

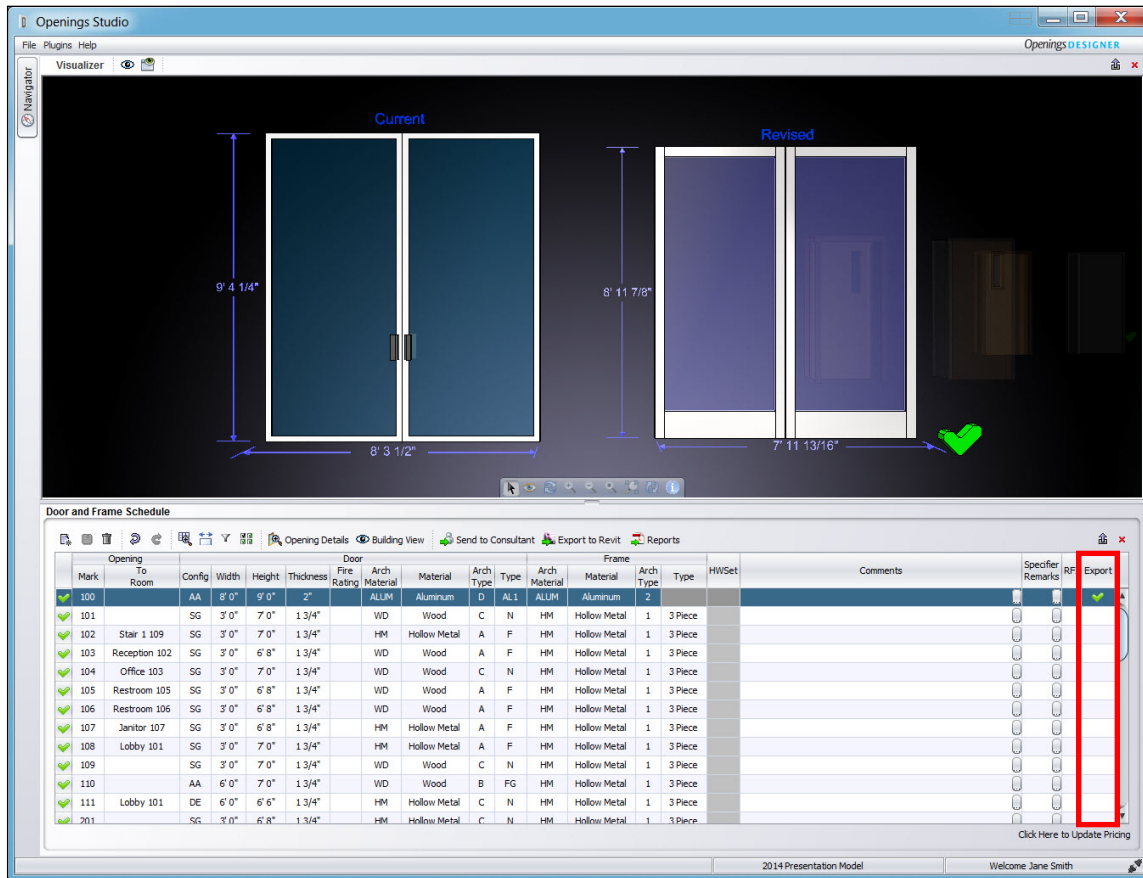
Exporting a Project from Openings Studio

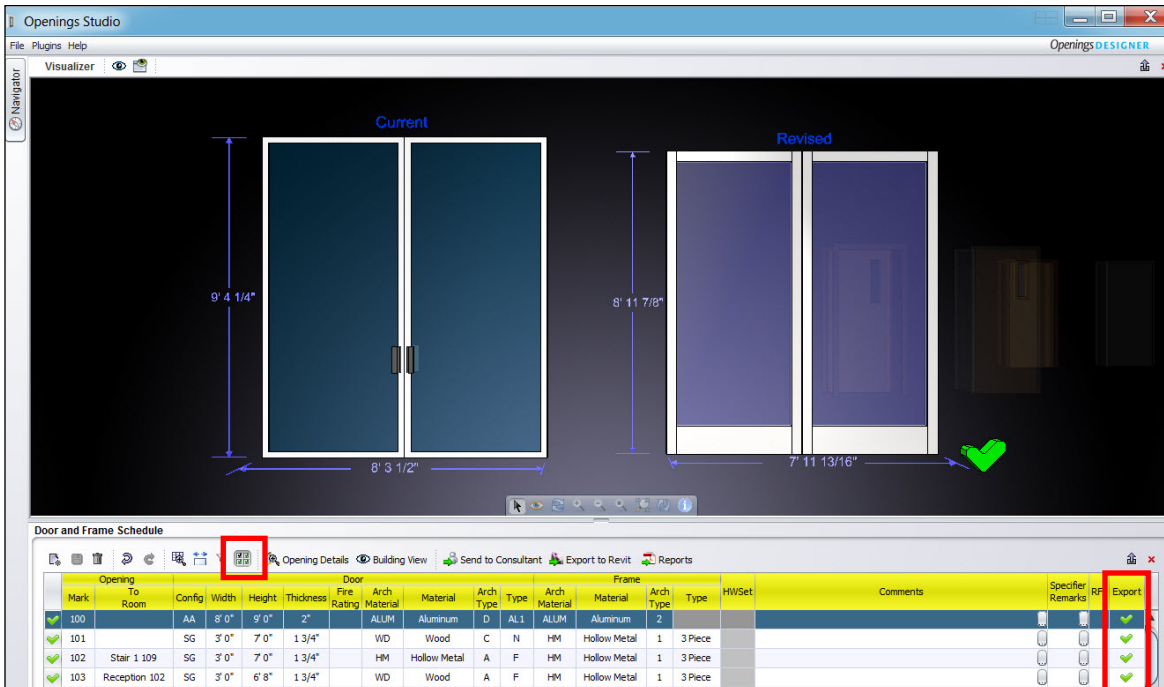
At various points throughout the project, updated openings with complete door, frame and hardware information can be 'exported' out of Openings Studio and 'imported' back into the Revit project model. With each export/import process, current openings in the Revit project model will be replaced with the revised or updated versions from Openings Studio. Typically this process will be repeated multiple times as the project progresses starting in the Design Development phase and continuing through the Construction Document phase.

Before starting the analyze process, login to Openings Studio, go to Plugins on the top tool bar, and choose the update for your Revit version. A dialog box will appear indicating you have successfully updated. Revit must be closed to perform an update.

With the Revit project open, login to Openings Studio and select the openings to export. There are various options that can be used to select openings for the export process:

1. Click the 'Export' column in the Door Schedule to indicate the opening selected is to be exported to Revit. A GREEN check mark is shown in the column, and the GREEN check mark in the Visualizer will move over to the 'Revised' opening.

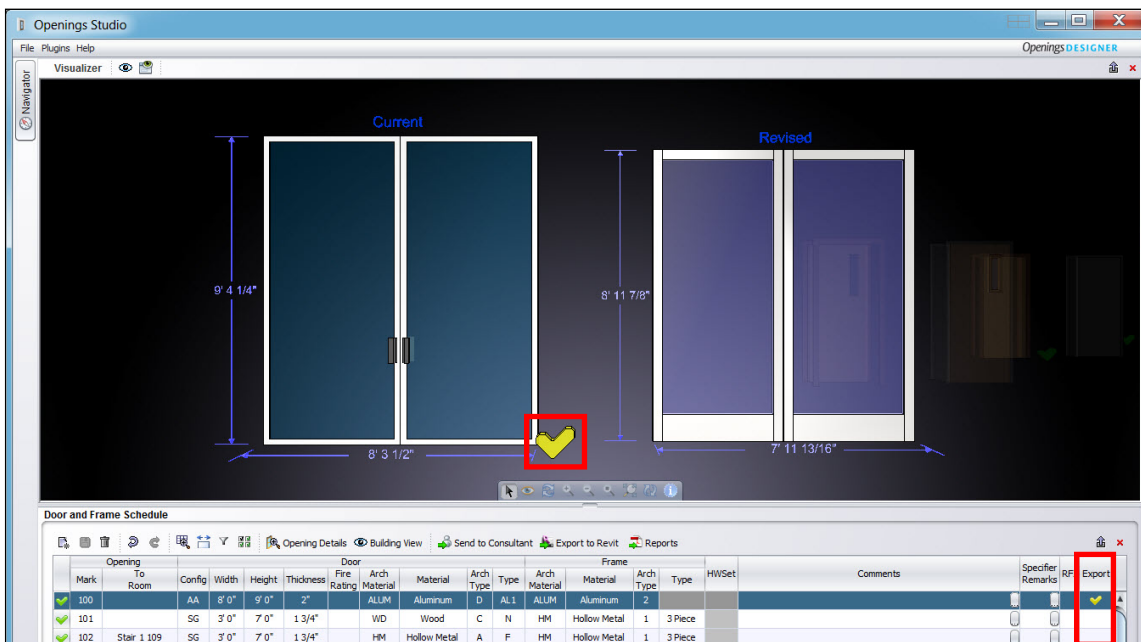




NOTE: Select every door in the project by using the 'Apply Changes to All' icon. A YELLOW highlight will appear across the door schedule header columns. Clicking on any door in the Export Column will select all of the openings for export.

2. As an option, data can be 'appended' to the 'Current' opening model rather than replacing it with a 'Revised' version. In this manner, openings analyzed from Revit will remain as originally designed, but additional door, frame, and hardware basis-of-design text data will be added to the model project parameters.

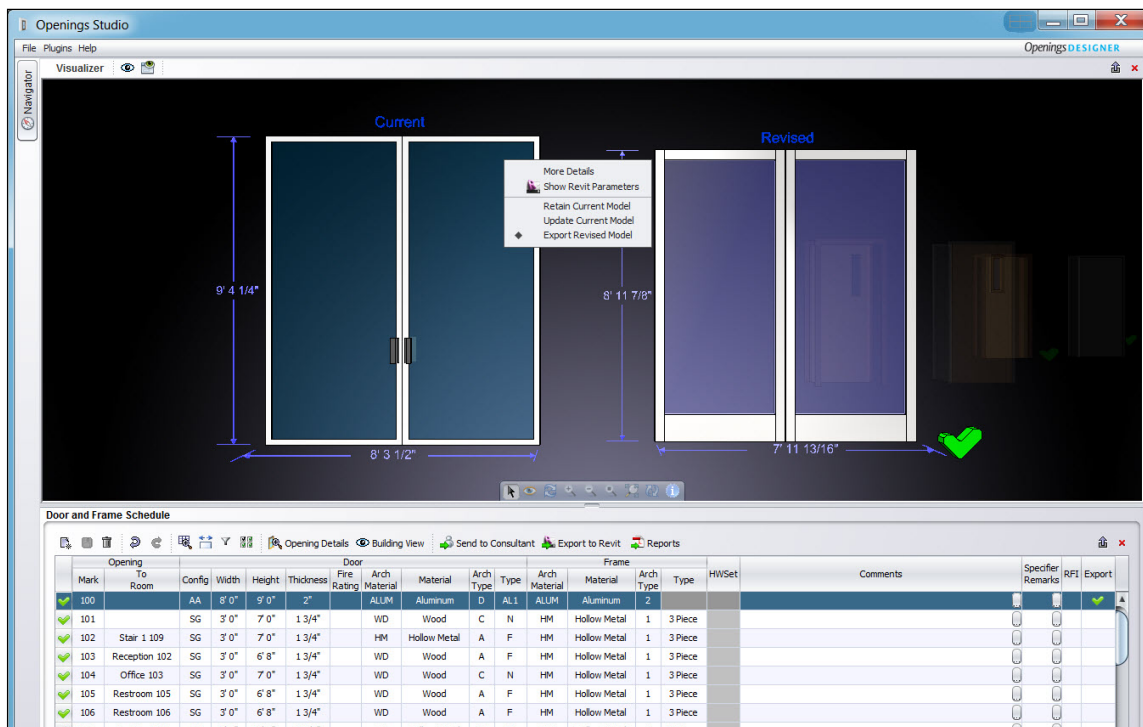
Holding down the ALT key while clicking on the opening in the Export column will change the GREEN check mark to YELLOW. YELLOW indicates text data, such as a hardware set, will be appended onto the existing Revit model project parameters.



3. Right-clicking on a 'Current' opening in the Visualizer panel will display all of the options available for selecting openings to export as well.

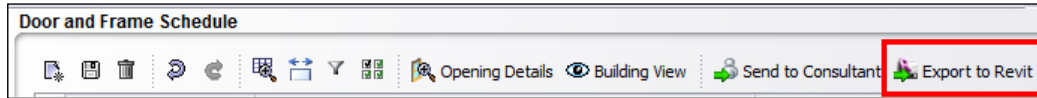


- Choose **'Retain Current Model'** and a GREEN check mark will display on the 'Current' opening and the Export column will be blank. No revised opening model or data will be exported and the existing opening from the Revit project will remain unchanged.
- Choose **'Update Current Model'** and a YELLOW check mark will display on the 'Current' opening and in the Export column. Additional door, frame, and hardware basis-of-design text data will be exported and appended to the existing Revit opening project parameters.
- Choose **'Export Revised Model'** and a GREEN check mark will display on the 'Revised' opening and in the Export column. The 'Revised' opening and data will be exported and the corresponding version in the Revit project replaced.

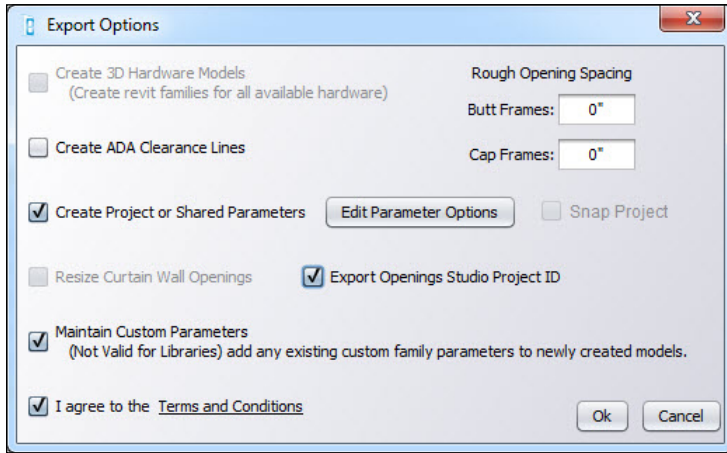


When the openings selection process is complete, open the Revit project and proceed with the Exporting to Revit steps.

1. Click on the 'Export to Revit' button.



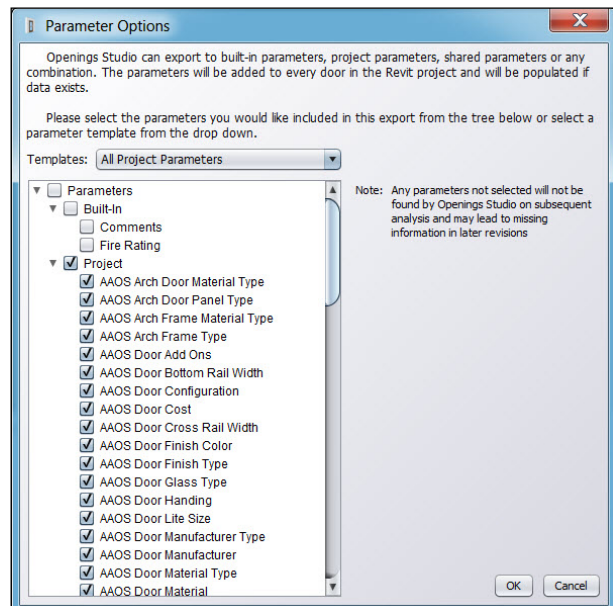
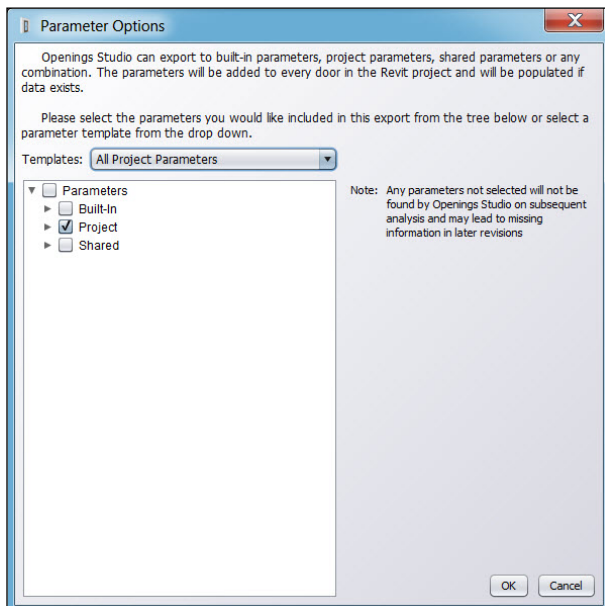
2. A dialog box will appear. If this project has green checkmarks that are exporting entire families, you have the option to add a space around the frame and/or ADA clearance lines. ADA clearance lines will come in as a type parameter and can be turned off under Visibility/Graphics.



Create Project or Shared Parameters must be selected if any yellow check marks were used.

Export Openings Studio Project ID will send back an Openings Studio ID number that helps keep track of projects should they be renamed or renumbered at any point during the life of the project.

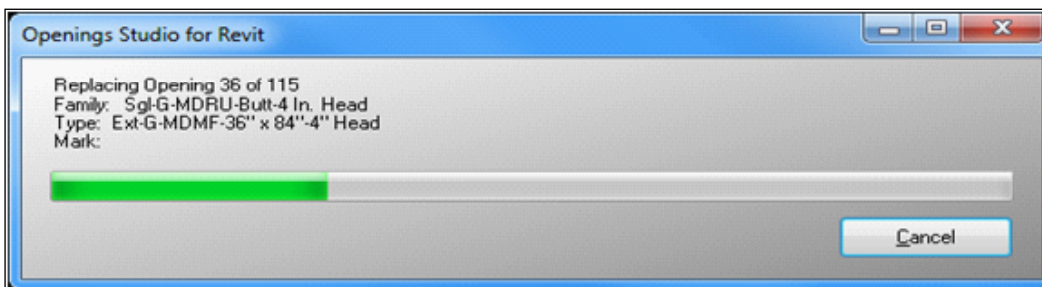
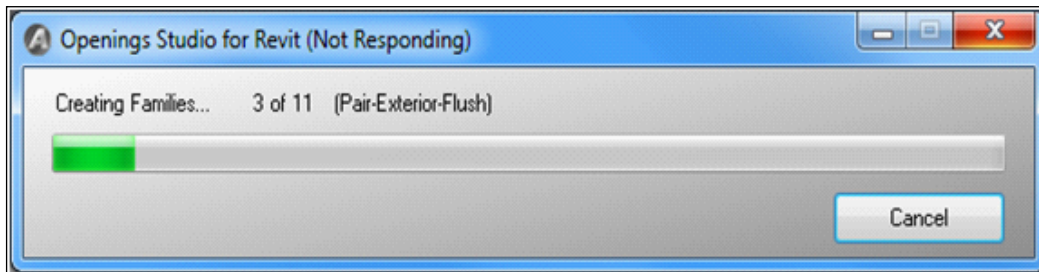
Click on [Edit Parameter Options](#) to modify which parameters are imported to Revit. All parameters are recommended, but not required.



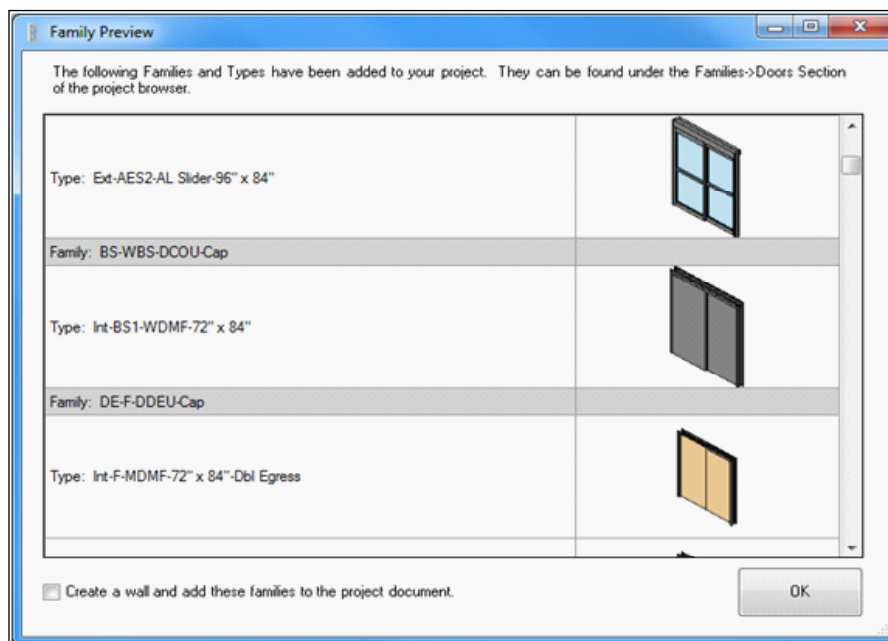
Also, to use shared parameters, here is where you would select them. These parameters are automatically added to your existing shared parameter text file, if one is available, under the group 'AAOSParameters'. It is not necessary to select both Project and Shared parameters.

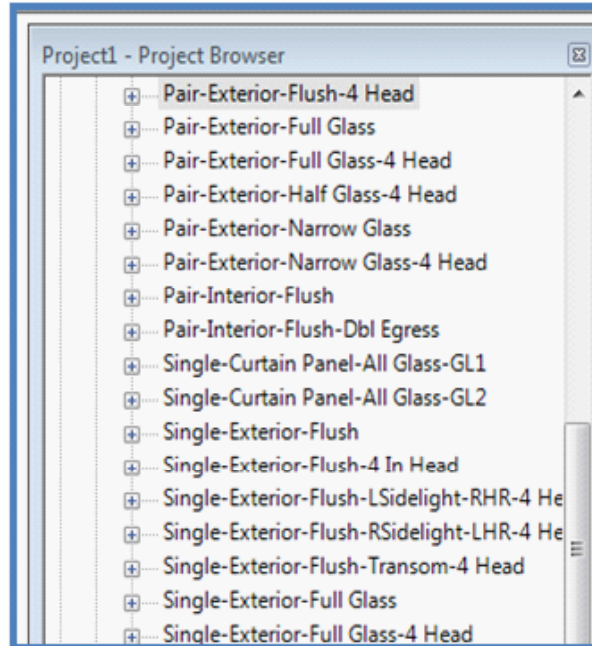
If any doors are green checked, choosing [Maintain Custom Parameters](#) is recommended. Existing door family parameters in the original models will be retained in the 'Revised' opening model for transfer back to the Revit project.

3. Select OK and the Export process will begin. Exporting may take several minutes to complete the first time. During this process, the 'Revised' and 'Updated' Openings Studio door families are created and transferred to the Revit project. A progress bar will display until completion of the export process.

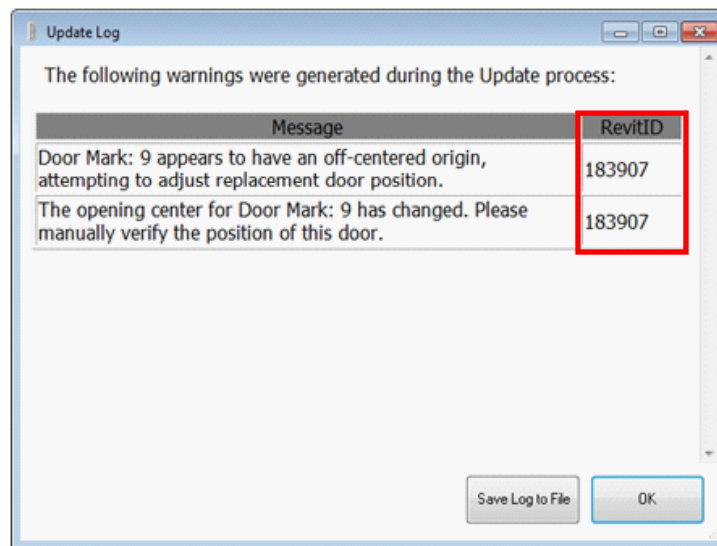


4. After the export process is complete, a Family Preview window will display the openings previously selected for export and the new imported openings will be added to the Revit model under Door Families in the Project Browser. Press OK.

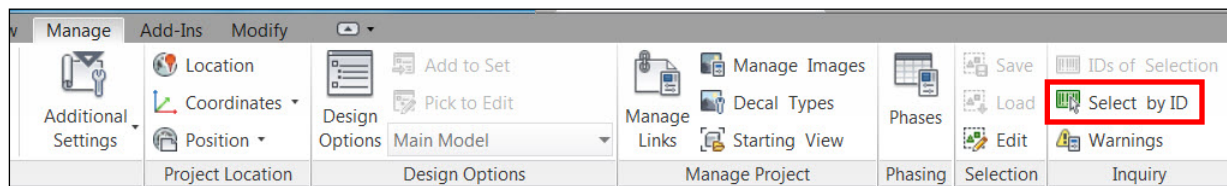




5. As part of the Export process, the Revit project is examined for off-centered, changed or deleted openings. An Update Log will display the changes found. Openings Studio will adjust placement of 'Revised' openings to account for off-centered origins, however it is recommended to verify the position of these openings in the Revit model. Openings with changes can be located by searching using the Revit ID number located in the right hand column. Press OK to continue.

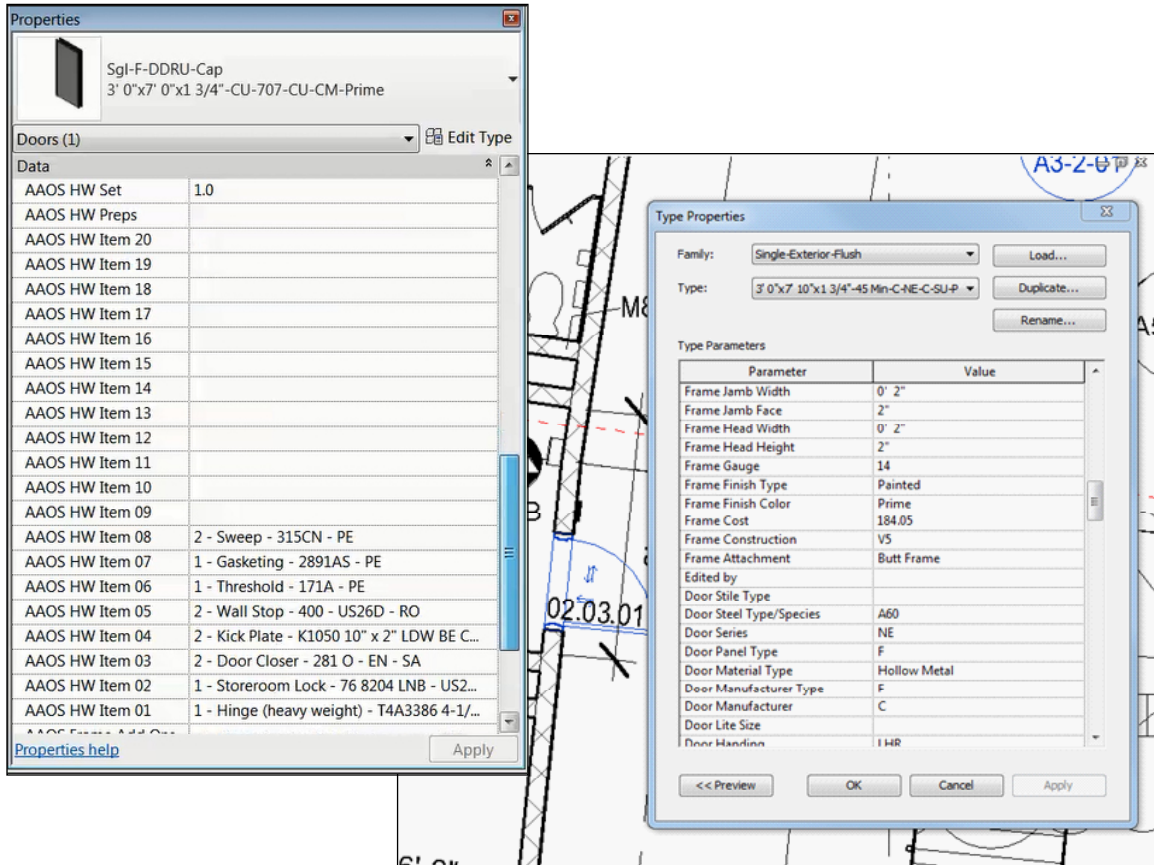


Use Select by ID to under the Manage tab in Revit to search for doors by their RevitID number.



NOTE: Any errors that appear during the export process should be documented with a screen shot and sent to your consultant. Also, large projects with a significant number of doors green check marked (See page 3) will have a longer export process than yellow check marked doors.

7. When the Export process is complete, any imported Door Families will now include detailed door and frame data under Type Properties. Specified door hardware and hardware set numbers will be added onto the opening Instance Parameters.



A custom Door Schedule can now be built in Revit to match the door and frame fields shown in Openings Studio. Further information on creating Door Schedules is covered under the AAOS Standard Operating Procedure - "Creating a Door Schedule".