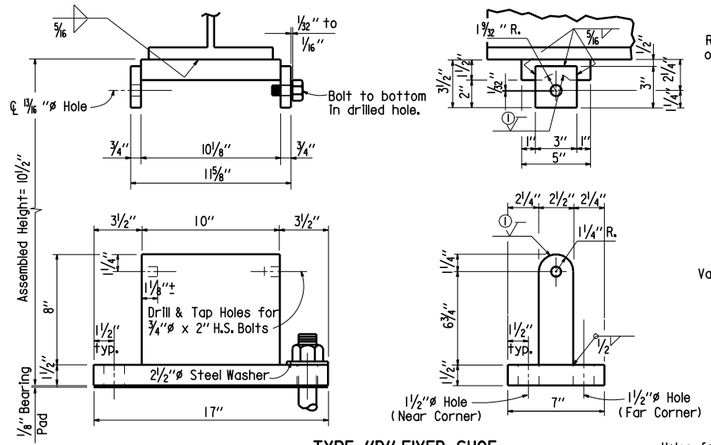
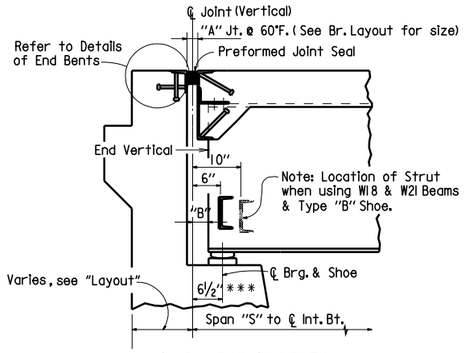
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
09-28-2000				6	ARK.			
04-10-2003	04-10-2003			JOB NO.				
03-31-2005								

① STD. SPAN DTLS. 14990H



TYPE "D" FIXED SHOE

MAXIMUM LOAD = 155 K



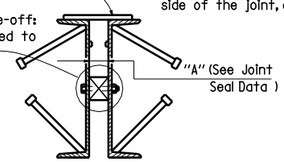
JOINT AT END BENTS

3/4" = 1'-0"

One of two different blocking systems is required depending on the type of span finishing machine that is used.

For Transverse Strike-off: Plate, Angle, or other shapes, attached to Channels (or Angles) for Blocking

For Longitudinal Strike-off: Bolt & spacer attached to channels for blocking

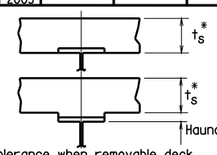


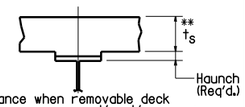
Note: Blocking Detail shown for Joint at Int. Bent. Joint at End Bent is similar.

DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

1 1/2" = 1'-0"

Note: Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension "A", and the blocking details shall be shown on the Shop Drawings. The blocking shall not be removed until the Slab on one side is complete. Blocking shall be placed within 2 feet of each end of the device and with a maximum spacing of 8 feet. Removal shall be just before or after pouring the second side of the joint, as directed by the Engineer.





DETAIL A

DETAIL B

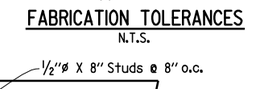
Note : t_s=slab thickness as shown on superstructure detail drawings.

Use Detail A unless superstructure detail drawings specify otherwise. Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance : Minimum - occurs when top flange contacts bottom reinforcing steel; Maximum - top flange thickness plus 1 3/4". No increase in concrete and structural steel quantities will be made to maintain tolerances.

ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED

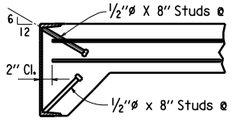
N.T.S.

Tolerances shown are applicable only when removable deck forming is used. See Std. Dwg. No. 14991 for tolerances when permanent steel deck forms are used." Payment for concrete shall be based on removable deck forming.



FABRICATION TOLERANCES

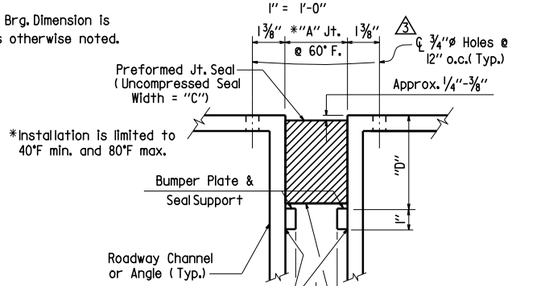
N.T.S.



Note: As an alternate to 5/8"ø studs, 1/2"ø x 8" studs spaced as shown may be used. Use weight of 5/8"ø stud as basis of measurement of structural steel in anchors.

DETAILS OF ALTERNATE ANCHORS

1" = 1'-0"



DETAIL OF JOINT SEAL & SUPPORT

N.T.S.

Note: The Seal shall be in one piece (without splices) for the full length of the Joint, except that lengths 55 feet and longer may have a factory made splice. Splices, when required, shall be shown on the Shop Drawings and shall be placed near the high ends of the Roadway. Separation of the Splice during Installation shall be cause for rejection of the Seal.

GENERAL NOTES

2 Governing specifications are the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition) with applicable supplemental specifications and special provisions. Unless otherwise noted, references to Section and subsection numbers in the plans refer to the Construction Specifications.

All concrete shall be Class S(AE) and shall be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted. Concrete for span lengths thru 50 feet shall be poured in one continuous operation with a strike off extending over the whole span length. Spans over 50 feet in length may be poured in increments with the center one-third to one-half span length poured first, after which, not less than 72 hours shall elapse before pouring the end sections. End sections may be poured simultaneously. If not poured simultaneously, 48 hours shall elapse between end section pours. A minimum of 72 hours shall elapse between completion of the slab and the pouring of the parapet railing or curb. Concrete shall be placed and consolidated for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

The bridge deck shall be given a tine finish as specified for final finishing in subsection 802.19 for a Class 5 Tined Bridge Roadway Surface Finish.

Reinforcing steel shall conform to AASHTO M31 or M53, GR 60. The reinforcing is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item "Reinforcing Steel - Bridge".

All structural steel shall be AASHTO M270, GR. 36 unless otherwise noted.

All structural steel except AASHTO M270, GR. 50W and galvanized steel shall be painted. Painting shall conform to subsection 807.75 unless span details or applicable special provisions note otherwise.

All longitudinal beams and cover plates are considered main load carrying members. All welding shall conform to subsection 807.26. Welded connections shall be 5/16" fillet shop welds unless otherwise noted. All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If the contractor or erector should want to make additional welds, whether temporary or permanent, he shall submit detailed drawings with formal request to the Bridge Engineer of the Arkansas State Highway and Transportation Department for approval.

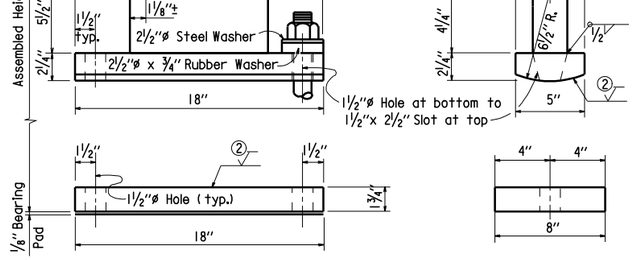
All stud shear connectors shall be granular flux filled, solid fluxed, or equal, and shall be automatically end welded in accordance with recommendations of the manufacturer.

Field connections shall be bolted with 3/4" high strength bolts. Unless otherwise noted, bolt holes shall be 15/16"ø except that 15/16"ø holes may be used for connection of expansion devices, diaphragms, and end struts if a washer is used under both the nut and head of the bolt.

Diaphragms shall be installed as beams are erected and shall be completely bolted prior to pouring of the concrete deck.

Bearings shall be seated in accordance with subsection 807.66. This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before any fabrication is begun. Structural shapes of equal or greater strength may be substituted for shapes shown if approval is obtained from the bridge engineer. Payment will be made on the basis of shapes shown.



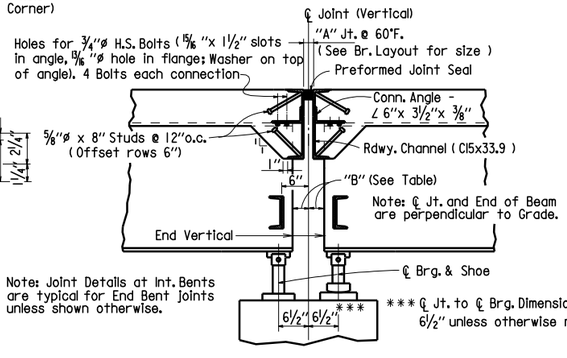
① Finish to ANSI 0.12 mils (RMS)
② Finish to ANSI 0.24 mils (RMS)

TYPE "D" EXPANSION SHOE

MAXIMUM LOAD = 135 K

JOINT AT INTERMEDIATE BENTS

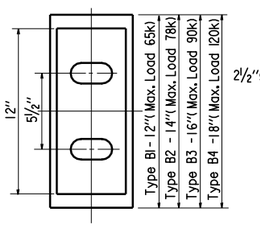
3/4" = 1'-0"

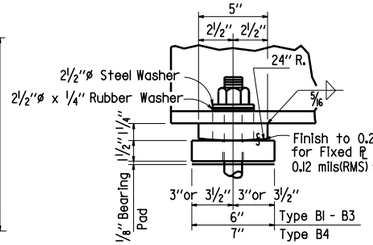


JOINT SEAL DATA

"A" Joint Width Perpendicular To Joint @ 60°F*	"B" Perpendicular To Joint	"C" Uncompressed Seal Width	"W" Width Between Plates	Bumper Plate Size
1"	1 3/4"±	**1 5/8"	1/4"	1"x 3/8"
1 1/8"	1 7/8"±	1 3/4"	3/8"	1"x 3/8"
1 1/4"	1 7/8"±	2"	1/2"	1"x 3/8"
1 5/8"	2 1/8"±	2 1/2"	5/8"	1"x 1/2"
1 7/8"	2 1/4"±	3"	5/8"	1"x 5/8"
2 1/4"	2 3/8"±	3 1/2"	3/4"	1"x 3/4"
2 5/8"	2 5/8"±	4"	7/8"	1"x 7/8"

*Installation is limited to 40° F. min. and 80° F. max.
**1 3/4" Seal may be used.



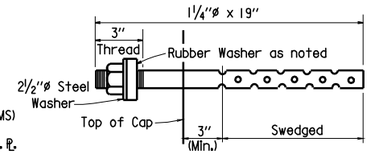


FIXED SHOE: 1 1/2"ø Holes in Sole Plate, Masonry Plate & Beam Flange.
EXPANSION SHOE: 3"x 1/2" Slot in Sole Plate & Beam Flange; 1 1/2"ø Holes in Masonry Plate.

TYPE "B" FIXED OR EXP. SHOE

Use For End Bents: All Spans Unless Otherwise Noted.
Use For Int. Bents: Thru 60' Spans Unless Otherwise Noted.

NOTE: Plates for Type "B" & "D" Shoes must be M270, GR. 50W if W-Beams are M270, GR. 50W. Shoe Plates may be Grade 36, 50, or 50W for other applications. Shoe Plates shall be painted when used with painted W-Beams.



ANCHOR BOLT DETAIL

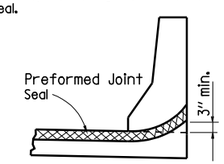
N.T.S.

Note: Anchor Bolt, Nut and Washer to be according to subsection 807.07. Indentations shall be circular with rounded bottoms and staggered as shown above. Rubber washer shall be closed cell expanded rubber, meeting the requirements of ASTM D1056 - 85 2B2 E2, and shall be considered subsidiary to the item of Structural Steel.

TABLE FOR WELD

Material Thickness Of Thicker Part Joined (Inches)	Minimum Size Of Fillet Weld (Inches)	Single Pass Weld Must Be Used
To 3/4" Inclusive	1/4"	
Over 3/4"	5/16"	

Note: When a fillet weld size, as shown on the Plans, is larger than the minimum, the First Pass shall be that specified for mimimum size of fillet weld.



JOINT SEAL PLACEMENT AT CURB

N.T.S.

2 Revised for 2003 AHTD Construction Specifications and CPB Seal. MJT 04-10-2003
Chk'd. By: CJF 04-10-2003
3 Revised Vent Holes in Joint Armor & Added hand Packing Note JMW 03-31-2005
Chk'd. By: CSL 03-31-2005
1 Revised and redrawn MJT 09-28-2000
Chk'd. By: JGT 09-28-2000

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

DETAILS COMMON TO STANDARD COMPOSITE W-BEAM SPANS ALL ROADWAYS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 09-28-2000 FILENAME: BI4990H.STD
CHECKED BY: JGT DATE: 09-28-2000 SCALE: 3/16" = 1" or as noted
DESIGNED BY: STD. DATE: —

BRIDGE NO. DRAWING NO. 14990H