



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

March 05, 2021

Addendum No. 1

RE: Contract # C204202

WBS # 15BPR.20

STATE FUNDED

Henderson County

I-26/US-74 WEST BOUND LANES AND EAST BOUND LANES OVER
GREEN RIVER.

March 16, 2021 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the Structure plans.

Sheet No.	Revision
S-7	Updated weld repair W4 quantities to a pay unit of each and a quantity of 5. Added quantities for bridge washing with a pay unit of each and a quantity of 30.
S-11	Added pay item for bridge washing with a unit of Each and a quantity of 30. Updated 3 notes: 1. demolition and construction work with pay item information, 2. the note about bridge washing, and 3. the note about removing utilities.
S-82	Added locations to weld repair W4
S-85	Added locations to weld repair W4
S-94	Changed weld repair W4 pay unit from lump sum to Each with a quantity of 5.
S-95	Deleted dashed line around girder 4 backstation bearing at bent 4.
S-96	Deleted the first note on the sheet referring to replacement of anchor bolts.

Please void the above listed Sheets in your plans and staple the revised Sheets thereto.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND DEVELOPMENT
1591 MAIL SERVICE CENTER
RALEIGH, NC 27699-1591

Telephone: (919) 707-6900
Fax: (919) 250-4127
Customer Service: 1-877-368-4968

Location:
1020 BIRCH RIDGE DR.
RALEIGH, NC 27610

Website: www.ncdot.gov

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 03-05-2021"
ST-79 thru ST-80 and ST-82 thru ST-83	Revised Structure Unit Project Special Provision entitled STEEL REPAIRS , Section 10.0 WELD REPAIR W4 and Section 17.0 MEASUREMENT AND PAYMENT to add language to update weld repair W4 and change <i>Weld Repair W4</i> from a lump sum pay item to a pay unit of each.
New Pages ST-115 thru ST-116	Added Structure Unit Project Special Provision entitled BRIDGE WASHING .

Please void the above listed existing Pages in your proposal and staple the revised Pages thereto. Staple New Pages ST-115 and ST-116 after existing page ST-114 in your proposal.

On the item sheets the following pay item revisions have been made:

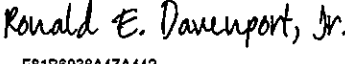
<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
0178-8860000000-N-SP	WELD REPAIR W4	LUMP SUM	DELETED
0192-8897000000-N-SP	BRIDGE WASHING	NEW ITEM	30 EA
0193-8897000000-N-SP	WELD REPAIR W4	NEW ITEM	5 EA

The Contractor's bid must include these pay item revisions.

The electronic bidding file has been updated to reflect these revisions. Please download the Addendum File and follow the instructions for applying the addendum. Bid Express will not accept your bid unless the addendum has been applied.

The contract will be prepared accordingly.

Sincerely,

DocuSigned by:

 F81B6038A47A442...
 Ronald E. Davenport, Jr., PE
 State Contract Officer

RED/jjr
 Attachments

cc: Mr. Lamar Sylvester, PE
Mr. Brian Burch, PE
Mr. Boyd Tharrington, PE
Mr. Jon Weathersbee, PE
Mr. Ken Kennedy, PE
Project File (2)

Mr. Ray Arnold, PE
Ms. Jaci Kincaid
Ms. Lori Strickland
Mr. Mike Gwyn
Ms. Penny Higgins
Mr. Kyle Kempf

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

INCLUDES ADDENDUM No.1 DATED 03-05-2021

DATE AND TIME OF BID OPENING: **MARCH 16, 2021 AT 2:00 PM**

CONTRACT ID C204202
WBS 15BPR.20

FEDERAL-AID NO. STATE FUNDED

COUNTY HENDERSON

T.I.P. NO.

MILES 0.743

ROUTE NO. I 26

LOCATION I-26/US-74 WEST BOUND LANES AND EAST BOUND LANES OVER
GREEN RIVER.

TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURE REHABILITATION.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

Engineer. The final repaired area shall be photographed. All photographs shall be submitted to the Engineer.

8.0 WELD REPAIR W2

Weld Repair W2 consists of repairing a cracked weld at Span D, Girder 2, west side of Panel Point 33, approximately 12" above the bottom gusset plate. This work may occur at any time prior to pouring the deck in Bay 2. The repair shall be performed at the direction of the Engineer, and, unless directed otherwise, shall follow the repair process shown on the Contract plans.

Prior to beginning work, the Contractor shall photograph the repair area.

If it is required to drill holes and cut the steel, the total length of the cut shall not exceed 12" without the specific direction of the Engineer.

After completion of the work, the Engineer shall inspect the repair area and Contractor shall make any incidental repairs or finishing tasks as necessary to the satisfaction of the Engineer. The final repaired area shall be photographed. All photographs shall be submitted to the Engineer.

9.0 WELD REPAIR W3

Weld Repair W3 consists of repairing a cracked weld at Span C, Girder 4, at the bottom flange-to-web weld on the Bay 3 side, 5ft west of panel point 20. The repair of this weld shall occur prior to placement of any formwork or concrete in Bay 2. The repair shall be performed at the direction of the Engineer, and, unless directed otherwise, shall follow the repair process shown on the Contract plans.

Prior to beginning work, the Contractor shall photograph the repair area.

Holes shall not be drilled through the bottom flange. The maximum depth of material removal in the bottom flange shall be 1/8" over a width of no more than 1" without specific approval by the Engineer.

After completion of the work, the Engineer shall inspect the repair area and Contractor shall make any incidental repairs or finishing tasks as necessary to the satisfaction of the Engineer. The final repaired area shall be photographed. All photographs shall be submitted to the Engineer.

10.0 WELD REPAIR W4

Weld Repair W4 consists of removing cracks in welds between the girders and stiffeners, or at welds between longitudinal and transverse stiffeners. Repairs in Girders 2 and 3 shall be completed prior to placing the bay 2 deck formwork. Repairs in Girder 1 shall be completed prior to pouring the deck in bay 1, and repairs in girder 4 shall be completed prior to pouring the deck in bay 3. The repair shall be performed at the direction of the

Engineer, and, unless directed otherwise, shall follow the repair process shown on the Contract plans.

Prior to beginning work, the Contractor shall photograph the repair area.

After completion of the work, the Engineer shall inspect the repair area and Contractor shall make any incidental repairs or finishing tasks as necessary to the satisfaction of the Engineer. The final repaired area shall be photographed. All photographs shall be submitted to the Engineer and labeled with the location of the repair.

11.0 HOLE REPAIR (TYPE I)

Hole Repair (Type I) consist of retrofitting an existing weld-crack-arrest hole at the intersection of the top or bottom web longitudinal stiffener and web. Specific locations are indicated in the contract plans. The repair shall be performed at the direction of the Engineer, and, unless directed otherwise, shall follow the repair process shown on the Contract plans.

Prior to beginning work, the Contractor shall photograph the repair area.

Material removal in the longitudinal stiffener shall not exceed 3" from the exterior face of the web without specific direction of the Engineer. Exact dimensions of the repair cuts shall be at the direction of the Engineer.

After completion of the work at each repair location, the Engineer shall inspect the repair area and Contractor shall make any incidental repairs or finishing tasks as necessary to the satisfaction of the Engineer. The final repaired area shall be photographed. All photographs shall be submitted to the Engineer.

12.0 HOLE REPAIR (TYPE II)

Hole Repair (Type II) consists of retrofitting 2 adjacent existing weld-crack-arrest holes at the intersection of the top or bottom web longitudinal stiffener and web. In general, the adjacent holes are less than 5" apart, measured center-to-center. The retrofit shall connect the holes in the web and stiffener into a single hole. The repair shall be performed at the direction of the Engineer, and, unless directed otherwise, shall follow the repair process shown on the Contract plans.

Prior to beginning work, the Contractor shall photograph the repair area.

Material removal in the longitudinal stiffener shall not exceed 2" from the exterior face of the web without specific direction of the Engineer. Exact dimensions of the repair cuts shall be at the direction of the Engineer.

After completion of the work at each repair location, the Engineer shall inspect the repair area and Contractor shall make any incidental repairs or finishing tasks as necessary to the satisfaction of the Engineer. The final repaired area shall be photographed. All photographs shall be submitted to the Engineer.

Project 15BPR.20

ST-115

Henderson County

BRIDGE WASHING**(SPECIAL)****1.0 DESCRIPTION**

The contractor shall wash the bridge deck, superstructure, and substructure after each time de-icing chemicals or salt ("brine") is placed on the deck due to inclement weather. Washing shall be with potable water and shall occur following the weather event and the melting of ice or snow.

2.0 SUBMITTALS

Submit equipment and procedures for washing the bridge within 90 days of the date of availability of the contract.

3.0 MATERIALS

All water used in the washing shall be potable.

4.0 EXECUTION

Washing is only required at those locations that have experienced brine application, either as intended or beyond the limits of the intended application.

Portions of the structure that are closed to traffic and do not experience brine application do not require washing. Portions of the structure that are covered by the deck and protected from the salt application do not require washing, as determined by the Engineer.

The contractor shall give special attention to washing the bridge in the vicinity of expansion joints.

Washing shall proceed from the highest portions of the bridge to the lowest portions in the following order:

1. Bridge deck (including clearing the deck drains)
2. Stringers
3. Floorbeams
4. Faces of girder webs, end bent backwalls, and wingwalls
5. Girder bottom flanges
6. Bearing assemblies
7. Caps
8. Bents 1 and 4 Columns

The contractor shall take special care to wash the top of girder bottom flanges at splice locations, if they have experienced brine application.

Project 15BPR.20

ST-116

Henderson County

5.0 MEASUREMENT AND PAYMENT

Bridge Washing shall be measured and paid for at the Contract Price for Each Bridge Washing event. Contractor shall only complete a bridge washing at the direction of the Engineer. Payment shall be full compensation for all the work to complete the bridge washing, including labor, tools, equipment, materials, access measures, and incidentals necessary to complete the work.

Pay Item

Pay Unit

Bridge Washing

Each

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0003	0028000000-N	SP	TYPE I STANDARD APPROACH FILL STATION ***** (35+30.22 -L-)	Lump Sum	L.S.	
0004	0043000000-N	226	GRADING	Lump Sum	L.S.	
0005	0050000000-E	226	SUPPLEMENTARY CLEARING & GRUB-BING	1 ACR		
0006	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	140 TON		
0007	0320000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	430 SY		
0008	0448200000-E	310	15" RC PIPE CULVERTS, CLASS IV	496 LF		
0009	0448300000-E	310	18" RC PIPE CULVERTS, CLASS IV	152 LF		
0010	0582000000-E	310	15" CS PIPE CULVERTS, 0.064" THICK	680 LF		
0011	0588000000-E	310	18" CS PIPE CULVERTS, 0.064" THICK	60 LF		
0012	0636000000-E	310	*** CS PIPE ELBOWS, ***** THICK (15", 0.064")	10 EA		
0013	0986000000-E	SP	GENERIC PIPE ITEM PIPE REHABILITATION CIPP LINER (15" ID HOST PIPE)	258 LF		
0014	0986000000-E	SP	GENERIC PIPE ITEM PIPE REHABILITATION CIPP LINER (18" ID HOST PIPE)	650 LF		
0015	0986000000-E	SP	GENERIC PIPE ITEM PIPE REHABILITATION CIPP LINER (24" ID HOST PIPE)	550 LF		
0016	0986000000-E	SP	GENERIC PIPE ITEM PIPE REHABILITATION CIPP LINER (8" ID HOST PIPE)	404 LF		

County : Henderson

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0017	0986000000-E	SP	GENERIC PIPE ITEM PREINSTALLATION INSPECTION	1,862 LF		
0018	0995000000-E	340	PIPE REMOVAL	75 LF		
0019	1121000000-E	520	AGGREGATE BASE COURSE	5,123 TON		
0020	1297000000-E	607	MILLING ASPHALT PAVEMENT, **** DEPTH (4")	12,840 SY		
0021	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	4,130 TON		
0022	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	5,660 TON		
0023	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	1,440 TON		
0024	1524200000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5D	4,550 TON		
0025	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	725 TON		
0026	2190000000-N	828	TEMPORARY STEEL PLATE COVERS FOR MASONRY DRAINAGE STRUCTURE	5 EA		
0027	2253000000-E	840	PIPE COLLARS	0.7 CY		
0028	2275000000-E	SP	FLOWABLE FILL	7 CY		
0029	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	31 EA		
0030	2308000000-E	840	MASONRY DRAINAGE STRUCTURES	32 LF		
0031	2352000000-N	840	FRAME WITH GRATE, STD 840.**** (840.36)	2 EA		
0032	2364200000-N	840	FRAME WITH TWO GRATES, STD 840.20	25 EA		
0033	2407000000-N	840	STEEL FRAME WITH TWO GRATES, STD 840.37	6 EA		
0034	2556000000-E	846	SHOULDER BERM GUTTER	2,998 LF		

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0035	2619000000-E	850	4" CONCRETE PAVED DITCH	172		SY
0036	2703000000-E	854	CONCRETE BARRIER, TYPE ***** (T)	392		LF
0037	2703000000-E	854	CONCRETE BARRIER, TYPE ***** (TI)	809		LF
0038	2815000000-N	858	ADJUSTMENT OF DROP INLETS	2		EA
0039	3001000000-N	SP	IMPACT ATTENUATOR UNITS, TYPE TL-3	1		EA
0040	3030000000-E	862	STEEL BEAM GUARDRAIL	7,486		LF
0041	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	5		EA
0042	3210000000-N	862	GUARDRAIL END UNITS, TYPE CAT-1	2		EA
0043	3287000000-N	SP	GUARDRAIL END UNITS, TYPE TL-3	2		EA
0044	3317000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE B-77	4		EA
0045	3360000000-E	863	REMOVE EXISTING GUARDRAIL	7,293		LF
0046	3387000000-N	SP	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** (B-77)	1		EA
0047	3628000000-E	876	RIP RAP, CLASS I	425		TON
0048	3649000000-E	876	RIP RAP, CLASS B	148		TON
0049	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	1,114		SY
0050	4057000000-E	SP	OVERHEAD FOOTING	8		CY
0051	4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	86		LF
0052	4078000000-E	903	SUPPORTS, 2-LB STEEL U-CHANNEL	4		EA
0053	4096000000-N	904	SIGN ERECTION, TYPE D	2		EA

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0054	4102000000-N	904	SIGN ERECTION, TYPE E	1 EA		
0055	4114000000-N	904	SIGN ERECTION, MILEMARKERS	4 EA		
0056	4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	9 EA		
0057	4402000000-E	SP	HIGH VISIBILITY STATIONARY SIGNS	596 SF		
0058	4407000000-E	SP	HIGH VISIBILITY PORTABLE SIGNS	96 SF		
0059	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	18 SF		
0060	4415000000-N	1115	FLASHING ARROW BOARD	2 EA		
0061	4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	2 EA		
0062	4423000000-N	SP	WORK ZONE DIGITAL SPEED LIMIT SIGNS	4 EA		
0063	4432000000-N	SP	HIGH VISIBILITY DRUMS	117 EA		
0064	4434000000-N	SP	SEQUENTIAL FLASHING WARNING LIGHTS	24 EA		
0065	4445000000-E	1145	BARRICADES (TYPE III)	24 LF		
0066	4465000000-N	1160	TEMPORARY CRASH CUSHIONS	5 EA		
0067	4480000000-N	1165	TMA	2 EA		
0068	4490000000-E	1170	PORTABLE CONCRETE BARRIER (ANCHORED)	9,200 LF		
0069	4505000000-E	1170	REMOVE & RESET PORTABLE CONCRETE BARRIER (ANCHORED)	4,780 LF		
0070	4510000000-N	1190	LAW ENFORCEMENT	40 HR		
0071	4589000000-N	SP	GENERIC TRAFFIC CONTROL ITEM DYNAMIC ZIPPER MERGE SYSTEM DEPLOYMENT	Lump Sum	L.S.	

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0072	4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM CONNECTED LANE CLOSURE DEVICE	4 EA		
0073	4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM SIGNS, COVERING	4 EA		
0074	4609000000-N	SP	GENERIC TRAFFIC CONTROL ITEM DYNAMIC ZIPPER MERGE SYSTEM	172 DAY		
0075	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	739 EA		
0076	4688000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)	12,319 LF		
0077	4847500000-E	SP	WORK ZONE PERFORMANCE PAVEMENT MARKING LINES, 6"	47,509 LF		
0078	4855000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (6")	17,550 LF		
0079	4875000000-N	1205	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	16 EA		
0080	4890000000-E	SP	GENERIC PAVEMENT MARKING ITEM POLYUREA PAVEMENT MARKING LINES, 6", 20 MILS (STANDARD GLASS BEADS)	4,950 LF		
0081	4895000000-N	SP	GENERIC PAVEMENT MARKING ITEM NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER	77 EA		
0082	4900000000-N	1251	PERMANENT RAISED PAVEMENT MARKERS	32 EA		
0083	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0084	6000000000-E	1605	TEMPORARY SILT FENCE	11,035 LF		
0085	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	425 TON		
0086	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	540 TON		
0087	6012000000-E	1610	SEDIMENT CONTROL STONE	600 TON		
0088	6015000000-E	1615	TEMPORARY MULCHING	3 ACR		

County : Henderson

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0089	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	200 LB		
0090	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEED- ING	1 TON		
0091	6024000000-E	1622	TEMPORARY SLOPE DRAINS	200 LF		
0092	6029000000-E	SP	SAFETY FENCE	200 LF		
0093	6030000000-E	1630	SILT EXCAVATION	430 CY		
0094	6036000000-E	1631	MATTING FOR EROSION CONTROL	7,000 SY		
0095	6037000000-E	SP	COIR FIBER MAT	100 SY		
0096	6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT	500 SY		
0097	6042000000-E	1632	1/4" HARDWARE CLOTH	1,625 LF		
0098	6071020000-E	SP	POLYACRYLAMIDE (PAM)	145 LB		
0099	6071030000-E	1640	COIR FIBER BAFFLE	60 LF		
0100	6084000000-E	1660	SEEDING & MULCHING	2 ACR		
0101	6087000000-E	1660	MOWING	1 ACR		
0102	6090000000-E	1661	SEED FOR REPAIR SEEDING	50 LB		
0103	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.25 TON		
0104	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	50 LB		
0105	6108000000-E	1665	FERTILIZER TOPDRESSING	1.5 TON		
0106	6114500000-N	1667	SPECIALIZED HAND MOWING	30 MHR		
0107	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	150 EA		
0108	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	4 EA		

County : Henderson

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0109	6123000000-E	1670	REFORESTATION	0.1	ACR	
0110	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE CLEANOUT	72	EA	
0111	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE	24	EA	
0112	7279000000-E	1715	TRACER WIRE	12,295	LF	
0113	7300000000-E	1715	UNPAVED TRENCHING (***** (1, 2')	1,920	LF	
0114	7300000000-E	1715	UNPAVED TRENCHING (***** (2, 2')	30	LF	
0115	7300000000-E	1715	UNPAVED TRENCHING (***** (3, 2')	11,705	LF	
0116	7301000000-E	1715	DIRECTIONAL DRILL (***** (1, 2')	225	LF	
0117	7301000000-E	1715	DIRECTIONAL DRILL (***** (2, 2')	125	LF	
0118	7301000000-E	1715	DIRECTIONAL DRILL (***** (3, 2')	270	LF	
0119	7516000000-E	1730	COMMUNICATIONS CABLE (**FIBER) (144)	27,580	LF	
0120	7528000000-E	1730	DROP CABLE	670	LF	
0121	7540000000-N	1731	SPLICE ENCLOSURE	4	EA	
0122	7552000000-N	1731	INTERCONNECT CENTER	4	EA	
0123	7566000000-N	1733	DELINEATOR MARKER	29	EA	
0124	7684000000-N	1750	SIGNAL CABINET FOUNDATION	3	EA	
0125	7980000000-N	SP	GENERIC SIGNAL ITEM 5/8" X 10' GROUNDING ELECTRODE	33	EA	

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0126	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV FIELD EQUIPMENT CABINET	3 EA		
0127	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV WOOD POLE	3 EA		
0128	7980000000-N	SP	GENERIC SIGNAL ITEM DIGITAL CCTV CAMERA ASSEMBLY	3 EA		
0129	7980000000-N	SP	GENERIC SIGNAL ITEM DMS ACCESS LADDER	1 EA		
0130	7980000000-N	SP	GENERIC SIGNAL ITEM DMS PEDESTAL STRUCTURE	1 EA		
0131	7980000000-N	SP	GENERIC SIGNAL ITEM DYNAMIC MESSAGE SIGN (TYPE 2C)	3 EA		
0132	7980000000-N	SP	GENERIC SIGNAL ITEM ELECTRONIC MARKER BALL	47 EA		
0133	7980000000-N	SP	GENERIC SIGNAL ITEM EQUIPMENT CABINET DISCONNECT	4 EA		
0134	7980000000-N	SP	GENERIC SIGNAL ITEM ETHERNET EDGE SWITCH	6 EA		
0135	7980000000-N	SP	GENERIC SIGNAL ITEM LIMITED ACCESS FACILITIES - JB W/CONCRETE COLLAR (OVERSIZED)	22 EA		
0136	7980000000-N	SP	GENERIC SIGNAL ITEM LIMITED ACCESS FACILITIES - JB W/CONCRETE COLLAR (SPECIAL OVERSIZED)	7 EA		
0137	7980000000-N	SP	GENERIC SIGNAL ITEM LIMITED ACCESS FACILITIES - JB W/CONCRETE COLLAR (STANDARD SIZE)	18 EA		
0138	7980000000-N	SP	GENERIC SIGNAL ITEM METER BASE/DISCONNECT COMBINATION PANEL	2 EA		
0139	7980000000-N	SP	GENERIC SIGNAL ITEM MODIFY EXISTING ELECTRICAL SERVICE EQUIPMENT	2 EA		
0140	7980000000-N	SP	GENERIC SIGNAL ITEM PCMS (IM)	3 EA		

County : Henderson

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0141	7980000000-N	SP	GENERIC SIGNAL ITEM PORTABLE CCTV CAMERA ASSEMBLY	3 EA		
0142	7980000000-N	SP	GENERIC SIGNAL ITEM SOLAR POWER ASSEMBLY	2 EA		
0143	7990000000-E	SP	GENERIC SIGNAL ITEM #4 SOLID BARE GROUNDING CONDUCTOR	750 LF		
0144	7990000000-E	SP	GENERIC SIGNAL ITEM 3-WIRE COPPER FEEDER CONDUCTORS	775 LF		
0145	7990000000-E	SP	GENERIC SIGNAL ITEM 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS	40 LF		
0146	7990000000-E	SP	GENERIC SIGNAL ITEM 4-WIRE COPPER FEEDER CONDUCTORS	1,390 LF		
0147	7990000000-E	SP	GENERIC SIGNAL ITEM BRIDGE MOUNTED CONDUIT	1,115 LF		
0148	7990000000-E	SP	GENERIC SIGNAL ITEM CONDUIT THROUGH ROCK (1 CONDUIT, 2")	384 LF		
0149	7990000000-E	SP	GENERIC SIGNAL ITEM CONDUIT THROUGH ROCK (2 CONDUITS, 2")	6 LF		
0150	7990000000-E	SP	GENERIC SIGNAL ITEM CONDUIT THROUGH ROCK (3 CONDUITS, 2")	2,341 LF		
STRUCTURE ITEMS						
0151	8035000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (35+30.22 -L-)	Lump Sum	L.S.	
0152	8065000000-N	SP	ASBESTOS ASSESSMENT	Lump Sum	L.S.	
0153	8084000000-N	410	FOUNDATION EXCAVATION FOR END BENT ** AT STATION ***** (1, 35+30.22.-L-)	Lump Sum	L.S.	

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0154	8084000000-N	410	FOUNDATION EXCAVATION FOR END BENT ** AT STATION ***** (2, 35+30.22-L-)	Lump Sum	L.S.	
0155	8096000000-E	450	PILE EXCAVATION IN SOIL	102 LF		
0156	8097000000-E	450	PILE EXCAVATION NOT IN SOIL	18 LF		
0157	8147000000-E	420	REINFORCED CONCRETE DECK SLAB	23,357 SF		
0158	8161000000-E	420	GROOVING BRIDGE FLOORS	85,495 SF		
0159	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	52 CY		
0160	8217000000-E	425	REINFORCING STEEL (BRIDGE)	7,216 LB		
0161	8280000000-E	440	APPROX LBS STRUCTURAL STEEL	1,087,000 LS		
0162	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (HP12 X 53)	12 EA		
0163	8364000000-E	450	HP12X53 STEEL PILES	240 LF		
0164	8391000000-N	450	STEEL PILE POINTS	12 EA		
0165	8860000000-N	SP	GENERIC STRUCTURE ITEM ACCESS & FALL PROTECTION	Lump Sum	L.S.	
0166	8860000000-N	SP	GENERIC STRUCTURE ITEM BEARING REPAIRS	Lump Sum	L.S.	
0167	8860000000-N	SP	GENERIC STRUCTURE ITEM CLEANING & PAINTING EXISTING WEATHERING STEEL	Lump Sum	L.S.	
0168	8860000000-N	SP	GENERIC STRUCTURE ITEM GUSSET PLATE RETROFIT	Lump Sum	L.S.	
0169	8860000000-N	SP	GENERIC STRUCTURE ITEM MOLDED RUBBER SEGMENTAL EXPANSION JOINTS	Lump Sum	L.S.	
0170	8860000000-N	SP	GENERIC STRUCTURE ITEM PAINTING CONTAINMENT	Lump Sum	L.S.	

County : Henderson

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0171	8860000000-N	SP	GENERIC STRUCTURE ITEM POLLUTION CONTROL	Lump Sum	L.S.	
0172	8860000000-N	SP	GENERIC STRUCTURE ITEM POST-TENSIONING ANCHORAGE	Lump Sum	L.S.	
0173	8860000000-N	SP	GENERIC STRUCTURE ITEM POST-TENSIONING BAR CORROSION PROTECTION	Lump Sum	L.S.	
0174	8860000000-N	SP	GENERIC STRUCTURE ITEM POST-TENSIONING BARS	Lump Sum	L.S.	
0175	8860000000-N	SP	GENERIC STRUCTURE ITEM WELD REPAIR W1	Lump Sum	L.S.	
0176	8860000000-N	SP	GENERIC STRUCTURE ITEM WELD REPAIR W2	Lump Sum	L.S.	
0177	8860000000-N	SP	GENERIC STRUCTURE ITEM WELD REPAIR W3	Lump Sum	L.S.	
0179	8867000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE BARRIER RAIL (ALL-LIGHTWEIGHT CONCRETE)	2,208 LF		
0180	8867000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE MEDIAN BARRIER (ALL-LIGHTWEIGHT CONCRETE)	1,097 LF		
0181	8881000000-E	SP	GENERIC STRUCTURE ITEM POLYESTER POLYMER CONCRETE MATERIALS	285 CY		
0182	8892000000-E	SP	GENERIC STRUCTURE ITEM FIBER REINFORCED CONCRETE DECKSLAB (ALL-LIGHTWEIGHT CONCRETE)	75,343 SF		
0183	8892000000-E	SP	GENERIC STRUCTURE ITEM SILANE TREATMENTS	3,800 SF		
0184	8892000000-E	SP	GENERIC STRUCTURE ITEM SURFACE PREPARATION FOR SILANE	3,800 SF		
0185	8893000000-E	SP	GENERIC STRUCTURE ITEM PLACING & FINISHING POLYESTER POLYMER CONCRETE OVERLAY	10,250 SY		
0186	8893000000-E	SP	GENERIC STRUCTURE ITEM SHOTBLASTING BRIDGE DECK	10,250 SY		

County : Henderson

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0187	8897000000-N	SP	GENERIC STRUCTURE ITEM HOLE REPAIR TYPE I	12 EA		
0188	8897000000-N	SP	GENERIC STRUCTURE ITEM HOLE REPAIR TYPE II	3 EA		
0189	8897000000-N	SP	GENERIC STRUCTURE ITEM HOLE REPAIR TYPE III	1 EA		
0190	8897000000-N	SP	GENERIC STRUCTURE ITEM PACK RUST REPAIR TYPE I	17 EA		
0191	8897000000-N	SP	GENERIC STRUCTURE ITEM PACK RUST REPAIR TYPE II	6 EA		
0192	8897000000-N	SP	GENERIC STRUCTURE ITEM BRIDGE WASHING	30 EA		
0193	8897000000-N	SP	GENERIC STRUCTURE ITEM WELD REPAIR W4	5 EA		
1529/Feb26/Q1555501.55/D1077941150000/E192			Total Amount Of Bid For Entire Project :			

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURES AT STA. 35+30.22 -L-	ASBESTOS ASSESSMENT	FOUNDATION EXCAVATION FOR END BENT 1 AT STA. 35+30.22 -L-	FOUNDATION EXCAVATION FOR END BENT 2 AT STA. 35+30.22 -L-	PILE EXCAVATION IN SOIL	PILE EXCAVATION NOT IN SOIL	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	REINFORCING STEEL	APPROX 1,087,000 LBS. STRUCTURAL STEEL	CLEANING AND PAINTING EXISTING WEATHERING STEEL	POLLUTION CONTROL	PILE DRIVING EQUIPMENT SETUP FOR HP12X53 STEEL PILES	HP12X53 STEEL PILES	STEEL PILE POINTS
	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LF.	LF.	SQ. FT.	SQ. FT.	CU. YD.	LBS.	LUMP SUM	LUMP SUM	LUMP SUM	EA.	LIN. FT.	EA.
SUPERSTRUCTURE							23,357	85,495								
END BENT 1					48	12			26	3,608				6	150	6
BENT 1																
BENT 2																
BENT 3																
BENT 4																
END BENT 2					54	6			26	3,608				6	90	6
REHABILITATION																
TOTAL	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	102	18	23,357	85,495	52	7,216	LUMP SUM	LUMP SUM	LUMP SUM	12	240	12

TOTAL BILL OF MATERIAL

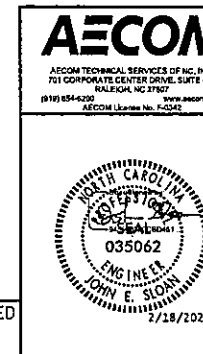
	CONCRETE BARRIER RAIL (ALL-LIGHT WEIGHT CONCRETE)	CONCRETE MEDIAN BARRIER (ALL-LIGHT WEIGHT CONCRETE)	MOLDED RUBBER SEGMENTAL EXPANSION JOINTS	PAINTING CONTAINMENT	POST-TENSIONING BARS	POST-TENSIONING ANCHORAGE	POST-TENSIONING BAR CORROSION PROTECTION	ACCESS & FALL PROTECTION	POLYESTER POLYMER CONCRETE MATERIALS	PLACING AND FINISHING POLYESTER POLYMER CONCRETE OVERLAY	FIBER REINFORCED CONCRETE DECK SLAB (ALL-LIGHTWEIGHT CONCRETE)	SILANE TREATMENTS	SURFACE PREPARATION FOR SILANE
	LIN. FT.	LIN. FT.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	CU. YDS.	SQ. YDS.	SQ. FT.	SQ. FT.	SQ. FT.
SUPERSTRUCTURE	2,207.50	1,097.25							285	10,250	75,343		
END BENT 1												1,900	1,900
BENT 1													
BENT 2													
BENT 3													
BENT 4													
END BENT 2												1,900	1,900
REHABILITATION													
TOTAL	2,207.50	1,097.25	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	285	10,250	75,343	3,800	3,800

TOTAL BILL OF MATERIAL

	BEARING REPAIRS	GUSSET PLATE RETROFIT	WELD REPAIR (W1)	WELD REPAIR (W2)	WELD REPAIR (W3)	WELD REPAIR (W4)	HOLE REPAIR (TYPE I)	HOLE REPAIR (TYPE II)	HOLE REPAIR (TYPE III)	PACK RUST REPAIR (TYPE I)	PACK RUST REPAIR (TYPE II)	SHOTBLASTING BRIDGE DECK	BRIDGE WASHING
	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	EA.	EA.	EA.	EA.	EA.	EA.	SQ. YDS.	EA.
SUPERSTRUCTURE												10,250	30
END BENT 1													
BENT 1													
BENT 2													
BENT 3													
BENT 4													
END BENT 2													
REHABILITATION						5	12	3	1	17	6		
TOTAL	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	5	12	3	1	17	6	10,250	30

PROJECT NO. 15BPR.20
HENDERSON COUNTY
 STATION: 35+30.22 -L-

SHEET 6 OF 6



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 FOR BRIDGE WIDENING AND
 REHAB ON I-26/US74
 OVER GREEN RIVER
 BETWEEN US25 AND SR1142

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			5-7
2			4			129

DRAWN BY : H. ROSEMOND DATE : 02/2020
 CHECKED BY : J. E. SLOAN DATE : 02/2020
 DESIGNED BY : G. COLS DATE : 02/2020
 DESIGN CHECKED BY : J. E. SLOAN DATE : 02/2020

PAGE: 2/19/2021
PAGE: 3/20/20

USA: AECOM\Projects\15BPR\15BPR20_S41_026.dgn

CONSTRUCTION SEQUENCE GENERAL NOTES:

ALL DEMOLITION WORK SHALL BE PAID FOR UNDER "REMOVAL OF EXISTING STRUCTURES AT STA. 35+30.22 -L-." PAYMENT FOR CONSTRUCTION OF THE STRUCTURE SHALL BE MADE IN ACCORDANCE WITH THE VARIOUS PAY ITEMS IN THE CONTRACT. NO SEPARATE PAYMENT SHALL BE MADE FOR THE ITEMS NOTED IN THIS SEQUENCE EXCEPT FOR THE BRIDGE WASHING PAY ITEM.

FOR TRAFFIC MANAGEMENT DETAILS, SEE TRAFFIC MANAGEMENT PLANS.

MEANS AND METHODS OF DEMOLITION AND CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR'S MEANS AND METHODS SHALL INCORPORATE THE INFORMATION SHOWN IN THIS SEQUENCE.

CONTRACTOR MAY NOT STORE OR STOCKPILE MATERIALS ON THE EXISTING BRIDGE AT ANY TIME DURING CONSTRUCTION.

IT HAS BEEN ASSUMED THAT THE CONTRACTOR SHALL USE A GANTRY CRANE ON THE EXISTING STRUCTURE OVERHANGS TO SET THE STRUCTURAL STEEL IN BAY 2. FOR GANTRY CRANE REQUIREMENTS, SEE SPECIAL PROVISIONS.

THIS DEMOLITION AND CONSTRUCTION SEQUENCE DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SUBMIT A PLAN FOR PARTIAL REMOVAL OF THE BRIDGE IN ACCORDANCE WITH SECTION 402 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT A PLAN FOR PARTIAL REMOVAL OF THE BRIDGE THAT INCORPORATES THE INFORMATION SHOWN IN THESE CONTRACT DRAWINGS. THE PLAN FOR PARTIAL REMOVAL SHALL INCLUDE THE FOLLOWING: EQUIPMENT, RIGGING, GANTRY CRANE, SAW CUT LOCATIONS, PICK WEIGHTS, AND ALL INFORMATION REQUIRED TO SUCCESSFULLY REMOVE THE APPROPRIATE PORTIONS OF THE STRUCTURE.

EACH STEP IN THE CONSTRUCTION SEQUENCE MUST BE COMPLETED PRIOR TO COMMENCING THE NEXT STEP, UNLESS STATED OTHERWISE.

THE DEMOLITION AND CONSTRUCTION SEQUENCE INCLUDES AN ALLOWANCE FOR 50 PSF CONSTRUCTION LOADING IN ACCORDANCE WITH SECTION 420-3 (D) (1) (b) OF THE STANDARD SPECIFICATIONS. THIS LOADING HAS BEEN ASSUMED PRESENT WHERE LIVE LOAD LANES ARE NOT LOCATED ON THE BRIDGE DURING THE SEQUENCE. THE CONTRACTOR SHALL NOT PLACE ANY OTHER LOADING SUCH AS CRANES OR TRUCK EQUIPMENT ON THE BRIDGE UNLESS SPECIFICALLY AUTHORIZED.

THE CONTRACTOR SHALL USE CARE TO PRESERVE AND PROTECT THE STRUCTURE DURING DEMOLITION AND RECONSTRUCTION. ANY DAMAGE TO THE STRUCTURE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE CONTRACTOR.

THE CONTRACTOR SHALL MAINTAIN THE DECK DRAINS DURING THE DEMOLITION AND CONSTRUCTION SEQUENCE. ALL DECK DRAINS SHALL BE PRESERVED IN PLACE AND MAINTAINED FREE OF BLOCKAGE UNTIL THE DECK IS REMOVED. THE CONTRACTOR SHALL PREVENT STORMWATER THAT FALLS ONTO THE DECK FROM FALLING ONTO THE GIRDERS AT ALL TIMES DURING THE CONSTRUCTION SEQUENCE.

CONTRACTOR MAY DRILL HOLES IN THE EXISTING DECK TO FACILITATE DRAINAGE AND MINIMIZE SPREAD. CONTRACTOR SHALL SUBMIT HOLE LOCATIONS AND PLANS FOR DRILLING TO THE ENGINEER. DRILLING OF HOLES IN THE PROPOSED DECK SHALL NOT BE ALLOWED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE BRIDGE FROM THE DATE OF AVAILABILITY UNTIL THE COMPLETION OF THE CONTRACT.

CONTRACTOR SHALL WASH THE BRIDGE DECK, EXTERIOR FACE OF EXTERIOR GIRDERS, AND STRUCTURE MEMBERS NEAR EXPANSION JOINTS AFTER EACH TIME SALT IS PLACED ON THE DECK DUE TO INCLEMENT WEATHER. WASHING SHALL BE WITH POTABLE WATER AND SHALL OCCUR FOLLOWING THE WEATHER EVENT AND THE MELTING OF ICE OR SNOW. IT IS ESTIMATED THE BRIDGE SHALL BE WASHED 30 TIMES DURING THE CONTRACT. FOR DETAILS, SEE THE BRIDGE WASHING SPECIAL PROVISION.

CONTRACTOR SHALL INSTALL FLOORBEAMS IN SPANS A AND E PRIOR TO INSTALLING FLOORBEAMS IN SPANS B-D.

CONTRACTOR SHALL INSTALL "X" CROSSFRAMES AT CROSSFRAME POINTS 1, 12, 26, AND 37 PRIOR TO INSTALLING THE INTERMEDIATE FLOORBEAMS IN SPANS B-D, BAY 2.

CONTRACTOR SHALL INSTALL GIRDERS 2 AND 3 BOTTOM FLANGE COVER PLATES, SPLICE PLATES, AND WEB STIFFENERS PRIOR TO INSTALLING INTERMEDIATE FLOORBEAMS IN SPANS B-D.

CONTRACTOR SHALL INSTALL INTERMEDIATE FLOORBEAMS IN SPANS B-D PROGRESSING FROM LOCATIONS OF SMALLER LIVE LOAD DEFLECTION TO LOCATIONS OF LARGER LIVE LOAD DEFLECTION WITHIN EACH SPAN. THIS INSTALLATION SHALL PROCEED FROM THE BENTS TO THE MIDSPAN OF EACH SPAN.

ALL STRUCTURAL STEEL REHABILITATION AND STRENGTHENING WORK AT GIRDERS 2 AND 3 SHALL BE COMPLETED PRIOR TO INSTALLING DECK FORMWORK IN BAY 2. NO DECK FORMS SHALL BE PLACED UNTIL ALL BOTTOM FLANGE GIRDER PLATES, FLOORBEAMS, STIFFENERS, STEEL REPAIRS, AND BOTTOM FLANGE WEB GAP DETAILS ARE COMPLETE AND INSTALLED.

GIRDERS 4 AND 1 REHABILITATION AND STRENGTHENING SHALL BE COMPLETED DURING STAGES II AND III RESPECTIVELY, EXCEPT THAT WELD REPAIR #W3 SHALL BE COMPLETED PRIOR TO PLACING DECK FORMWORK IN BAY 2. FOR DETAILS, SEE WELD REPAIR #W3 DETAIL ON STRUCTURAL STEEL REPAIRS SHEETS.

SHEAR STUDS AND TOP FLANGE WEB GAP DETAILS AT GIRDERS 1-4 SHALL BE INSTALLED BETWEEN THE REMOVAL OF THE EXISTING DECK AND THE PLACEMENT OF THE PROPOSED DECK, AS NOTED IN THE SEQUENCE.

DATE: 08/20/2018 TIME: 9:55:24 AM

USER: aecompk Path: \\sunc01\proj\15BPR20_15L_DSG\sgp

DRAWN BY :	H.I. ROSEMOND	DATE :	11/20/18
CHECKED BY :	J.E. SLOAN	DATE :	11/20/18
DESIGNED BY :	N. BROWN/D. TUTTLE	DATE :	11/20/18
DESIGN CHECKED BY :	J. SLOAN/J. LIU	DATE :	11/20/18

WHEN THE DECK IS CONSTRUCTED IN EACH BAY, THE CONTRACTOR SHALL PLACE ALL FORMWORK AND SET ALL REINFORCEMENT (EXCEPT CLOSURE POUR REINFORCEMENT) IN SPANS B-D PRIOR TO POURING ANY CONCRETE WITHIN THESE SPANS. LONGITUDINAL REINFORCEMENT IN THE CLOSURE POUR SHALL BE PLACED AFTER THE CONCRETE ON BOTH SIDES OF THE CLOSURE POUR HAS ACHIEVED A CONCRETE STRENGTH OF 3 KSI. TRANSVERSE REINFORCEMENT IN THE CLOSURE POUR PROJECTING FROM BAYS 1 AND 3 SHALL BE KEPT FREE OF CONTACT FROM BAY 2 REINFORCEMENT IN ORDER TO PREVENT LIVE LOAD VIBRATION TRANSFER FROM BAY 2 INTO THE BAY 1 OR BAY 3 REINFORCEMENT DURING BAYS 1 AND 3 CONCRETE PLACEMENT AND CURING. PRIOR TO PLACING THE CLOSURE POUR CONCRETE, THE TRANSVERSE REINFORCING STEEL IN THE CLOSURE POUR SHALL BE CONNECTED SECURELY TOGETHER AND CONNECTED SECURELY TO THE LONGITUDINAL REINFORCEMENT.

CONTRACTOR SHALL REMOVE EXISTING ABANDONED ELECTRICAL UTILITIES FROM THE BRIDGE. THIS CONSISTS OF ELECTRICAL BOXES AT THE EAST END OF THE BRIDGES AND CONDUITS RUNNING ALONG THE CATWALKS. THIS WORK SHALL BE PAID FOR UNDER "REMOVAL OF EXISTING STRUCTURES AT STA. 35+30.22 -L-."

FOR END BENT DEMOLITION AND CONSTRUCTION SEQUENCE, SEE END BENT SHEETS.

FOR BENT CAP POST-TENSIONING SYSTEM CONSTRUCTION SEQUENCE, SEE BENT CAP STRENGTHENING SHEETS. BENT CAP POST-TENSIONING SYSTEM SHALL BE COMPLETELY INSTALLED PRIOR TO PLACING DECK FORMWORK IN BAY 2.

FOR FLOORBEAM CONNECTION RETROFIT SEQUENCE, SEE FLOORBEAM CONNECTION RETROFIT SHEETS.

FOR STRUCTURAL STEEL REPAIR SEQUENCES, SEE STRUCTURAL STEEL REPAIRS SHEETS.

INTERMEDIATE CROSSFRAMES ARE SHOWN IN THE DEMOLITION AND CONSTRUCTION SEQUENCE UNLESS OTHERWISE NOTED.

GIRDERS 2 AND 3 BEARING REPAIRS SHALL BE COMPLETED PRIOR TO POURING THE STAGE I DECK, GIRDER 4 BEARING REPAIRS SHALL BE COMPLETED PRIOR TO POURING THE STAGE II DECK, AND GIRDER 1 BEARING REPAIRS SHALL BE COMPLETED PRIOR TO POURING THE STAGE III DECK.

CONTRACTOR SHALL PROVIDE THE ENGINEER THE ACCESS AND OPPORTUNITY TO INSPECT THE TOP FLANGES OF GIRDERS 1 THROUGH 4 WHEN THE DECK HAS BEEN REMOVED ABOVE EACH GIRDER AND PRIOR TO PLACING FORMWORK, REINFORCEMENT, OR CONCRETE ABOVE THE GIRDER.

COMPLETE THE FLOORBEAM CONNECTION RETROFIT AT ALL FOUR GIRDERS PRIOR TO POURING THE STAGE I DECK.

IN SPANS B-D, DURING BAY 3 DECK REMOVAL IN STAGE IIA AND BAY 1 DECK REMOVAL IN STAGE IIIA, CONTRACTOR SHALL REMOVE THE DECK SYMMETRICALLY FROM THE MIDSPAN OF SPAN C TOWARD PIERS 1 AND 4.

GEOMETRIC CONTROL NOTES:

CONTRACTOR SHALL EXERCISE GEOMETRIC CONTROL OF THE STRUCTURE BY APPROPRIATELY EVALUATING AND MONITORING THE GEOMETRY THROUGHOUT THE DEMOLITION AND CONSTRUCTION SEQUENCE.

A TOTAL DEAD LOAD DEFLECTION OF 3/8" WAS OBSERVED AS A NOTE ON THE ORIGINAL CONSTRUCTION PLANS FOR SPANS A AND E WITH AN ADDITIONAL NOTE STATING, "NO CAMBER REQUIRED."

NO CAMBER INFORMATION HAS BEEN OBSERVED ON THE ORIGINAL PLANS FOR SPANS B-D, OTHER THAN A DIMENSION, 10 5/8", SHOWING THE DISTANCE FROM THE TOP OF THE DECK TO THE SOFFIT OF THE GIRDER FLANGE AT THE GIRDER CENTERLINE. IT HAS BEEN ASSUMED THAT THE ORIGINAL CAMBER OF THE GIRDERS WAS EQUIVALENT TO THE DEAD LOAD DEFLECTION OF THE ORIGINAL SUPERSTRUCTURE DURING THE 1968 CONSTRUCTION, IN ORDER TO MAINTAIN THIS DIMENSION SHOWN ON THE PLANS AS CONSTANT (IN THEORY) ALONG THE BRIDGE. IN PRACTICE, THE LASER SURVEY OF THE DECK INDICATES VARIATIONS IN THE DECK SURFACE UP TO 2" ± FROM THE THEORETICAL DECK PROFILE. IT HAS BEEN ASSUMED THAT THESE VARIATIONS ORIGINATED FROM INCONSISTENCIES IN THE ORIGINAL DECK BUILDUP THICKNESS, RATHER THAN VARIATIONS IN THE GIRDER PROFILE.

CONTRACTOR SHALL COMPLETE AN INITIAL LASER SURVEY OF GIRDERS 2 AND 3 PRIOR TO FABRICATING AND INSTALLING THE INTERMEDIATE DIAPHRAGM MEMBERS CONSISTING OF THE FOLLOWING:

THE SURVEY SHALL ENCOMPASS THE BAY 2 FACE OF EACH GIRDER FOR DETERMINING THE APPROPRIATE CONNECTION DIMENSIONS, DEFLECTIONS, AND MEMBER LENGTHS IN BAY 2. LOCATION, DIMENSIONS, AND ELEVATIONS OF FLANGES, WEBS, AND STIFFENERS SHALL BE RECORDED IN THE SURVEY. RECORD A 3D POINT CLOUD AND 2D LINWORK OF THE NORTH FACE OF GIRDER 2 AND THE SOUTH FACE OF GIRDER 3, INCLUDING THE FLANGES, WEBS, STIFFENERS, AND DECK FACE.

IN PARALLEL WITH THE LASER SURVEY, GIRDER SOFFIT ELEVATIONS OF ALL FOUR GIRDERS SHALL BE SURVEYED AND RECORDED IN TABULAR FORM AT THE CROSSFRAME POINTS AND AT LOCATIONS SHOWN IN THE DEAD LOAD DEFLECTION TABLES SHEETS.

SUBMIT ALL SURVEY INFORMATION TO THE ENGINEER FOR REVIEW WITHIN 90 CALENDAR DAYS OF THE DATE OF AVAILABILITY OF THE CONTRACT.

CONTRACTOR SHALL SURVEY THE BRIDGE PRIOR TO PLACING TEMPORARY BARRIERS IN STAGE IA AND SHALL COMPLETE THE SURVEY WITHOUT UTILIZING CONCRETE BARRIERS FOR THE LANE CLOSURE. CONTRACTOR SHALL FABRICATE STRUCTURAL STEEL BASED ON THE SURVEYED BRIDGE GEOMETRY.

AFTER REMOVAL OF THE EXISTING DECK, CONTRACTOR SHALL LASER SURVEY THE TOP OF EACH GIRDER AND RECORD ELEVATIONS AT EACH CROSSFRAME POINT AND AT LOCATIONS SHOWN IN THE DEAD LOAD DEFLECTION TABLES SHEETS. SUBMIT SURVEY INFORMATION TO THE ENGINEER WITHIN 30 DAYS OF DECK REMOVAL IN STAGES II AND III.

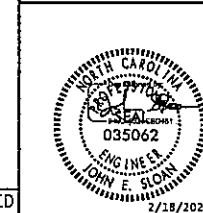
SURVEY DATA REQUIRED TO BE SUBMITTED CONSTITUTES THE MINIMUM REQUIREMENT FOR THE EXERCISE OF GEOMETRIC CONTROL OF THE STRUCTURE. CONTRACTOR SHALL TAKE ADDITIONAL SURVEY DATA REQUIRED THROUGHOUT CONSTRUCTION, IF NECESSARY, TO PROPERLY CONSTRUCT THE STRUCTURE TO THE PROPOSED GEOMETRY.

BEFORE PURCHASING SHEAR STUDS AND BUILDUP REINFORCEMENT, CONTRACTOR SHALL EVALUATE THE CAMBER AND DEFLECTIONS OF THE GIRDERS UTILIZING THE AS-SURVEYED GIRDER GEOMETRY. CONTRACTOR SHALL RE-EVALUATE THE SHEAR STUD HEIGHT AND K9 BAR LENGTH BASED ON THE EXISTING GIRDER GEOMETRY, AND UPDATE THE GEOMETRY OF THESE ITEMS IF NECESSARY. AT GIRDERS 2 AND 3, CONTRACTOR SHALL MAINTAIN 2" CLEAR COVER FROM THE TOP OF THE #5K9 BAR TO THE TOP OF THE SLAB, AND THE #5K9 BAR SHALL OVERLAP THE STUD A MINIMUM OF 6". AT GIRDERS 1 AND 4, CONTRACTOR SHALL MAINTAIN 2" CLEAR COVER FROM THE TOP OF THE SHEAR STUD TO THE TOP OF THE SLAB.

PROJECT NO. 15BPR.20
HENDERSON COUNTY
 STATION: 35+30.22 -L-

SHEET 1 OF 12

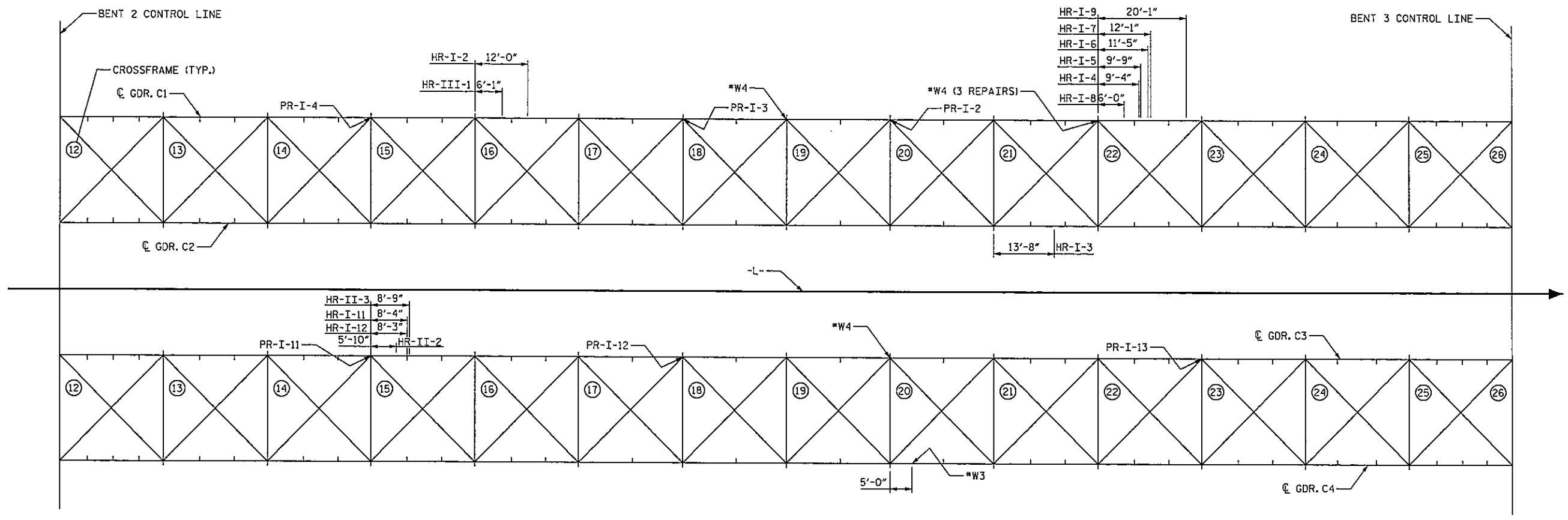
PAY ITEM	ESTIMATED QUANTITY	PAY UNIT
BRIDGE WASHING	30	EACH



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 &
 DEMOLITION
 CONSTRUCTION
 SEQUENCE

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-11
1			3			TOTAL SHEETS
2			4			129



SPAN C

STEEL DEFECT LOCATION SKETCH

PROJECT NO. 15BPR.20
HENDERSON COUNTY
 STATION: 35+30.22 -L-

SHEET 2 OF 14

DRAWN BY : M. TOM DATE : 2/2019
 CHECKED BY : G. COLS DATE : 2/2019
 DESIGNED BY : J. SLOAN DATE : 2/2019
 DESIGN CHECKED BY : E. ZHOU DATE : 2/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

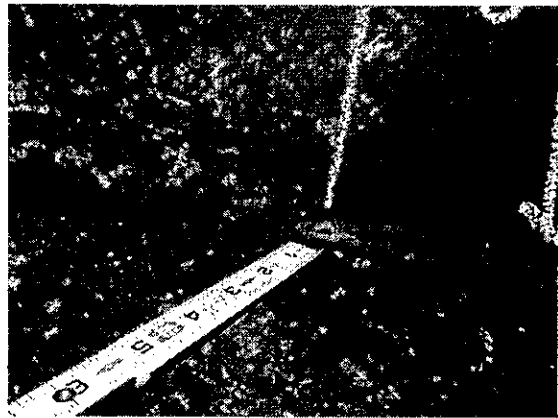
AECOM
AECOM TECHNICAL SERVICES OF NC, INC.
 701 CORPORATE CENTER DRIVE, SUITE 475
 RALEIGH, NC 27607
 919.884.6200 www.aecom.com
 AECOM License No. F-0242

STATE OF NORTH CAROLINA
 JOHN E. SLOAN
 ENGINEER
 035062
 2/18/2021

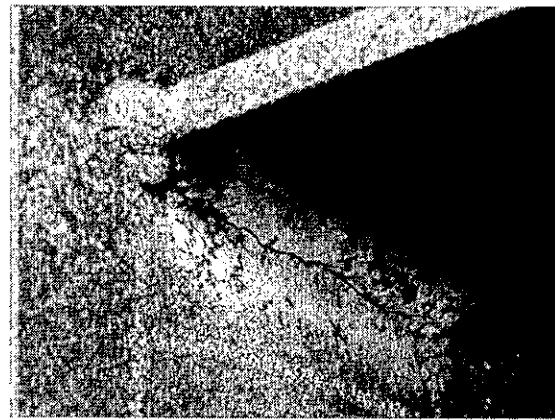
STATE OF NORTH CAROLINA					
DEPARTMENT OF TRANSPORTATION					
RALEIGH					
REHABILITATION					
STRUCTURAL STEEL REPAIRS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					S-82
TOTAL SHEETS					129

DATE: 2/18/2019 TIME: 3:28:54 PM

USER: rweath@acm.com Drawing: 15BPR1202_S14_S12.dgn

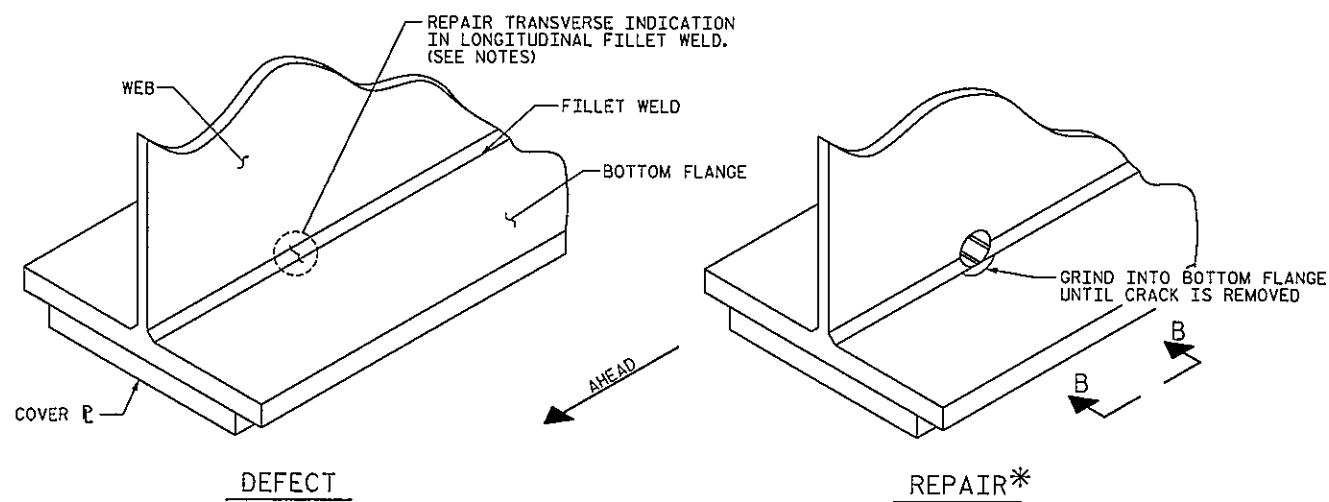


PHOTO



PHOTO

NOTES:
FOR WELD REPAIRS, SEE SPECIAL PROVISIONS.
FOR PAY ITEMS, SEE SHEET 14 OF 14.

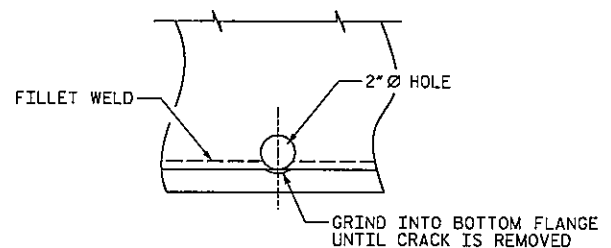


DEFECT

REPAIR*

ISOMETRIC VIEW

* IF NECESSARY, SEE REPAIR PROCEDURE

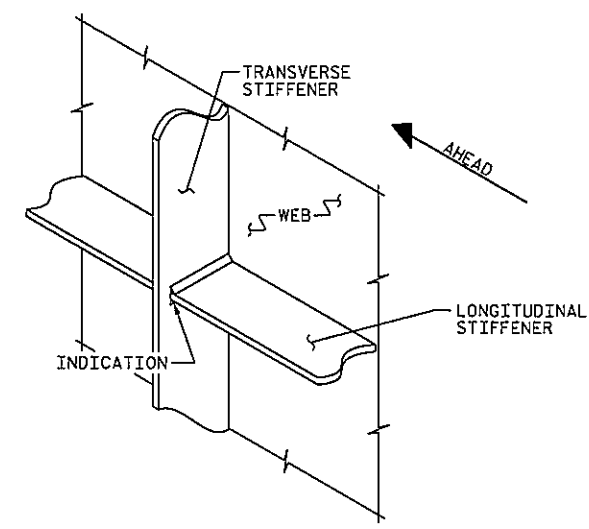


VIEW B-B*

WELD REPAIR #W3

COMPLETE WELD REPAIR #W3 PRIOR TO PLACING DECK FORMWORK IN BAY 2.

- LOCATION SPAN C BEAM 4, WEB AT BOTTOM FLANGE 5FT WEST OF PANEL POINT 20.
- REPAIR PROCEDURE:
1. CONTRACTOR SHALL ASSIST ENGINEER TO PERFORM NDT AND DETERMINE EXISTENCE AND EXTENTS OF CRACKING.
 2. CONTRACTOR SHALL REMOVE EXISTING CRACK BY GRINDING WITH A SMOOTH PROFILE UP TO 1/8" DEEP OR A DEPTH AS DIRECTED BY ENGINEER.
 3. IF ENGINEER DETERMINES NECESSARY AFTER NDT, DRILL A 2" Ø HOLE IN GIRDER WEB AS SHOWN, CENTERED AT THE INDICATION AND IN TANGENT WITH BOTTOM FLANGE.
 4. CONTRACTOR SHALL REMOVE REMAINING CRACK BY GRINDING WITH A SMOOTH PROFILE TO A DEPTH AS DIRECTED BY ENGINEER.
 5. ENGINEER SHALL CHECK ALONG GROUND SURFACE TO ASSURE COMPLETE REMOVAL OF EXISTING CRACK.
 6. CONTRACTOR SHALL GRIND SMOOTH ANY SURFACE SCRATCHES OR NOTCHES PER INSTRUCTIONS OF ENGINEER.



WELD REPAIR #W4

- LOCATION SPAN C GIRDER 1, SOUTH FACE, EAST SIDE OF TOP LONGITUDINAL STIFFENER TO TRANSVERSE STIFFENER CONNECTION AT CROSSFRAME 19
- REPAIR PROCEDURE:
1. CONTRACTOR SHALL GRIND ALONG LOWER WELD TOE TO REMOVE THE APPARENT LACK OF WELD FUSION. CAUTION MUST BE TAKEN TO MAINTAIN A SMOOTH PROFILE AND NOT TO GOUGE ANY STEEL PLATE.
 2. ENGINEER SHALL CHECK AFTER GRINDING TO VERIFY COMPLETE REMOVAL OF EXISTING DEFECT AND DETERMINE ANY NEED FOR REPAIR.

CONTRACTOR SHALL PERFORM WELD REPAIR #W4 AT FOUR ADDITIONAL LOCATIONS BASED ON THE 2019 NBIS INSPECTION REPORTS:

1. SPAN C GIRDER 1 SOUTH FACE AT CROSSFRAME 22: AT TOP LONGITUDINAL STIFFENER, UNDERSIDE OF LONGITUDINAL STIFFENER, EAST SIDE OF TRANSVERSE STIFFENER.
2. SPAN C GIRDER 1 SOUTH FACE AT CROSSFRAME 22: AT BOTTOM LONGITUDINAL STIFFENER, TOP AND BOTTOM OF LONGITUDINAL STIFFENER, WELD TO WEST SIDE OF TRANSVERSE STIFFENER. THESE SHALL BE CONSIDERED TWO INDEPENDENT REPAIRS FOR BID QUANTITY TABULATION.
3. SPAN C GIRDER 3 SOUTH FACE AT CROSSFRAME 20: AT TOP FLANGE, WELD OF TRANSVERSE STIFFENER TO THE FLANGE.

IT IS POSSIBLE THAT THE REPAIRS NOTED AT CROSSFRAME 22 ON GIRDER 1 ARE LOCATED AT CROSSFRAME 19. THE ENGINEER SHALL INVESTIGATE, DETERMINE THE LOCATION OF THE REPAIRS, AND PROVIDE DIRECTION TO THE CONTRACTOR.

PROJECT NO. 15BPR.20
HENDERSON COUNTY
STATION: 35+30.22 -L-
SHEET 5 OF 14

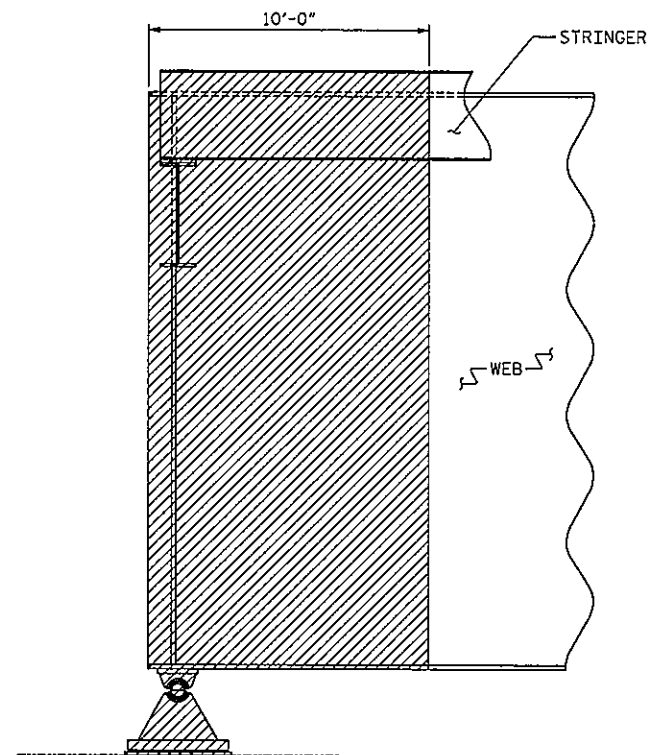
DRAWN BY : H. ROSEMOND	DATE : 2/20/19
CHECKED BY : G. COLS	DATE : 2/20/19
DESIGNED BY : J. SLOAN	DATE : 2/20/19
DESIGN CHECKED BY : E. ZHOU	DATE : 2/20/19

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
REHABILITATION					
STRUCTURAL STEEL REPAIRS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					S-85
TOTAL SHEETS					129

DATE: 2/18/2019, TIME: 10:43 AM

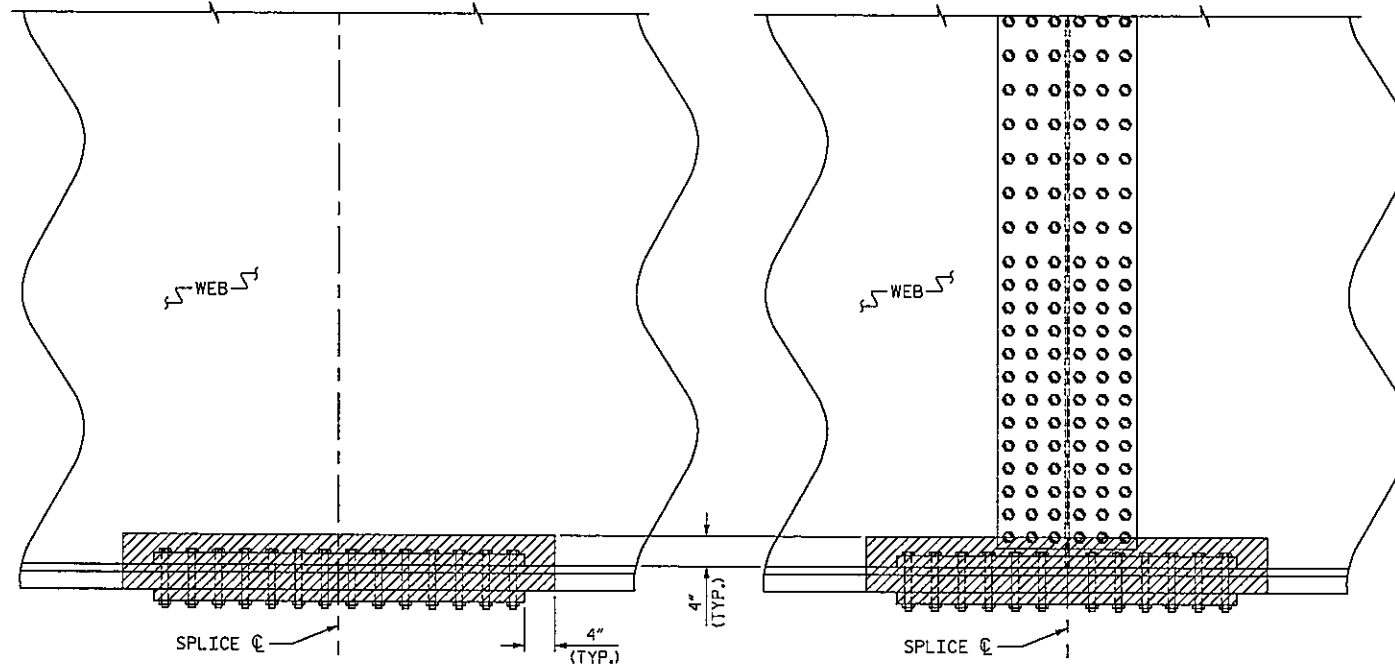
USER: R:\Structural\04_Drawing\15BPR.20_S11_538.dgn



AT BENTS 1 & 4 EXPANSION JOINTS

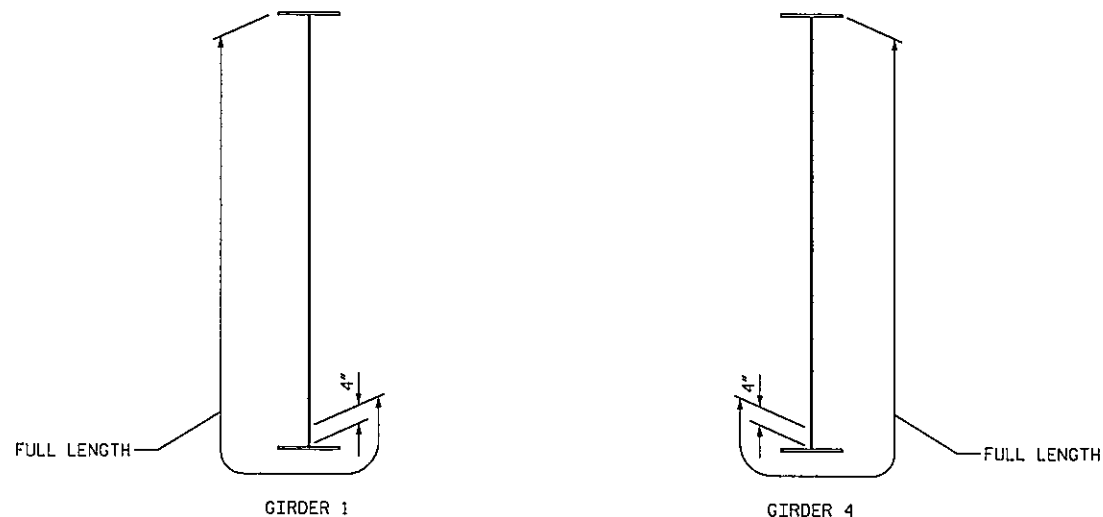
TYP. ALL GIRDERS & STRINGERS
ALL FACES, INCLUDING
CROSS FRAMES, LATERAL BRACING,
AND BEARINGS.

AREA TO
BE CLEANED
AND PAINTED



AT SPLICES

GIRDERS 2 & 3, BOTH FACES
GIRDERS 1 & 4, INSIDE FACE



PAINTING LIMITS OF GIRDERS 1 & 4
FULL LENGTH

**CLEANING AND PAINTING OF EXISTING
WEATHERING STEEL SUPERSTRUCTURE**

BILL OF MATERIAL	
STEEL REPAIRS	
WELD REPAIR:	
W1	LUMP SUM
W2	LUMP SUM
W3	LUMP SUM
W4	5 EA.
HOLE REPAIR:	
TYPE I	12 EA.
TYPE II	3 EA.
TYPE III	1 EA.
PACK RUST REPAIR:	
TYPE I	17 EA.
TYPE II	6 EA.
CLEANING AND PAINTING OF EXISTING WEATHERING STEEL	
	6,775 SY
POLLUTION CONTROL	LUMP SUM
PAINTING CONTAINMENT	LUMP SUM
GUSSET PLATE RETROFIT	LUMP SUM

NOTES:

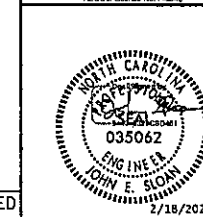
FOR CLEANING AND PAINTING EXISTING WEATHERING STEEL, SEE SPECIAL PROVISIONS.

CLEAN AND PAINT GIRDERS 1 & 4 BEARINGS AT PIERS 2 & 3.

CONTRACTOR SHALL REMOVE ALL VEGETATION AND FILTH FROM THE STRUCTURE

PROJECT NO. 15BPR.20
HENDERSON COUNTY
STATION: 35+30.22 -L-

SHEET 14 OF 14



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
REHABILITATION
STRUCTURAL STEEL
REPAIRS

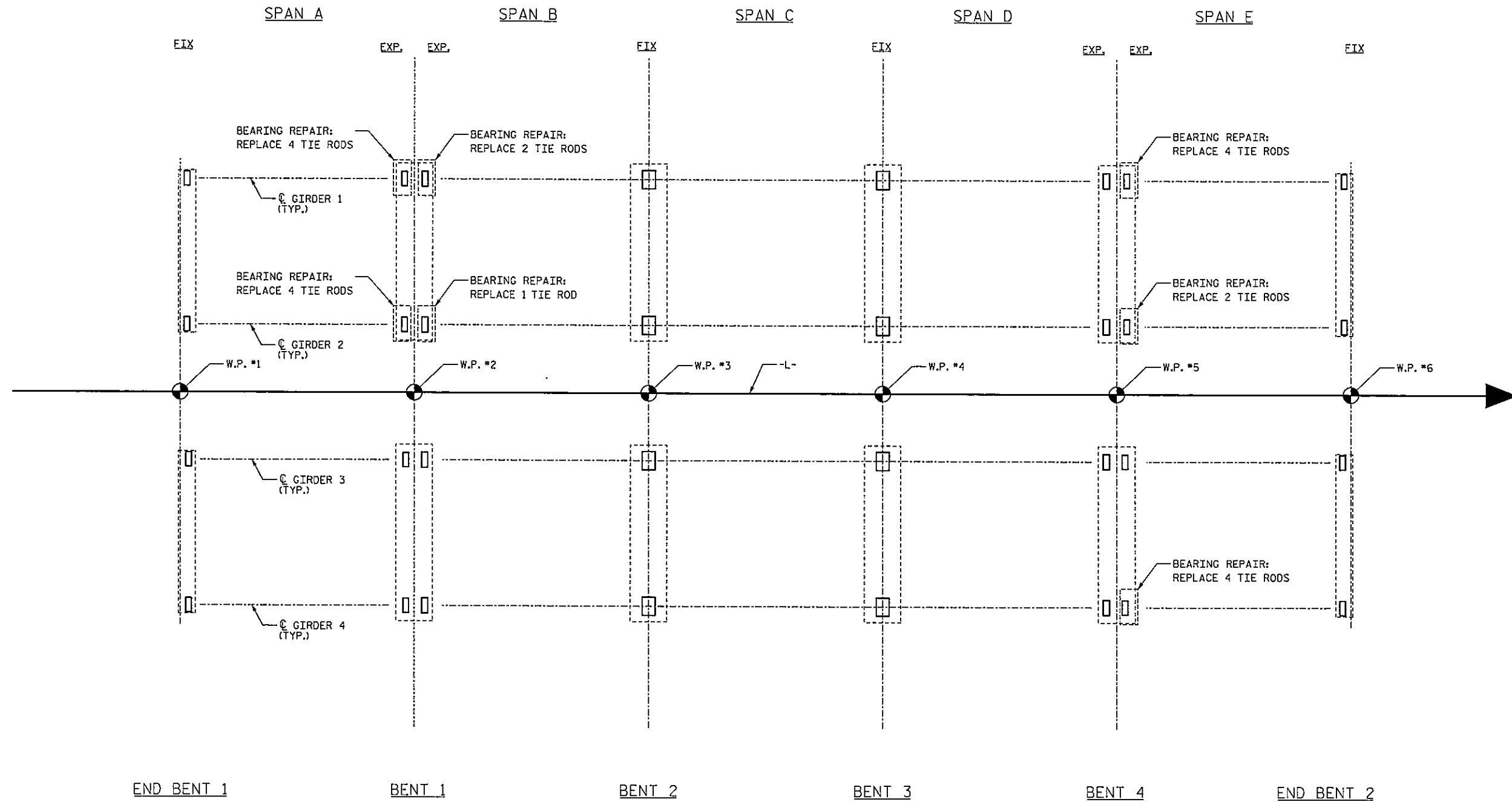
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-94
1			3			TOTAL SHEETS
2			4			129

DRAWN BY : M. TOM	DATE : 2/2019
CHECKED BY : G. COLS	DATE : 2/2019
DESIGNED BY : J. SLOAN	DATE : 2/2019
DESIGN CHECKED BY : E. ZHOU	DATE : 2/2019

DATE: 2/18/2021
TIME: 9:20:07 AM

USER: p:\structures\04 Drawings\15BPR.20\14_S-94.dwg



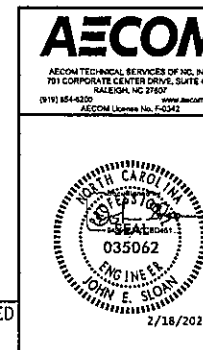
PLAN OF BEARING REPAIRS

PROJECT NO. 15BPR.20
HENDERSON COUNTY
 STATION: 35+30.22 -L-

SHEET 1 OF 2

DRAWN BY : K. DONALD DATE : 01/19
 CHECKED BY : G. COLS DATE : 03/19
 DESIGNED BY : G. COLS DATE : 01/19
 DESIGN CHECKED BY : J. SLOAN DATE : 03/19

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 REHABILITATION
 BEARING REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-95
1			3			TOTAL SHEETS
2			4			129

DATE: 2/18/2021 TIME: 9:58:07 AM

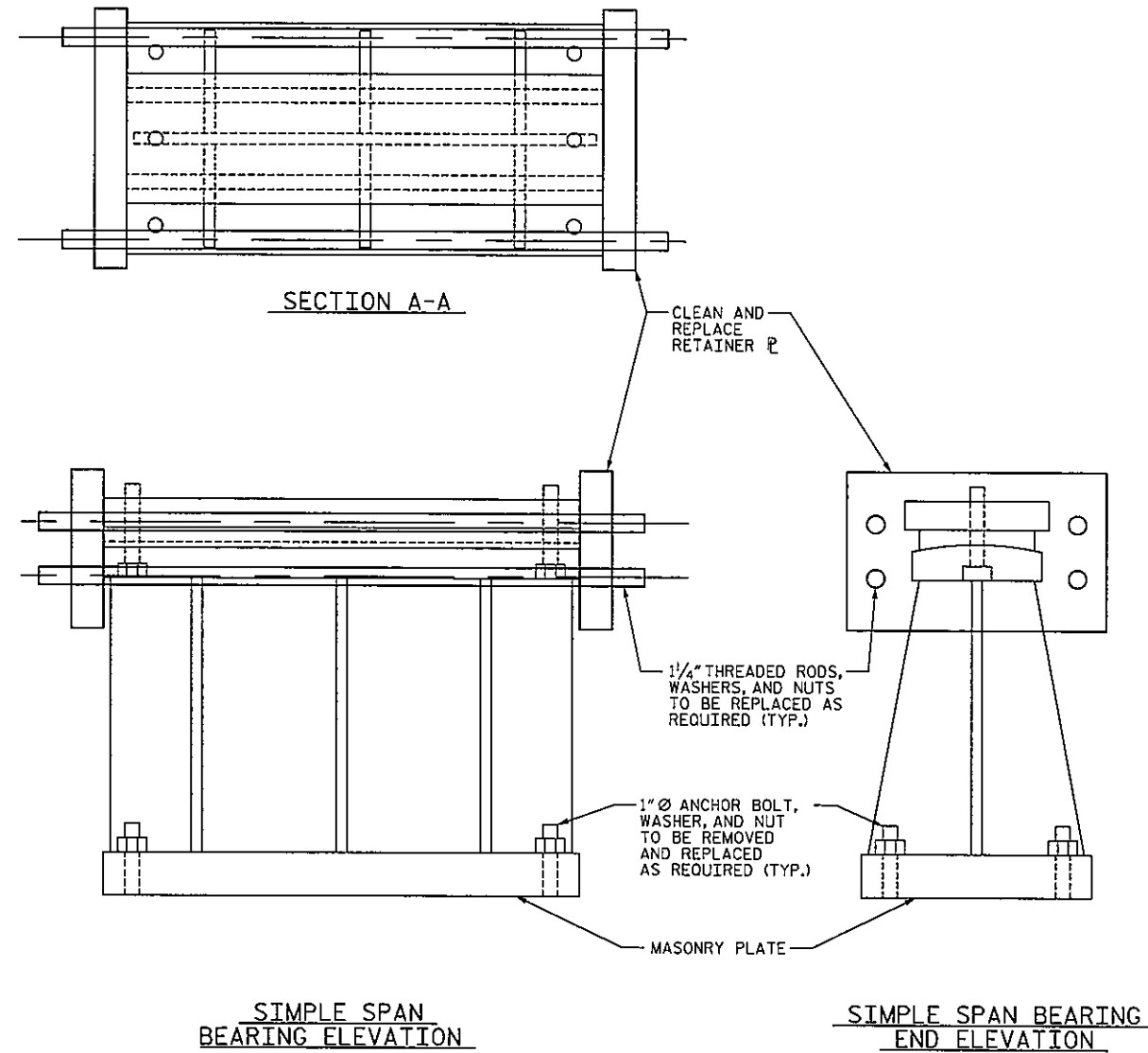
USCAP Microsoft Drawing No. 04 Drawing No. 15_15BPR.20_SML.001.dgn

DATE: 2/18/2021 TIME: 9:55:00 AM

USER: R:\Structure\04 Drawings\04 JT 15BPR20_SML_002.dwg

NOTES

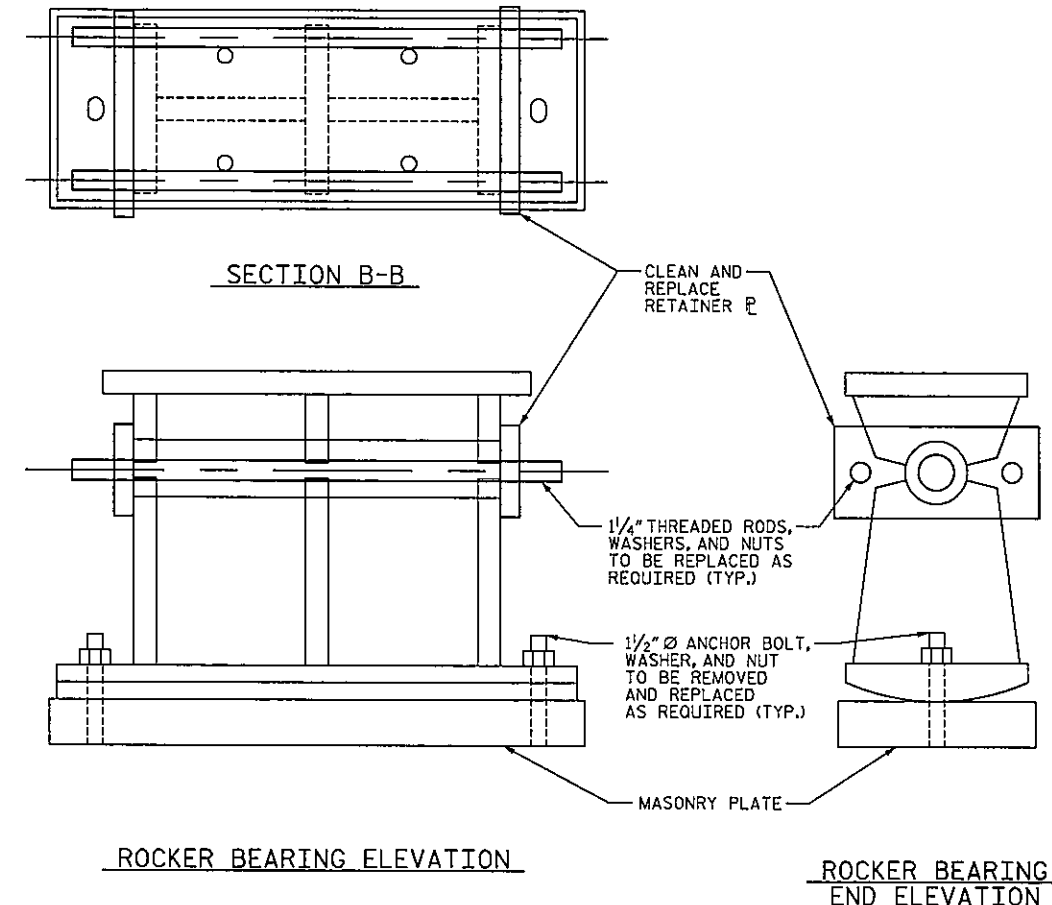
FOR BEARING REPAIRS, SEE SPECIAL PROVISIONS. BEARING REPAIRS ARE PAID FOR AS LUMP SUM.
AFTER REPAIRS, PAINT IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



SIMPLE SPAN BEARING ELEVATION

SIMPLE SPAN BEARING END ELEVATION

SPANS A OR E BEARING AT BENTS 1 OR 4



ROCKER BEARING ELEVATION

ROCKER BEARING END ELEVATION

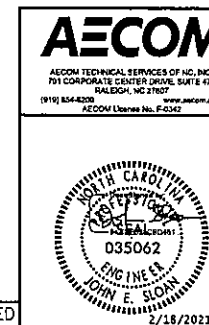
SPANS B OR D BEARING AT BENTS 1 OR 4

PROJECT NO. 15BPR.20
HENDERSON COUNTY
STATION: 35+30.22 -L-

SHEET 2 OF 2

DRAWN BY : K. DONALD	DATE : 01/19
CHECKED BY : G. COLS	DATE : 02/19
DESIGNED BY : G. COLS	DATE : 01/19
DESIGN CHECKED BY : J. SLOAN	DATE : 03/19

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
REHABILITATION
BEARING REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-96
1			3			TOTAL SHEETS
2			4			129