

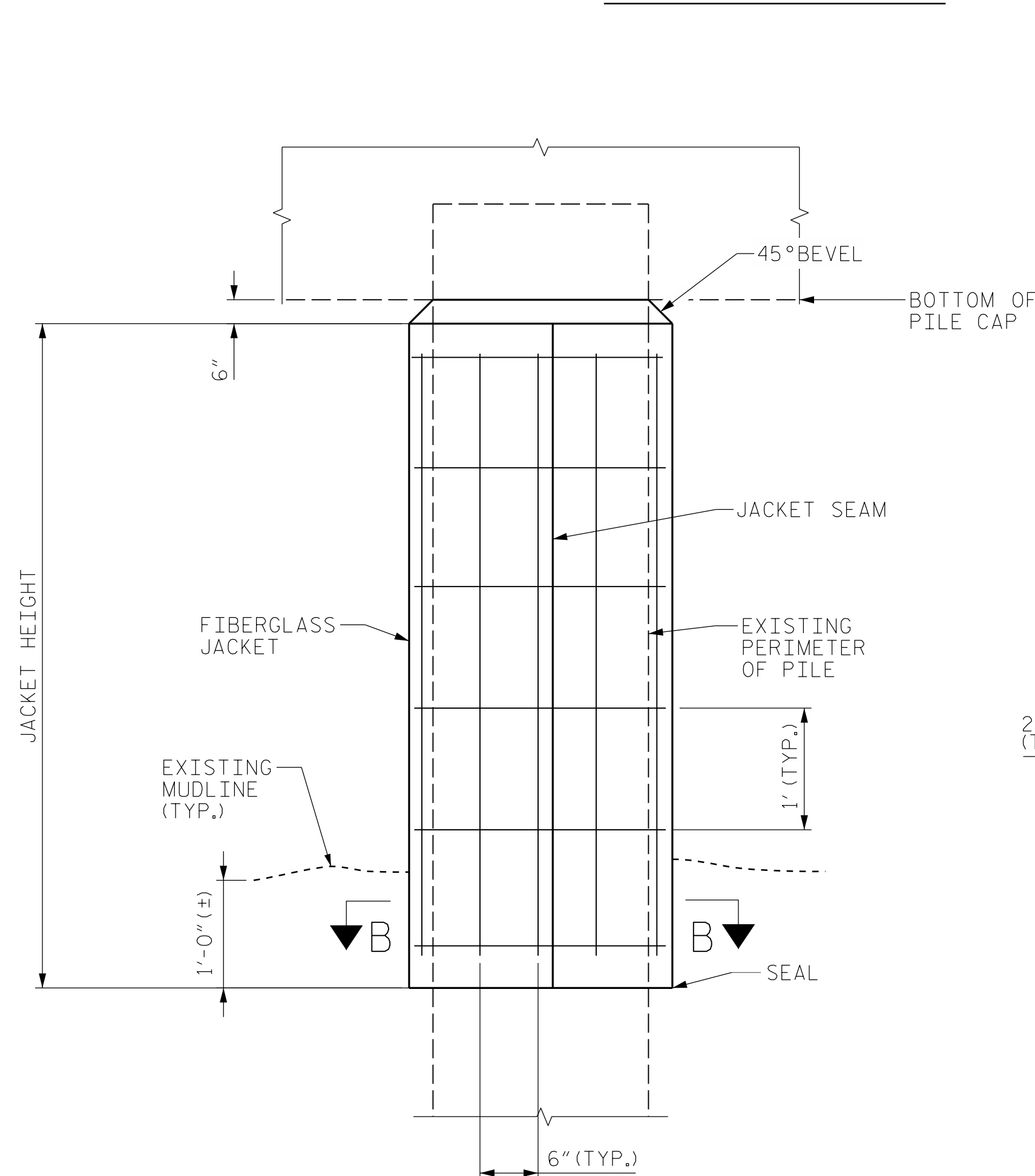
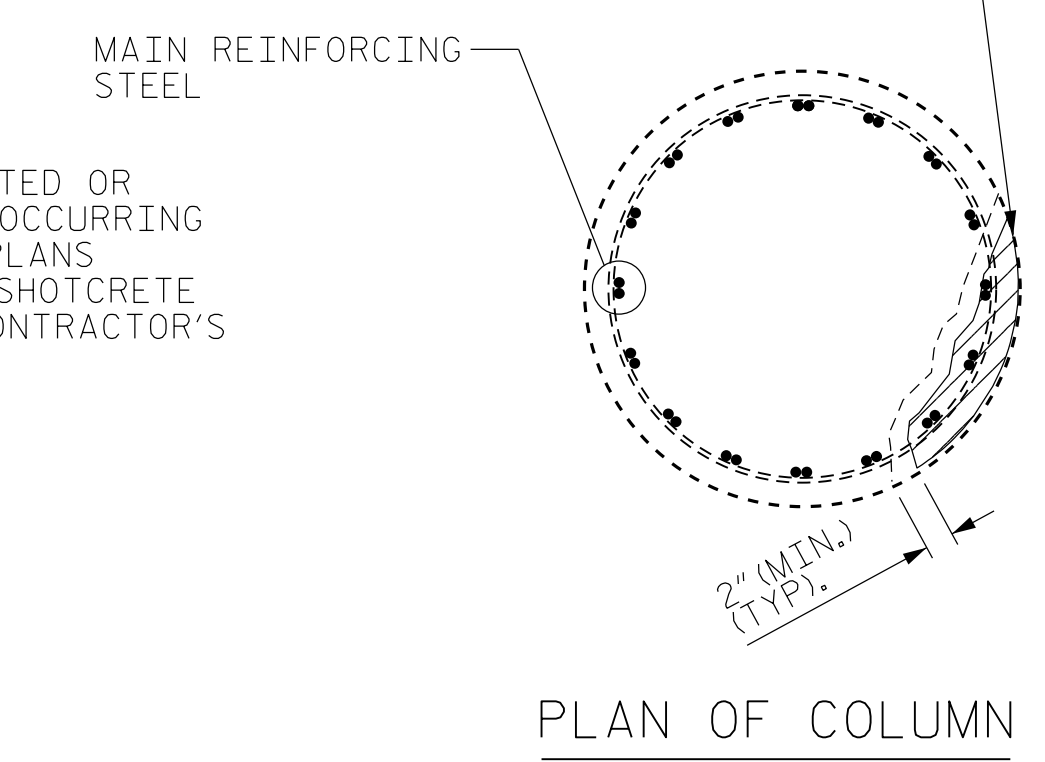
CAP REPAIRS

CONSTRUCTION SEQUENCE FOR PILE JACKETS:

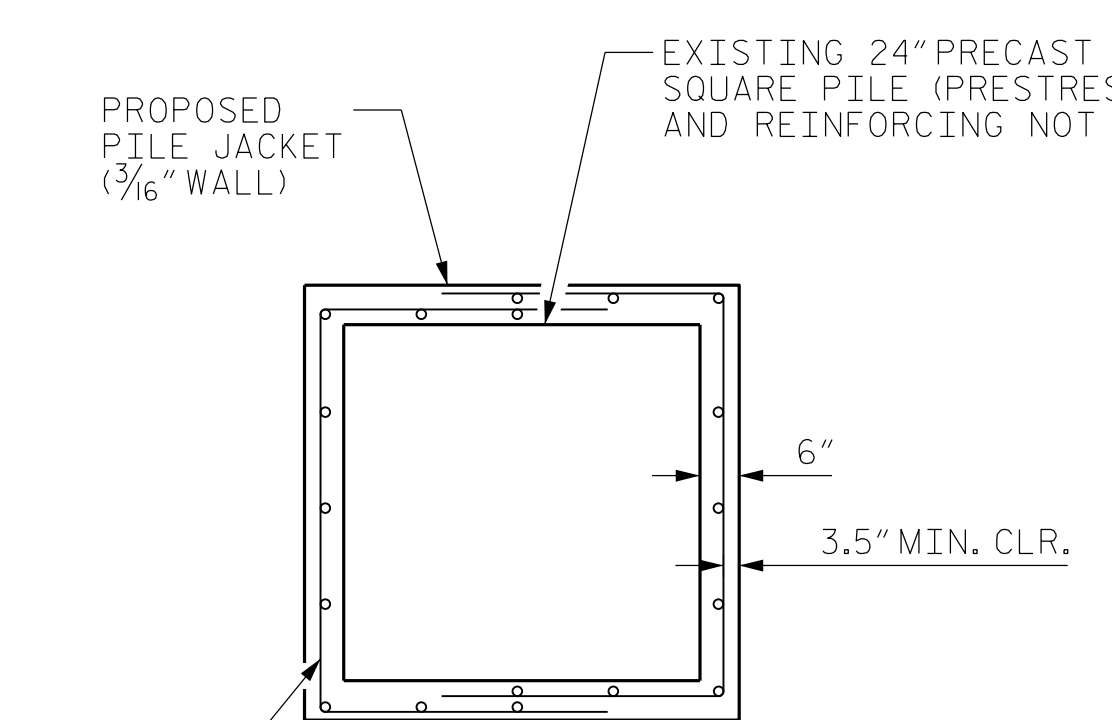
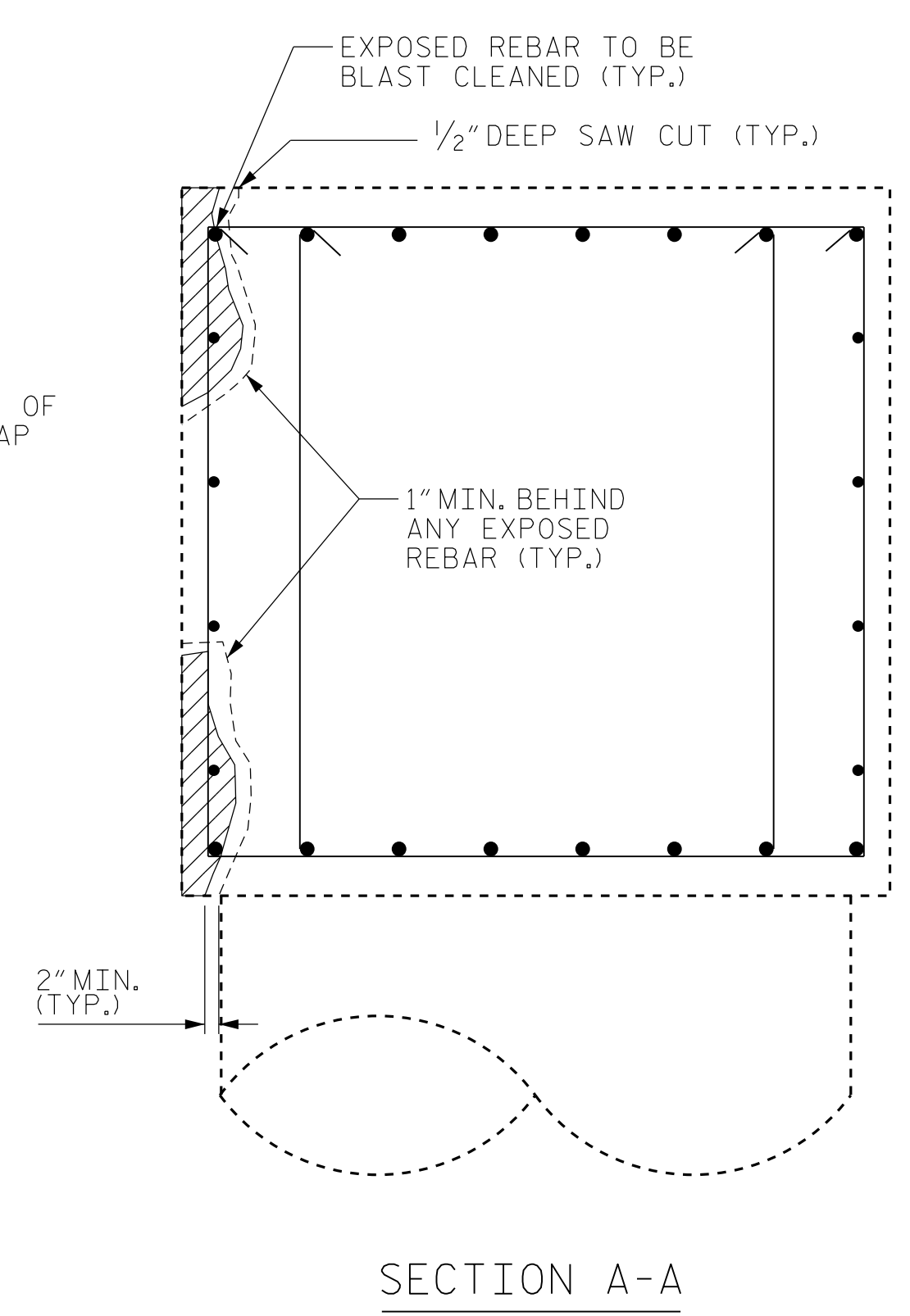
1. PREPARE SPALL AREAS WITHIN THE LIMITS OF THE PILE JACKETS IN ACCORDANCE WITH THIS SHEET PRIOR TO INSTALLING STRUCTURAL PILE JACKETS.
2. POSITION JACKET FORMS AND STEEL AROUND THE ENTIRE PILE PERIMETER FOR THE LENGTH OF THE JACKET IN PREPARATION FOR POUR.
3. POUR CONCRETE JACKET AS INDICATED ON THIS SHEET.
4. REMOVE FORMS. NO FORMS SHALL BE LEFT IN PLACE.
5. EXTEND JACKETS 1 FT. INTO THE MUDLINE AND FILL BACK AS APPROPRIATE.
6. REPAIR SPALLS ABOVE THE LIMITS OF THE APPROVED JACKETS LENGTHS IN ACCORDANCE WITH THIS SHEET.
7. PATCH AND FILL ANY REMAINING EXCAVATIONS WITH APPROVED MATERIAL.

NOTES:

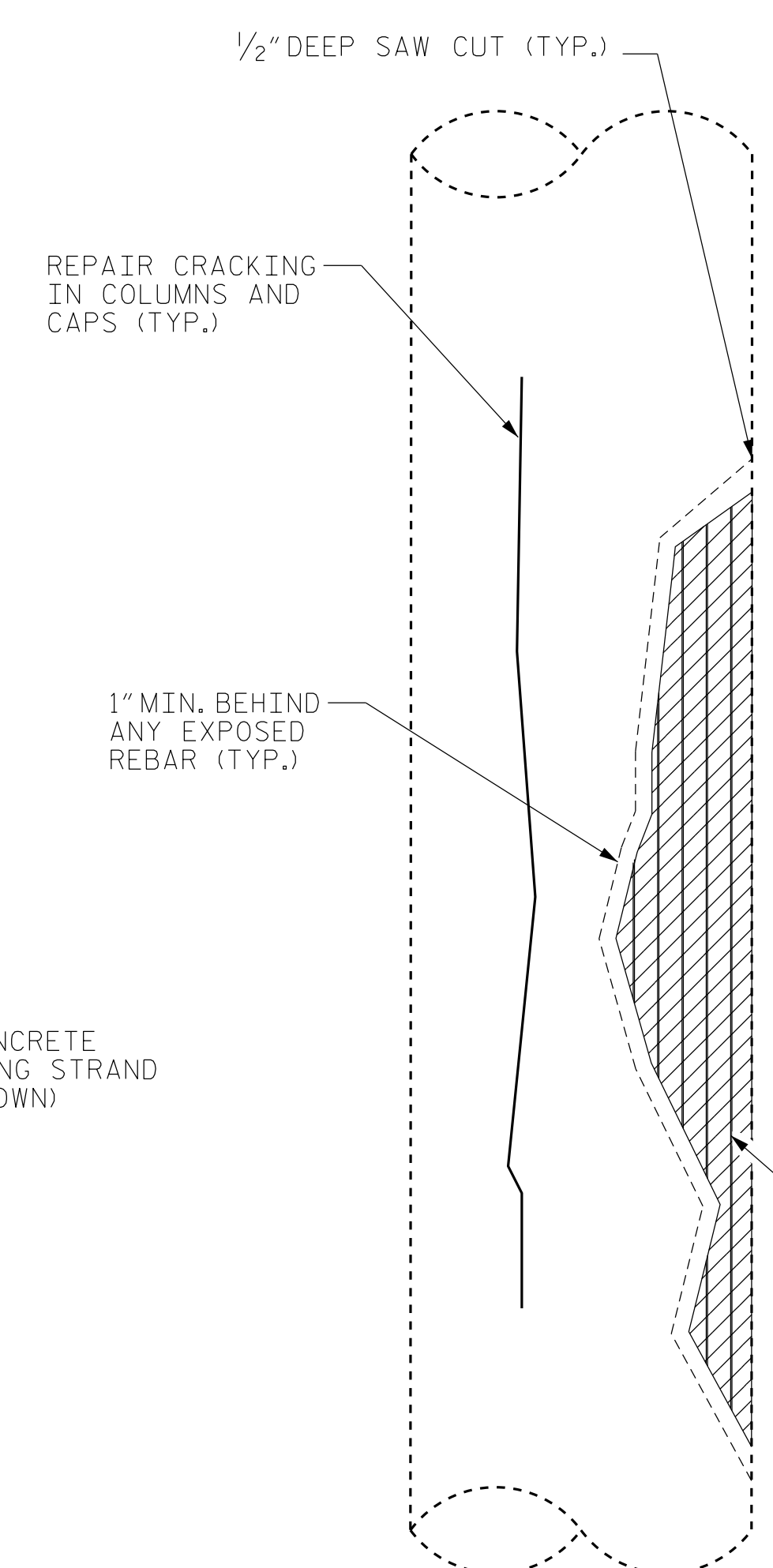
1. WORK THIS SHEET WITH REPAIR METHODS AND CONCRETE REPAIR NOTES IN "CONCRETE RESTORATION DETAILS" SHEET 1 OF 3.
2. TYPICAL BENT CAP REPAIRS ARE SHOWN IN THIS SHEET. REPAIR DETAILS SIMILAR FOR END BENT CAPS.
3. THE METHOD USED TO DELINEATE THE AREAS OF UNSOUND CONCRETE TO BE REPAIRED SHALL NOT PERMANENTLY MARK THE CONCRETE, LEAVE ANY RESIDUE AFTER REMOVAL, OR REQUIRE HARS CHEMICALS TO REMOVE.
4. THE CONTRACTOR SHALL REMOVE THE DETERIORATED CONCRETE IN ACCORDANCE WITH THE GUIDELINES SET IN THESE NOTES, IN THE SPECIAL PROVISIONS, AND THE STANDARD SPECIFICATIONS.
5. REMOVE UNSOUND CONCRETE TO THE EXTENT NECESSARY, ENSURING A MINIMUM OF 1" BEHIND REBAR, AND A MINIMUM CLEARANCE OF 2" TO SAWCUT.
6. REINFORCING STEEL WHICH IS DETERMINED BY THE ENGINEER TO BE REPLACED, SHALL BE REMOVED TO A POINT WHERE IT IS SOUND. THE PATCH SHALL EXTEND A SUFFICIENT DISTANCE BEYOND THIS POINT TO DEVELOP A SPLICE LENGTH SPECIFIED IN THE TABLE IN THE "GENERAL NOTES" SHEET 1 OF 2.
7. IF ANY AREA IS DETERMINED TO BE UNSTABLE DURING THE REPAIR PROCESS AS DETERMINED BY THE ENGINEER, STOP THE CURRENT REPAIR PROCEDURE, SHORE THE AREA AND PERFORM A "FORM AND POUR" CONCRETE REPAIR.
8. NO MORE THAN 30% OF THE CAP OR PILE CROSS SECTIONAL AREA SHALL BE REMOVED AT ONE TIME. SHOULD IT BECOME NECESSARY TO REMOVE MORE THAN 30% OF THE CROSS SECTIONAL AREA, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.
9. SIMULTANEOUS REMOVAL OF UNSOUND CONCRETE MAY BE PERMITTED ON MORE THAN ONE FACE OF A CAP AND/OR PILE, IF THE AREAS OF REMOVAL ARE NOT ADJACENT TO OR DIRECTLY OPPOSITE ONE ANOTHER. IF REMOVAL EXTENDS MORE THAN 1/2" BEHIND THE MAIN REINFORCING BARS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.
10. COAT ALL THE SURFACE AREA ON THE TOP OF CAPS, INCLUDING CHAMFERS, WITH EPOXY COATING. DO NOT COAT AREA UNDER BEARINGS.
11. FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.
12. FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.
13. FOR EPOXY RESIN INJECTION (ERI), SEE SPECIAL PROVISIONS.
14. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.
15. FOR SUBSTRUCTURE REPAIRS, SEE "SUBSTRUCTURE REPAIRS" SHEETS.
16. FOR INTEGRAL PILE JACKETS, SEE SPECIAL PROVISIONS.



TYPICAL INTEGRAL PILE JACKETS AT BENT 15



BENT CAP REPAIRS



ELEVATION OF COLUMN

* REPAIR LENGTH SHALL NOT EXCEED 10 VERTICAL FEET AT ONCE OR 1/2 COLUMN DIAMETER.

COLUMN REPAIRS

DRAWN BY : JACOB H. DUKE DATE : 10/2018
 CHECKED BY : DIEGO A. AGUIRRE DATE : 10/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 10/2018

9/3/2020
 GA-4201720.12-Brunswick-13-Structures\15BPR.24-SMU_CR03.090013.dgn
 User: jdbone

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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 LICENSE #: C-1506

KCA
 KISINGER CAMPO & ASSOCIATES

PROJECT NO. 15BPR.24
 BRUNSWICK COUNTY
 BRIDGE NO. 090013
 SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
CONCRETE RESTORATION DETAILS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					S-21
TOTAL SHEETS					45