

**B309**

**Tapered Bearing Plate Assembly (for Integral Abutments or Piers with Continuity Diaphragms)**

Approved, and signed, December 20, 2018. Last date revised: December 21, 2022.

**Revised 12-21-2022**

At SIDE ELEVATION:

- Removed the hatch pattern from the sole plate.

Updated the "Z" breaks throughout the detail.

At DESIGN DATA block:

- Removed the "Design Data Block" from the lower right corner of the detail. The information that was included in the Design Data Block has been added to the MnDOT LFRD Bridge Design Manual.

**Revised 12-02-2020**

At PLAN:

- At the request of fabricators/galvanizers, changed the note: "½" dia. handling hole" to "¾" dia. handling hole".

**Revised 10-22-2019**

Under NOTES:

- Within the notes: Changed the term "per spec." to "in accordance with spec." in all instances.

At the Table:

- In the Beam Size column, added the under bars ( \_ ) to the beam types to designate the appropriate beam size when filling out the chart.

At the Designer Note:

- Added – "Insert table values as needed and delete unused data."

**Re-Approved 12-20-2018**

In the TABLE:

- First row, column labeled "Beam Size", added "RB, M & MN".
- Second row, added bearing pad and plate size information for MH shape beams.

**Revised 11-08-2018**

Under NOTES:

- Changed numbered note ④ from "Refer to bearing pad restraint sheet for additional information and details" to "Refer to bearing pad restraint B-Detail for additional information and details".

**Revised 11-02-2017**

Under NOTES:

- Changed the 5<sup>th</sup> note to read: Payment for tapered bearing plate assembly includes all material on this detail.
- Changed the numbered note ④ to read: Refer to bearing pad restraint sheet for additional information and details.

At BEARING PLATE DETAIL:

- Removed the weld symbol from the underside of the bearing plate/bar location and added "Restraint Bar (Typ.) ④" with leader line to the bearing plate/bar location. Also added missing arrowhead to the detail.
- Removed "Welded Bar (Typ.) ④"

At the Bearing Plate PLAN:

- Added the 8" dimensions from the  $\mathbb{C}$  beam to the  $\mathbb{C}$  pintle locations.
- Added the ½" dia. handling hole with ¾" dimensions from the corner of the bearing plate.

At the SIDE ELEVATION and SECTION X-X:

- Added the restraint bars under the bearing plate.

- Changed the multiple dashed beam shapes to the MN shape with the accompanying note: MN shape shown (other shapes similar)

At the DESIGNER NOTE:

- Added note: Per note ④ include B307 and modify as necessary.

At the bearing TABLE:

- Added the RESTRAINT PATTERN ④ column and the A-1 designation within the column pertaining to the restraint pattern type.

Added the DESIGN DATA box:

- MAX. FACTORED SHEAR RESISTANCE:  
- 50.3 KIPS PER 1½" DIA. PINTLE

**Revised 11-03-2015**

At BEARING PLATE DETAIL:

- Changed from welded “keeper” studs” to a welded “keeper” bar.
- Added the 3/16” fillet weld symbol to the welded bar on the lower right side of the detail.
- Changed the “Welded Stud (Typ.) ④” to “Welded Bar (Typ.) ④”
- Removed the ½” recess dimension from the top left of the bearing plate.

Under NOTES:

- Changed all notes to “Active Voice” if needed.
- Changed the 4<sup>th</sup> note to read: Galvanize structural steel bearing assembly after fabrication per spec. 3394.
- Changed numbered note ④ to read: 3/8" x 3/8" bar installed on bearing plate around perimeter of bearing pad. Bar length is 2" less than adjacent pad dimension, centered on pad. Centerline of bar to edge of pad dimension = 1/2".

**Approved, and signed, February 27, 2013**

NEW DETAIL