

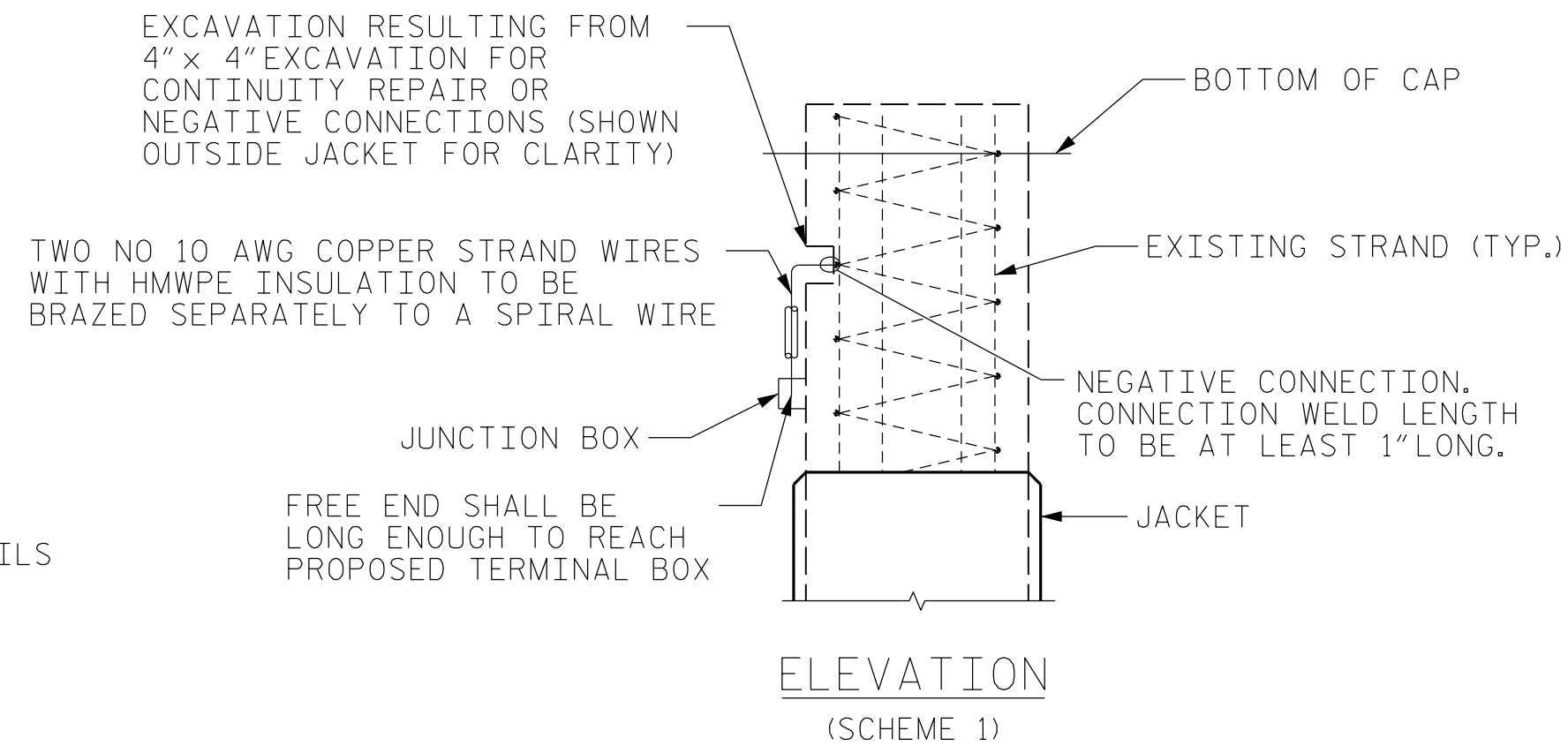
**SEQUENCE OF CONSTRUCTION FOR PILE JACKETS**

1. THE CONTRACTOR SHALL SURVEY AND LOCATE THE MEAN HIGH AND MEAN LOW WATER ELEVATIONS AT EACH PILE WITH SUBSEQUENT APPROVAL OF THE ENGINEER PRIOR TO THE INSTALLATION OF ANY JACKET.
2. CLEAN PILES IN ACCORDANCE WITH SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT A PLAN FOR CONTROL AND DISPOSAL OF DEBRIS TO THE ENGINEER FOR APPROVAL. ALL COSTS ASSOCIATED WITH DEBRIS REMOVAL SHALL BE INCIDENTAL TO JACKET COSTS.
3. PROVIDE CONTINUITY TEST FOR ALL PILES TO BE JACKETED IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS.
4. PERFORM INITIAL ELECTRICAL WORK AND ATTACH THE BULK ZINC ANODE TO THE PILE AS SHOWN IN VIEW A-A ON CP PILE JACKET DETAILS (1 OF 3) AND IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS.
5. POSITION SACRIFICIAL ZINC MESH/FIBERGLASS JACKET HALVES AROUND THE ENTIRE PILE PERIMETER FOR THE VERTICAL DISTANCE OF MESH HEIGHT AND SEAL HALVES TOGETHER IN PREPARATION FOR POUR AND ROUTE THE COPPER WIRES COMING OUT OF THE JACKET IN CONDUIT. INSTALL TEMPORARY HARDBACK BRACING AND CLAMP SYSTEM TO HOLD THE JACKET HALVES STABLE AND IN PLACE DURING FILL OPERATION.
6. THE TYPE OF JACKET INSTALLED IS TO BE APPROVED BY THE ENGINEER AFTER THE REMOVAL OF UNSOUND CONCRETE AND PRIOR TO JACKET INSTALLATION. A STRUCTURAL JACKET IS REQUIRED WHEN EITHER OF THE TWO FOLLOWING IS PRESENT:
  - 1) 2 OR MORE STRANDS ON ONE SIDE OF A PILE EXHIBIT MORE THAN 30% CROSS-SECTIONAL AREA LOSS.
  - 2) THE TOTAL CROSS-SECTIONAL AREA OF STRANDS ON ONE SIDE OF THE BENT PILE EXHIBITS MORE THAN 10% SECTION LOSS.
 OTHERWISE, A NON-STRUCTURAL JACKET SHALL BE USED. AT THE ENGINEER'S DIRECTION, A #7 BAR MAY BE USED TO SUPPLEMENT AN INDIVIDUAL STRAND THAT HAS A SECTION LOSS OF MORE THAN 30% ON A PILE OTHERWISE SUITABLE FOR A NON-STRUCTURAL JACKET. THE NUMBER OF BARS SHALL BE LIMITED TO TWO PER PILE.
7. PLACE FILLER AS PER CONTRACT DOCUMENTS.
8. INSTALL JUNCTION BOX.
9. CONNECT THE FREE ENDS OF CABLES IN THE JUNCTION BOX TO THE ANODE OR CATHODE IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS.
10. PATCH AND FILL ANY REMAINING EXCAVATIONS WITH APPROVED MATERIAL.

**CONTINUITY CORRECTIONS**

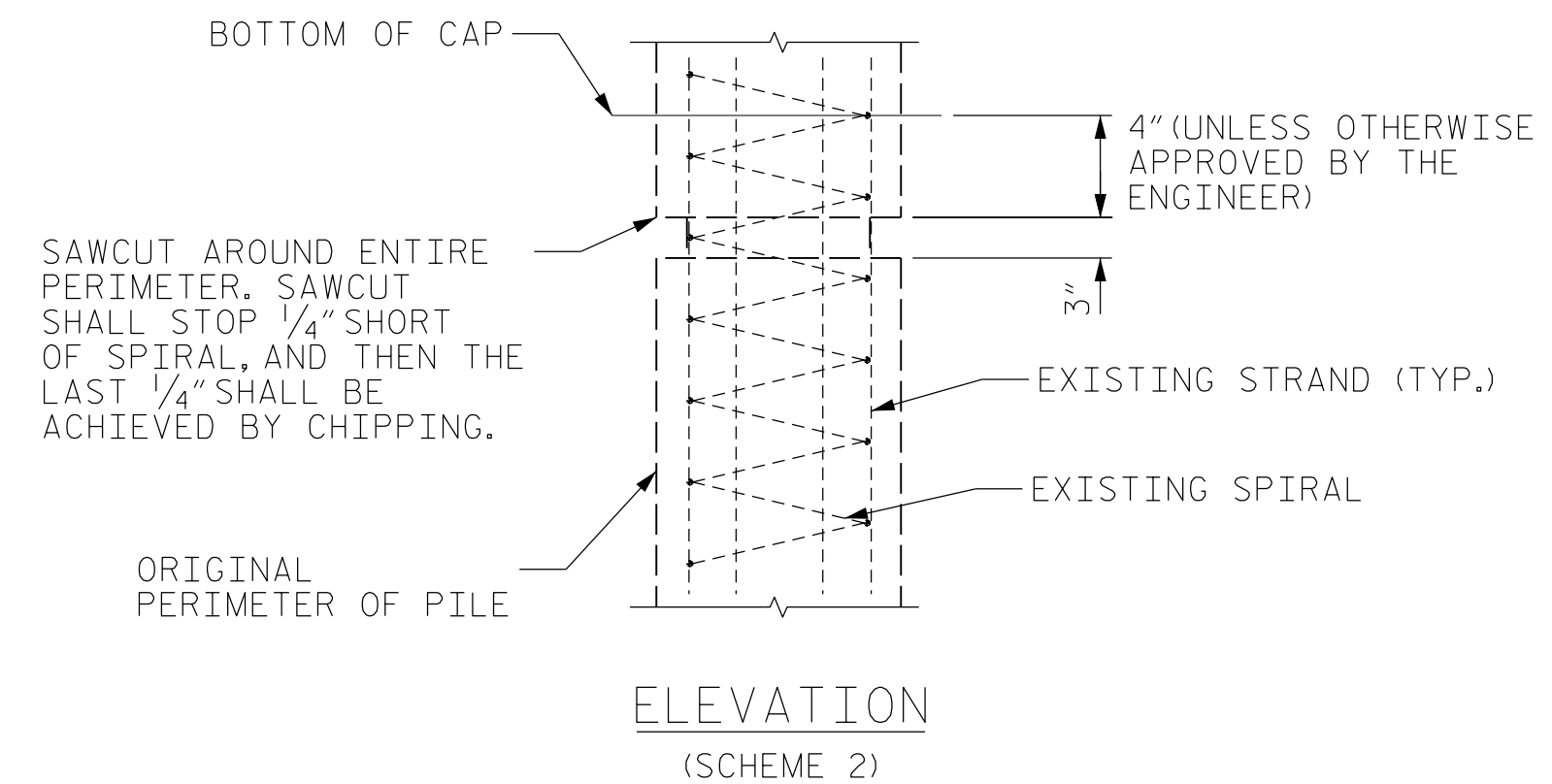
**GENERAL**

LOCATIONS OF EXCAVATIONS FOR CONTINUITY CORRECTIONS SHALL BE SELECTED BASED ON THE ALTERNATIVE RESULTING IN THE LEAST REMOVAL OF CONCRETE. IF POSSIBLE, ALL EXCAVATIONS TO EXPOSED REINFORCING STEEL SHALL BE MADE INSIDE THE JACKET LIMITS. CONTINUITY TEST AND CONTINUITY CORRECTION EXCAVATIONS SHALL BE SEALED PRIOR TO PLACEMENT OF THE JACKET.



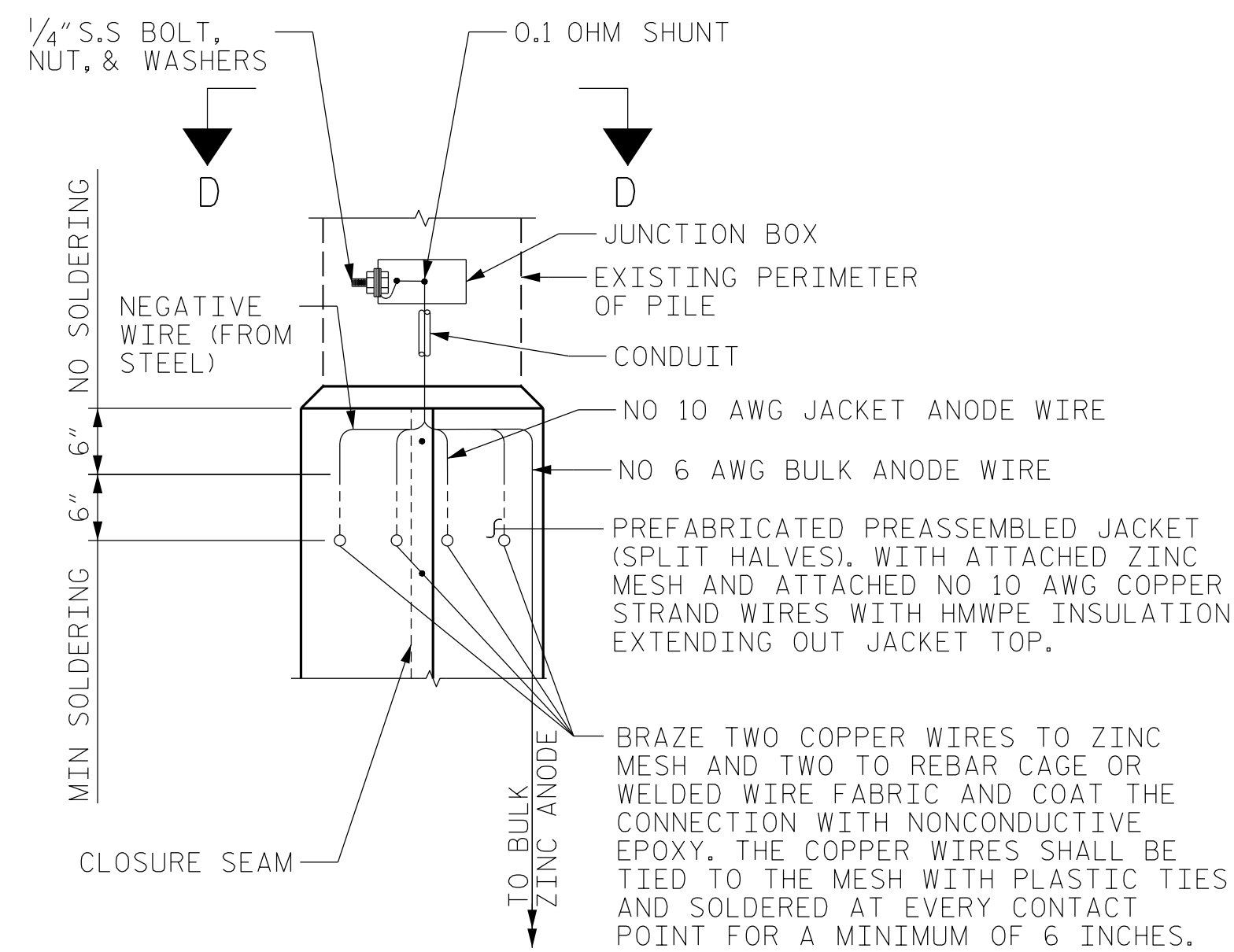
**SCHEME 1**

1. EXCAVATE A 4" x 4" AREA AT EACH STRAND OF DISCONTINUITY SUCH THAT IT EXTENDS TO THE FIRST ADJACENT STRAND THAT IS CONTINUOUS. EXCAVATION AREA TO BE WITHIN THE TOP 2 FEET OF THE JACKET. EXCAVATION SHOWN OUTSIDE JACKET FOR CLARITY.
2. FOR ABOVE WATER INSTALLATION RESISTANCE WELD TWO MILD STEEL WIRES FROM ONE DISCONTINUOUS STRAND TO THE ADJACENT STRAND UNTIL A CONTINUOUS STRAND IS REACHED. COAT CONNECTION WITH NON-CONDUCTIVE EPOXY.
3. A MINIMUM OF TWO CONTINUITY CONNECTIONS SHALL BE MADE TO EACH DISCONTINUOUS STRAND.



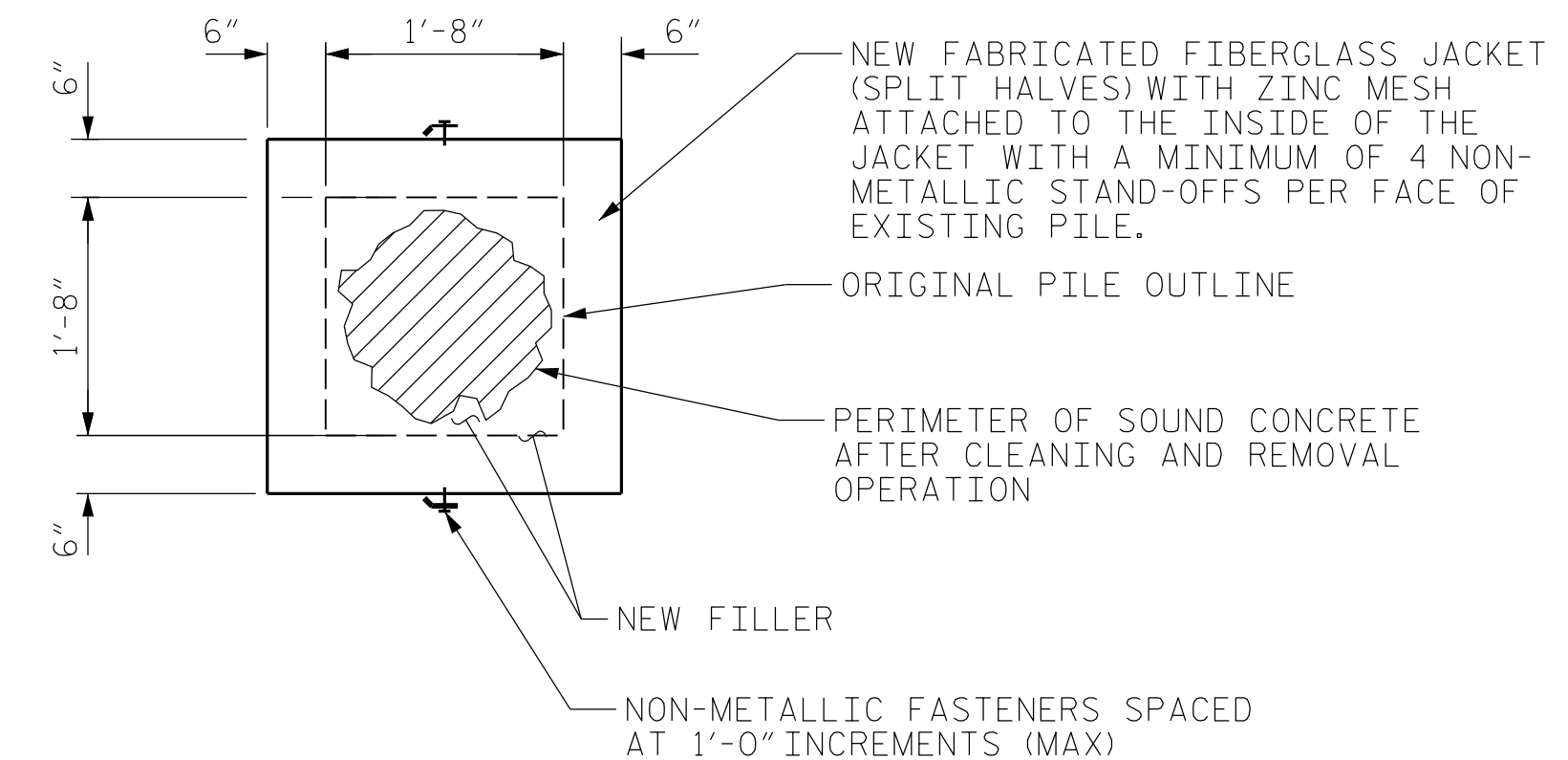
**SCHEME 2**

1. MAKE UNIFORM DEPTH AND HEIGHT SAW CUTS AROUND ENTIRE PILE PERIMETER KEEPING CLEAR OF EXISTING STRANDS. AFTER SAWCUTTING, CHIP AS NECESSARY TO EXPOSE STRANDS AND SPIRALS. AREA TO BE LOCATED WITHIN THE TOP 2 FEET OF THE JACKET. CLEAN AND PREPARE SAWCUTTING/CHIPPED AREA.
2. RESISTANCE WELD TWO MILD STEEL WIRES FROM ONE DISCONTINUOUS STRAND TO THE ADJACENT STRAND UNTIL A CONTINUOUS STRAND IS REACHED. COAT CONNECTION WITH NON-CONDUCTIVE EPOXY.
3. A MINIMUM OF TWO CONTINUITY CONNECTIONS SHALL BE MADE TO EACH DISCONTINUOUS STRAND.



**JACKET DETAIL**

(NON-STRUCTURAL SHOWN, STRUCTURAL SIMILAR)

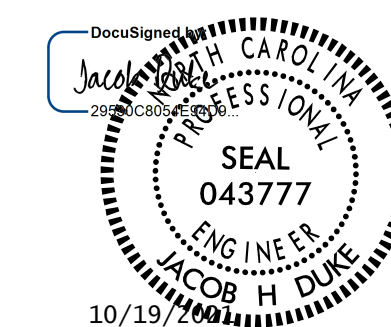


**VIEW D-D**

PRESTRESSING STRANDS AND REINFORCING STEEL NOT SHOWN FOR CLARITY

PROJECT NO. 15BPR.46  
 \_\_\_\_\_ DARE \_\_\_\_\_ COUNTY  
 BRIDGE NO. 270012

SHEET 2 OF 3



**KISINGER CAMPO & ASSOCIATES**  
 301 FAYETTEVILLE ST., SUITE 1500  
 RALEIGH, NC 27601 (919) 882-7839  
 NC FIRM LICENSE: C-1506

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**CATHODIC PROTECTION  
 PILE JACKETS**

DRAWN BY : DIEGO A. AGUIRRE DATE : 9/30/2020  
 CHECKED BY : JACOB H. DUKE DATE : 10/1/2020  
 DESIGN ENGINEER OF RECORD: JACOB H. DUKE DATE : 10/1/2020

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-61
1			3			TOTAL SHEETS
2			4			137