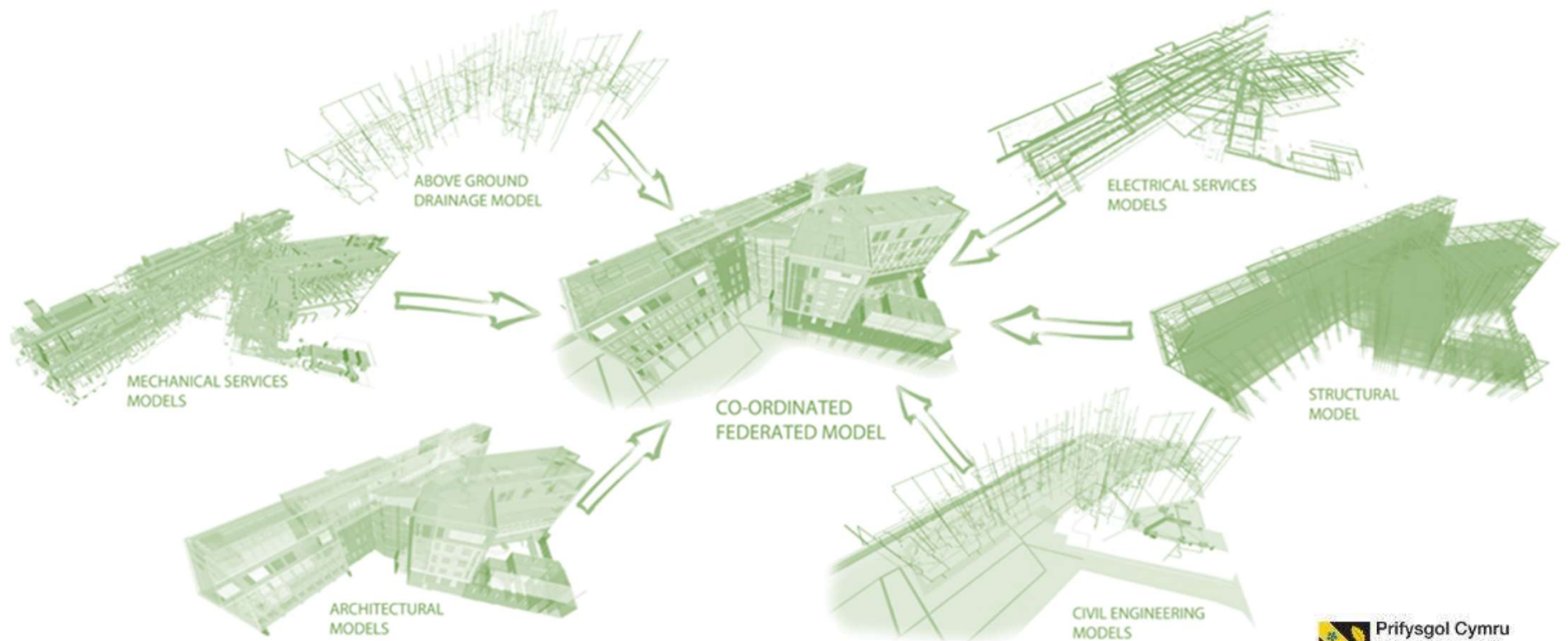


Building Information Modelling



www.onecreativeenvironment.com

Exercise 3

Malibu beach house 2 storey, plus roof terrace

Set up your levels in Elevation view.

Distance between levels of 2700mm

Assumptions.

Concrete finish to the external walls – all other material your choice.

Framed structure with columns at 5m centres and 4m centres

Curved staircase

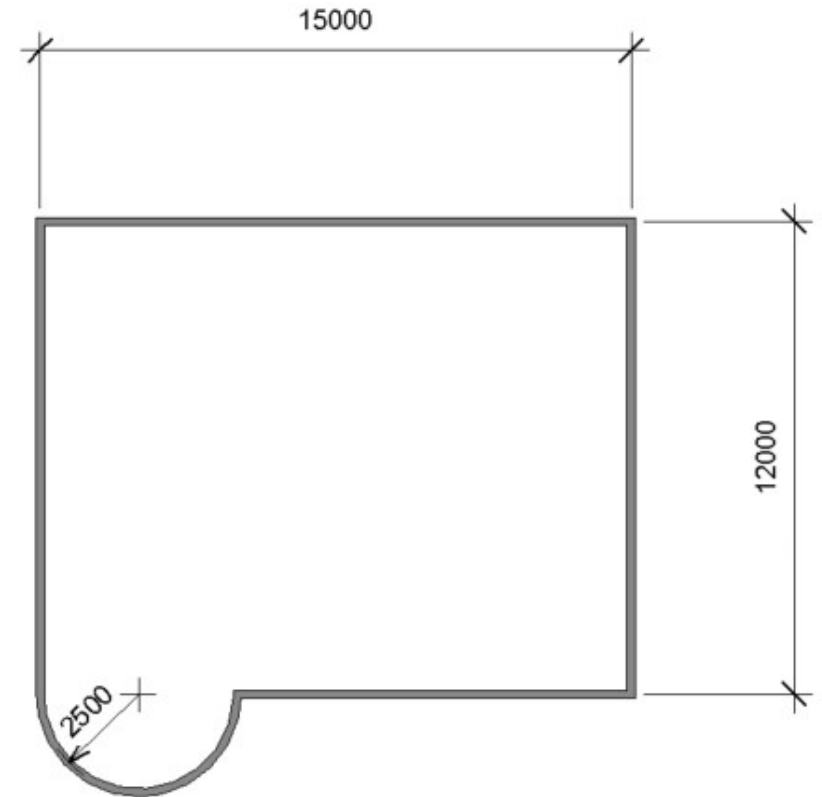
Curtain walling to southern view

GF: open plan living area, hall, kitchen / dining / WC

FF: 2 bedrooms with ensuite facilities

Roof: sun deck, wc / shower

Apply, room names, legends, grids. create plans, section and elevation views. 3D views – add toposolid and split the surface



Topography – Use of Digimap



15-SITE

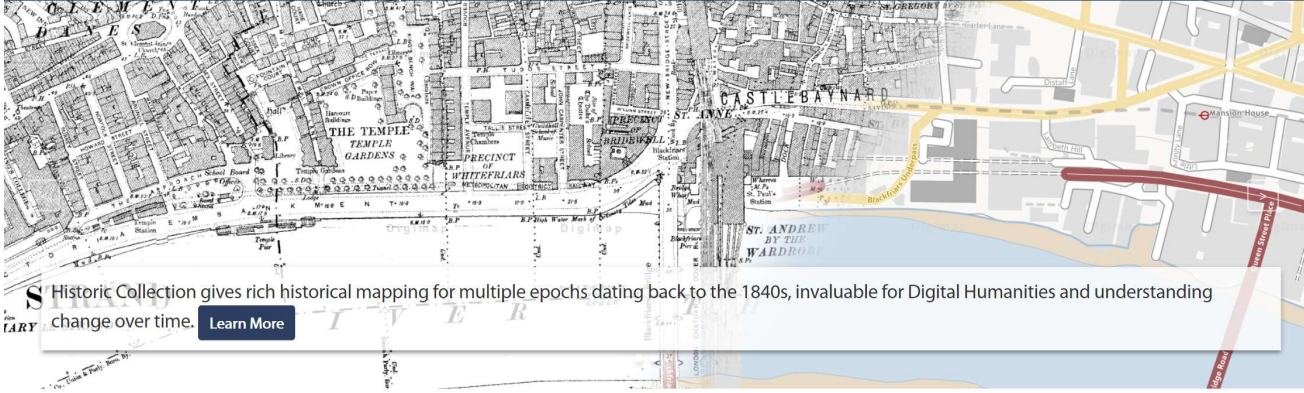
<https://digimap.edina.ac.uk>

**Digimap**[®]

Resources Subscribing

Please log in to access applications. [How?](#) [Log In »](#)

Ordance Survey Historic Geology Marine Environment Aerial Lidar Global Society



S Historic Collection gives rich historical mapping for multiple epochs dating back to the 1840s, invaluable for Digital Humanities and understanding change over time. [Learn More](#)

What is Digimap?

Digimap is an online map and data delivery service, available by subscription to UK Higher and Further Education establishments. Operated by EDINA at the University of Edinburgh, Digimap offers a number of data collections, including Ordnance Survey, historical, geological, LIDAR and marine maps and spatial data.

What are we offering?

Digimap offers access to a range of datasets for the purposes of education and research. Create or interrogate a map online by selecting an appropriate base map, adding annotations and customising the content, use measurement and query tools to learn more about any study area. Download the raw spatial data in a wide range of formats for use in local GIS, CAD or image processing software.

Subscription Information

Digimap is available to members of subscribing higher and further education institutions in the UK. Individual registration is required, but the service is free at the point of use. More information about subscription fees can be found on our [website](#).



15-SITE

True North and Project North

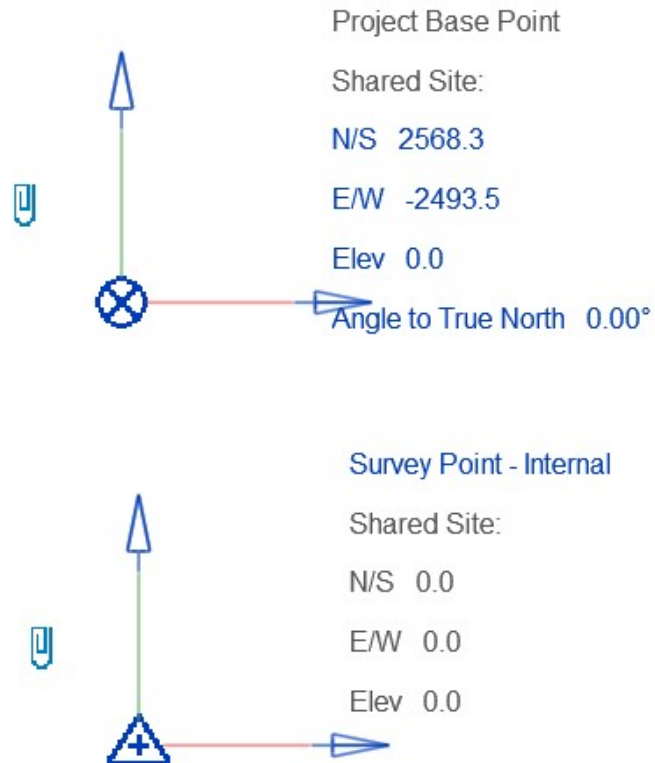


Understanding the use of the coordinate system in Revit is essential for BIM.

Shared coordinates / Project Base point from the outset enable consultants to coordinate information.

Although it helps coordination, it does not help presentation.

Revit can use True and Project North to orientate plans.





15-SITE

Properties

Floor Plan

Floor Plan: Site Edit Type

Graphics

View Scale	1 : 100
Scale Value 1:	100
Display Model	Normal
Detail Level	Coarse
Parts Visibility	Show Original
Visibility/Graphics Ov...	Edit...
Graphic Display Opti...	Edit...
Orientation	Project North
Wall Join Display	Clean all wall joins
Discipline	Architectural
Show Hidden Lines	By Discipline

[Properties help](#) Apply

Properties

Floor Plan

Floor Plan: Site Edit Type

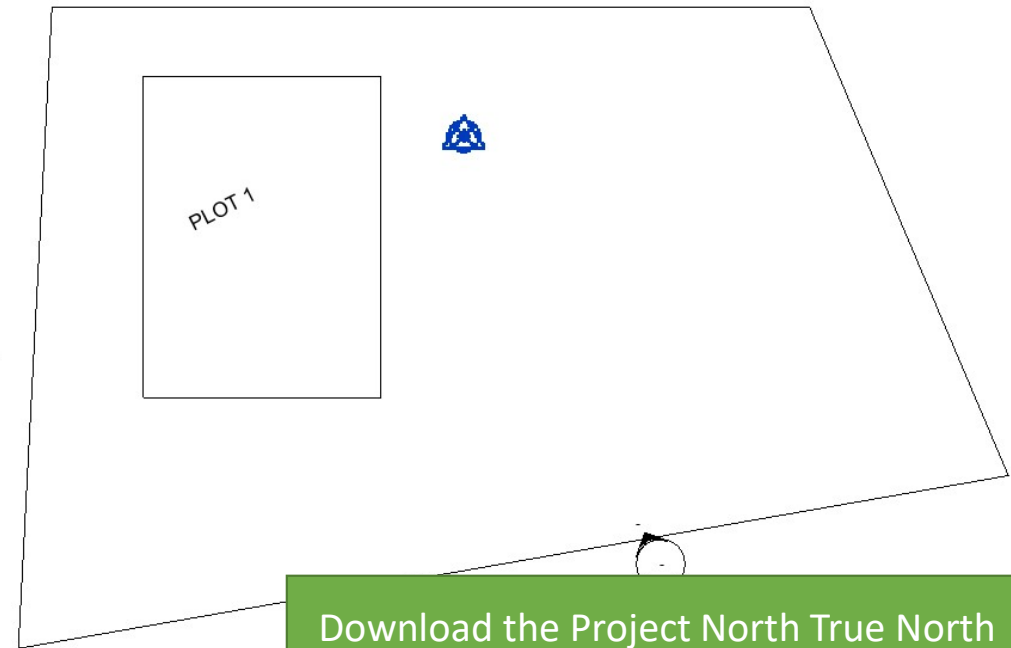
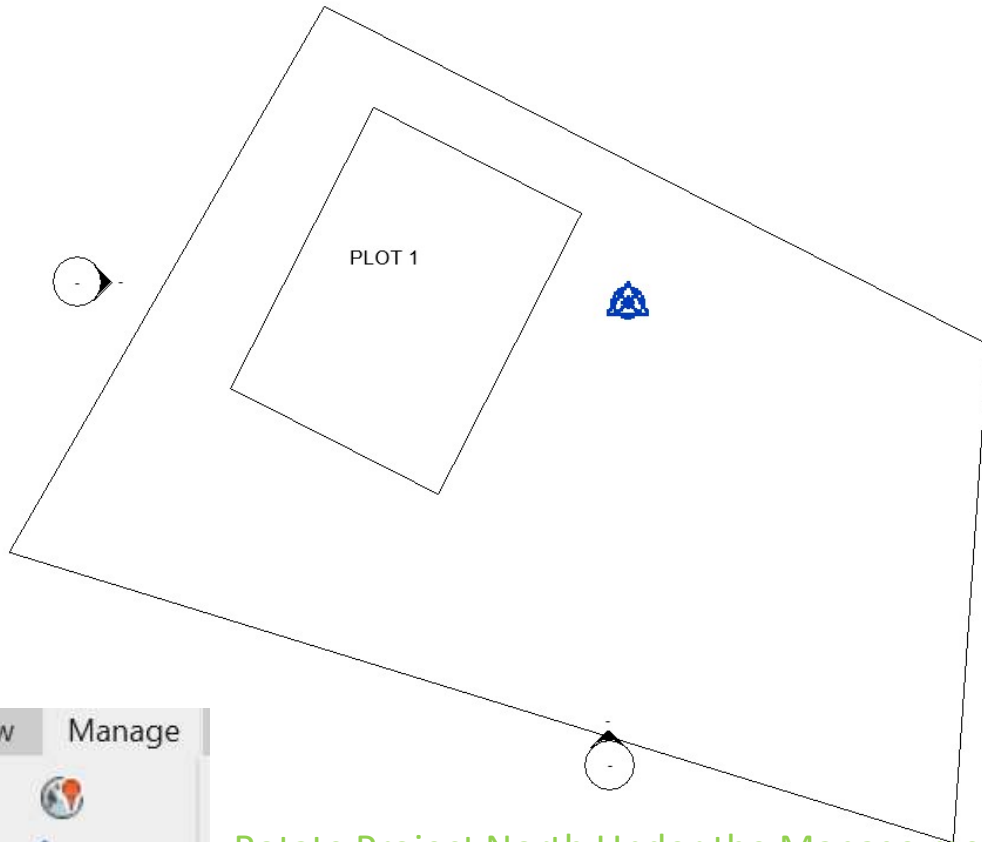
Graphics

View Scale	1 : 100
Scale Value 1:	100
Display Model	Normal
Detail Level	Coarse
Parts Visibility	Show Original
Visibility/Graphics Ov...	Edit...
Graphic Display Opti...	Edit...
Orientation	True North
Wall Join Display	Clean all wall joins
Discipline	Architectural
Show Hidden Lines	By Discipline

[Properties help](#) Apply

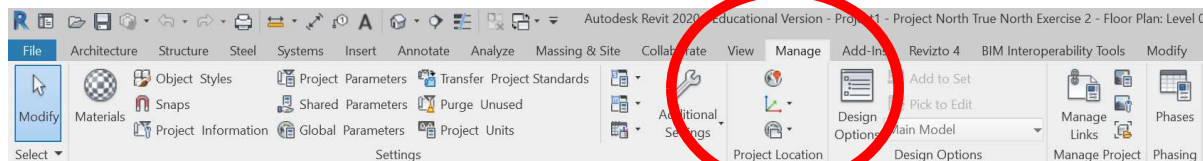
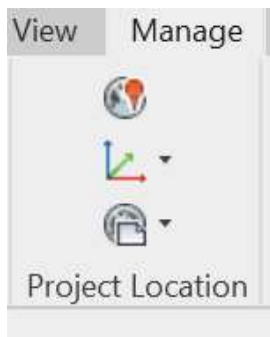
TRUE NORTH

PROJECT NORTH



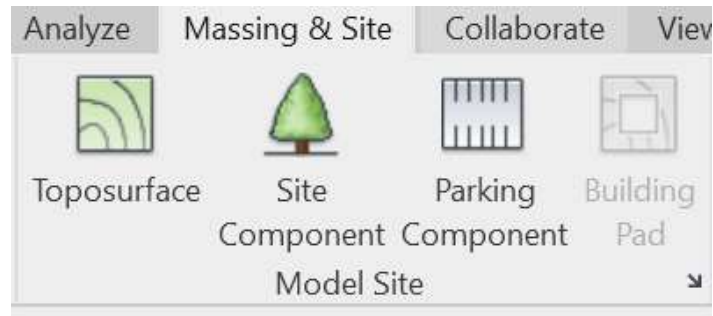
Rotate Project North Under the Manage menu

Download the Project North True North Exercise Projects 1 & 2 Teams Files





15-SITE



Topography can be created by placing points of the correct elevation value or from an imported site survey.

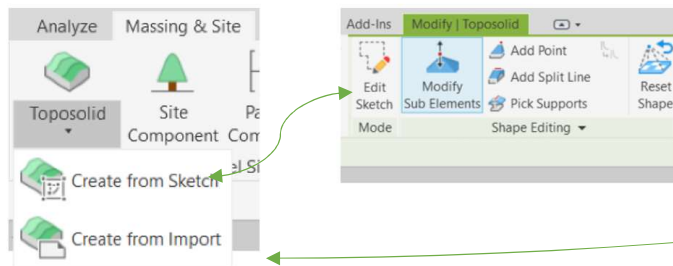
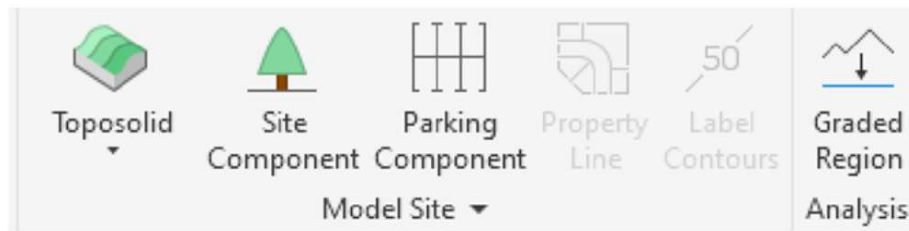
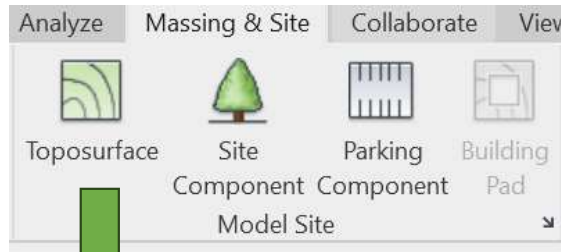
Use the digimap contours plan to create a toposurface. Download the same file and insert the Toposurface exercise from the Teams Files.





15-SITE

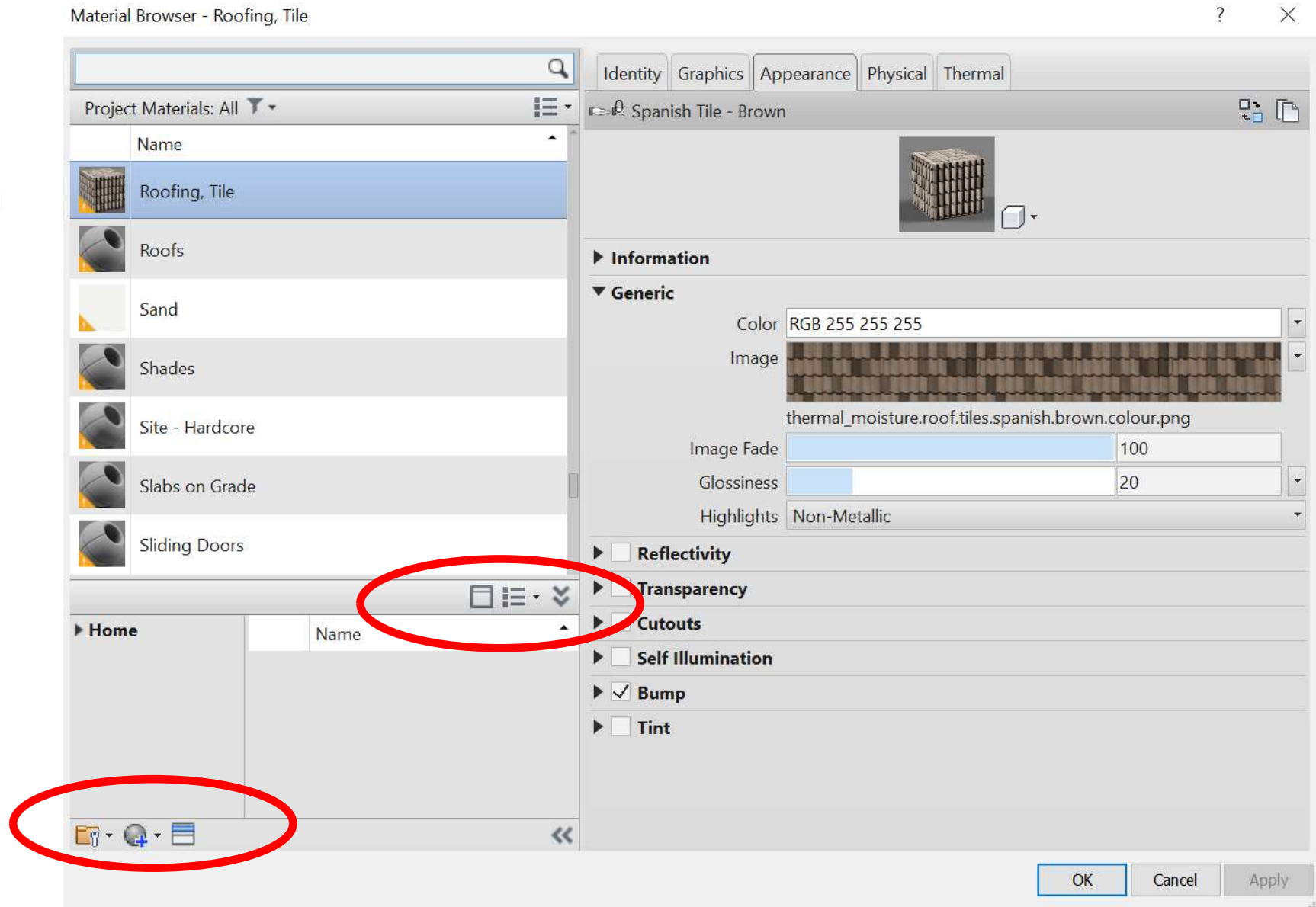
Revit 2024 onwards : Toposurface – replaced by Toposolid



Topography can be created by placing points of the correct elevation value or from an imported site survey.

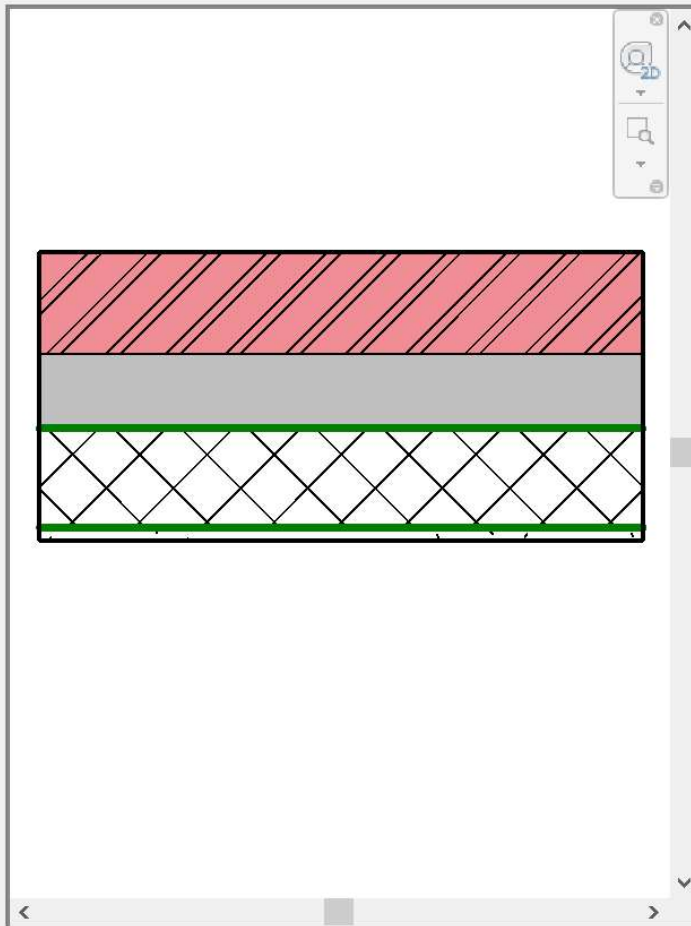
Use the digimap contours plan to create Toposolid. Download the sample file and Insert the Toposolid exercise from the Teams Files.







Edit Assembly



Family: Basic Wall
Type: Wall-Ext_102Bwk-75Ins-100LBk-12P 2
Total thickness: 290.0
Resistance (R): 4.2386 (m²·K)/W
Thermal Mass: 27.90 kJ/K

Sample Height: 6096.0

Layers

EXTERIOR SIDE

	Function	Material	Thickness	Wraps	Structural Material
1	Finish 1 [4]	Brick, Common	102.0	☒	☒
2	Thermal/Air Layer [3]	Fiberglass Batt	75.0	☒	☐
3	Core Boundary	Layers Above Wrap	0.0		
4	Structure [1]	Concrete Masonry Uni	100.0	☐	☒
5	Core Boundary	Layers Below Wrap	0.0		
6	Finish 2 [5]	Plaster	12.0	☒	☐

INTERIOR SIDE

Insert

Delete

Up

Down

Default Wrapping

At Inserts:

Both

At Ends:

None

Modify Vertical Structure (Section Preview only)

Modify

Merge Regions

Sweeps

Assign Layers

Split Region

Reveals

OK

Cancel

Help

View: Floor Plan: Modify typ

Preview >>



18-VIEWS



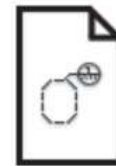
19-PLAN
VIEWS



20-SECTIONS



21-ELEVATIONS



22-CALLOUTS



23-DETAILS



24-3D VIEWS



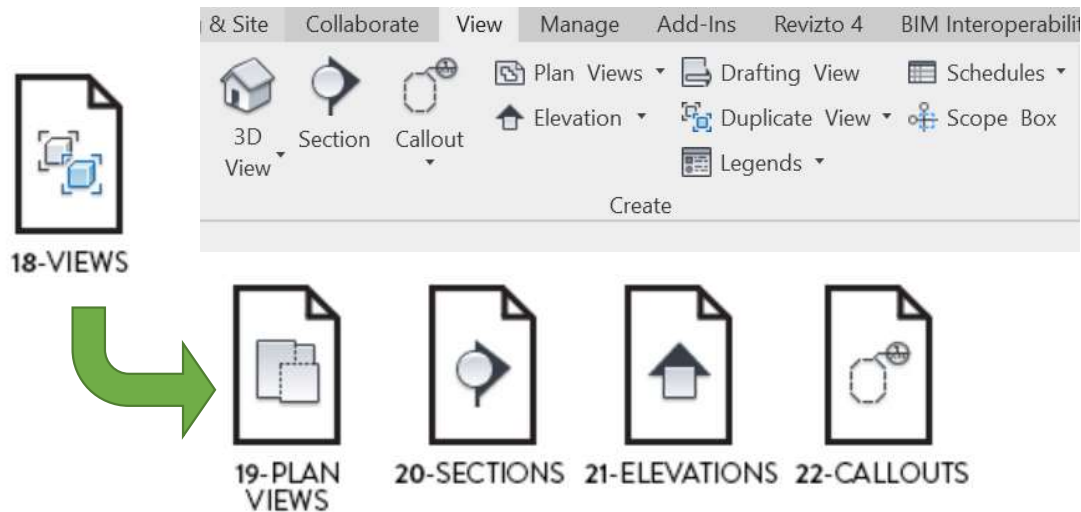
25-LEGENDS



26-VIEW
TEMPLATES



27-VISIBILITY



Revit allows you to create multiple views of your project. As you are working on one model, Revit coordinates all the information which can be presented in a varies levels of scale and detail.

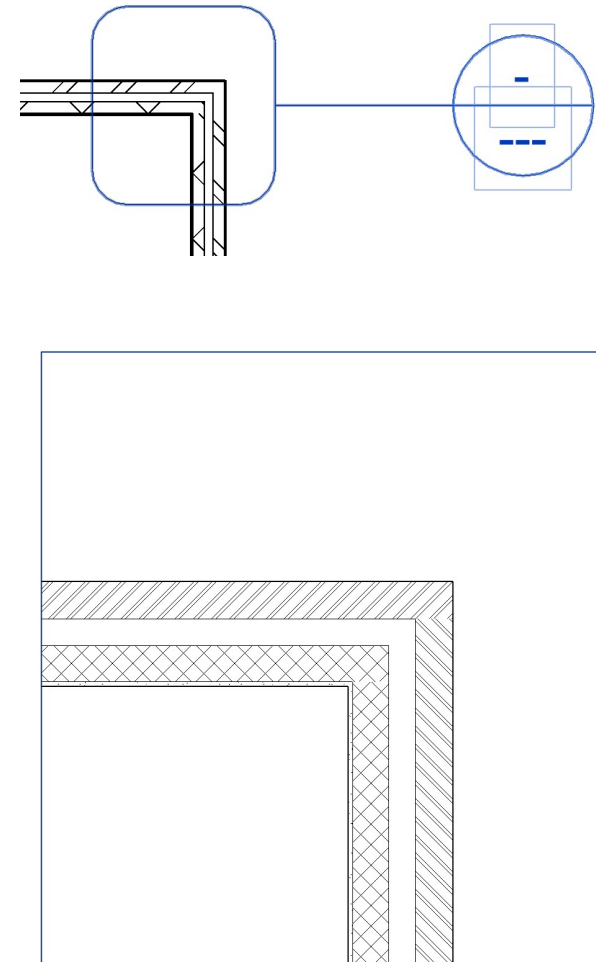
EG.

Ground Floor General arrangement plan 1:100

Ground Floor Setting out plan 1:50

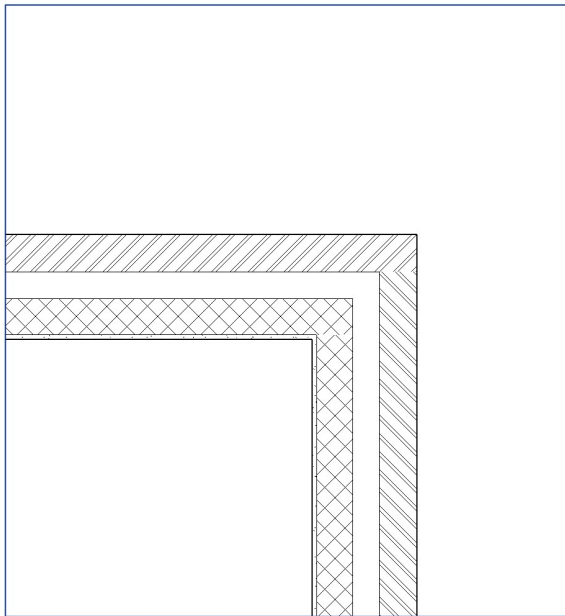
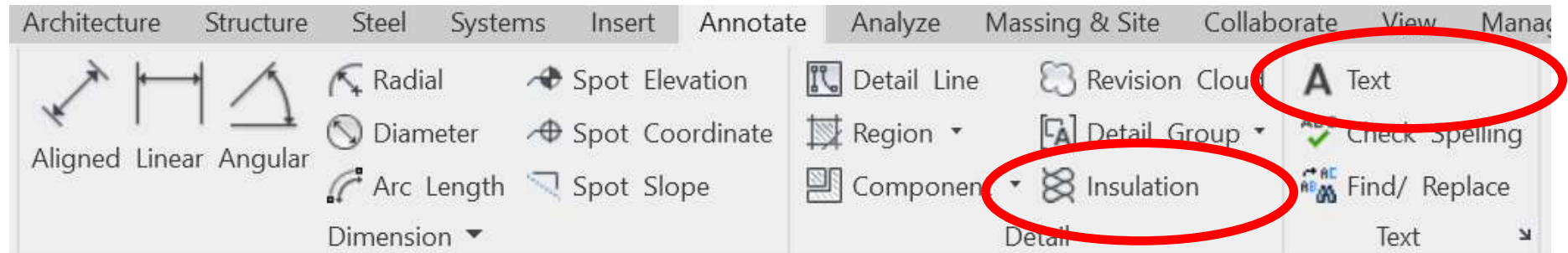
Callout detail of wall junction on plan 1:10

Views can be duplicated 'with detail' allowing multiple representations of the same view.

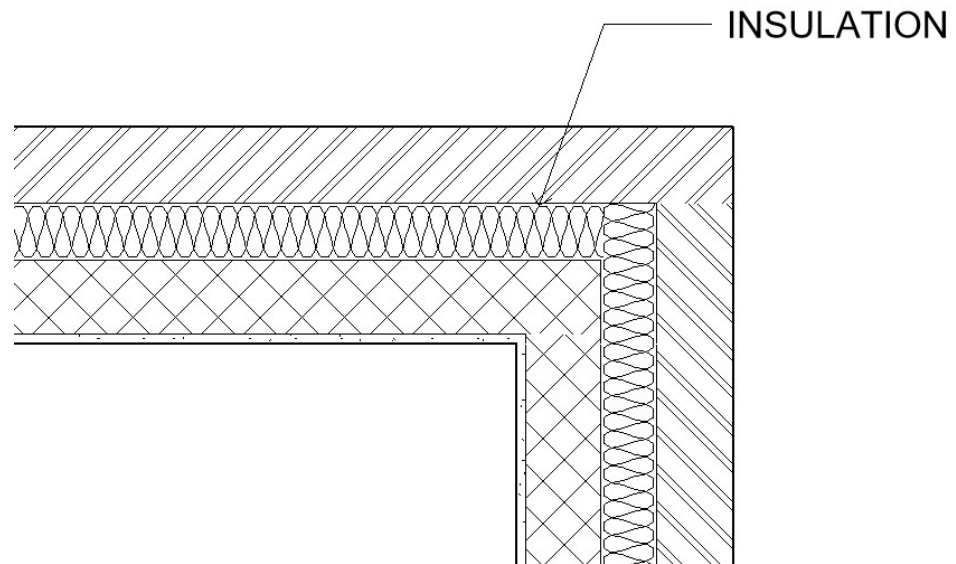




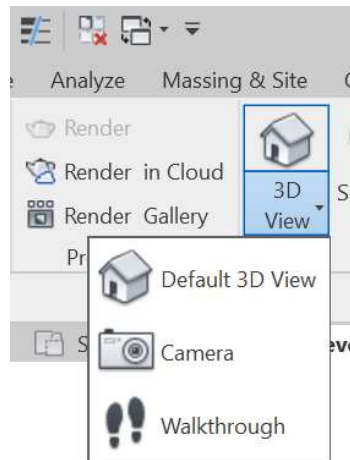
23-DETAILS



Create a Callout Detail for your house and add some annotations.



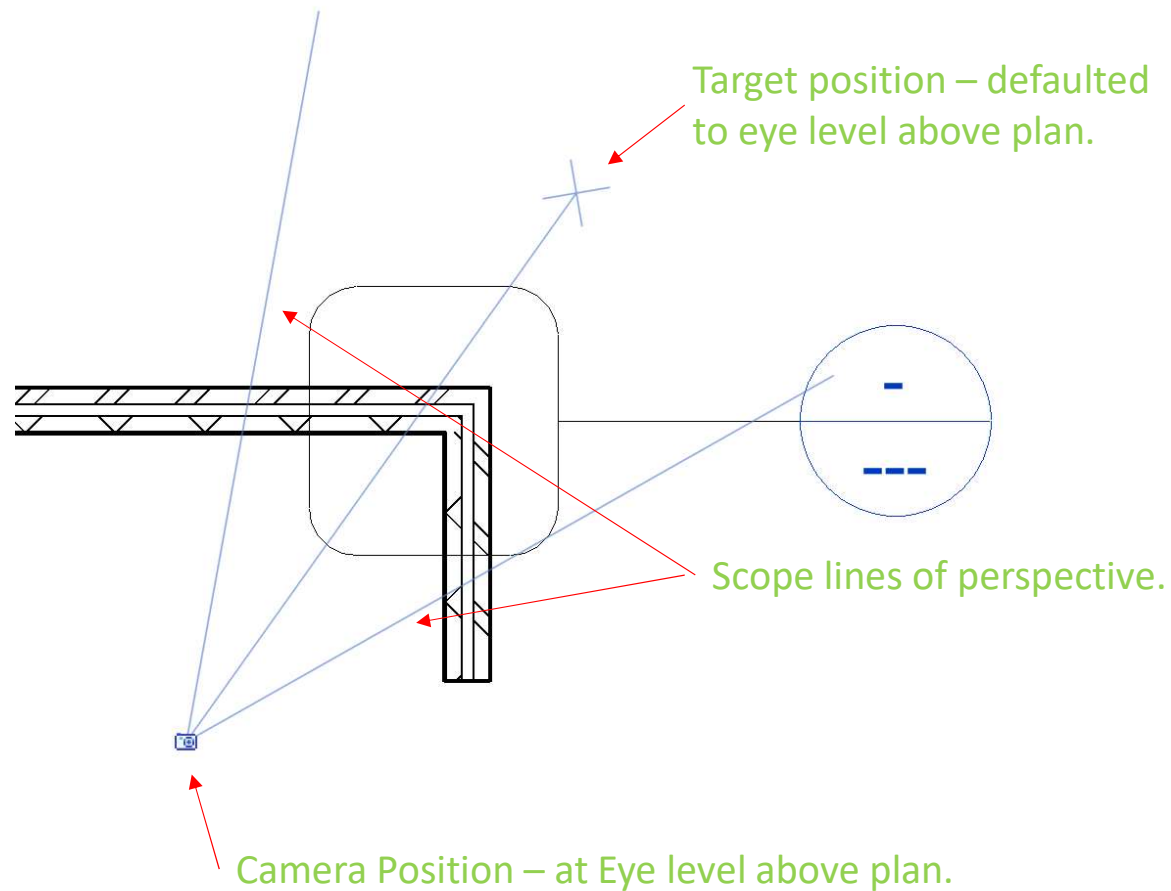
Adding further information to Details

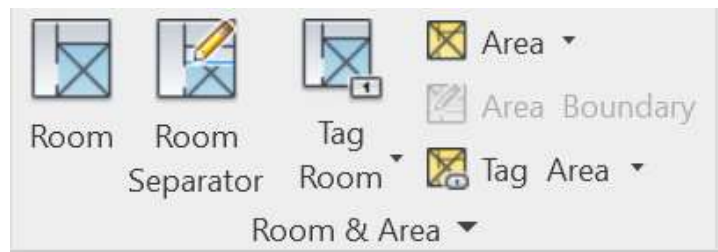
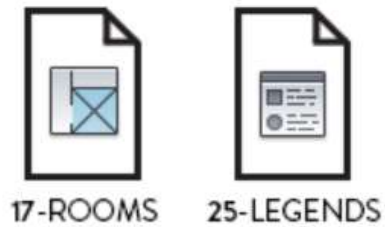


Place Camera Views in PLAN

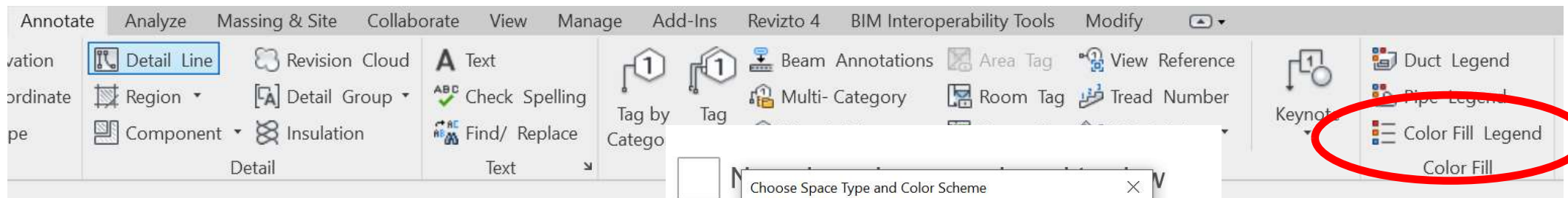
Click to place camera and drag to show the scope of the perspective view.

A new view will appear in the Project Browser Palette

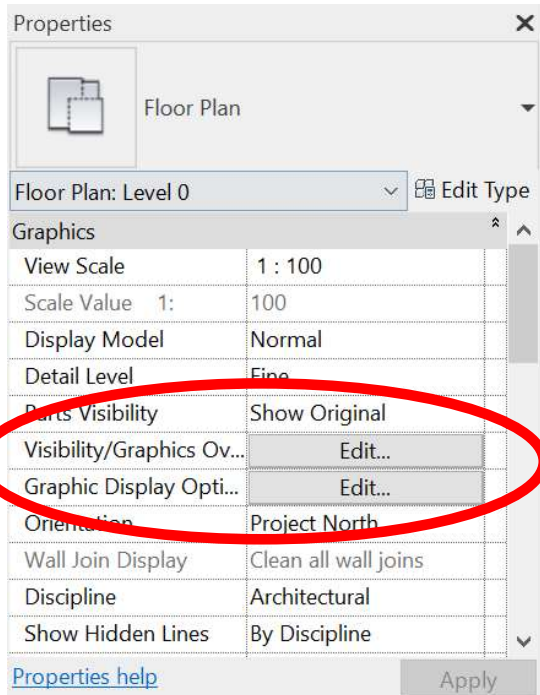
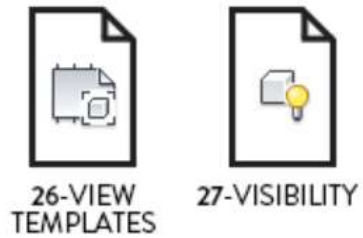




Add rooms to your House Plan from the Architecture Menu



Add a colour fill legend to your house Plan from the Annotate Menu



Visibility/Graphic Overrides for Floor Plan: Level 0

Model Categories Annotation Categories Analytical Model Categories Imported Categories Filters

☒ Show model categories in this view If a category is unchecked, it will not be visible.

Filter list: <show all>

Visibility	Projection/Surface			Cut		Halftone	Detail Level
	Lines	Patterns	Transparency	Lines	Patterns		
☒ Air Terminals	Override...		Override...			☐	By View
☒ Areas						☐	By View
☒ Cable Tray Fittings						☐	By View
☒ Cable Trays						☐	By View
☒ Casework						☐	By View
☒ Ceilings						☐	By View
☒ Columns						☐	By View
☒ Communication Devices						☐	By View
☒ Conduit Fittings						☐	By View
☒ Conduits						☐	By View
☒ Curtain Panels						☐	By View
☒ Curtain Systems						☐	By View
☒ Curtain Wall Mullions						☐	By View
☒ Data Devices						☐	By View
☒ Detail Items						☐	By View
☒ Doors						☐	By View
☒ Duct Accessories						☐	By View
☒ Duct Fittings						☐	By View
☒ Duct Insulations						☐	By View

All None Invert Expand All

Categories that are not overridden are drawn according to Object Style settings. Object Styles...

Override Host Layers
☐ Cut Line Styles Edit...

OK Cancel Apply Help