Revit 2014 – Using Cutaway Views (Ref: November 2013)
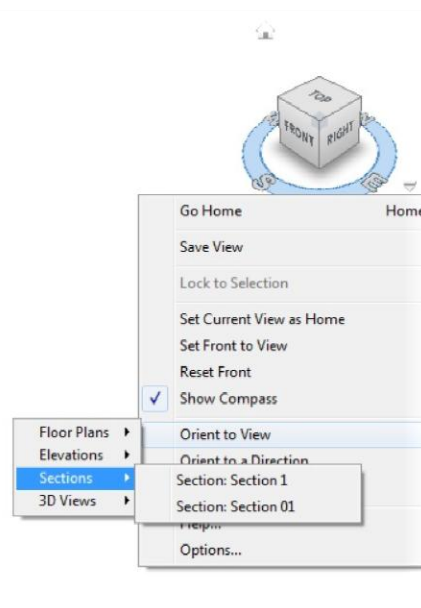
Introduction

After completing your building model in Revit Architecture you may want a better understanding of how a family such as a stair run is coming together. We could of course use the section box from the view properties palette and drag its boundaries closer to the stairs. Another approach would be to start hiding wall elements etc. in the vicinity of the stairs either temporarily or permanently. These methods work but they are fiddly.For the best results, use the Orient to View method accessible by right clicking on the view cube.

Orient to View

The most effective way to create a cutaway view of the stairs would be to create a section through the stairs and then orient to the 3D section at stair.
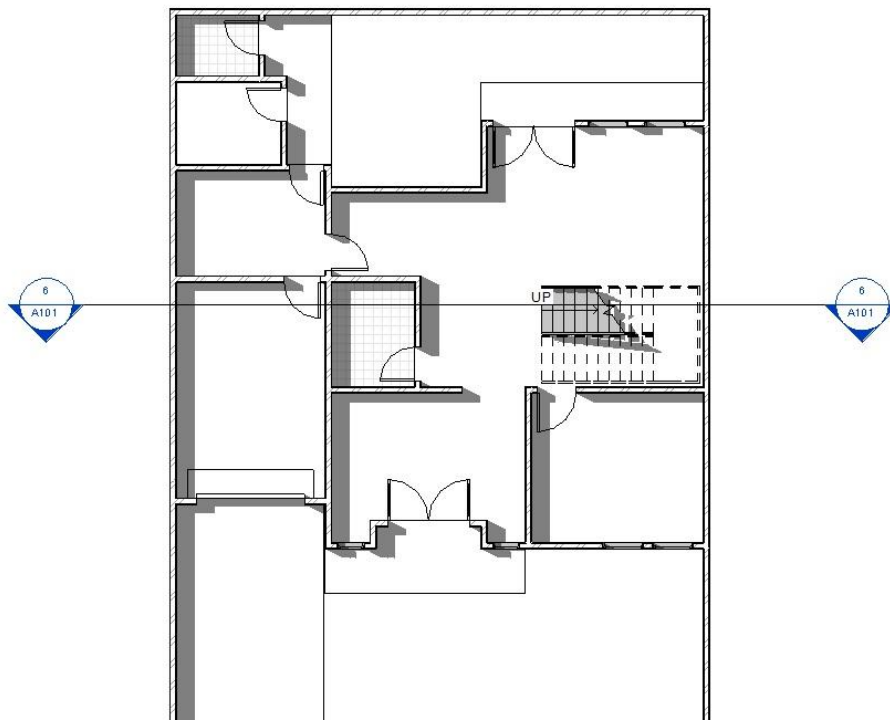
Fig 1: View Cube Context Menus

Create and Orient to a Stair Section View

To customise a view follow these steps:

1. Create a Section View of the stair run in your building model (Fig 2).

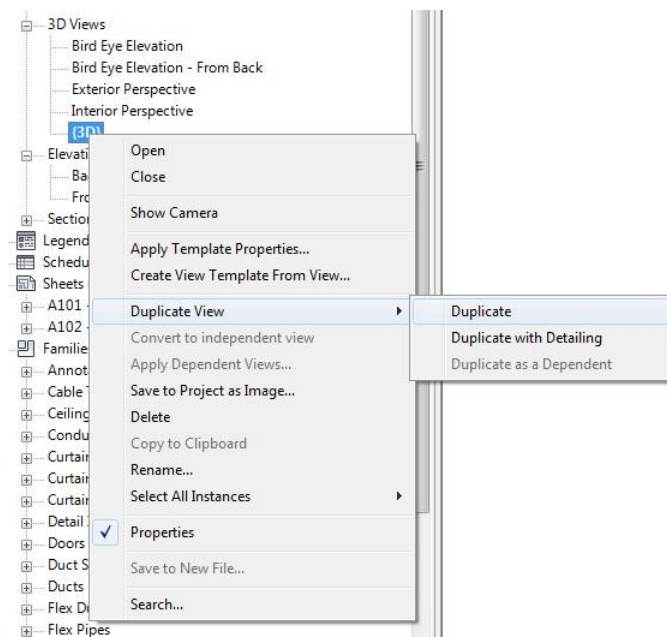**Fig 2: Stair Section Created in Plan View (Level 1).**

The Section tool is located on the Ribbon View tab. Select the section tool and click to the left of the model as indicated in Fig 2 above. Move to the far right of the model and click again to place your building section line, then click modify to cancel the command. If this is the first section created in the model it will be recorded in the project browser as Section 1. To view the section you can either double click the section head in the floor plan view or else double click the section name from the project browser. You can also rename the section by right click on it and then select the rename option from the right click menu.

Fig 3: Stair Section View
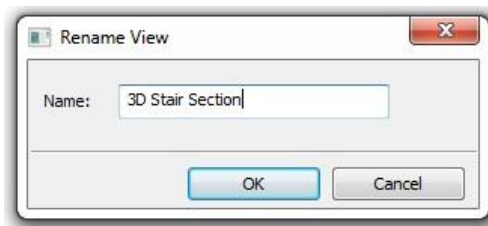

2. Duplicate a 3D default model view (Fig 4).

Fig 4: Duplicate View

3. Rename the Duplicated View

Right Click on the Copy of the 3D view that appears in the project browser and rename it to 3D Stair Section in the Rename View dialogue box (Fig 5).
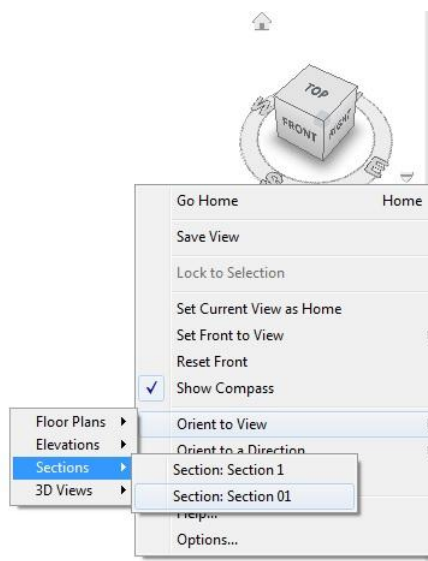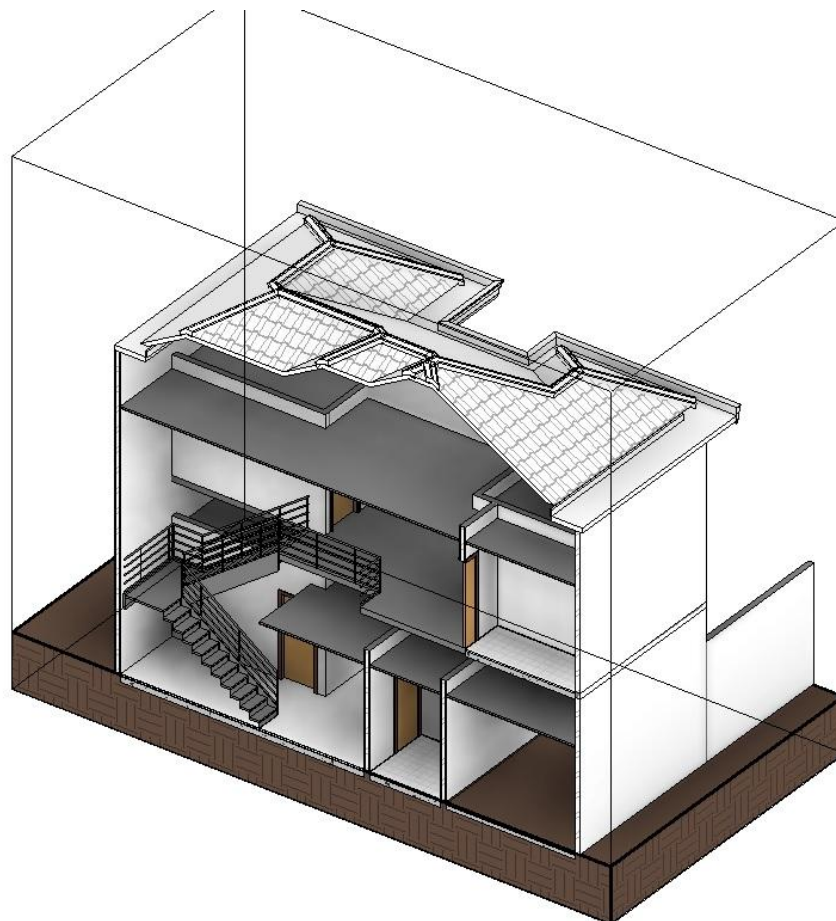
Fig 5: Rename View

4. Orient to View

Double click on the renamed 3D Stair Section View to open it and then right click on the view cube to access the orient to view options (Fig 6). You can orient this view to match any of the other views in you project, in this case – 3D Stair Section. This process will spin the view around, crop it down and make it match our original stair section created in floor plan.

Fig 5: Orient to View – View Cube Context Menu

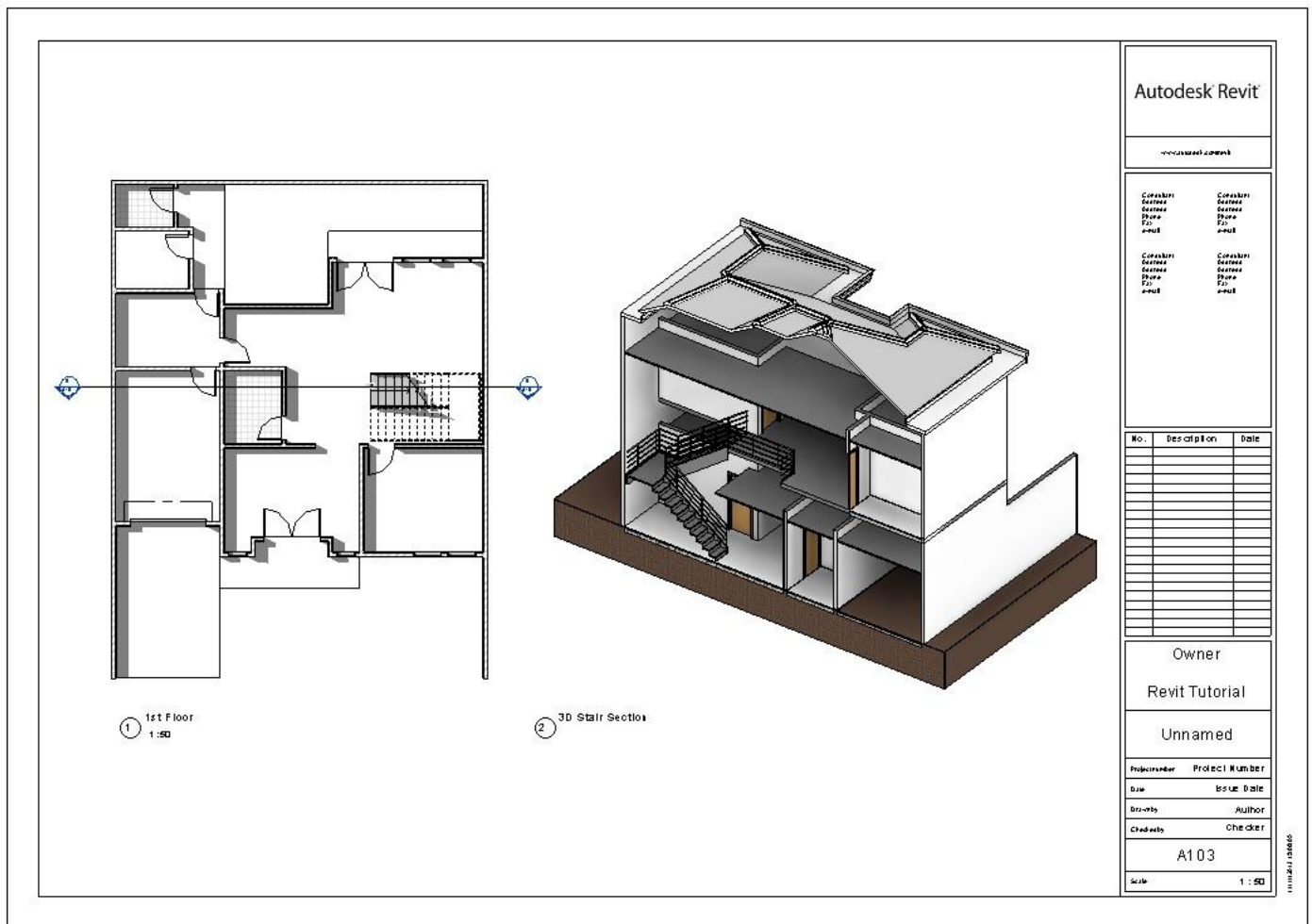Adjust the view cube to get the best view of your stairs in 3D (Fig 6).

Fig 6: 3D Stair Section

You can see that a section box has been placed at the desired stair location to match our section placed in plan view. Try to duplicate the 3D model several times and orient to floor plan and elevation views etc.

Now when you create a sheet presentation of your building model the stair section can be illustrated in both 2D plan view and 3D model view (Fig 7).

Fig 7: 2D / 3D Stair Section Presentation

The Section Box has been hidden, not turned off and some shadows have been created from the view control panel and the properties palette.

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