

ELEVATION

* Drilled and tapped for Shear Pin

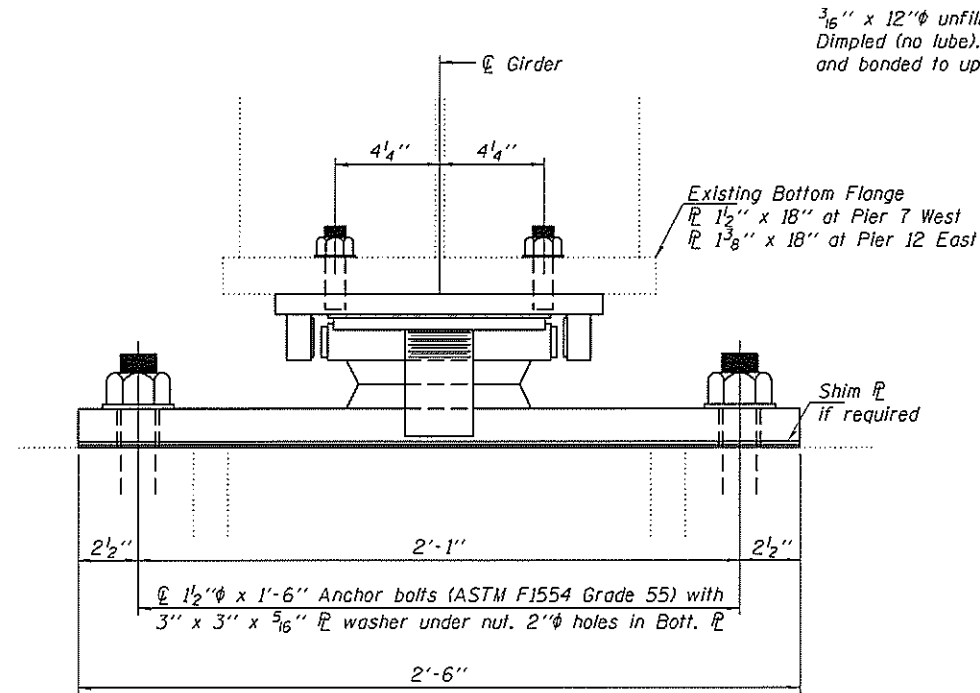
Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

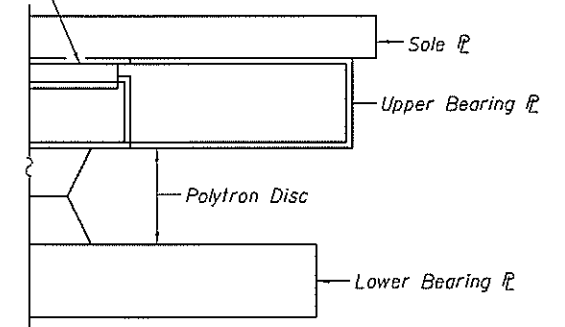
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270, Grade 50.

Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

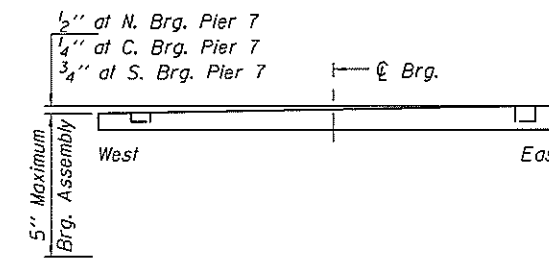


SECTION A-A

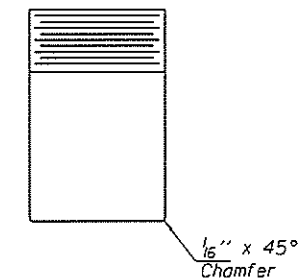
3/16" x 12" ϕ unfilled PTFE. Dimpled (no lube). Recessed 3/32" and bonded to upper bearing ϕ .



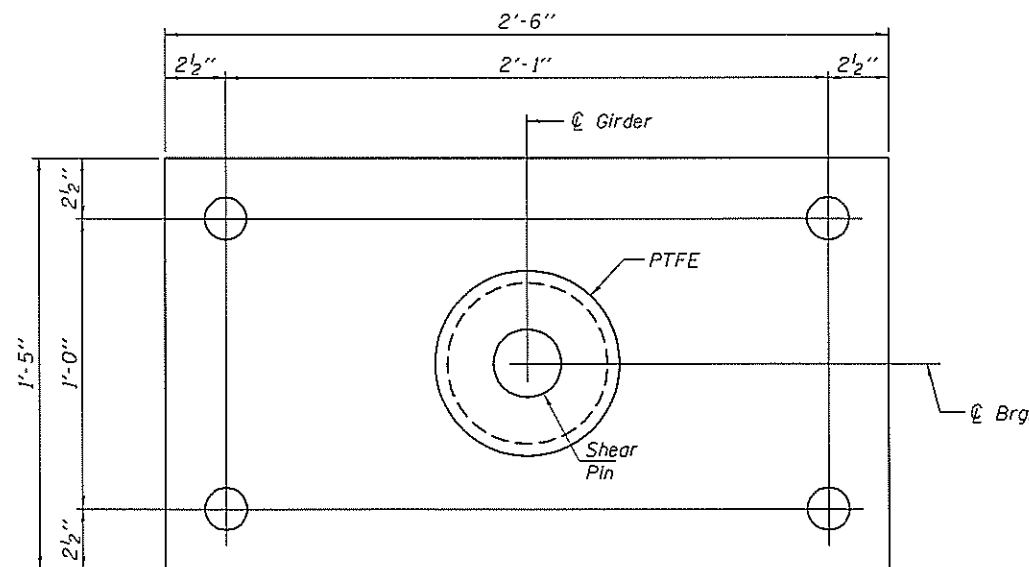
DETAIL A



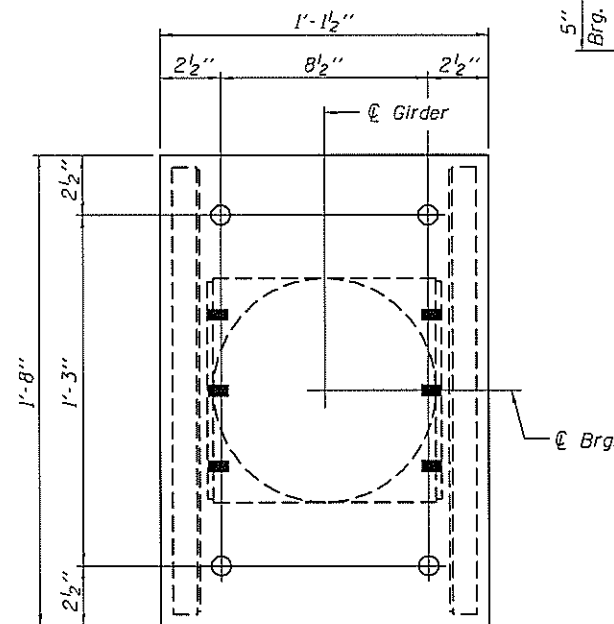
TOP PLATE PIER 7 ONLY
(Bearing Assembly not shown for clarity.)



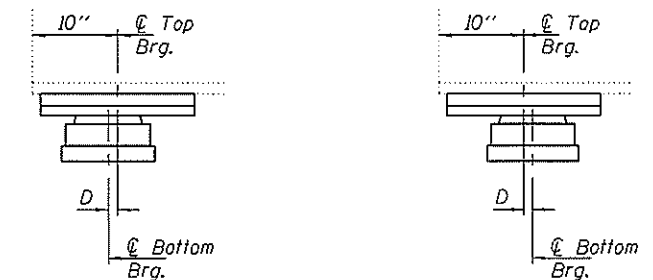
SHEAR PIN DETAIL
(Thread into top bearing plate)



BOTTOM BEARING ϕ AND DISC PLAN



TOP BEARING ϕ PLAN



BELOW 50° F.
(Move bottom brg. away from fixed brg.)

ABOVE 50° F.
(Move bottom 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.

DESIGN DATA

Bearing Manufacturer Design Criteria	Pier 7	Pier 12
Vertical Design Load (kips)	263	267
Horizontal Design Load (kips), H_u	54	54
Design Rotation (rad), θ_u	0.0	0.02
Expansion Length (ft.)	440	440
Total Required Movement (in.)	5 1/2	5 1/4

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotational Bearings, Guided Expansion, 300k	Each	6
Anchor Bolts, 1 1/2"	Each	24

DESIGNED ATH	EXAMINED <i>Timothy A. Anelli</i>	DATE JUNE 24, 2014
CHECKED GGE	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN Kyle M. Steffen	PASSED <i>Carl Prosser</i>	REVISED
CHECKED ATH GGE	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING REPLACEMENT DETAILS
WEST BEARINGS AT PIER 7 & EAST BEARINGS AT PIER 12
SN 001-0068

F.A. RTE. 63	SECTION 112B16JR,1-7	COUNTY ADAMS	TOTAL SHEETS 31	SHEET NO. 28
CONTRACT NO. 72G80				
ILLINOIS FED. AID PROJECT				

SHEET NO. 12 OF 15 SHEETS