Montana Department of Transportation

PO Box 201001
Helena, MT 59620-1001

VISION ZERO
zero deaths
zero serious injuries

Memorandum

To: e-Distribution
(See below)

From: Stephanie Brandenberger, P.E.
Bridge Engineer

Date: 10/7/2020

Subject: Bridge Width Standards and Guidelines

Roadway width for new bridges has historically been determined using the Bridge Design Standards document. However, the standards and guidelines included in the Bridge Design Standards often do not correspond to those governing the adjoining road width. As a result, design teams are forced to accept width transitions at bridge approaches or seek an exception to the standards.

To promote consistency with roadway widths across bridges and to avoid unnecessary transitions, the standards and guidelines pertaining to determining roadway width for bridges in the Bridge Design Standards document is hereby replaced with the following guidance:

New On-system Bridges

- The new bridge roadway width will generally be equal to the required road width as determined by the current MDT Geometric Design Standards, with the following exceptions:
  - Use a 28-ft minimum roadway width for new on-system bridges
  - Bridges in or near urban limits should consider additional width for sidewalks and/or bicycle and pedestrian use where appropriate
  - Any other variations to the design standards should go through the Roadway Width and Rumble Strip Committee to determine bridge and road widths. See the Highways design memo dated 9/26/2018 for committee members and other information.
- Include documentation of bridge width in the Scope of Work document
- See Attachment 1 for bridge width dimensioning definitions

New Off-system Bridges

It is preferred to provide a minimum roadway width of 28-ft for new off-system bridges unless the road has low traffic volume and a narrower bridge would be adequate for the conditions. The minimum roadway width for a two-lane bridge is 20-ft. Local agencies may have developed their own geometric design criteria for local facilities that are not on the State highway system. If the local agency has a higher standard for the bridge width, match the local agency standard.

Consider using a single lane bridge for very low traffic volume roads. The minimum roadway width for a single lane bridge is 16-ft, which includes a 12-ft travel lane and 2-ft shoulders.

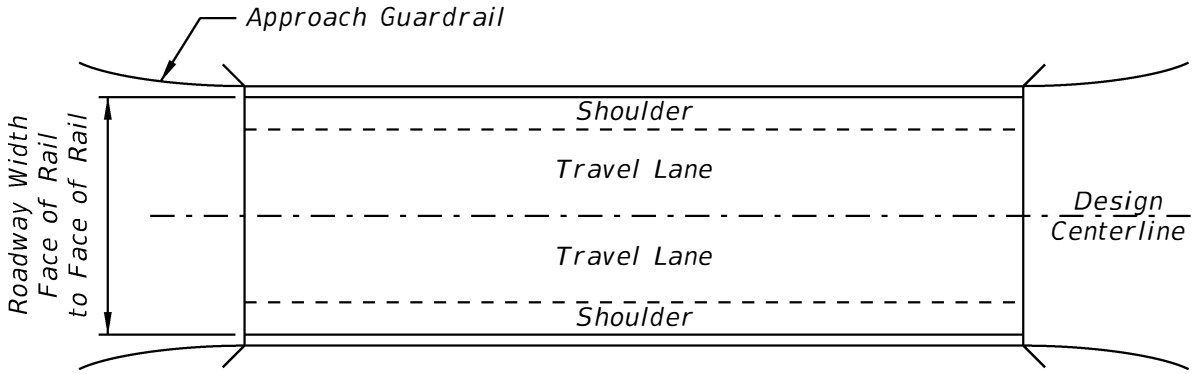
When considering bridge roadway widths less than 28-ft, or less than the local agency's standard, obtain the District's and the local agency's concurrence.

Existing Bridges to Remain in Place

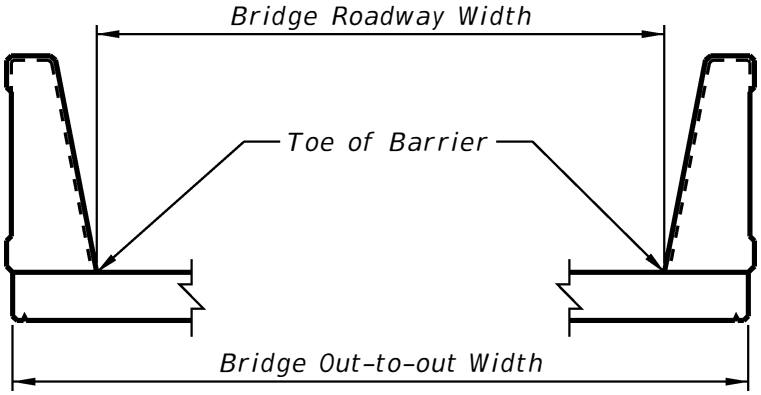
Consider widening bridges to remain in place if a safety or serviceability issue exists which could be addressed through widening. Also consider widening if a bridge will be narrower than the adjoining roadway at the conclusion of the project. Widening should be considered only for projects with an existing scope that is compatible with bridge widening (e.g. road reconstruction, road widening, major bridge rehabilitation / retrofit, etc.).

When a bridge is considered for widening due to a safety or serviceability issue, perform an engineering study which considers sight distances, grades, roadway widths, bridge width, ADT, etc., prior to making the decision on whether to widen the bridge. The bridge type and structural details should also be considered when determining the feasibility of widening.

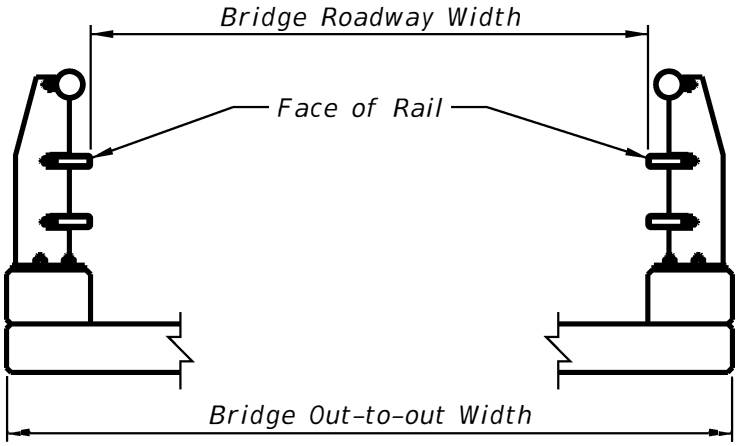
ATTACHMENT 1



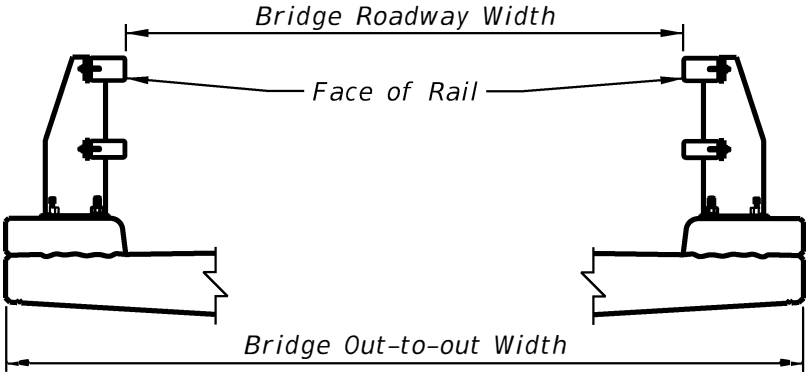
PLAN



CONCRETE BARRIER



42" OPEN RAIL



WYOMING RAIL

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