STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

November 29, 2023
Subject: Bridge Deck Replacement
State WIN: 025631.01
Location: **Medway**
Amendment No. 6

Dear Sir/Ms.:

Make the following changes to the bid documents

In the Plan Sheet:

Remove page 139 Bearing Details dated 10/5/23 totaling one page and **Replace** with the attached Bearing detail totaling one page dated 11/28/23

The following questions have been received:

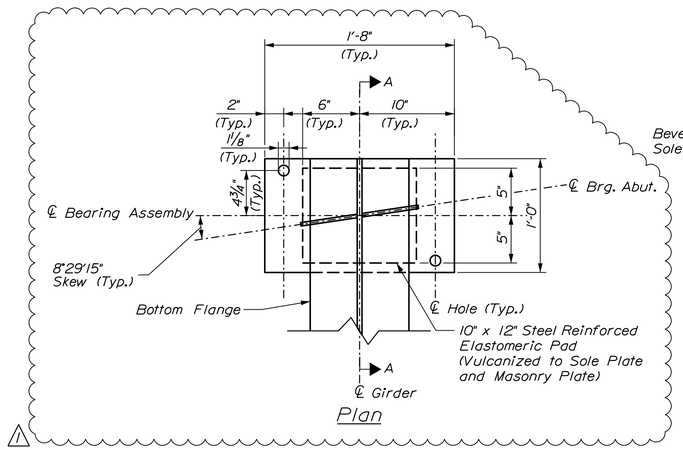
Question: On plan sheet139 of 168, the expansion elastometric bearing assembly detail calls for a vulcanized bond not only between the elastomeric bearing pad and sole plate but also between the bearing pad and the masonry plate. Is the bond between the pad and masonry plate necessary? considering the masonry plate is recessed? We cannot bond to this plate considering minimal clearance between the shear blocks and the pad itself and we request this bond be eliminated.

Response: REMOVE SHEET NUMBER 139 of 168, BEARING DETAILS dated 10/25/2023 and **REPLACE** with the attached SHEET NUMBER 139 of 168, BEARING DETAILS dated 11/28/2023. This revised sheet makes the following changes to the expansion bearing: removes vulcanization to the masonry plate and reduces the thickness of the bottom layer of elastomer.

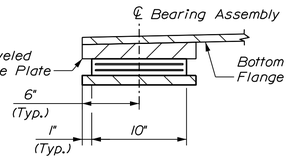
Consider these changes and information prior to submitting your bid on **December 6, 2023**.

Sincerely,

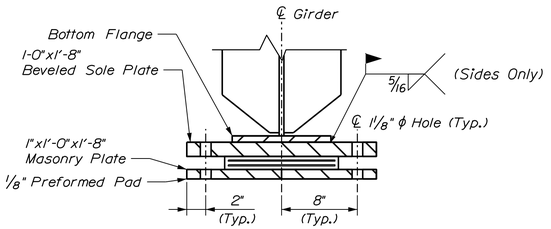
George M. A. Macdougall P.E.
Contracts & Specifications Engineer



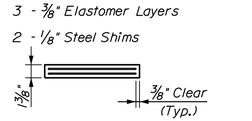
Plan



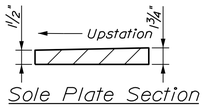
Section A-A



Elevation

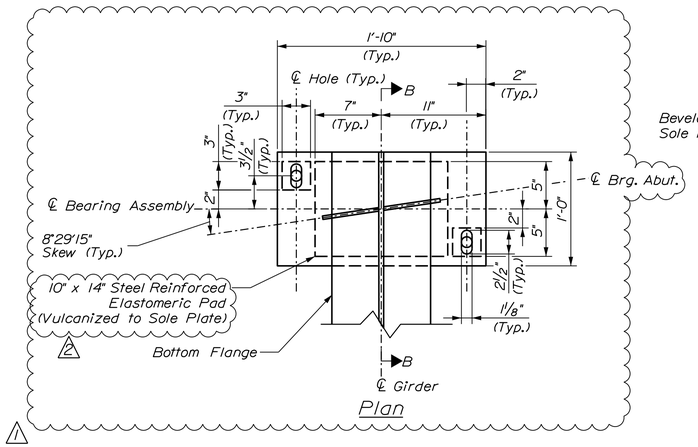


Elastomeric Pad Section

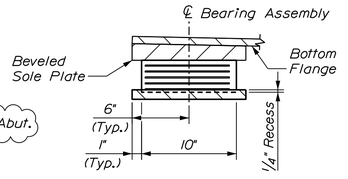


Sole Plate Section

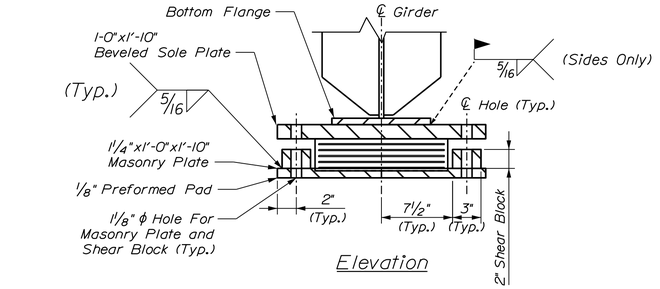
FIXED BEARING ASSEMBLY



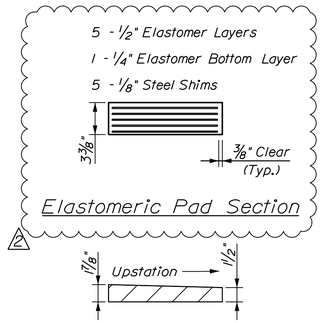
Plan



Section B-B



Elevation



Elastomeric Pad Section

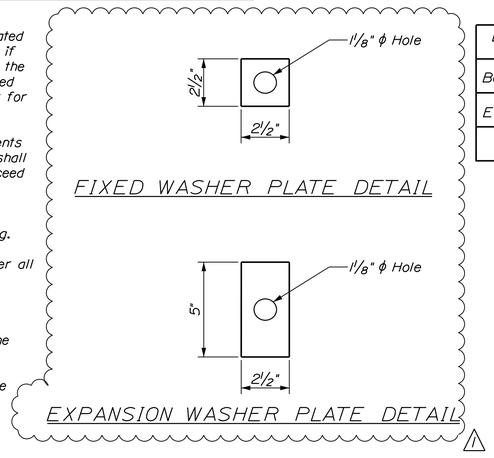
Sole Plate Section

EXPANSION BEARING ASSEMBLY

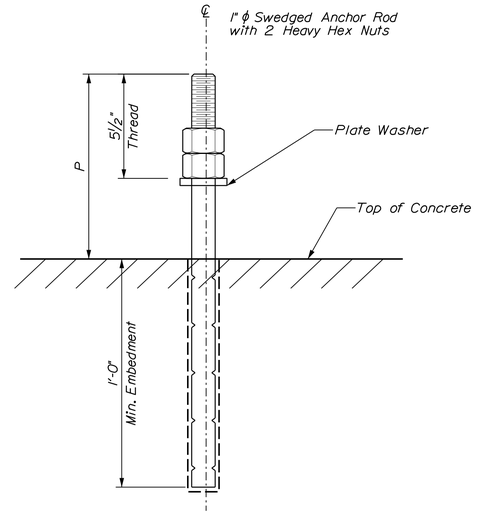
Bearing Design Loads		
Criteria	Abutment 1	Abutment 2
Unfactored Dead Load	25 kips	25 kips
Unfactored Live Load	50 kips	50 kips
Max. Displacement	1.14 inch	0 inch
Dead Load Rotation	0.002 rad.	0.001 rad.
Max. Live Load Rotation	0.0003 rad.	0.0002 rad.
Rotational Tolerance	0.005 rad.	0.005 rad.

ELASTOMERIC BEARING NOTES

1. Existing bearings shall be removed and replaced at the locations shown on the Key Plan. The existing anchor rods shall be cut flush with the bridge seat. Payment for removal and installation of new anchor rods is incidental to the Bearing Installation Pay Item.
2. The shear modulus of the elastomer shall be 130 psi and meet AASHTO M251 criteria for Design Method B.
3. Vulcanization of the elastomer to the steel plates shall be done during the primary mold process. Sole and masonry plates shall be vulcanized to the elastomer where noted. (2)
4. Sole and masonry plates shall meet the requirement of ASTM A709, Grade 50. Anchor rods shall meet the requirement of ASTM F1554, Grade 105 and shall be swedged or threaded on the embedded portion of the rod.
5. Sole and masonry plates shall be galvanized in accordance with Section 506. Anchor rods, washers, nuts, and shear blocks shall be galvanized to ASTM A153 or ASTM B695, Class 50, Type 1.
6. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge and a direction arrow that points upstation. All marks shall be permanent and shall be visible after the bearing is installed.
7. Bearings shall be covered during shipping and at any time prior to installation that the bearings may be exposed to sunlight.
8. The Contractor shall measure the steel temperature using a calibrated surface thermometer at 5 locations, as determined by the Resident, if the ambient air temperature is less than 30°F or over 90°F within the 24 hours prior to each day of erection. The average of the measured steel temperatures shall be above 0°F and less than 90°F in order for erection to proceed.
9. All necessary precautions shall be taken to protect bearing components from field weld flash and spatter. Heat from welding operations shall be controlled such that steel adjacent to the elastomer does not exceed 200°F. The temperature shall be verified by the use of temperature indicating crayons or other suitable means.
10. Upset the threads on the anchor rods after assembly of the bearing.
11. The Contractor shall not weld the girders to the sole plate until after all adjustments have been made in accordance with Standard Specification Section 523.094.
12. The "Bearing Design Load" for each bearing as noted in Standard Specification, Subsection 523.23.4 is given in the table. This is the total load for the Service I load combination without impact.
13. For drilling and anchoring the anchor rods, the Contractor shall use material listed on the Maine Department of Transportation Qualified Products List of Concrete Adhesive Anchoring Systems.



Exposed Rod Height	
Bearing ID	"P"
Expansion	11 5/16"
Fixed	9 1/2"



ANCHOR ROD DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 2563104 & 2563105

WIN 25631.04 & 25631.05

BRIDGE NO. 1411 & 6077

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	S. LINDSLEY	E. MORRISON	08/23
CHECKED-REVIEWED	T. MCAULIFFE	B. COLBURN	08/23
DESIGN2-DETAILED2	N. EDMAN	J. FITZ	08/23
DESIGN3-DETAILED3			
REVISIONS 1	Anchor Bolt Locations		10/23
REVISIONS 2	Exp. Bearing		11/23
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BY

DATE

SIGNATURE

P.E. NUMBER

DATE

I-95 SB & NB OVER ROUTE 116
BRIDGE NOS. 1411 & 6077

MEDWAY PENOBSCOT COUNTY

BEARING DETAILS

SHEET NUMBER

139

OF 168

Username: slindsley Date:11/28/2023

Division:

Filename: ...\054_116_Bearing.dgn