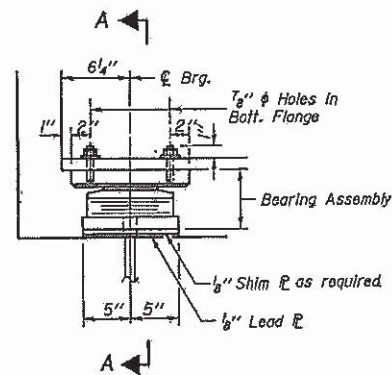
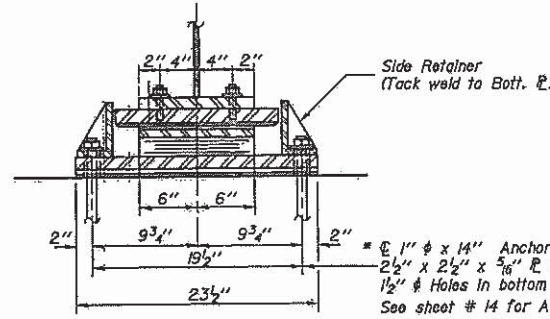


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
745	109 BR	45	24

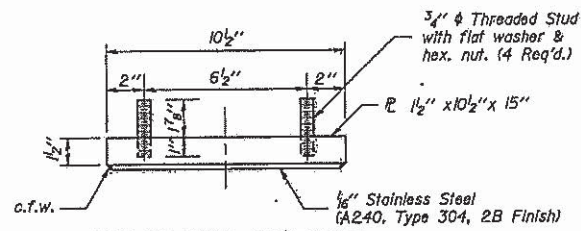


ELEVATION AT ABUTS

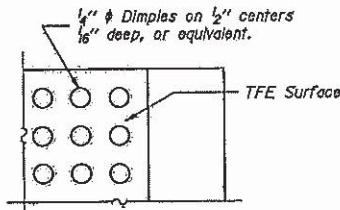


SECTION A-A

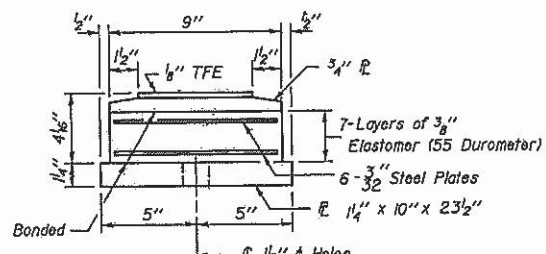
TYPE II TFE ELASTOMERIC EXP. BRG.



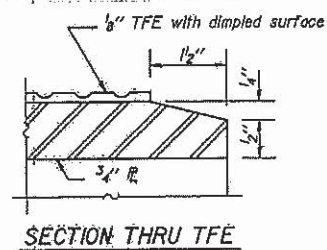
TOP BEARING ASSEMBLY



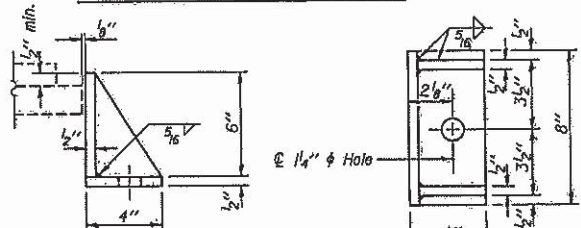
PLAN-TFE SURFACE



BOTTOM BEARING ASSEMBLY

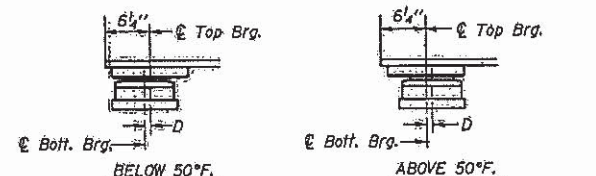


SECTION THRU TFE



SIDE RETAINER

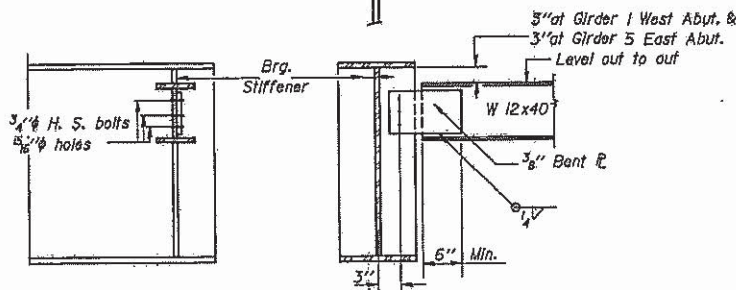
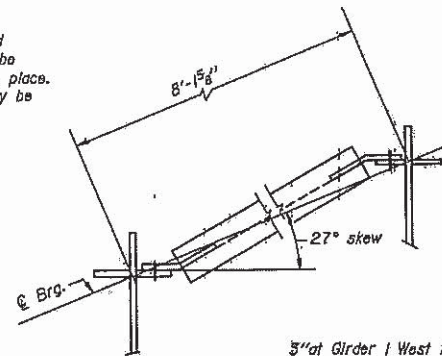
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SETTING ANCHOR BOLTS AT EXP. BRG.

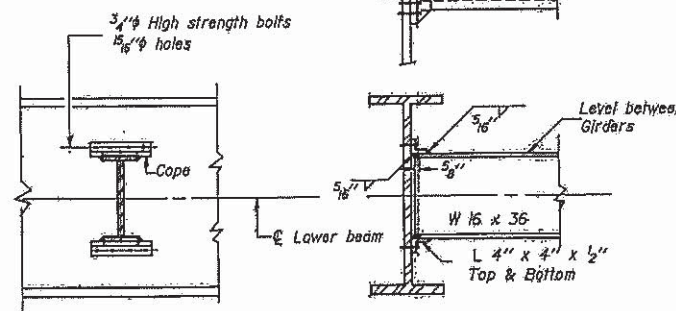
$D = \frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

Note: After girders have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.



DIAPHRAGM D

8 Required



DIAPHRAGM D1

188 Required

INTERIOR GIRDER MOMENT TABLE

		4Sp.1	5Sp.2	Pier 2	5Sp.3	Pier 3	5Sp.4	Pier 4	6Sp.5
$I_s$	in <sup>4</sup>	10926	15254	1161	18223	10926	18223	10926	16730
$I_c$	in <sup>4</sup>	27956	-	30243	-	27956	-	27956	30243
$S_s$	in <sup>3</sup>	502	689	553	814	502	814	502	752
$S_c$	in <sup>3</sup>	713	-	779	-	713	-	713	779
$I_c$	in <sup>4</sup>	.868	1.192	.868	1.192	.868	1.192	.868	1.192
$S_c$	in <sup>3</sup>	315	1043	389	1243	336	1202	349	1194
$S_c$	in <sup>3</sup>	324	-	324	-	324	-	324	-
$M_s$	in <sup>4</sup>	142	-	205	-	179	-	191	-
$M_s$	in <sup>4</sup>	631	526	770	656	755	659	755	585
$M_s$	in <sup>4</sup>	156	121	165	141	162	142	162	132
$M_s$	in <sup>4</sup>	1312	1078	1558	1328	1528	1335	1528	1195
$M_s$	in <sup>4</sup>	2300	2757	2798	3342	2656	3298	2688	3106
$f_s$ (Total)	ksi	7.5	18.2	8.4	18.3	8.0	17.7	8.3	19.1
$f_s$ (Overload)	ksi	2.4	-	3.2	-	3.0	-	3.2	-
$f_s$ (Total + Overload)	ksi	22.1	18.8	24.0	19.6	25.7	19.7	25.7	19.1
$f_s$ (Total)	ksi	32.0	37.0	35.6	37.9	36.7	37.4	37.2	38.2
$f_s$ (Overload)	ksi	41.6	48.1	46.3	49.3	47.7	48.6	48.4	49.7
$f_s$ (Total)	ksi	56.5	65.5	63.9	67.2	64.4	65.8	65.6	67.9

$M_s$  (Applied Moment) =  $1.3 (M_s + M_s + \frac{1}{3} M_s + I)$   
 $I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total and Overload).  
 $I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  (Total and Overload).  
 $V_r$  is the maximum  $\frac{1}{2}$  + impact shear range in span.  
 $f_s$  (Total) is the sum of the stresses due to  $1.3 (M_s + M_s + \frac{1}{3} M_s + I)$ .  
 $f_s$  (Overload) is the sum of the stresses due to  $M_s + M_s + \frac{1}{3} M_s + I$ .

INTERIOR GIRDER REACTION TABLE

	W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	E. Abut.
$R_B + S_B$	33.2	122.4	131.0	128.4	130.4	39.0
$R_E$	40.8	65.1	68.5	68.3	65.7	34.5
$R_{W.B.}$	10.0	14.5	14.7	14.7	14.8	8.1
$R$ Total	84.0	200.0	214.2	211.4	210.9	81.6

TOP OF WEB ELEVATIONS

LOCATION	1	2	3	4	5
Brig. W. Abut.	453.52	453.69	453.84	453.77	453.67
Brig. Pier 1	454.19	454.35	454.50	454.42	454.33
Splice 1	454.36	454.52	454.67	454.59	454.50
Brig. Pier 2	455.03	455.18	455.31	455.22	455.11
Splice 2	455.21	455.36	455.49	455.39	455.28
Brig. Pier 3	455.33	455.46	455.57	455.45	455.32
Splice 3	455.37	455.49	455.59	455.47	455.34
Brig. Pier 4	454.96	455.06	455.15	455.01	454.86
Splice 4	454.86	454.96	455.04	454.89	454.74
Brig. E. Abut.	454.44	454.54	454.62	454.48	454.32

BEARINGS AND STRUCTURAL STEEL DETAILS  
 F.A.P. RTE. 745 SECTION 109 BR  
 PIKE COUNTY  
 STA. 2257 + 40.00

DESIGNED: *Ramon Balboa*  
 CHECKED: *Kemp C. Carter*  
 DRAWN: *F. Mercado*  
 CHECKED: *KDC*

EXAMINED: *James J. Reynolds*  
 PASSED: *[Signature]*  
 APPROVED: *[Signature]*

OCT 4 1983

I-2-E2 4-1-79