

Autodesk – REVIT

View Range

Every plan and RCP (reflected ceiling plan) view has a view property called View Range. The view range is a set of horizontal planes that control object visibility and appearance.

In the View Range dialog box, levels are relative to the current level.

For example, if you are in the level 2 floor plan of a multi-story building and you select Level 4 as the top clip, Autodesk® Revit® interprets this as "top clip is two levels above the current level."

The Primary Range is the space between the Top and Bottom Clip Planes. Elements within the boundaries of the primary range are drawn according to their Object Styles category settings. The value for Cut plane sets a height at which a plan view is cut. Elements that are cut display according to their Family Element Visibility settings.

Elements not within the primary range yet within the View Depth are drawn using the Beyond line style.

For example, there may be a balcony 2 levels below the current plan view. By setting the View Depth to that level, the balcony would appear using the Beyond line style. You can change the Beyond line style by selecting Line Styles from the Settings menu.

Visibility Rules in a Plan View:

- Model elements located beyond the [View Depth; Top Clip] range (visible range) are not shown in the view.

Exceptions: Floors, stairs and ramps, and components that stay or are mounted on the floor (like furniture) are shown even when slightly below the visible range.

- Elements that are strictly below the Cut Plane (but, at least, partially, within visible range) are shown as viewed from above. For components this means display according to Family Element Visibility for Plan/RCP.
- Elements that intersect with the Cut Plane are, generally, shown cut by this plane (and the top half removed).

Exceptions: Walls shorter than 6 feet (approximately 1.83 meters) are not cut. Some components (like furniture) are not being cut.

- There are only a few categories for which an element located above the Cut Plane but partially below the Top Clip is shown in plan. These categories include Windows, Casework, and Generic Model. These objects are shown as viewed from above.

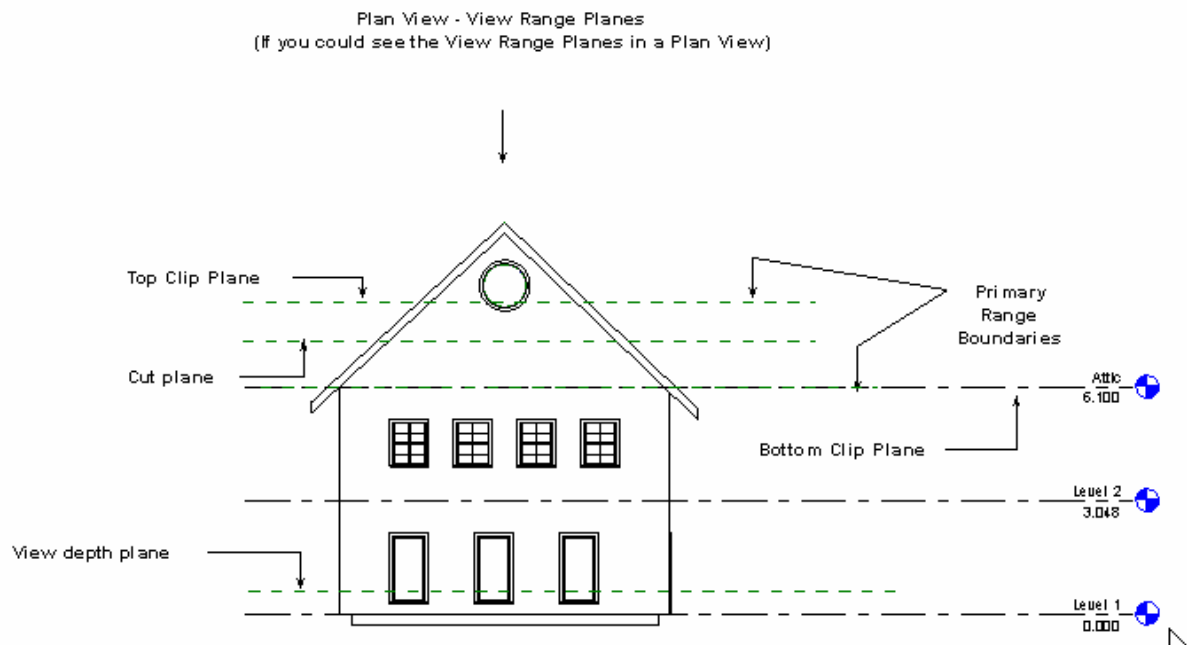
- By default, the View Depth plane coincides with the Bottom Clip plane. So, for example, if you want Floor 9 balconies to be drawn in thin lines on your Floor 10 plan, change View Depth of the Floor 10 plan to Level Below. If you want these balconies to be drawn dashed, edit properties of the line style <Beyond>.

Visibility Rules in RCP View

These are similar to those in plan with the exception that objects are presented as viewed from below and mirrored

Note: Elements outside the visible range may still be visible if they are part of the Underlay.

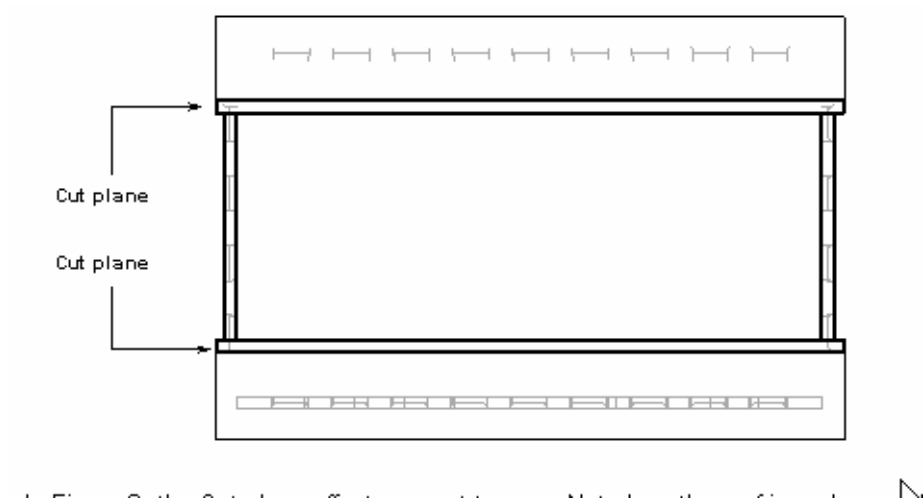
Figure 1



Although View Range applies only to plans and RCPs, the elevation view in Figure 1 shows where the planes would be located relative to one another.

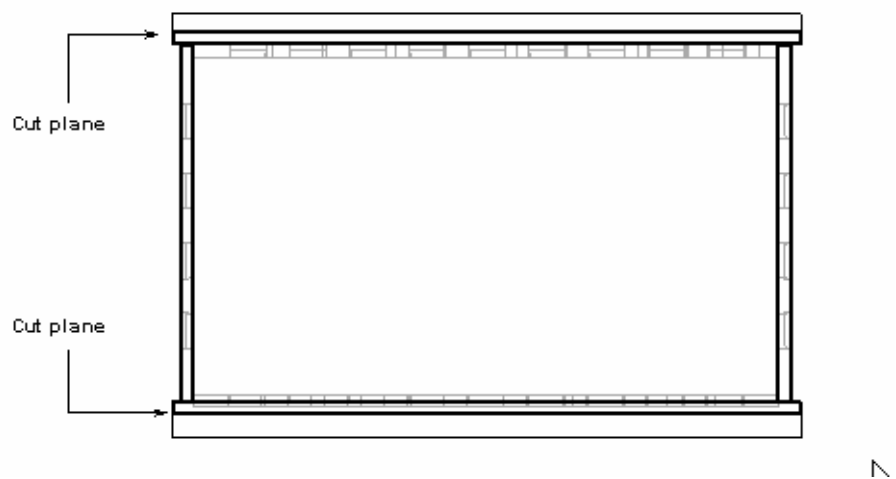
Notice in Figures 2 and 3 that elements below the Bottom Clip Plane yet above the View Depth appear in the Beyond line style.

Figure 2: Attic plan view with Cut Plane set according to Figure 1.



In Figure 3, the Cut plane offset was set to zero. Note how the roof is no longer obstructing the view.

Figure 3: Attic plan view with Cut Plane offset equal to zero.



Parameter names, values, and descriptions for view ranges. Values are modifiable.

Name	Value	Description
Top	Associated Level, Level Above, Unlimited, or select level from menu. Default = Associated Level	Sets the level of the Primary Range's upper boundary. Elements appear as defined by their Object Styles. Elements above the Offset value do not display.
Offset	user-defined	Sets the offset distance from Top of the Primary Range. Elements appear as defined by their Object Styles. Elements above this value do not display.
Cut plane:	user-defined	Sets a height at which a plan view is cut, such that building components below the cut plane display and others above it do not. Building components that display as cut include walls, roofs, ceilings, floors, and stairs. A cut-plane does not cut components, such as desks, tables, and beds.
Bottom	Associated Level, Level Below, Unlimited, or other level name. Default = Associated Level	Sets the level of the Primary Range's lower boundary. If you access View Range while viewing the lowest level of your project and set this property to level below, you must specify a value for Offset.
Offset	user-defined	Sets the offset distance from Bottom of the Primary Range.
View Depth	Associated Level, Level Below, Unlimited, or other level name. Default = Associated Level	Sets a vertical range for the visibility of elements between specified levels. In a floor plan, it should be below the cut plane, in a RCP, it should be above. For example, if you are designing a multi-story building, you might have a floor plan for the 10th floor that had a depth to the first level. Specifying view depth lets you display visible objects below the current level; such objects include stairs, balconies, and objects visible through holes in a floor.
Offset	user-defined	Sets the offset distance from the View Depth level.