



Standard Drawing Guidance  
(do not show on plans):  
THIS DRAWING FOR USE WITH  
OFF-SYSTEM PROJECTS ONLY.  
This system meets TL-2  
bridge barrier railing  
requirements.

GENERAL NOTES:  
Design Specifications: AASHTO-1996 and Interims thru 1999  
Panel lengths of channel members shall be attached  
continuously to a minimum of four posts and a maximum of six  
posts (except at end bents).

All bolts, nuts, washers, plates and elastomeric materials are  
considered as parts of the thrie beam rail for payment.  
All steel connecting bolts and fasteners for posts and  
railing, and all anchor bolts, nuts, washers and plates shall  
be galvanized after fabrication. For protective coating and  
the Missouri Standard Specifications.

Rail posts shall be set perpendicular to roadway profile grade  
and vertically in cross section, and aligned according to  
Section 713 of the Missouri Standard Specifications, except  
that the rail posts shall be aligned by the use of shims so  
that in the final adjustment no part shall deviate more than  
one inch from true horizontal alignment. The shims shall be  
3" x 1/4" and placed between the post and the thrie beam  
rail. The thickness of the shims shall be determined by the  
contractor and verified by the engineer before ordering  
material for this work.

Rail posts shall be seated on elastomeric pads having the same  
dimensions as the post base plate and 1/16" thickness. Such  
pads may be any elastomeric material, plain or fibered, having  
a hardness (Durometer) of 50 or above, as certified by the  
manufacturer. Additional pads or half pads may be used in  
shimming for alignment. Post heights shown will increase by  
the thickness of the pad. At the expansion joints in the thrie  
beam rails and channels, tighten bolts, back off one-half turn  
and burr threads.

At the expansion joints in the thrie beam rails and channels,  
tighten bolts, back off one-half turn and burr threads.  
At the thrie beam connection to posts on wings, tighten bolts,  
back off one-half turn and burr threads.

Minimum length of thrie beam sections is equal to one post  
space.

Use 5/8" Ø button-head, oval shoulder bolts with hex nuts at  
all slots (Thickness of hex nuts = 3/8" Min.).

Thrie beam guardrail on the bridge shall be made of steel and  
shall be 12 Gage.

Posts, top plates, base plates, channels and channel splice  
plates shall be fabricated from ASTM A709 Grade 36 steel and  
galvanized.

Threaded rods Grade A-321 with 2 hex nuts and washers may be  
substituted for the A-307 anchor bolts.

Each of the three (3) shorter anchor bolts shall be furnished  
with a 1/4" x 1/2" plate (ASTM A709 Grade 36) tack  
welded to the head of the bolt; or, at the contractor's  
option, one plate 1/4" x 2 1/2" x 12" continuous for all three  
bolts may be used.

Washers shall be used at all post bolts (between the bolt head  
and beam). They shall be rectangular in shape (3" x 1 3/4" x  
3/16" Min.) and slot with a 11/16" x 1" slot, or when  
necessary of such design as to fit the contour of the beam.  
(Use a 3" x 1 3/4" x 5/8" rectangular washer between the post  
and the thrie beam rail.)

Special drilling of the thrie beam may be required at the  
splices. (All drilling details are to be shown on the shop  
drawings.)

Fabrication of structural steel shall be in accordance with  
Section 712 of the Missouri Standard Specifications.

Expansion splices in the thrie beam rail and the channel shall  
be provided at locations so that the maximum length without  
expansion provisions does not exceed 200 ft.

Shim plates 6" x 6" x 1/16" may be used between the top of the  
post and the channel member as required for vertical alignment.  
See slab sheet for rail post spacing.

See Missouri Standard Plans Drawing 606.00 for details not  
shown.

"THIS MEDIA SHOULD  
NOT BE CONSIDERED  
A CERTIFIED  
DOCUMENT."

DATE PREPARED	5/17/2012
ROUTE	* MO
DISTRICT	BR
COUNTY	*
JOB NO.	*
CONTRACT ID.	*
PROJECT NO.	
BRIDGE NO.	THBOS3

DESCRIPTION	
DATE	

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
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JEFFERSON CITY, MO 65102	
1-888-ASK-MODOT (1-888-275-6636)	

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Detailed  
Checked

Note: This drawing is not to scale. Follow dimensions.

Sheet No. of