Office of Bridge Design
Technical Memorandum

Date: **May 31, 2013**

To: **All Bridge Engineering Staff**

From: **Kevin Goeden**
Chief Bridge Engineer

Subject: **Technical Memorandum BTM13.1**
Pedestrian/Bicycle Railing on Bridges and Structures

All design geometry and loading for new pedestrian and bicycle railing on structures shall be in accordance with the *AASHTO LRFD Bridge Design Specifications* current at the time of project railing design initiation. Railing design shall also be compliant with Americans With Disabilities Act requirements.

A railing height of 42" measured from the top of walkway should be used for bridge pedestrian and shared use paths less than 8' wide (clear width). For paths 8' wide or more (clear width) and for designated bikeways on bridges, a 54" height railing should be used.

Generally, walkways/paths incorporated on vehicular bridges should be separated from the roadway by combination railing. Unless design conditions prevent it, the combination rail height should match the walkway/path outside rail height above the top of walkway.

On grade separation structures spanning over public roads, the outside railing may incorporate an 8' high (measured from the top of walkway) curved extension, above the normal top of railing, to hinder objects being dropped or thrown onto traffic lanes below. For highway over railroad grade separations, outside railing may also incorporate similar protection details if requested by the operating RR.

The top horizontal railing element (42" or 54" high) should be designed continuous and smooth with no post protrusions or other attachments above top of rail (except in grade separation cases with rail extensions as described above).

A railing height of 42" measured from the top of parapet or wing should be used for box culvert mounted installations adjacent to pedestrian, shared use or bicycle paths. Railing shall be carried on top of the parapet and wings down to a point where the vertical drop from top of wing to flow line is 30" or less.

A railing height of 42" measured from the top of walkway should be used on retaining walls over 30" in height adjacent to and below pedestrian, shared use or bicycle paths.

Reviewed by: _____ Date: 5/31/2013

Approved by: _____, Chief Bridge Engineer, Date: 5-31-2013

cc: File