Support Article:

Create a Toposurface from an AutoCAD Survey

Revised: choose date from dropdown

The *Import* function on the *Insert* tab in Revit makes it easy to bring images and cad files into your project. Refer Revit Help.

Here's a few hints on making the most of surveys supplied in AutoCAD.

If you have access to AutoCAD software, it may be advantageous to clean out the AutoCAD file by removing those things you will not need in your Revit site plan.

Cross check the survey data to determine if it contains 2D drafting data and 3D elements. A good survey will provide 3D data for the existing ground, the natural ground and building elements such as floors, roof hips and ridges and gutter lines.

If both exist, consider creating a separate AutoCAD file for each. Both will be imported into Revit. The 2D will remain in the project to be shown in drawings such as site and survey and the 3D can be used to create a topography and then removed from the file.

Convert the scale if necessary. Surveyors usually work in metres and we work in millimetres. This can be adjusted during import but is easy to do in AutoCAD.

Importing the AutoCAD files into Revit:
When importing the 2D AutoCAD file, ensure that the check box *Current View Only* is checked and place the import in the view in which you need it. The imported data will only exist in that view, not throughout the model. When inserting the 2d, this will ensure it is placed in the view only - not throughout the entire model.

When importing the 3D AutoCAD file, ensure that the check box *Current View Only* is not checked. You will need to see this in various views to create the toposurface. Also set the *Place at*: to *Zero Level* which already exists in the ARChetype. Surveys are based on AHD at sea level, which is AHD 0.00

We recommend looking at Revit Help and www.YouTube.com tutorials on creating toposurface from 3D surveys.

Visibility of imported categories:
You can control the visibility of the layers of an imported item using *Visibility Graphics* (VG). Open the *Imported Categories* tab and expand the imported item to see the layers.