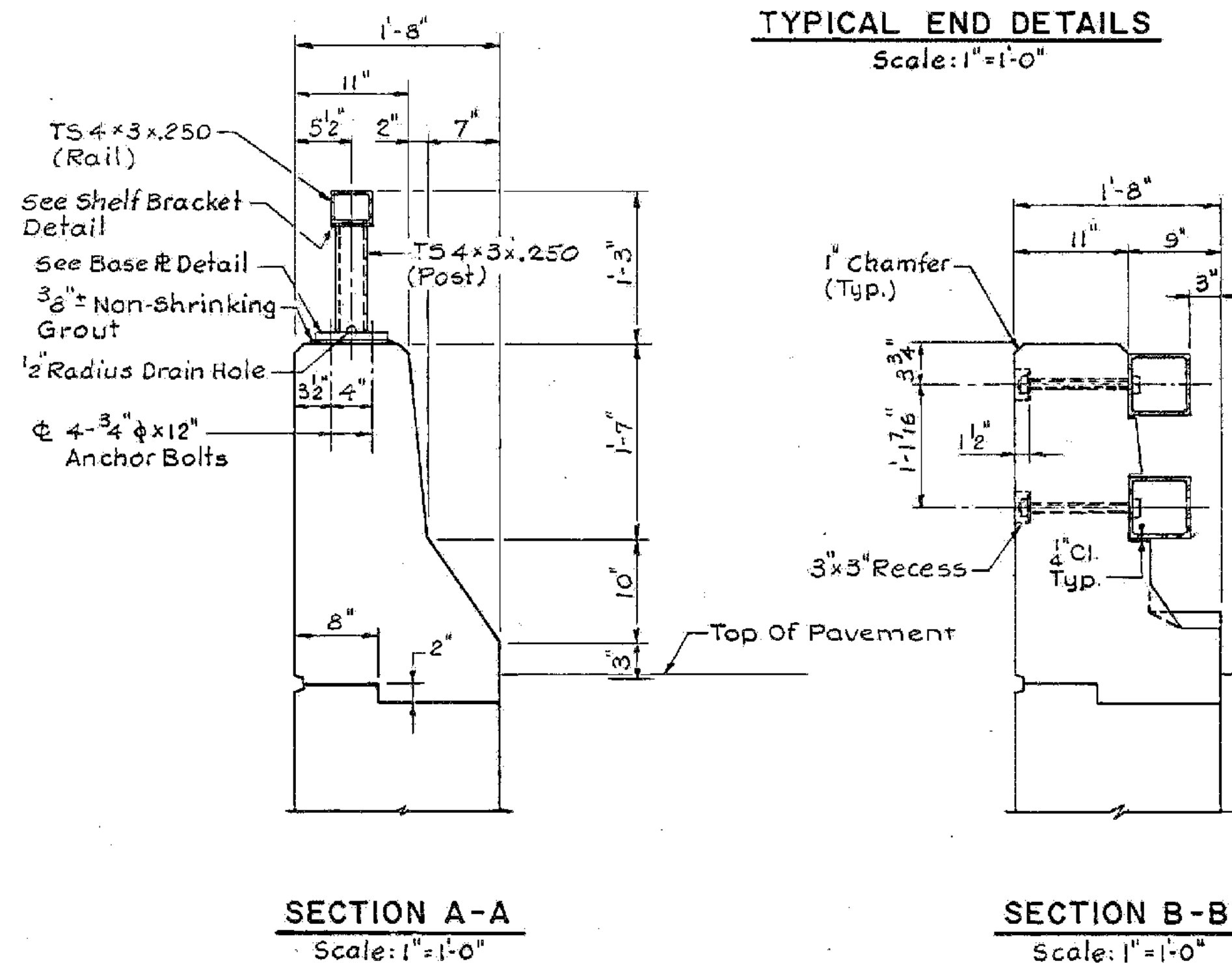
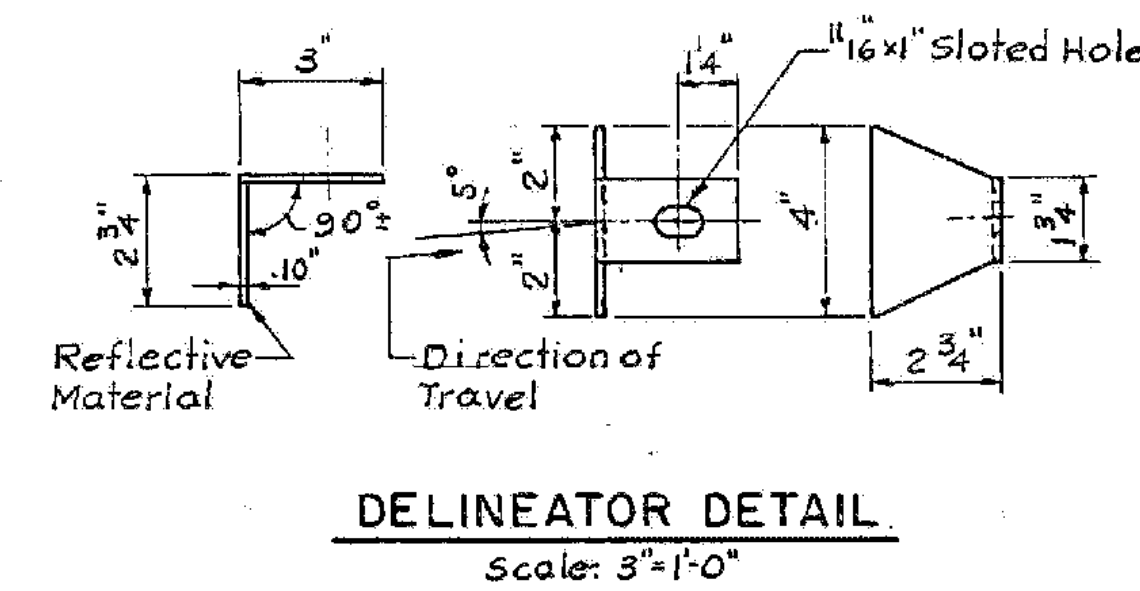
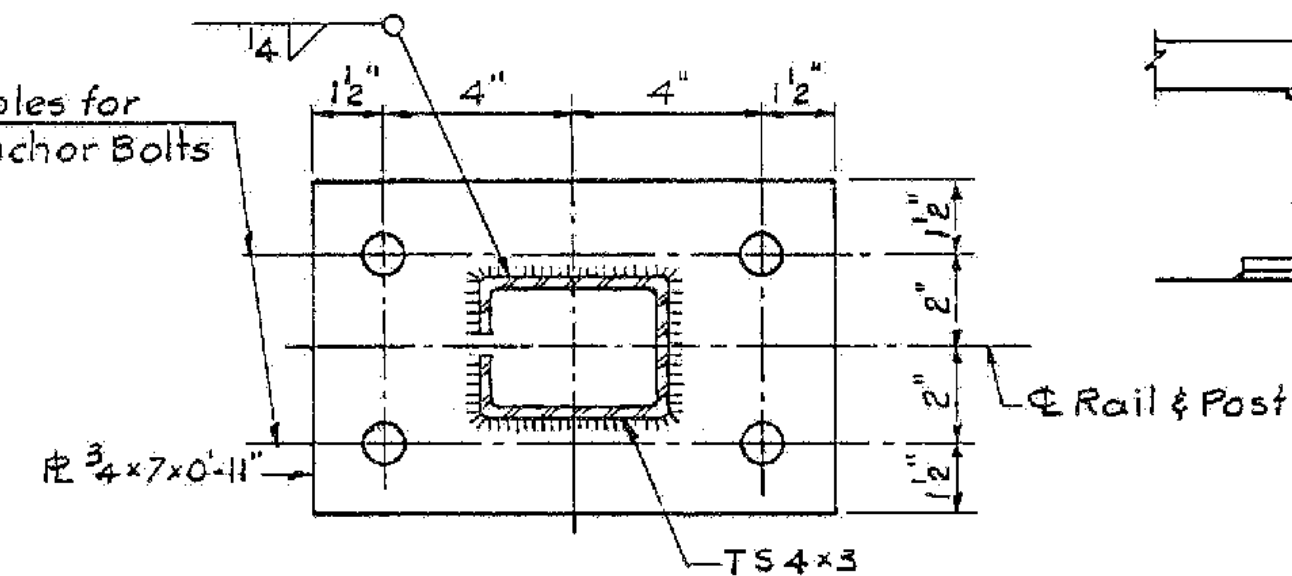
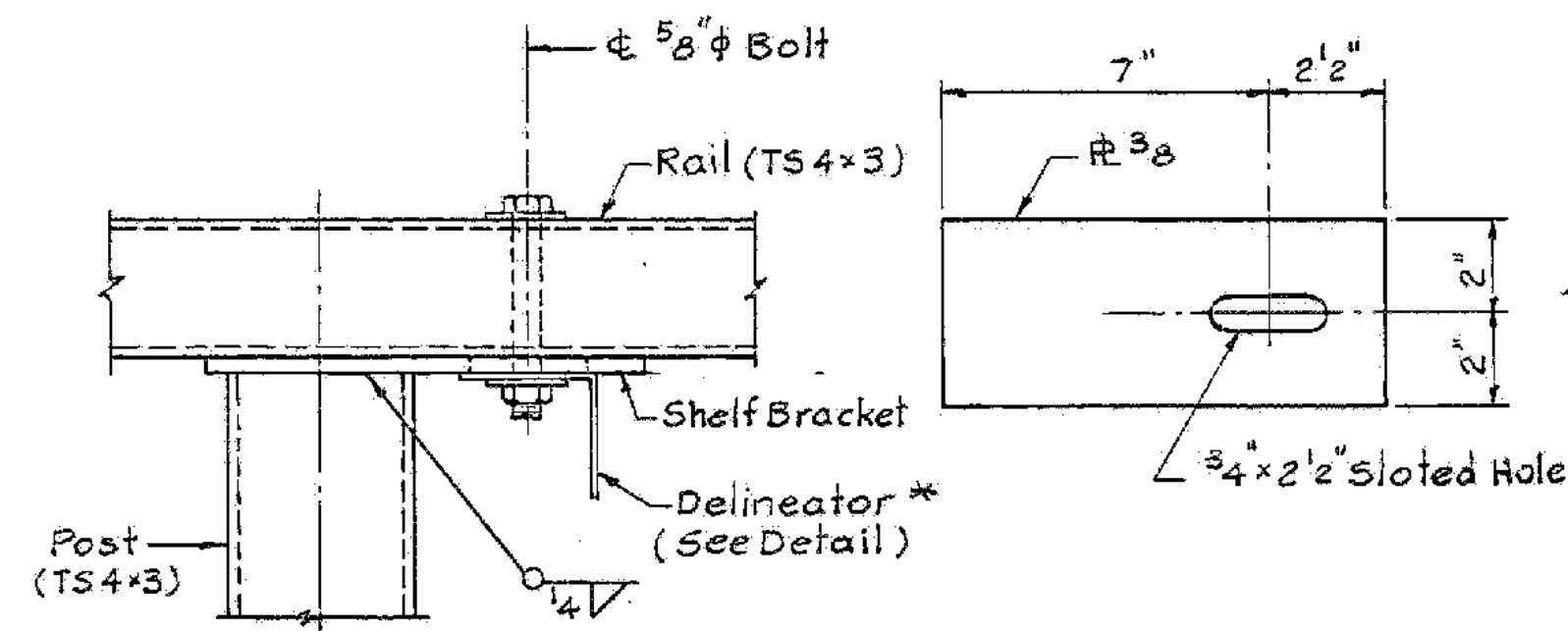


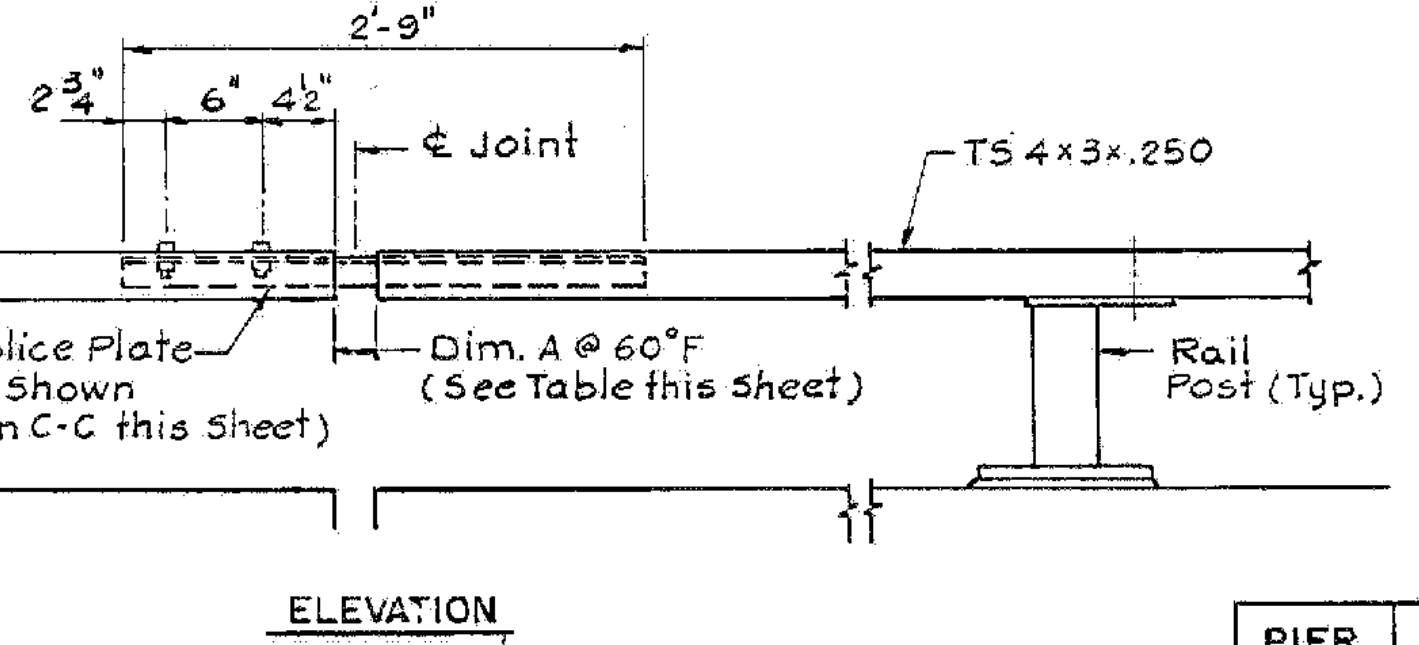
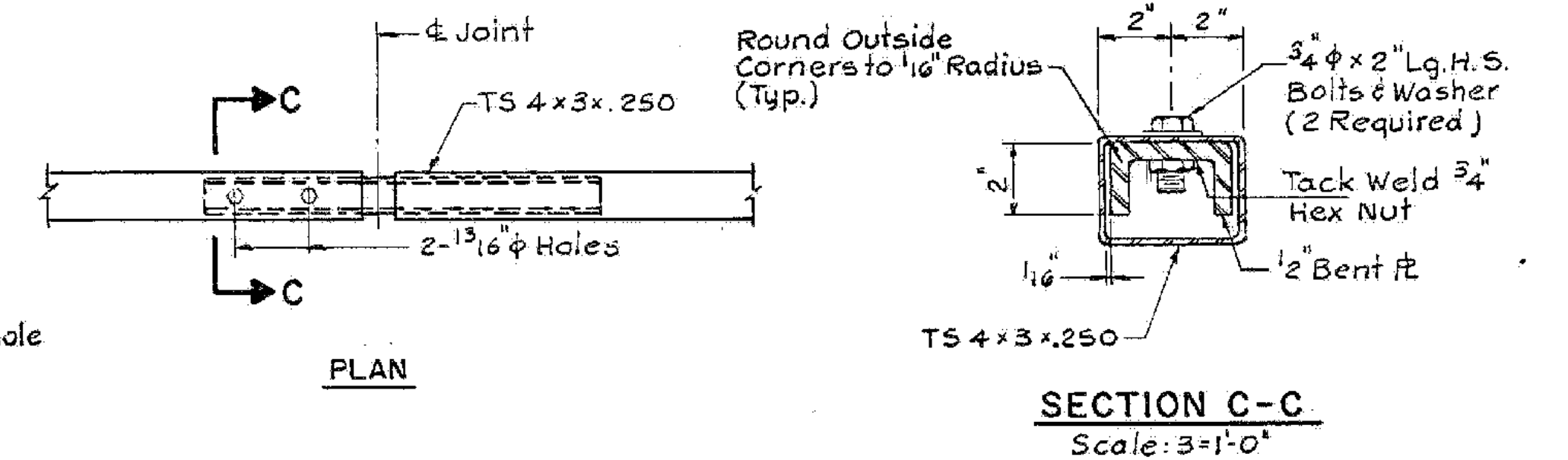
TYPICAL END DETAILS  
Scale: 1"=1'-0"



ISOMETRIC OF CONCRETE BARRIER END SECTION



\* Delineator to be Erected Every 30 Feet or Closest Post. Delineator Shall Meet Specification Requirements for ATSM B209 Alloy 5052-H32.

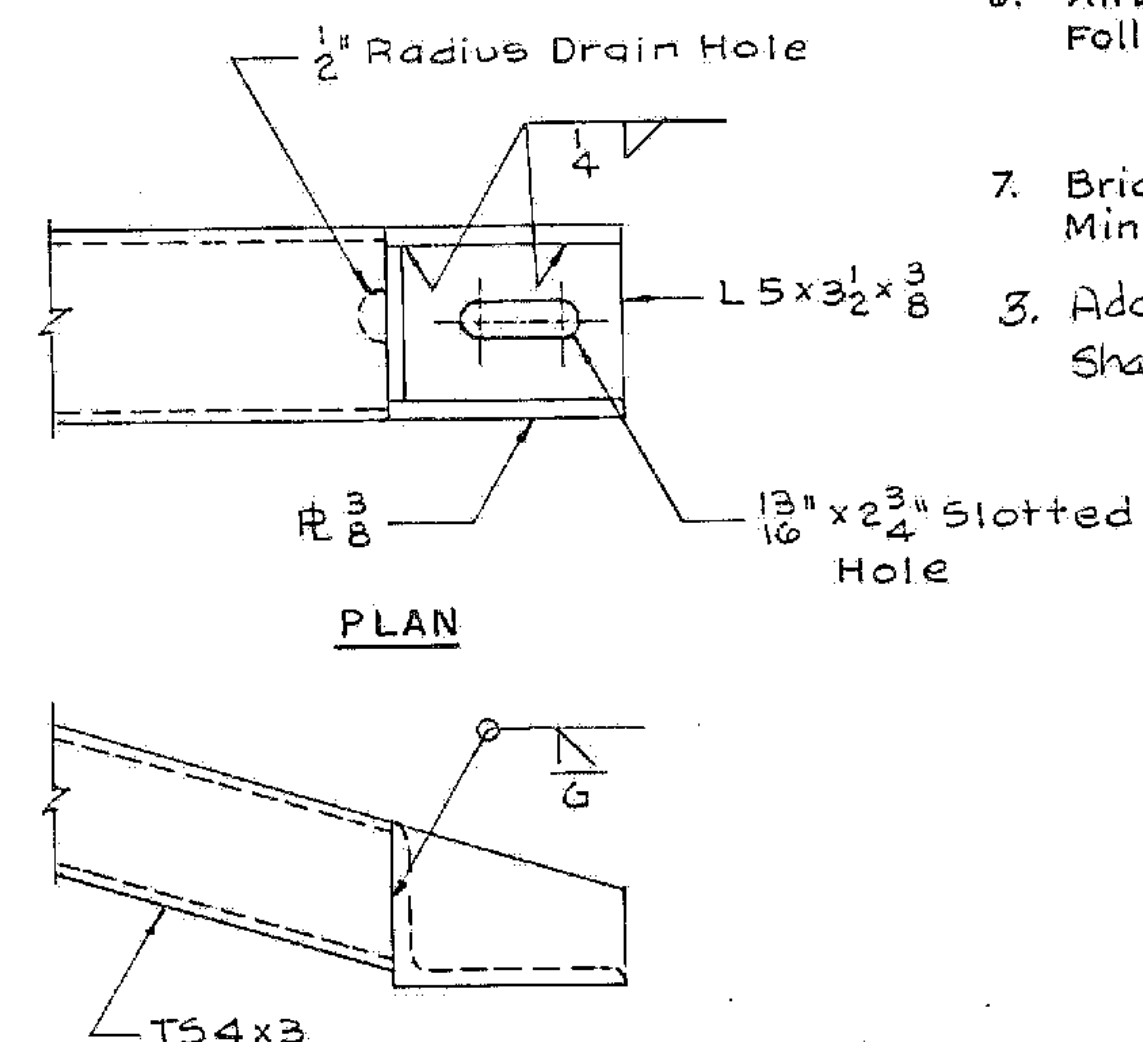


RAILING EXPANSION JOINT  
(At Bridge Expansion Joints)  
Scale: 1/2"=1'-0"

PIER	DIMENSION A
3W	5 3/4"
2W	5 1/4"
2E	5 3/8"
9E	6"
15E	5 3/8"

BRIDGE RAILING NOTES:

- All Plates, Bars and Angels Shall be ASTM A-36 Steel. Unless Otherwise Specified, All Bolts Shall be ASTM A307 Structural Steel. Tubing Shall be ASTM A500 Cold-Formed Grade B as Modified in Section 732.04 (4)
  - All Box Beam Bridge Railing, Components, Anchors Bolts and Attachment Hardware Shall be Galvanized to ASTM A123 After Fabrication.
  - The Rail System Shall be Continuous with Each Tube Section Attached to a Minimum of Two Posts. All Rail Joints Between Deck Expansion Joints Shall be Spliced. (For Typical Splice Detail Refer to Standard SB-R44-82.)
  - All Posts Shall be Set Normal to Grade. Nuts Placed in Concrete are to be Rotated within 24 Hours After Concrete is Placed to Break Bond Between Nut and Concrete. Nuts Shall Then be Used to Align the Posts Both Horizontally and Vertically. After Final Position has Been Approved, All Voids Between the Base Plate and Concrete Surface Shall be Grouted with Non-Shrinking Grout Conforming to Section 707.04, Mortar Type IV.
  - Anchor Bolts Shall be Cast-in-Place and Conform to the Requirements of Section 714.16.
  - All Box Beam Railing in Spans 14-20 Shall be Horizontally Curved to the Following Radii:  
Top Fascia - R=5,708.5' (Inside)  
Bottom Fascia - R=5,751.5' (Outside)
  - Bridge Barrier-Concrete to be Placed in Alternate Sections with a Minimum of 48 Hours Between Pours.
3. Addition: The width of splice plates for pedestrian rail shall be 3"



ALBURGH-ROUSES POINT  
BHF MEMB(24)  
SHEET 45 OF 50  
FOR REFERENCE ONLY

STATE OF VERMONT  
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURGH VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
BRIDGE RAILING DETAILS (STEEL ALTERNATE)	
Designed by S.H.R.	Drawn by W.L.G.
Checked by S.M. date 10-9-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS83	Sheet of

HNTB  
HOWARD NEEDLES TAMMEN & BERENSON LLP