DESIGN DATA

	Abutment 1	Pier X	Abutment X
♦ Joint opening "A"	_____	_____	_____
★ Predicted Horizontal Movement	_____	_____	_____

♦ Joint opening "A" for existing structure was determined from the existing plans and must be field verified before ordering or fabricating bridging plate.

★ The maximum predicted horizontal joint movement is based on a temperature drop of 60°F for concrete girders and 80°F for steel girders.

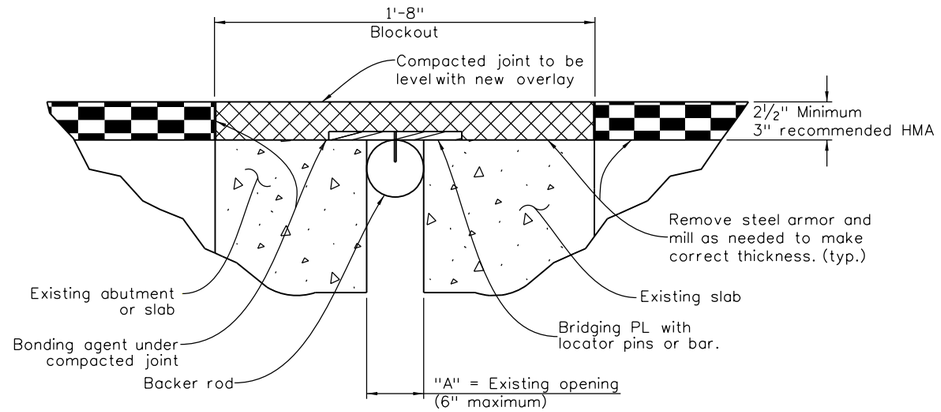
BRIDGING PLATE SIZES:

"A"	THICKNESS	WIDTH	MINIMUM LENGTH
0"-1"	1/4"	5"	4'-0"
1"-2"	3/8"	7"	4'-0"
2"-3"	3/8"	9"	4'-0"
3"-4"	1/2"	11"	4'-0"
4"-5"	1/2"	13"	4'-0"
5"-6"	5/8"	15"	4'-0"

Designer: 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.

Any repairs or replacements of the concrete substrate shall be paid for separately under item 601.



JOINT REHABILITATION DETAIL WITHOUT EXISTING END DAMS

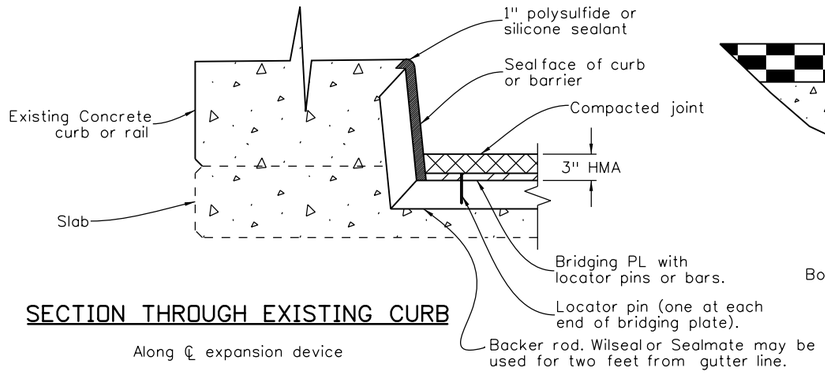
Typical detail shown.

At these structures:

Temperature Extremes:
- ☐ Cold for mountains
- ☐ Hot for plains

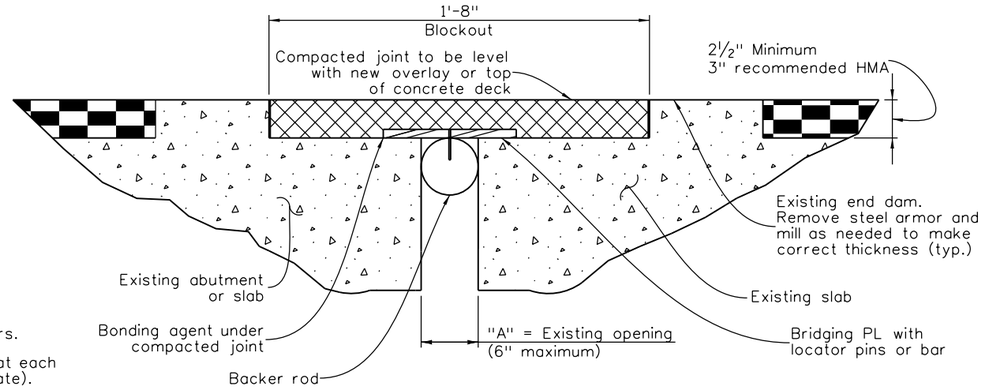
Truck Traffic:
- ☐ ≥ 2500 ADTT For high truck traffic
- ☐ < 2500 ADTT For moderate truck traffic

Stop and Go Traffic:
- ☐ Common for controlled intersections
- ☐ Uncommon for everything else



SECTION THROUGH EXISTING CURB

Along ℄ expansion device



JOINT REHABILITATION DETAIL WITH EXISTING END DAMS

Typical detail shown.

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 or cut to full depth and ground 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 plates 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. Material that is overheated shall be discarded.

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 cu. ft. of compacted joint material is required.

The Contractor shall be prepared to provide temporary cover plates in case the work must be suspended prior to opening the structure to traffic.

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)

Revision	11/07
	5/13

	Design		Detail			Quantities		
	INITIAL	DATE	INITIAL	DATE		INITIAL	DATE	
Designed By	XXX	MM/YY	XXX	MM/YY	Detailed By	XXX	MM/YY	Quantities By
Checked By	XXX	MM/YY	XXX	MM/YY	Checked By	XXX	MM/YY	Checked By

$PLOT_INFO$

Print Date: $DATE$	Sheet Revisions		
File Name: Sheet_B-518-PR.dgn	Date:	Comments	Init.
Horiz. Scale: NTS Vert. Scale: As Noted			
Staff Bridge Branch - Unit 022X Unit Leader Initials			

Colorado Department of Transportation
DEPARTMENT OF TRANSPORTATION
4201 East Arkansas Avenue
Room 107
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Staff Bridge Branch Initials

As Constructed	BRIDGE EXPANSION DEVICE PLUG JOINT			Project No./Code
No Revisions:				Project Number
Revised:	Designer: XXXXXXXX	Structure Numbers	X-XX-XX	Code
Void:	Detailer: XXXXXXXX		X-XX-XX	
	Sheet Subset: BRIDGE	Subset Sheets: BXX of XXX		Sheet Number