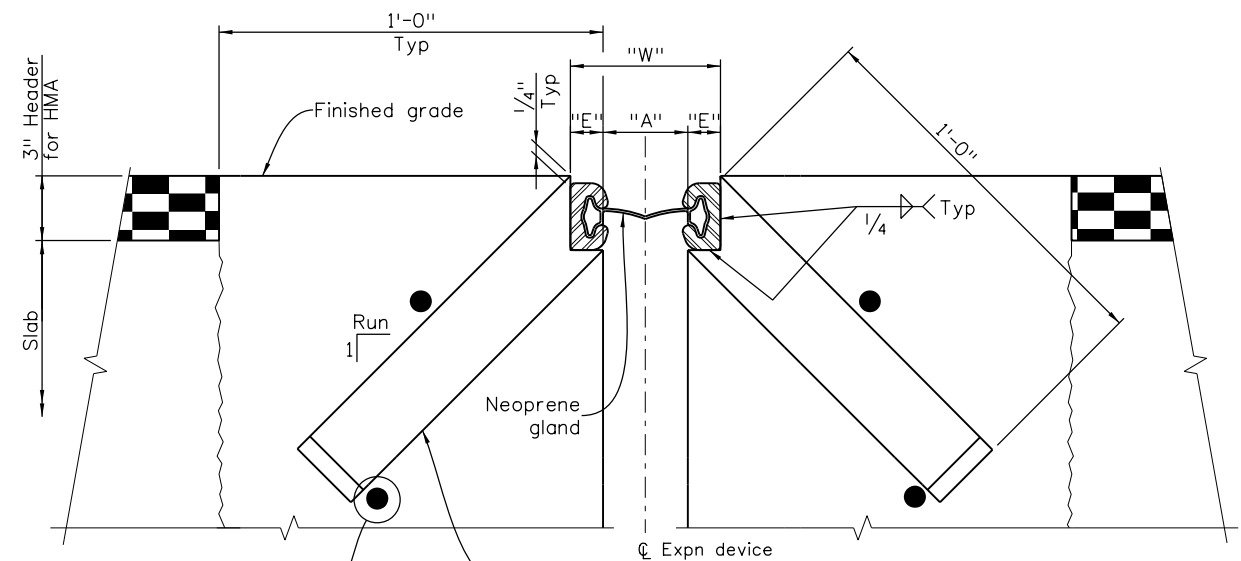


**NOTES:**

- The expansion device shall be installed on grade, parallel to the slope and grade of the deck.
- The expansion device shall not be set before the deck elevations have been approved by the Engineer. The Contractor shall take shots of the expansion device to achieve the required elevations for smoother rideability on bridge approaches.
- After the concrete has attained initial set, the attachments used to hold the expansion device assembly in its proper position shall be removed.
- "W" and "E" dimensions are dependent upon the particular expansion device supplied, and shall be shown on the working drawings.
- See table for dimensions "A" and "W"; interpolate as needed. Do not install the gland until dimension "A" has opened up to at least 1/2".
- The neoprene gland shall be installed in one piece in accordance with Section 518 of the Standard Specifications.
- See Section 518.09 in the Standard Specifications for water tight integrity testing requirements.
- Set elevations at top of header and sleeper stem with the grade projection scheme.
- All steel elements (whether grade A36 or A588) of the bridge expansion device, including cover plates, shall be hot dip galvanized after fabrication as per Section 509.11 of the Standard Specifications.
- Use a run of 1 or more to accommodate existing conditions and a run of 1 for new construction.

**ACCEPTABLE EXPANSION DEVICE ALTERNATES**

D.S. Brown A2R400-SSA2  
WABO SE400 Type A  
E-poxy Engineered Materials S400-A Strip Seal

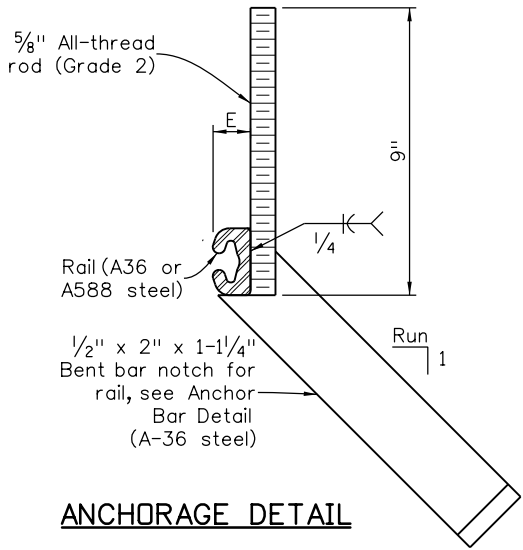


**SECTION THRU STRIP SEAL BRIDGE EXPANSION DEVICE**

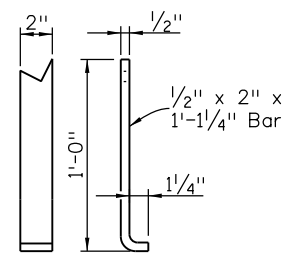
Section taken perpendicular to Expn device

Welding not allowed in interior of rail that contacts rubber gland

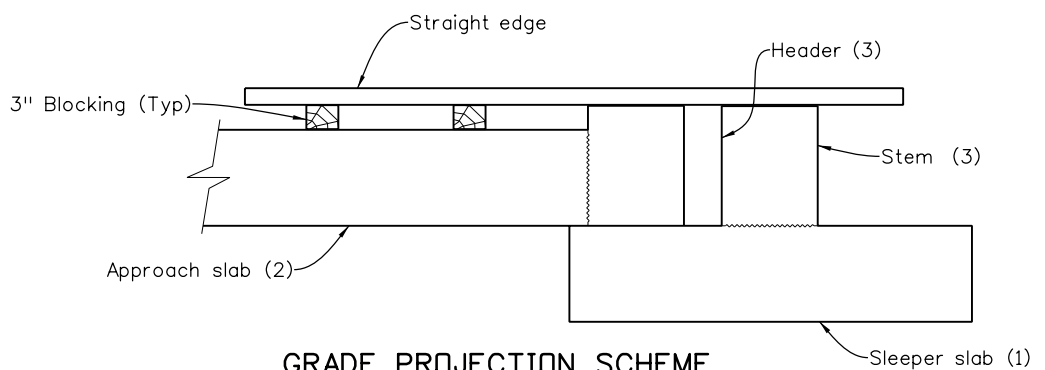
**RAIL FIELD SPLICE DETAIL**



**ANCHORAGE DETAIL**



**TYPICAL ANCHOR BAR DETAIL**

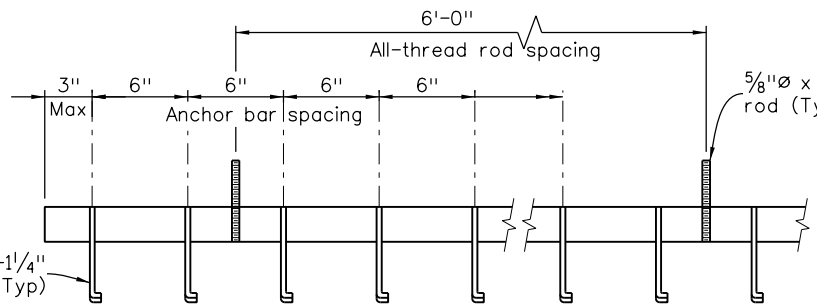


**GRADE PROJECTION SCHEME**

Numbers in parenthesis refer to first, second and third concrete pours

AIR TEMP	"A"	"W"*
-30° F		
0° F		
30° F		
60° F		
90° F		
120° F		

\*For E = 1/4" (Min)



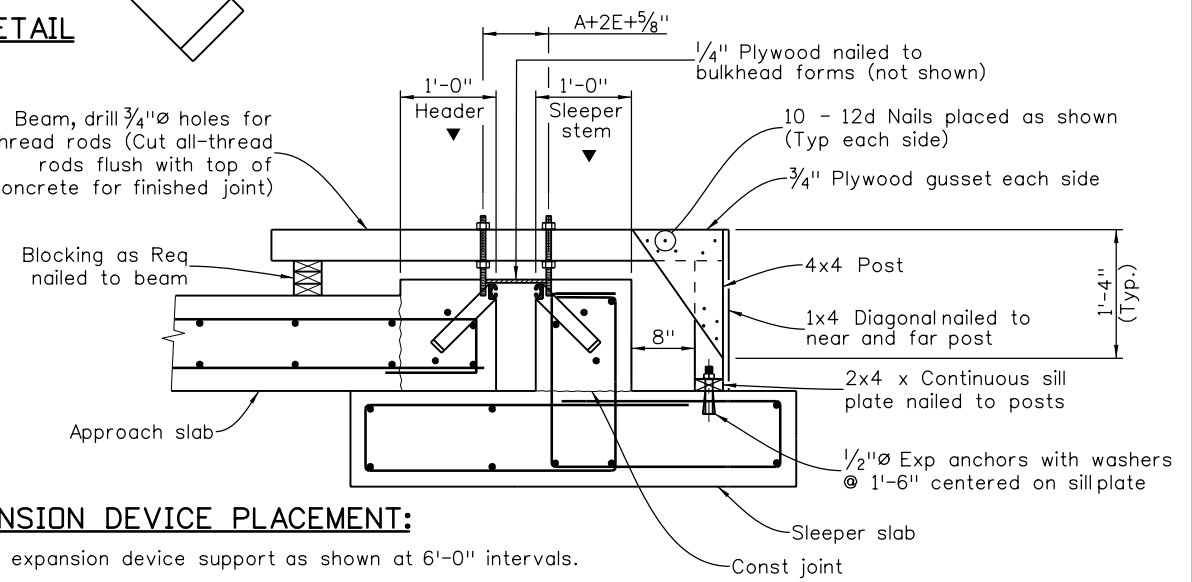
**ANCHOR BAR SPACING**

First anchor bar to be within 1" of flowline unless otherwise approved

**EXPANSION DEVICE PLACEMENT:**

- Provide expansion device support as shown at 6'-0" intervals.
  - For reinforcing not shown, see Approach Slab Details.
- Alternate support bracket connections may be submitted for approval.
- Concrete shall be placed after expansion device has been adjusted to proper grade and approved by the Engineer using the Grade Projection Scheme.

**MINIMUM SUPPORT BRACKET REQUIREMENTS**



Revision Dates	5/00	5/01	4/02	9/02	6/04	3/07	5/13	3/23
(Preliminary Stage Only)								

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\$
File Name: Sheet_B-518-1.dgn
Horiz. Scale: Not to Scale Vert. Scale: As Noted
Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

2829 West Howard Place, 3rd Floor  
Denver, CO 80204  
Phone: 303-512-4079  
FAX: 303-757-9197

Staff Bridge Branch

As Constructed
No Revisions:
Revised:
Void:

BRIDGE EXPANSION DEVICE (0-4 INCHES)			
Designer:	XXXXXXXX	Structure Numbers	X-XX-XX
Detailer:	XXXXXXXX	Structure Numbers	X-XX-XX
Sheet Subset:	BRIDGE	Subset Sheets:	BXX of XXX

Project No./Code
Project Number
Code
Sheet Number