Bridge Load Rating & Evaluation Engineering Services - S-239-19

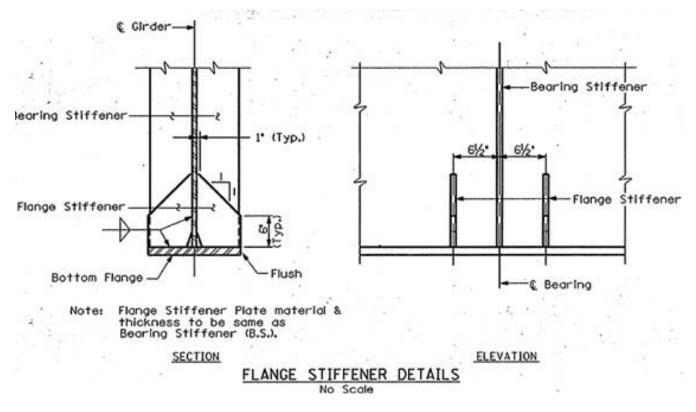


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Technical Note 01

1. <u>Stiffeners for Steel Multi-Girder Bridges:</u>

Input transverse stiffeners in BrR in the stiffener line item if they are full height and/or touch the compression flange. Flange stiffeners and connector plates that are partial height should <u>not</u> be input into BrR as stiffeners. If locations with flange stiffeners and partial connector plates control the rating and require posting, consider adding the stiffeners in BrR. Stiffener weights should be added in BrR per the Load Rating Guidance Document (LRGD).



2. <u>Haunch input for Steel Multi-Girder Bridges:</u>

Haunch input for prestressed concrete girders is described in LRGD Section 10.2.1.2. For steel multi-girder bridges, haunch weights shall be calculated and added as a DC1 member load for all bridges. Do not define the haunch in BrR.

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3. Condition Factor:

The LRGD 6.11.2 states the use of the condition factor is optional based on the Engineer's judgement. For this contract, use the condition factor per the table in the MBE (copied below) using the superstructure condition state listed in the inspection report (IR), unless during the site assessment (SA) it is judged that the condition state should clearly be lower. Any change in the condition states listed in the IR should be documented in the SA form. The Load Rating Summary Form (LRSF) remarks should clearly indicate what condition factor is used in the rating and the basis for the condition factor selection (SA or IR condition state).

Table 6A.4.2.3-1—Condition Factor: φ _c

Structural Condition of Member	φ _c
Good or Satisfactory	1.00
Fair	0.95
Poor	0.85

4. LRSF Edits:

Please note the LRSF has been edited and placed into ProjectWise (PW) as described below:

- Updated the LRFR and ASR_LFR Summary tabs so the five digit Asset ID is shown instead of the four digit for IDs that start with zero.
- Inputted MBE 3rd Edition, 2018 for the AASHTO Code box on the forms. This is the appropriate code for load ratings.

5. <u>Stiffener/Splice Plate Weights:</u>

LRGD Section 11.2.2.2 #11 states "Web stiffener weight is not calculated in BrR. The weight should be included as a separate member load if stiffener weight is not included in the diaphragm weight calculations." There is a similar statement in LRGD 12.2.1.1 relating to truss members, stating weights not computed in BrR [including splice plates] shall be calculated and added as member loads.

For this contract, include these in the steel detail factor as follows. For steel beams without splice plates and transverse intermediate stiffeners, use 5% additional self-weight detail factor per the LRGD Section 11.2.2.2 #5. For steel girders with these elements, increase this to 10%.

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Please direct any questions concerning the above to:

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