

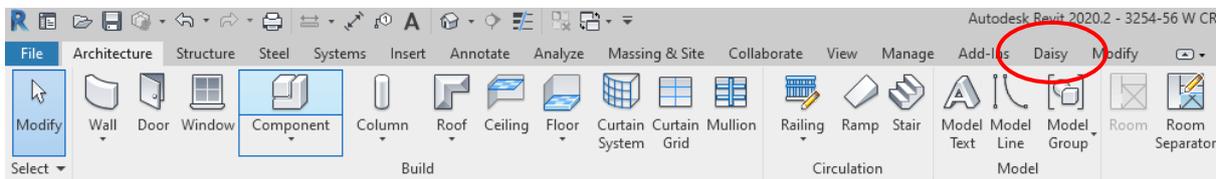
DAISY™ Floor User Guide

This document explains how to use the floor design tools available within the DAISY™ add-in for Revit. Once installed you will be able to get a bespoke floor design done to your relevant Design Standard, using either solid lumber, I-joist or engineered wood product joists and beams commonly available in the market.

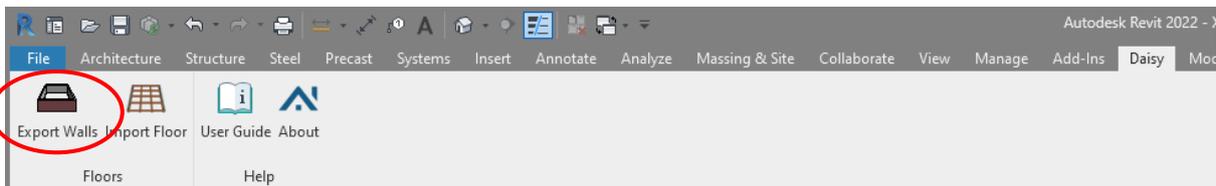
Revit Add-in Installation

If you don't have the DAISY™ Revit add-in installed, you can get the latest version available to download from <http://daisy.ai/downloads>

Once downloaded and installed you will find a new DAISY™ tab on your Revit Panel as shown below.



Using this new DAISY™ tab you have access an 'Export Walls 'command which is used to export the walls, pipes, floors, and levels from your Revit project into an xmlx file which can then be used by DAISY™ to design the floors in question.



Note

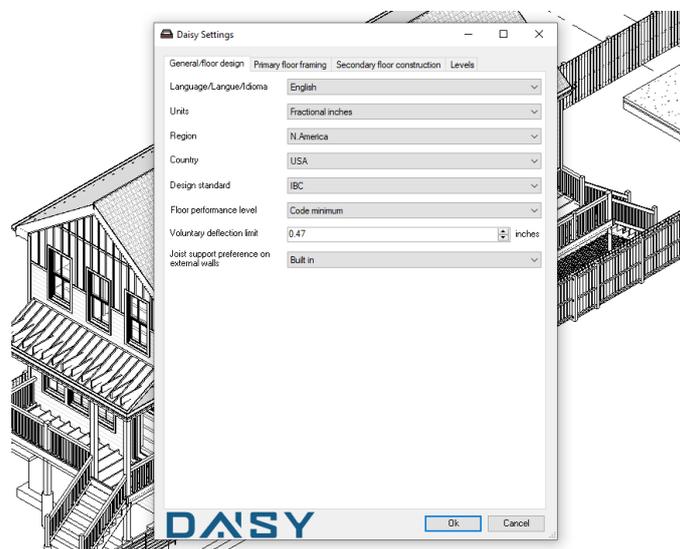
A 'Revit modelling best practices 'section is provided later in this Guide providing tips on how to create Revit projects which will work best with DAISY™.

Exporting data required to design a floor from Revit into Daisy™

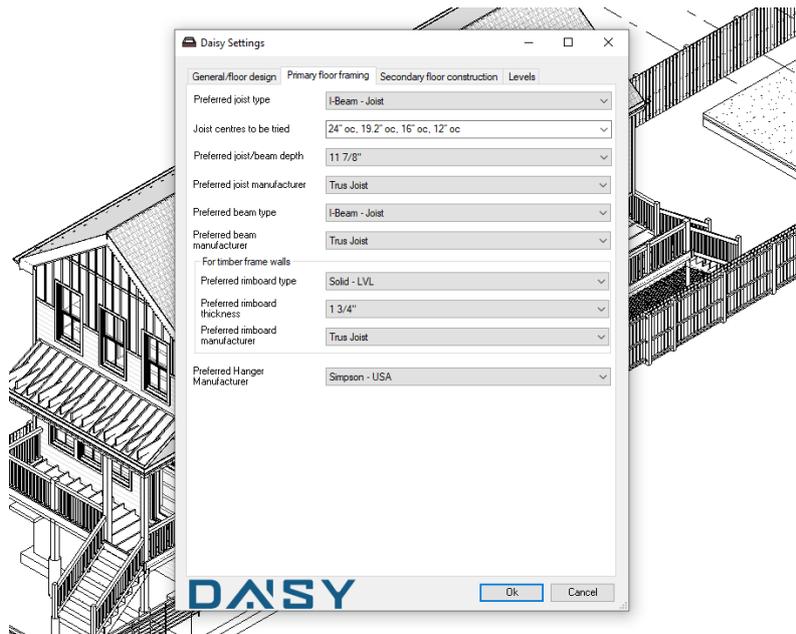
Export Walls

Click the 'Export Walls' button which will bring up a DAISY™ Settings pop up dialogue. These four tabs will then enable you to specify your floor design preferences and parameters.

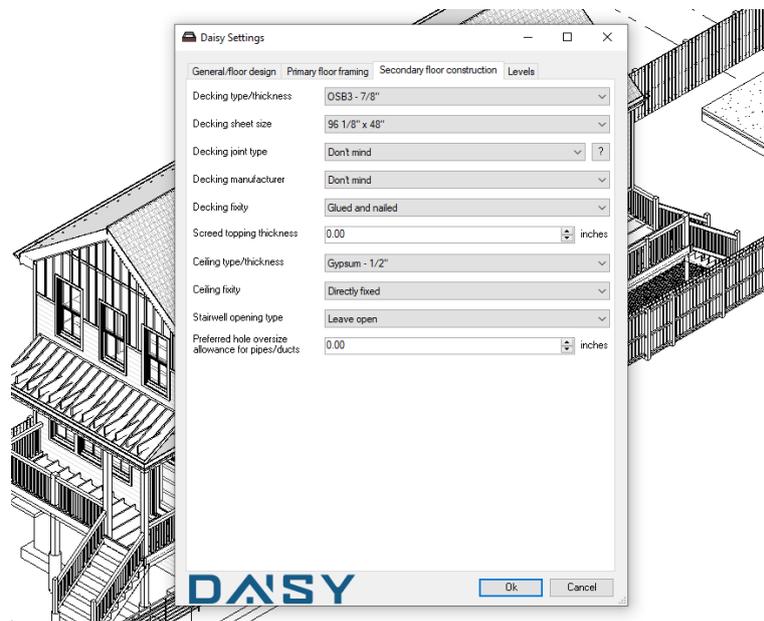
The 1st tab 'General/floor design' covers general design options such as your geographic region, country, design standard, floor performance level and joist support condition. The floor performance level is expressed as a percentage of the minimum viable floor design possible using your design standard – 0% will produce a code minimum floor design and 25% will produce a floor where all floor design parameters have been tightened up by 25%. A maximum deflection limit can also be specified beyond that stipulated in the applicable design standard if you wish to specify a tighter limit than required by the applicable design standard. Finally, the joist support condition can either be set to 'built-in' if the joists are to sit on top of the walls, or on metal hangers attached to the walls:



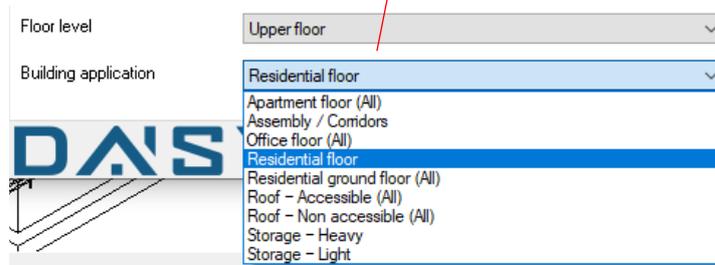
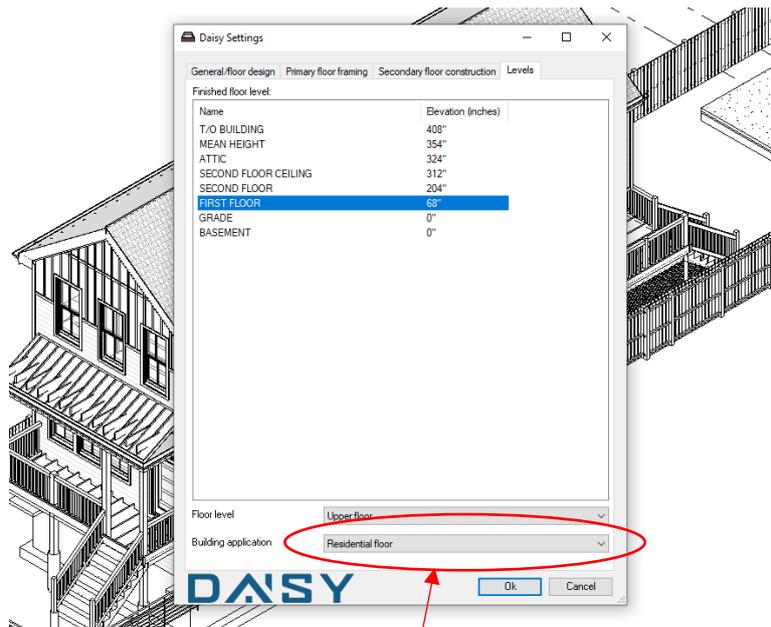
The 'Primary floor framing' tab allows the selection of product types, their depth and proprietary manufacturer's products you may want to specify. This applies individually to the joists, structural beams and rimboard products used in the floor. If you have no supplier preferences then generic grades of solid lumber, glulam and I-joists (via APA PRI I-joists) can be selected:



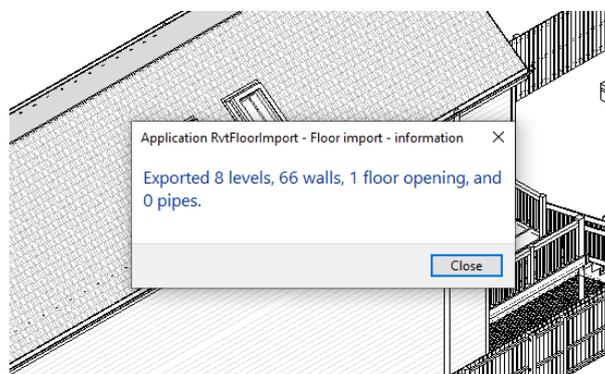
The 'Secondary floor construction' tab enables you to define the floor decking and ceiling products you intend to use, and the stairwell opening type required:



Finally the 'Levels' tab allows you to select the floor level you wish DAISY™ to design a floor for, along with the floor loading category you wish to use in the design using the 'Building application' dropdown at the bottom:



Once you have completed the above stages, clicking the 'Ok' button will prompt you to specify where you would like to save the xmlx output file on your hard drive. The Revit project will then be scanned and the xmlx output file created and saved to the location selected. Finally, you will see a report of what information was exported:



Note

The 'Revit modelling best practices' section at the end of this Guide provides tips on how to create Revit projects which will work best with DAISY™.

Running the Design in DAISY™

To run the floor design in DAISY™ open the DAISY™ App(<https://app.daisy.ai/login>). Your dashboard will look like the following. If you are opening this for the first time there will not be any live jobs showing.

The dashboard features three main navigation buttons: 'UPLOAD EXISTING FILES', 'CREATE NEW JOB', and 'UPGRADE ACCOUNT'. In the top right corner, it displays 'Total Jobs: 10' and 'Remaining Jobs: 7'. The main section is titled 'Jobs' and includes a search filter set to 'All'. Below this is a table with the following data:

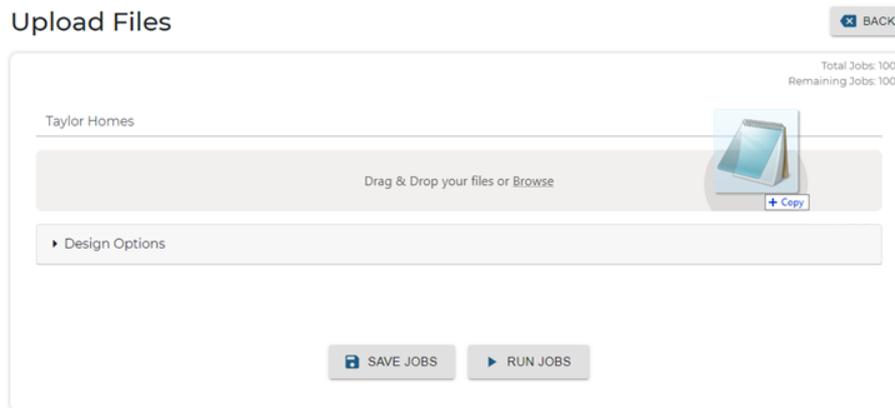
Job Reference	Input File	Created	Status	Input	Output
<input type="checkbox"/> Joe Blogs Builder	Joe Blogs Builder.xmlx	2021-09-16 16:59:00	SUCCEEDED		
<input type="checkbox"/> Joe Blogs Builder	autofloor.xmlx	2021-09-16 16:03:00	SUCCEEDED		
<input type="checkbox"/> Joe Blogs Builder-1	3254-56 W CRYSTAL ST_EXPORT (1).xmlx	2021-09-15 14:39:00	SUCCEEDED		

At the bottom of the table, it shows 'Rows per page: 25' and '1-3 of 3' with navigation arrows.

To create your first job using you xmlx file created from your export out of Revit you will need to click on the UPLOAD EXISTING FILES tab which will bring the following dialogue box up.

The 'Upload Files' dialog box has a 'BACK' button in the top right. It contains a text input field for 'Enter Job Reference'. Below this is a large grey area with the text 'Drag & Drop your files or Browse'. Underneath is a 'Design Options' section with a dropdown arrow. At the bottom, there are two buttons: 'SAVE JOBS' and 'RUN JOBS'. In the top right corner of the dialog, it shows 'Total Jobs: 1000' and 'Remaining Jobs: 1000'.

Once you have filled in your job reference you will need to locate your saved xmlx file from your hard drive and either use the browse facility or use the Drag & Drop to pull your file in to DAISY™. When using the Drag & Drop facility you can upload multiple files at the same time. If you have a site with multiple houses these can therefore all be designed at the same time after dropping their xmlx output into DAISY™ in batches.

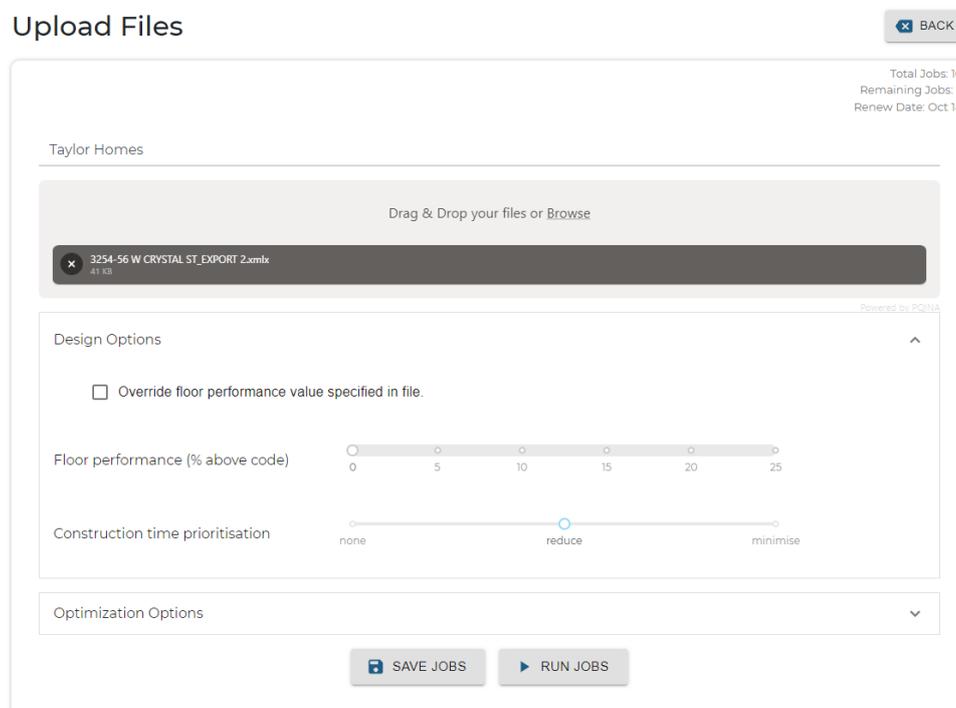


Now that your File / Files have been uploaded you will be required to choose Design Options. Using the sliders provided you are able to set Floor Performance, Waste and Construction time.

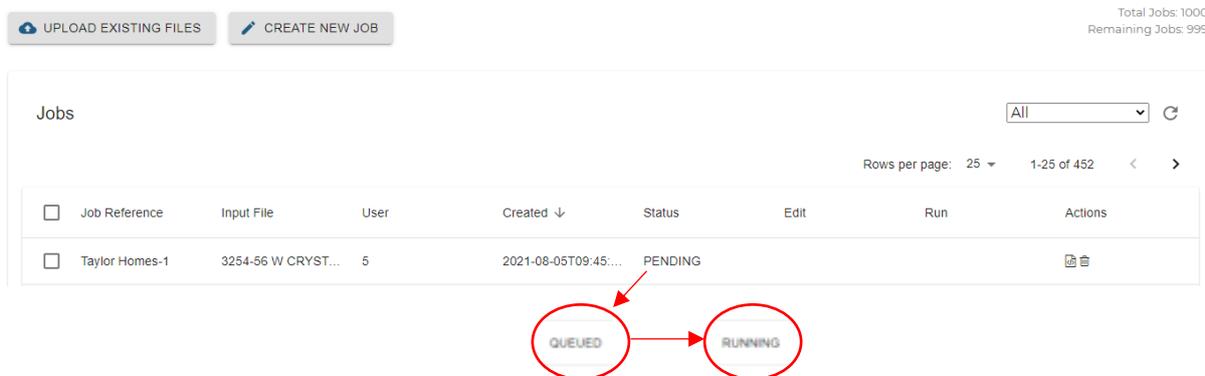
Floor performance allows you to 'up spec 'your design by a percentage better than the design code being used

Waste prioritisation allows the user to produce a design taking potential waste generated into account

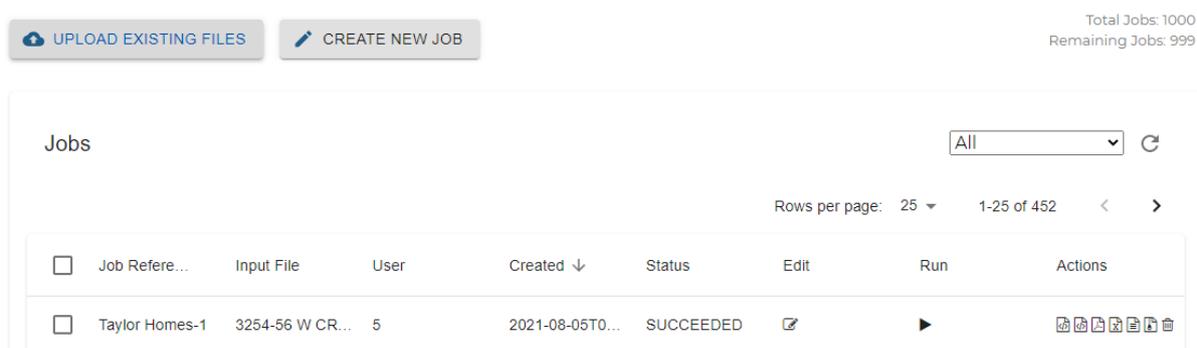
Construction time prioritisation allows the designer to choose whether the joists are to follow centres which follow decking sheet sizes. I.e. reduces the amount of cutting required on site. If set to none joists will be designed to a minimum number of joists with the software not caring if boards need cutting. Choose minimise and the software will ensure joists are set to centres that tie in with decking sheet sizes. I.e. no cutting required



After choosing your settings click RUN JOBS to start the design process. You will notice you have been returned to the dashboard where your uploaded new job is showing as PENDING. This notice will change through to Queued, then on to Running with a final Failed or Succeed



Once the job has finished and you see Succeeded under the Status column you will see further options now available



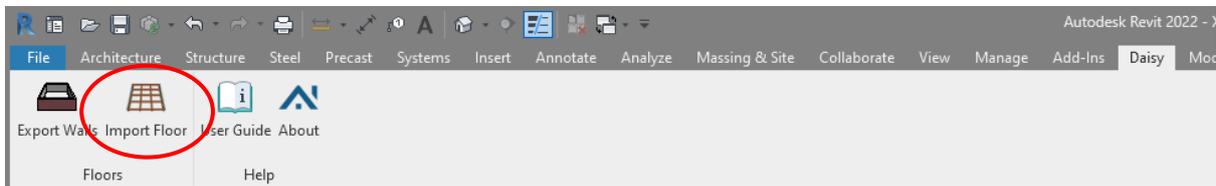
A button now available under Edit if clicked will take you into our Auto Floor software which will allow editing of wall positions etc. to be done. Please note that this will cause a disconnect with your original Revit model with the final export not potentially matching the original. Clicking the button under run will re-run the design for you in DAISY™.

You will also notice a number of new icons available under Actions. Here you have the option to download a Pdf of the final design, export a Csv file with the materials contained in it, export an xmlx file of the output which can then be used to import the floor back in to the original Revit model (see how to do this below), download the floor to see it in the Auto floor software, download a Log file which has all of the design details contained, export a zip file containing all of the other files available (Pdf, Csv, etc.) and finally delete the job should you need.

If you get a 'Failed' status you will just get the Log file with the design details in and a message pointing you to the reason for the fail along with the delete option.

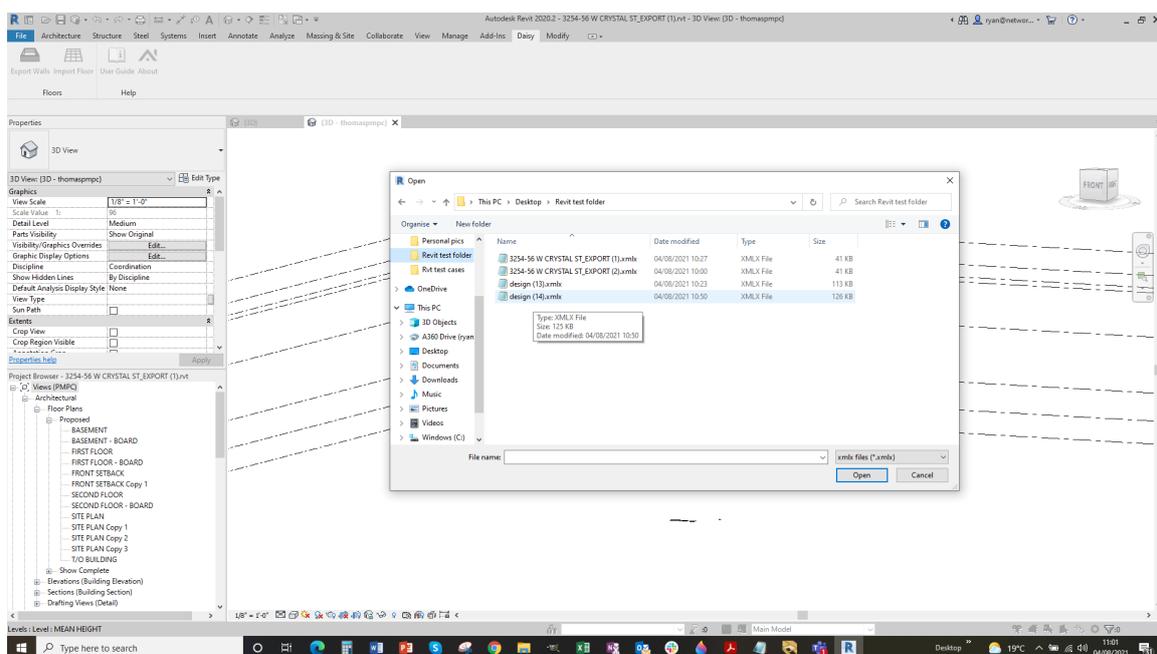
Importing a Completed Daisy™ Floor Design back into Revit

Import Floor

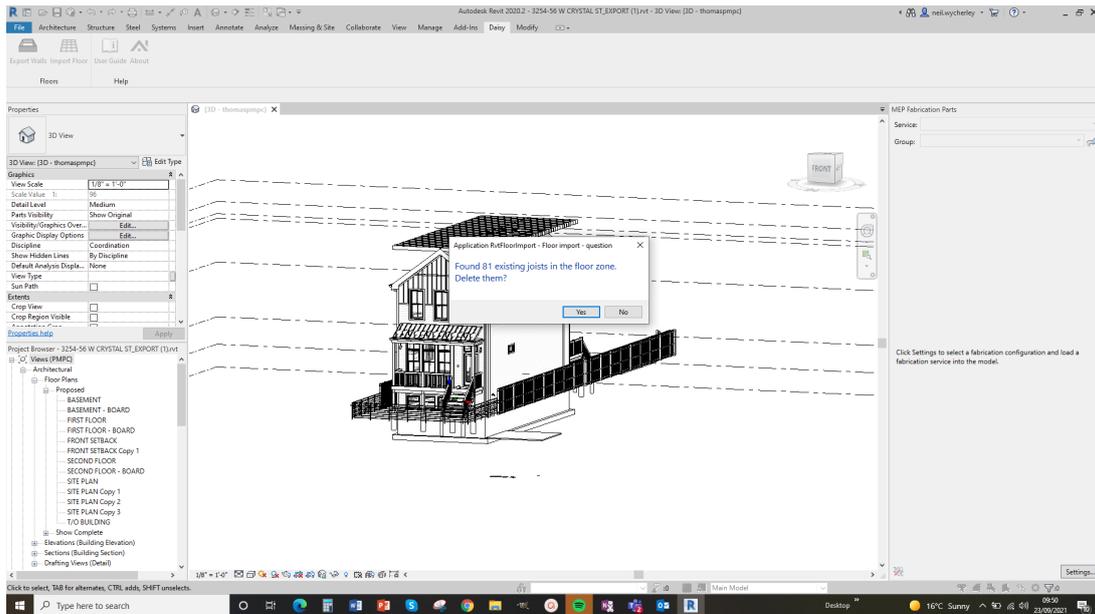


Ensure the original Revit file is open. The 'Import Floor' button is used to import the completed DAISY™ floor design back into Revit as an xmlx file. DAISY™ floor designs can only be imported back in to the Revit project that they were originally exported from.

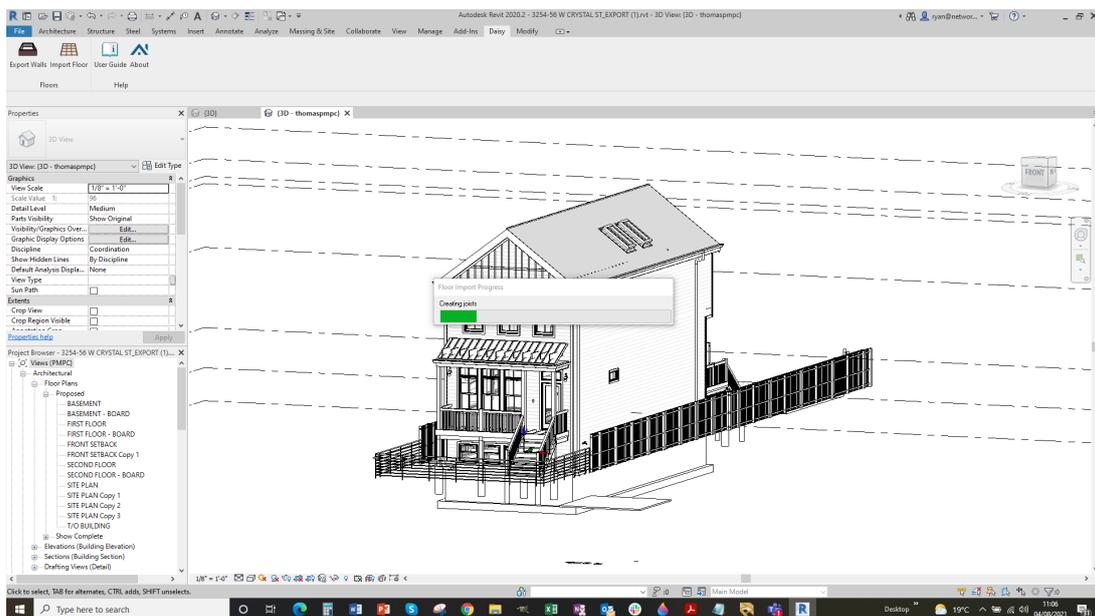
First you will need to select the xmlx file that you wish to import from your computer.



After selecting the correct xmlx file which has been downloaded out of DAISY and now selected under the Import Floor button you will be prompted as to whether you want to get rid of the floor joists already showing in the model. Ie the joists inserted by the Architect or model creator.



If 'yes' is selected then the joists will be removed and you will see an upload bar start-up which highlights the joists and other floor material being imported into the job.

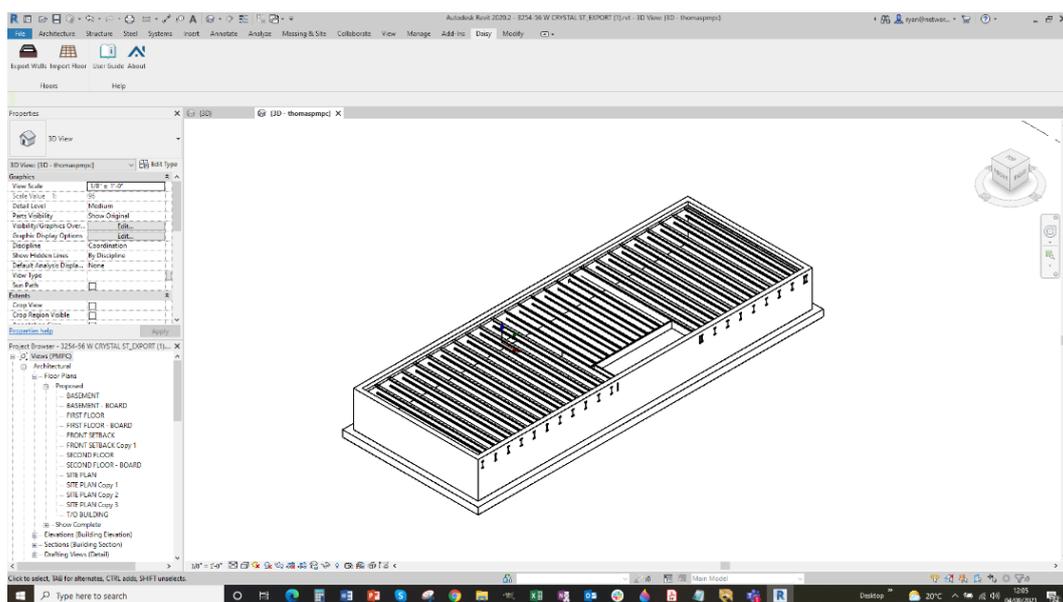


The floor design will then be built within the Revit project using the appropriate joist, beam and rimboard component families.

Note that the floor components are all added as nested groups to keep them together.

If a “Floor installation” phase already exists in your project, then the floor components will be set to “created in this phase”. Similarly if a “Stair installation” phase already exists, then any sacrificial joists for the stair opening will be set to “demolished in this phase”.

You should now be able to view the completed floor design within your Revit project: (Project hidden to show floor)



Revit Modelling Best Practices

This section includes tips on how to create Revit projects to work best with DAISY™, and some practices which we know will cause problems.

Levels

- ✓ **DO** make sure that one of the levels is set to the finished floor level of the floor that you want DAISY™ to design. Make sure all openings, pipes and walls pertaining to the floor you want to design in DAISY™ are assigned to this level.

Walls

- ✓ **DO** use the compound structure layers of a wall style to represent the individual components of a wall structure, including finishes.
- ✓ **DO** assign walls as either external or internal.
- ✗ **DO NOT** assign internal load bearing walls as external and vice versa.
- ✗ **DO NOT** use individual finishing layers, such as drywall to represent walls. Walls thinner than 1” will be ignored.
- ✗ **DO NOT** allow walls to overlap (in plan or in section) or allow walls to encroach inside openings.

Pipes

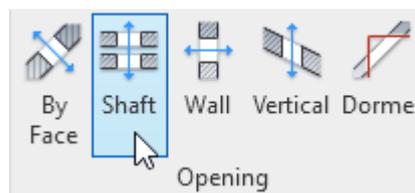
- ✓ **DO** use the Revit pipe types to represent pipes that need to penetrate the floor structure.
- ✗ **DO NOT** use generic Revit families to represent pipes that need to penetrate the floor structure. These will be ignored by DAISY™.

Floor Openings

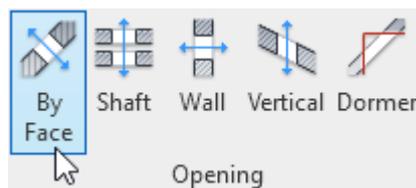
- ✗ **DO NOT** input openings as non-rectangular or non-closed polygons. These will be ignored by DAISY™.

Floor openings can be designated in several ways, either with or without a Revit floor in place.

The best way to designate a floor opening without a Revit floor in place is to add a shaft opening that passes through the finished floor level.



The best way to designate a floor opening within a Revit floor (at the finished floor level) is to add an opening by face or vertical.



Thank you for using DAISY.

If you have any questions please reach out to DAISY Head of Product Mario Selvaraj at mario@daisy.ai or contact our team at contact@daisy.ai