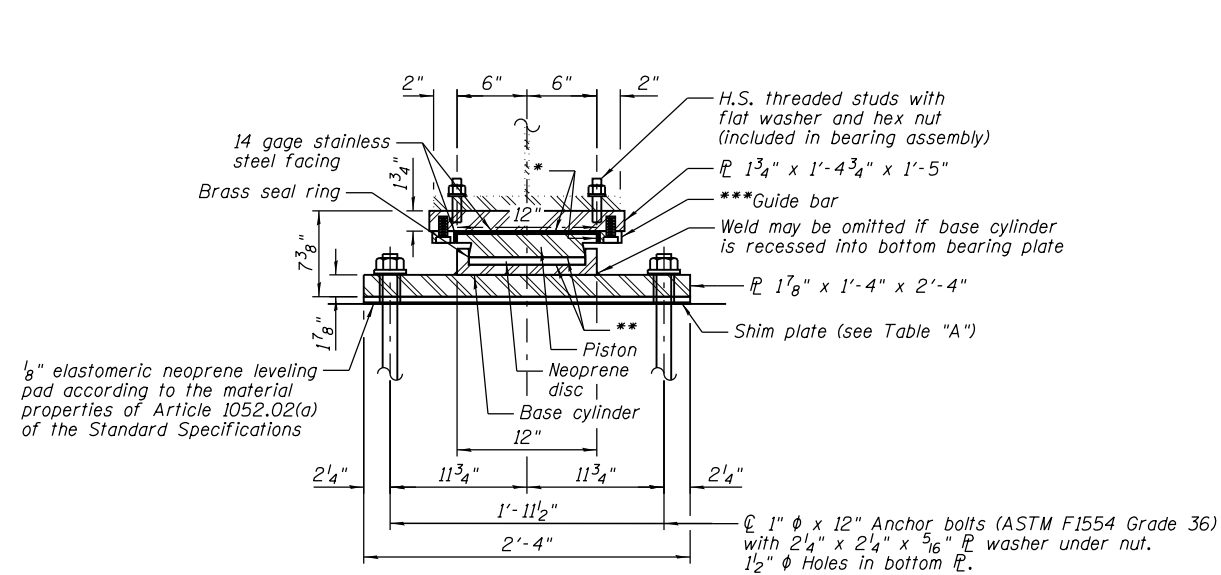
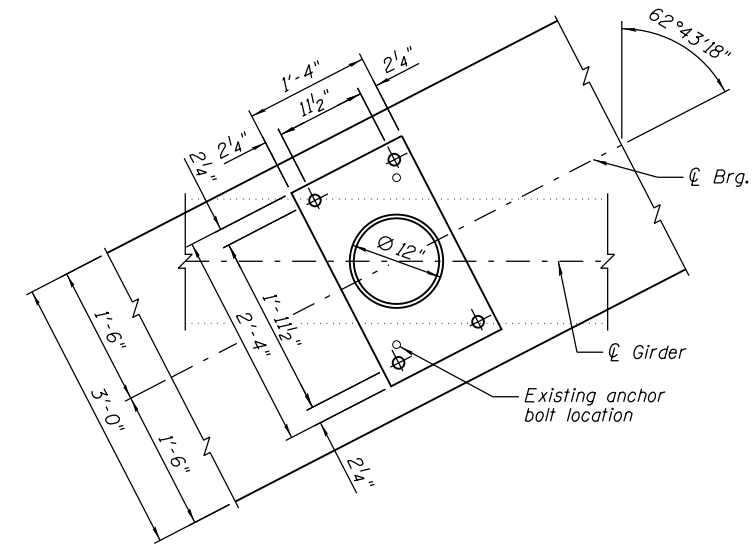


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



GUIDED EXPANSION HLMR BEARING

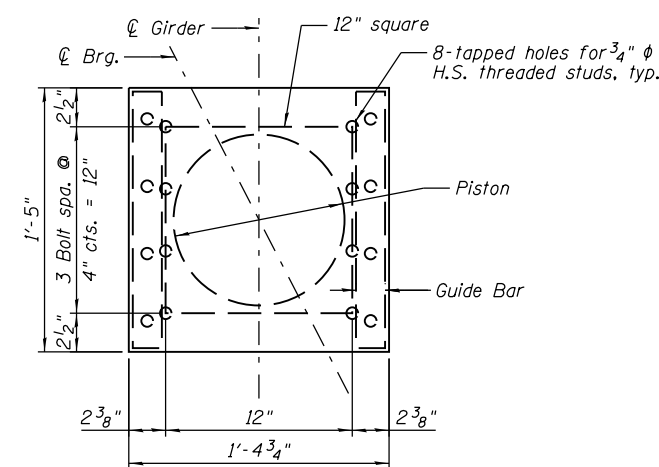
- *Dimpled, unlubricated PTFE sliding surface (bonded to piston)
- **PTFE shear reducer discs (unbonded)
- ***As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.



BOTTOM BEARING PLATE AND BASE CYLINDER PLAN AT PIER NO. 1

HLMR BEARING DATA

Vertical Design Load (kips)	Lateral Design Load (kips)	Total Required Movement (in.)	Total Required Rotation (rad.)	L (in.)	D (in.)	Tt (in.)	Tb (in.)	Th (in.)
255.1	0	2	0.0002	12	12	1.75	1.875	7.375



TOP BEARING PLATE AND PISTON PLAN

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Guided Expansion, 300k	Each	6
Anchor Bolts, 1"	Each	24

TABLE "A"

Girder No.	Shim Thickness
5	1/2"

GUIDED EXPANSION HLMR BEARING DETAILS STRUCTURE NO. 084-0078

NOTES:

- 1.) The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.
- 2.) 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.
- 3.) Total Bearing Heights (Th) are based on values taken from a specific manufacturer's design tables. Actual bearing heights may differ from contract plans. Contractor to verify bearing heights and adjust steel extension height if required.
- 4.) The Vertical Design Load in table is the actual controlling vertical service load.
- 5.) HLMR Bearings dimensions and details are based on a specific manufacturer's design tables. Contractor shall make necessary modifications based on the actual bearings provided.

DESIGNED	JML
CHECKED	MSW
DRAWN	DJM
CHECKED	MGO/MSW

DATE 08/09/10

FARNSWORTH GROUP, INC.

CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

SHEET NO. B28	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42 SHEETS	72	(84-3HB-5)BR	SANGAMON	84	64
		SN 084-0078	CONTRACT NO. 72C70		
		FED. ROAD DIST. NO. 6	ILLINOIS FED. AID PROJECT		