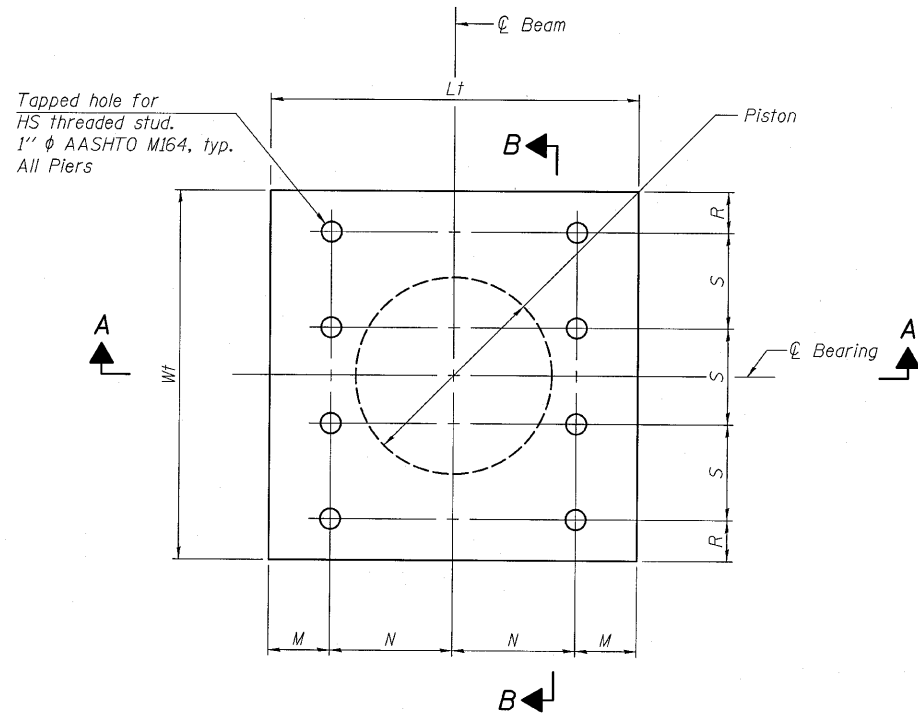
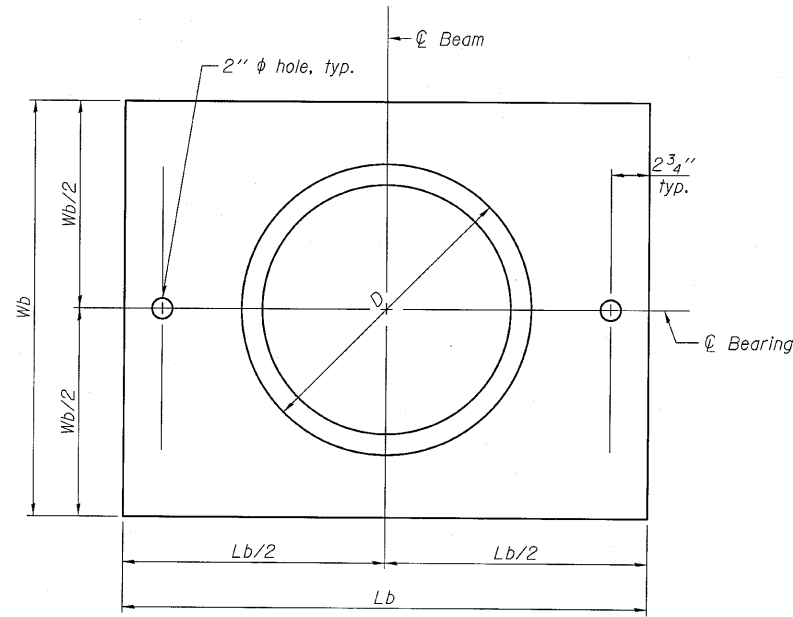


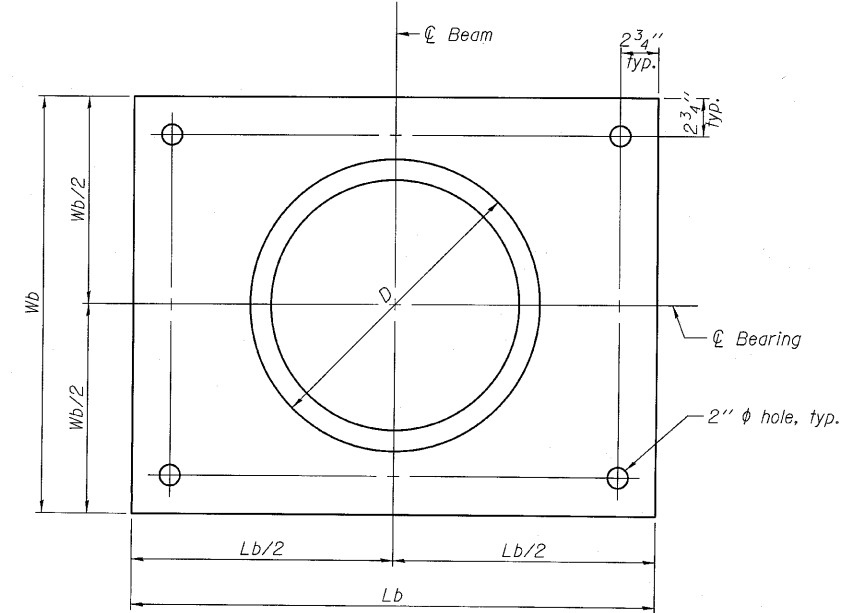
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



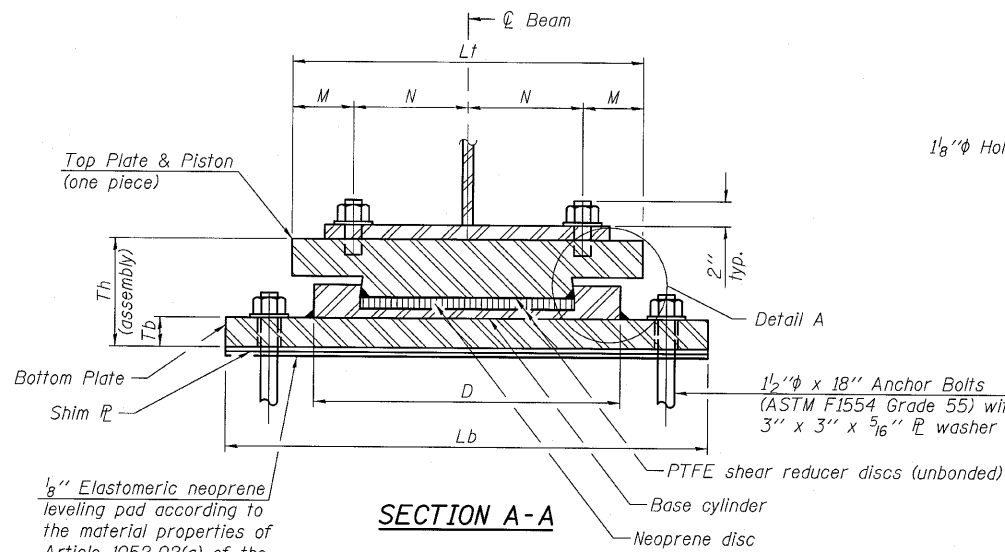
TOP BEARING PLATE AND PISTON PLAN



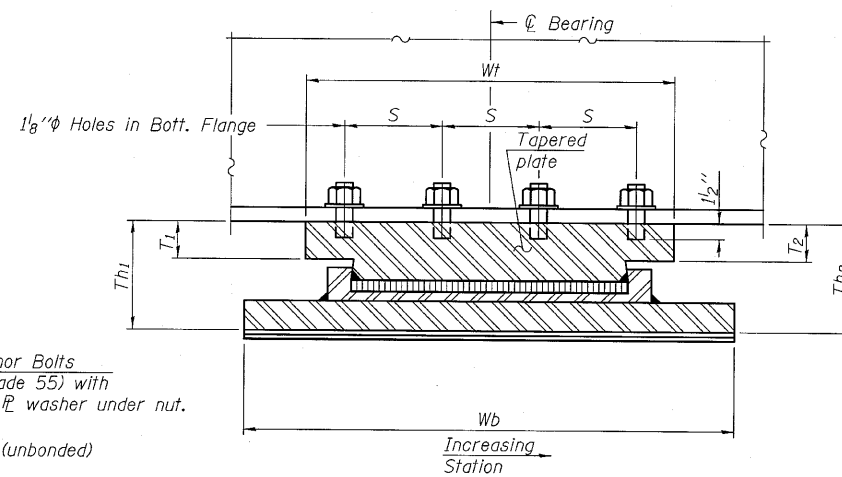
BOTTOM BEARING PLATE AND BASE CYLINDER PLAN
(Pier 1)



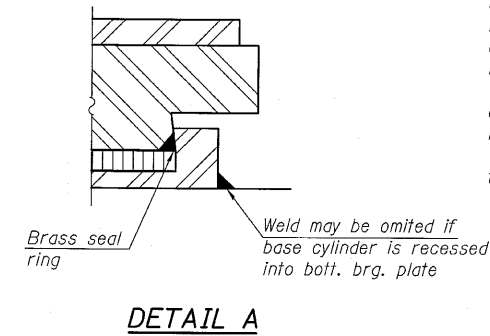
BOTTOM BEARING PLATE AND BASE CYLINDER PLAN
(Piers 2 and 3)



SECTION A-A



SECTION B-B



DETAIL A

Notes:
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50. 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.
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.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

FIXED BEARING DIMENSION TABLE

Brg. Location	Vertical Design Load (kips)	Lateral Design Load (kips)	Design Rotation (Radians)	Bottom Bearing Plate			Top Bearing Plate								Th	Th1	Th2	D
				Tb	Lb	Wb	T1	T2	Lt	Wt	M	N	R	S				
Pier 1	758	80.0	0.02	2 1/4"	35"	30"	3"	3 3/4"	24"	24"	3"	9"	3"	6"	13 3/8"	13"	13 3/4"	20"
Pier 2	1011	110.0	0.02	2 1/2"	39"	36"	3 1/2"	3 3/4"	28"	28"	3"	11"	3 1/2"	7"	14 3/8"	14 3/4"	15"	25"
Pier 3	1027	163.0	0.02	2 1/2"	39"	36"	4"	3 1/2"	28"	28"	3"	11"	3 1/2"	7"	14 3/8"	15 1/8"	14 5/8"	25"

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Fixed 800K	Each	7
High Load Multi-Rotation Bearings, Fixed 1250k	Each	14
Anchor Bolts, 1 1/2"	Each	70

HLMR BEARING DETAILS
STRUCTURE NO. 082-0038

DESIGNED JJD
CHECKED EML
DRAWN AJF
CHECKED EML

HORNER & SHIFRIN, INC.
ENGINEERS

SHEET NO. 35 48 SHEETS	F.A.P. RTE. 312	SECTION 64-1VBR	COUNTY ST. CLAIR	TOTAL SHEETS 259	SHEET NO. 87
	CONTRACT NO. 76882				
ILLINOIS FED. AID PROJECT					