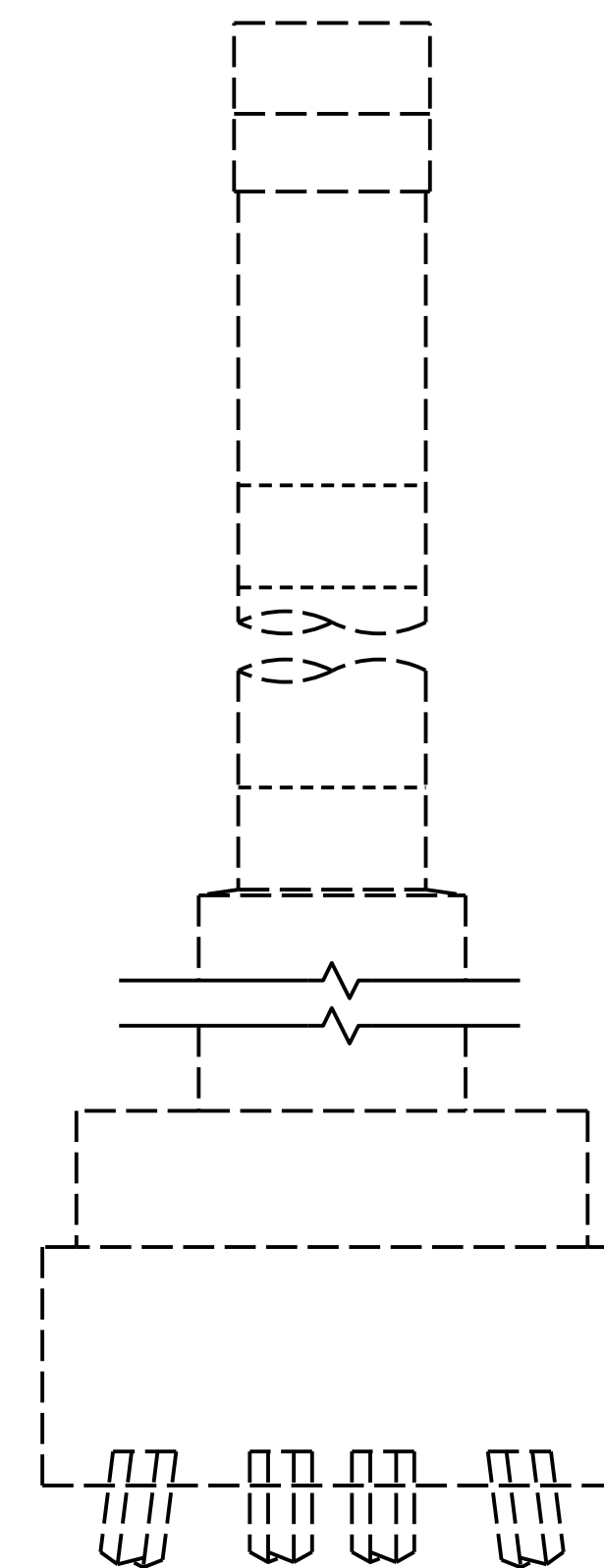
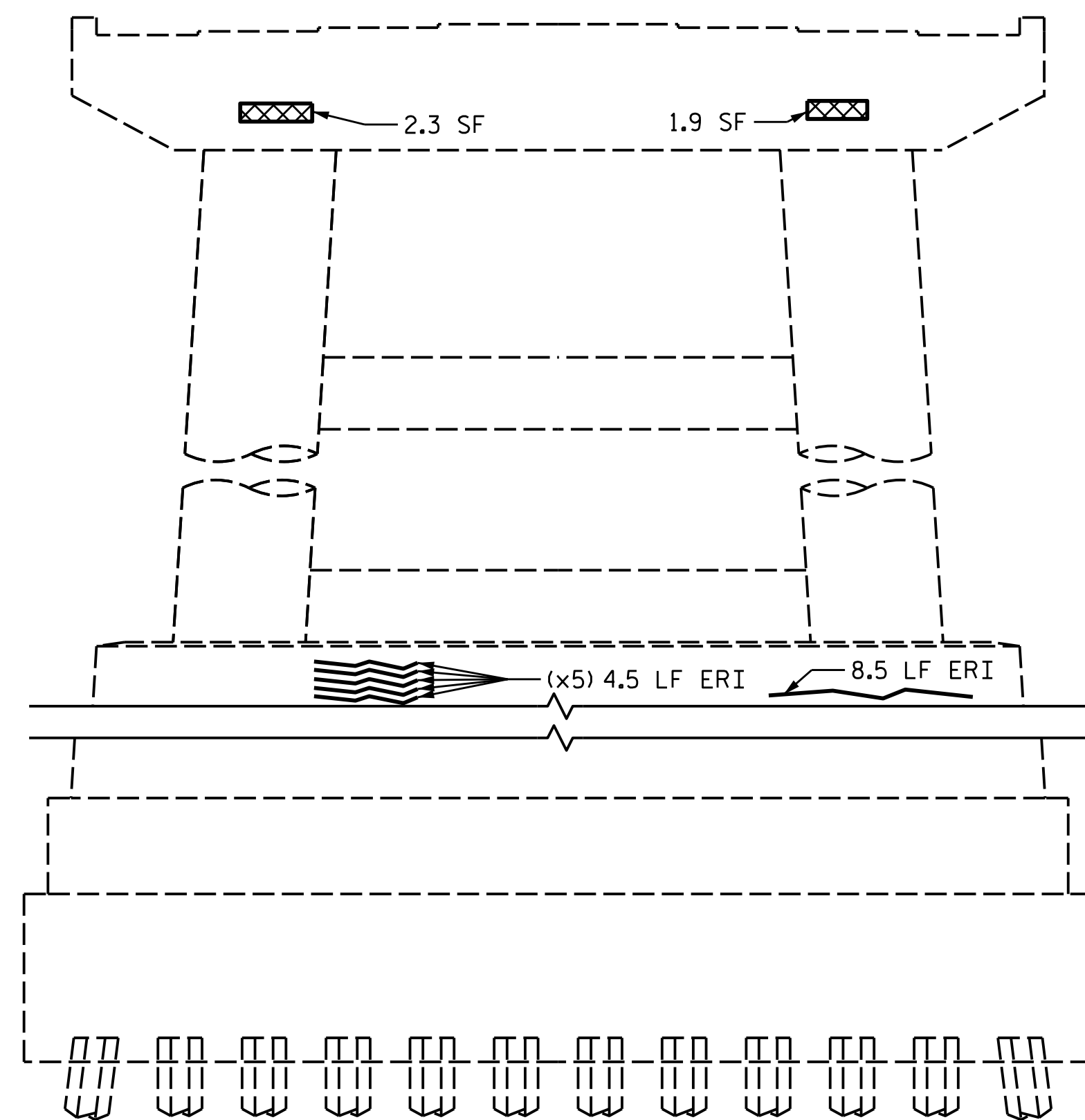


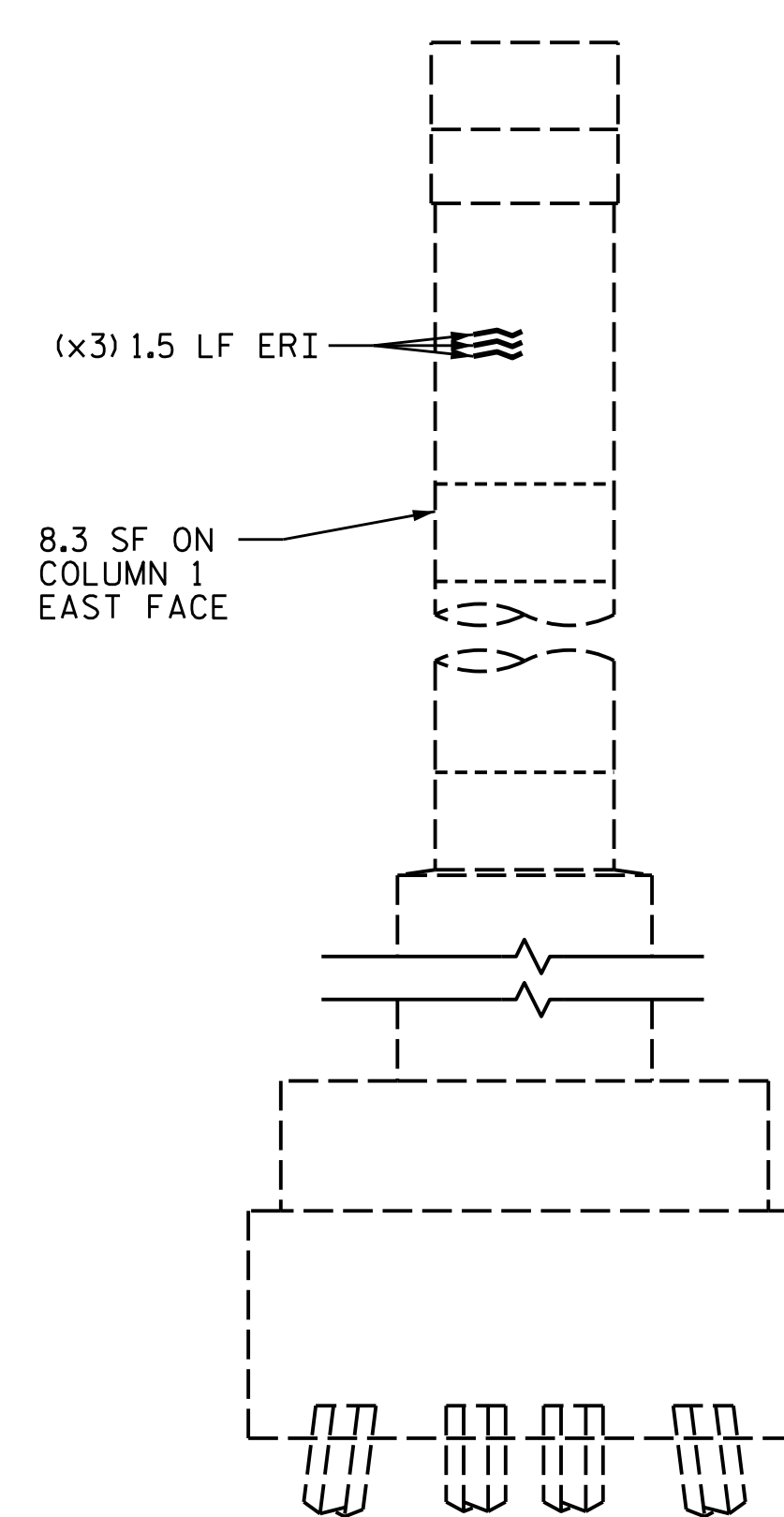
SOUTH ELEVATION



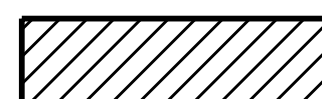
WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION



CONCRETE REPAIR AREA



SHOTCRETE REPAIR AREA



EPOXY RESIN INJECTION (ERI)

AS-BUILT REPAIR QUANTITY TABLE				
BENT 50	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	6.7	3.4		
COLUMN/PILE	25.1	12.6		
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
CAP	1.0	0.5		
EPOXY RESIN INJECTION		LIN. FT.		LIN. FT.
CAP		53.5		
COLUMN/PILE		4.5		
PILE REPAIR JACKET		LIN. FT.		LIN. FT.
GALVANIC STRUCTURAL C.P. JACKET		N/A		

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.

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.

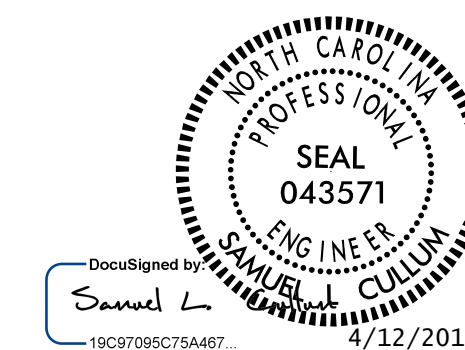
FOR CONCRETE AND SHOTCRETE REPAIRS, SEE CONCRETE RESTORATION DETAILS - SUBSTRUCTURE SHEET.

\* 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. 14



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SUBSTRUCTURE  
 CONCRETE REPAIRS  
 BENT 50**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-88
2			4			TOTAL SHEETS 111

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

DRAWN BY : AARON J. MCMILLAN DATE : 03-2018  
 CHECKED BY : JACOB H. DUKE DATE : 03-2018  
 DESIGN ENGINEER OF RECORD : SAMUEL L. CULLUM DATE : 03-2018

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED