

focus walls  
user guide for revit families

2020-06-27

# revit family



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## revit content overview

Teknion's complete package of Revit families provides:

- Wall System families
- Curtain Wall Panels
- Connectors
- Doors
- 2D Detail Components
- Basic Schedules
- Material Library

NOTE: To create your Teknion layout in Revit, please refer to the Focus Application Guide. It highlights information to help you plan your project correctly.

The Application Guide can be downloaded from:

<https://d2r72yk5wmppdj.cloudfront.net/m/1282239d5ee42113/original/Focus-Full-Application-Guide.pdf>

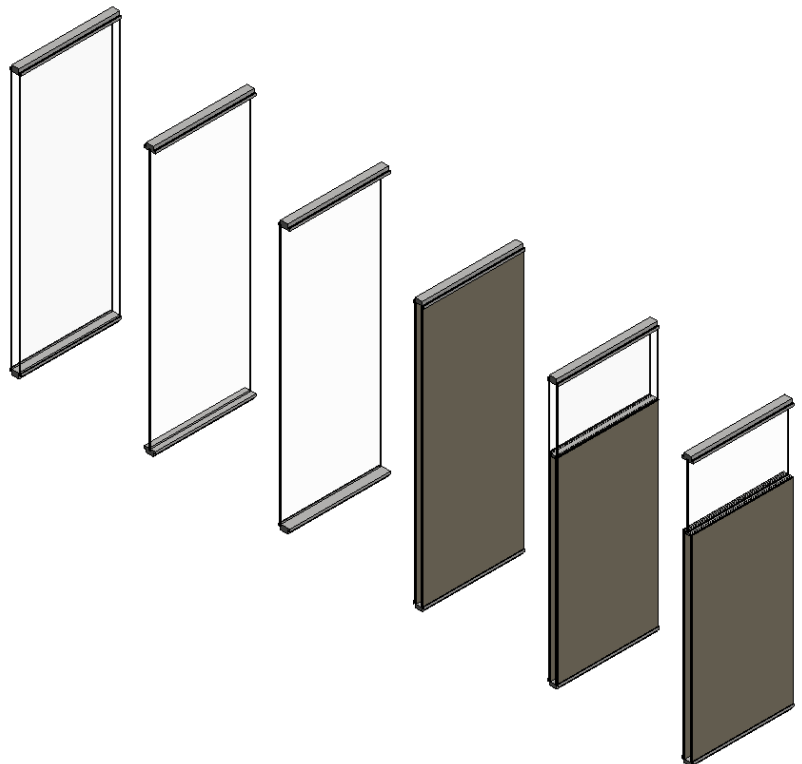
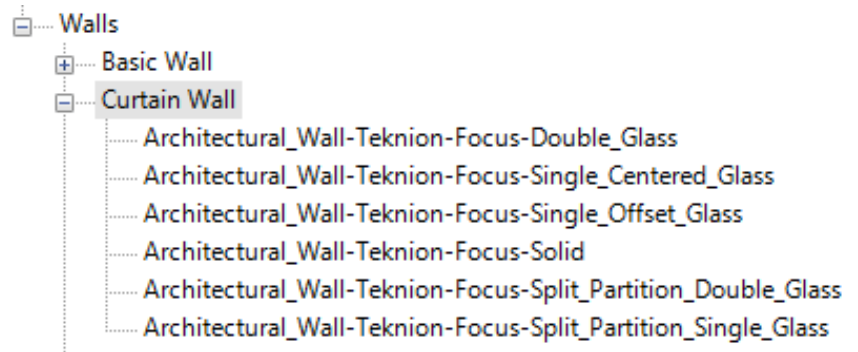
## wall types

Tekunion walls are created under the curtain wall Revit category. Each curtain wall panel within a wall can be individually selected and re-configured as needed using the instance parameters built into them.

For further information about Revit Curtain Wall Systems, please refer to Autodesk's Knowledge Network:

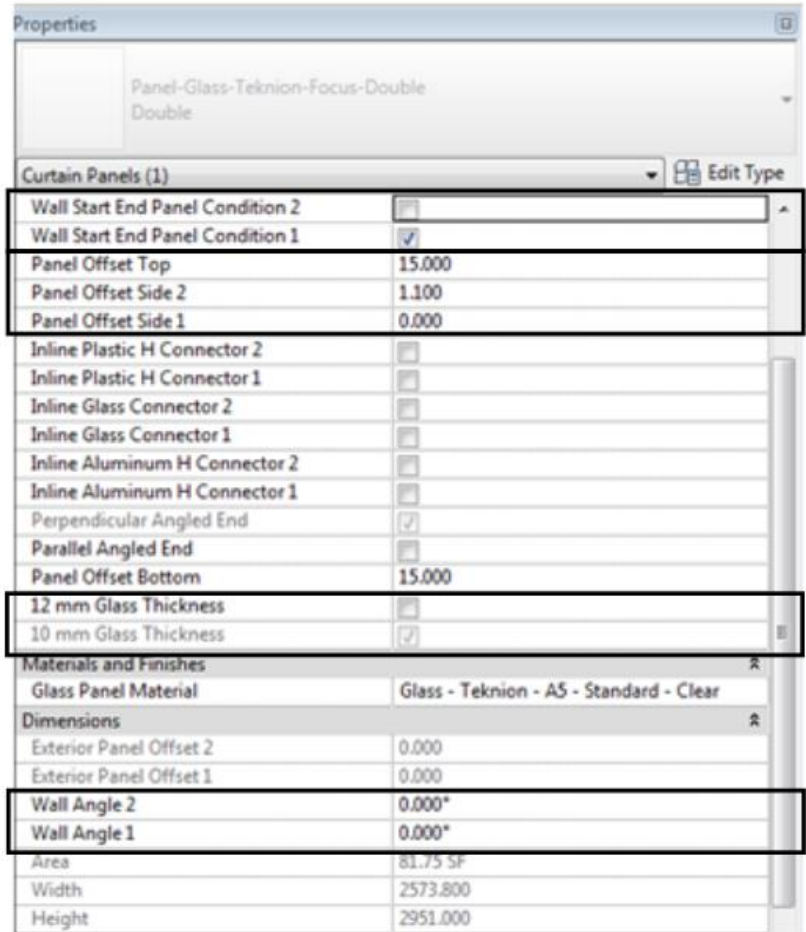
<http://knowledge.autodesk.com/support/revit-products/learnexplore/caas/CloudHelp/cloudhelp/2016/ENU/Revit-Model/files/GUIDBBC16AF1-88C1-4B2E-A23A-917C3F427E97-htm.html>

Tekunion's Revit template has 6 Focus wall-types, based on the system possibilities.



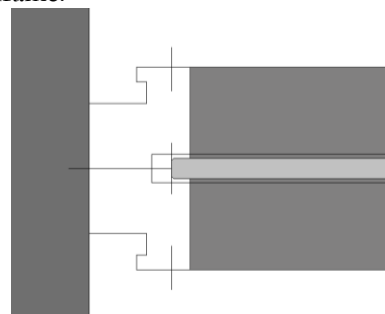
## curtain wall panels instance parameters

Each curtain wall panel has instance parameters that allow the user to change settings such as the glass thickness, the glass panel insertion into connectors, the wall angle, etc.



### Wall Start End Panel Condition 1 and Wall Start End Panel Condition 2

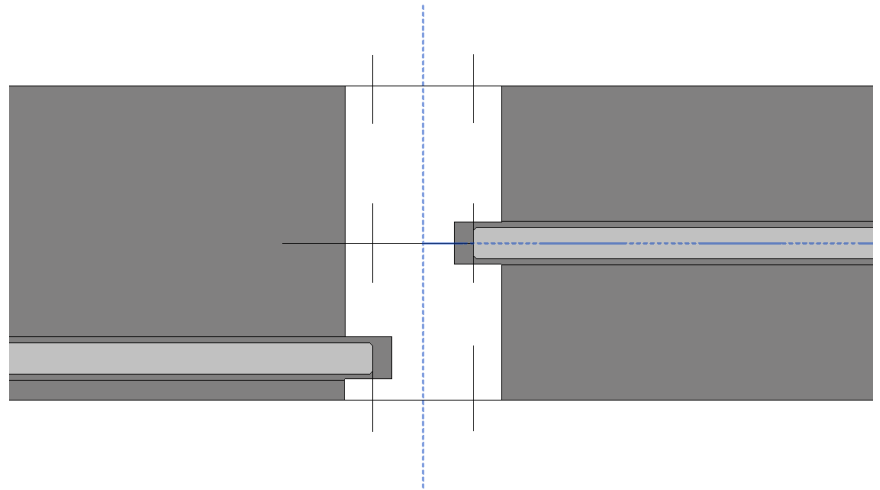
To be selected when wall start or wall end connections are being attached. The number (1 or 2) refers to which end of the wall will be affected by this option. This option allows control over the glass panel being inserted into the connection frame.



**Panel Offset Side 1 and Panel Offset Side 2**

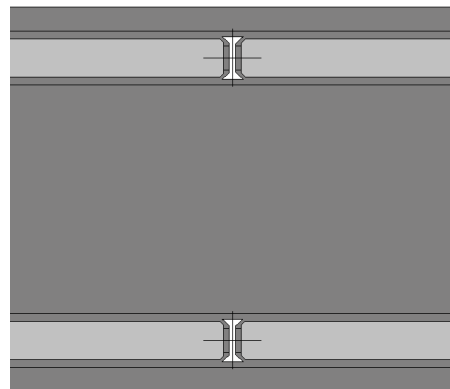
These parameters are used to set the distance between the edge of the whole wall and the edge of panel (panel offset).

The parameters exist independently for both ends of the panel, so different configurations are possible on both sides. They are used when the panel needs to be offset shorter than the wall frame to account for a connection or wall transition in the design.



**Inline Connectors**

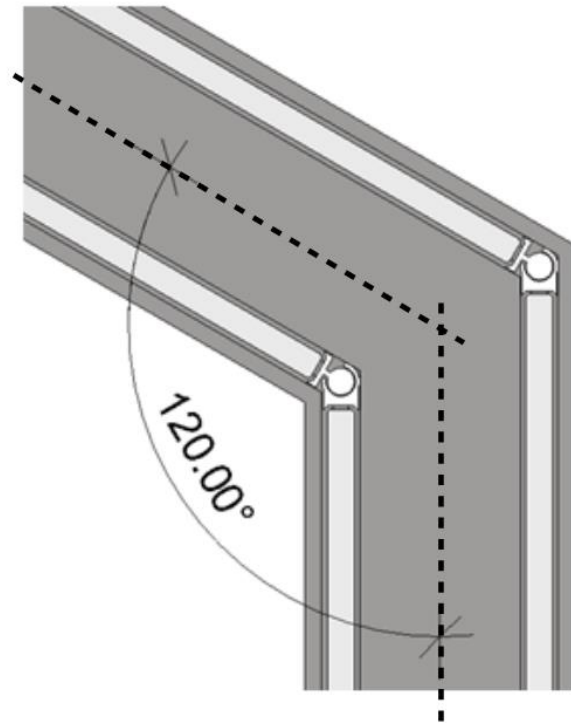
This parameter will incorporate an Inline connection at the selected end of a panel. You can choose between 3 connector types: Plastic H Connector, Aluminum H Connector and Glass Connector (Tape).



## curtain wall panels instance parameters

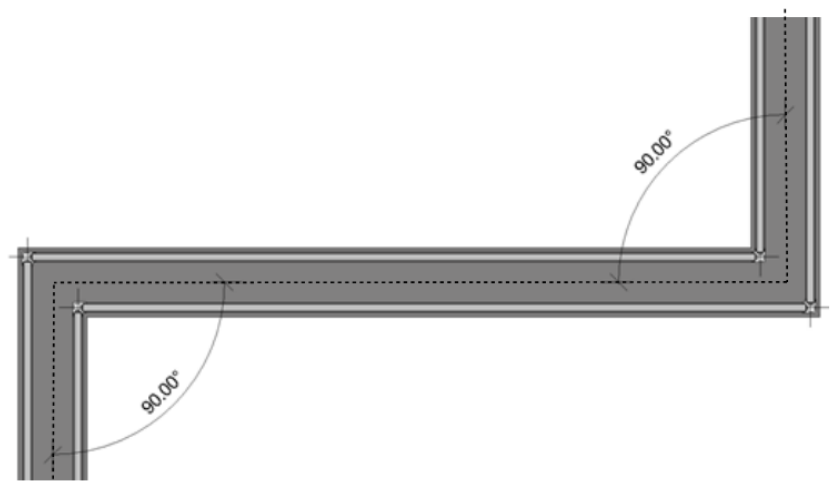
### Wall Angle 1 and Wall Angle 2

These parameters allow for multiple angle ends when a variable connection is required. Please fill in the angle between the two wall panels, for both ends. Do not apply on Single Centered Glass Panels.



### Parallel Angled End

This parameter allows flexibility when planning with an “inverted” angle situation, as follow:

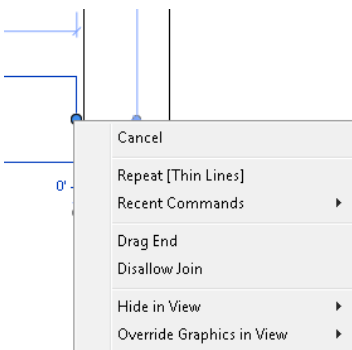


Note: flipping a panel’s orientation is always a possibility in order to re-orient your panels as needed.

TIP: Grips on walls.

Revit has a tolerance and it tends to join walls when they are too close to each other. This can happen when you have a Curtain Wall next to a Generic Wall.

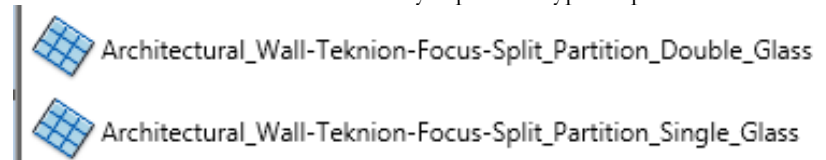
To avoid this, right-click on the end grip to be extended and then select “Disallow Join”.





Clerestory panels are a special configuration and require some user customization in Revit. Please refer to Teknion's Focus Applications Guide and review product possibilities when customizing the panels.

There are 2 default clerestory panel types provided in Revit:



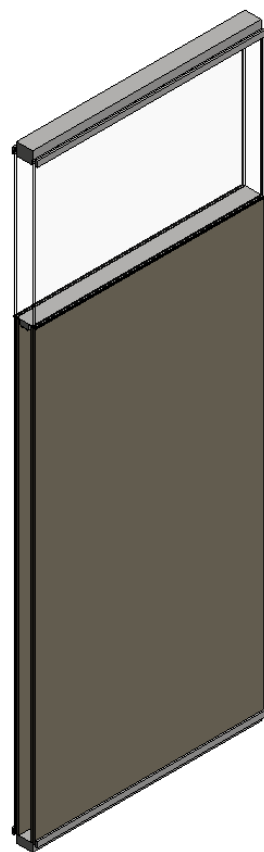
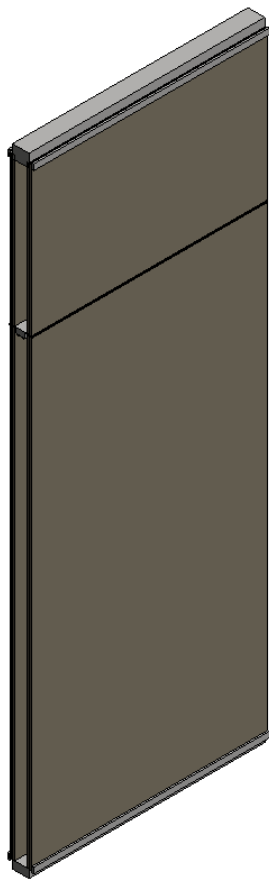
To specify a clerestory condition in Revit, the user first models a new curtain wall using the desired default clerestory panel type provided. By default, the wall has a solid panel for the upper section. It is necessary to manually change the upper solid panel to a Clerestory Glass Panel (double or single, depending on the selected clerestory type). It is important, when selecting a replacement glass panel from the list of available options in Revit, to select the Clerestory panels and not the standard ones.

To do that, select the upper panel, and then, in the browser, select the desired panel family.



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clerestory  
panels



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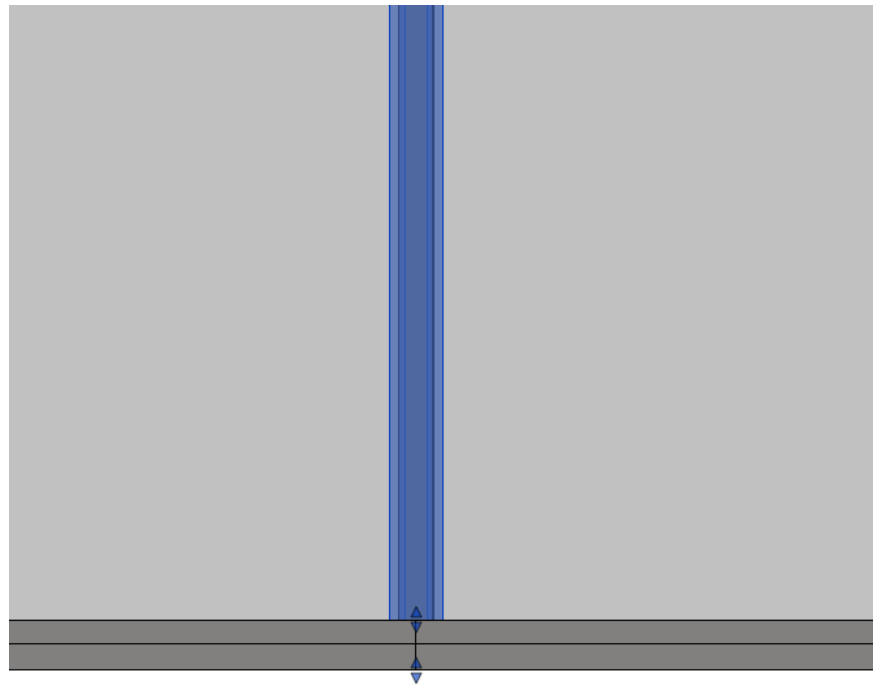
## connections

Teknion offers Focus wall connections as stand-alone components in Revit. These can be Wall Start/Wall End, Inline Transitions, Clerestory Connectors and Electrical Panel Connectors.

They can be placed and aligned using the wall panels and other walls as references.

Regarding the height of these connectors, two situations arise:

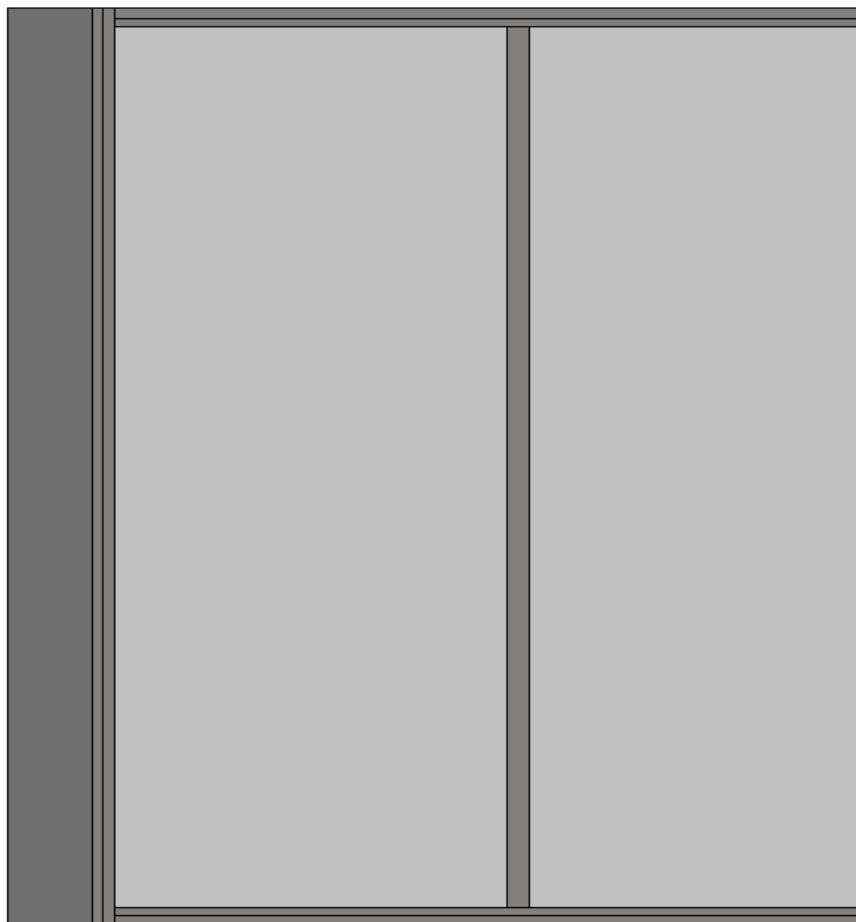
InLine Transitions and Clerestory Connectors come with an offset that aligns automatically with the top surface of the bottom mullion.



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## connections

Wall Start/Wall End and Electrical Panel Connectors come with a default height of 96". User should adjust their height to align with the ceiling level. Aligning the height can be done by typing in the desired connector length in Revit's "length" parameter field.



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## connections

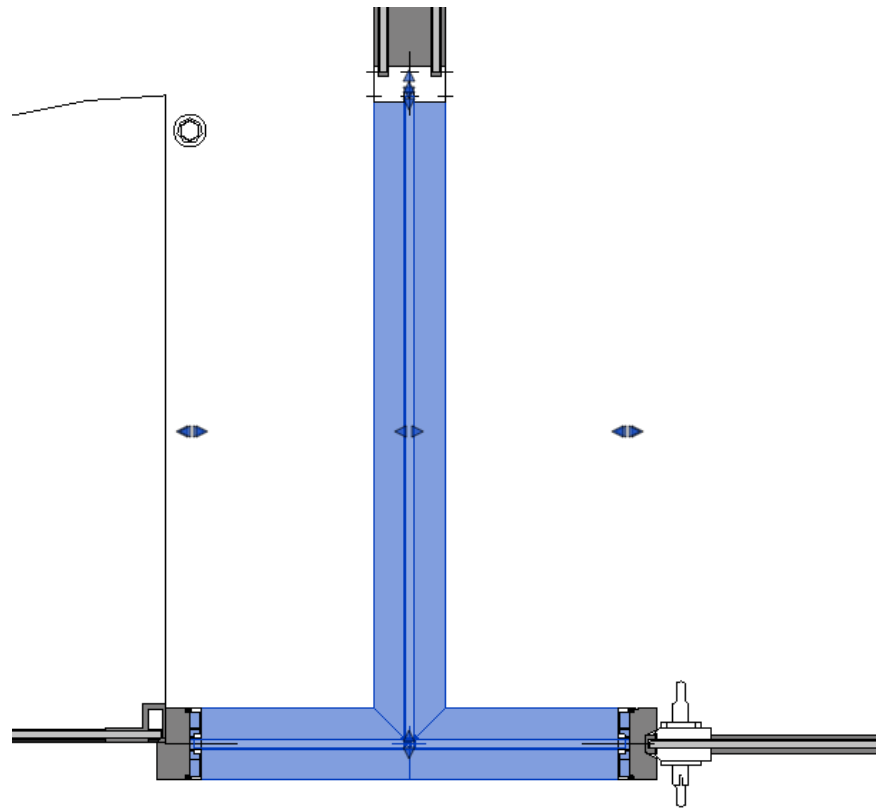
There are four connector families that include glass panels along with the connection frames to help complete more intricate product conditions in Revit. These connector families are used to represent the intersection of three or four wall panels:

Connection-Four\_Way-Teknion-Focus-Double\_Glass

Connection-Four\_Way-Teknion-Focus-Single\_Glass

Connection-Three\_Way-Teknion-Focus-Double\_Glass

Connection-Three\_Way-Teknion-Focus-Single\_Glass



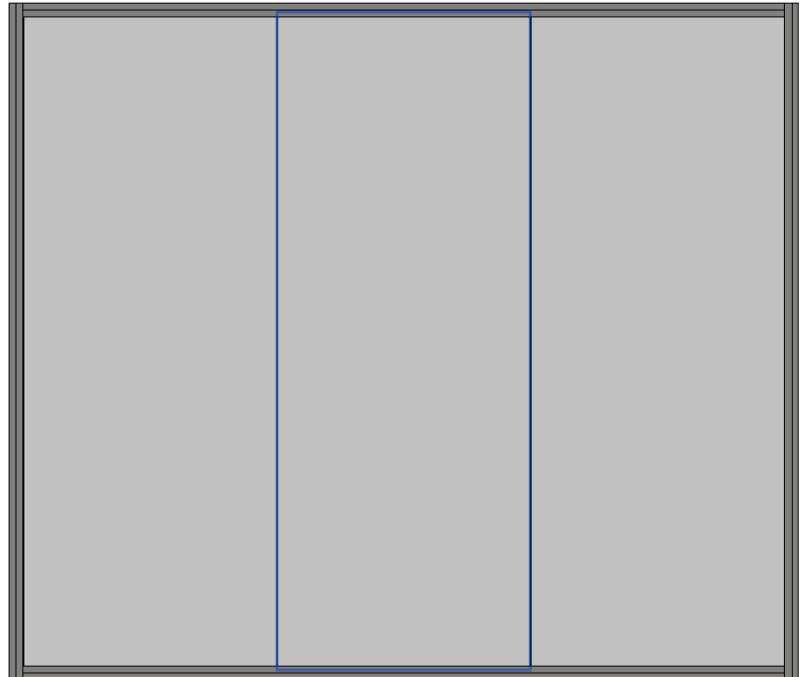
Although these are stand-alone elements and are not part of the curtain wall system family, they share parameters allowing for seamless customization. i.e. “Glass Panel Offset” parameter.

### Adding Doors to Curtain Walls

To add a Focus door to a wall run in Revit, a curtain panel must be replaced with a door panel.

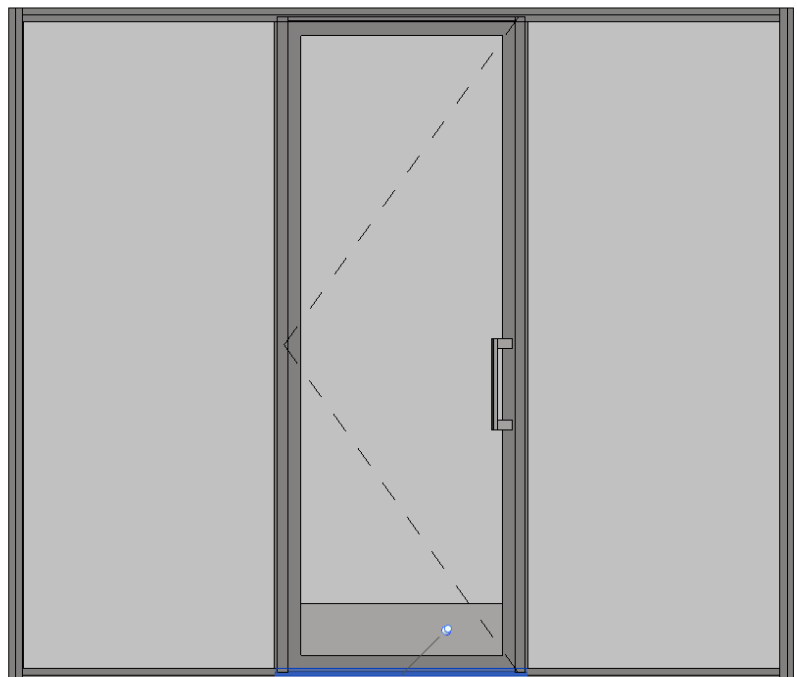
Please follow the next steps to add a Focus door to a Focus wall run in Revit:

1. Open an elevation or 3D view of the curtain wall.
2. Move the cursor over an edge of the curtain panel to be customized until one of its mullions or the curtain wall highlights. Press Tab until the panel highlights, then click to select it and unpin the panel.



3. In the Type Selector, select a Focus curtain wall door to replace the panel. Only curtain wall doors can replace a curtain wall panel.

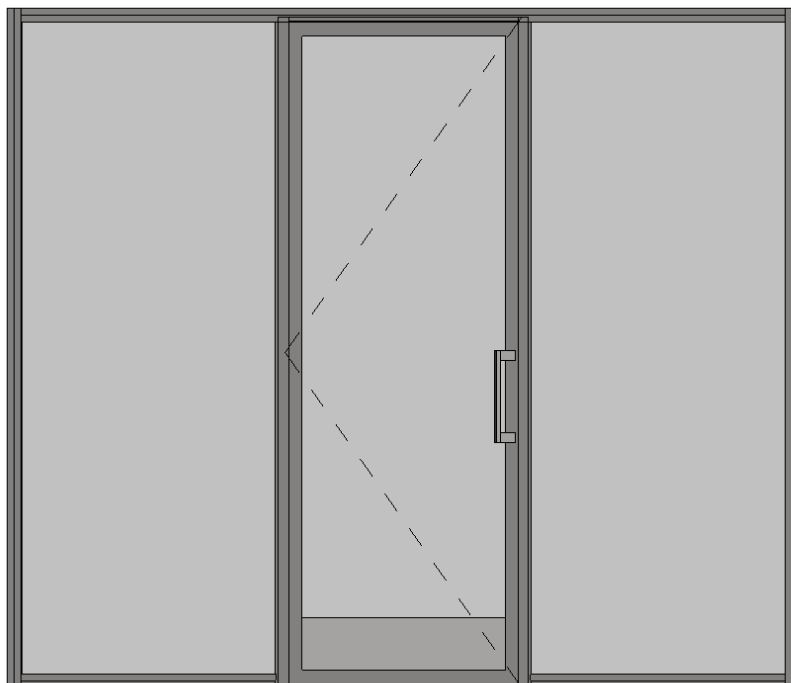
4. Highlight the mullion under the door, and click to display its pin icon.



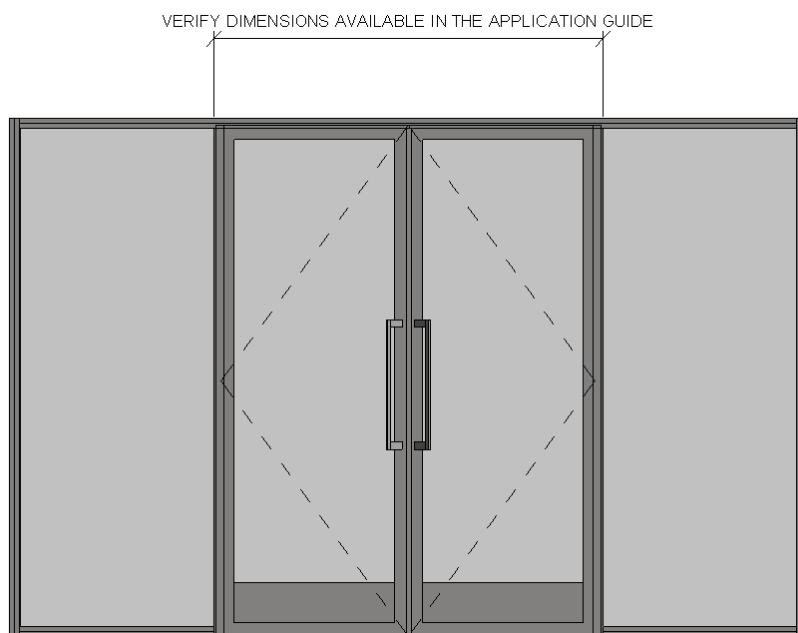
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## doors

5. Click the pin icon to unpin the mullion, and then press Delete.



Note: When using a double leaf door, the total width between gridlines must be set according to product dimensions.



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## door connections

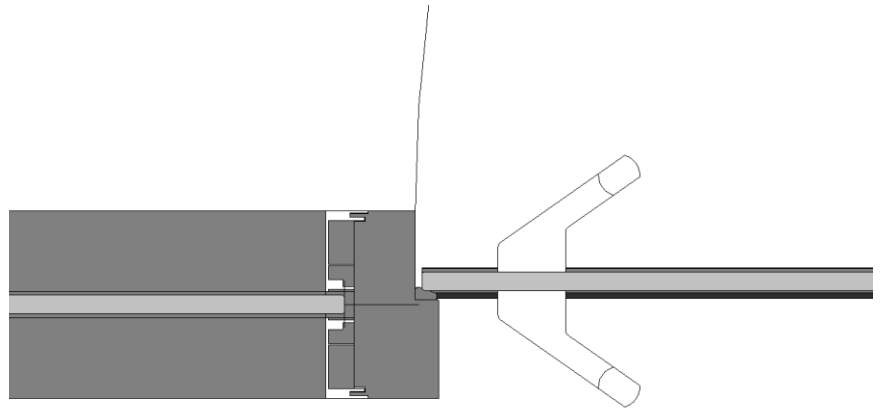
Connector pieces are needed to enable the transition between a door and other elements. These connections are inserted separately and are provided as stand-alone pieces.

Depending on the desired location of a door, the connectors to be added can be:

Wall Starts

Wall Ends

Panel Transitions (Single Glass, Double Glass, Offset Glass, Solid, Electrical)





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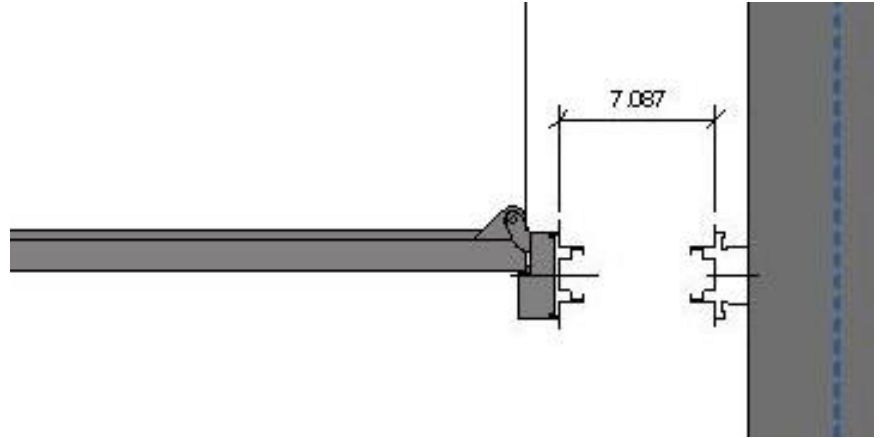
## electrical panel

Please follow the next steps, to insert the electrical panel:

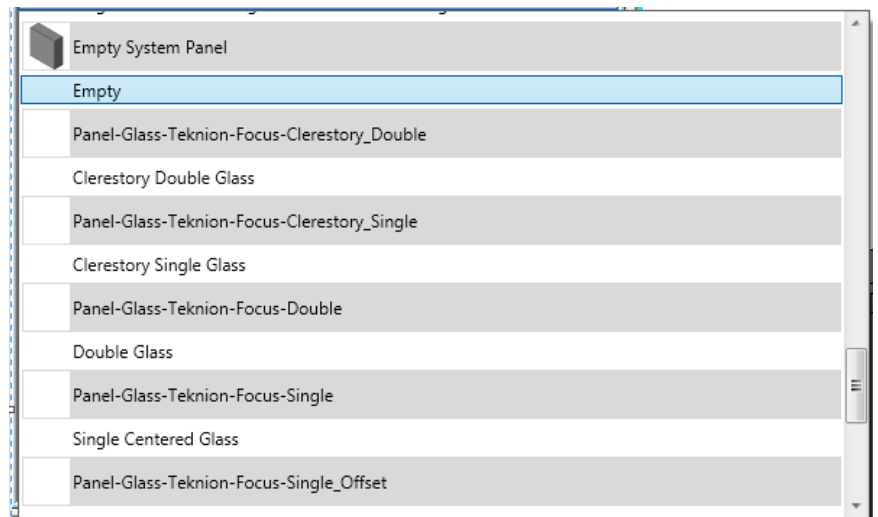
1. Leave a 7.087" gap between the Curtain grids, which is the dimension that corresponds to the electrical panel width.
2. Move the cursor over an edge of the curtain panel to be customized until one of its mullions or the curtain wall highlights. Press Tab until the panel highlights, and then click to select it and unpin the panel.

The electrical panel was created as a standalone component (Specialty Equipment) to make it easier to locate in a project.

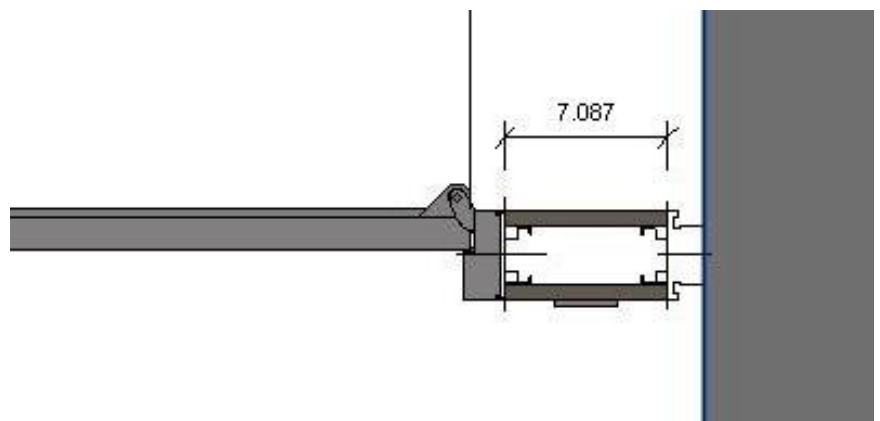
### Adding Electrical Panel to Curtain Walls



3. In the Type Selector, select an empty panel to replace the panel.



4. Insert the electrical panel as a stand-alone element and align it to the wall or panel.

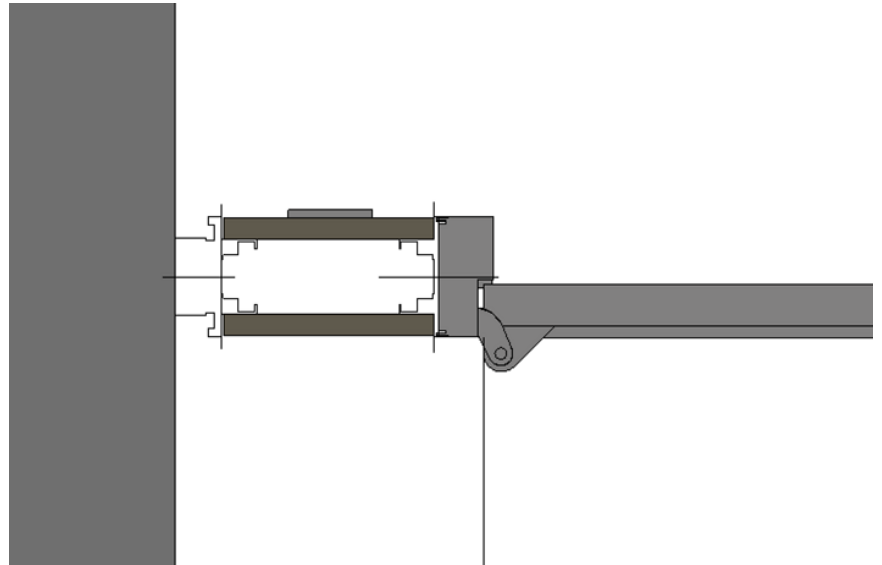


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electrical  
panel

Just like the doors, the electrical panel will be used next to connectors:

Wall Starts  
Wall Ends  
Panel Transitions



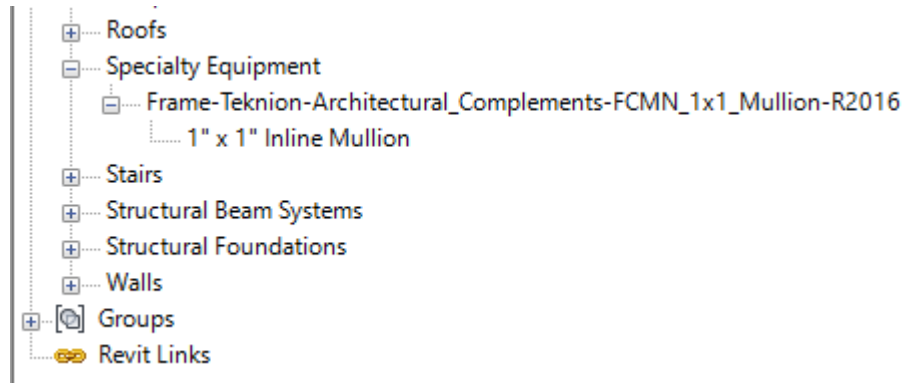
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## adding architectural complements components

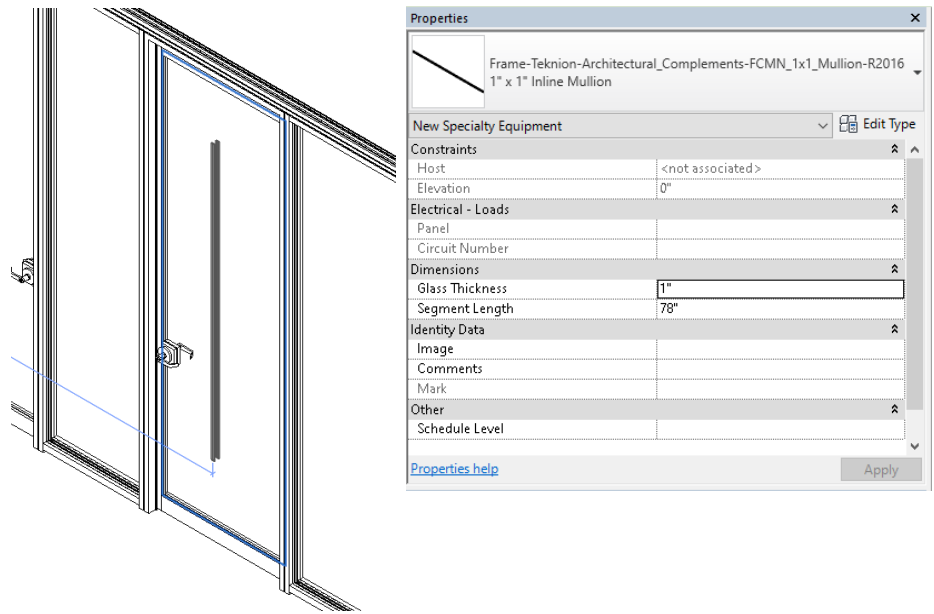
Add architectural complements mullions for framed doors and curtain wall panels by import them into the project as Specialty Equipment. Manually adjust their location and size to fit the desired look after importing.

Refer to the Teknion's application guide on Architectural Complements when planning to properly select an appropriate door type or Curtain wall type to use with architectural complement mullions. The Specialty equipment version of the mullion is work plane based. see below on how to apply.

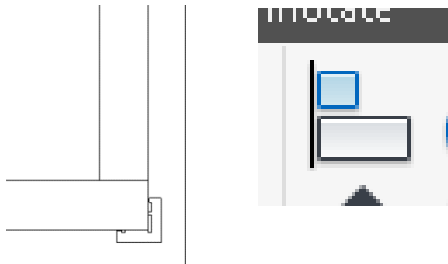
1. Once loaded into the project the family can be found in the project browser underneath Specialty Equipment.



2. Drag the family from project browser in the model space, then select an appropriate glass -- thickness, length and Position as needed with the parameters of the imported component.



3. Corner Mullions are also placed as Work plane based specialty equipment. Ensure that the Mullion Family is aligned to each side of the glass correctly after placement



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## schedules

Schedules in Revit offer many configuration options allowing a user to extract information from Revit content within a project. Because there are different family categories, a user may need to create different schedules to capture and communicate all necessary information. The fields, filters and sorting options for schedules can vary depending on the family category being scheduled.

To ensure that no component is missing in the schedule, we recommend starting with a “multi-category schedule” and then apply the necessary filters.

Within the Project Scenarios file you can find many pre-set Revit Schedules. They can be used as reference or be copied from one project to another, as required.

