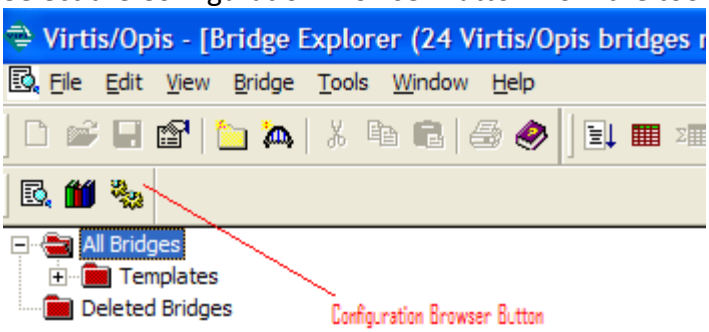
Setup

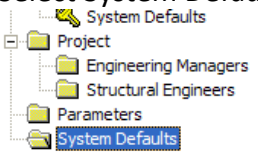
NOTE: Press F1 for HELP at any time
System Defaults (pages 1-2) (Consultant Only)
Preferences (page 3) (All)
Importing the KDOT Agency Library (pages 4-5) (Consultant Only)
Setting up your KDOT Truck Templates (pages 6-9) (Consultant Only)
Setting up the Specification Check Filter (pages 10-13) (All)

System Defaults

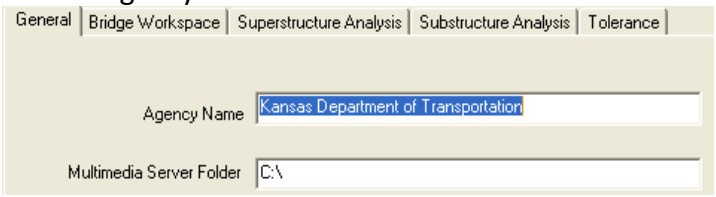
Select the Configuration Browser Button from the tool bar near the upper left



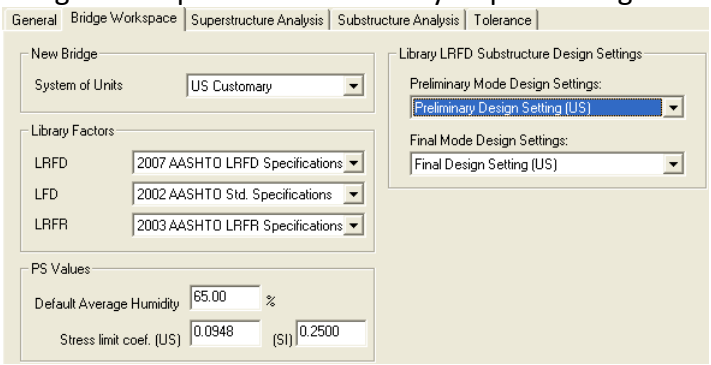
Select System Defaults from the bottom of the list



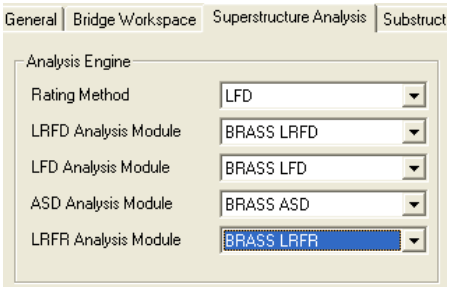
Set the Agency name



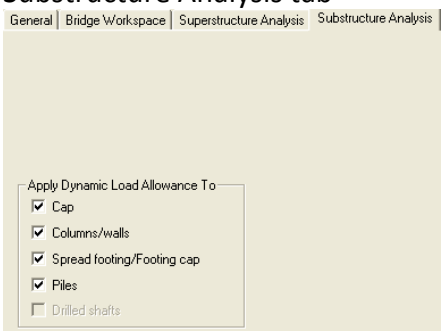
Bridge Workspace tab should only require changes to the PS Values area as shown



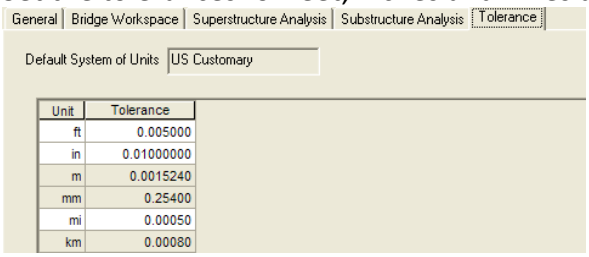
Superstructure Analysis tab



Substructure Analysis tab



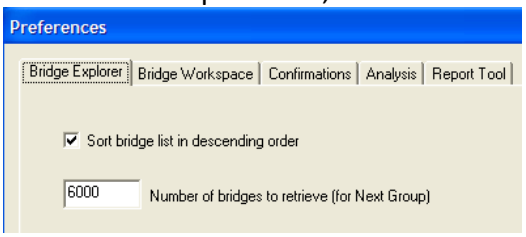
Set the tolerances for feet, inches and miles as shown

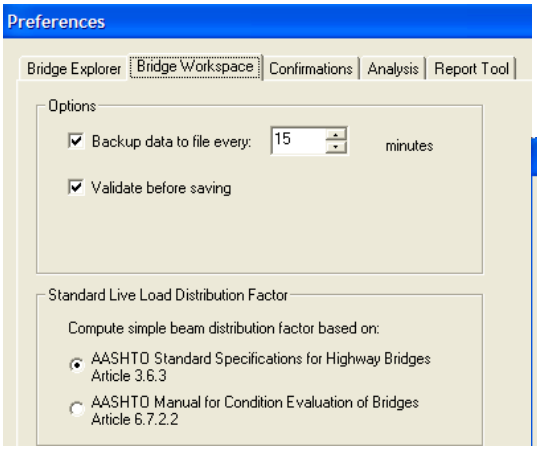


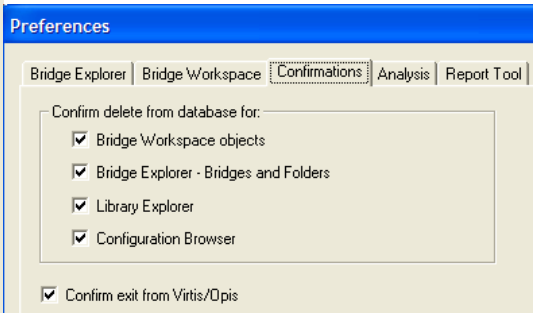
Select the Save button from the lower right and close the Configuration Browser window

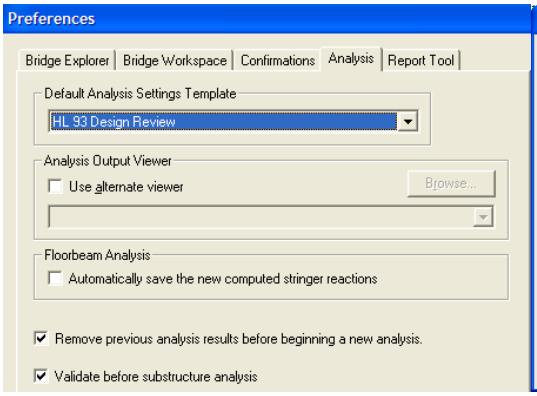
Preferences

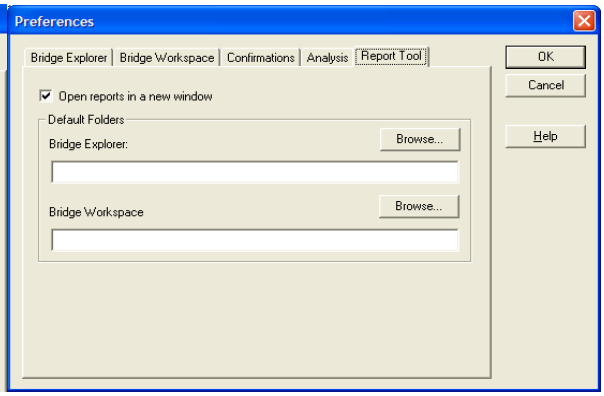
From the View pulldown, select Preferences and make changes as shown





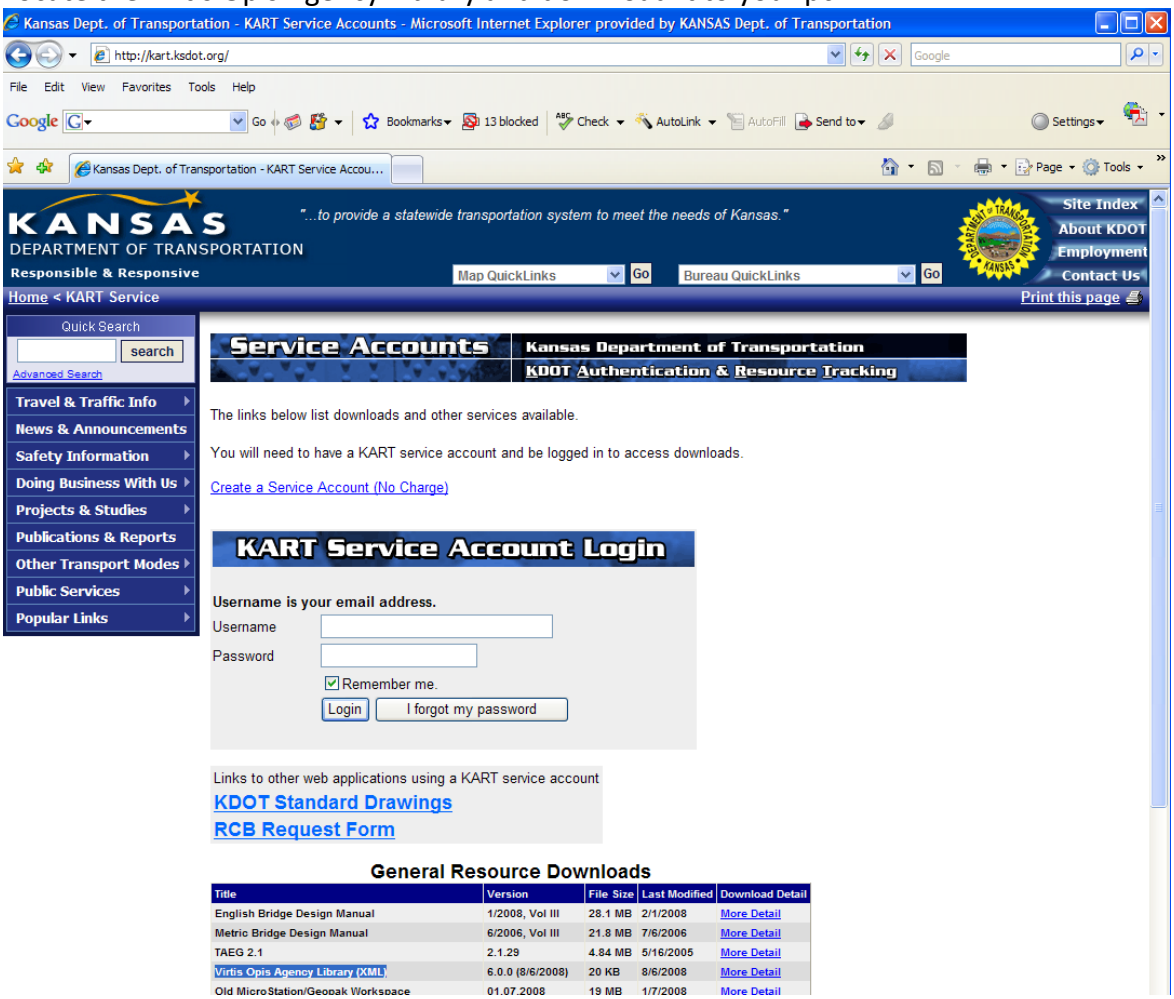






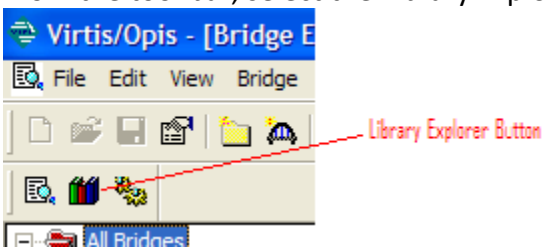
Importing the KDOT Agency Library

Using your KART Service Account
Locate the Virtis Opis Agency Library and download it to your pc



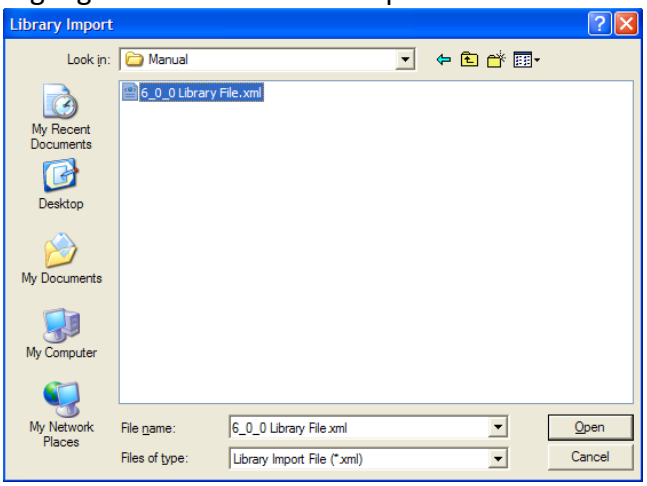
Once downloaded, follow these steps to import the library to your current version of Virtis/Opis

From the tool bar, select the Library Explorer button

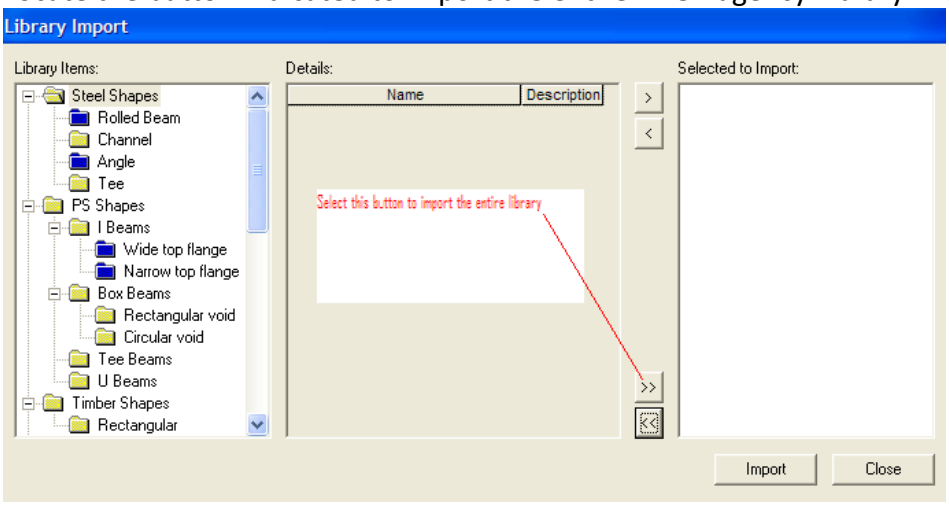


From the File pulldown find and select Import

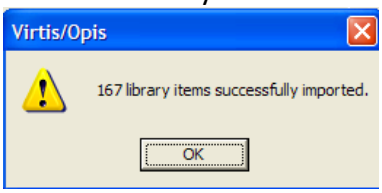
In the pop up window locate the KDOT Agency Library file you downloaded from KART
Highlight the file and select Open



Locate the button indicated to import the entire KDOT agency Library in one process



Then select the Import button from the lower right
When finished you will see the window shown below

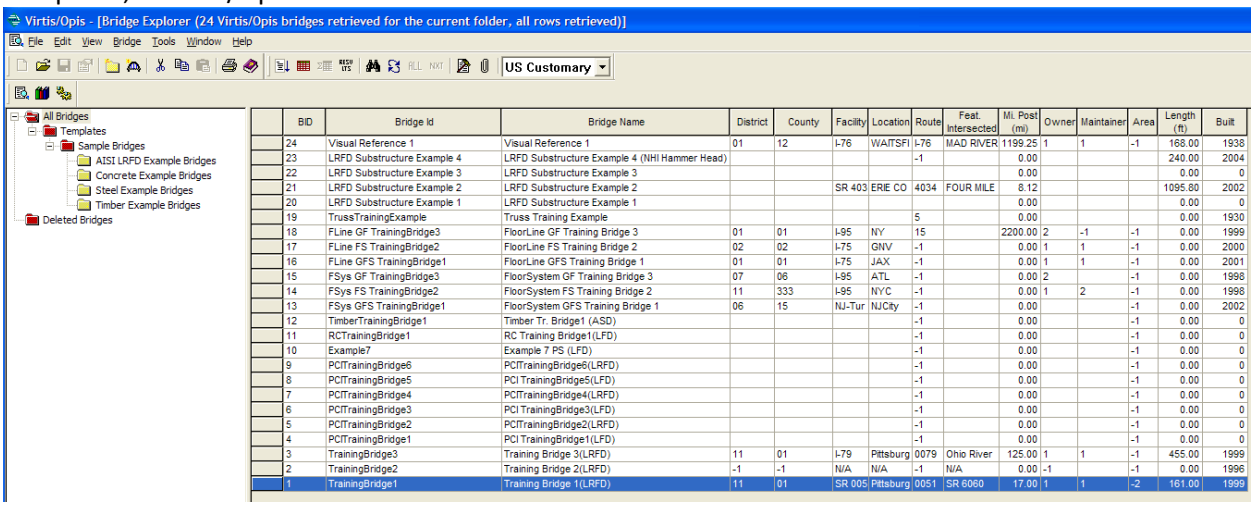


Select OK and Close

Creating the KDOT Truck Templates

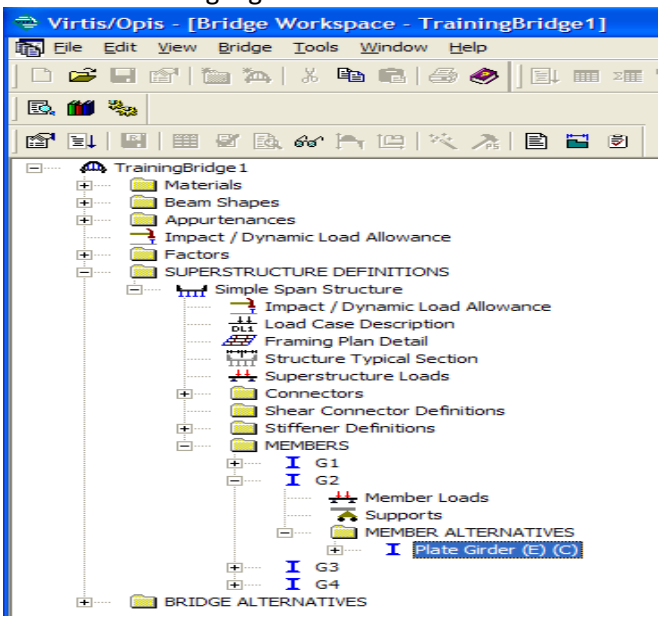
KDOT Truck Templates can only be created while in the analysis settings area inside an existing bridge. To do this we will open a bridge provided in our provided database.

Locate BID (Bridge ID) #1 called TrainingBridge1 from your bridge explorer window.
To open it, use File/Open or double click it

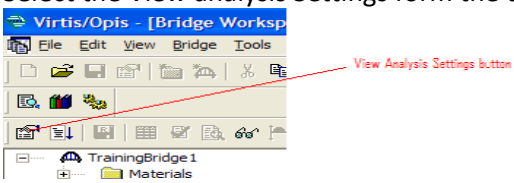


BID	Bridge Id	Bridge Name	District	County	Facility	Location	Route	Feat. Intersected	Mi. Post (mi)	Owner	Maintainer	Area	Length (ft)	Built
24	Visual Reference 1	Visual Reference 1	01	12	I-76	WAITSFI	I-76	MAD RIVER	1199.25	1	1	-1	168.00	1938
23	LRFD Substructure Example 4	LRFD Substructure Example 4 (NHI Hammer Head)					-1		0.00				240.00	2004
22	LRFD Substructure Example 3	LRFD Substructure Example 3							0.00				0.00	0
21	LRFD Substructure Example 2	LRFD Substructure Example 2			SR 403	ERIE CO	4034	FOUR MILE	8.12				1095.80	2002
20	LRFD Substructure Example 1	LRFD Substructure Example 1							0.00				0.00	0
19	TrussTrainingExample	Truss Training Example					5		0.00				0.00	1930
18	FLine GF TrainingBridge3	FloorLine GF Training Bridge 3	01	01	I-95	NY	15		2200.00	2	-1	-1	0.00	1999
17	FLine FS TrainingBridge2	FloorLine FS Training Bridge 2	02	02	I-75	GNV	-1		0.00	1	1	-1	0.00	2000
16	FLine GFS TrainingBridge1	FloorLine GFS Training Bridge 1	01	01	I-75	JAX	-1		0.00	1	1	-1	0.00	2001
15	FSys GF TrainingBridge3	FloorSystem GF Training Bridge 3	07	06	I-95	ATL	-1		0.00	2		-1	0.00	1998
14	FSys FS TrainingBridge2	FloorSystem FS Training Bridge 2	11	333	I-95	NYC	-1		0.00	1	2	-1	0.00	1998
13	FSys GFS TrainingBridge1	FloorSystem GFS Training Bridge 1	06	15	NJ-Tur	NJCity	-1		0.00			-1	0.00	2002
12	TimberTrainingBridge1	Timber Tr. Bridge1 (ASD)					-1		0.00			-1	0.00	0
11	RCTrainingBridge1	RC Training Bridge1(LFD)					-1		0.00			-1	0.00	0
10	Example7	Example 7 PS (LFD)					-1		0.00			-1	0.00	0
9	PCITrainingBridge6	PCITrainingBridge6(LRFD)					-1		0.00			-1	0.00	0
8	PCITrainingBridge5	PCI TrainingBridge5(LFD)					-1		0.00			-1	0.00	0
7	PCITrainingBridge4	PCITrainingBridge4(LRFD)					-1		0.00			-1	0.00	0
6	PCITrainingBridge3	PCI TrainingBridge3(LFD)					-1		0.00			-1	0.00	0
5	PCITrainingBridge2	PCITrainingBridge2(LRFD)					-1		0.00			-1	0.00	0
4	PCITrainingBridge1	PCI TrainingBridge1(LFD)					-1		0.00			-1	0.00	0
3	TrainingBridge3	Training Bridge 3(LRFD)	11	01	I-79	Pittsburg	0079	Ohio River	125.00	1	1	-1	455.00	1999
2	TrainingBridge2	Training Bridge 2(LRFD)	-1	-1	N/A	N/A	-1	N/A	0.00	-1		-1	0.00	1996
1	TrainingBridge1	Training Bridge 1(LRFD)	11	01	SR 005	Pittsburg	0051	SR 6060	17.00	1	1	-2	161.00	1999

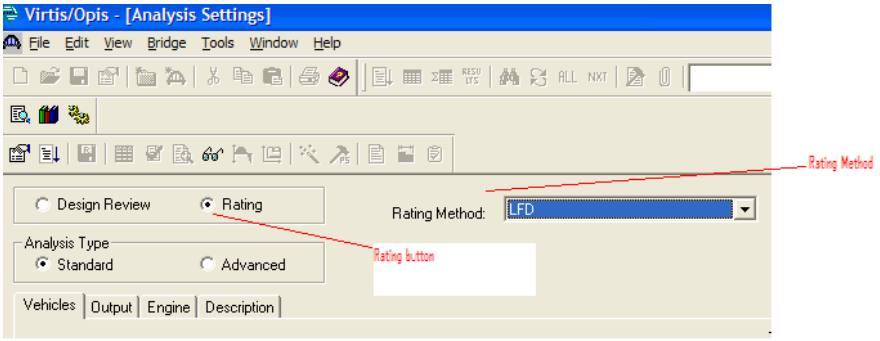
Drill down and highlight the Member Alternative as shown



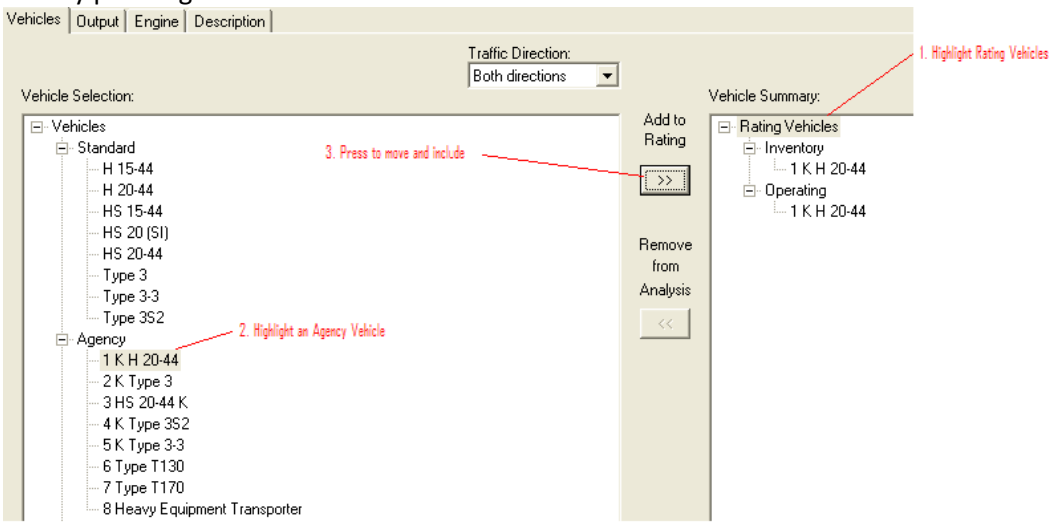
Select the View analysis Settings form the toolbar



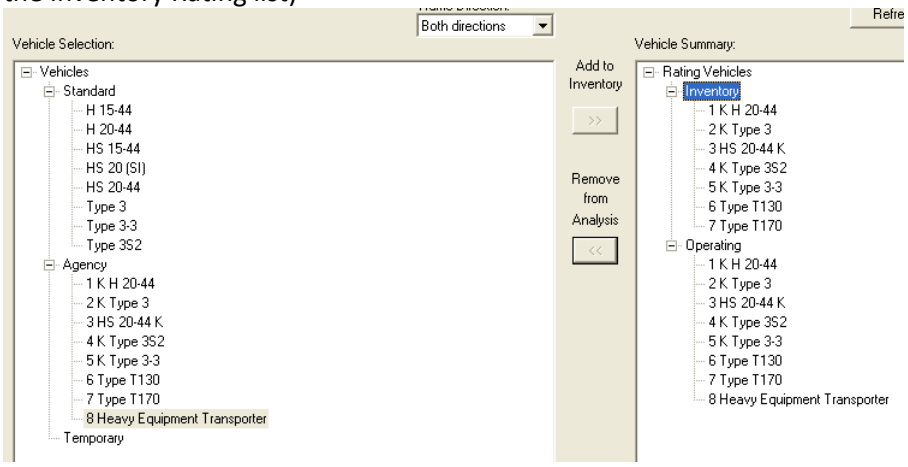
Notice that all the KDOT Agency Trucks are available in the list of vehicles, under Agency
The first step is to select the Rating radio button in the top left
The pulldown window will change to Rating Method
Select LFD in this window



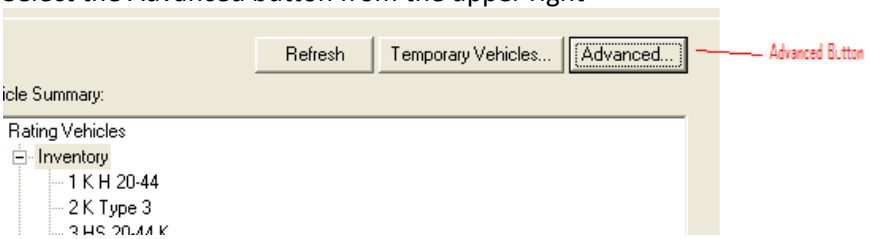
With Rating Vehicles highlighted the Summary Pane, highlight each agency truck and move it to the right side by pressing the >> button



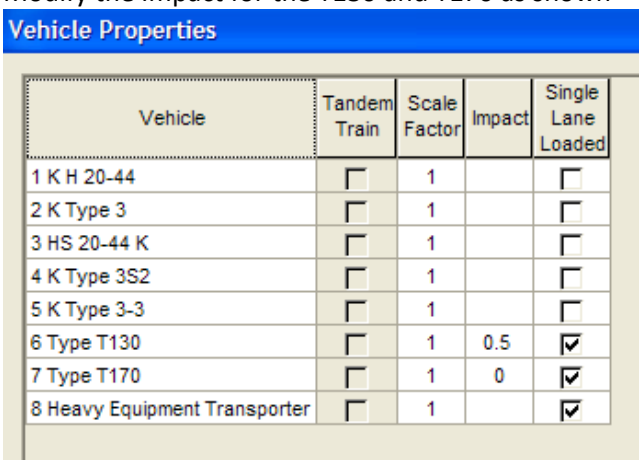
Continue until all the Agency Vehicles are moved to the right with the exception of the Heavy Equipment Transporter. It should only be included in the Operating Rating (remove or exclude it from the Inventory Rating list)



Select the Advanced button from the upper right

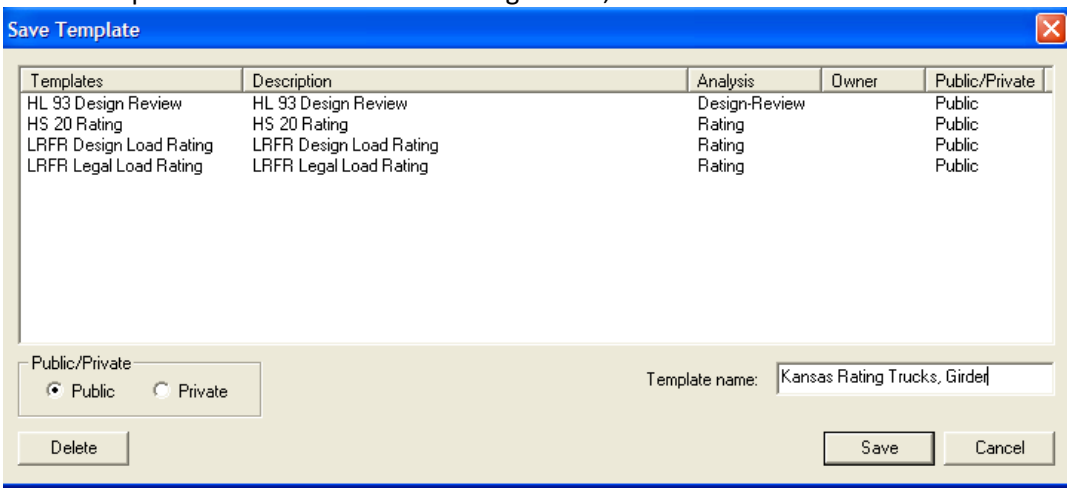


Check Single Lane Loaded for the T130, T170 and HET
Modify the Impact for the T130 and T170 as shown



Vehicle	Tandem Train	Scale Factor	Impact	Single Lane Loaded
1 K H 20-44	☐	1		☐
2 K Type 3	☐	1		☐
3 HS 20-44 K	☐	1		☐
4 K Type 3S2	☐	1		☐
5 K Type 3-3	☐	1		☐
6 Type T130	☐	1	0.5	☑
7 Type T170	☐	1	0	☑
8 Heavy Equipment Transporter	☐	1		☑

At the bottom of the Analysis Settings window, select Save Template
In the Template Name: enter Kansas Rating Trucks, Girder and then hit the save button



Now we will create the rating trucks template for Reinforced Concrete Slabs

With the template for Girders Structures still in the window, select the advanced button again
Uncheck the Single Lane Loaded for the T130, T170 & HET and enter a scale factor of 0.869565 as shown

Vehicle Properties

Vehicle	Tandem Train	Scale Factor	Impact	Single Lane Loaded
1 K H 20-44	☐	1		☐
2 K Type 3	☐	1		☐
3 HS 20-44 K	☐	1		☐
4 K Type 3S2	☐	1		☐
5 K Type 3-3	☐	1		☐
6 Type T130	☐	0.869565	0.5	☐
7 Type T170	☐	0.869565	0	☐
8 Heavy Equipment Transporter	☐	0.869565		☐

Select the Save Template button near the bottom again and enter the name Kansas Rating Trucks, Slabs and press Save

Save Template

Templates	Description	Analysis	Owner	Public/Private
HL 93 Design Review	HL 93 Design Review	Design-Review		Public
HS 20 Rating	HS 20 Rating	Rating		Public
Kansas Rating Trucks, Girder	Rating Event	Rating		Public
LRFR Design Load Rating	LRFR Design Load Rating	Rating		Public
LRFR Legal Load Rating	LRFR Legal Load Rating	Rating		Public

Public/Private: (•) Public ( ) Private

Template name: Kansas Rating Trucks, Slabs

Delete | Save | Cancel

Now when you press your Open Template button it should like this

Open Template

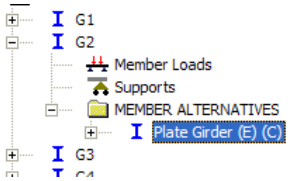
Templates	Description	Analysis	Owner	Public/Private
HL 93 Design Review	HL 93 Design Review	Design-Review		Public
HS 20 Rating	HS 20 Rating	Rating		Public
Kansas Rating Trucks, Girder	Rating Event	Rating		Public
Kansas Rating Trucks, Slabs	Rating Event	Rating		Public
LRFR Design Load Rating	LRFR Design Load Rating	Rating		Public
LRFR Legal Load Rating	LRFR Legal Load Rating	Rating		Public

Delete | Open | Cancel

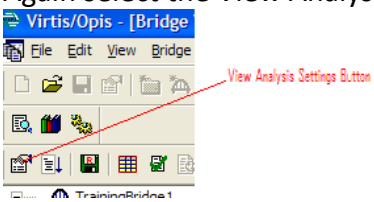
LRFD Specification Check Filters

In order to set up and save the spec check filters you will have to perform an LRFD analysis to gain access to the spec check filter area.

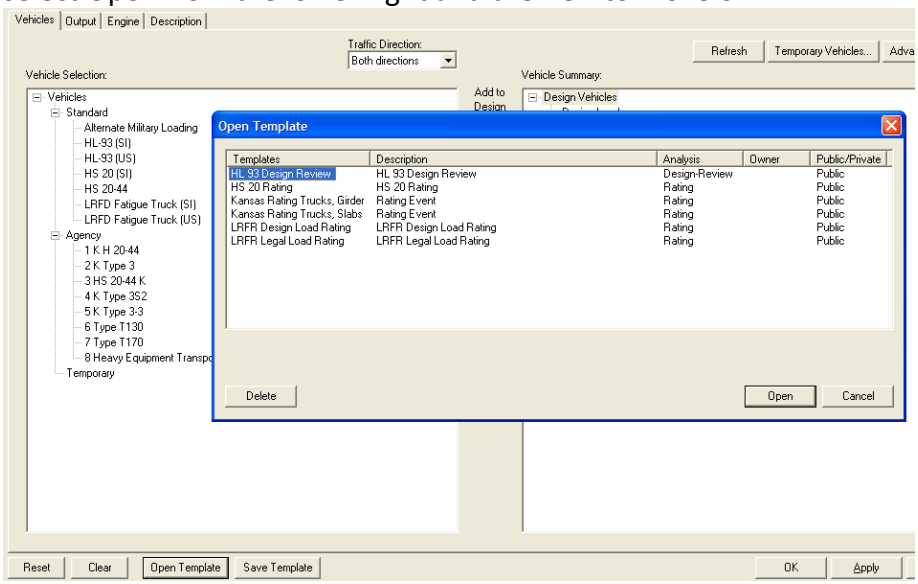
Using the same structure you used above in creating your truck templates, you still have the focus on the Member Alternative called Plate Girder (E)(C)



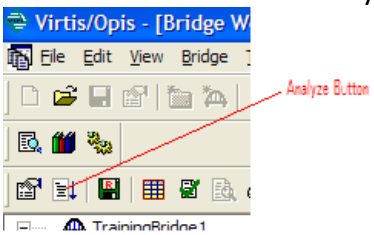
Again select the View Analysis Settings from the upper left



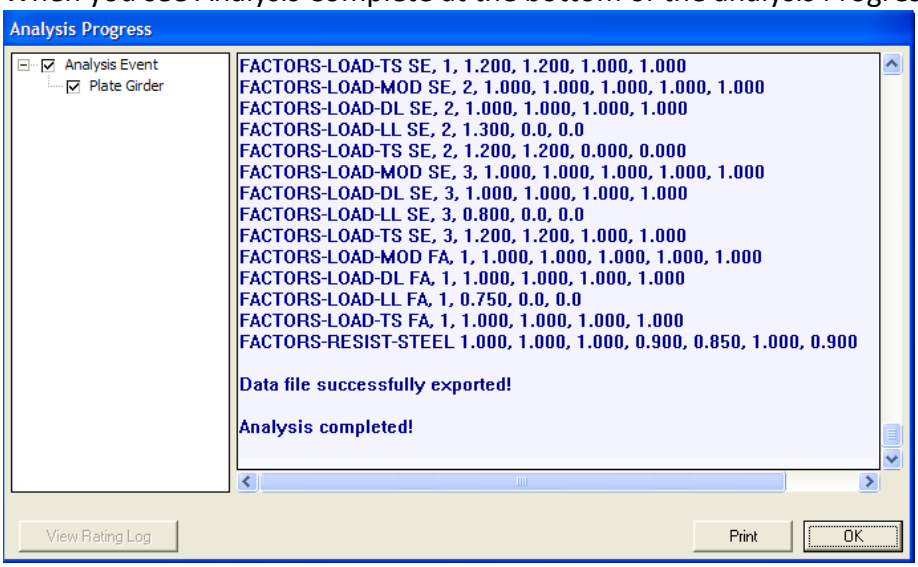
Using the Open Template button located at the bottom, highlight the HL93 Design Review, select Open from the lower right and then OK to move on.



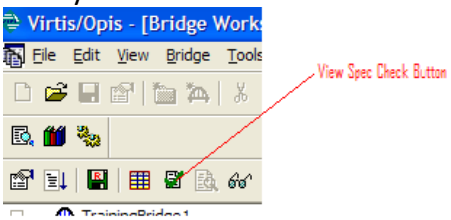
Now we can select the Analyze button from the upper right



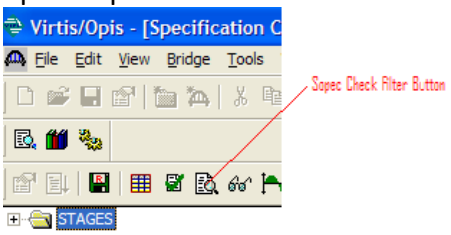
When you see Analysis Complete at the bottom of the analysis Progress window, select OK



Now you can use the button in the upper left to View Spec Check

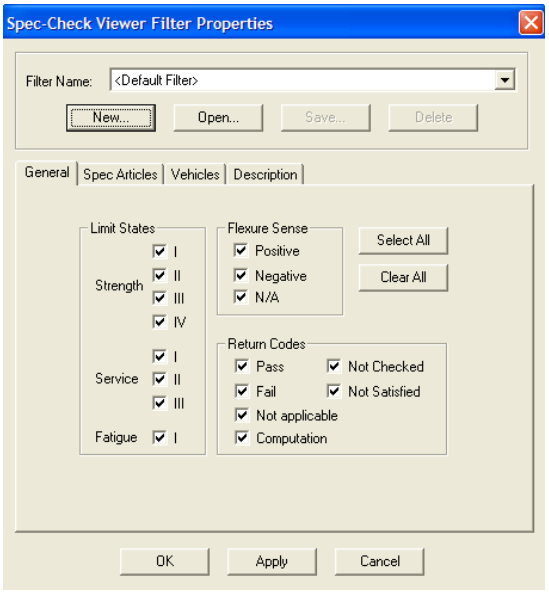


Once the Spec Check window comes up, select the Filter button shown below and it will bring up the Spec-Check Viewer Filter Properties

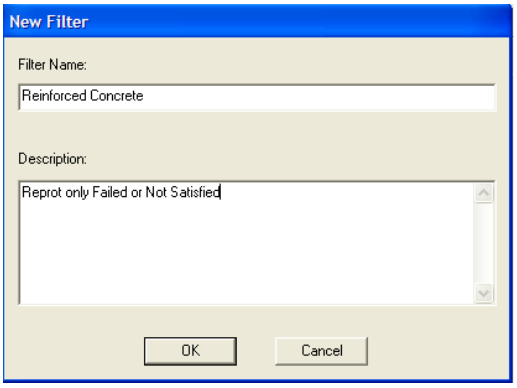


You will need to set up 3 different Filters
Reinforced Concrete
Prestressed Concrete
Steel

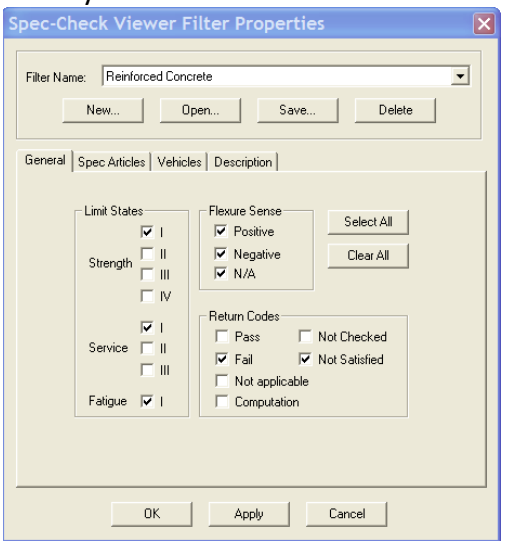
This is what the Filters window looks like



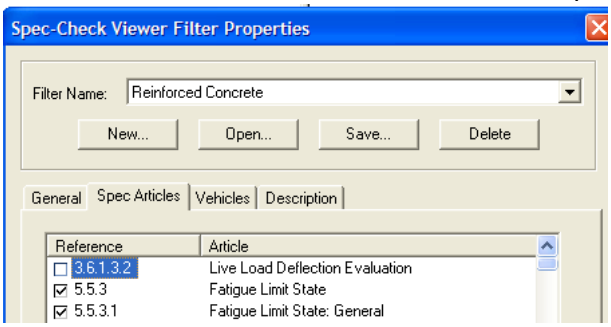
Under Filter Name select new and then fill in the fields as shown below, then OK



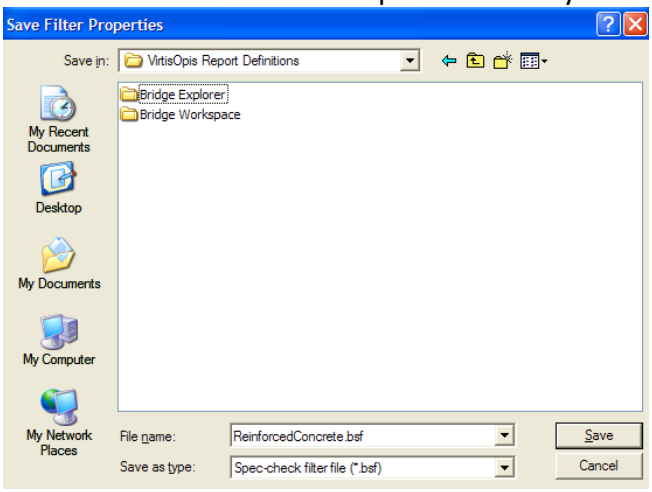
Modify the check boxes as below



Select the Spec. Articles tab and turn off Article 3.6.1.3.2, followed by the Apply button from the bottom and the Save button near the top



For the save location move up one directory and then select the Reports Definitions directory



Now we will create the Prestressed Concrete Filter by following these steps

- Select New
- Prestressed Concrete for filter name and enter Report Only Failed or Not Satisfied in the description fields
- Only check Service I and III, Strength I and Fatigue
- Reselect the spec article 3.6.1.3.2 that you turned off for reinforced concrete
- Select Save and put it in the reports directory

Now we will create the Steel Filter by following these steps

- Select New
- Steel for filter name and enter Report Only Failed or Not Satisfied in the description fields
- Only check Service I and II, Strength I and III and Fatigue
- Turn off Spec Article A6.2.1-1 Compact Web Slenderness
- Select Save and put it in the reports directory

Then to exit select OK from the bottom
Exit the bridge without saving by selecting the X in the upper right corner