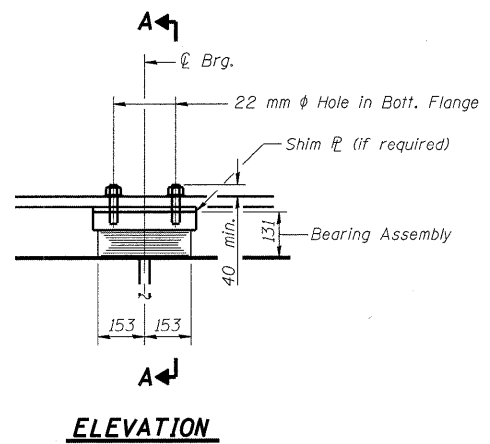
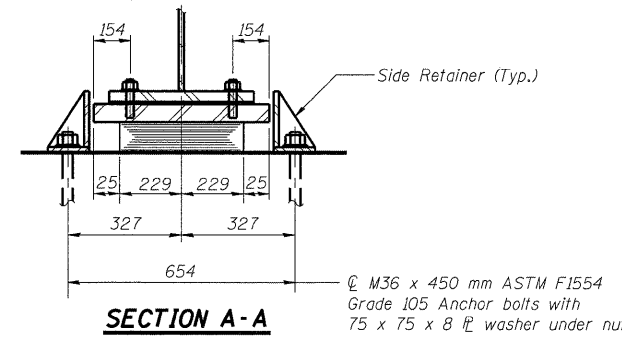


5/7/2009 10:52:12 AM  
 ps:\00\files\000024\Railroad-Bridge-SNG\060-0311\Bearings.dgn

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 27
310	*	MADISON	149	94	45 SHEETS
Contract #76634 * 60-15VB-1 & 2					

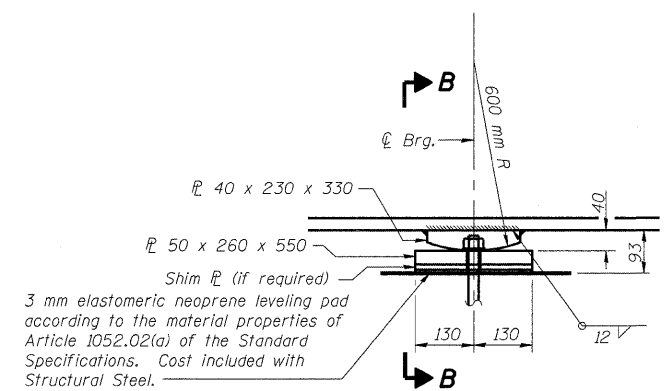


**ELEVATION**

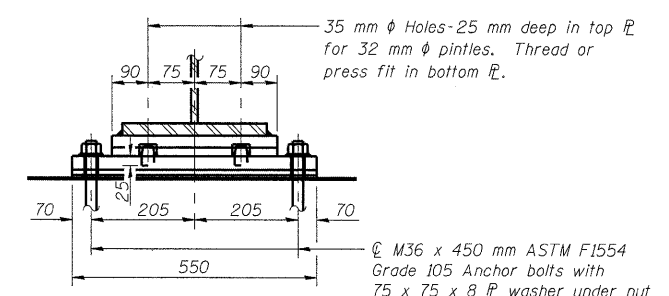


**SECTION A-A**

**TYPE I ELASTOMERIC EXP. BRG. - PIER #2**



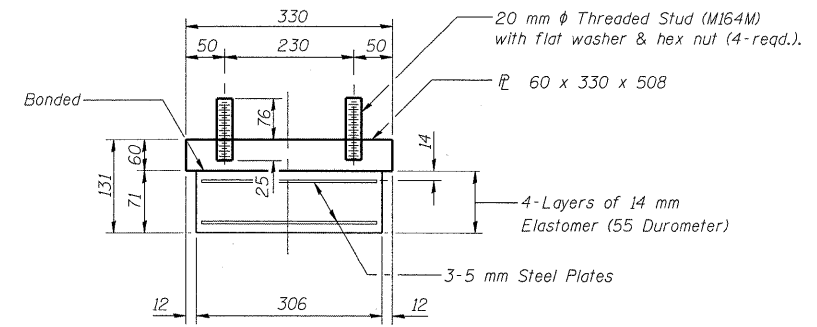
**ELEVATION**



**SECTION B-B**

**FIXED BEARING - PIER #1**

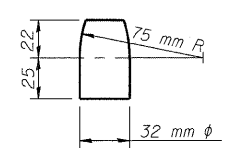
(11-Req'd)



**BEARING ASSEMBLY - PIER #2**

(11-Req'd)

Note: Shim plates shall not be placed under Bearing Assembly.

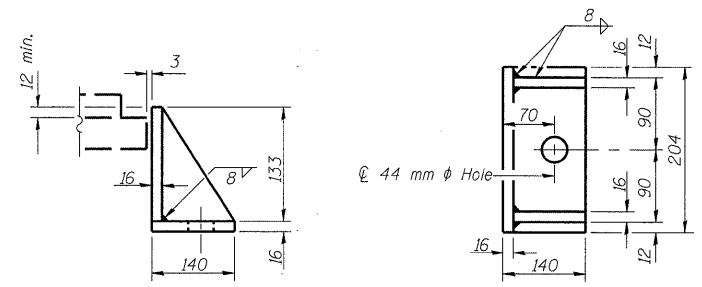


**PINTLE**

(22-Req'd)

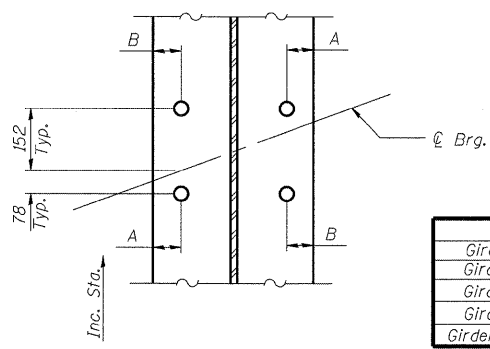
**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	22
Elastomeric Bearing Assembly Type II	Each	9
Anchor Bolts 24 mm φ	Each	40
Anchor Bolts 36 mm φ	Each	44



**SIDE RETAINER - PIER #2**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (22-Req'd)



**BOTTOM FLANGE HOLE DETAIL - PIER #2**

	A	B
Girder 1	65	37
Girder 2	61	40
Girder 3	57	43
Girder 4	54	47
Girders 5-11	50	50

Notes:  
 See Sheet #26 of 45 for Bearings at East and West Abutments.  
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. Since there is no metric specification for ASTM F1554 the anchor bolt requirements are given in English units.  
 Anchor bolts of fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
 Anchor bolts for side retainers of Type I bearings may be cast in place or installed in holes drilled before or after members are in place.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I and Type II.  
 The 3 mm PTFE 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 3 mm PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.  
 The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270M Grade 345.

(Sheet 2 of 2)

**BEARING DETAILS**  
**FAP RTE. 310 (IL RTE. 255) SB & RAMP D OVER**  
**UNION PACIFIC & KANSAS CITY SOUTHERN R.R.**  
**SECTION 60-15VB-1 & 2**  
**MADISON COUNTY**  
**STATION 39+160.297**  
**STRUCTURE NUMBER 060-0311**

Klingner & Assoc., P.C.

DESIGNED	ADL
CHECKED	WLW
DRAWN	RJP
CHECKED	WLW