

ELEVATION

(WEST FACE OF BENT 11)

(EAST FACE OF BENT 12)

ANODE PLACEMENT

SEE DETAIL "A"FOR CONNECTION TO EXISTING REBAR SEE DETAIL "B"FOR MONITORING JUNCTION BOX

NOTES:

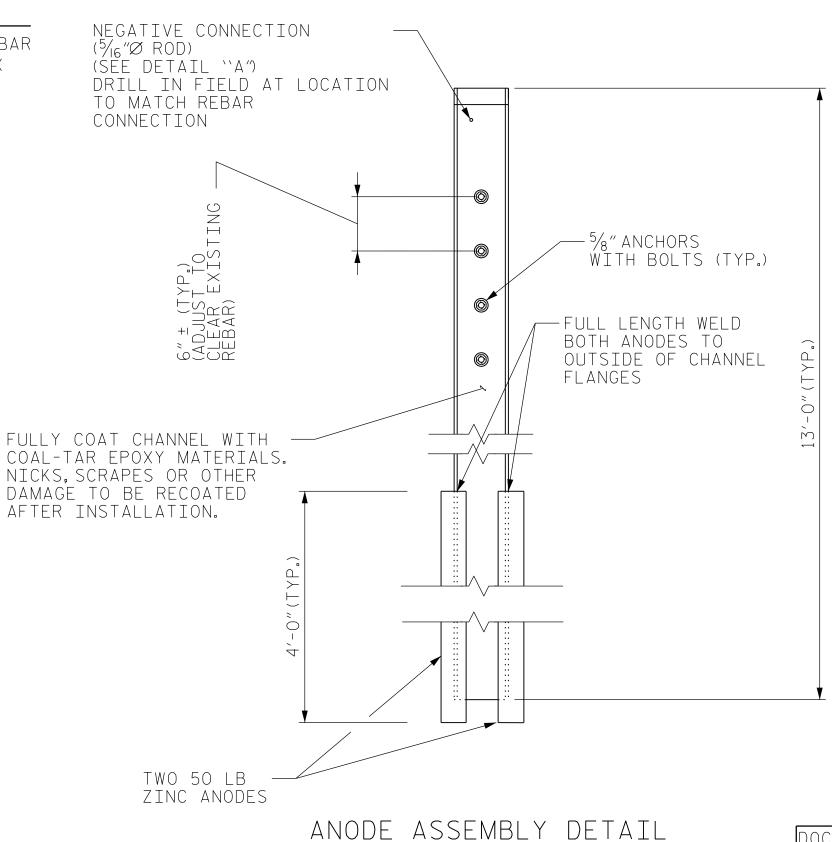
DRAWN BY : _____OMAR M.KHALAFALLA

CHECKED BY: ______DIEGO A. AGUIRRE

- 1. THOROUGHLY CLEAN THE FOOTINGS OF MARINE GROWTH AND DEBRIS BEFORE PERFORMING ANY WORK ASSOCIATED WITH THE INSTALLATION OF THE PROPOSED BULK ANODES.
- 2. ANODES SHALL BE ASTM B418-01 TYPE I.
- 3. EXCEPT FOR ANODE WELDING, ALL CHANNEL MANUFACTURING SHALL BE PERFORMED PRIOR TO GALVANIZING.
- 4. ANCHORS TO BE DROP-IN TYPE $\frac{5}{8}$ " \times $\frac{27}{32}$ " GALVANIZED HILTI HDI 243262 OR APPROVED EQUAL.
- 5. SEAL ACCESS HOLE WITH APPROVED EPOXY GROUT MATERIAL AFTER S.S. ROD INSTALLATION.
- 6. ANODE ASSEMBLIES SHALL BE PLACED SUCH THAT THE ANODE BE SUBMERGED A MINIMUM OF 3'-O"BELOW MEAN LOW WATER ELEVATION AT ALL TIMES. SPACING AND ELEVATION ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER.
- 7. PER EXISTING PLANS, TYPICAL CONCRETE COVER ON EXISTING PIER WALL IS 4".
- 8. WELDING OF S.S. ROD TO THE REBAR IN LIEU OF DRILL AND TAP MAY BE APPROVED AT THE DISCRETION OF THE ENGINEER.
- 9. ELECTRICAL CONTINUITY OF REINFORCING STEEL BETWEEN AT LEAST TWO OTHER CONNECTIONS SHALL BE PERFORMED PER CONNECTION PRIOR TO AND AFTER ANODE ASSEMBLY INSTALLATION.
- 10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE REINFORCING STEEL AND PATCH ALL CORES WITH APPROVED CONCRETE REPAIR MATERIAL.
- 11. PAYMENT FOR ALL WORK AND HARDWARE DESCRIBED ASSOCIATED WITH FURNISHING AND INSTALLING OF THE ZINC ANODES SHALL BE INCIDENTAL TO THE PAY ITEM FOR "CP SYSTEM (ZINC BULK ANODES)".
- 12. SEE PROJECT SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS AND ACCEPTANCE CRITERIA. (PSP: CATHODIC PROTECTION SYSTEM - SUBMERGED ZINC BULK ANODE)

ELEVATION

(SOUTH FACE OF BENT 11) (NORTH FACE OF BENT 12) (ACCESS LADDER ON SOUTH FACES OF FOOTINGS ONLY)



(FRONT VIEW)

PROJECT NO. 15BPR.24

_ COUNTY 090013 BRIDGE NO._

BRUNSWICK



— ANODE

ASSEMBLY

EXISTING PIER —

S.S. WASHER

WALL FACE

(TIGHTEN TO WEB)

45°CUT ON BOTH FLANGES OF CHANNEL (GRIND CUT TO ELIMINATE SHARP EDGES)

DO NOT CUT CHANNEL

SHOWN IN ORDER TO

C6×13 GALVANIZED STEEL CHANNEL (WEB FLAT SURFACE AGAINST

SHOW CONNECTION

STEM. STEM NOT

CONCRETE)

TRENCH FOR WIRE ROUTING —

RECESSED INTO FOOTING.

GROUT AFTER WIRE

INSTALLATION

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

-EXISTING REBAR

— CORE DRILLED ACCESS HOLE

5/₁₆" Ø S.S.

-DO NOT COAT

THREADED ROD CONNECTION

10 GAUGE —

COPPER WIRE BONDED WITH

EPOXY

DETAIL ''A"

CONNECTION TO EXISTING REBAR DETAIL (SIDE VIEW) (CHANNEL STEM NOT SHOWN AT CONNECTION)

CORE HOLES

 $(3\frac{1}{2}$ " DEEP)

DETAIL 'B"

MONITORING JUNCTION BOX DETAIL (FRONT VIEW)

__JUNCTION BOX

#4 R/F BAR — LENGTH = 2.5"

THREADED ROD

CHANNEL STEEL AT

DRILL AND TAP TO ACCEPT S.S. ROD

CHANNEL BENT FOOTING RESTORATION BULK ANODE DETAILS BENT 11 & 12

301 FAYETTEVILLE ST., SUITE 1500 RALEIGH, NC 27601



OCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED LICENSE #: C-1506

SHEET NO REVISIONS S-23 BY: DATE: DATE: NO. BY: TOTAL SHEETS

DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 10/2018 9/3/2020 G:\4201720.12-Brunswick-13\Structures\15BPR.24_SMU_CBR02_090013.dgn

_ DATE : <u>10/2018</u>

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