

B701

Bridge Floor Drain (Welded Box)

Approved, and signed, December 17, 2024.

Re-Approved 12-17-2024

Throughout the sheet:

- Updated the base file to use Open Bridge Modeler. This resulted in changes to font size and width, and other aesthetic changes.
- Reinforcement (WWR and rebars) are now depicted in blue.

At TOP VIEW (Grate):

- Moved section C-C up and to the right to make it more visible.

At TOP VIEW (Scupper):

- At bottom left corner, changed weld size from "1/4" to "(1/4)".

At SECTION A-A:

- Increased the size of the weld "all-around" circle in 3 locations.
- Changed callout from "3/8 PL" to "3/8" Plate".

At BRACKET DETAIL:

- Changed weld size in 2 bevel weld locations from "1/4" to "(1/4)".

At Title Block

- Removed all previous dates from the Revision Block.
- Added new signature and date in the lower left corner.

Revised 02-08-2022

General:

- Updated the detail to include a new method of connecting the downspout to a steel or prestressed concrete beam.
- Added a designer note referencing the Bridge Design Manual for guidance on how far to extend the drain below the bottom flange of the beam.
- Updated how welds are depicted and updated all arrowheads and "Z" breaks.

At Title Block:

- Changed title from "Bridge Floor Drain (Welded Box)" to "Bridge Floor Drain (Welded Box) (Concrete or Steel Beam)".

At TOP VIEW (Scupper):

- Added arrows to depict where new View B-B is taken.
- Changed the size of the tab plate.

At TOP VIEW (Grate):

- Changed 1 1/4" Min. to 1 1/4"
- Changed 2 3/4" ± Typ. to 2 3/4" Typ.
- Changed section cut "B-B" to "C-C".

At SECTION A-A:

- Changed title from "Section A-A Steel Beam Shown" to "Section A-A Concrete Beam Shown".
- Changed TS 10 x 6 x 1/4 tube to HSS 10 x 6 x 1/4
- Added a dimension "X" for the downspout extension below the bottom of the beam flange. Added a Designer Note to provide guidance in determining dimension "X".
- Completely changed the portion of the detail showing how the downspout is connected to a beam.

At FRONT VIEW:

- Changed title from "Front View" to "View B-B".
- Removed the old connection plate and added the new tab plate.
- Added callout for the centerline of the drain.

At BRACKET DETAIL:

- Added callout for 1 1/2" x 1 1/2" x 1 1/2" Solid Steel Block.

At SECTION B-B:

- Changed title from SECTION B-B to SECTION C-C.

At NOTES:

- Changed 5 instances of "per spec." to "in accordance with spec."
- At the first general note, added a new 2nd sentence "Cast Iron May Be Used As An Alternate".
- At the fourth general note, changed the 2nd sentence from "Galvanize, Except Cast Iron, Per Spec. 3394." to "Galvanize Structural Steel, Except Cast Iron, In Accordance With Spec. 3394."
- At the sixth general note, changed from "Install Grate With Arrow On Curb Side And In Direction Of Flow." to "Install Grate With Arrow On Curb Side Pointing In Direction Of Flow."
- Changed circled note ① from "Attach To Beam With ¾" Dia. Bolt, Lockwasher And Nut As Required. See Special Provision For Approved Anchorage Required For Concrete Beams. Anchorage To Miss Draped Strands." to "Field Drill 13/16" Hole In Tab Plate To Provide For ¾" Bolted Connection With Washers. Allow For A Minimum Edge Distance Of 1" To Edge Of Tab Plate."
- Added new circled note ② "See B703 For Concrete Or Steel Beam Connection Details."

Revised 01-05-2017

At NOTES:

- The notes were updated to use active voice.
- Removed all references to "Mn/DOT" within the notes.

Approved, and signed, November 22, 2002