

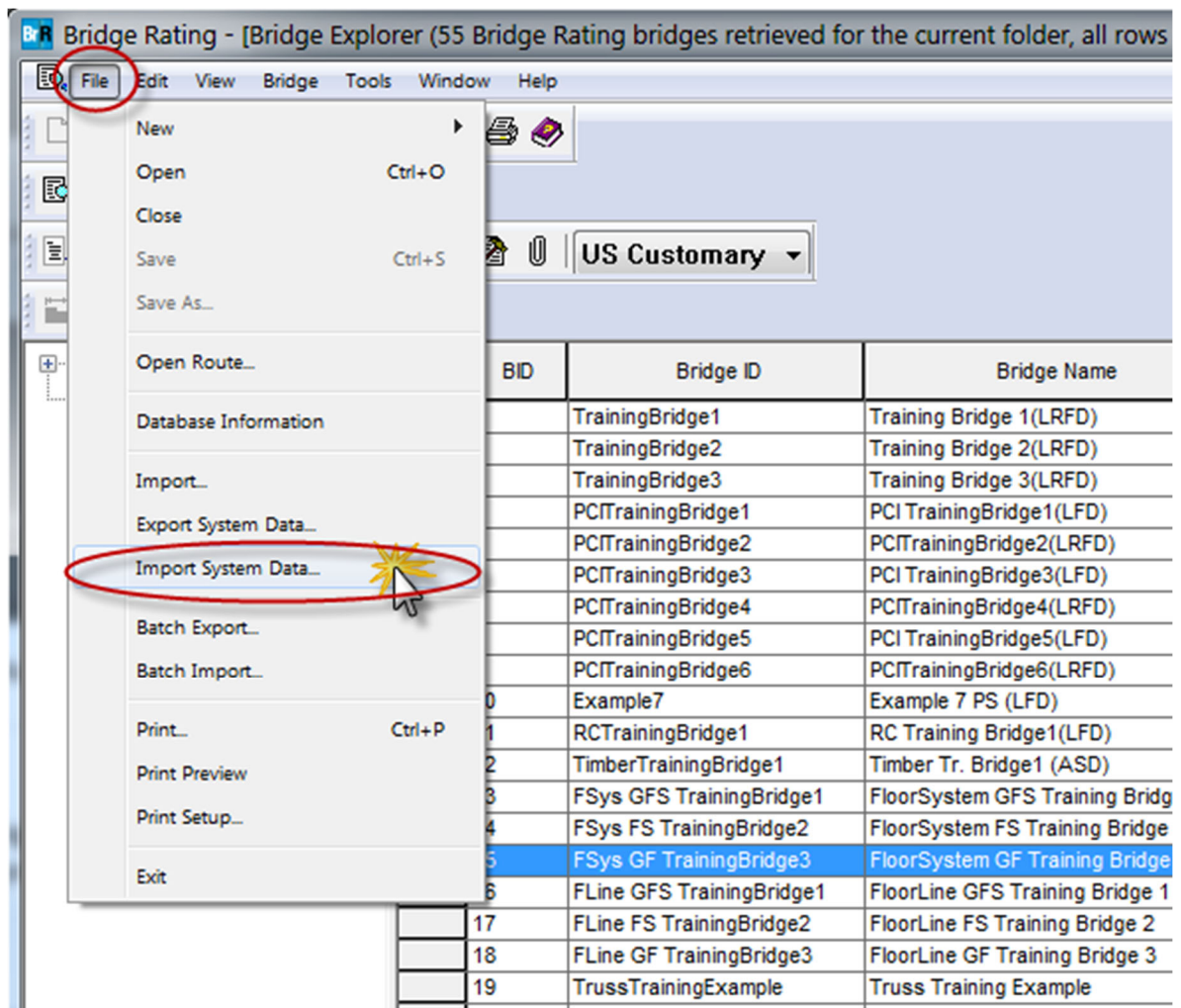
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

This document explains the process for importing and applying the BrR General Preference template for the SCDOT load rating project. The “*SCDOT LR BrR Defaults.xml*” file shall be utilized to provide uniformity between all ratings performed in BrR and so that member control options, analysis engines, rating methods, etc. are all set to conform to the current version of the SCDOT Load Rating Guidance Document (LRGD).

Importing a General Preferences template into the BrR Library

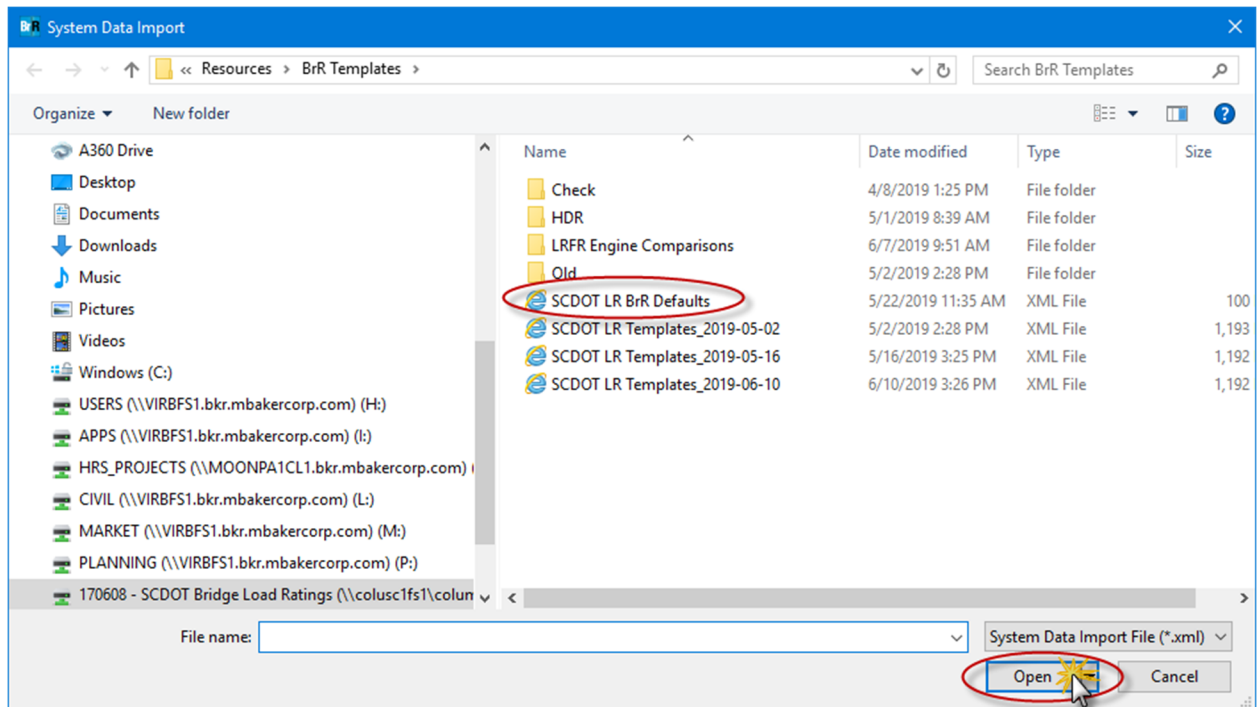
1. Open the BrR “Bridge Explorer” workspace and choose *File* → *Import System Data...*



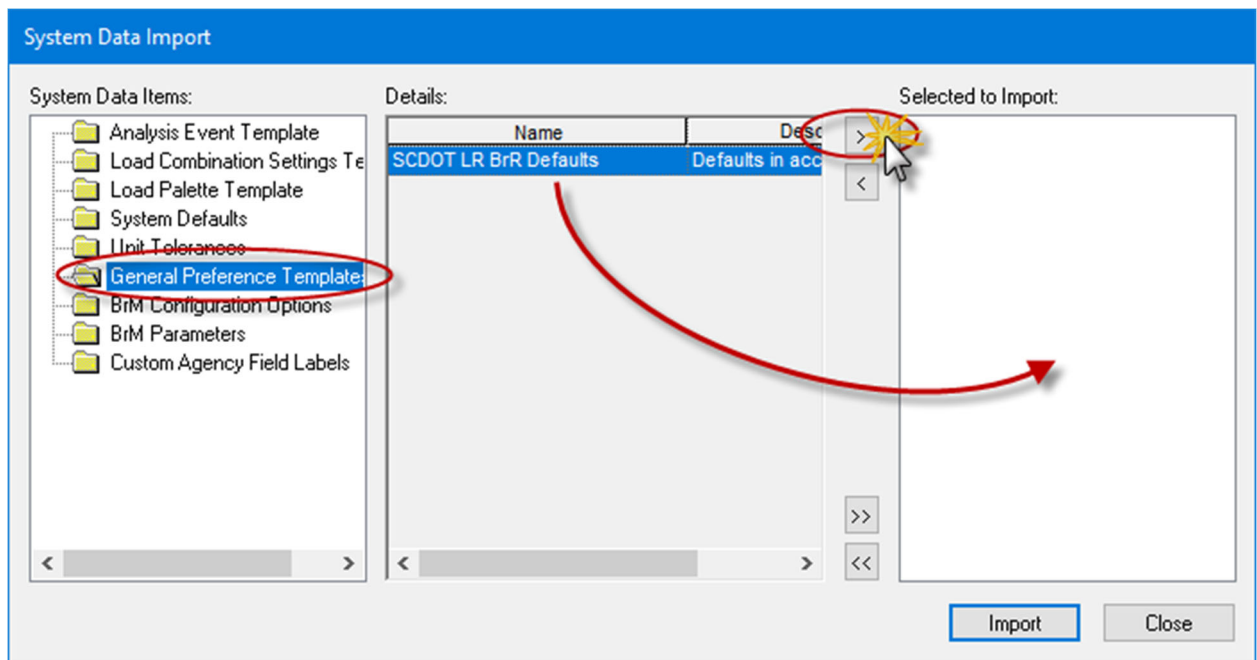
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

2. Navigate to where a copy of the “*SCDOT LR BrR Defaults.xml*” file is saved. Select the file and click **Open**:



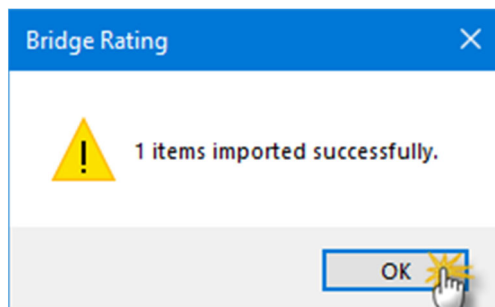
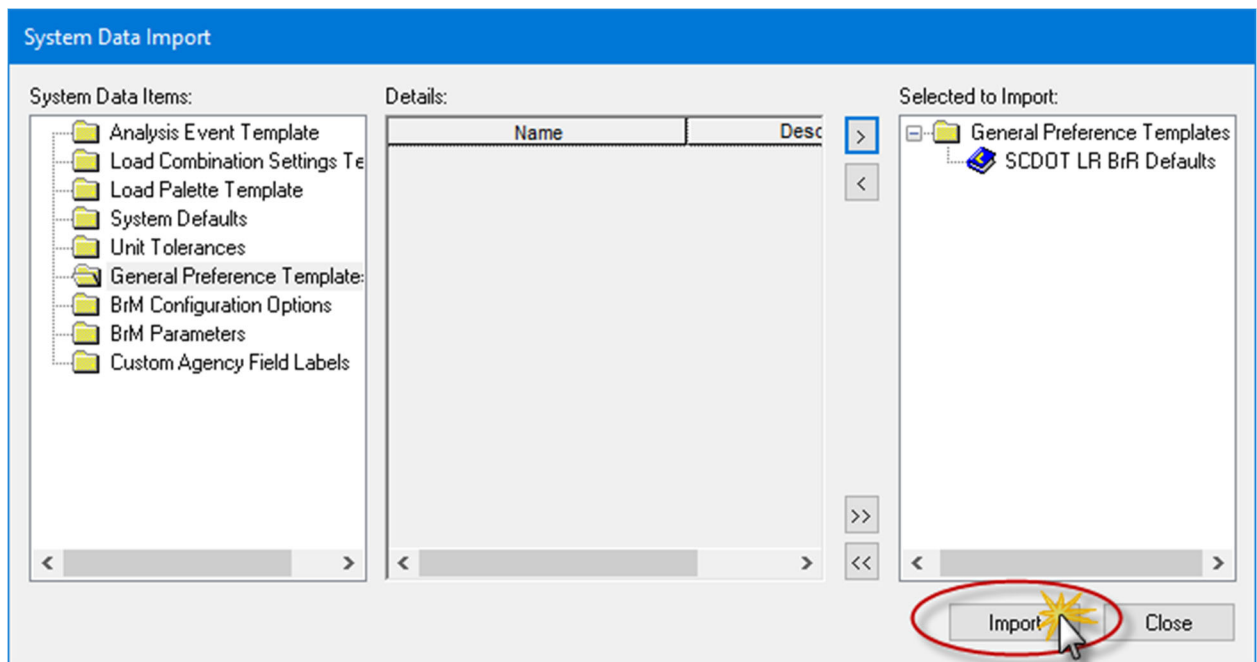
3. In the “System Data Import” window, choose *General Preference Templates* and you will see the *SCDOT LR BrR Defaults* item displayed. Click the right-arrow button to drag the template into the “Selected to Import” window:



INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

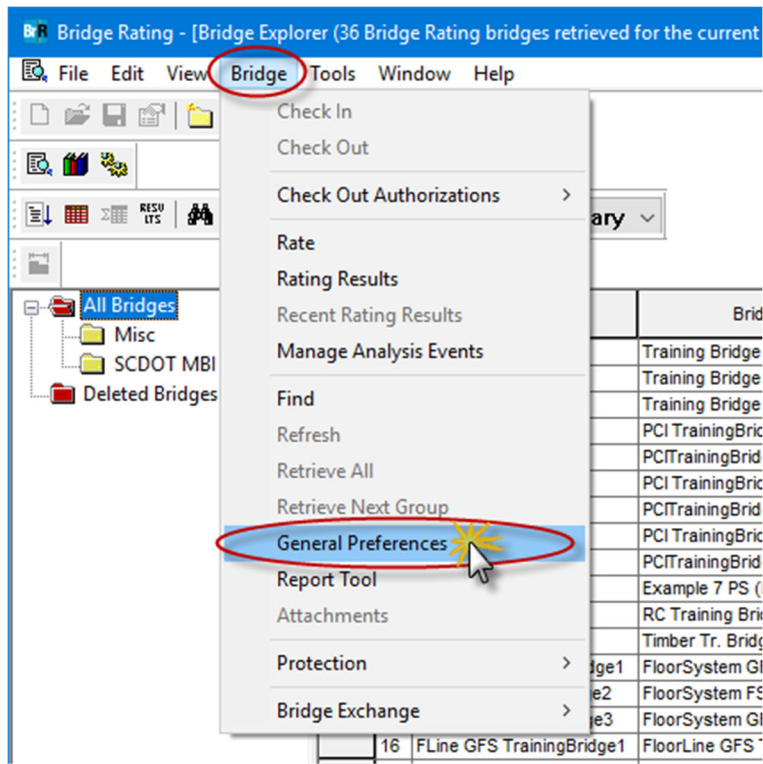
- Click the **Import** button. A message will be displayed showing the result of the import. Click **OK**.



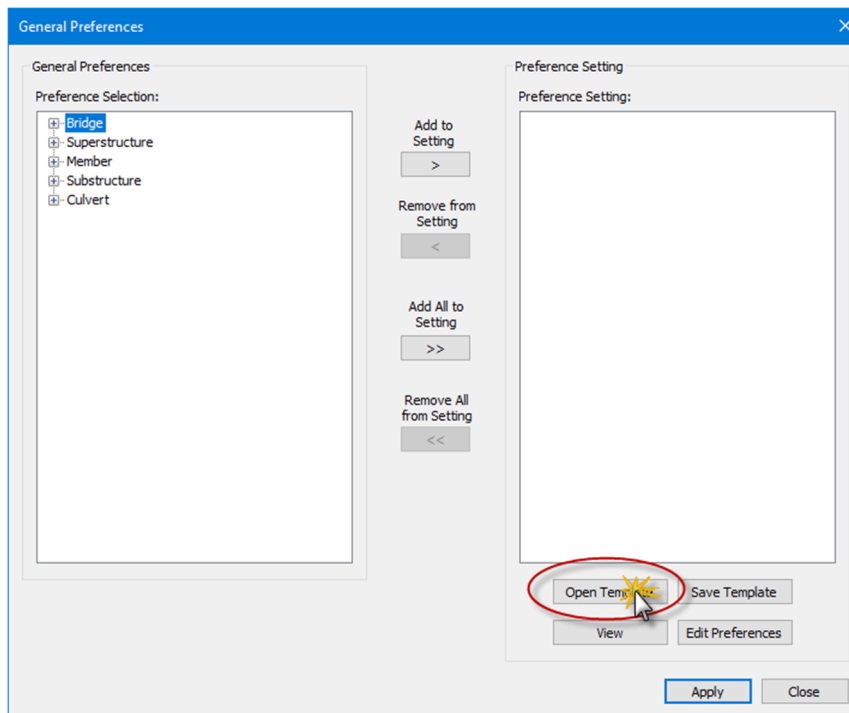
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

5. The SCDOT LR BrR Defaults template has now been added to the BrR library. To view the defaults, from the “Bridge Explorer” workspace choose *Bridge* → *General Preferences*



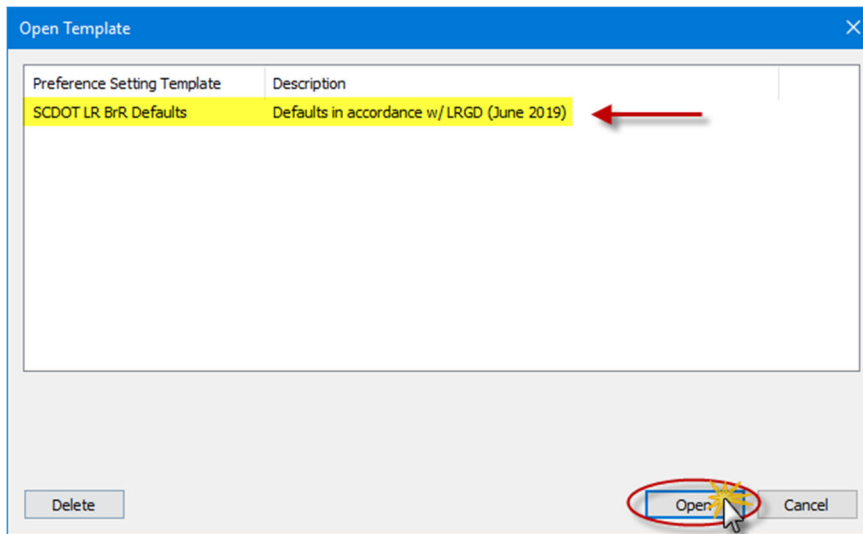
6. In the “General Preferences” window, click the **Open Template** button.



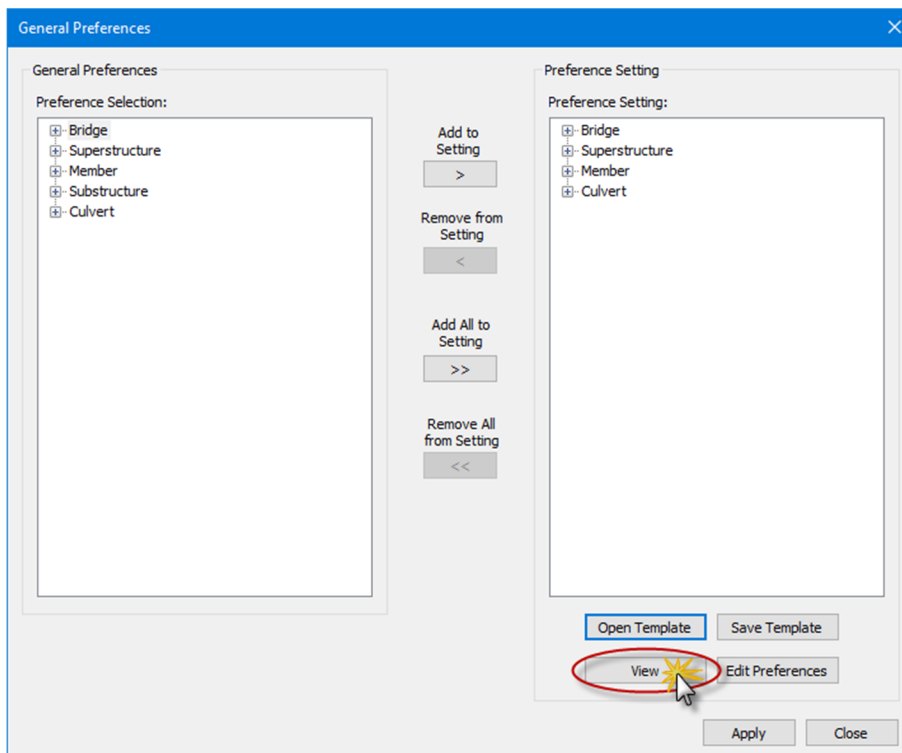
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

7. In the “Open Template” window, the previously imported “SCDOT LR BrR Defaults” template (along with any other existing templates in the library) will appear.

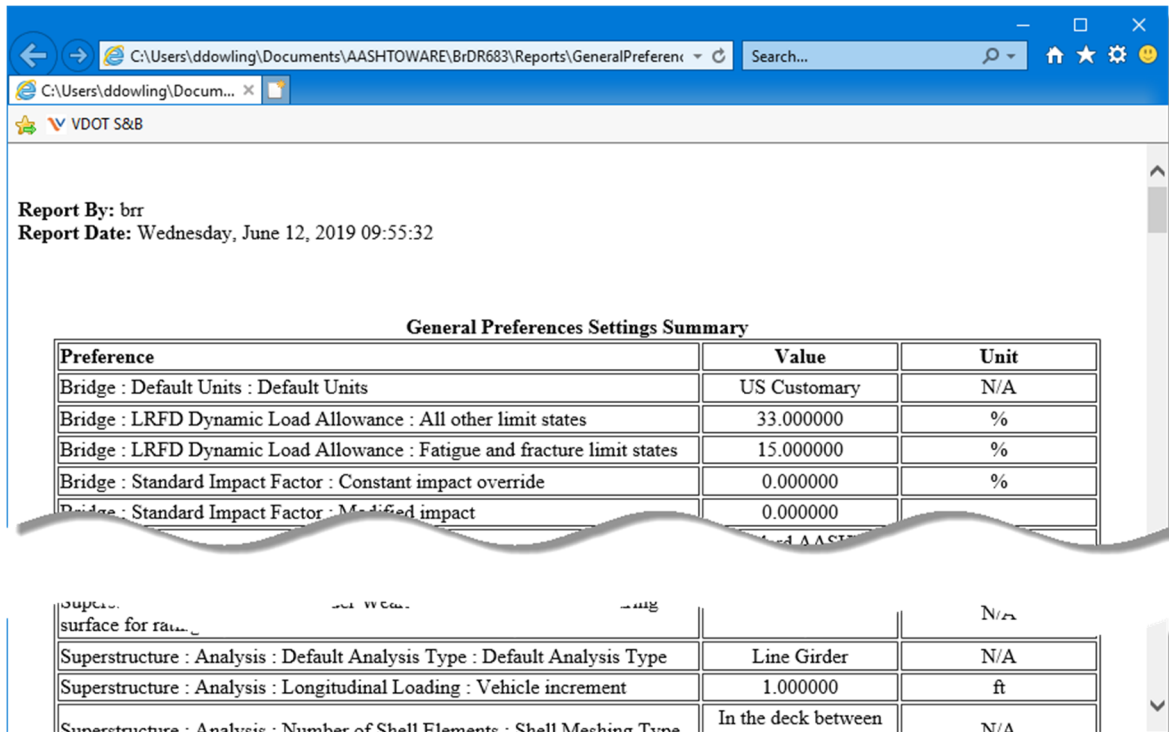


8. To view the default preferences, click the **View** button. All preferences will be shown in a new window.

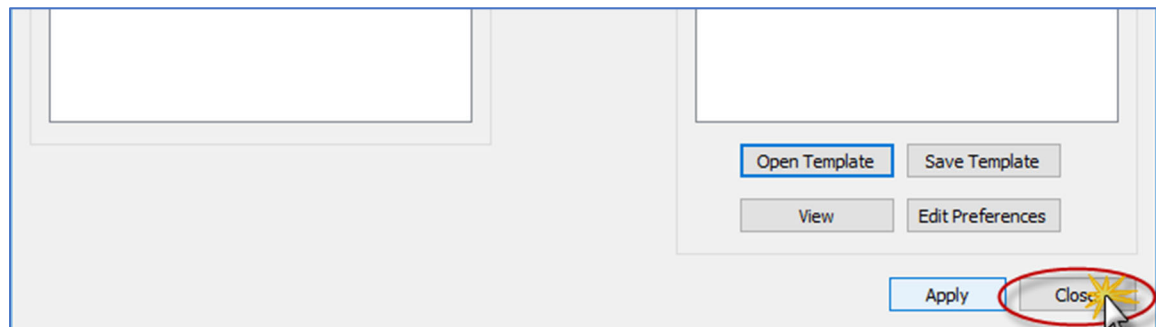


INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019



- Click **Close** to close the General Preferences window.



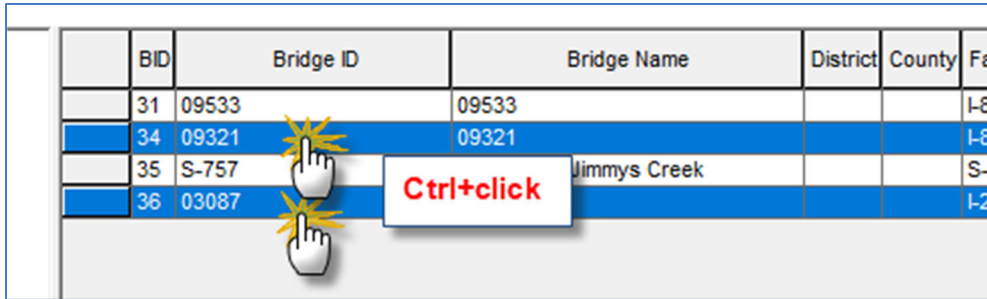
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

Applying the SCDOT LR BrR Defaults to a Bridge File

Option 1: apply defaults from the "Bridge Explorer" workspace

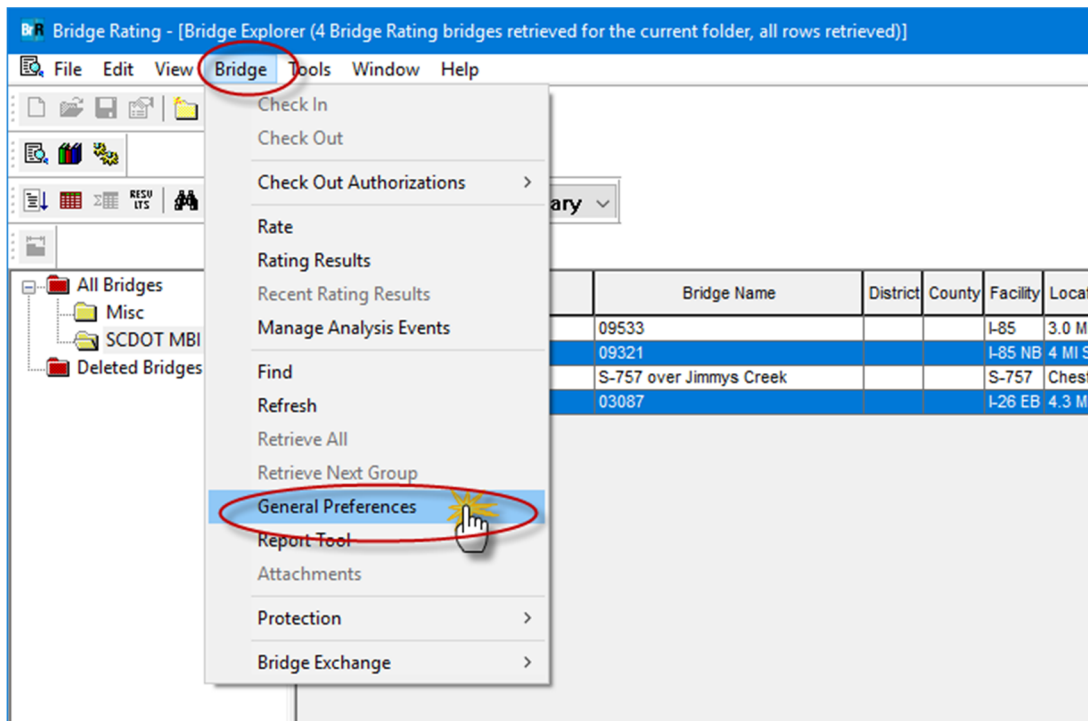
1. From the BrR "Bridge Explorer" workspace, click to select a (or *Ctrl+click* to select multiple) Bridge ID(s) to which you'd like to apply the defaults.



A screenshot of a table with columns: BID, Bridge ID, Bridge Name, District, County, and Fa. The table contains four rows. The second, third, and fourth rows are highlighted in blue. A hand cursor is shown clicking on the 'Bridge ID' of the third row (09321), and another hand cursor is shown clicking on the 'Bridge ID' of the fourth row (03087). A red callout box with the text 'Ctrl+click' is positioned over the third row.

BID	Bridge ID	Bridge Name	District	County	Fa
31	09533	09533			I-8
34	09321	09321			I-8
35	S-757	Jimmys Creek			S-
36	03087				I-2

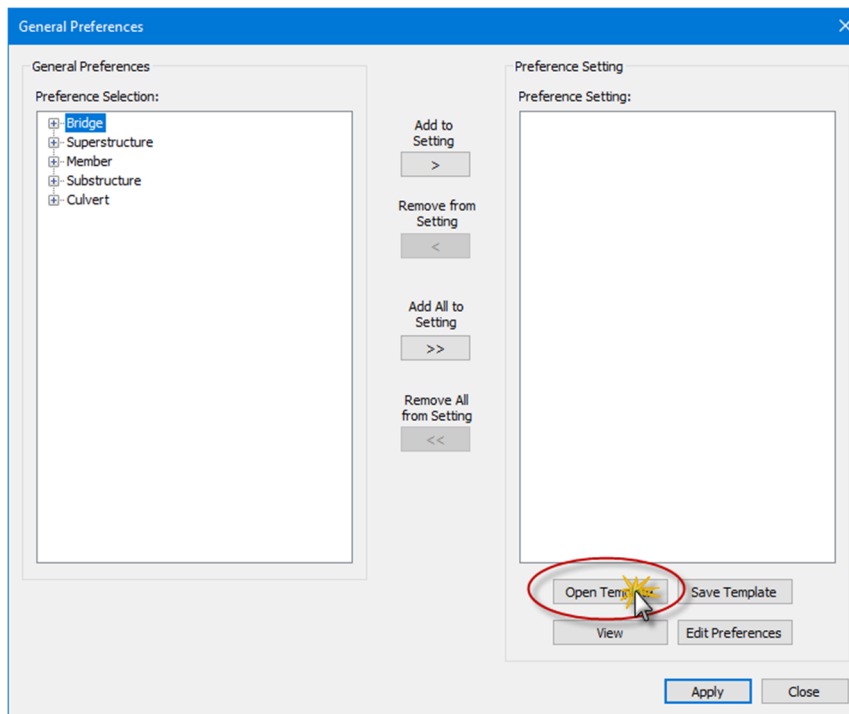
2. With the Bridge ID(s) selected, choose *Bridge* → *General Preferences*



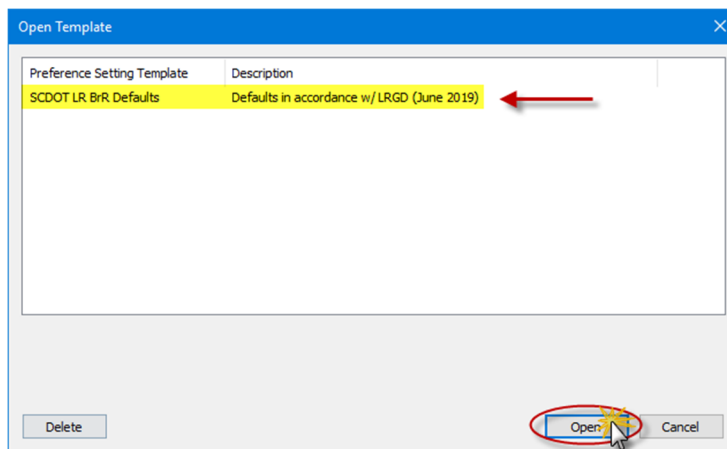
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

3. In the “General Preferences” window, click the **Open Template** button.



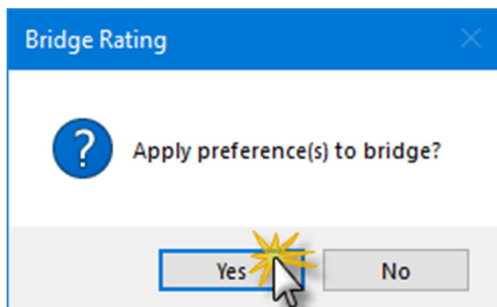
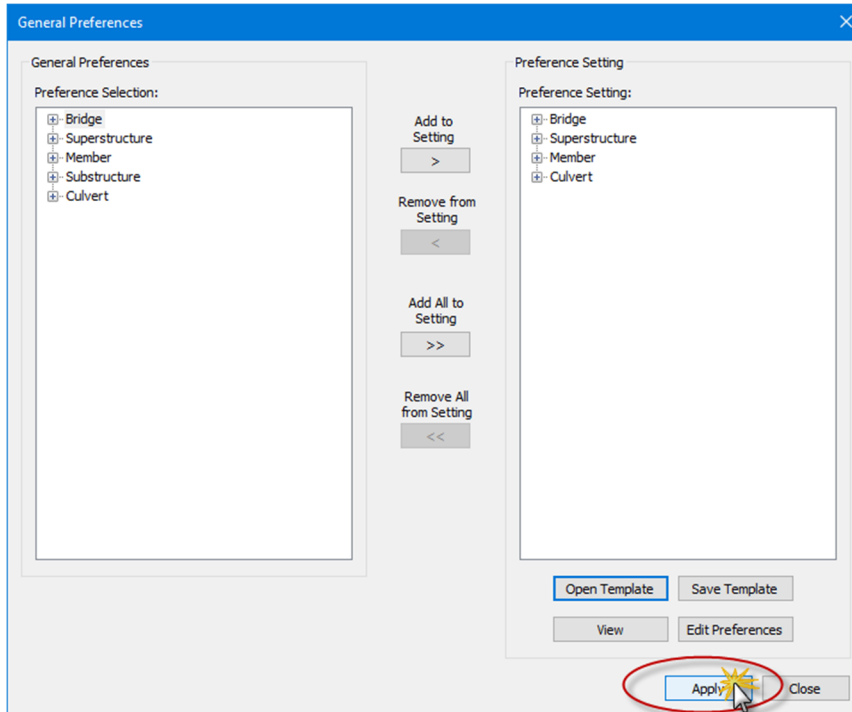
4. In the “Open Template” window, select the “SCDOT LR BrR Defaults” template and click **Open**.



INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

5. With the SCDOT LR BrR Defaults added to the *Preference Setting* window, click **Apply**. This action will apply the SCDOT LR defaults to all selected bridges in the bridge explorer library. A message window will appear. Click Yes to override all the existing defaults, control options, analysis methods, etc. in the bridge file with defaults conforming to the current version of the SCDOT LRGD.

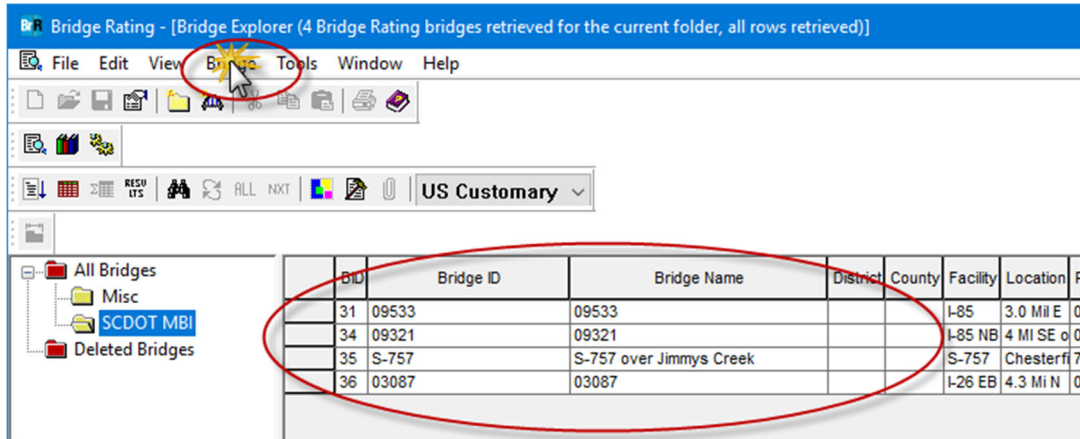


INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

A word of caution:

When attempting to apply the general preferences template from the Bridge Explorer, if no bridges are selected prior to clicking **Bridge → General Preferences**, BrR will display a warning message that all bridges in that current folder will be updated with the preferences selected.



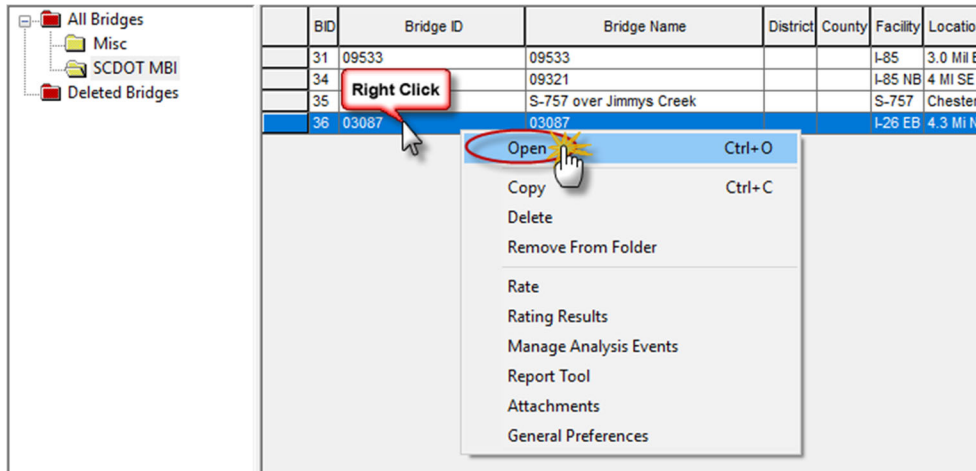
Choose **Yes** or **No** on this warning message depending on your intent. Applying general preferences cannot be undone. Any unwanted changes to the settings in a bridge file will have to be manually overridden and changed back to original settings.

INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

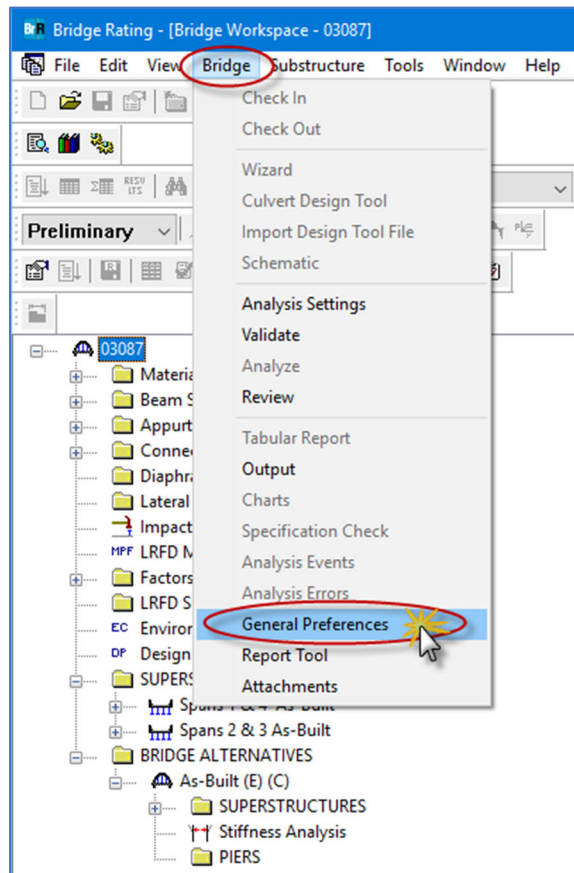
July 2019

Option 2: apply defaults from the "Bridge Workspace"

1. From the BrR "Bridge Explorer" workspace, open the bridge model to which you'd like to apply the defaults. Open by double-clicking the Bridge ID or by right-clicking the Bridge ID and choosing *Open*:



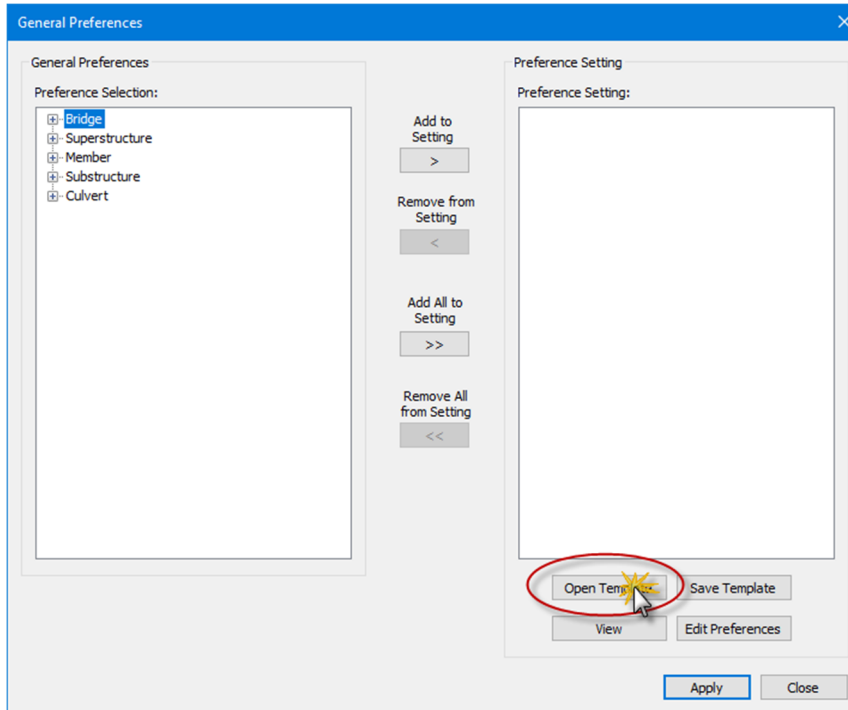
2. From the "Bridge Workspace", choose *Bridge* → *General Preferences*:



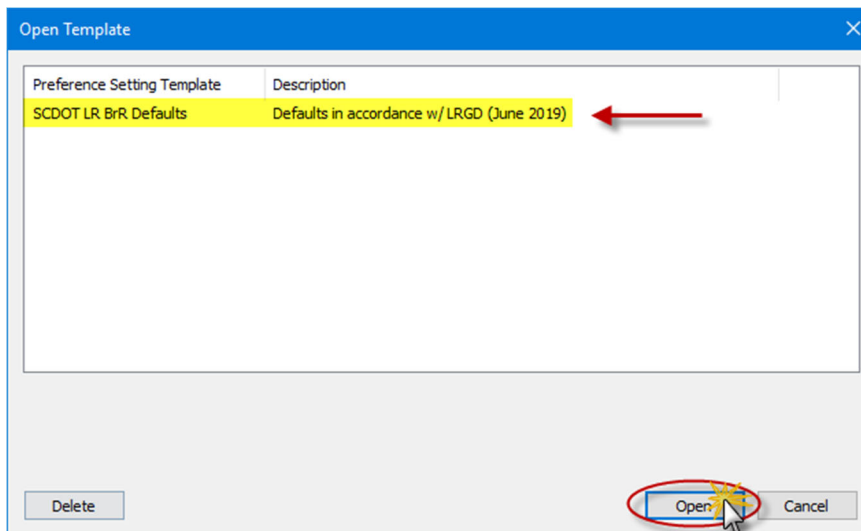
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

3. In the “General Preferences” window, click the **Open Template** button.



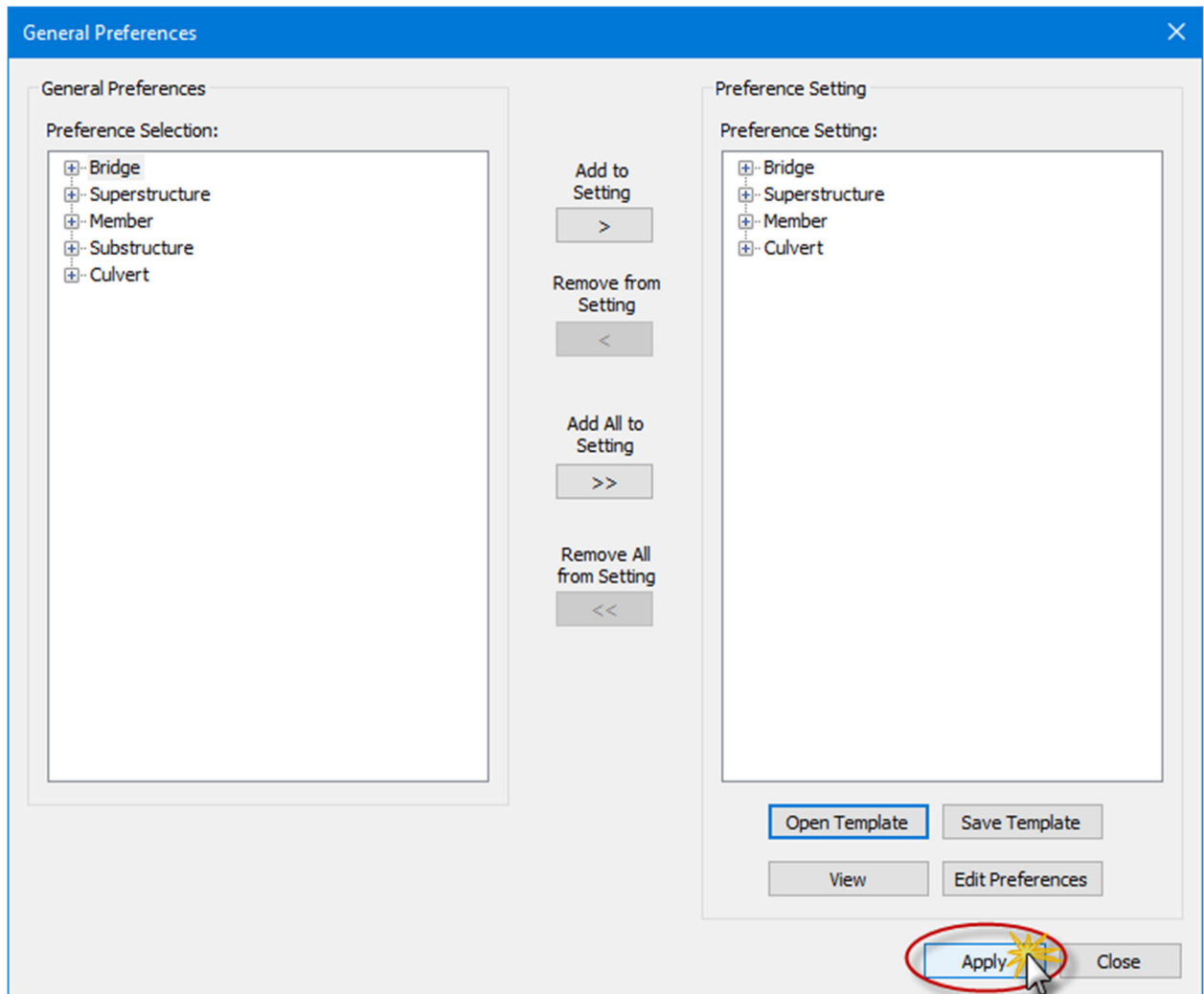
4. Select the “SCDOT LR BrR Defaults” template and click **Open**.



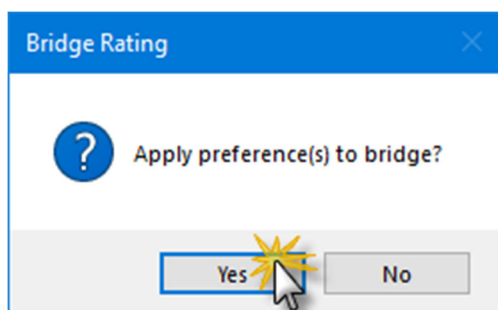
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

5. With the SCDOT LR BrR Defaults template open in the *Preference Setting* window, click **Apply**:



6. A message window will appear. Click Yes to override all the existing defaults, control options, analysis methods, etc. in the bridge file with defaults conforming to the current version of the SCDOT LRGD.



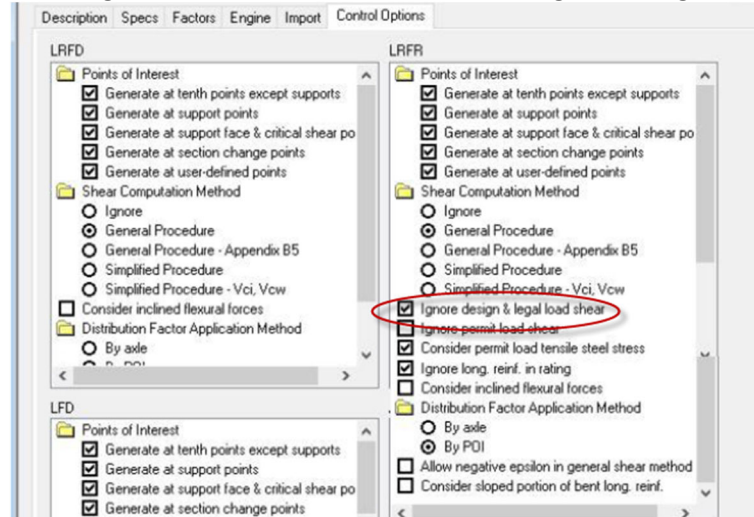
INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

Variances from the current edition of the LRGD

1. LRFR Control Options for Reinforced Concrete Girders

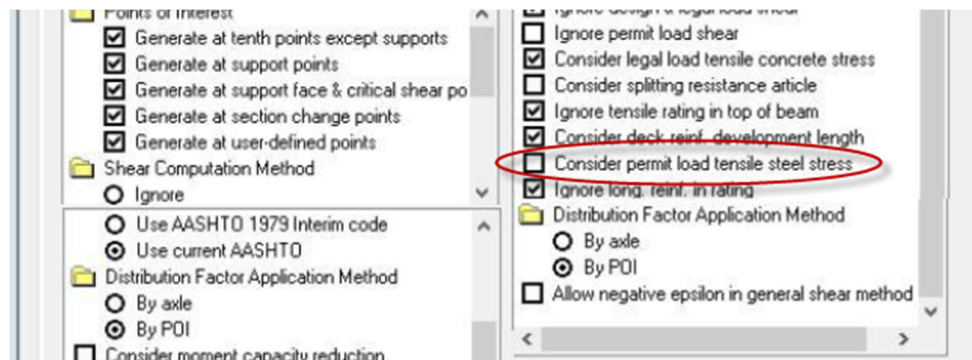
- LRGD Figure 9.2.1.2-1 shows a check-box in “Ignore design & legal load shear”:



However, LRGD Section 9.2.1.2, bullet #7 reads *“Note: the “Ignore design and legal load shear” box should only be checked if the requirements set forth in the MBE are met.”* Therefore, the “SCDOT LR BrR Defaults” template leaves this box UNCHECKED by default. It is prudent to rate all girders for design and legal load shear initially. If the shear ratings control and based on the most recent inspection the concrete girders meet the requirements of MBE Section 6A.5.8, then this control option may be overridden and design/legal load shear ignored. **This action should be documented on the LRSF!**

2. LRFR Control Options for Prestressed Concrete Girders

- LRGD Figure 10.2.1.2-1 shows a check-box in “Ignore design & legal load shear”. However, this box is left unchecked in the SCDOT LR BrR Defaults template for the same reasons described in variance #1 above.
- LRGD Figure 9.2.1.2-2 shows the “Consider permit load tensile steel stress” box unchecked. However, LRGD Section 10.2.3 states *“The Service III check for legal loads and the Service I check for permit loads shall be performed.”* Therefore, this box is CHECKED in the SCDOT LR BrR Defaults template.



INSTRUCTIONS FOR IMPORTING SCDOT LR BrR DEFAULTS

July 2019

3. LRFD Control Options for Reinforced Concrete Slab members.

- Because BrR does not provide separate General Preference inputs for RC concrete girders and RC concrete slabs, all RC concrete slab members will receive the default RC concrete girder control options (as defined in LRGD Figure 9.2.1.2-1). Therefore, the control options for RC slab bridges input in BrR will have to be manually overridden to match LRGD Figure 9.2.1.2-2, with the following exception:
 - i. "Consider permit load tensile steel stress" should be CHECKED, in accordance with LRGD Section 9.2.6.
 - ii. Manual overrides for slab members are highlighted below:

