

NOTES

STRUCTURAL CONCRETE ANCHOR ASSEMBLY

MATERIAL FOR ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF F593 ALLOW WITH MINIMUM 75,000 PSI TENSILE STRENGTH.

MATERIAL FOR NUTS SHALL MEET THE REQUIREMENTS OF ASTM F594 ALLOY.

MATERIAL FOR WASHERS SHALL MEET THE REQUIREMENTS OF ASTM F594 ALLOY.

FOR ADHESIVELY ANCHORED BOLTS AND DOWELS, SEE SECTION 420-13 OF THE STANDARD SPECIFICATIONS.

ANCHOR BOLTS, NUTS, AND WASHERS, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M111.

THE COST OF THE METAL RAIL ANCHOR SYSTEM WITH BOLTS AND WASHER COMPLETE IN PLACE SHALL BE INCLUDED IN THE PRICE FOR LINEAR FEET OF RAIL REPLACEMENT (2-BAR METAL RAIL).

FOR ANCHOR STUD REPLACEMENT SEE C420 OF STANDARD SPECIFICATIONS.

BOLTS TO BE TIGHTED ONE HALF-TURN WITH A WRENCH FROM A FINGER-TIGHT POSITION.

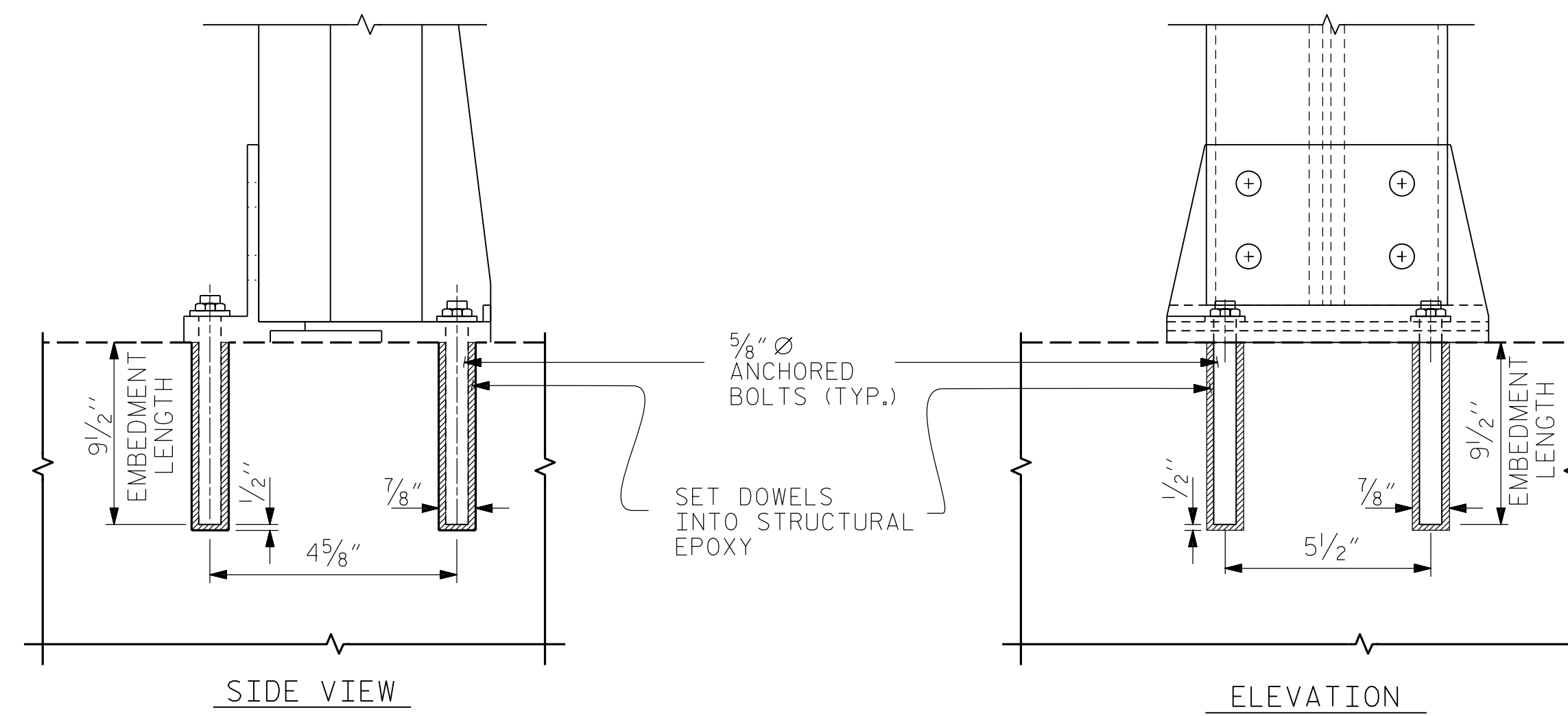
CERTIFIED MILL REPORTS ARE REQUIRED FOR ALL MATERIALS OF THE ANCHOR SYSTEM.

LEVEL ONE FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE 5/8" Ø ANCHOR BOLTS IS 10 KIPS.

GENERAL NOTES

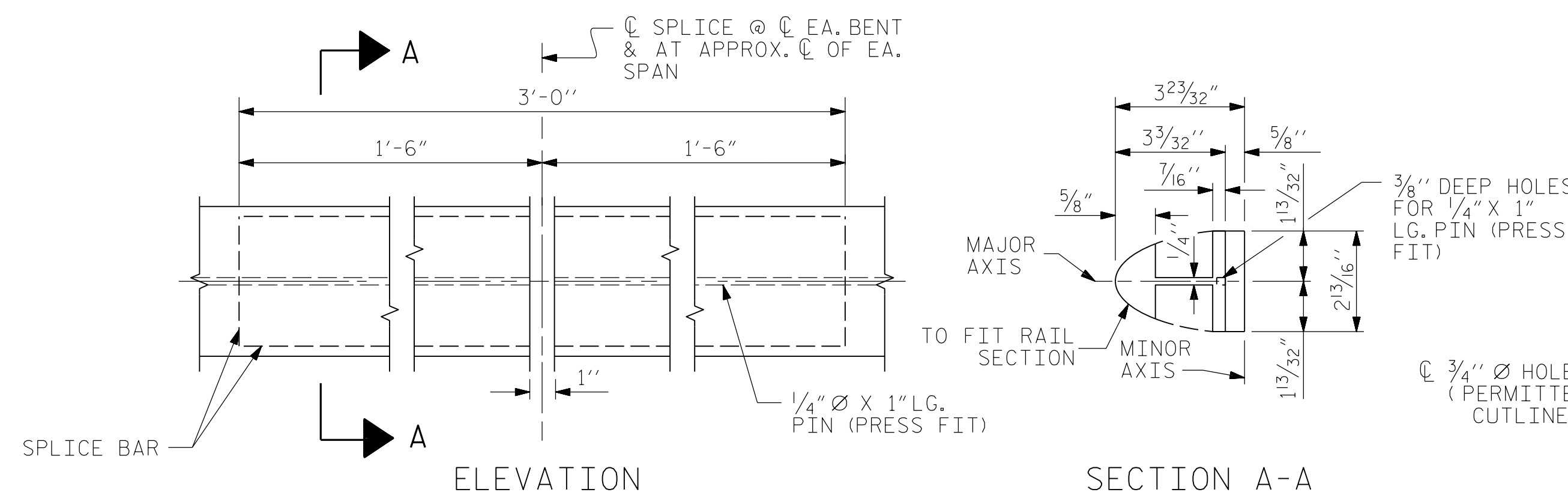
THE CONTRACTOR MAY USE ADHESIVELY ANCHORED ANCHOR BOLTS IN PLACE OF THE METAL RAIL ANCHOR ASSEMBLY. LEVEL ONE FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE 3/4" Ø BOLT IS 10 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE THE STANDARD SPECIFICATIONS.

WHEN ADHESIVELY ANCHORED ANCHOR BOLTS ARE USED, BOLTS SHALL MEET THE REQUIREMENTS OF ASTM F593 ALLOY 304 STAINLESS STEEL WITH MINIMUM 75,000 PSI ULTIMATE STRENGTH. NUTS SHALL MEET THE REQUIREMENTS OF ASTM F594 ALLOY 304 STAINLESS STEEL AND WASHERS SHALL MEET THE REQUIREMENTS OF ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL.

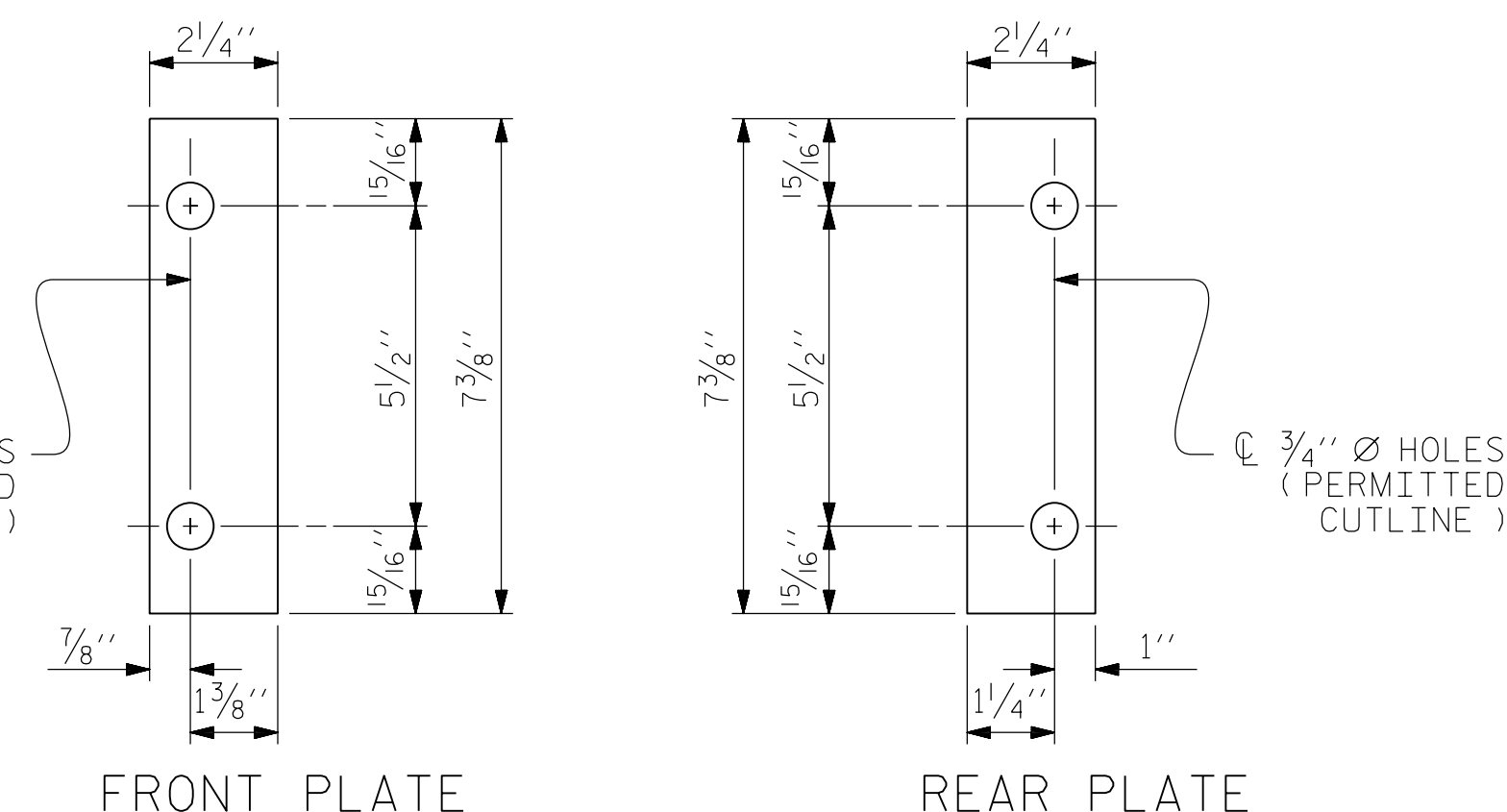


ADHESIVELY ANCHORED BOLTS

FOR USE WHEN A REPLACEMENT POST IS NEEDED AS DEEMED NECESSARY BY THE ENGINEER.

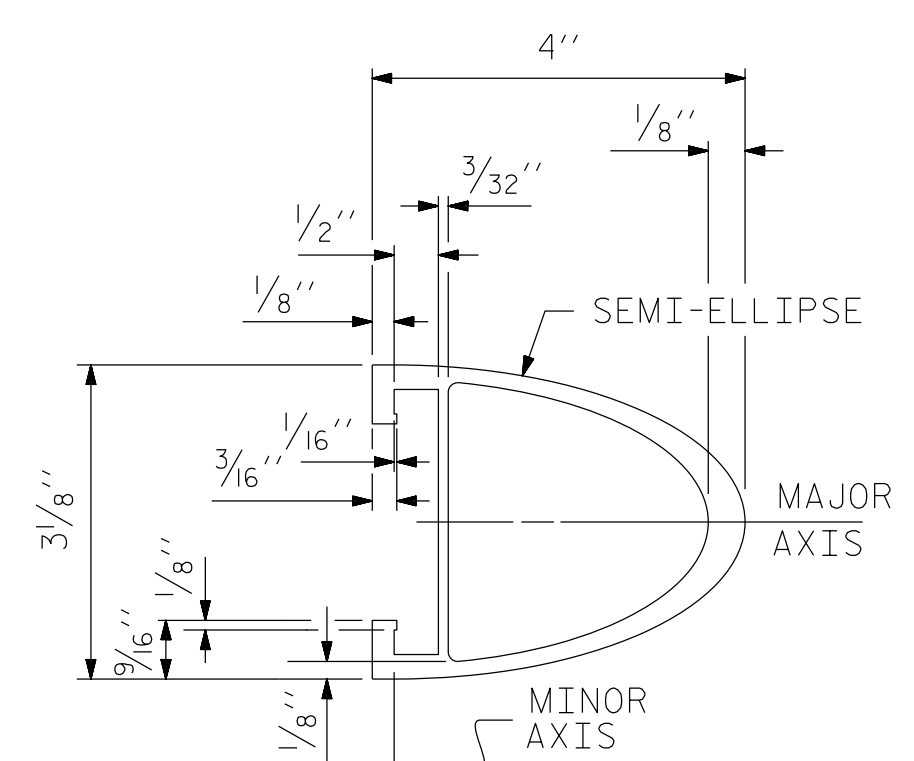


RAIL SPLICE DETAIL

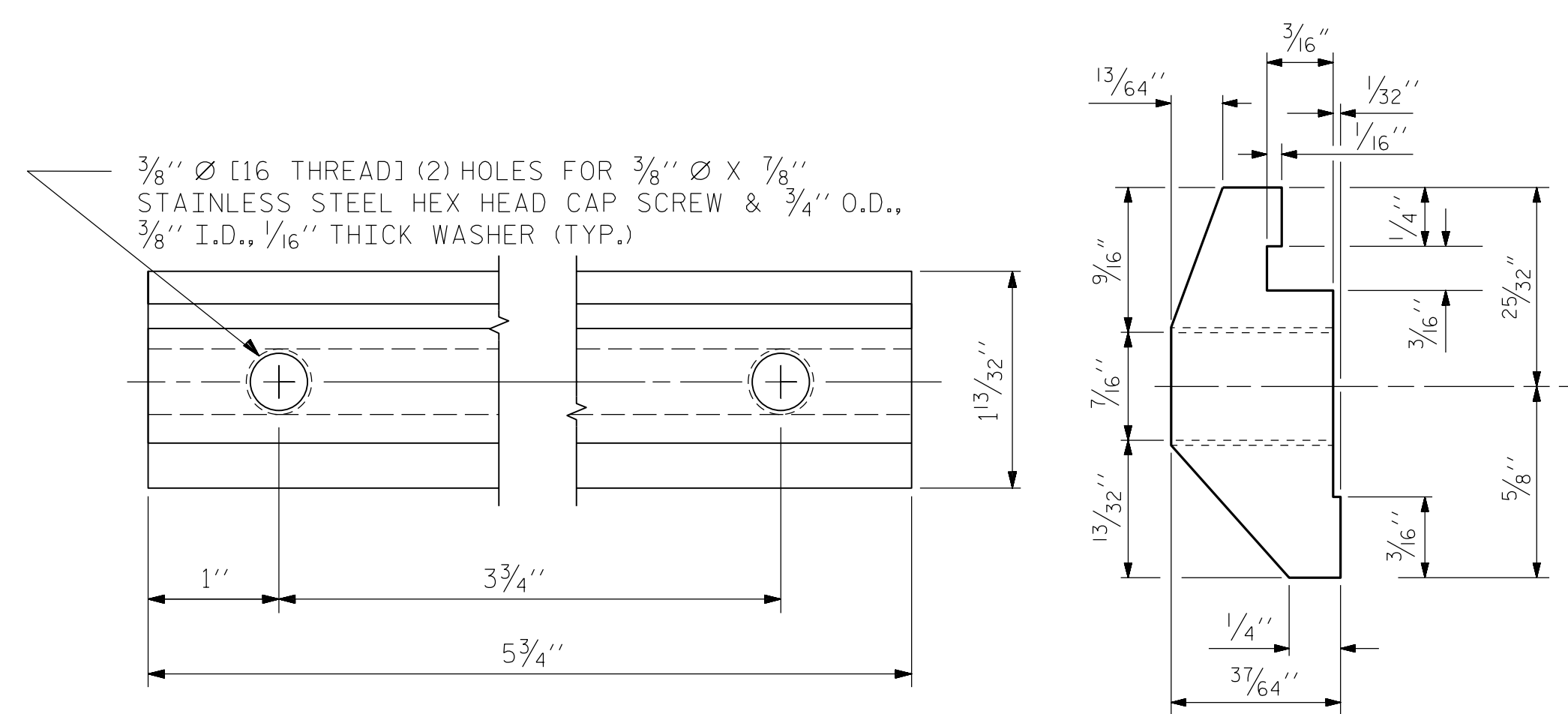


SHIM DETAILS

NOTE: SHIMS MAY BE CUT ALONG PERMITTED CUTLINE OR SLOTTED TO EDGE OF PLATE TO FACILITATE PLACEMENT.

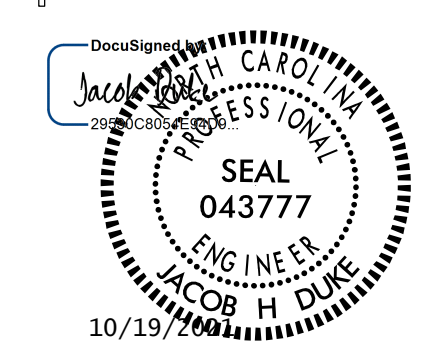
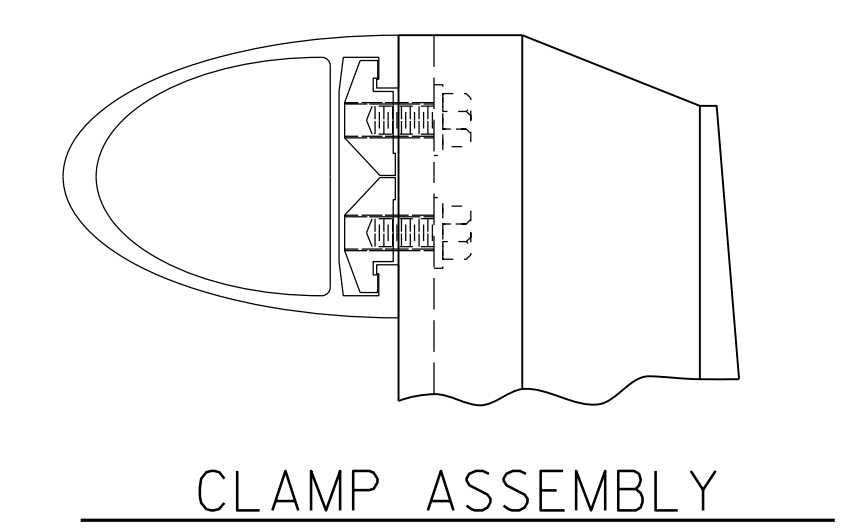


RAIL SECTION



CLAMP BAR DETAIL

(2 REQUIRED PER POST)



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

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-50
MODIFIED STANDARD 2 BAR METAL RAIL REPAIRS						TOTAL SHEETS 137
REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

DRAWN BY : FIDEL L. FLORES DATE : 9/30/2020
 CHECKED BY : ALLEN J. MCSWAIN DATE : 10/1/2020
 DESIGN ENGINEER OF RECORD: JACOB H. DUKE DATE : 10/1/2020

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED