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SOUTH ELEVATION

WEST ELEVATION

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NORTH ELEVATION

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EAST ELEVATION

SEAL 043571

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> SUBSTRUCTURE CONCRETE REPAIRS BENT 22

> > SHEET NO.

S-60

TOTAL SHEETS

RALEIGH

REVISIONS DATE: DATE: BY: BY: DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

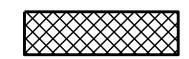
4800 SIX FORKS ROAD SUITE 120 RALEIGH, NC 27609 & ASSOCIATES (919) 882-7839

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AARON J. MCMILLAN __ DATE : <u>03-2018</u> DRAWN BY : ___ JACOB H. DUKE DATE : 03-2018 CHECKED BY : ___ DESIGN ENGINEER OF RECORD : SAMUEL L. CULLUM DATE : 03-2018

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CONCRETE REPAIR AREA



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SHOTCRETE REPAIR AREA

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EPOXY RESIN INJECTION (ERI)

4/12/2018 G:\4201720.xx-Brunswick-14\Structures\401_315_15BPR.25_SMU_B22_S-60_090014.dgn

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CONCRETE REPAIRS CAP EPOXY RESIN INJECTION

CAP COLUMN/PILE

PILE REPAIR JACKET

BENT 22

SHOTCRETE REPAIRS

COLUMN/PILE

CAP

GALVANIC STRUCTURAL C.P. JACKET VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE. MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT. FOR REPAIR DETAILS.

SEE "CONCRETE RESTORATION DETAILS - SUBSTRUCTURE" SHEET.

NOTES:

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

FOR PILE CP JACKET REPAIRS, PRIOR TO ORDERING JACKETS, PERFORM A PILE JACKET SURVEY WITH THE ENGINEER AND THE ENGINEER OF RECORD TO DETERMINE PILE JACKET LOCATIONS AND LENGTHS.

AS-BUILT REPAIR QUANTITY TABLE

AREA SQ.FT

AREA SQ.FT

ESTIMATE

VOLUME CU.FT.

LIN.FT.

LIN.FT.

QUANTITIES

ACTUAL

AREA SQ.FT.

VOLUME CU.FT.

LIN. FT.

LIN.FT

CONCRETE COVER FOR EXTERIOR BARS IN THE CAP IS 3"ON THE BOTTOM FACE, 2" ELSEWHERE, AND 3" ON THE COLUMNS PER EXISTING BRIDGE PLANS. ACTUAL CONCRETE COVER SHALL BE DETERMINED BY THE CONTRACTOR AND PRESENTED TO THE ENGINEER PRIOR TO BEGINNING SCARIFICATION.

CURRENT AVERAGE COVER IS EXPECTED TO BE FROM 2"TO 3"ON THE CAP AND FROM $2^{1}/2$ " TO 3" ON THE COLUMNS BASED ON VISUAL INSPECTION.

SEE TITLE SHEET FOR PROJECT CARDINAL DIRECTION DESIGNATION.

FOR CONCRETE AND SHOTCRETE REPAIRS, SEE CONCRETE RESTORATION DETAILS - SUBSTRUCTURE SHEET.

* QUANTITIES OF CONCRETE REPAIR AREAS ARE ANTICIPATED UNDER BEARING AREAS. DUE TO LACK OF INFORMATION, ALL AREAS ARE NOT KNOWN. QUANTITY INCLUDES CONTINGENCIES AND ARE ANTICIPATED TO BE SUFFICIENT FOR ACTUAL QUANTITIES ENCOUNTERED. FOR CONCRETE REPAIRS SEE CONCRETE RESTORATION DETAILS.

ALL DEFECT QUANTITIES ON STRUTS AND COLUMN FOOTINGS ARE LISTED WITH THE QUANTITIES FOR THE CAP.

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

> PROJECT NO. 15BPR.25 BRUNSWICK COUNTY

BRIDGE NO.____