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- 2. GENERAL NOTES
- 3. SUMMARY OF QUANTITIES
- 4. TYPICAL SECTIONS
- 5-7. STRUCTURE DETAILS

**STANDARDS**

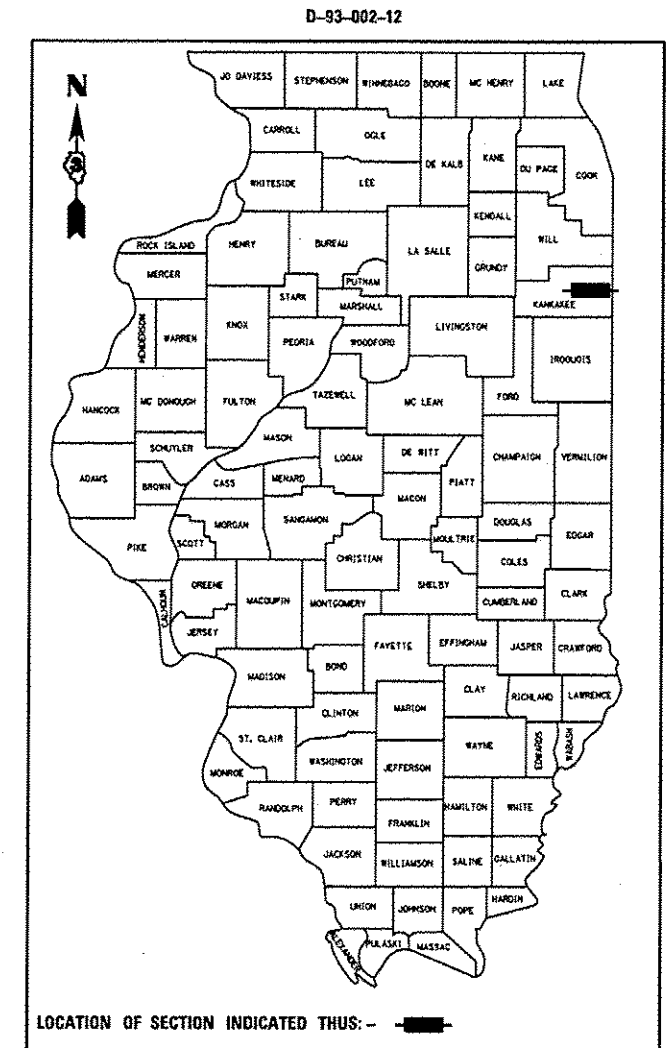
- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 202001-01 EARTH MEDIAN DITCH CHECK
- 701101-02 OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
- 701421-04 LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
- 701901-02 TRAFFIC CONTROL DEVICES

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**  
**FAP ROUTE 330 (IL 17)**  
**SECTION (1R-B)I-4**

**STRUCTURE NO'S 046-0039 (EB) & 046-0040 (WB)**  
**CARRYING FAP ROUTE 330 (IL 17)**  
**OVER THE KANKAKEE RIVER**  
**4.4 MILES EAST OF KANKAKEE**  
**KANKAKEE COUNTY**

C-93-146-12

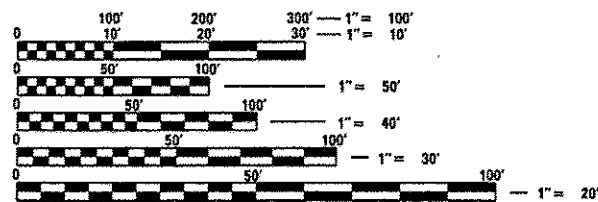
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(1R-B)I-4	KANKAKEE	7	1
ILLINOIS			CONTRACT NO. 66C46	



**PROJECT LOCATION**

**STRUCTURE NO. 046-0039 (EB)**  
**STA. 226 + 30.44 TO STA. 229 + 71.96**

**STRUCTURE NO. 046-0040 (WB)**  
**STA. 226 + 49.94 TO STA. 229 + 91.46**



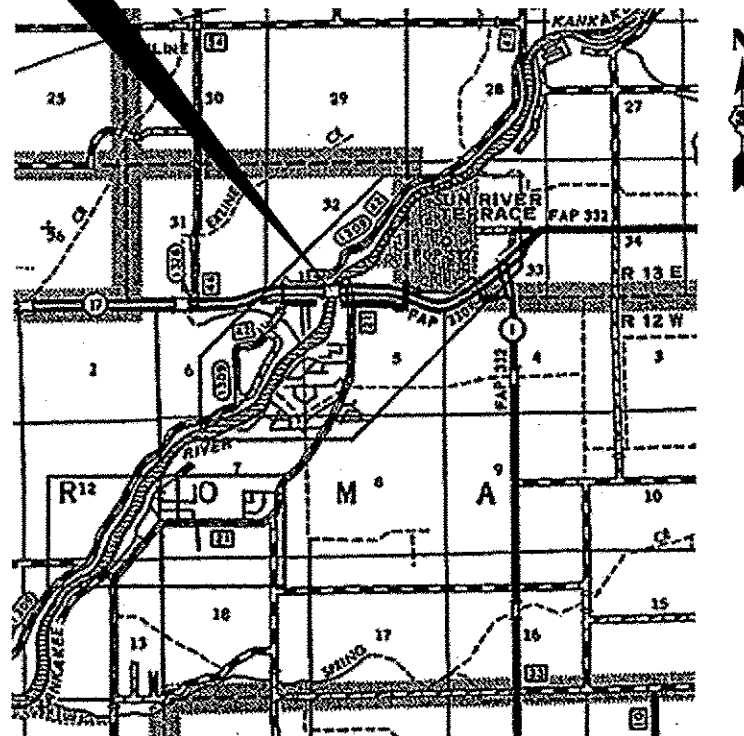
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
 1-800-892-0123  
 OR 811

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: JOE KANNEL P.E.  
 UNIT CHIEF: RON WOODSHANK  
 TOWNSHIP: AROMA

CONTRACT NO. 66C46



PPOINT LOCATION

RURAL	
OPA	
FAP 330 (IL 17)	
2011	
ADT	10700
P.V.	84.58%
S.U.	6.54%
M.U.	8.88%

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED 8-27-2012

*[Signature]*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 5 2012  
*John D. Baranzelli P.E./a*  
 acting ENGINEER OF DESIGN AND ENVIRONMENT

October 5 2012  
*William R. Frey/ea*  
 acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY**  
**OF THE STATE OF ILLINOIS**

GENERAL NOTES

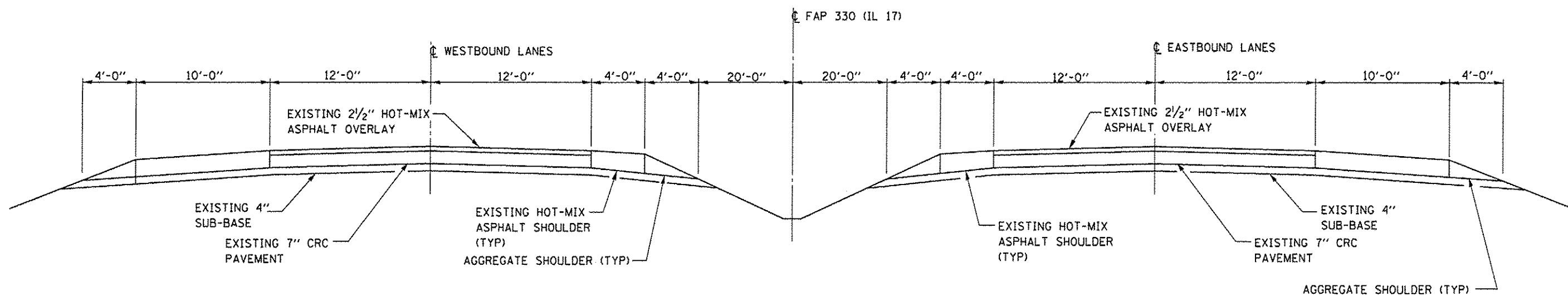
ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

COMMITMENTS

DATE: 8-27-12  
 PREPARED BY: [Signature]  
 DISTRICT STUDIES & PLANS ENGINEER  
 EXAMINED BY: [Signature]  
 DISTRICT CONSTRUCTION ENGINEER  
[Signature]  
 DISTRICT MATERIALS ENGINEER  
[Signature]  
 DISTRICT OPERATIONS ENGINEER

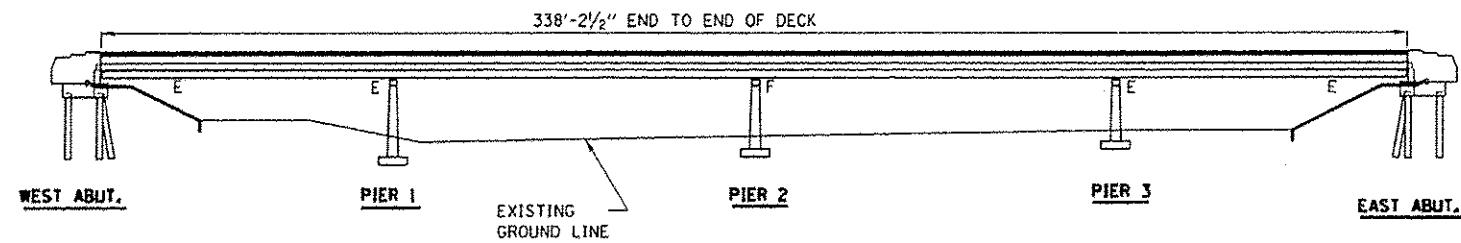
FILE NAME *	USER NAME * woodshankr1	DESIGNED - RW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\woodshankr1\d8312418\066C46-ehd-detail.dgn	DRAWN - RW	REVISED -	330			(IR-B)-4	KANKAKEE	7	2	
#MODELNAME*	PLOT SCALE * 100.0000' / 1" =	CHECKED -	REVISED -			CONTRACT NO. 66C46		ILLINOIS FED. AID PROJECT		
	PLOT DATE * 8/27/2012	DATE -	REVISED -			SCALE:	SHEET 1 OF 1 SHEETS	STA. TO STA.		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST CODE
				STATE FUNDS
				100% STATE
				STRUCTURE
				0014
				RURAL
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3235	3235
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	24	24
52100520	ANCHOR BOLTS 1"	EACH	48	48
67100100	MOBILIZATION	L SUM	1	1
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	24	24



**TYPICAL SECTION  
IL 17  
LOOKING EAST**

FILE NAME =	USER NAME = woodshankrl	DESIGNED - RW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
a:\pwork\pwork\woodshankrl\08312418\66C46-sht-details.dgn	DRAWN - RW	REVISED -	330			(IR-B)I-4	KANKAKEE	7	4	
PLOT SCALE = 1/8" = 1'-0"	CHECKED -	REVISED -	CONTRACT NO. 66C46							
#MODELNAME#	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							
				SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.			



### ELEVATION

### GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

NO FIELD WELDING IS PERMITTED EXCEPT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL PROVIDE SUPPORT AND/OR SHORING SYSTEMS FOR THE SLAB AND BEAM IN THE AREA OF EXISTING BEARING REPLACEMENT. SEE SPECIAL PROVISIONS "JACK AND REMOVE BEARING".

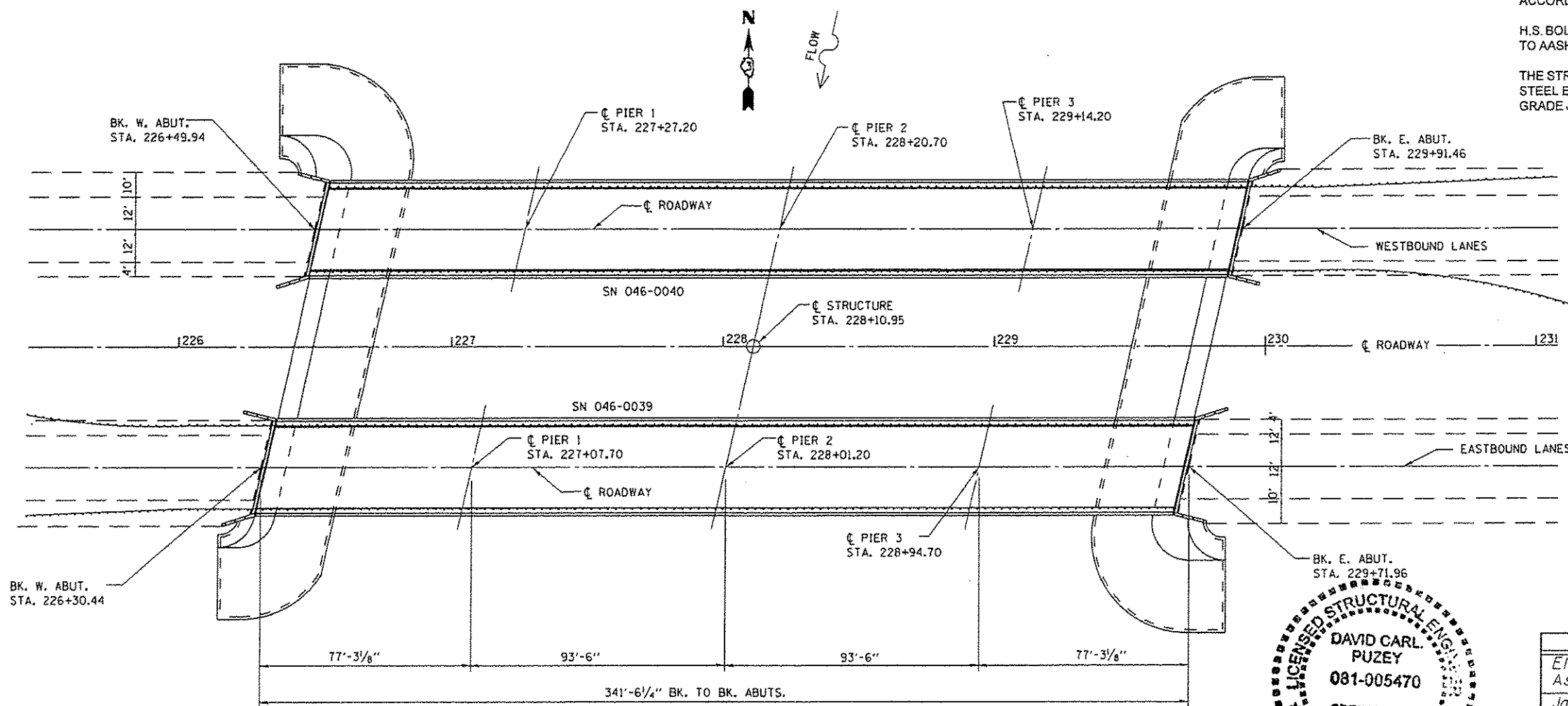
COST OF REMOVAL AND RE-INSTALLATION OF ALL MEMBERS NECESSARY TO COMPLETE THE BEARING RE-ALIGNMENT WORK AS DETAILED ON THE PLANS AND AS SPECIFIED IN THE SPECIAL PROVISIONS SHALL BE INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

TWO 1/8 IN. ADJUSTING SHIMS SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS AND PLACED AS SHOWN ON BEARING DETAILS.

ALL (EMBEDDED AND SEPARATE) BEARING PLATES, SIDE RETAINERS, ANCHOR BOLTS, NUTS, WASHERS AND PINTLES SHALL BE GALVANIZED ACCORDING TO AASHTO M111 OR M232 AS APPLICABLE.

H.S. BOLTS IN BEARING ASSEMBLY SHALL BE GALVANIZED ACCORDING TO AASHTO M298 CLASS 50.

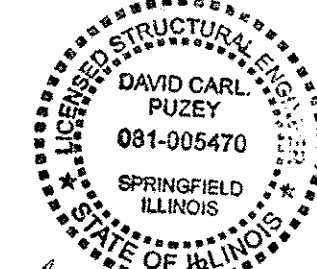
THE STRUCTURAL STEEL PLATES OF THE BEARING ASSEMBLY AND STEEL EXTENSION SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE .50.



### PLAN

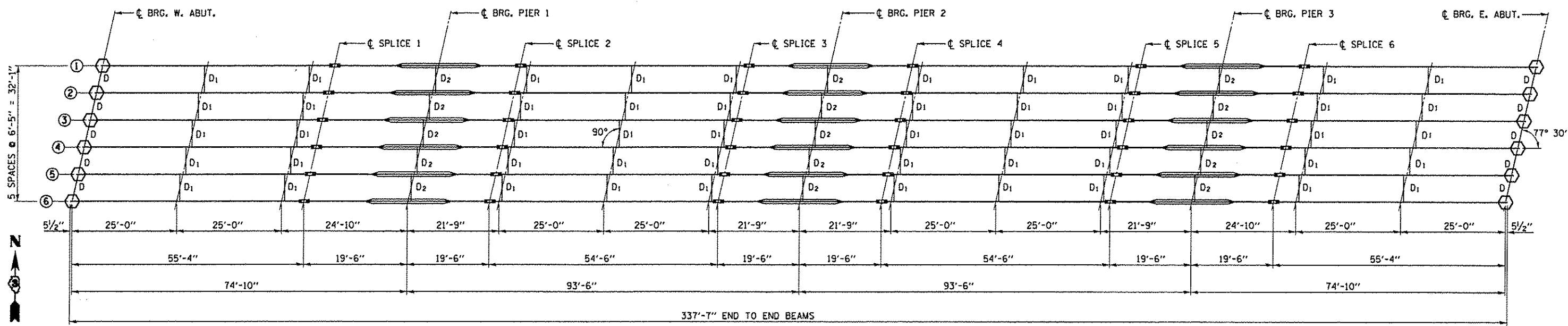
### TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Elastomeric Bearing Assembly, Type II	Each	24
Jack and Remove Existing Bearings	Each	24
Furnishing and Erecting Structural Steel	Pound	3235
Anchor Bolts 1"φ	Each	48

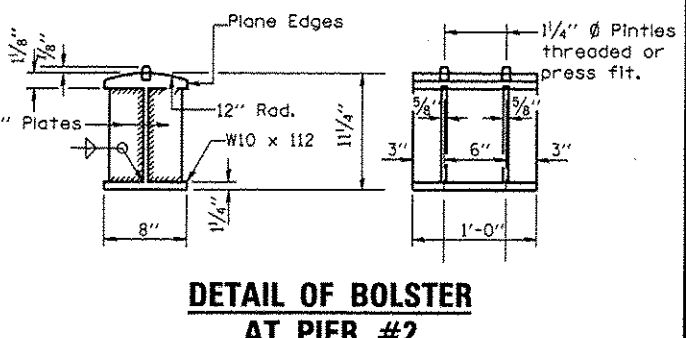
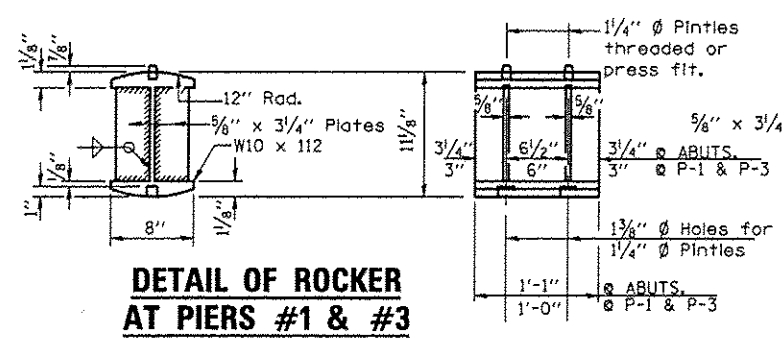
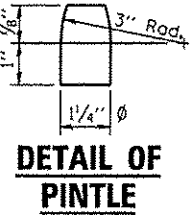
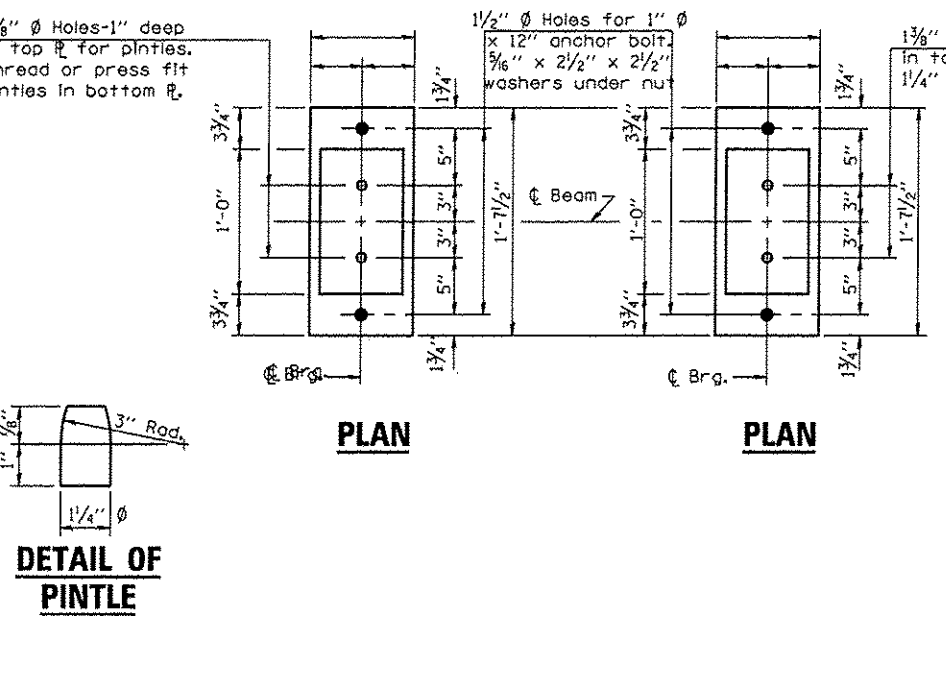
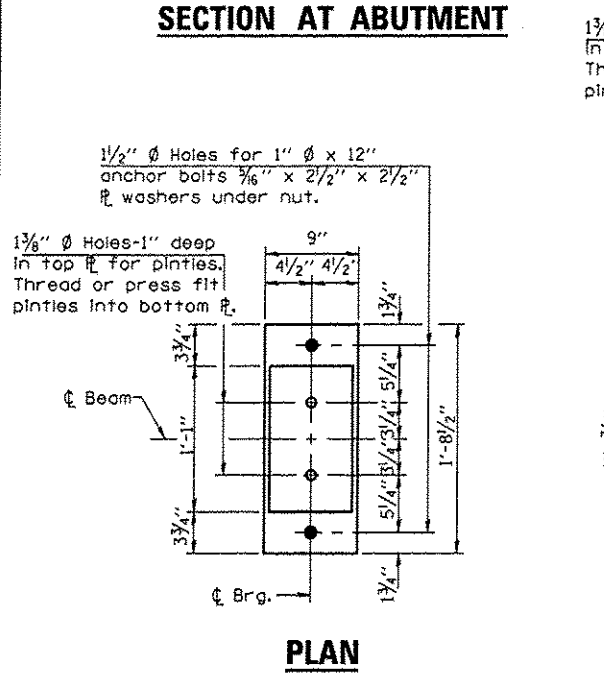
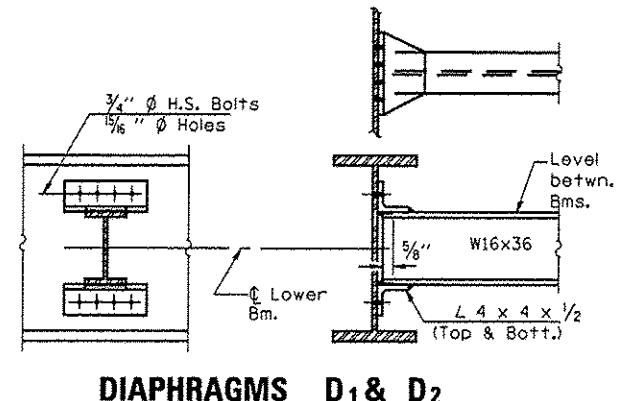
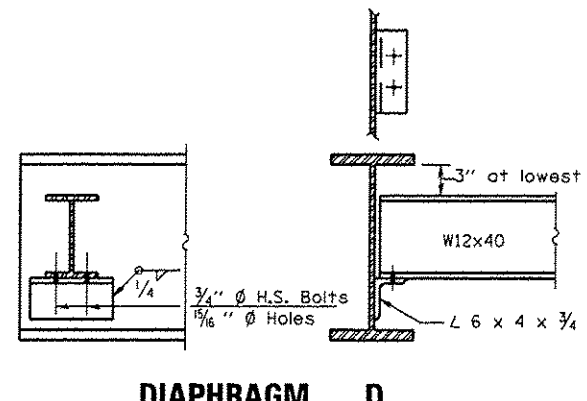
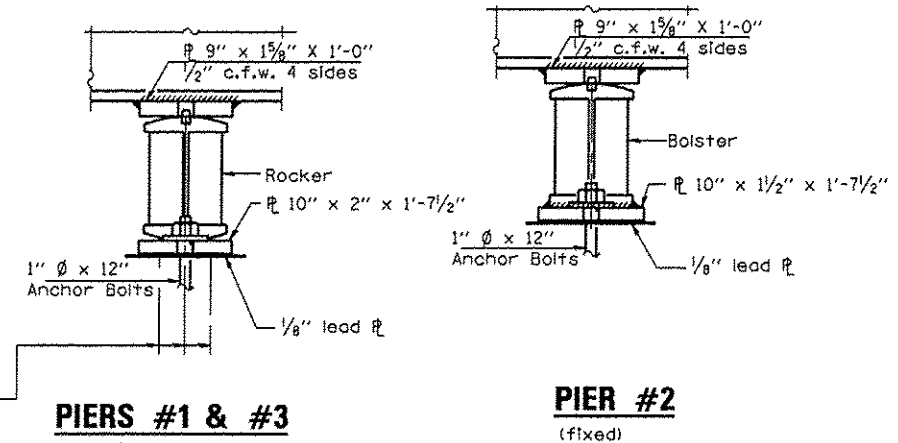
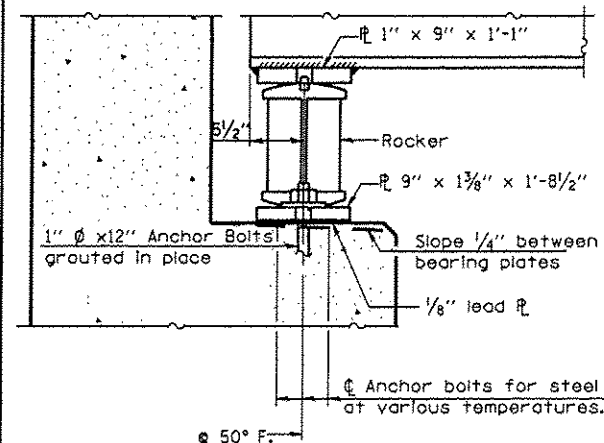


*David Carl Puzey* 9/29/12  
Expires 11/30/14

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PLOT SCALE: 1/8"=1'-0"	PLOT DATE: 8/30/2012	DRAWN - RW	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT					
MODEL NAME:		CHECKED - VP	REVISED -								
		DATE -	REVISED -								



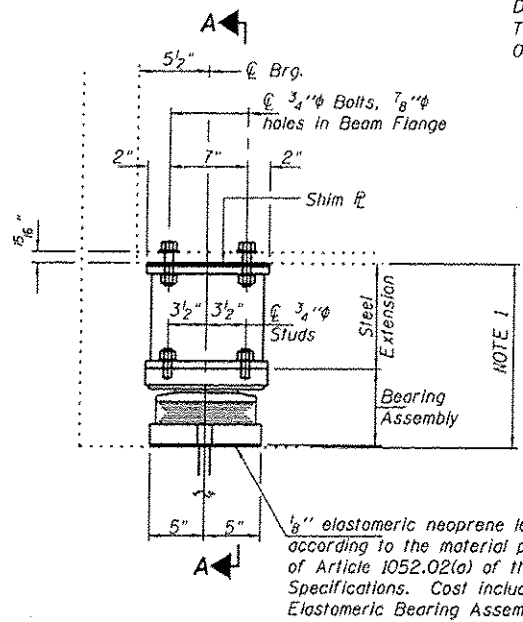
○ REMOVE AND REPLACE EXISTING STEEL ROCKERS BEARINGS WITH ELASTOMERIC BEARINGS



THIS SHEET FOR INFORMATION ONLY

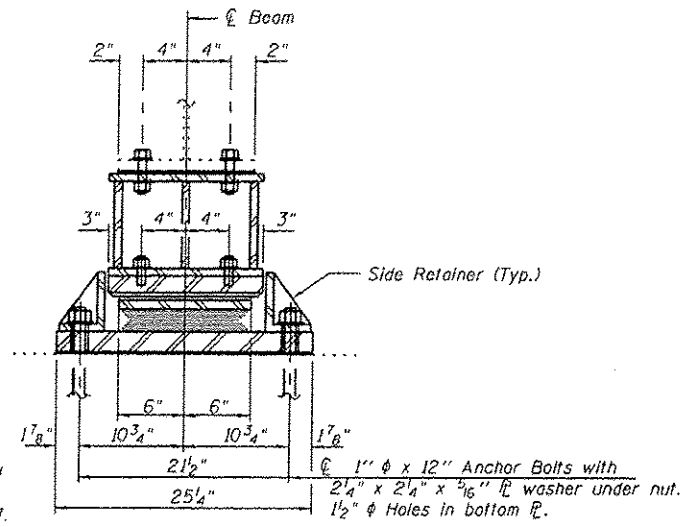
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PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -				ILLINOIS FED. AID PROJECT				
MODELNAME =	DATE -	REVISED -								

NOTE 1:  
DIMENSIONS TAKEN FROM ACTUAL FIELD MEASUREMENTS.  
THE CONTRACTOR SHALL VERIFY MEASUREMENTS PRIOR TO  
ORDERING MATERIALS FOR THE BEARING EXTENSIONS.



ELEVATION AT ABUTMENT

TYPE II TFE ELASTOMERIC EXP. BRG.

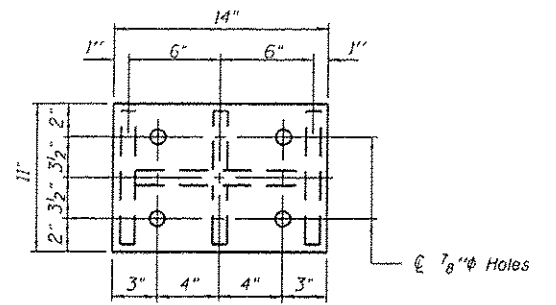


SECTION A-A

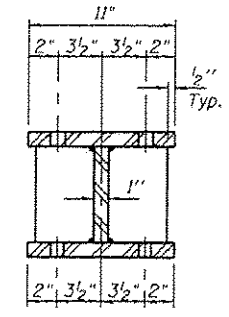
Notes:  
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
New steel extensions, shim plates and connection bolts are included where otherwise noted. The entire system shall be shop applied, with the exception, damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for all steel surfaces of the exterior fascia beams shall be Green, Munsell No. 7.5G 4/8. Cost shall be included in the unit bid price for "Furnishing and Erecting Structural Steel" or the unit bid price for Elastomeric Bearing Assembly, Type II".  
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 42 Tons.  
Anchor bolts shall be ASTM F1554 all-thread for 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.  
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.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
The 1/8" 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 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

BEAM REACTIONS

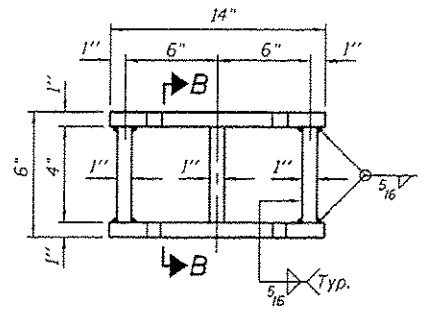
R <sub>l</sub>	(K)	32.6 kips
R <sub>t</sub>	(K)	35.8 kips
Imp.	(K)	9.0 kips
R (Total)	(K)	77.4 kips



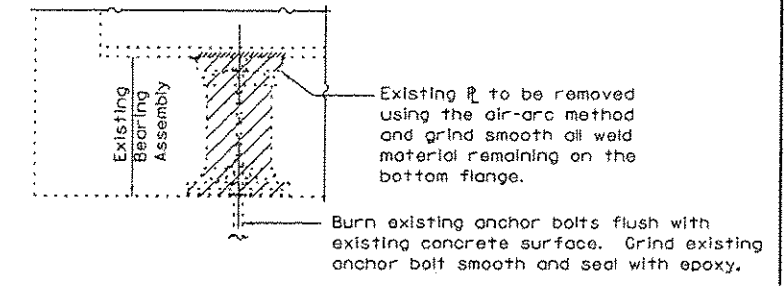
PLAN TOP AND BOTTOM PLATE



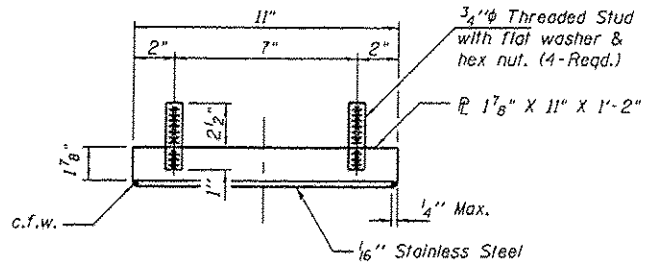
SECTION B-B



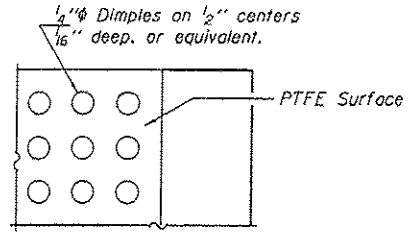
STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL



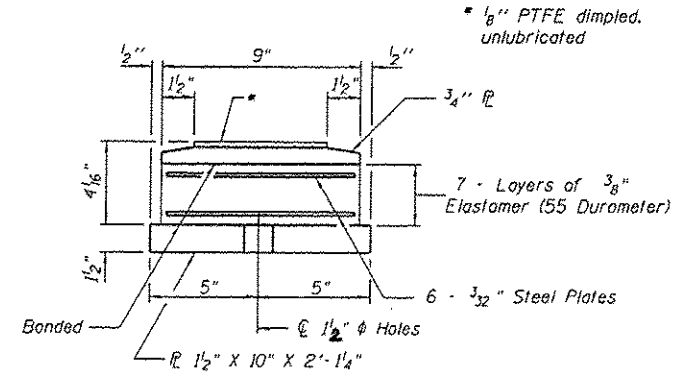
TOP BEARING ASSEMBLY



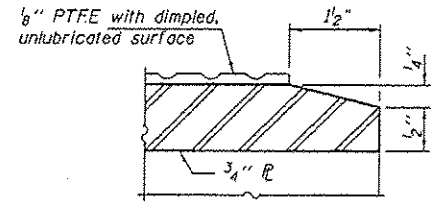
PLAN-PTFE SURFACE

SHIM "4" DIMENSIONS						
STRUCTURE NO. 046-0039 (EB)						
BEAM NO.	1	2	3	4	5	6
W. ABUTMENT	1/8"	1/2"	1/4"	3/8"	3/4"	1/2"
E. ABUTMENT	3/8"	5/8"	1/2"	0"	3/8"	3/4"

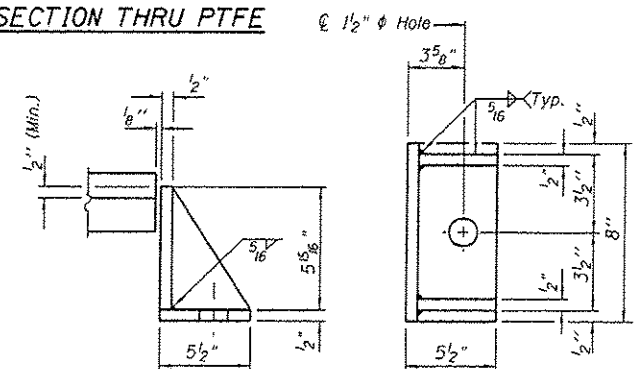
SHIM "4" DIMENSIONS						
STRUCTURE NO. 046-0040 (WB)						
BEAM NO.	1	2	3	4	5	6
W. ABUTMENT	1/2"	3/8"	1/2"	1/2"	3/4"	3/4"
E. ABUTMENT	1/4"	1/2"	0"	1/8"	3/8"	1/2"



BOTTOM BEARING ASSEMBLY

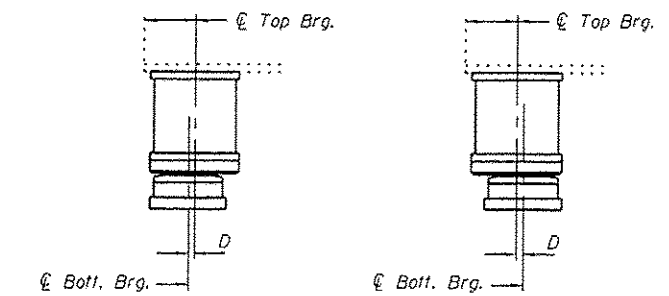


SECTION THRU PTFE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50° F. (Move bott. brg. away from fixed brg.) ABOVE 50° F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	24
Jack and Remove Existing Bearings	Each	24
Furnishing and Erecting Structural Steel	Pound	3235
Anchor Bolts 1" φ	Each	48

TYII/REPS 12-03-2008