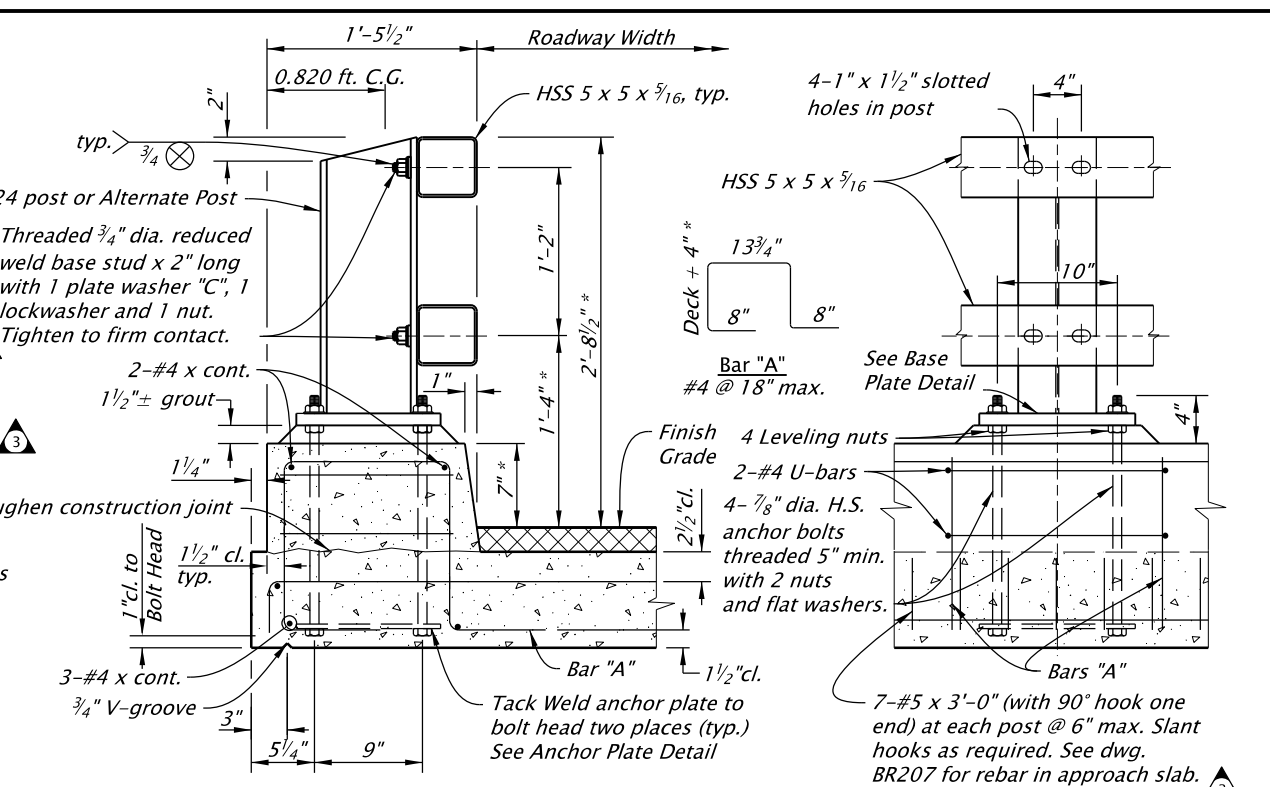
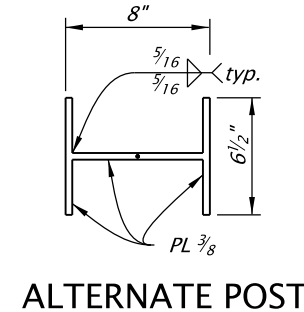




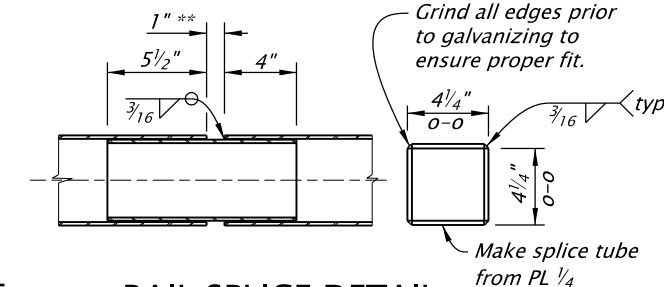
GENERAL NOTES:

1. Rail designed and crash tested to meet NCHRP 350 TL-4 requirements.
2. Provide structural tubing according to Oregon Standard Specification 2810.20.
3. Provide steel posts and plates conforming to AASHTO M183 (ASTM A36) unless otherwise noted.
4. Provide High Strength anchor bolts (Grade 105) according to Oregon Standard Specification 02560.30 (b). Tighten top and leveling nuts for the base plate to 1/4 turn past snug tight.
5. Provide reinforcing steel conforming to ASTM A706 or AASHTO M31 (ASTM A615) Grade 60.
6. Provide concrete Class 3300 - 1 1/2 or 3/4.
7. 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.
8. Payment for the railing will include compensation for furnishing and installing the necessary guardrail connection plates and terminal connectors.
9. Hot-dip galvanize all structural steel including fasteners after fabrication, except as noted. Provide Galvanize-Control Silicon according to Oregon Standard Specification 02530.70.
10. Fabricate steel studs with material, welding and inspection according to AWS D1.1.

Accompanied by dwg. BR207



**** 1" gap unless noted otherwise on detail plans. Provide a Rail Splice in panel that has a deck expansion joint. If more than 2" of movement is needed, increase length of the inner member.**



Technical drawing of Plate Washer "C". The drawing shows a square plate with a central circular hole. The overall dimensions are 2 1/8" in width and 1 3/4" in height. The central hole has a diameter of 7/8". The plate is labeled "PL 1/4".

RAIL CAP DETAIL

Top View Dimensions:

- Overall width: 5"
- Distance from left edge to centerline: $1\frac{3}{4}"$
- Distance from bottom edge to centerline: $1\frac{1}{4}"$
- Distance from centerline to right edge: 2"
- Distance from bottom edge to rail tube member: $1\frac{1}{4}"$
- Distance from centerline to bottom edge: $2\frac{1}{2}"$
- Overall height: 5"
- Distance from bottom edge to roadway side: $1\frac{1}{4}"$
- Radius: $\frac{1}{8}"$ typ.

Side View Dimensions and Callouts:

- Rail tube member
- PL $\frac{3}{16} \times 4\frac{3}{4} \times 4\frac{3}{4}$, cope corners $\frac{3}{4}"$ to provide zinc drains.
- 2- $\frac{3}{4}"$ dia. reduced weld base studs on each rail cap at guardrail connections
- Install angle with washers and self locking nuts or nuts and jam nuts.
- Leg of connection angle $\frac{3}{4}"$ typ.

All materials shall be in accordance with the current Oregon Standard Specifications.			
OREGON STANDARD DRAWINGS 2-TUBE CURB MOUNT RAIL 2024			
DATE	REVISION DESCRIPTION		
12-2020	Modified detail note text; added General Note 10; CAD updates		
01-2022	Modified General Note 10; removed "Clause 7" notation.		
01-2023	Revised various notations.		
CALC. BOOK NO. _	_ 4057 & 4058 _	SDR DATE _	_ 20-JAN-2023 _
			BR206

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.