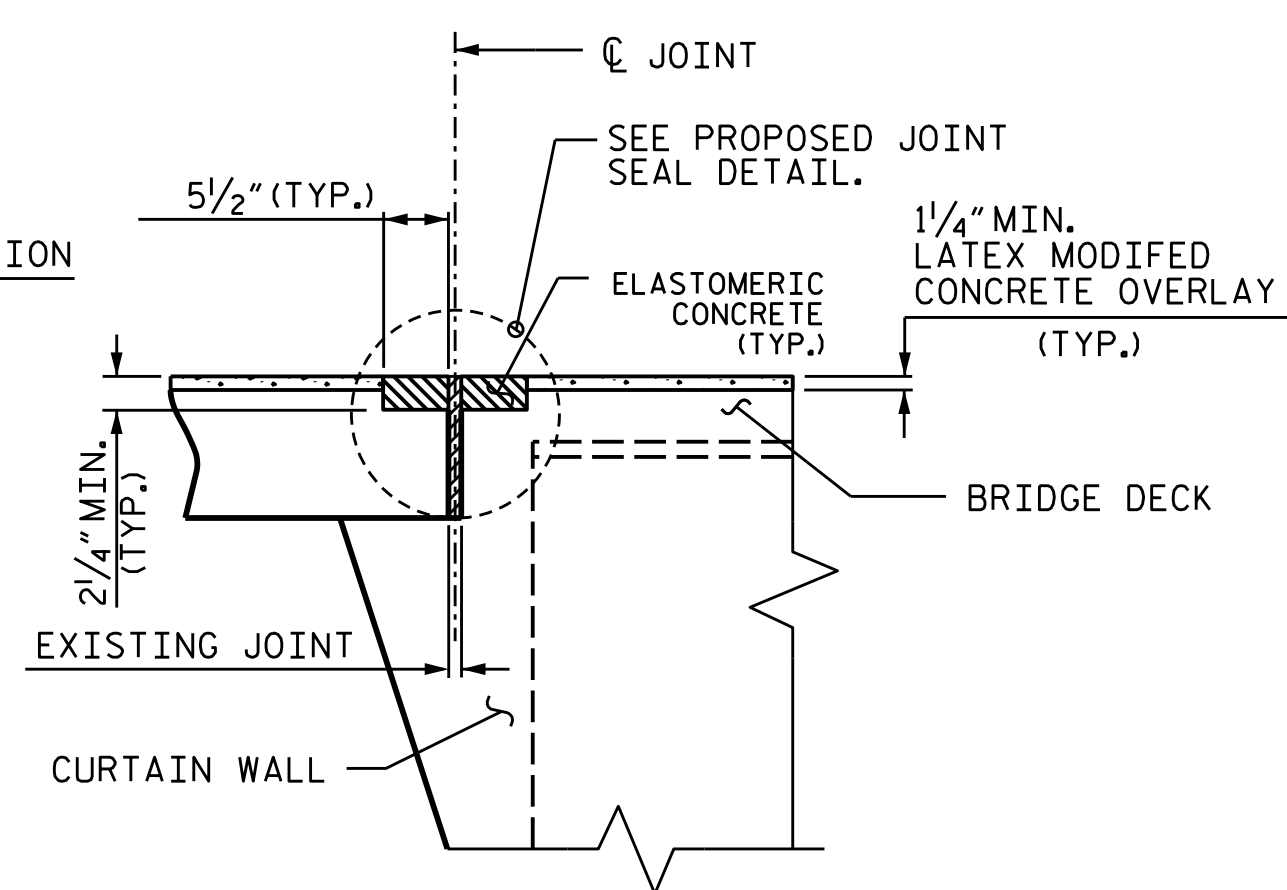
JOINT INSTALLATION SEQUENCE AT APPROACH SLAB 1
(SECTION A-A)



EXISTING JOINT



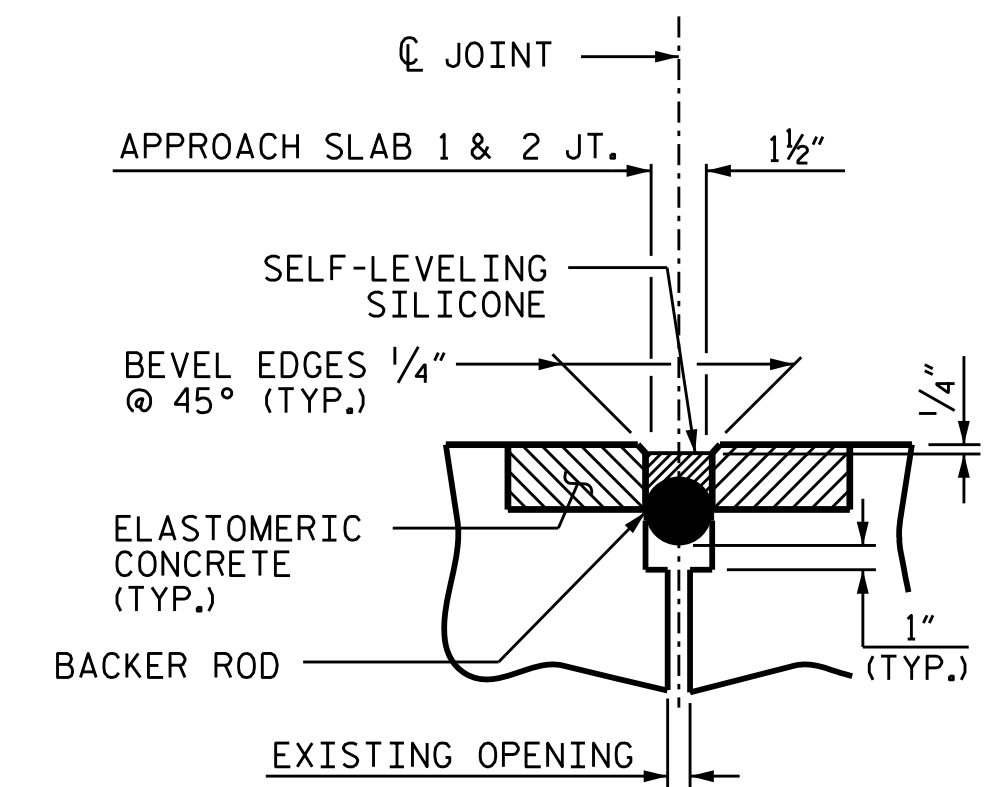
MINIMUM EXISTING JOINT DEMOLITION



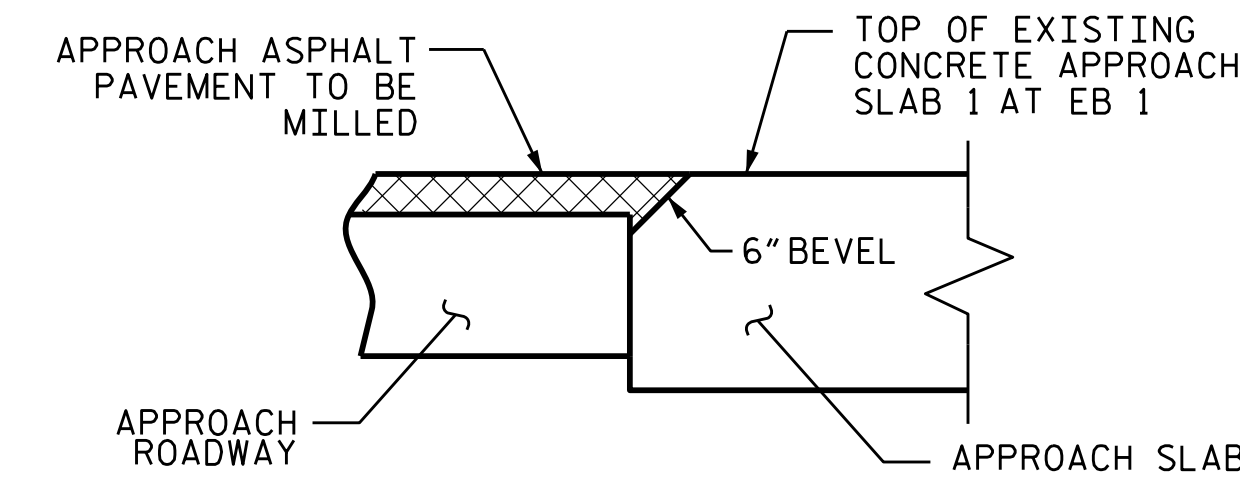
PROPOSED JOINT PRE-SAWED

JOINT INSTALLATION SEQUENCE AT APPROACH SLAB 2 AND END BENT 1
(SECTION B-B)

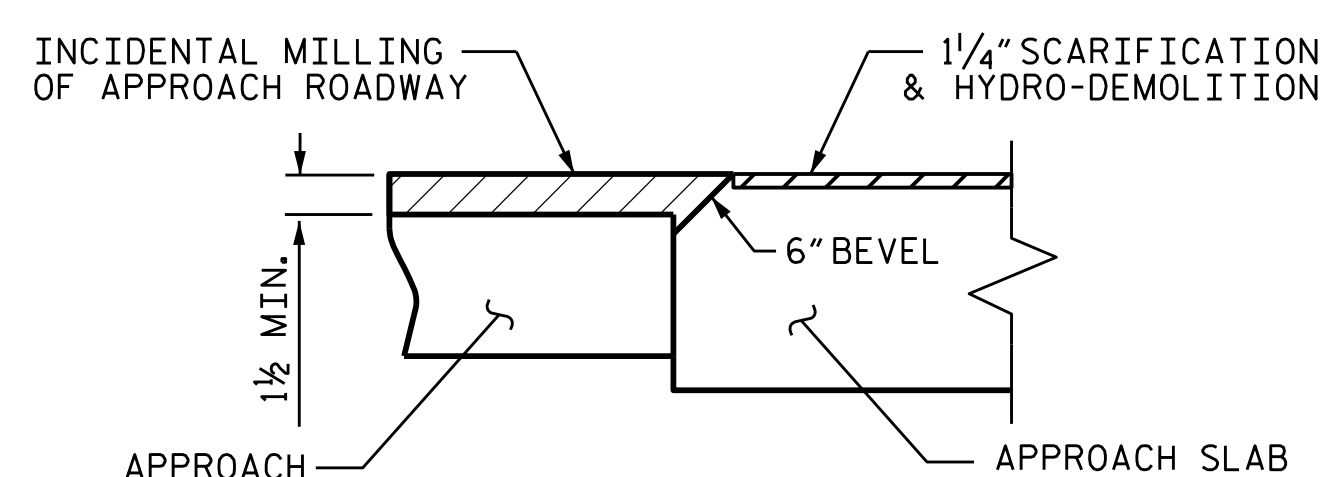
DEMOLISH BRIDGE JOINT AREA SUCH THAT THE BOTTOM OF THE EXCAVATION SHALL BE REASONABLY FLAT AND LEVEL AND TO THE NECESSARY DEPTH, SUCH THAT ELASTOMERIC CONCRETE SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE, NOT LATEX MODIFIED CONCRETE.



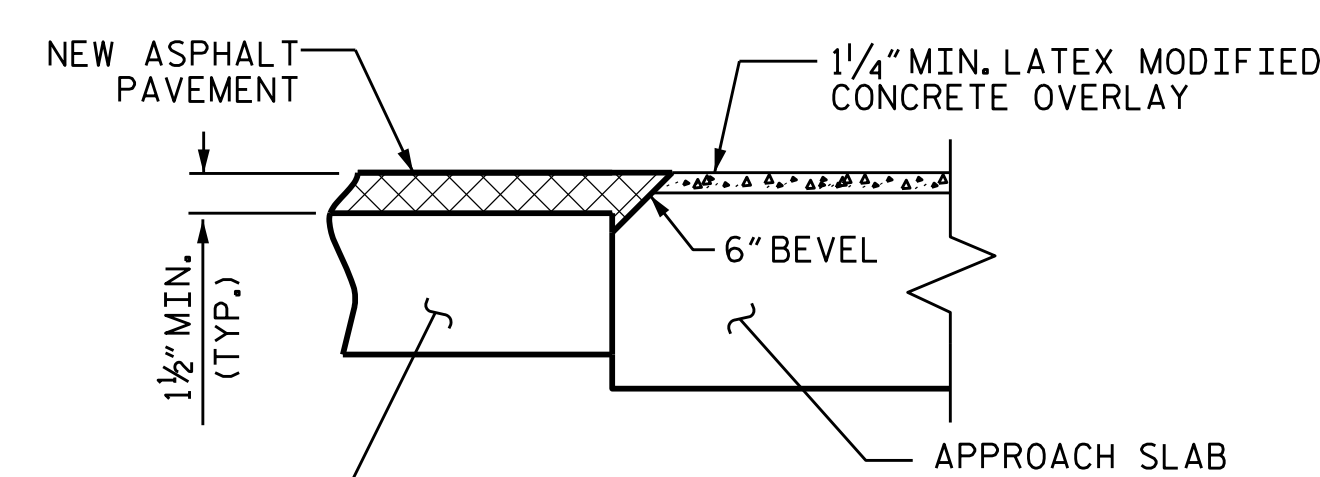
PROPOSED JOINT SEAL DETAIL
(WITH SAWED DIMENSION)



EXISTING JOINT



EXISTING JOINT



PROPOSED JOINT

JOINT INSTALLATION SEQUENCE AT APPROACH ROADWAY AND APPROACH SLAB 1
(SECTION F-F)

DRAWN BY : A. Y. GODFREY DATE : 11/2021
CHECKED BY : G. AYES DATE : 02/2022

5/26/2022 R:\Structures\Plans\320051\401_031_15BPR.47_SMU_JT1.S1-16_320051.dgn aygodfrey

NOTES:

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

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.

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

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

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

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

FOR POURABLE SILICONE EXPANSION JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.

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

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

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR SUMMARY OF JOINT REPAIR QUANTITIES, SEE SHEET 2 OF 2.

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
BRIDGE NO. 320051

SHEET 1 OF 2

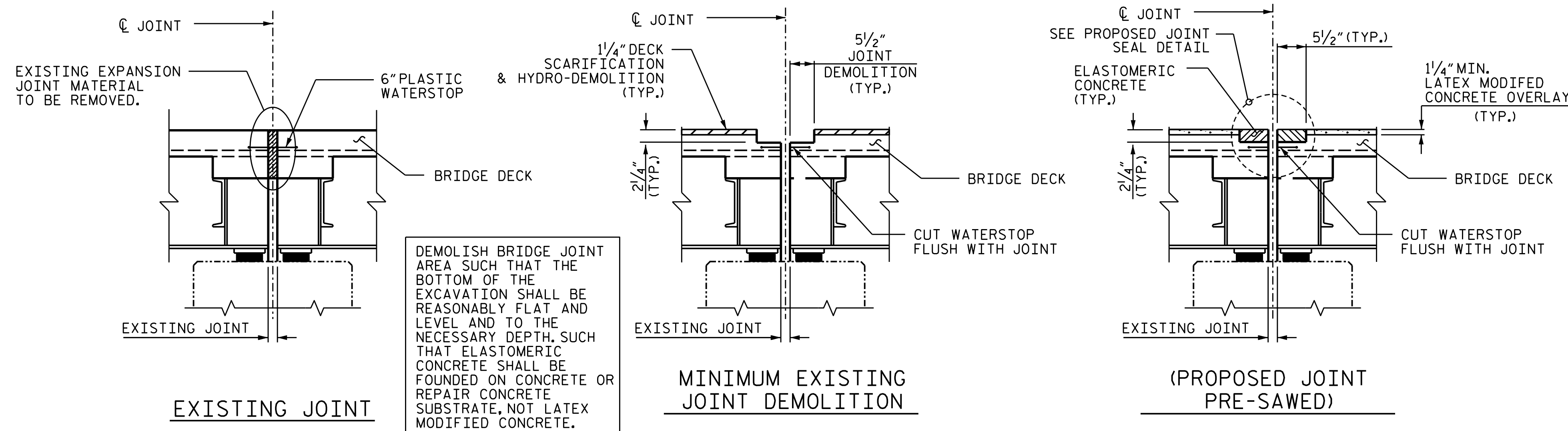


STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT REPAIR DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-16
1			3			TOTAL SHEETS
2			4			31

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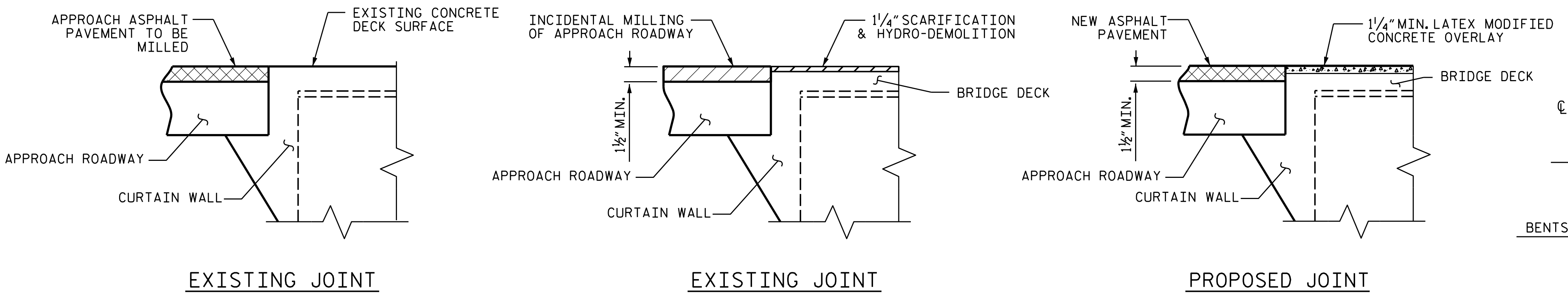


DEMOLISH BRIDGE JOINT AREA SUCH THAT THE BOTTOM OF THE EXCAVATION SHALL BE REASONABLY FLAT AND LEVEL AND TO THE NECESSARY DEPTH, SUCH THAT ELASTOMERIC CONCRETE SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE, NOT LATEX MODIFIED CONCRETE.

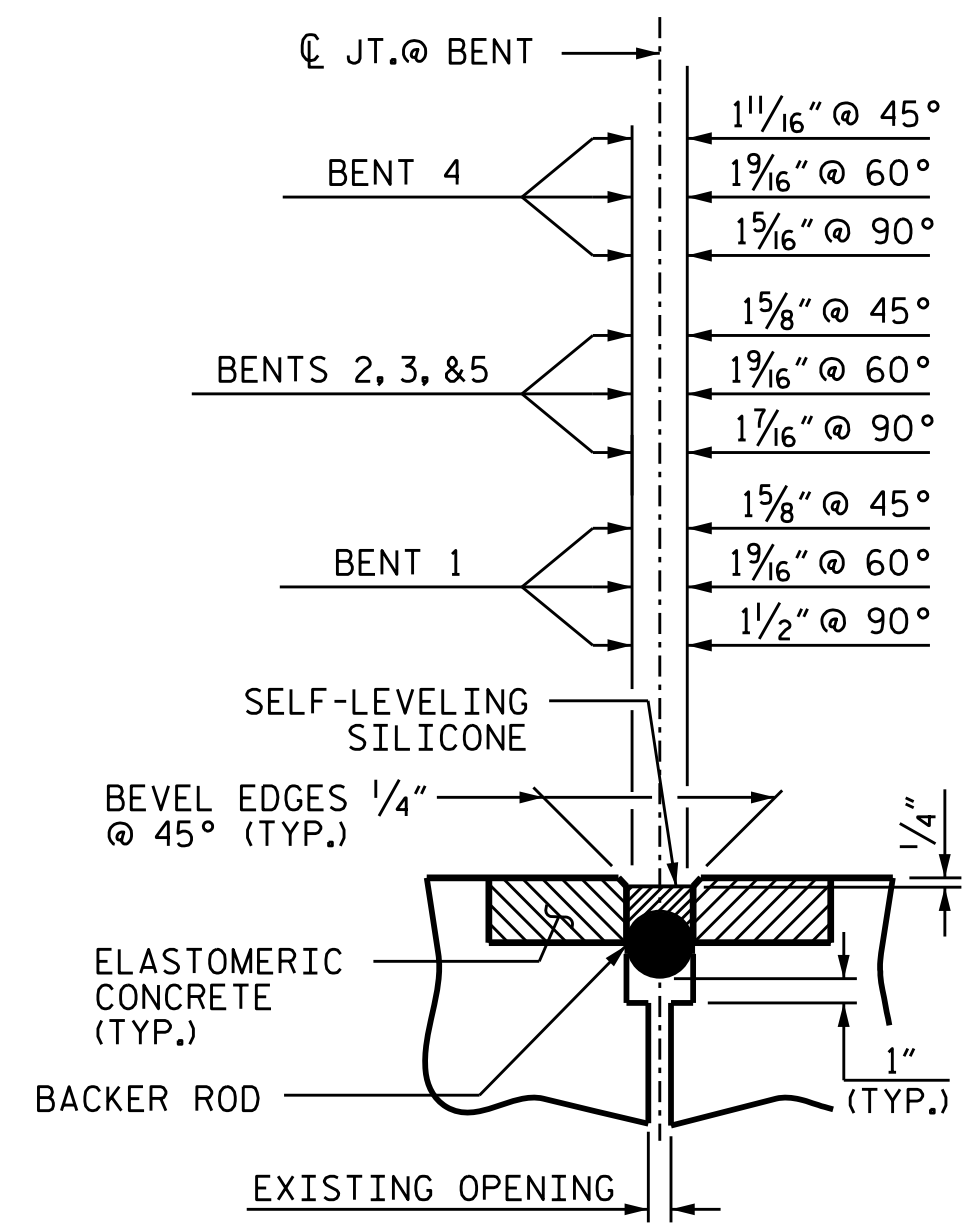
IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE, OR IF UNSOUND CONCRETE IS REMOVED WITHIN 2" OF THE WATERSTOP, THE ENTIRE CONCRETE DEPTH TO THE WATERSTOP SHALL BE REMOVED. IF SUCH EXCAVATION EXTENDS MORE THAN 2" BELOW THE BOTTOM OF THE PLANNED ELASTOMERIC CONCRETE HEADER, AS SHOWN, APPROVED REPAIR CONCRETE SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE ELASTOMERIC CONCRETE.

JOINT INSTALLATION SEQUENCE AT BENTS
 (SECTION C-C)

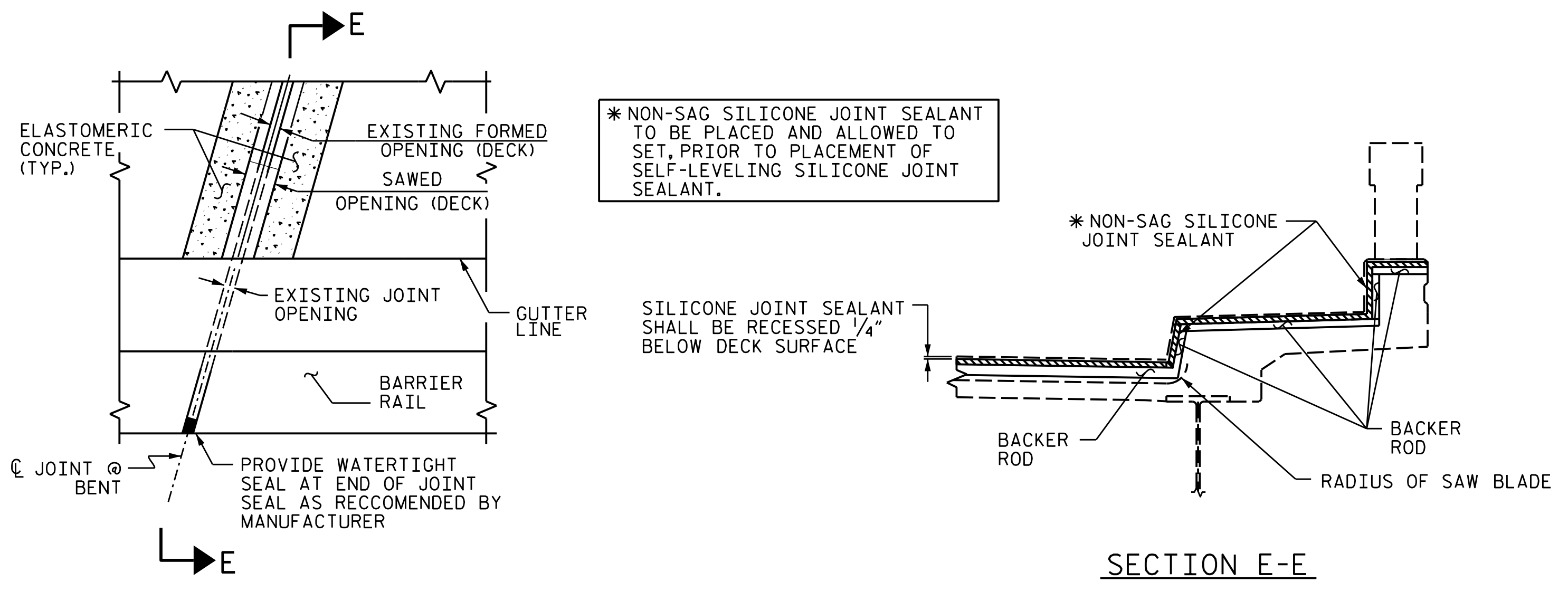
NOTES:
 CONTRACTOR SHALL FIELD VERIFY THE EXISTING FORMED OPENING PRIOR TO OBTAINING JOINT MATERIAL. IF ACTUAL JOINT OPENINGS VARIES FROM THE OPENING INDICATED IN DETAIL MORE THAN 1/4" NOTIFY ENGINEER. REVISION TO THE JOINT SEAL SIZE MAY BE NECESSARY.
 THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB 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.
 UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.
 ALL EXPOSED ENDS OF CUT BARS SHALL BE COATED WITH EPOXY PRIOR TO THE NEW JOINT MATERIAL INSTALLATION.
 THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.
 FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DEMOLITION, APPROVED REPAIR CONCRETE SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.
 FOR POURABLE SILICONE EXPANSION JOINT SEALS, SEE SPECIAL PROVISIONS.
 FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.
 SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.
 THE INSTALLATION OF JOINT SEAL SHALL BE WATERTIGHT.
 FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE.
 DURING JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.
 FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.



JOINT INSTALLATION SEQUENCE AT END BENT 2
 (SECTION D-D)



SUMMARY OF QUANTITIES		
	ESTIMATE	ACTUAL
ELASTOMERIC CONCRETE FOR PRESERVATION	59.1 CF	
POURABLE SILICONE JOINT SEALANT	403.9 LF	



PROJECT NO. 15BPR.47
 EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

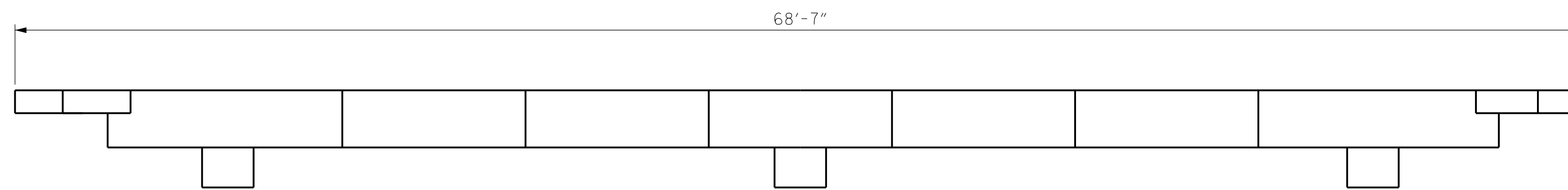
JOINT REPAIR DETAILS

North Carolina Professional Engineer Seal 030024
 Atter G. Abriani
 05/26/2022

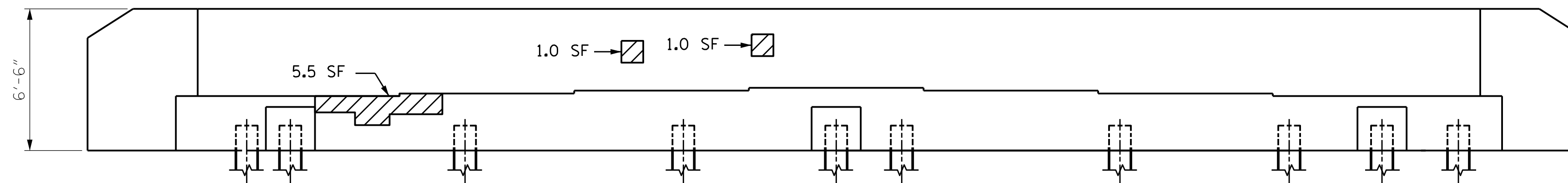
DRAWN BY : A. Y. GODFREY DATE : 11/2021
 CHECKED BY : G. AYES DATE : 02/2022

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NO.	BY:	DATE:	NO.	BY:	DATE:	S1-17
1			3			TOTAL SHEETS
2			4			31

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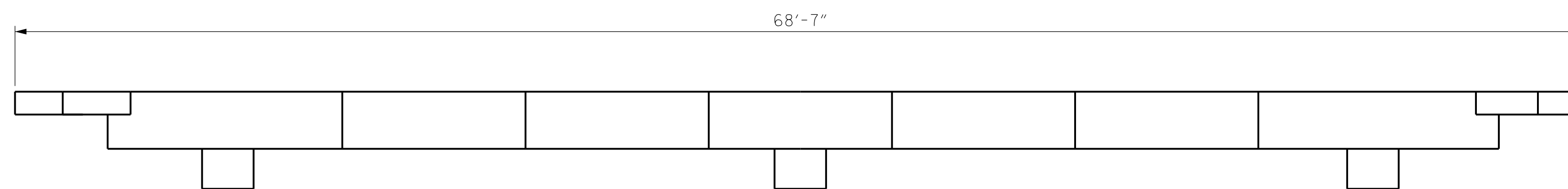


PLAN
(TOP OF CAP)

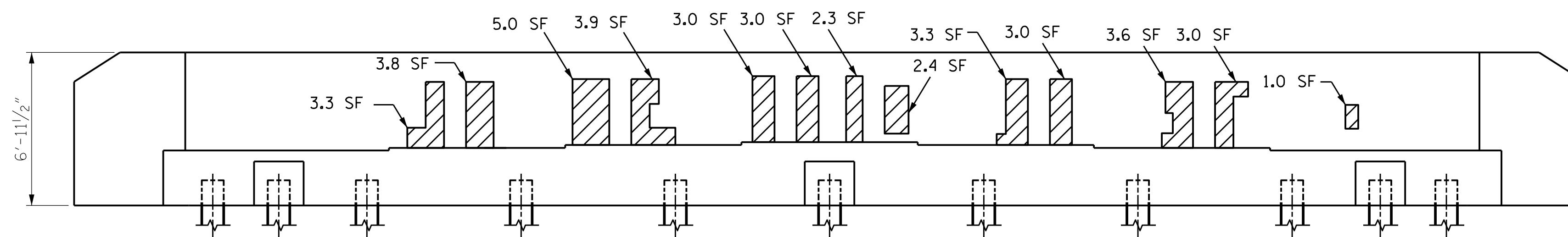


ELEVATION
(EAST FACE)

END BENT 1



PLAN
(TOP OF CAP)



ELEVATION
(WEST FACE)

END BENT 2

REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	48.1	24.1		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET S1-31.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

- CONCRETE REPAIR AREA
- SHOTCRETE REPAIR AREA

PROJECT NO. 15BPR.47
EDGECOMBE COUNTY
 BRIDGE NO. 320051

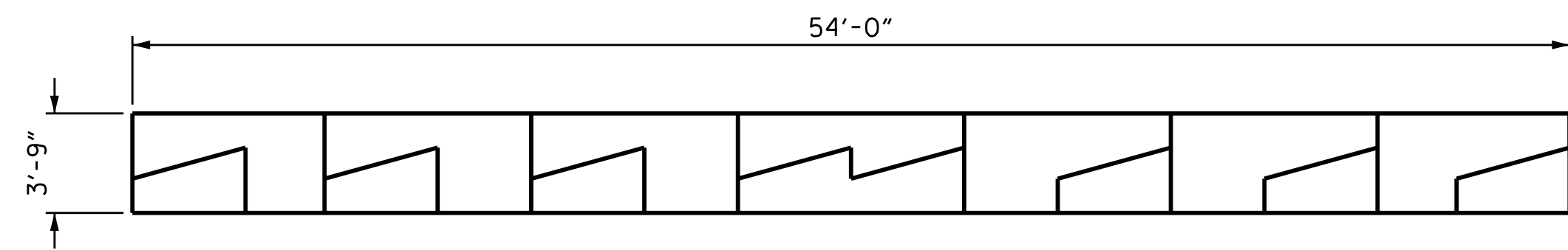


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE REPAIR
 END BENT 1 &
 END BENT 2

DRAWN BY : A. Y. GODFREY DATE : 09/2021
 CHECKED BY : G. AYES DATE : 02/2022

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-18
1			3			TOTAL SHEETS
2			4			31



PLAN
TOP OF CAP

SPAN B
SPAN A

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 CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE REPAIR QUANTITY TABLE.

FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET S1-31.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

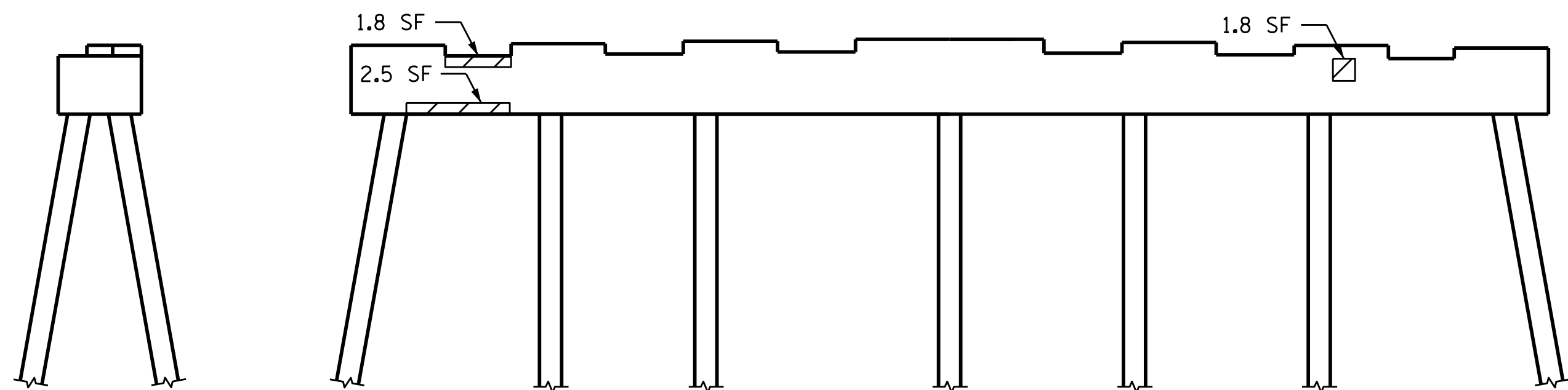
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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

- CONCRETE REPAIR AREA
- SHOTCRETE REPAIR AREA

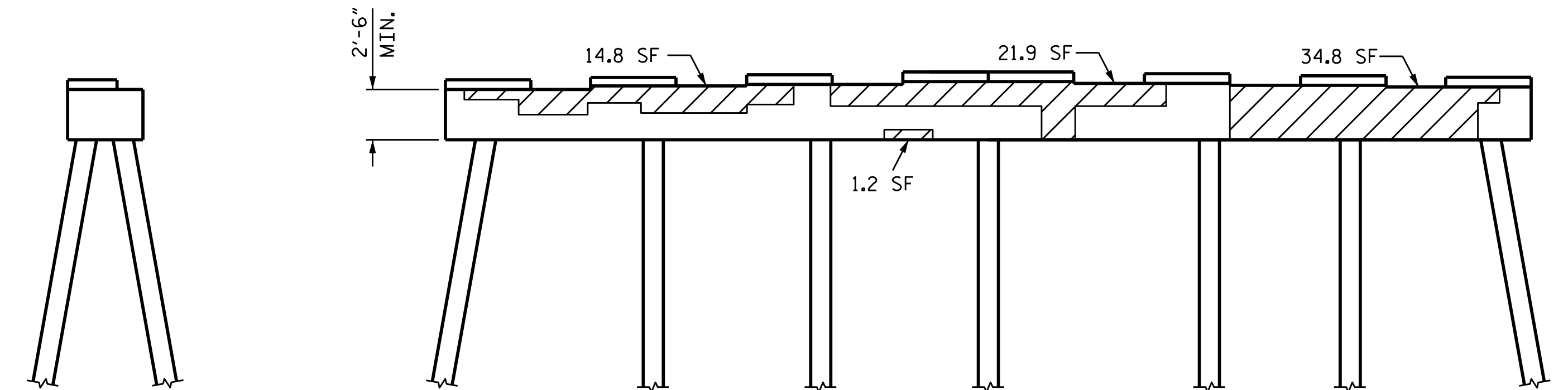
REPAIR QUANTITY TABLE				
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA S.F.	VOLUME C.F.	AREA S.F.	VOLUME C.F.
CAP (VERTICAL FACE)	78.8	39.4		
CAP (HORIZONTAL FACE)	3.5	1.8		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		

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



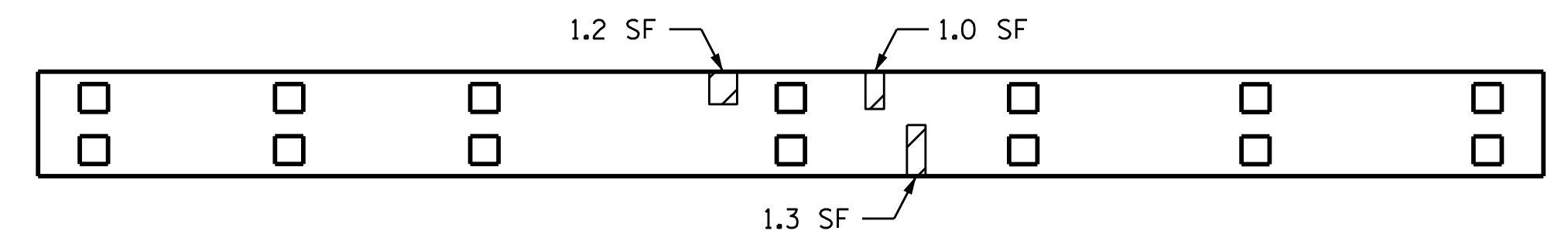
END VIEW
NORTH FACE

ELEVATION
WEST FACE
(LOOKING EAST)



END VIEW
SOUTH FACE

ELEVATION
EAST FACE
(LOOKING WEST)

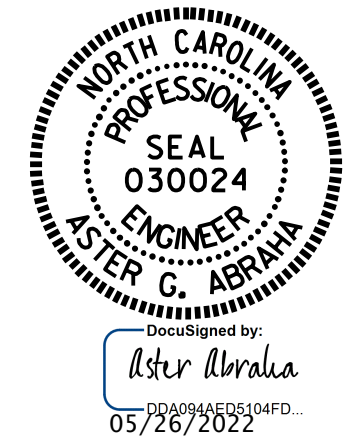


PLAN
BOTTOM OF CAP

SPAN A
SPAN B

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 1 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 1**

DRAWN BY : A. Y. GODFREY DATE : 09/2021
 CHECKED BY : G. AYES DATE : 02/2022

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-19
1			3			TOTAL SHEETS
2			4			31

REPAIR QUANTITY TABLE

BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA S.F.	VOLUME C.F.	AREA S.F.	VOLUME C.F.
CAP (VERTICAL FACE)	25.0	12.5		
CAP (HORIZONTAL FACE)	3.2	1.6		
COLUMN AND STRUTS	17.5	8.8		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN AND STRUTS	0.0	0.0		

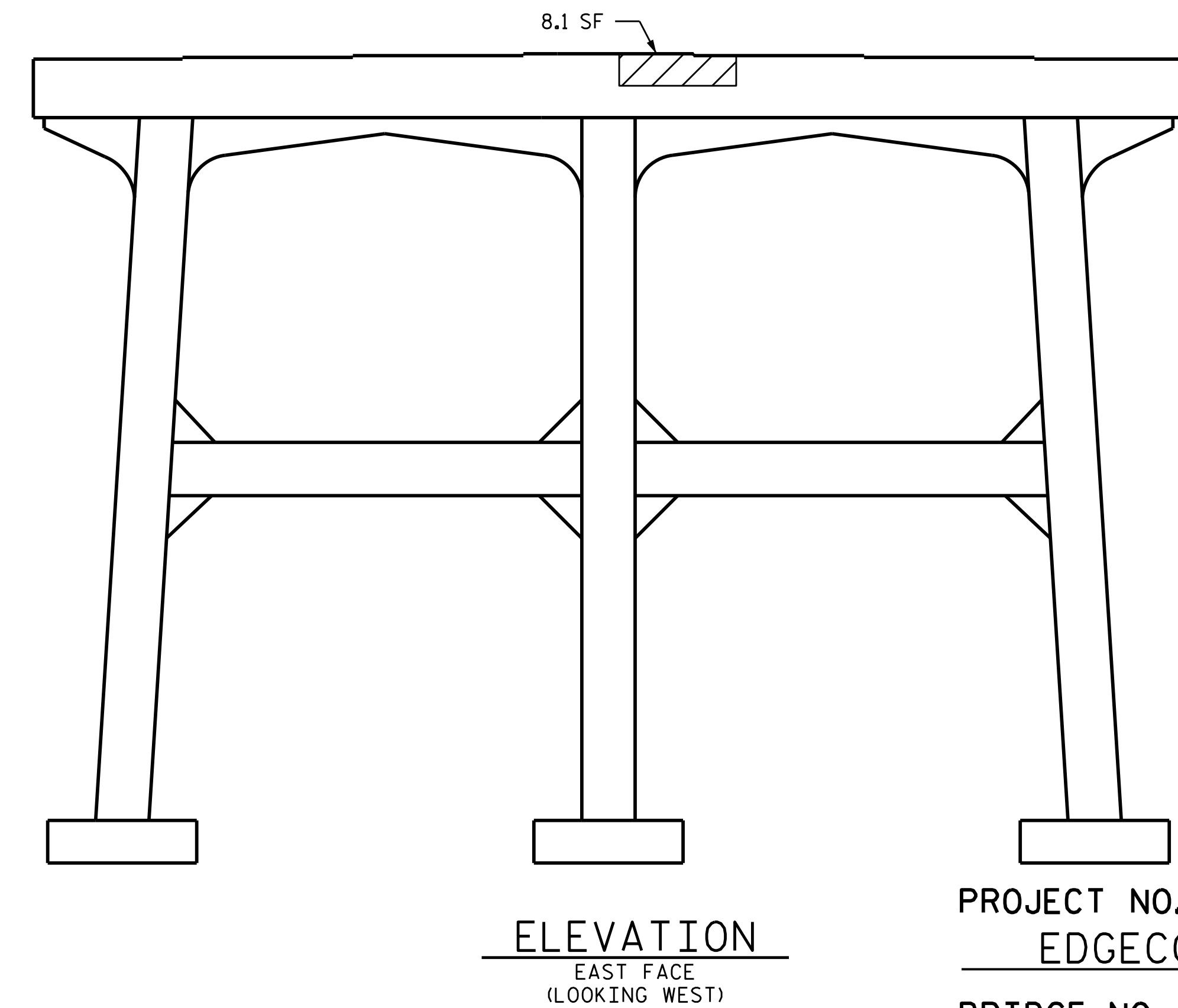
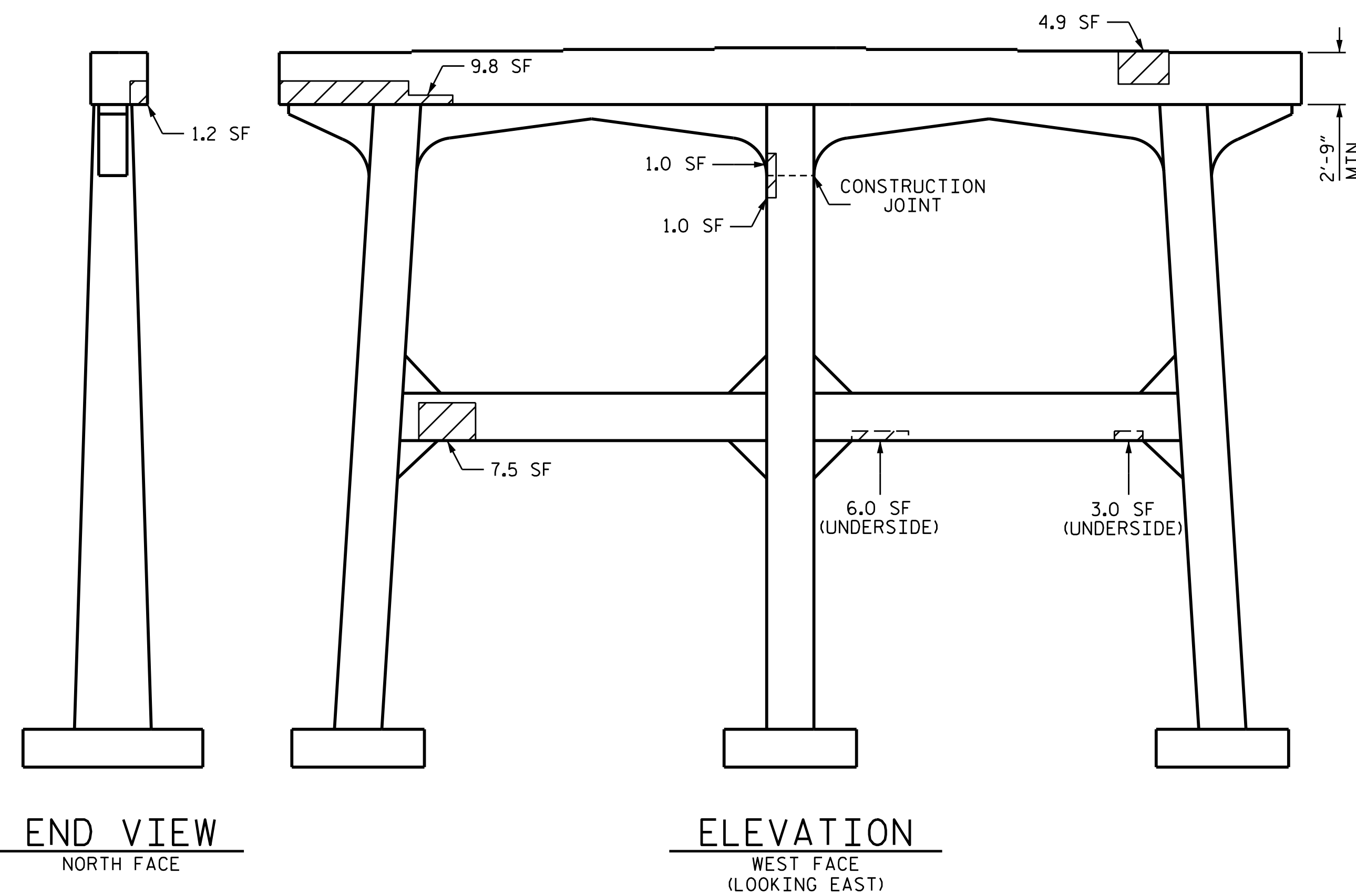
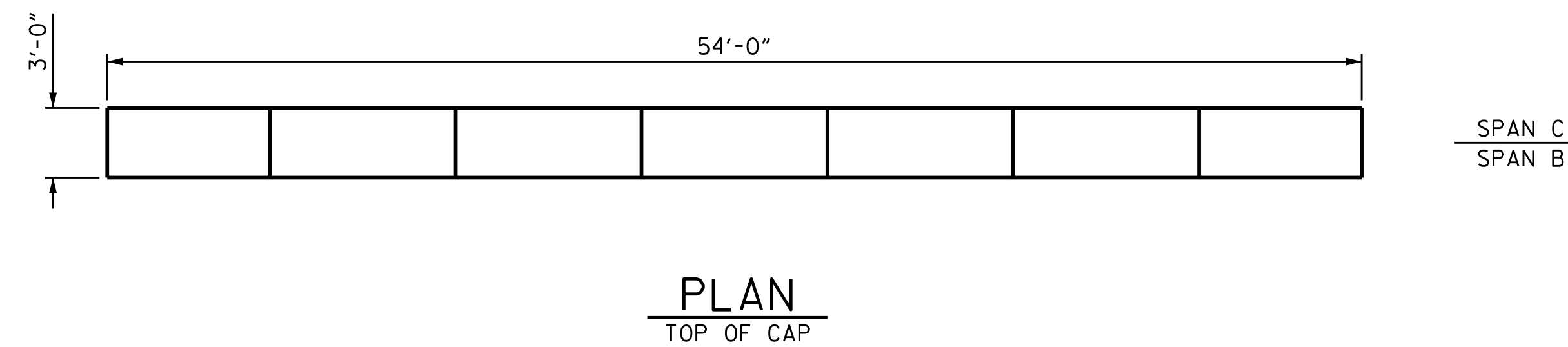
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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

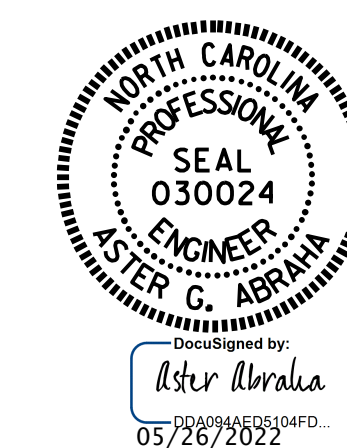
FOR ADDITIONAL NOTES, SEE SHEET 1 OF 5.

- CONCRETE REPAIR AREA
- SHOTCRETE REPAIR AREA



PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 2 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE BENT 2

DRAWN BY : A. Y. GODFREY DATE : 09/2021
 CHECKED BY : G. AYES DATE : 02/2022



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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S1-20
2			4			TOTAL SHEETS 31

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 CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE REPAIR QUANTITY TABLE.

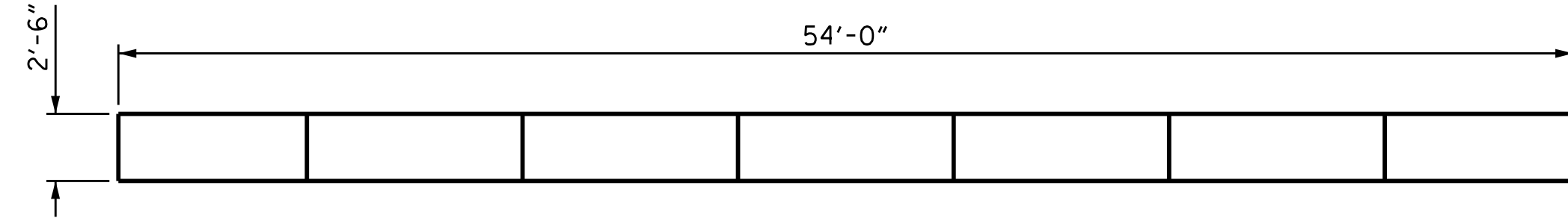
FOR ADDITIONAL NOTES, SEE SHEET 1 OF 5.

-  - CONCRETE REPAIR AREA
-  - SHOTCRETE REPAIR AREA

REPAIR QUANTITY TABLE

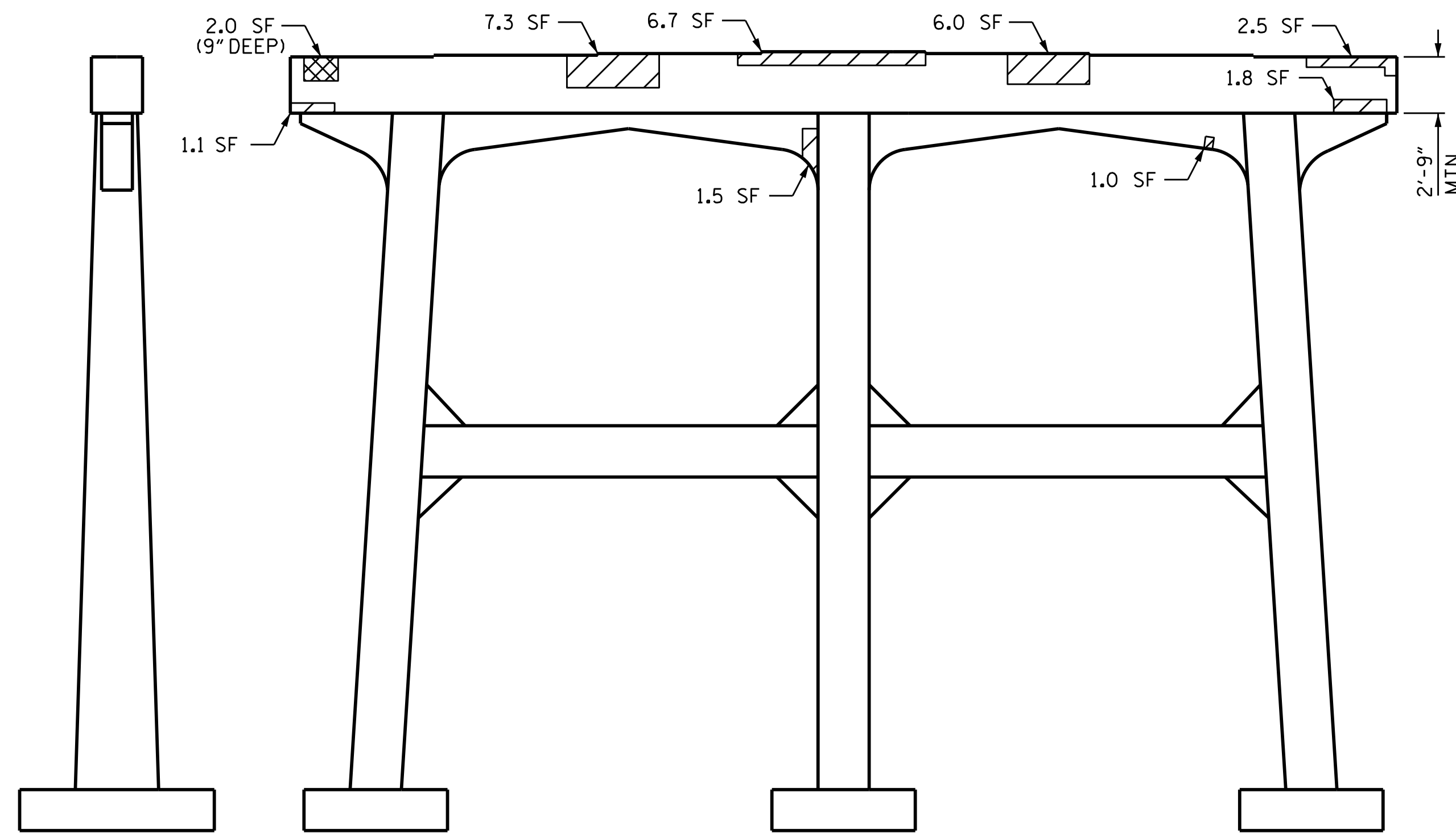
BENT 3	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA S.F.	VOLUME C.F.	AREA S.F.	VOLUME C.F.
CAP (VERTICAL FACE)	57.9	29.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN AND STRUTS	1.5	0.8		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	2.0	1.5		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN AND STRUTS	0.0	0.0		

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



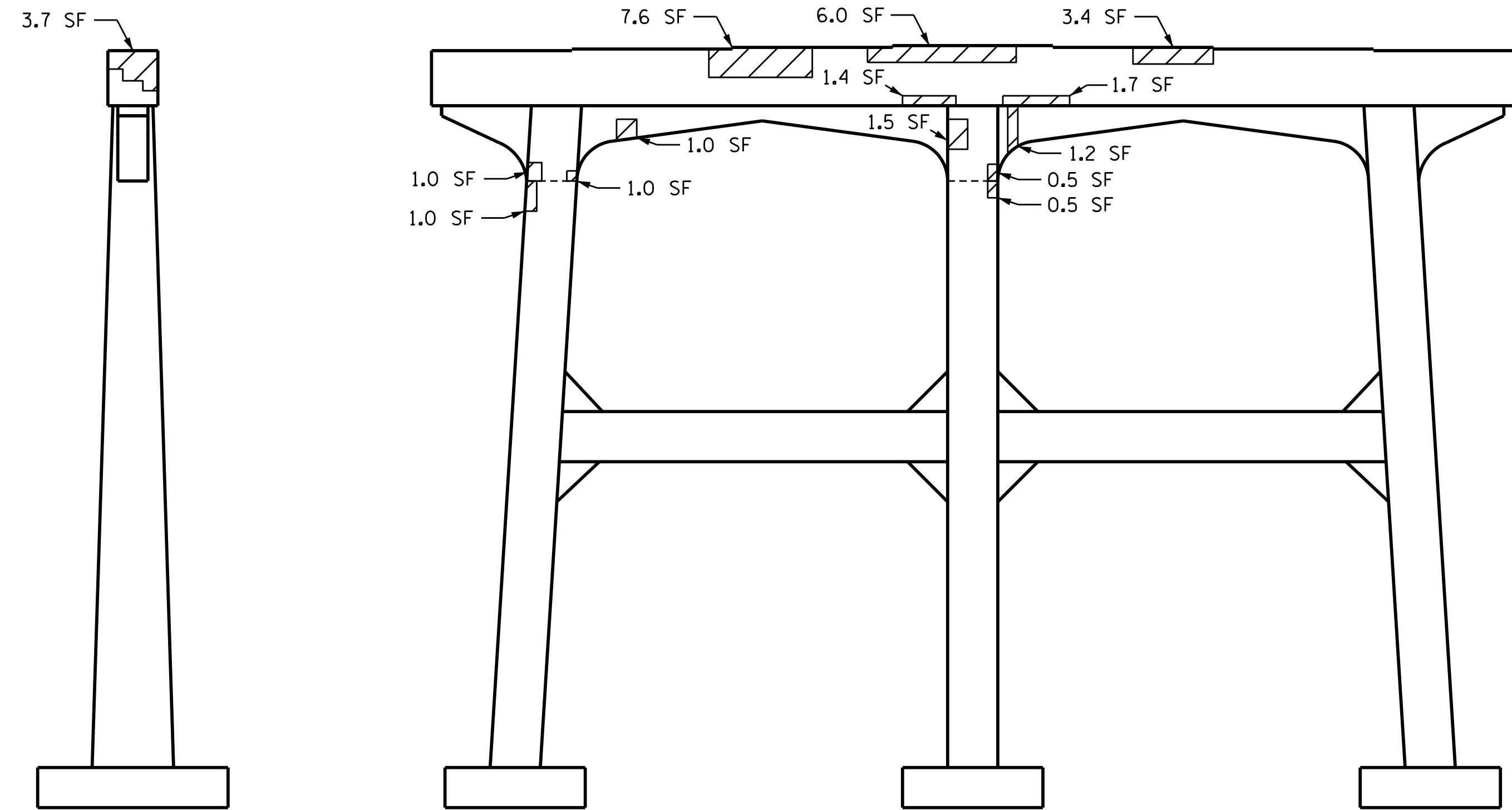
PLAN
TOP OF CAP

SPAN D
SPAN C



ELEVATION
WEST FACE
(LOOKING EAST)

END VIEW
NORTH FACE



ELEVATION
EAST FACE
(LOOKING WEST)

END VIEW
SOUTH FACE

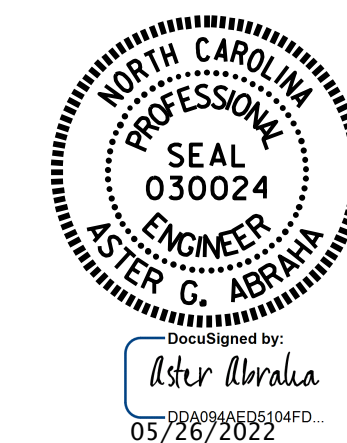


PLAN
BOTTOM OF CAP

SPAN C
SPAN D

PROJECT NO. 15BPR.47
EDGECOMBE COUNTY
 BRIDGE NO. 320051

SHEET 3 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 3

DRAWN BY : A. Y. GODFREY DATE : .09/2021
 CHECKED BY : G. AYES DATE : .02/2022

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-21
1			3			TOTAL SHEETS
2			4			31

REPAIR QUANTITY TABLE

BENT 4	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA S.F.	VOLUME C.F.	AREA S.F.	VOLUME C.F.
CAP (VERTICAL FACE)	53.5	26.8		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN AND STRUTS	3.0	1.5		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	13.6	12.8		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN AND STRUTS	0.0	0.0		

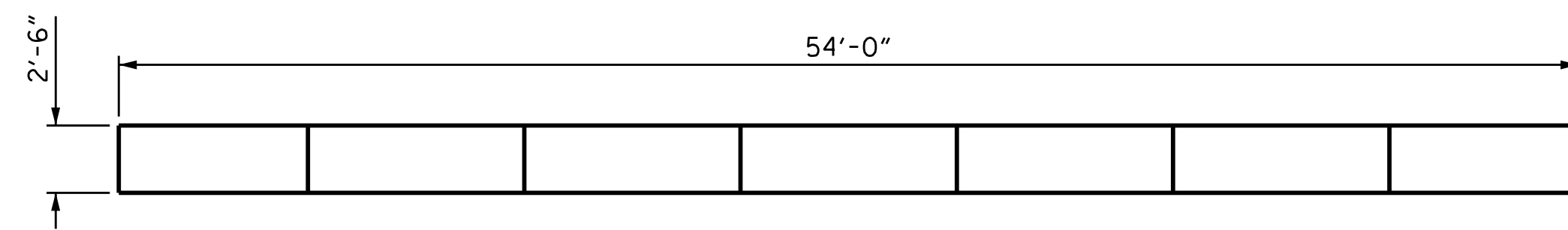
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CLEARANCE TO SAWCUT. SEE REPAIR DETAILS.

NOTES:

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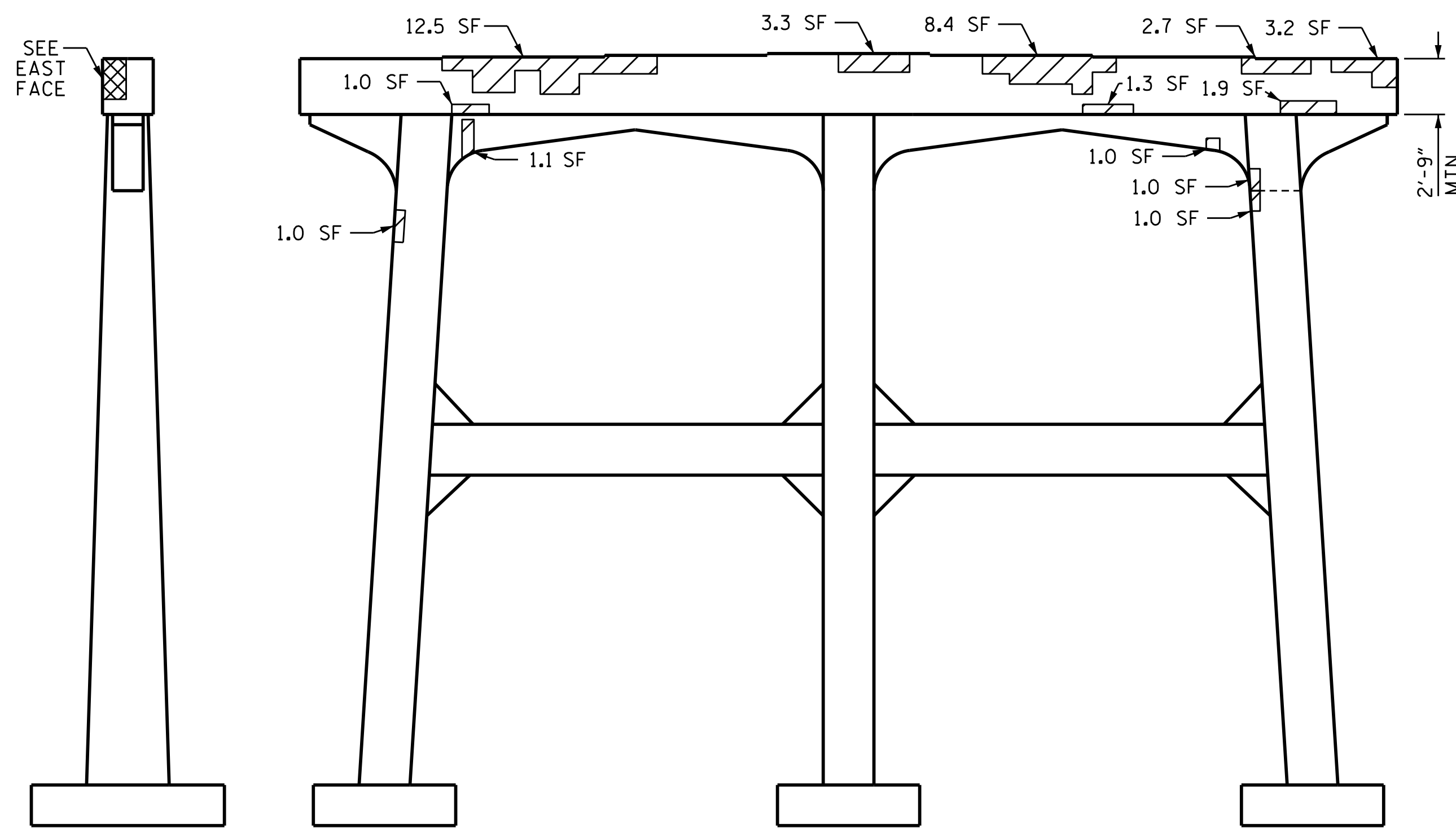
FOR ADDITIONAL NOTES, SEE SHEET 1 OF 5.

- CONCRETE REPAIR AREA
- SHOTCRETE REPAIR AREA



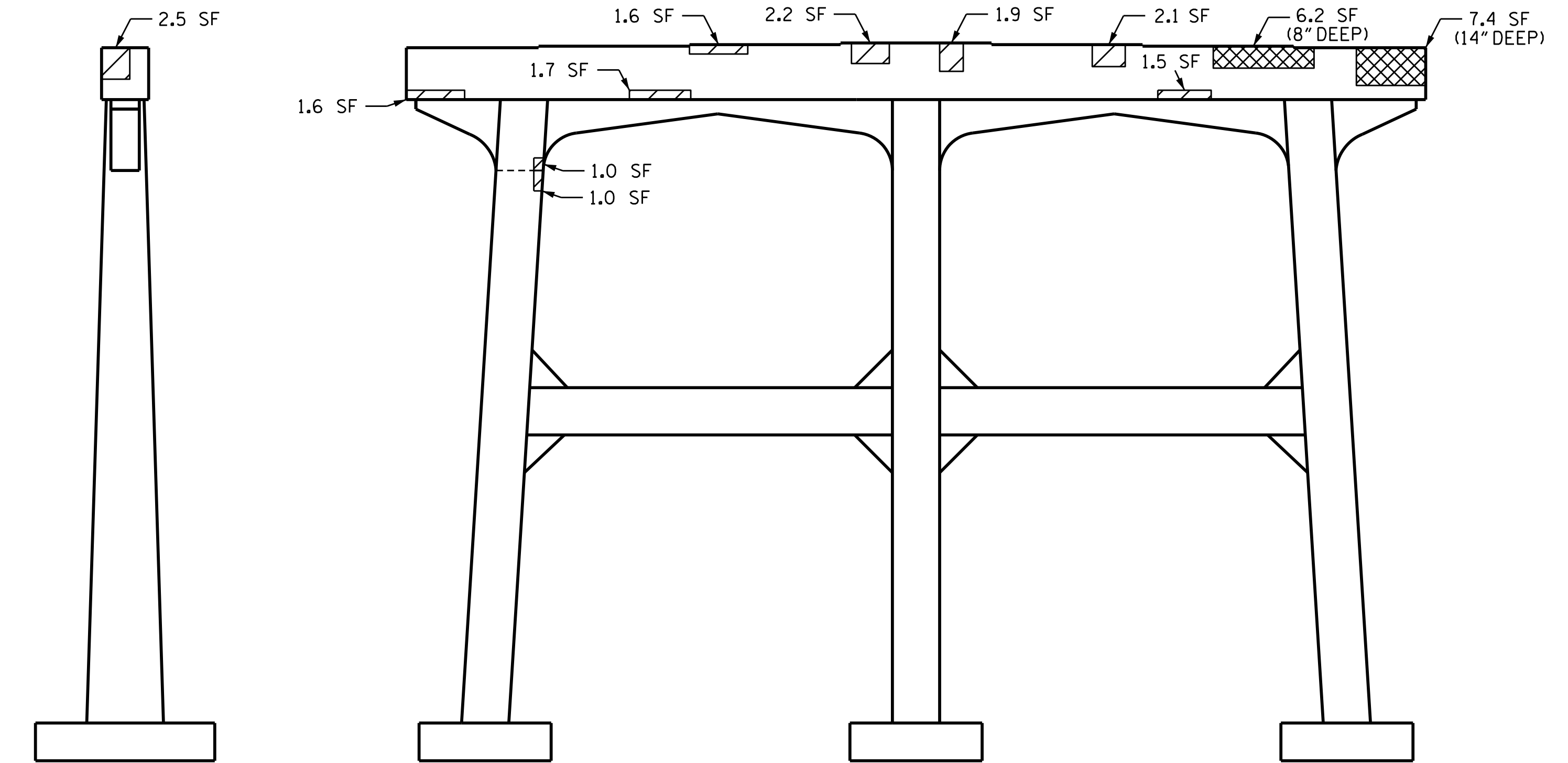
SPAN E
SPAN D

PLAN
TOP OF CAP



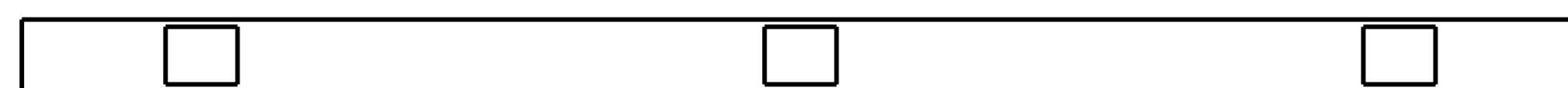
ELEVATION
WEST FACE
(LOOKING EAST)

END VIEW
NORTH FACE



ELEVATION
EAST FACE
(LOOKING WEST)

END VIEW
SOUTH FACE



SPAN D
SPAN E

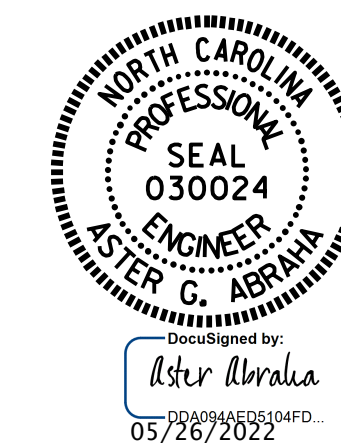
PLAN
BOTTOM OF CAP

PROJECT NO. 15BPR.47
EDGECOMBE COUNTY
 BRIDGE NO. 320051

SHEET 4 OF 5

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 4



DRAWN BY : A. Y. GODFREY DATE : 09/2021
 CHECKED BY : G. AYES DATE : 02/2022


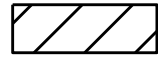
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 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			31
2			4			

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 CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE REPAIR QUANTITY TABLE.

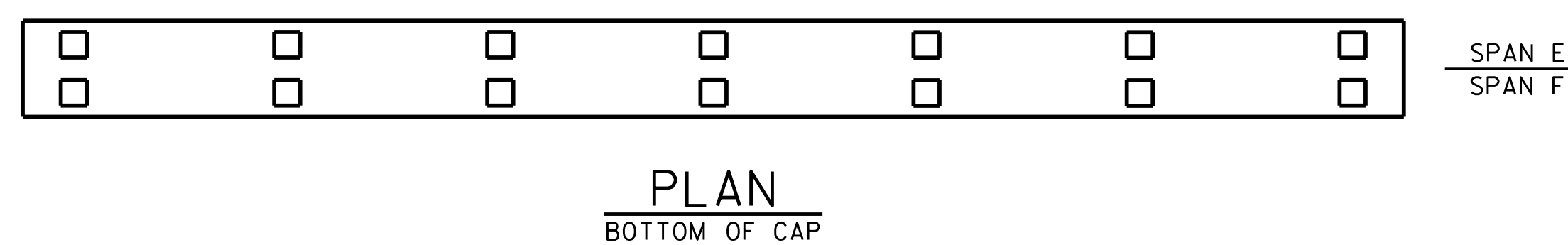
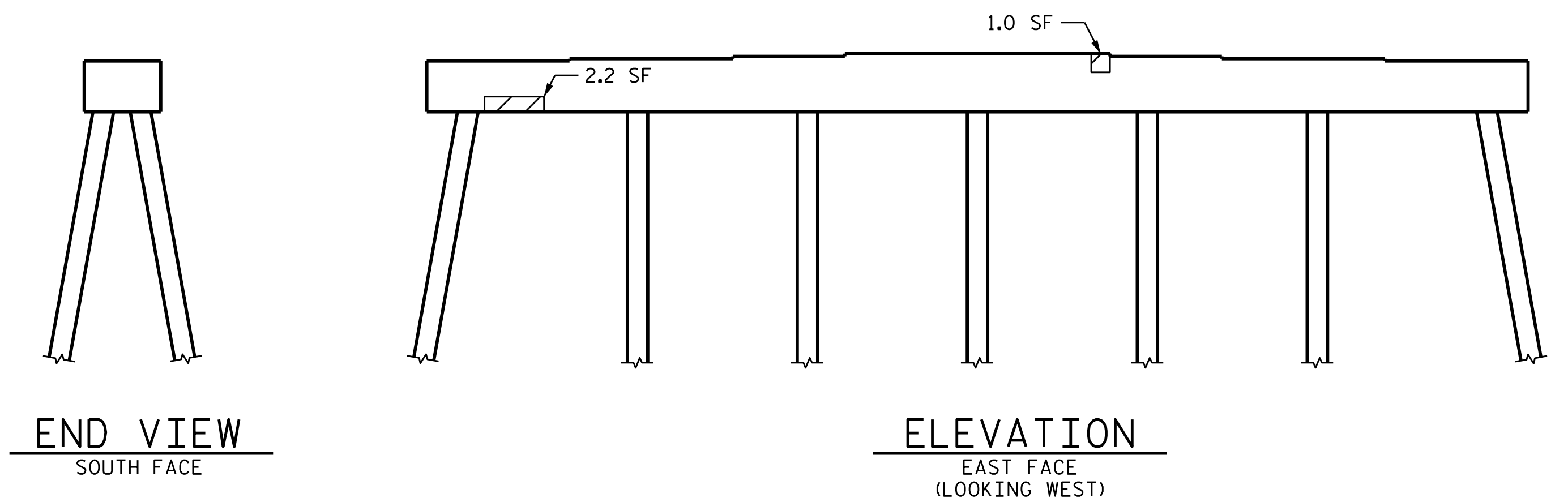
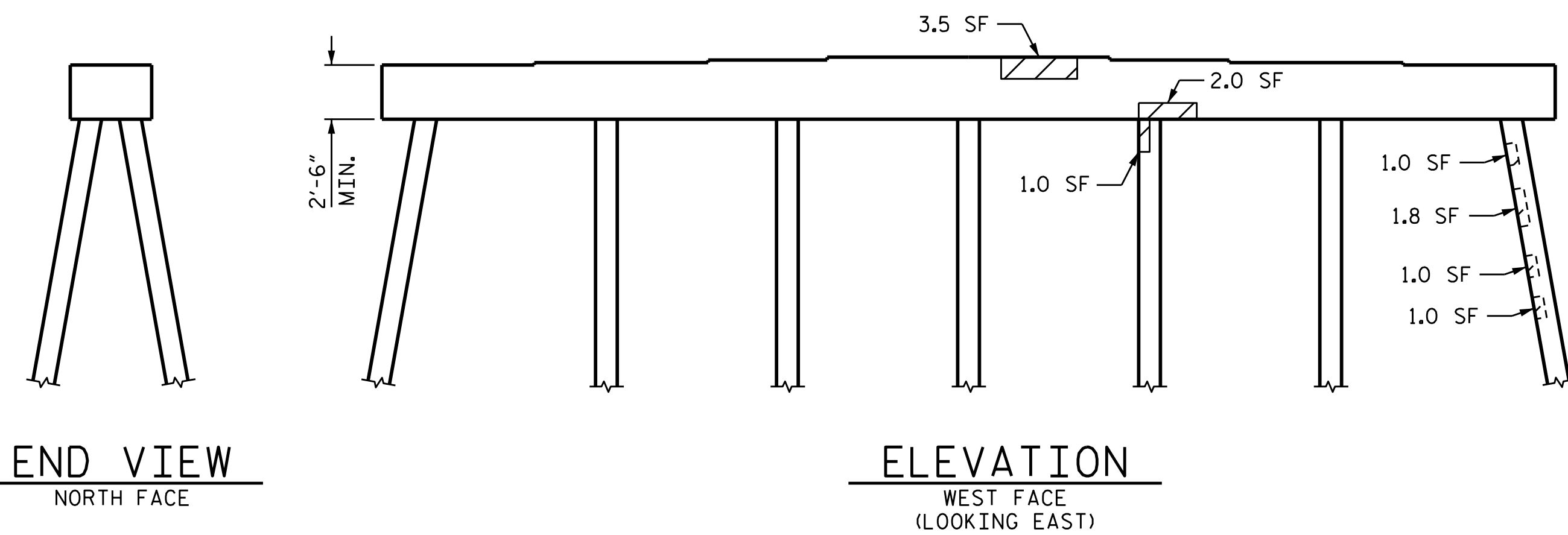
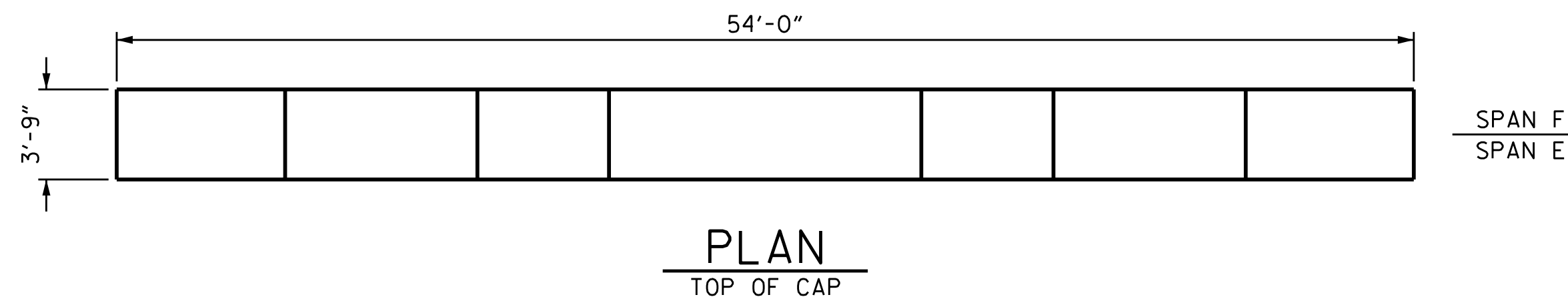
FOR ADDITIONAL NOTES, SEE SHEET 1 OF 5.

-  - CONCRETE REPAIR AREA
-  - SHOTCRETE REPAIR AREA

REPAIR QUANTITY TABLE

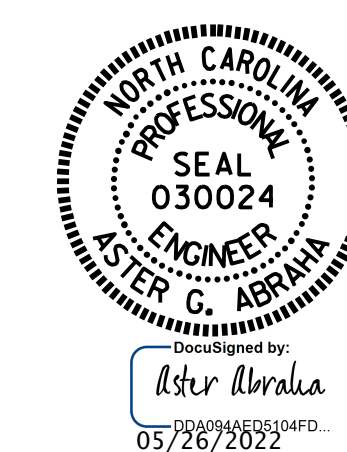
BENT 5	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA S.F.	VOLUME C.F.	AREA S.F.	VOLUME C.F.
CAP (VERTICAL FACE)	8.7	4.4		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	5.8	2.9		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		

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



PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051

SHEET 5 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 5**

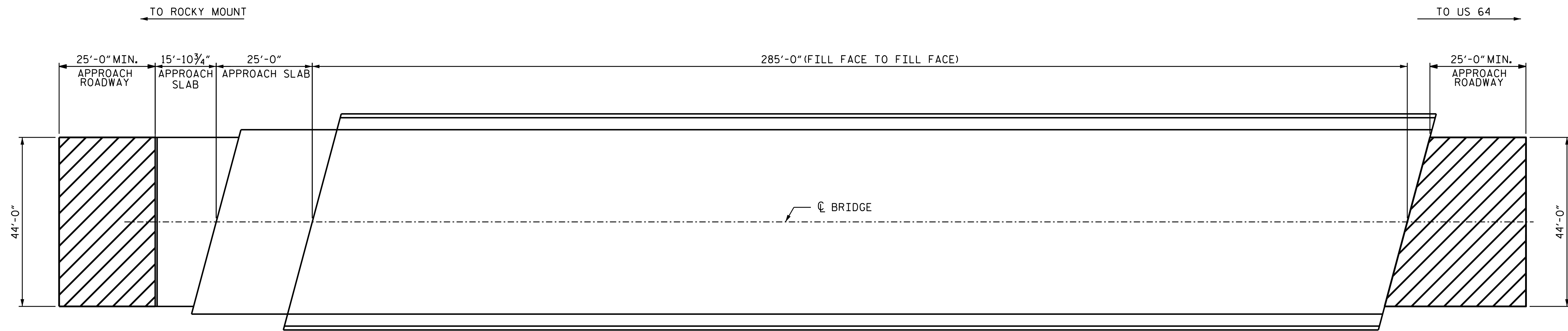
DRAWN BY : A. Y. GODFREY DATE : 09/2021
 CHECKED BY : G. AYES DATE : 02/2022

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S1-23
2			4			TOTAL SHEETS 31

NOTES

INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVING TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1½" DEPTH OF NEW ASPHALT PAVING. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO PROVIDE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK. THE NEW ASPHALT PAVEMENT THICKNESS MAY EXCEED 1½" DUE TO SETTLEMENT OF THE EXISTING APPROACH.

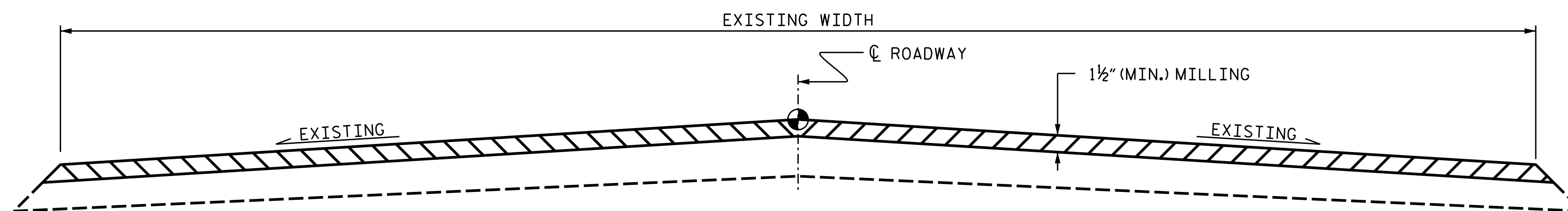


PLAN

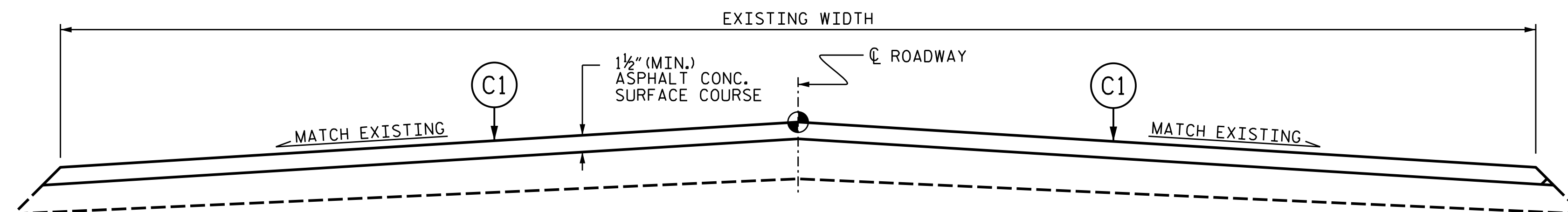
C1 PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" DEPTH.

INCIDENTAL MILLING

SUMMARY OF QUANTITIES		
	ESTIMATE	ACTUAL
INCIDENTAL MILLING	273.4 SY	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	30.0 TONS	
ASPHALT BINDER FOR PLANT MIX	5.0 TONS	

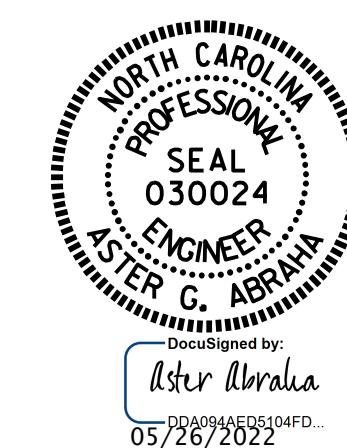


TYPICAL ROADWAY MILLING SECTION



TYPICAL PROPOSED ROADWAY SECTION

PROJECT NO. 15BPR.47
EDGEcombe COUNTY
 BRIDGE NO. 320051



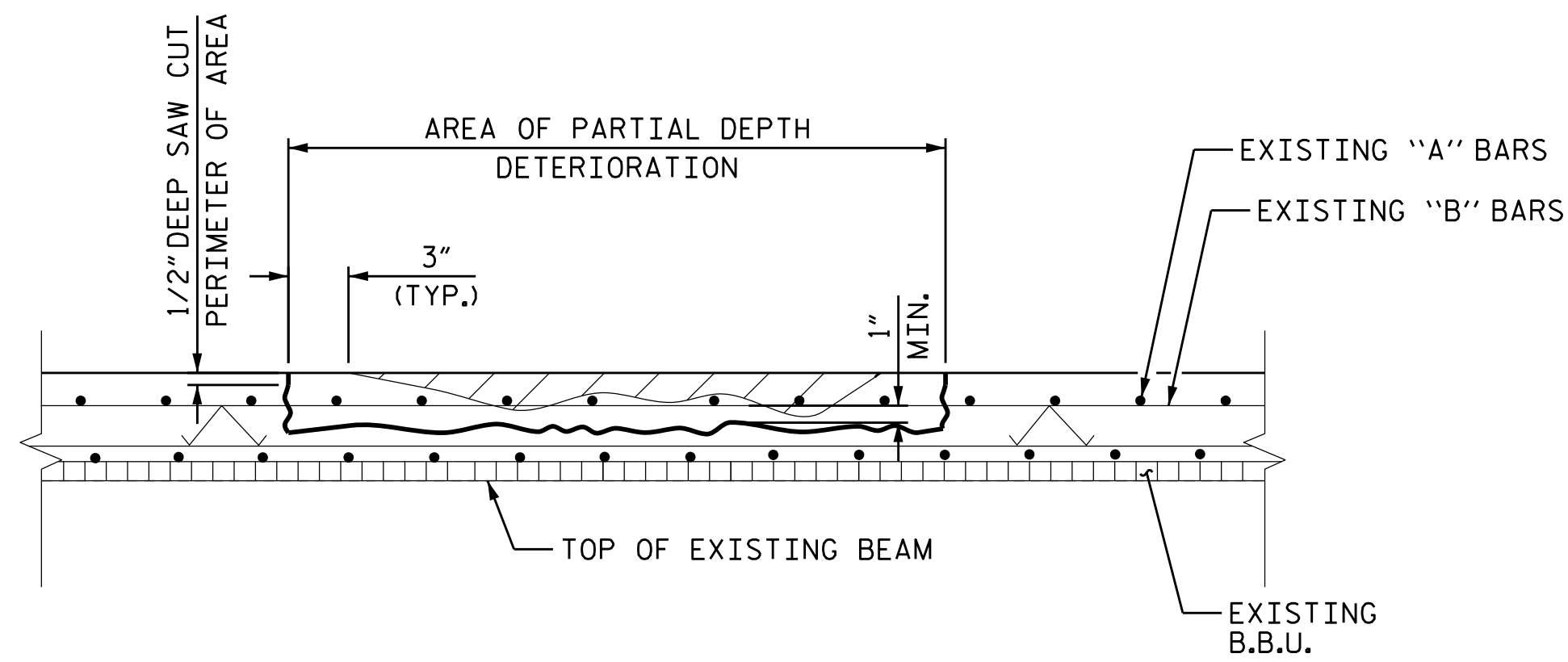
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

APPROACH MILLING & TYPICAL ROADWAY SECTIONS

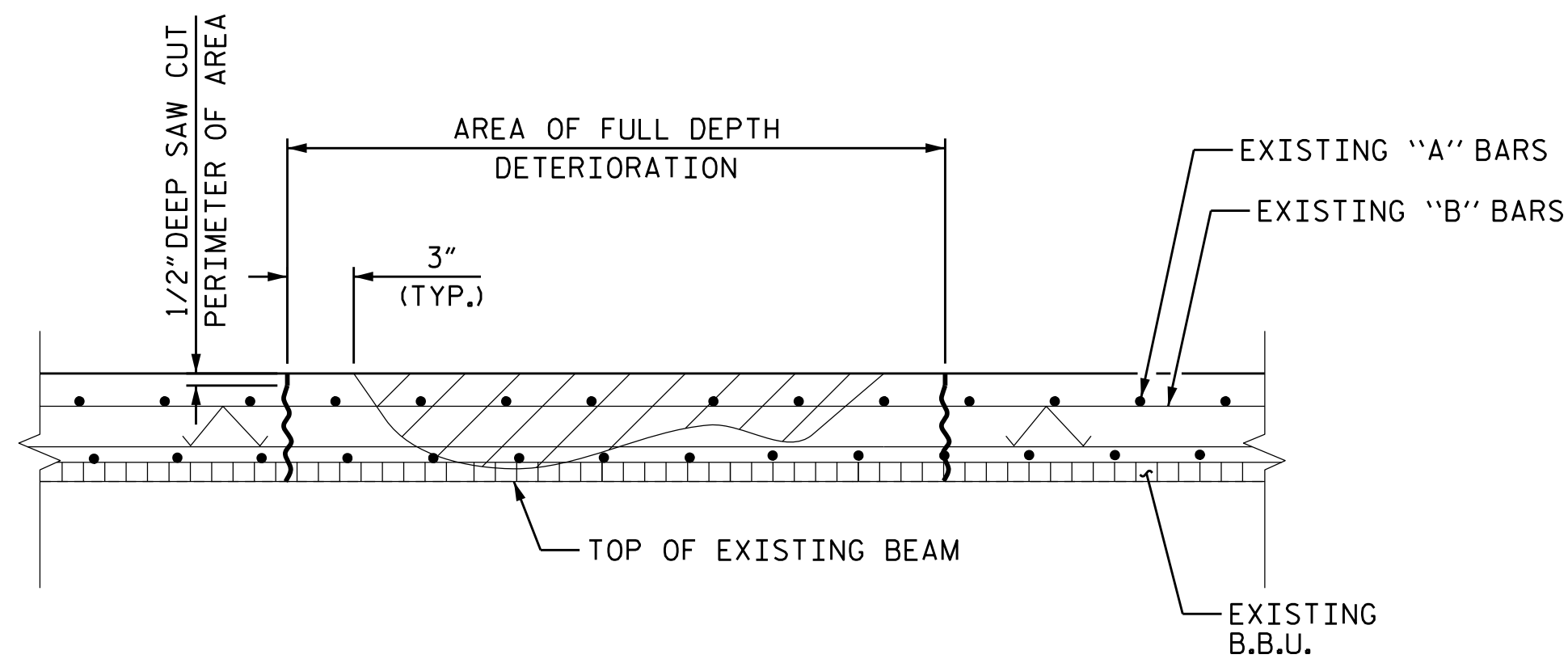
DRAWN BY : A. Y. GODFREY DATE : 01/2022
 CHECKED BY : G. AYES DATE : 02/2022

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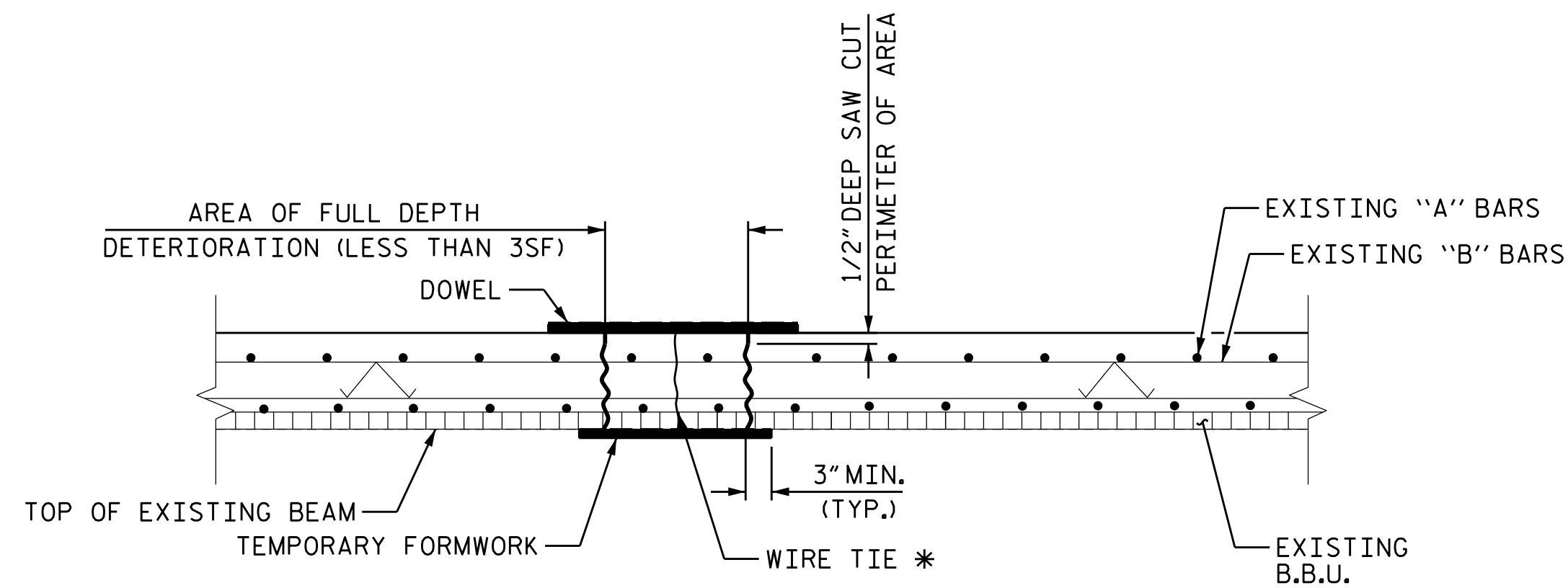
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S1-24
2			4			TOTAL SHEETS 31



CLASS II (PARTIAL DEPTH) REPAIR



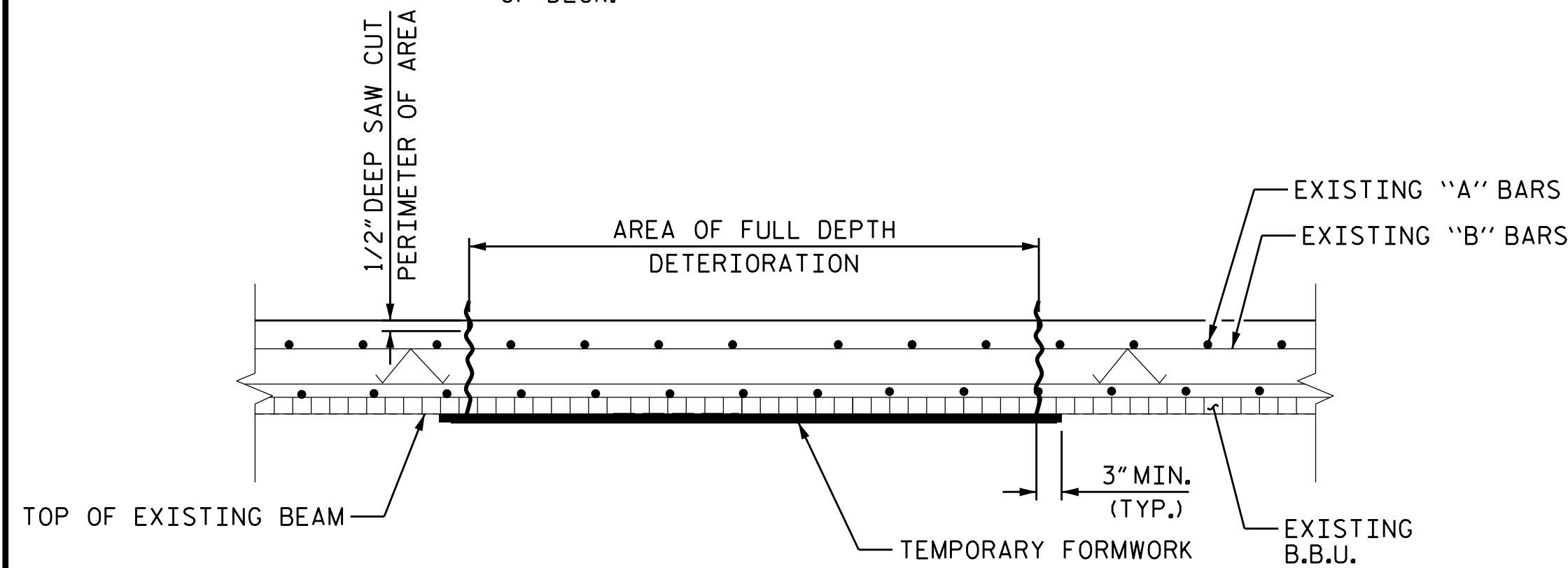
CLASS III (FULL DEPTH) REPAIR



FULL DEPTH REPAIR WITH TEMPORARY FORMWORK

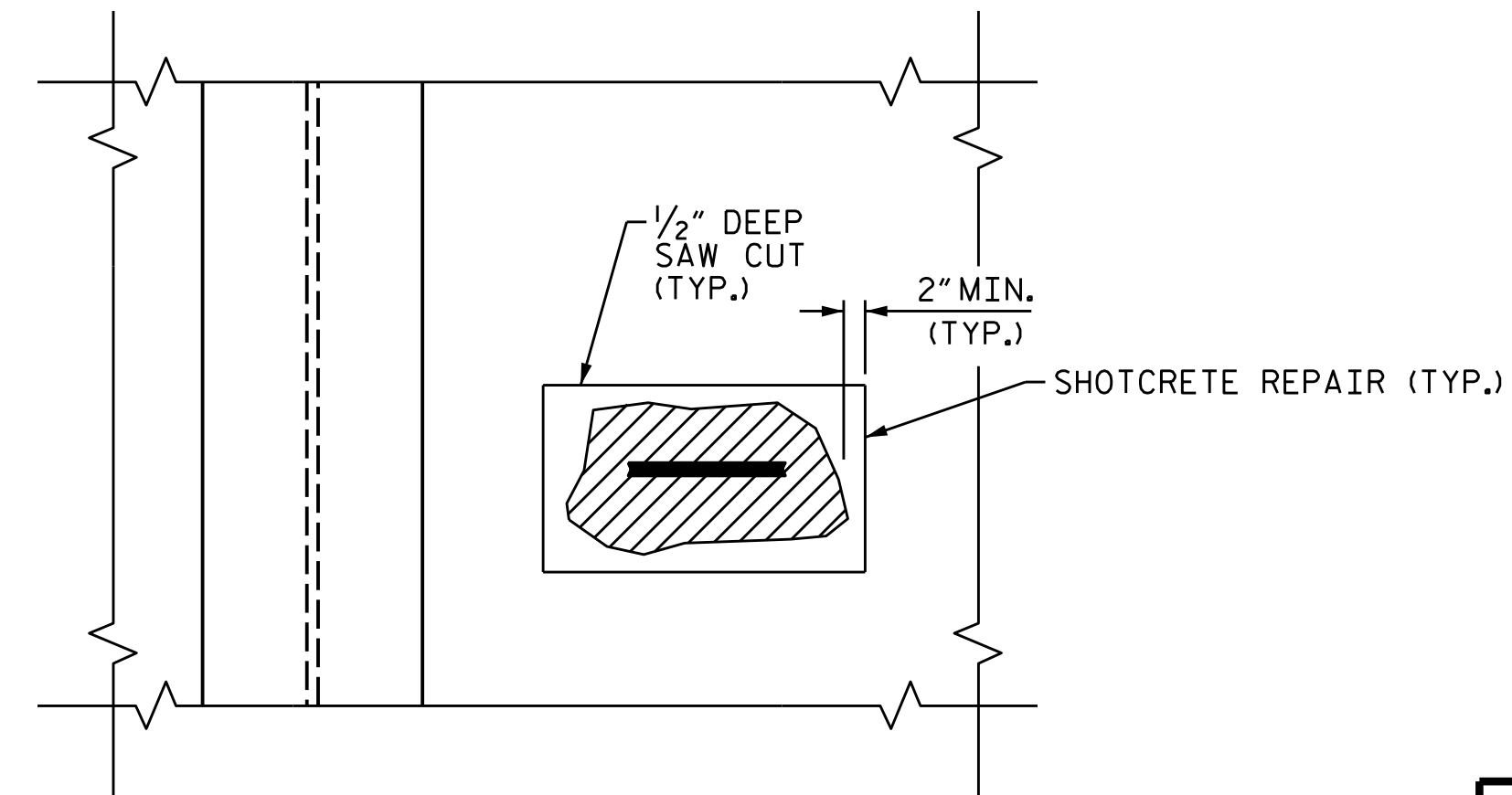
(FOR AREAS OF DETERIORATION EQUAL TO OR LESS THAN 3SF)

* WIRE TIE TO BE KNOTTED BELOW TEMPORARY FORMWORK AND ATTACHED TO DOWEL THAT IS WIDER THAN FORMED FULL DEPTH HOLE. ROTATE DOWEL TO TIGHTEN FORMWORK AGAINST BOTTOM OF DECK.

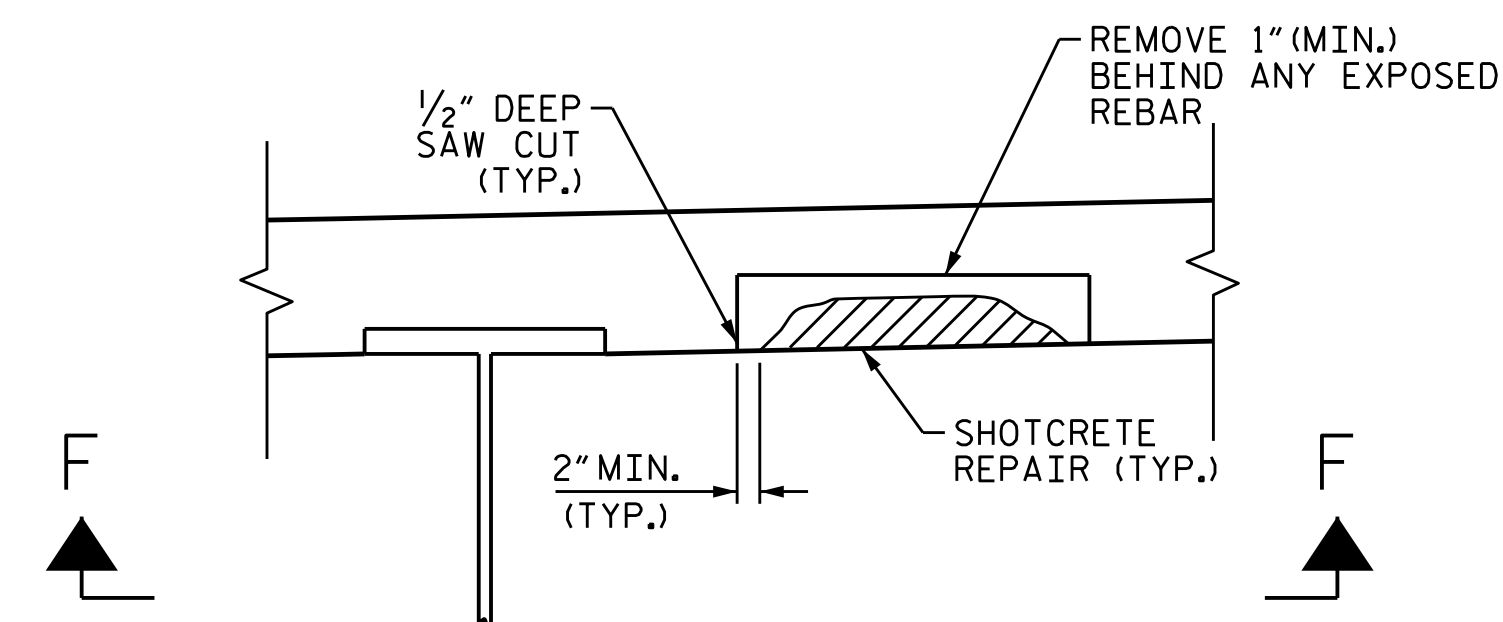


FULL DEPTH REPAIR WITH TEMPORARY FORMWORK

(FOR AREAS OF DETERIORATION GREATER THAN 3SF)

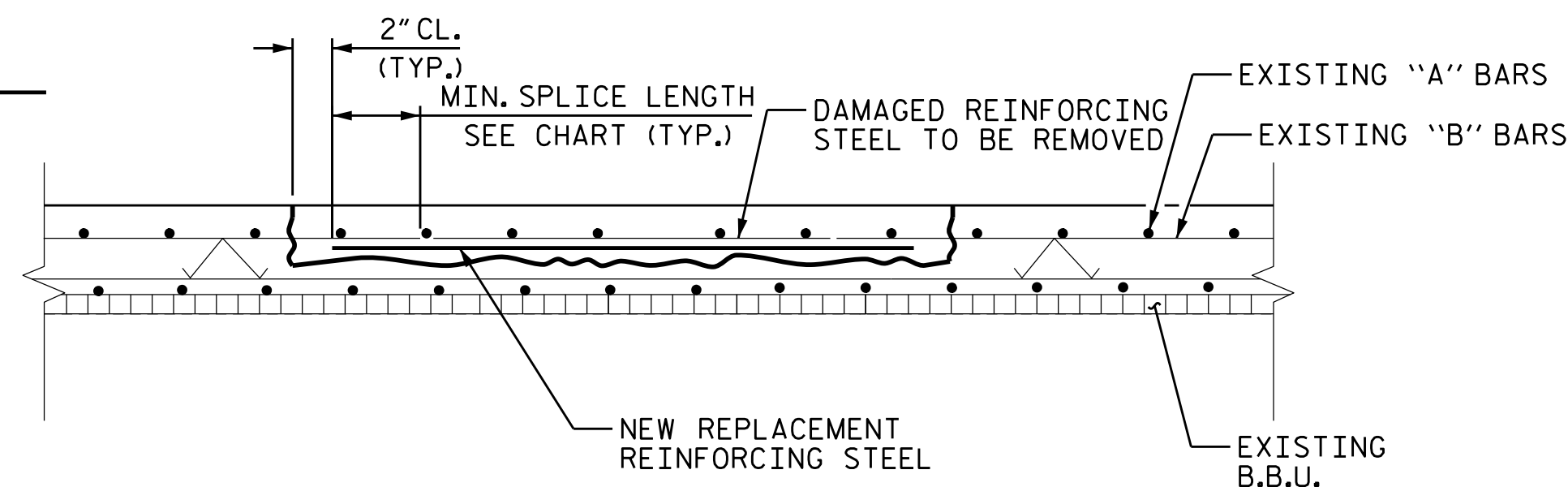


SECTION F-F



TYPICAL SECTION

UNDERSIDE OF DECK REPAIR



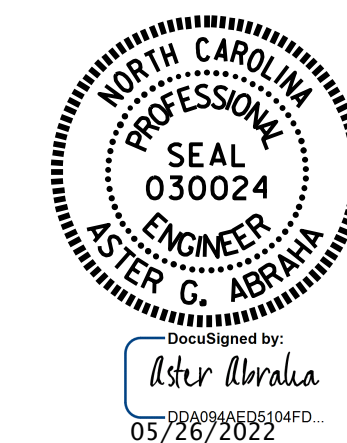
REINFORCING STEEL REPAIR

NOTES

- FOR AREAS TO BE REPAIRED, SEE "PLAN OF SPAN" SHEETS.
- ALL DECK REPAIRS SHALL BE COMPLETED PRIOR TO PLACEMENT OF OVERLAY.
- FOR CLASS II AND CLASS III SURFACE PREPARATION, SEE "OVERLAY SURFACE PREPARATIONS" SPECIAL PROVISION.
- FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.
- FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK FOR TEMPORARY FORMWORK. FOR SUBMITTALS OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- UPON REMOVAL OF TEMPORARY FORMWORK, ALL VOIDS AND HONEYCOMBS ON THE UNDERSIDE OF DECK SURFACE SHALL BE FILLED WITH THE SAME MATERIAL AS USED FOR THE PATCH, AND FINISHED TO CONFORM TO THE SURROUNDING CONCRETE SURFACE.
- NO FORMWORK SHALL BE LEFT IN PLACE.

BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	1'-11"	1'-7"	1'-11"	1'-7"	2'-6"
#5	2'-5"	2'-0"	2'-5"	2'-0"	3'-1"
#6	2'-10"	2'-5"	3'-7"	2'-5"	3'-8"
#7	4'-2"	2'-9"			
#8	4'-9"	3'-2"			

PROJ. NO. 15BPR.47
EDGEcombe COUNTIES
 BRIDGES NO. 320051



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
DECK REPAIR DETAILS

ASSEMBLED BY : S. T. S./A.Y.G. DATE : 01/2022
 CHECKED BY : G. AYES DATE : 02/2022
 DRAWN BY : NAP 9/18
 CHECKED BY :

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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S1-25
2			4			TOTAL SHEETS 31