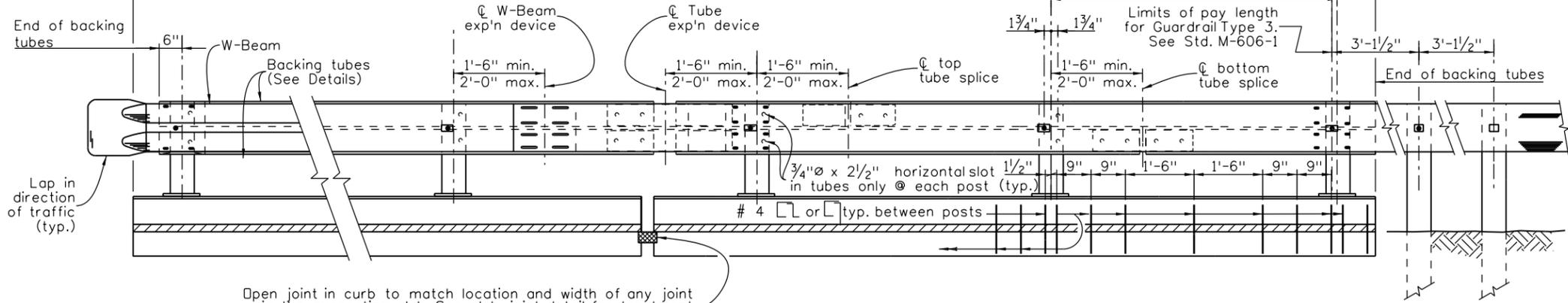


Limits of pay length for Bridge Rail Type 3 (For post spacing, see Dwg. No. B-___)

Type 3L Transition (See Roadway Quantities)
Adjust height of Transition as needed to match Bridge Rail



Open joint in curb to match location and width of any joint in the supporting slab. See slab joint detail for treatment of any expansion devices or joint sealants and the curb.

RAIL PANEL AT TERMINAL SECTION

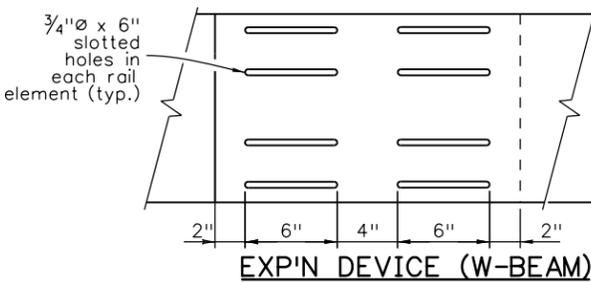
(See roadway plans for ends requiring terminal section)

RAIL PANEL AT EXP'N DEVICE

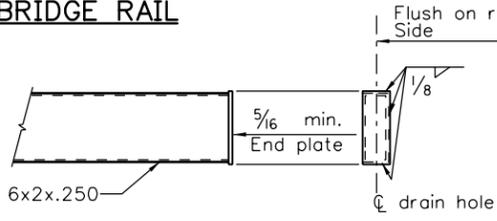
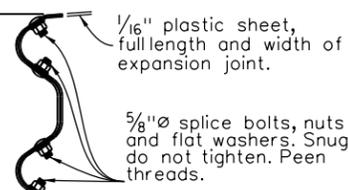
ELEVATION - BRIDGE RAIL

RAIL PANEL AT END OF WING

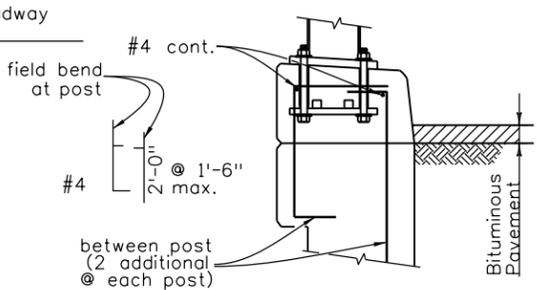
Revision Dates	5/01	4/02	3/07	10/13
(Preliminary Stage Only)	5/00			
	3/99	11/99	8/96	



EXP'N DEVICE (W-BEAM)

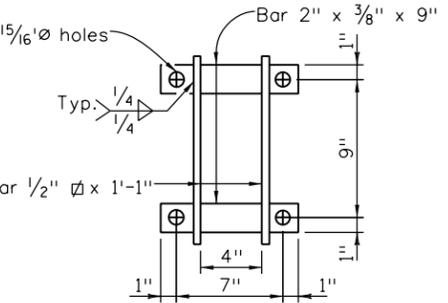


END DETAIL - BACKING TUBES

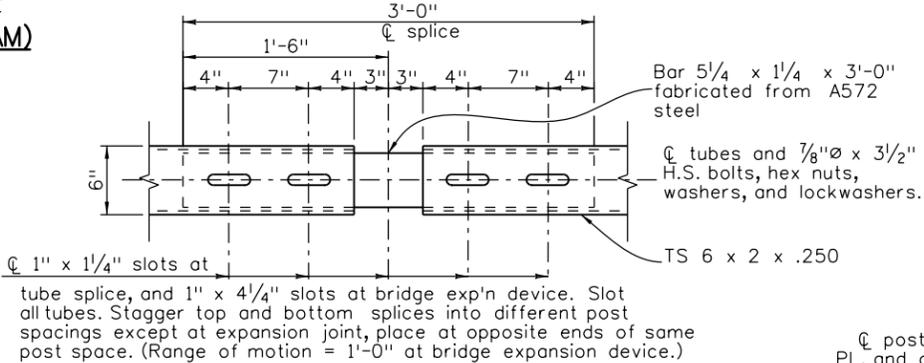


SECTION

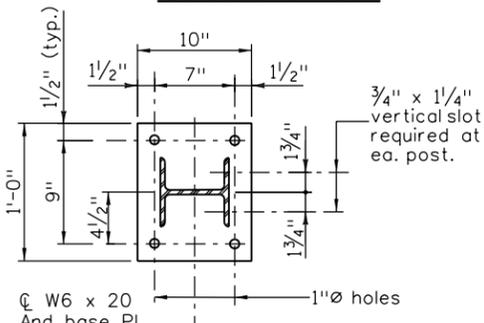
Use when curb is placed on top of wall



ANCHOR DETAIL

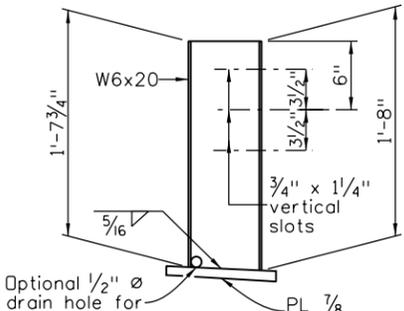


PLAN - TUBE SPLICE

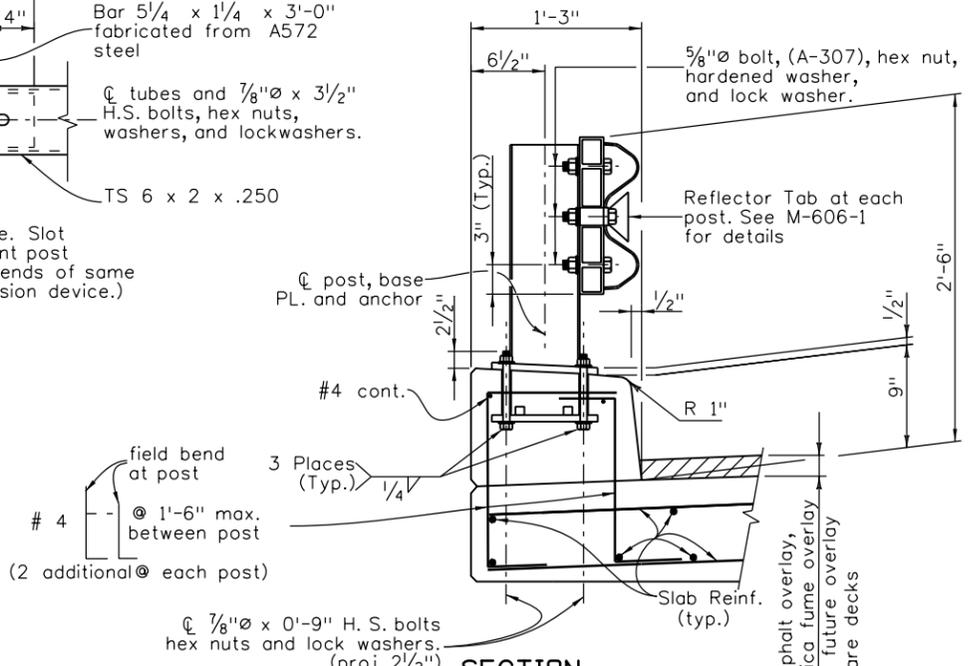


PLAN

POST DETAIL



ELEVATION



SECTION

Use when curb is placed on a concrete slab.

NOTES:

All tubes shall be fabricated from ASTM A-500 Grade B steel. All posts, base plates, and anchor bolts shall be fabricated from ASTM A-36 steel. All splices and expansion devices for tubes shall be fabricated from ASTM A-572, Grade 50 steel. The above material, w-beam, and all anchor bolts and miscellaneous bolts, nuts, and washers shall be galvanized after fabrication in accordance with Section 509. Concrete, reinforcing steel, and structural steel elements shall conform to the requirements of Section 601, 602, and 509, respectively.

Post anchors, encased in concrete, shall be ASTM A-36 steel, and need not be galvanized.

Posts, post anchors, base plates, anchor bolts, miscellaneous bolts, nuts, washers, tubes, tube expansion devices, tube splices, end plates, w-beam, w-beam expansion devices, curb concrete (Class D) and curb reinforcing shall be included in Item No. 606- Bridge Rail Type 3.

The backing tubes shall be shop bent or fabricated to fit horizontal curve when the radius is less than 1500 feet. Tubes shall be continuous over not less than two posts. No welded butt splices will be allowed in the tube sections.

Posts shall be perpendicular to the longitudinal roadway grade.

Contractor shall provide terminal section (flared) when no approach guardrail is used with cost included in Item No. 606 - Bridge Rail, Type 3.

For additional details, see Std. M-606-1.

Prior to fabrication of this item, three sets of working drawings which comply with the requirements of Section 105 shall be submitted to the Engineer for information only.

Structural steel:		
AASHTO M-183 (ASTM A-36)	$f_y = 36,000$ psi	
AASHTO M-223 (ASTM A-572)	$f_y = 50,000$ psi	
Grade 50		
Cold formed ASTM A-500	$f_y = 46,000$ psi	
Grade B		

INFORMATION ONLY

Description	Unit	Per Lin. Ft.
Structural Steel	Lb.	45.4
Concrete Class D (Bridge)	Cu.Yd.	0.04
Reinforcing Steel (Epoxy Coated)	Lb.	4.8
Bridge Rail Type 3 - W Beam	Lin Ft.	1.0

Note: At each expansion device add 235 lb. of Structural Steel.

Print Date: \$DATE\$
File Name: Sheet_B-606-3.dgn
Horiz. Scale: NTS Vert. Scale: As Noted
Staff Bridge Branch - Unit 022X Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation
4201 East Arkansas Avenue
Room 107
Denver, CO 80222
Phone: 303-757-9309 FAX: 303-757-9197

Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

BRIDGE RAIL TYPE 3			
Designer:	XXXXXXXX	Structure	X-XX-XX
Detailer:	XXXXXXXX	Numbers	X-XX-XX
Sheet Subset:	BRIDGE	Subset Sheets:	BXX of XXX

Project No./Code	
Project Number	
Code	
Sheet Number	