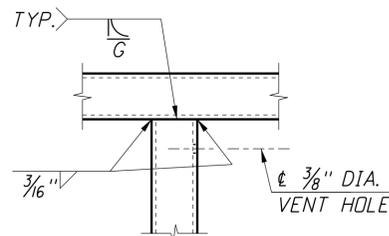
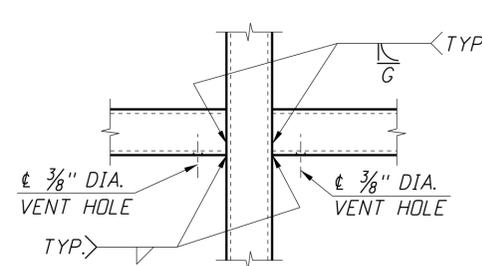


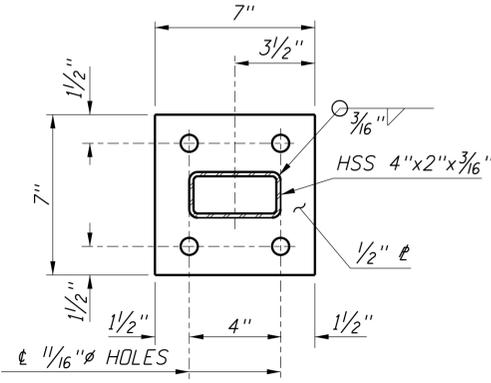
DETAIL A
3'-1'-0"



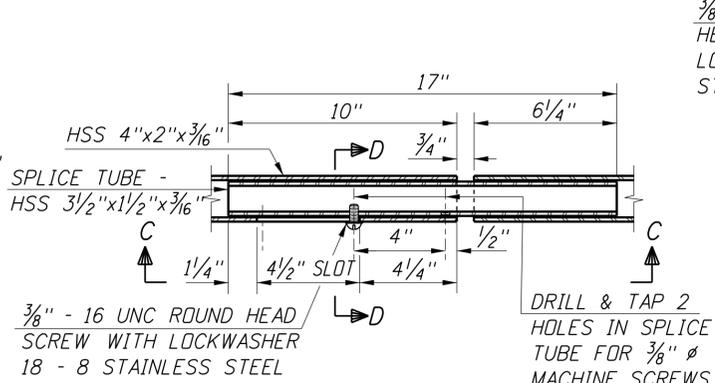
DETAIL B
3'-1'-0"



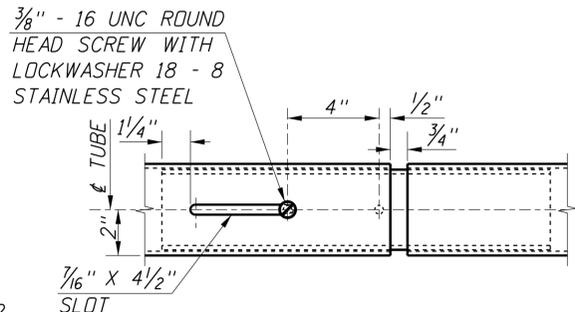
DETAIL C
3'-1'-0"



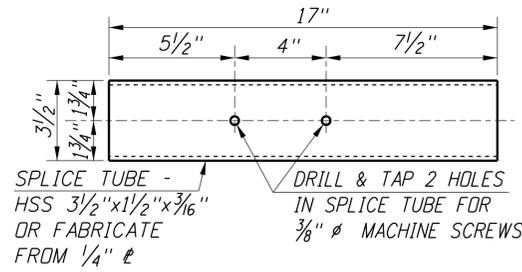
DETAIL D
3'-1'-0"



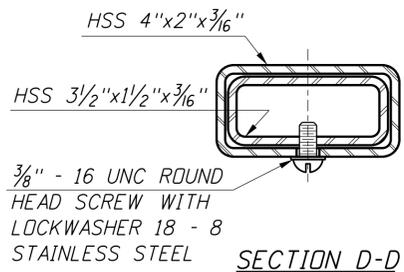
DETAIL E
3'-1'-0"



VIEW C-C
3'-1'-0"



SPlice INSERT DETAILS
3'-1'-0"



SECTION D-D
N.T.S.

NOTES

MATERIALS

- STRUCTURAL STEEL PLATES & SLEEVES SHALL CONFORM WITH AASHTO M270, GRADE 36
 - STRUCTURAL STEEL TUBING SHALL CONFORM WITH ASTM A-500, GRADE B OR ASTM A-501.
 - BOLT, ACORN NUTS, AND WASHERS SHALL CONFORM WITH ASTM A-307.
 - HEXAGONAL BOLTS AND NUTS SHALL CONFORM WITH ANSI B18.2.1 AND B18.2.2.
 - ROUND HEAD MACHINE SCREWS SHALL CONFORM WITH ANSI B18.6.3.
 - ALL METAL REINFORCEMENT IN THE CURB SHALL BE EPOXY COATED IN ACCORDANCE WITH SUBSECTION 708.02.
 - CONCRETE FOR CURB AND DRILLED POST HOLE SHALL BE CONCRETE CLASS 40A.
- GALVANIZING/POWDER COATING**
- ALL STEEL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A-123 AND ASTM A-385.
 - ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-153.
 - ALL WELDED AREAS SHALL BE THOROUGHLY CLEANED PRIOR TO GALVANIZING TO REMOVE ALL SLAG OR OTHER MATERIAL THAT WOULD INTERFERE WITH THE ADHERENCE OF THE ZINC.
 - ALL GALVANIZED SURFACES SHALL BE FREE OF FINS, ABRASIONS, ROUGH OR SHARP EDGES, OR OTHER SURFACE DEFECTS.
 - THE RAILING SYSTEM SHALL BE POWDER COATED AFTER GALVANIZING WITH A MINIMUM THICKNESS OF 3 MILS. THE COLOR SHALL BE RAL 9005 (JET BLACK). A COLOR SAMPLE SHALL BE SUBMITTED FOR APPROVAL.
 - POWDER COATING SHOP PROCEDURES FOR PREPARATION OF THE GALVANIZED SURFACES AND APPLICATION PROCESS OF THE POWDER COATING SHALL BE SUBMITTED FOR APPROVAL.
 - SCRATCHES, PITS, AND OTHER DEFECTS SHALL BE REPAIRED IN ACCORDANCE WITH THE POWDER COATING MANUFACTURER'S WRITTEN INSTRUCTIONS.

FABRICATION AND ERECTION

- FABRICATION AND ERECTION OF THE RAILING SHALL CONFORM WITH THE CURRENT EDITION OF AASHTO SPECIFICATIONS FOR HIGHWAY BRIDGES AND ITD STANDARD SPECIFICATIONS.
- THE RAILING SHALL BE FABRICATED IN A PLANT EXPERIENCED IN PRODUCING RAILINGS AND ARCHITECTURAL METAL WORK AND SHALL BE ERECTED BY SKILLED WORKMEN EXPERIENCED IN THIS TYPE OF WORK.
- SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER ELECTRONICALLY IN PDF FORMAT IN ACCORDANCE WITH SECTION 504 AND SHALL INCLUDE COMPLETE DIMENSIONS AND DETAILS OF FABRICATION INCLUDING AN ERECTION DIAGRAM. MATERIALS BEING USED SHALL BE CLEARLY SPECIFIED. BEFORE PROJECT COMPLETION, THE CONTRACTOR SHALL FURNISH THE ENGINEER ELECTRONIC AS-BUILT SHOP DRAWINGS IN PDF FORMAT.
- ALL POSTS AND BALUSTERS SHALL BE PLUMB.
- ALL ENDS OF TUBE SECTIONS AT SPLICES SHALL BE SAWED OR MILLED. CUT ENDS SHALL BE TRUE, SMOOTH AND FREE FROM BURRS OR RAGGED EDGES.
- VENT HOLES FOR GALVANIZING SHALL BE PROVIDED AS REQUIRED AND SHOWN ON THE SHOP DRAWINGS. VENT HOLES SHALL BE DRILLED AWAY FROM TRAFFIC FACE AND NOT ON THE TOP SURFACE OF THE HORIZONTAL TUBES.
- EACH RAIL SECTION SHALL BE ATTACHED TO A MINIMUM OF TWO POSTS, BUT PREFERABLY THREE OR MORE. RAILING SYSTEM SHALL BE CONTINUOUS. EACH JOINT IN A RAIL LENGTH SHALL BE LOCATED AT THE SAME POSITION IN THE SECTION AND SHALL BE SPLICED AS DETAILED.
- ALTERNATE SPLICE DETAILS MAY BE SUBMITTED FOR APPROVAL ON THE SHOP DRAWINGS.

METHOD OF MEASUREMENT

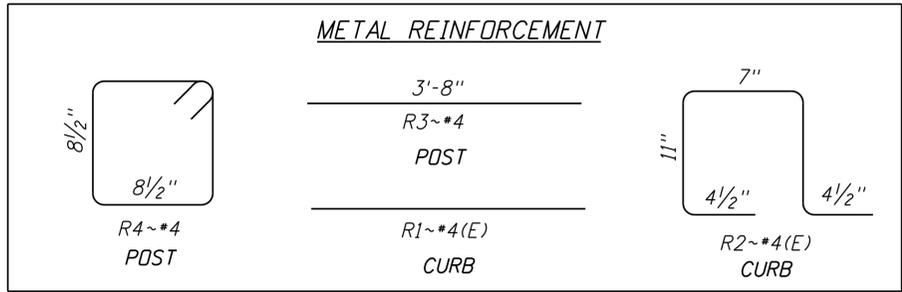
23. PEDESTRIAN/BICYCLE RAILING WILL BE MEASURED BY THE LINEAR FOOT, COMPLETE IN PLACE. THIS INCLUDES MATERIALS, FABRICATION, AND INSTALLATION.

ALTERNATE ALUMINUM RAILING

24. AN ALTERNATE ALUMINUM RAIL THAT GENERALLY CONFORMS TO THE GEOMETRY AND DESIGN CRITERIA OF THE STEEL RAIL MAY BE SUBSTITUTED, AT NO ADDITIONAL COST TO THE STATE. ALUMINUM RAILING SHALL CONFORM TO ASTM B221, ALLQY 6005-T5. REFER TO THE ALTERNATE PEDESTRIAN / BICYCLE RAIL SPECIAL PROVISION.

APPROXIMATE QUANTITIES

RAILING (RAILS, POSTS, BALUSTERS, PLATE)	240 LBS. PER 8' SECTION
CONCRETE CURB	0.37 C.F. PER LIN. FT.
METAL REINFORCEMENT CURB (EPOXY)	3.40 LB. PER LIN. FT.
CONCRETE POST BASE	7.07 C.F. PER POST
METAL REINFORCEMENT POST BASE	19.37 LB. PER POST



REVISIONS			
NO.	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DESIGNED
DESIGN CHECKED
DETAILED
DWG. CHECKED
CORRECTIONS

SCALES SHOWN ARE FOR 34" X 22" PRINTS ONLY
CADD FILE NO. \\cadds\std_dgns\b13_4c.dgn
DRAWING DATE: MAR 2015

ORIGINAL SIGNED BY:
DATE SIGNED: DATE
ORIGINAL STORED AT: ITD BRIDGE SECTION

IDAHO TRANSPORTATION DEPARTMENT

English

PROJECT NO.

PEDESTRIAN/BICYCLE RAILING DETAILS

BRIDGE PLANS	
BRIDGE LRFD MANUAL, PAGE B13.4C	
COUNTY	KEY NO.
BRIDGE DRAWING NO.	SHEET
	OF