

References and guidelines:

BDM – SCDOT *Bridge Design Manual*
 LRGD – SCDOT *Load Rating Guidance Document*
 SCDOT *Technical Notes*
 SCDOT *Structure Load Rating Bridge File Policy (BFP) ProjectWise Guidance Policy*

NOTE: The new load rating files will be uploaded to the Bridge File and all previous load rating files will remain for reference in the file.

Required Load Rating Documentation

1. Provide Structure Repair/Rehab/Widening Plans or Structure Replacement Plans
 - Follow file naming convention as per the BFP. See Technical Note 09 Item 5 for some assistance.
2. Provide a Labeling Diagram
 - Provide a labeling diagram for all new, widened, or rehabilitated structure for standardized orientation and labeling convention in accordance with the referenced documentation.
 - Provide a labeling diagram in .DGN and .pdf format.
3. Update or create the BrR.xml file as necessary or the Non-BrR input files
 - Update the existing BrR file for the *Repair/Rehab/Widening Plans* based on the span configuration and typical section of the proposed construction.
 - Update the existing original structure configuration based on the proposed plan in a separate superstructure definition. Keep all of the existing superstructure definitions in the BrR file.
 - Create the new repair/rehab/widened structure in the BrR tree based on the proposed typical section of the proposed construction.
 - Save both the revised “original model” and new “repair/rehab/widened model” in the Bridge Alternatives for the ratings event. Provide ratings and complete load rating documentation based on the re-construction plans.
 - Follow the above references for guidelines and file naming.
 - Create the BrR file for the *Structure Replacement*
 - Provide the BrR file following the references above for the proposed structure.
 - Provide ratings and complete the load rating documentation based on the proposed structure replacement.
 - Follow the above references and guidelines for other approved Non-BrR software.
 - Provide the original excel, Mathcad or other design aid tools as applicable.
4. Provide the Asset ID Request Form in .pdf format, as necessary for all new assets.

5. Provide Supplemental Calculations
 - Provide calculations for revisions to loading, live load distribution factors, effective width, etc. of the revised structure and or new calculations for the structure replacement.
 - If software other than BrR is utilized, provide documentation of the computer program results or independent software analysis.
 - Submit a .pdf and the original excel file(s).
6. Complete and provide the Load Rating Summary Form, LRSF(s)
 - All bridges shall be initially rated based on LRFR analysis. See exceptions noted in the LRGD. For Bridges in Design, see Technical Note 09 Item 5 “Submittal Procedure for Bridges in Design” for some assistance.
 - Complete the required rating form(s) based on the proposed structure plans including the original and rehabilitated/widened structure or the replacement structure.
 - Provide the completed LRSF in .pdf and excel format digitally signed and sealed. The sections indicating the individual(s) performing the QC Review and QA Review (if applicable) shall be completed. Provide the completed .pdf and excel LRSF for ASR and LFR if this methodology was used.
 - Provide a substructure load rating along with the similar documentation, if necessary, based on the guidance in the LRGD.
7. Provide the Data Correction Form
 - Update the Data Correction Form for any revision(s) to the structure.
 - For new bridges, provide the items listed in Technical Note 07, Item #1 to be updated in BIO.
 - For modifications to an existing structure, update or provide the controlling rating factors for NBI items (63), (64), (65), and (66) which agree with rating factors provided on the LRSF and any additional items that may have changed as a result of the modification(s).
 - Provide the Data Correction Form in .pdf format.
8. Provide the Bridge Signing and Posting Form, (as necessary)
 - Provide the .pdf form as necessary as per the SCDOT LRGD.
 - Note: This document is not applicable for new bridges, as they shall be designed to not require posting.
9. Provide the QC Review Checklist
 - Provide a completed .pdf of the form signed and sealed by a South Carolina PE who performed the independent review of the Load Rating.
10. Provide BMO Approvals Form, (as necessary)
 - Provide .pdf of the BMO Approvals form documenting deviations to the standard procedures as noted in the guidance documents.
11. Substructure Load Rating
 - Provide a substructure load rating along with the similar documentation, if necessary, based on the guidance in the LRGD.

- Use descriptors like “Superstructure” or “Substructure” after the document type in the filename to differentiate the load rating files.
 - E.g. 01234-LR_SF_XLSX-**Substructure**-YYYY-MM-DD-001.PDF
12. Upload a zip file with the required documentation to ProjectWise.
- Create a zip file for all of the load rating files and upload to:
pw:\\SmpP Wise.nts.scdot.net:SCDOT\Documents\ -GENERAL FILES\Director of Maintenance\Bridge\LoadRatingSubmittals\DesignBuild_Construction\. An email notification will be sent to the QA Review Team.
 - Upon approval by the QA reviewer, the files will be uploaded by the QA reviewer to:
<pw:\\SmpP Wise.nts.scdot.net:SCDOT\Documents\ -GENERAL FILES\Director of Maintenance\Bridge\Bridge Data\>COUNTY\ASSET ID, where the COUNTY\ASSET ID are located for the structure being reviewed.
 - The QA Reviewer will CC: John Caver on the approval emails (CaverJA@scdot.org).
13. Michael Baker International updates BIO, as necessary.