

**DESIGN DATA**

	ABUTMENT 1	PIER X	ABUTMENT XX
◆ Joint opening "A"	_____	_____	_____
★ Predicted Horizontal Movement	_____	_____	_____

- ◆ Joint opening "A" for new structure shall be determined based on predicted movements from shrinkage, creep, and temperature changes.
- The maximum predicted horizontal joint movement is based on a temperature drop of 60°F for concrete girders and 80°F for steel girders.

**BRIDGING PLATE SIZES:**

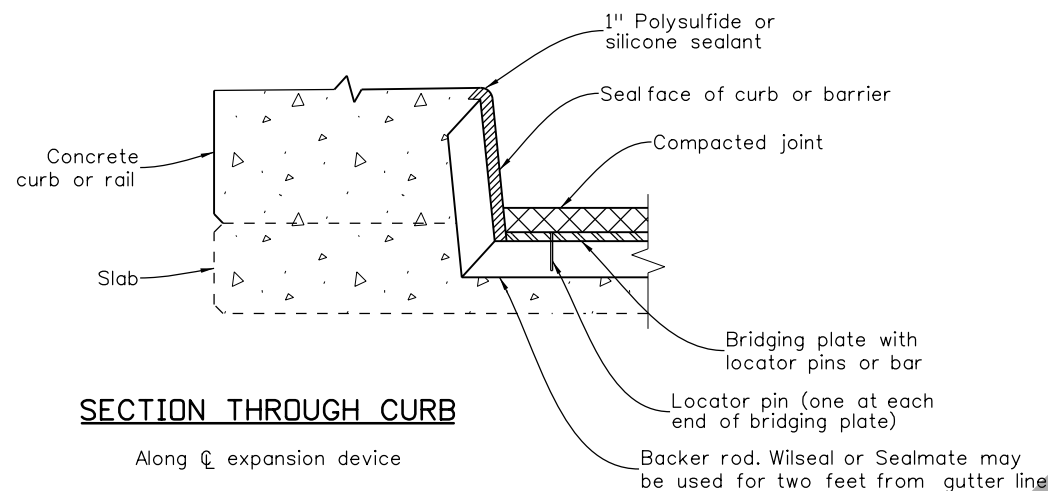
"A"	THICKNESS	WIDTH	MINIMUM LENGTH
0"-1"	1/4"	5"	4'-0"
1"-2"	3/8"	7"	4'-0"

**NOTES:**

- The plug joint system shall include all labor and materials to install the expansion joint according to the Manufacturer's directions and according to these plans.
- The blockout shall be formed to full depth and ground down to provide a uniform bearing surface for the bridging plate.
- Bridging plates shall not rock on their supports prior to placing plug joint material.
- The bridging plate shall be A36 steel as shown on the Table A or equivalent approved by the Engineer. It shall be installed in accordance with the Manufacturer's directions. All bridging plates shall have locator pins or bars for centralizers.
- The backer rod shall be secured and sealed according to the Manufacturer's directions.
- The joint bonding agent shall be the type recommended by the Manufacturer for the joint system being installed. It shall be applied according to the Manufacturer's recommendations.
- All surfaces in joint opening shall be cleaned according to the Manufacturer's directions.
- The joints shall be installed and compacted according to the Manufacturer's procedures. The finished joint, after compacting and sealing, shall be flush with the top of the adjacent wearing surface.
- A representative of the Manufacturer shall be on site prior to and during installation of the plug joints and shall approve the methods and materials before work commences.
- The Asphaltic Binder shall not be overheated, either by absolute temperature limits of the material, or by extended time at a lower high temperature. Overheated material shall be disposed of safely.
- For construction requirements see section 518.08 of Standard Specifications.
- Seal top of curb as directed by the Engineer.
- Sealing the face of the curb or barrier will not be paid for separately, but will be included in the work.
- For information only: it is estimated that xxx CF of compacted joint material is required.

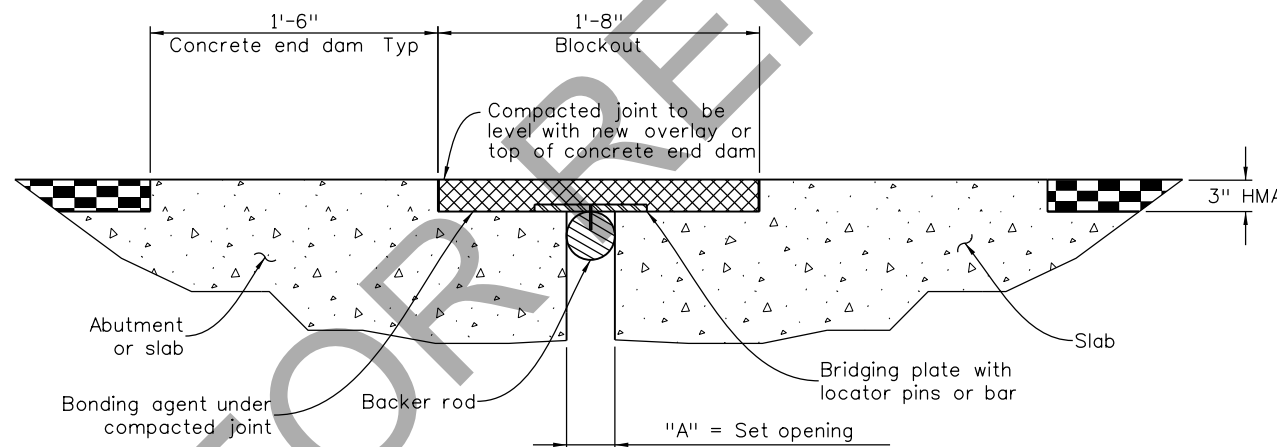
Designer/Detailer:  
 Replace the underlined text with the appropriate words and numbers to describe your structure and joint location.  
 Plug Joint having a maximum horizontal movement exceeding 1/2" may not function as intended.

- At these structures:
- Temperature Extremes:  
 Cold for mountains  
 Hot for plains
- Truck Traffic:  
 ≥ 2500 ADTT For high truck traffic  
 < 2500 ADTT For moderate truck traffic
- Stop and Go Traffic:  
 Common for controlled intersections  
 Uncommon for everything else



**SECTION THROUGH CURB**

Along C expansion device



**NEW EXPANSION JOINT DETAIL WITH END DAMS**

**ACCEPTABLE EXPANSION DEVICE ALTERNATES**

All Asphaltic Plug Joint materials need a Certified Test Report (CTR) from an independent laboratory showing passing test results on all referenced tests within the most recent ASTM D 6297 using granite blocks for each lot of material to be included on the APL.

A list of current Pre-Approved Lot numbers, Suppliers, and the Procedure to register new suppliers can be found on CDOT Approved Products List Web site at:

<http://apps.coloradodot.info/apl/AplSearch.cfm>

Revision Dates (Preliminary Stage Only)	3/99	11/99	4/02	6/04	11/07	5/13	3/23
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INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						

All seals for this set of drawings are applied to the cover page(s)	Print Date: \$DATE\$	<b>Sheet Revisions</b>			Colorado Department of Transportation		As Constructed		BRIDGE EXPANSION DEVICE		Project No./Code	
	File Name: Sheet_B-518-P.dgn	Date:	Comments	Init.	2829 West Howard Place, 3rd Floor Denver, CO 80204 Phone: 303-512-4079 FAX: 303-757-9197	No Revisions:		PLUG JOINT		Project Number		
	Horiz. Scale: Not to Scale Vert. Scale: As Noted					Revised:	Designer: XXXXXXXX	Structure Numbers	X-XX-XX	Code		
	Unit Information Unit Leader Initials					Void:	Detailer: XXXXXXXX	Subset Sheets: BXX of XXX	Sheet Number			
					Staff Bridge Branch	Initials						