

Memorandum

TO: All Design Section Staff
FROM: Bijan Khaleghi
DATE: December 15, 2008
SUBJECT: Load Rating Requirement for Complex Bridges

This design memorandum is to provide new direction to load rate complex bridges.

All new complex bridges, such as, but not limited to curved steel girders, segmental box girders, cable stayed, bascule and swing span trusses, arch and suspension bridges shall be load rated in accordance with the current AASHTO Load and Resistance Factored Rating (LRFR) and Chapter 13 of the Bridge Design Manual (BDM) by the designer of the bridge immediately following completion of bridge design.

For complex bridges designed by a design unit of the Bridge and Structures Office, only the superstructure elements will require rating, with the service dead and live load reactions at the piers provided separately to the Load Rating Engineer to allow for load rating of the cross beams to be completed by the Bridge Preservation Office.

Complex bridges that are designed by consultants shall be load rated by the consultants, including load rating of the cross beams.

Background

FHWA is requiring that all bridges shall be load rated within 90 days from substantial completion/opening of the bridge to traffic. Load rating these bridges immediately following the design completion will assist WSDOT in complying with this FHWA's requirement.

Load ratings shall be completed using Strength II load combination of LRFD Article 3.4.1. For this effect the designer shall consider the load rating trucks as owner specified trucks per LRFD Article 4.6.2.2.5 regarding other traffic on the bridge simultaneously. Appropriate load factors and resistance factors as defined in the LRFR Specifications and BDM Chapter 13 shall be used.

If you have any questions regarding this issue, please contact Mohamad Al-Salman at 570-2567 or Bijan Khaleghi at 705-7181.

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