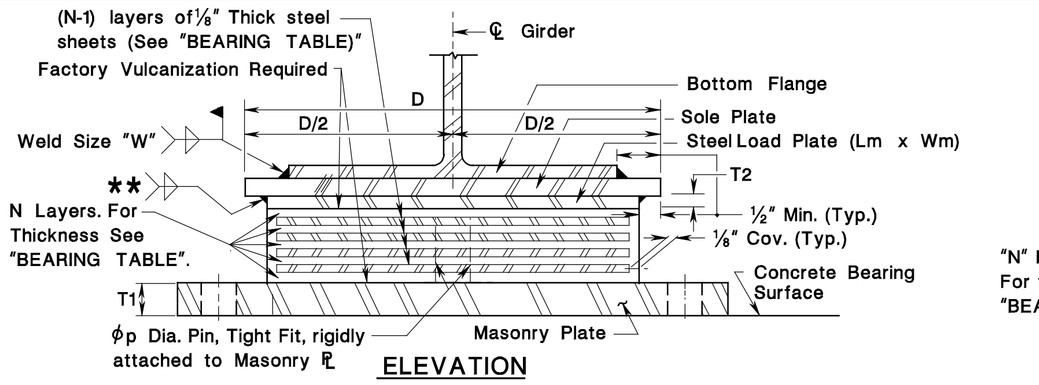
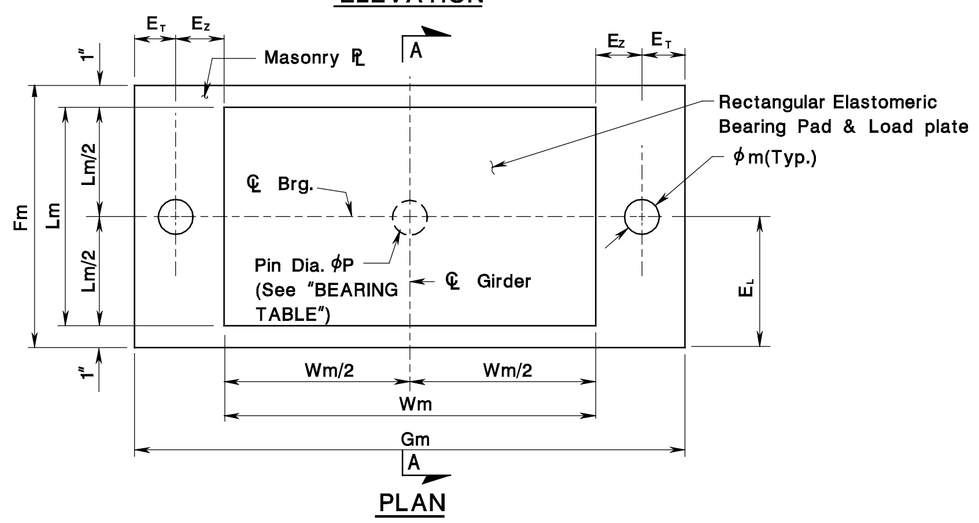
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO.			
STRUCTURE NAME			

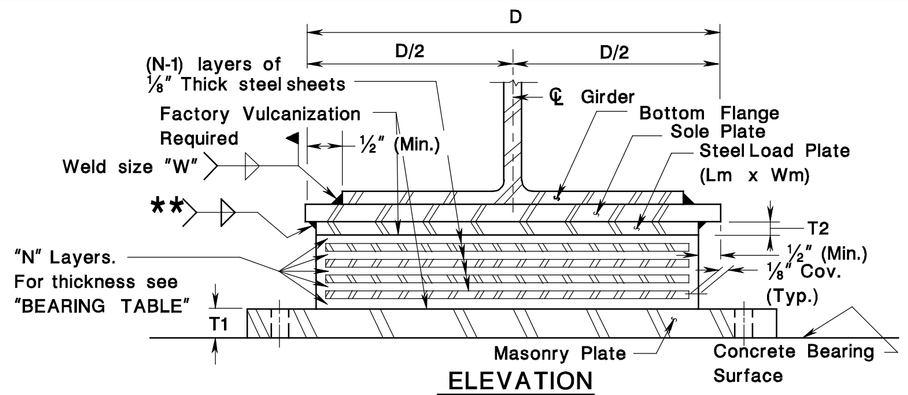


ELEVATION

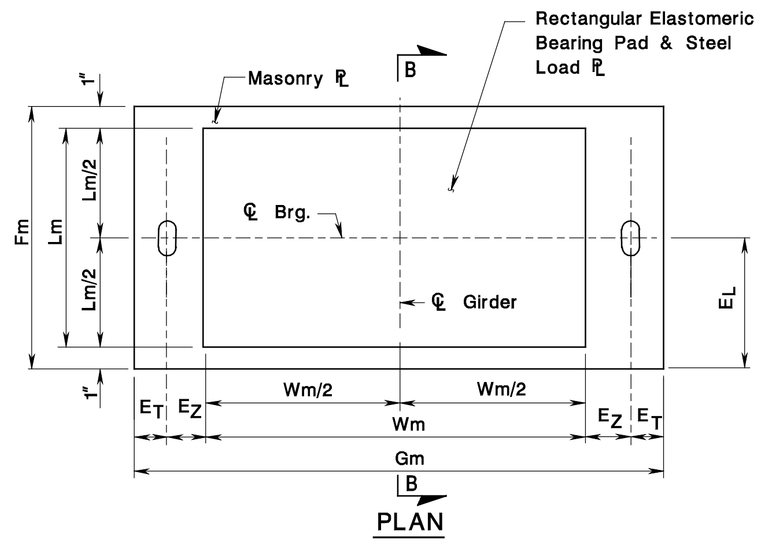


PLAN

FIXED BEARINGS

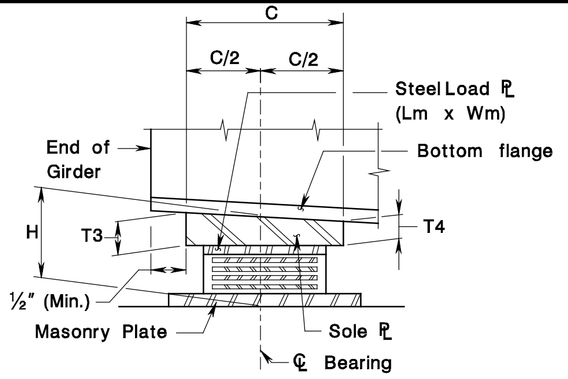


ELEVATION



PLAN

EXPANSION BEARINGS



SECTION B-B

NOTE TO DESIGNER:

THIS SHEET IS NOT TO BE PLACED INTO THE CONTRACT SET OF PLANS AS IS. HOWEVER, INDIVIDUAL DETAILS MAY BE UTILIZED FOR SHOP DRAWING REVIEW. OTHER SUITABLE DETAILS, AS PUBLISHED BY OTHERS AND THAT MEET OVERALL DESIGN CRITERIA STATED HEREIN, MAY BE USED.

GENERAL NOTES:

* 1. Elastomeric Bearings shall be designed in conformance with the AASHTO LRFD Bridge Design Specifications, with current interims, as modified by Section 3 of the NJDOT Design Manual for Bridges and Structures, and the NJDOT Standard Specifications for Road and Bridge Construction with current Supplemental Specifications, as modified by the Special Provisions.

2. Tapered sole plates may be required when the bottom of the beam and the top of the bearings are not parallel to each other. A tapered sole plate shall be placed between the beam and the external load plate if either of the following conditions exist:

   a. Longitudinal grade of the bottom flange is one percent or more.
   b. The required taper is ⅛" or more.

3. The top of pedestals shall be level.

4. Indicate the maximum design reactions (DL + LL) at the supports.

5. The continuous weld connecting the load plate to the sole plate shall be allowed to cool after each pass. However the temperature of the steel adjacent to the elastomer shall not exceed 200° F Temperature shall be controlled by the welding procedure.

6. The size of weld (W) shall be determined by the designer. Minimum weld size shall be 5/16".

7. Anchor Bolt shall be threaded as shown in "ANCHOR BOLT DETAIL FOR ALL BEARINGS". The nut shall be tightened to the satisfaction of the Engineer and the Anchor Bolt tip shall be removed ½" above the top of the nut. Anchor Bolts, Plates, Washer Plates and Nuts shall conform to the requirements of NJDOT Standard Specifications for Road and Bridge Construction.

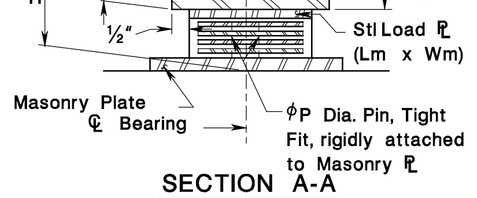
8. This drawing represents straight simple span bridge structure. For clarity purposes no lateral bracings are shown.

9. All anchor bolts shall be cast-in-place.

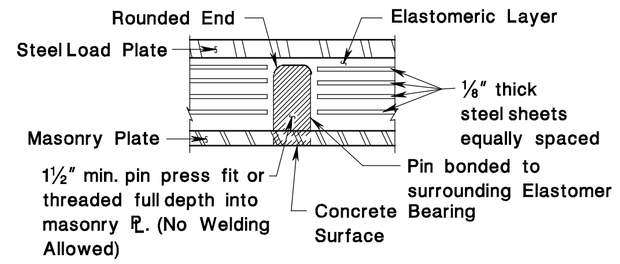
10. If the design indicates that there will be no tension under any loading condition, the plate and nuts are not required.

11. The furnishing of Reinforced Elastomeric Bearings shall conform to the provisions of Subsection 503.08 of the Standard Specifications.

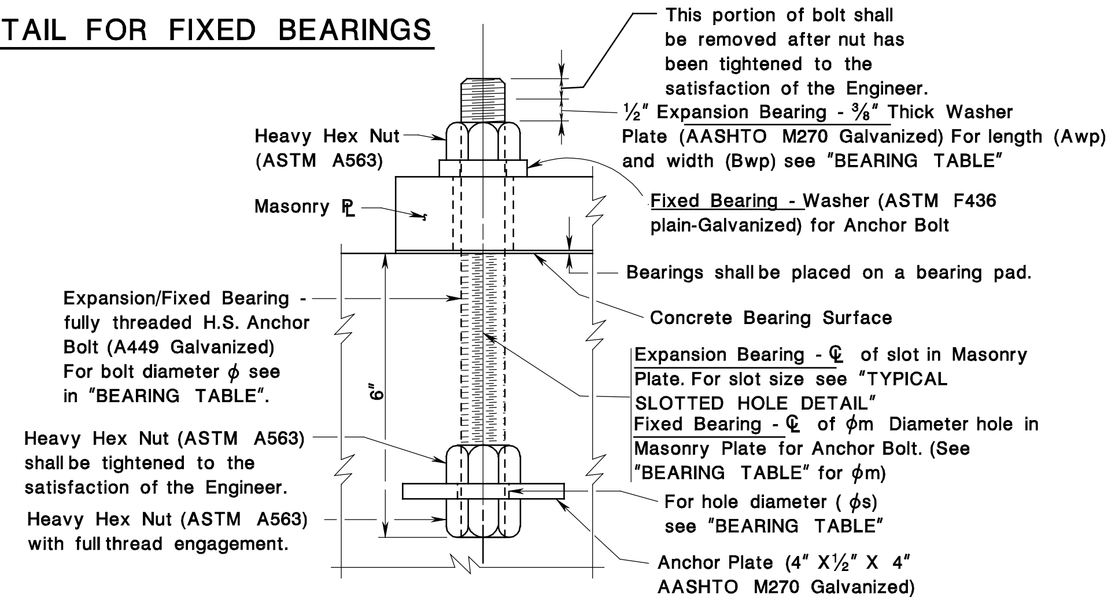
12. The Designer shall reference the criteria of Subsection 1.24.20 of the Bridges and Structures Design Manual for submission of final plans.



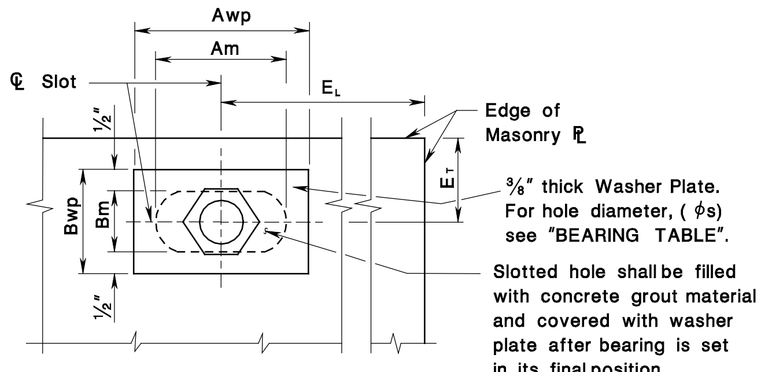
SECTION A-A



PIN DETAIL FOR FIXED BEARINGS



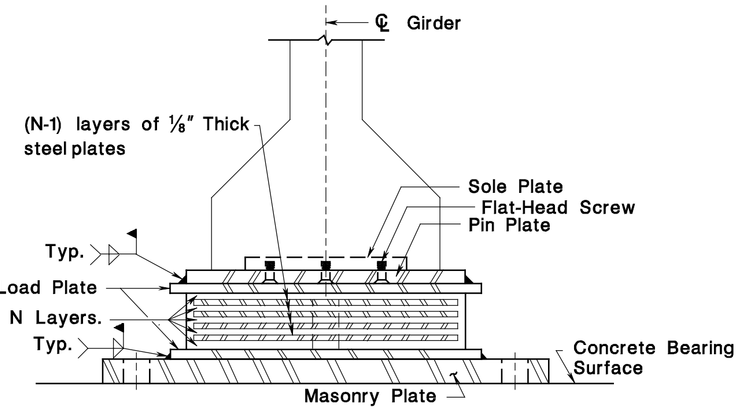
ANCHOR BOLT DETAIL FOR ALL BEARINGS



TYPICAL SLOTTED HOLE DETAIL
MASONRY PLATE
(FOR EXPANSION BEARINGS ONLY)

* The note should be modified to reflect applicable year and updated Specifications.

** Manufacturer shall provide the weld size (minimum size of weld shall be 5/16").



ELEVATION

ELASTOMERIC BEARING TABLE

LOCATION	FIX / EXP.	ITEM NO.	QUANTITY REQUIRED	MAX. DESIGN REACTION (KIPS)	SHAPE FACTOR	LOAD ℄ THICKNESS T2 (IN)	ONE WAY * LONG. MOVEMENT (IN)	ELASTOMER LAYERS				MASONRY ℄									BRG.	ANCHOR BOLTS		WELD SIZE	WASHER ℄		SOLE PLATE				DL+SDL (KIPS)	LL W/O IMP (KIPS)	ϕs HOLE DIA. FOR PIN (IN)	ϕP PIN DIA. (IN)
								THICKNESS (IN)	N LAYERS	Lm (IN)	Wm (IN)	T1 (IN)	Fm (IN)	Gm (IN)	Am (IN)	Bm (IN)	E_T (IN)	E_L (IN)	Ez (IN)	ϕ_m (IN)	H (IN)	ϕ (IN)	BOLTS PER BRG.	W (IN)	Awp (IN)	Bwp (IN)	C (IN)	D (IN)	T3 (IN)	T4 (IN)				

* One way longitudinal movement is the maximum movement (Expansion or Contraction) of the Superstructure when bearings are set at 68° F. This includes 1" of tolerance. When the bearings are to be set at temperatures other than 68°, reference AASHTO LRFD Bridge Design Specifications, Articles 3.12.2.1 and 3.12.2.2 for guidance for setting temperatures and bearing movement.

CONTROL SECTION		JOB NO.	
DES. BY		CHK. BY	
DWN. BY			
EST. BY		CHK. BY	
SPECS. BY			
IN CHARGE OF			

BDC04MB-01

file=

BDC04MB-01

STANDARD DRAWING PLATE 2.2-1

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

REINFORCED ELASTOMERIC BEARING

ROUTE : SECTION :

MUNICIPALITY COUNTY

SCALE : NONE

BRIDGE SHEET NO. ____ OF ____