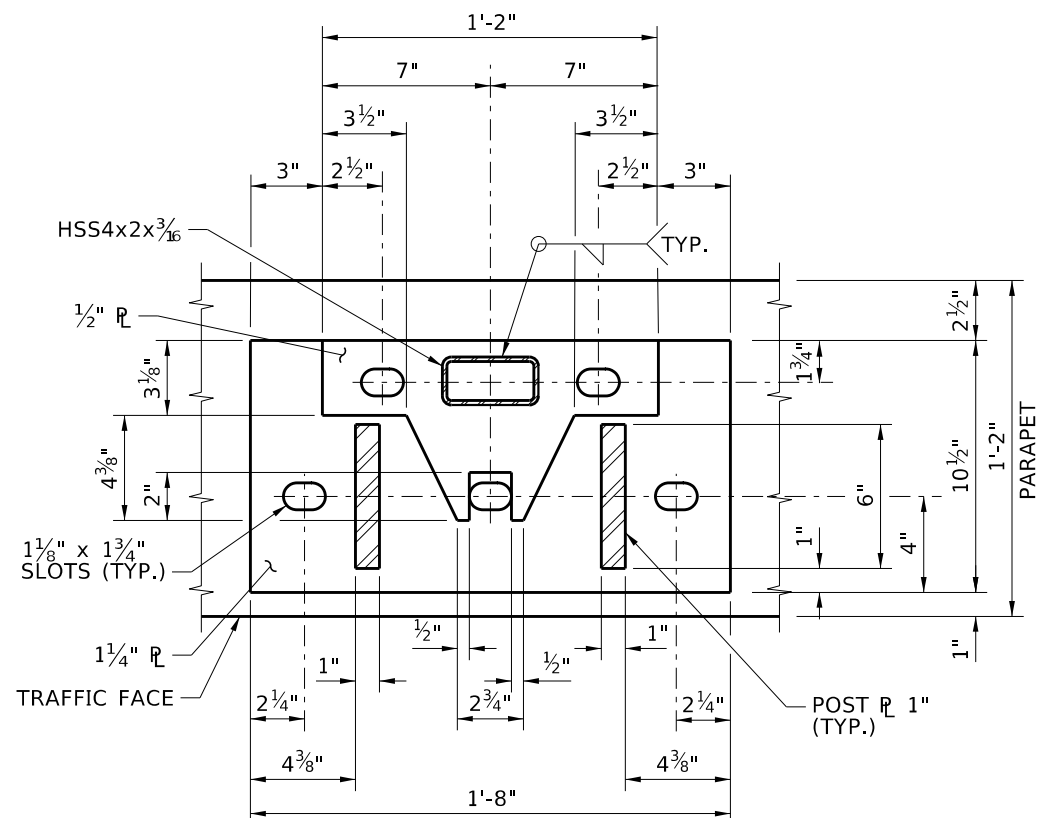
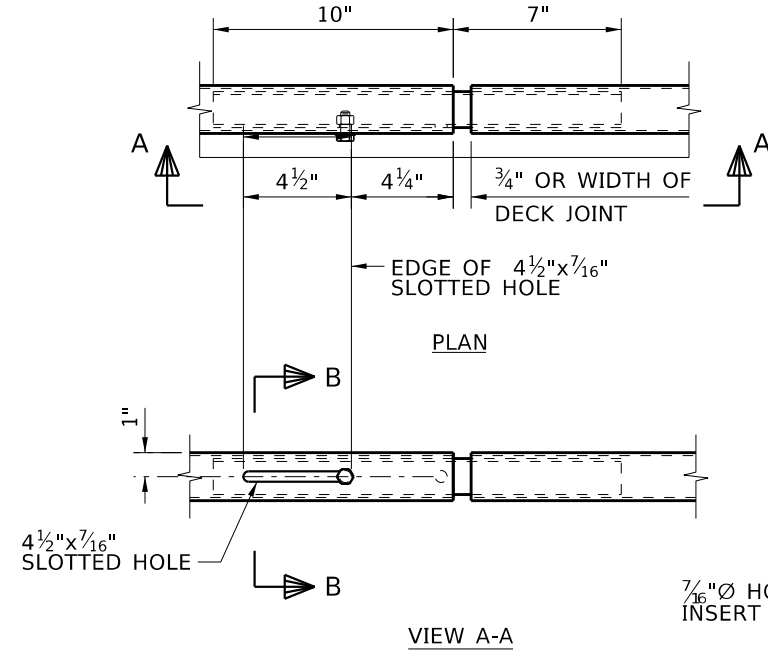


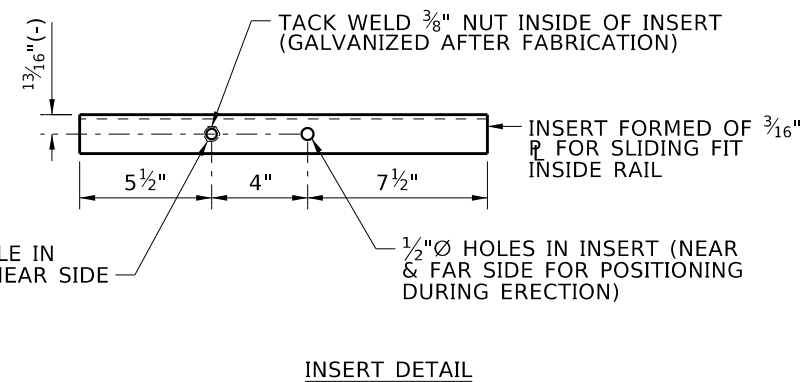
**BASE PLATE DETAIL AT FENCE POST**  
3"=1'-0"



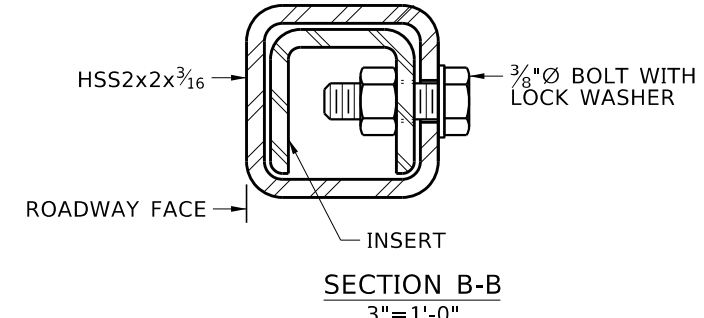
**BASE PLATE FOR COMBINATION RAIL AND FENCE POST**  
3"=1'-0"



**TUBE SPLICE DETAILS**  
2"x2" TUBES AS SHOWN, 4"x2" TUBES SIMILAR  
1 1/2"=1'-0"



**INSERT DETAIL**



**SECTION B-B**  
3"=1'-0"

**RAILING NOTES**

**MATERIALS**

1. PROVIDE STRUCTURAL STEEL TUBING IN ACCORDANCE WITH ASTM A500 GRADE B OR ASTM A501.
2. PROVIDE STRUCTURAL STEEL PLATES AND SLEEVES IN ACCORDANCE WITH ASTM A36.
3. PROVIDE ANCHOR BOLTS IN ACCORDANCE WITH ASTM F1554 GRADE 36 HEADED ANCHOR BOLT. PROVIDE ONE CIRCULAR WASHER AND NUT AT EACH BOLT. PROVIDE HARDENED STEEL WASHER IN ACCORDANCE WITH ASTM F436. PROVIDE NUTS IN ACCORDANCE WITH ASTM A563.
4. PROVIDE WELDED WIRE FABRIC IN ACCORDANCE WITH ASTM A185 IN SHEET FORM.

**GALVANIZING/POWDER COATING**

5. GALVANIZE STRUCTURAL STEEL PARTS, RAILING, SLEEVES, AND WELDED WIRE FABRIC IN ACCORDANCE WITH ASTM A123 AND ASTM A385. THOROUGHLY CLEAN WELDED AREAS PRIOR TO GALVANIZING TO REMOVE SLAG OR OTHER MATERIAL THAT WOULD INTERFERE WITH THE ADHERENCE OF THE ZINC. PROVIDE GALVANIZED SURFACES FREE OF FINES, ABRASIONS, ROUGH OR SHARP EDGES, OR OTHER SURFACE DEFECTS. REPAIR DAMAGED COATINGS IN ACCORDANCE WITH ASTM A780 AND ASTM A123.
6. POWDER COAT THE RAILING SYSTEM, WELDED WIRE FABRIC, AND FASTENERS AFTER GALVANIZING WITH A MINIMUM THICKNESS OF 3 MILS. PAINT WITH COLOR RAL 9005 (JET BLACK). SUBMIT A COLOR SAMPLE FOR APPROVAL.
7. PREPARE THE GALVANIZED SURFACES FOR POWDER COATING IN ACCORDANCE WITH ASTM D7803. SUBMIT POWDER COATING SHOP PROCEDURES FOR PREPARATION OF THE GALVANIZED SURFACES AND APPLICATION PROCESS OF THE POWDER COATING FOR APPROVAL.
8. REPAIR SCRATCHES, PITS, AND OTHER DEFECTS IN ACCORDANCE WITH THE POWDER COATING MANUFACTURER'S WRITTEN INSTRUCTIONS.

**FABRICATION AND ERECTION**

9. FABRICATE AND ERECT THE RAILING IN ACCORDANCE WITH THE CURRENT EDITION OF AASHTO SPECIFICATIONS FOR HIGHWAY BRIDGES AND ITS STANDARD SPECIFICATIONS.
10. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH 504.01 F AND 105.02.
11. CONSTRUCT RAILING CONFORMING TO THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE STRUCTURE, INSTALL POSTS NORMAL TO GRADE IN LONGITUDINAL DIRECTION AND VERTICAL IN TRANSVERSE DIRECTION.
12. SAW OR MILL ENDS OF TUBE SECTIONS AT SPLICES. PROVIDE CUT ENDS THAT ARE TRUE, SMOOTH AND FREE FROM BURRS OR RAGGED EDGES.
13. PROVIDE VENT HOLES FOR GALVANIZING AS REQUIRED AND SHOWN ON THE SHOP DRAWINGS. DRILL VENT HOLES AWAY FROM TRAFFIC FACE AND NOT ON THE TOP SURFACE OF THE HORIZONTAL TUBES.
14. ATTACH RAIL SECTIONS TO AT LEAST TWO POSTS BUT PREFERABLY THREE OR MORE. PROVIDE RAILING SYSTEM THAT IS CONTINUOUS FROM END TO END. POSITION HORIZONTAL RAIL SPLICES TO ALIGN VERTICALLY FOR EACH RAIL SECTION. SUBMIT ALTERNATE RAIL SPLICE DETAILS ON THE SHOP DRAWINGS.
15. CAP OPEN ENDS OF TUBULAR STEEL SECTIONS.
16. SECURE WELDED WIRE FABRIC TO POSTS AND RAILS WITH 3/8"Ø X 1 1/2" TAP-FLEX STRUCTURAL THREADED FORMING SCREWS. SPACE SCREWS AT 12" MAXIMUM CENTERS ON POSTS AND 24" MAXIMUM CENTERS ON RAILS. PROVIDE 3/16" X 3/4" X 1 3/4" STAINLESS STEEL PLATE WASHER OR HOT DIPPED GALVANIZED STEEL PLATE WASHER AT EACH SCREW. SPLICE WELDED WIRE FABRIC ONLY BEHIND POSTS. FABRICATE WELDED WIRE FABRIC WITH BOTTOM WIRE CONTINUOUS AND PARALLEL TO THE RAIL WITH 2" MAXIMUM CLEAR TO THE TOP OF THE PARAPET. SUBMIT ALTERNATE FASTENING METHODS FOR APPROVAL ON THE SHOP DRAWINGS.

**MISCELLANEOUS**

17. REFER TO COMBINATION RAILING FOR PARAPET DETAILS.
18. PAYMENT FOR "PROTECTIVE FENCE FOR COMBINATION RAIL" IS PAY ITEM 504-041A.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED	CADD FILE NAME
DETAILED	Standards/Bridge Standard Drawings
DWG. CHECKED	B13_3D.DGN
CORRECTIONS	DRAWING DATE: OCT 2023

**IDAHO TRANSPORTATION DEPARTMENT**

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

APPROVED BY: BRIDGE ENGINEER **MICHAEL T. JOHNSON** DATE: \_\_\_\_\_

**ENGLISH**  
PROJECT NO.

PROTECTIVE FENCE FOR COMBINATION RAIL, 2 OF 2

BRIDGE LRFD DESIGN MANUAL, B13.3D

BRIDGE PLANS	
BRIDGE KEY NO.	
COUNTY	KEY NO.
BRIDGE DWG. NO.	SHEET OF