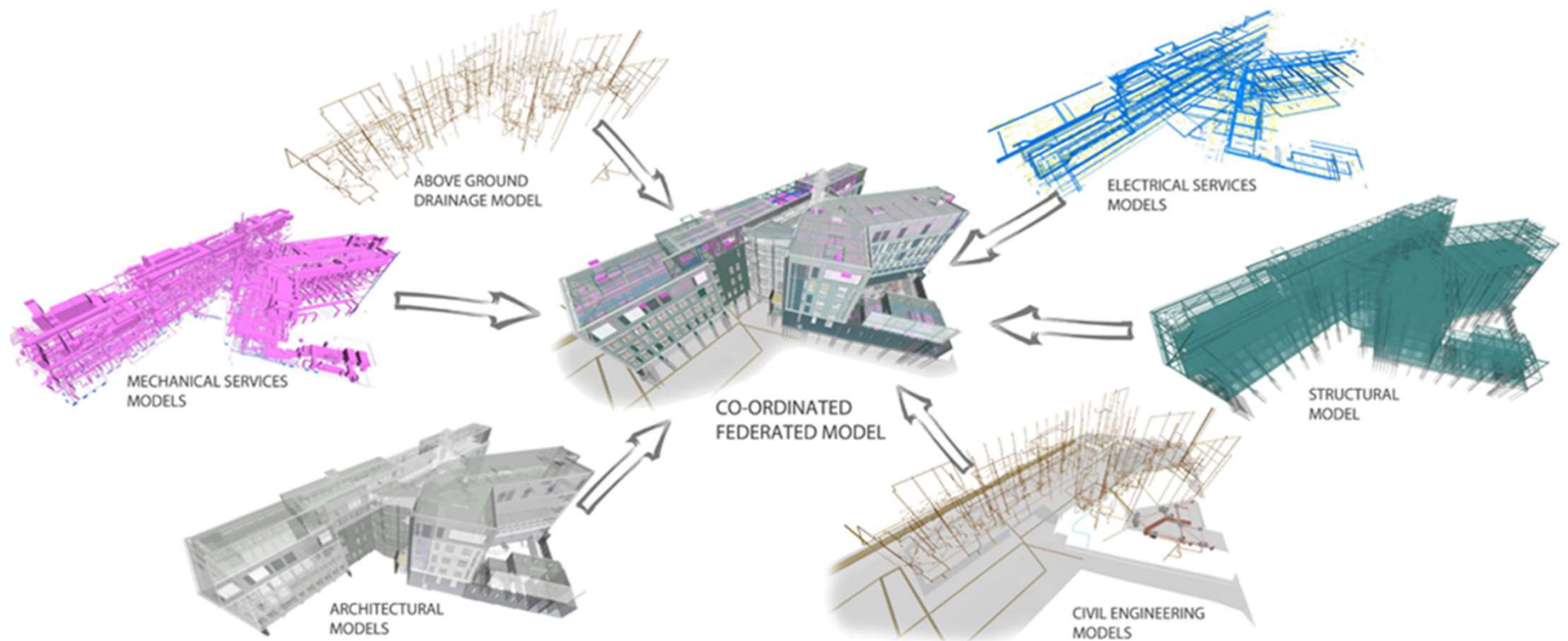


Digital Technologies & BIM



www.onecreativeenvironment.com

Gavin M Traylor RIBA

3D Modelling with Autodesk Revit.



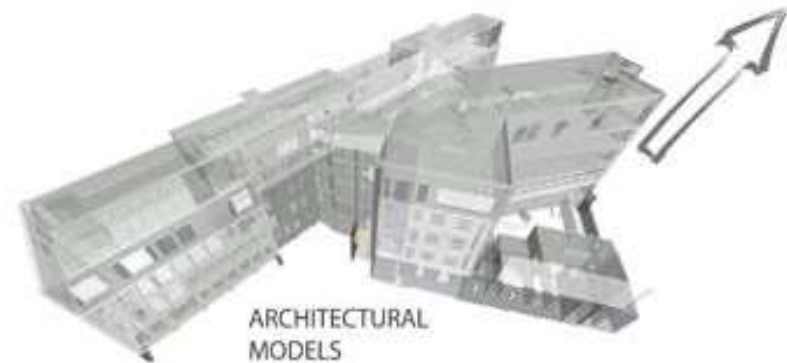


AUTODESK®
REVIT®

<https://www.autodesk.com/education/edu-software/overview? ga=2.119678017.834319708.1600961686-1615692111.1593105833&sorting=featured&page=1>

How can we create data rich intelligent models?

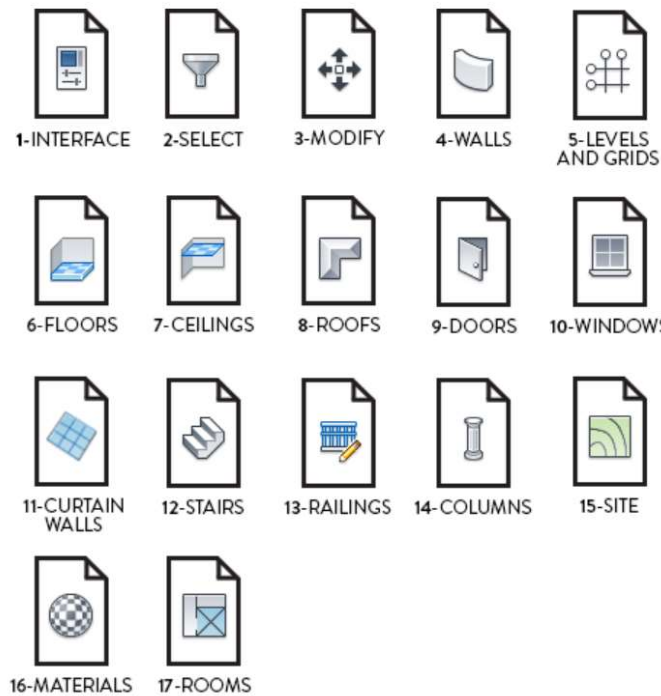
Tools such as Revit enable intelligent 3D Modelling that can be linked into a BIM Process.



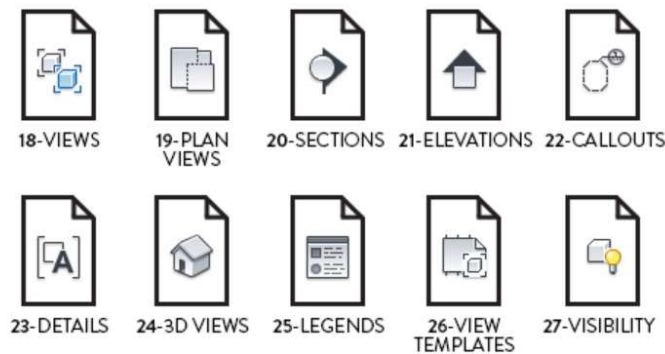
Remember a Revit Model alone is not BIM

AUTODESK® REVIT® the basics

PART 1: MODEL



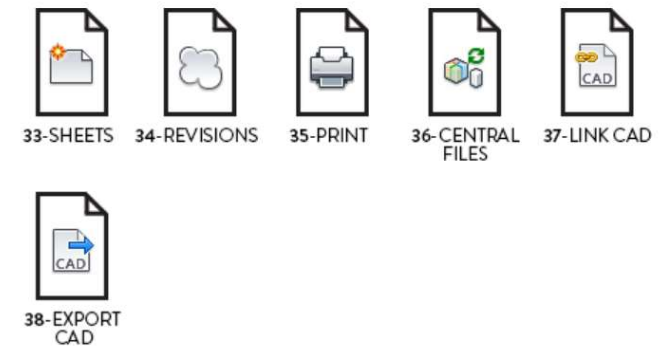
PART 2: VIEWS



PART 3: ANNOTATE



PART 4: PUBLISH AND COLLABORATE



PART 5: ADVANCED TOOLS



<https://revitpure.com/basics>

<https://academy.autodesk.com/>

PART 4: PUBLISH AND COLLABORATE



33-SHEETS



34-REVISIONS



35-PRINT



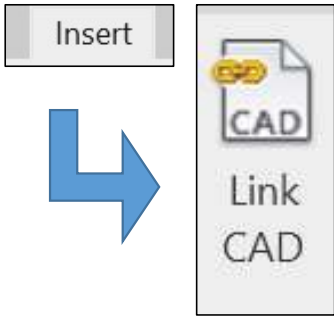
36-CENTRAL
FILES



37-LINK CAD



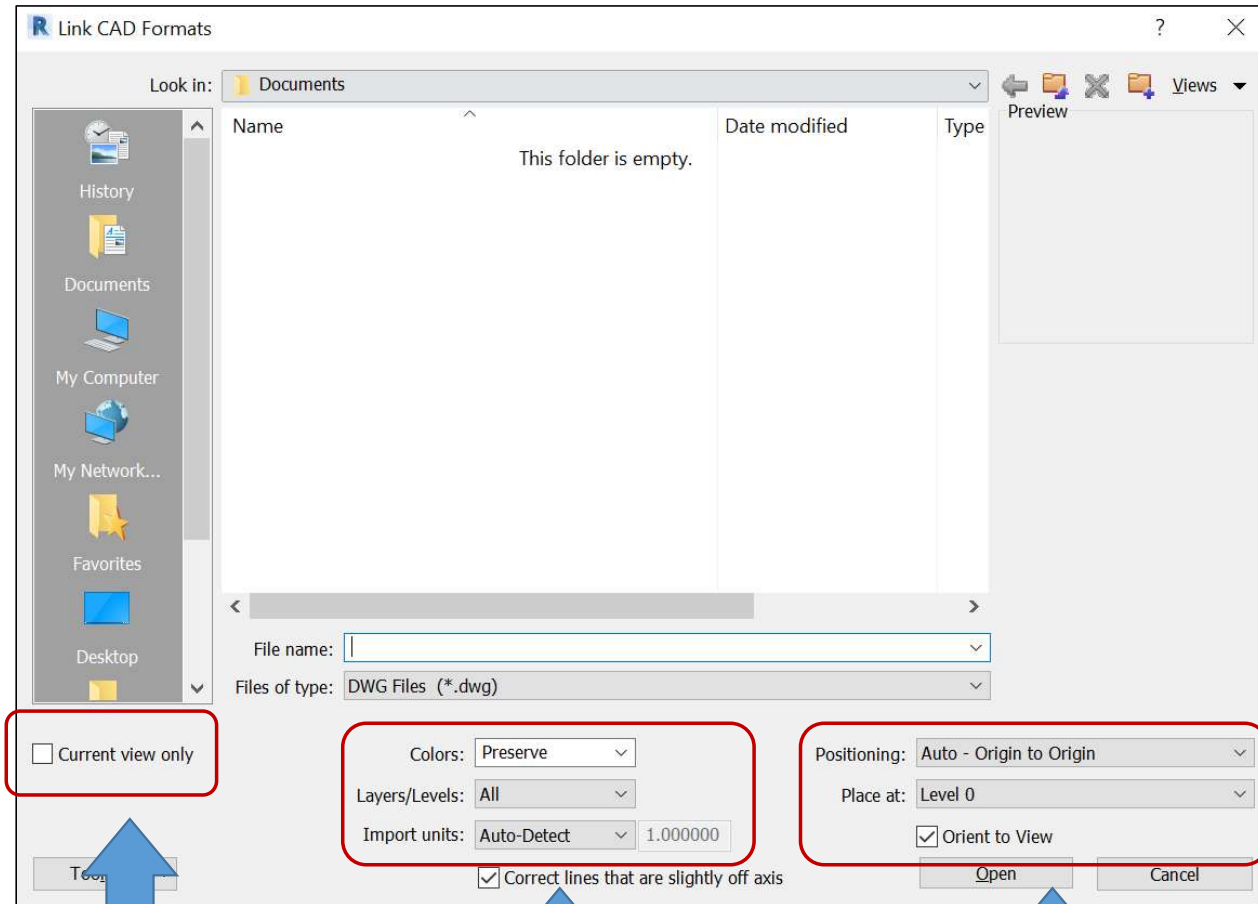
38-EXPORT
CAD



CAD files

Cad files can be linked to Revit through the Insert Menu.

Check the fields highlighted before importing files.



Manage Links

RevitIFCCAD FormatsDWF MarkupsPoint CloudsTopography

Link Name	Status	Positions Not Saved	Size	Saved Path	Path Type
OSMAP BoatHouse.dwg	Loaded	☐	161.9 K	C:\Users\g.traylor\OneDrive - Univers	Relative

Save Positions

Reload From...

Reload

Unload

Import

☒ Preserve graphic overrides

OK

C

Manage Links to unload / load updated linked files



Visibility of Links from Visibility / Graphics – Imported Categories. CAD Layers can be switched on and off.

Visibility/Graphic Overrides for Floor Plan: Site

Model CategoriesAnnotation CategoriesAnalytical Model CategoriesImported CategoriesFilters

☒ Show imported categories in this view

If a category is unchecked, it will not be visible.

Visibility	Projection/Surface		Halftone
	Lines	Patterns	
☒ Imports in Families	Override...		☐
☒ OSMAP BoatHouse.dwg			☐
☒ 0			
☒ Building_Line_Division			
☒ Building_Line_Outline			
☒ Buildings_Or_Structure_T...			
☒ General_Feature_Line			
☒ General_Surface_Line			
☒ General_Surface_Text			
☒ Inland_Water_Line			
☒ Inland_Water_Text			
☒ Landform_Line_Bottom_...			
☒ Landform_Line_Top_Of_...			
☒ Road_Or_Track_Line_Pub...			
☒ Road_Or_Track_Text_Roa...			
☒ Roadside_Text			
☒ Structure_Text			
☒ Terrain_and_Height_Poin...			
☒ Terrain_and_Height_Text			

All

None

Invert

Expand All

Categories that are not overridden are drawn according to this project's Imported Object Style settings.

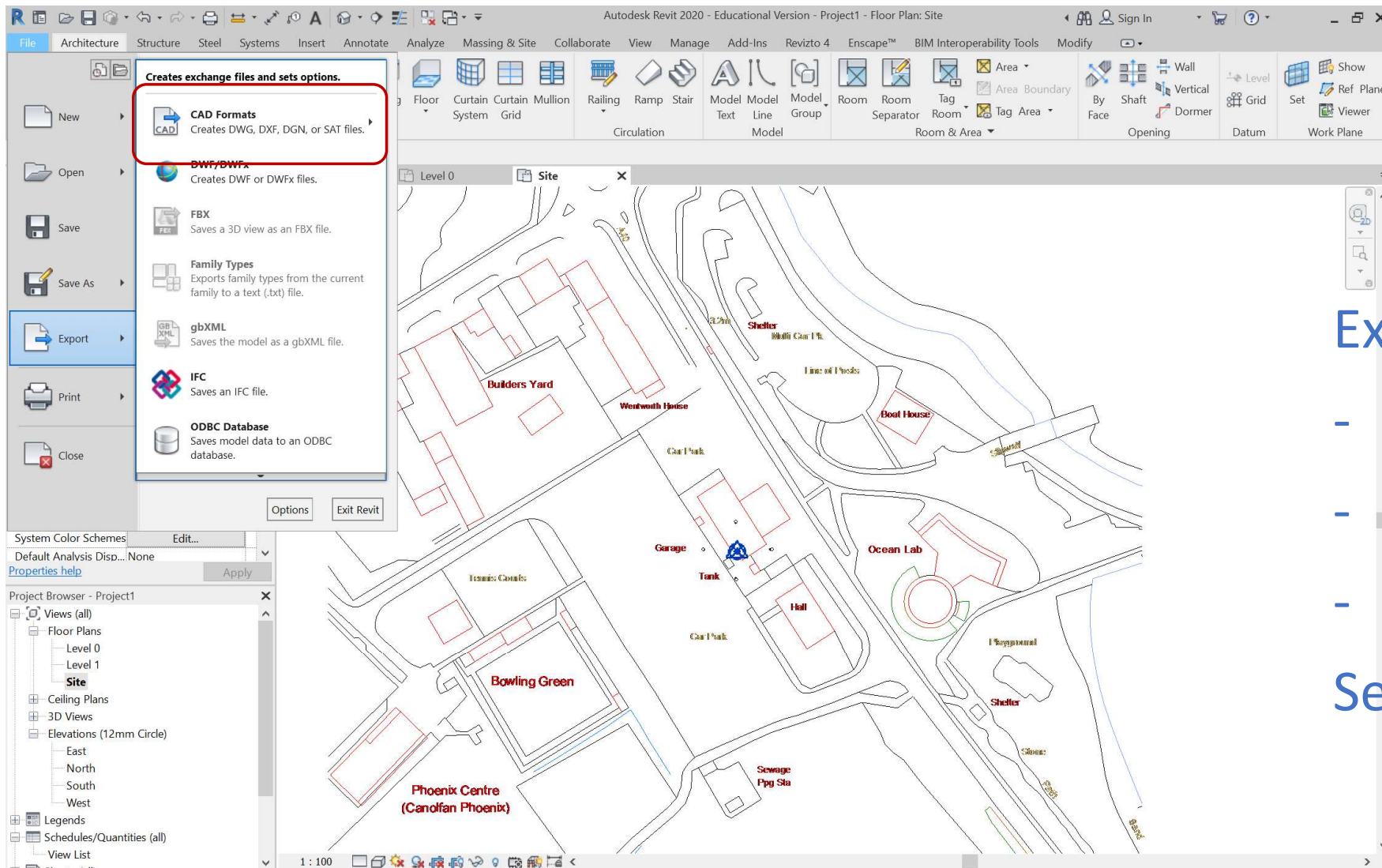
Object Styles...

OK

Cancel

Apply

Help

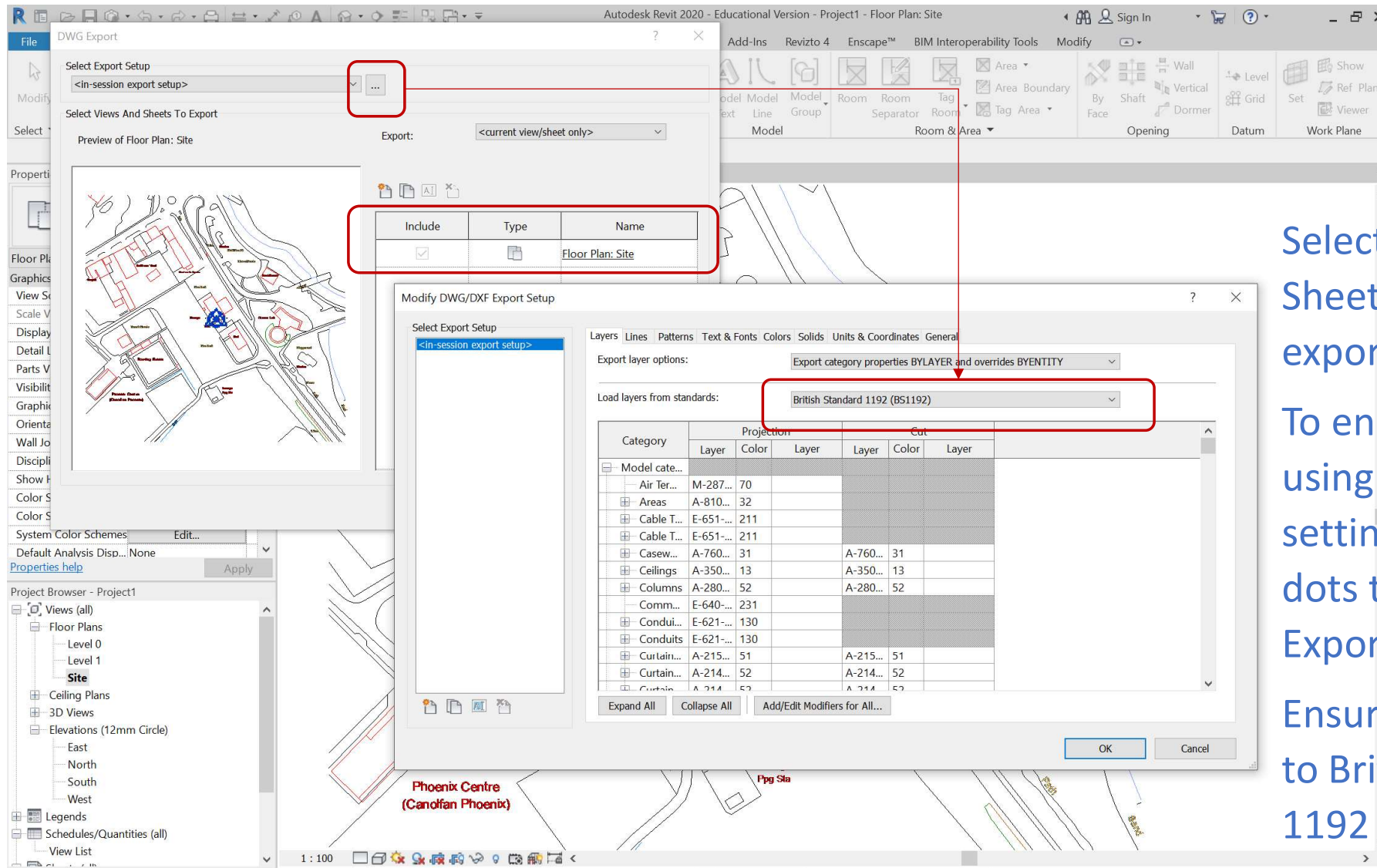


38-EXPORT
CAD

Exporting Files

- File
- Export
- CAD Formats

Select DWG



Select the View / Sheet you wish to export.

To ensure you are using the correct settings click the 3 dots to open the Export settings.

Ensure Layers are set to British Standards 1192

Boat House

Create a new project

Download the OSMAP
from Teams

Insert the OSMAP

Create Project North.

Set up Levels

Prepare Model:

Add Grids

Boat house with Glazed Office

Add Columns

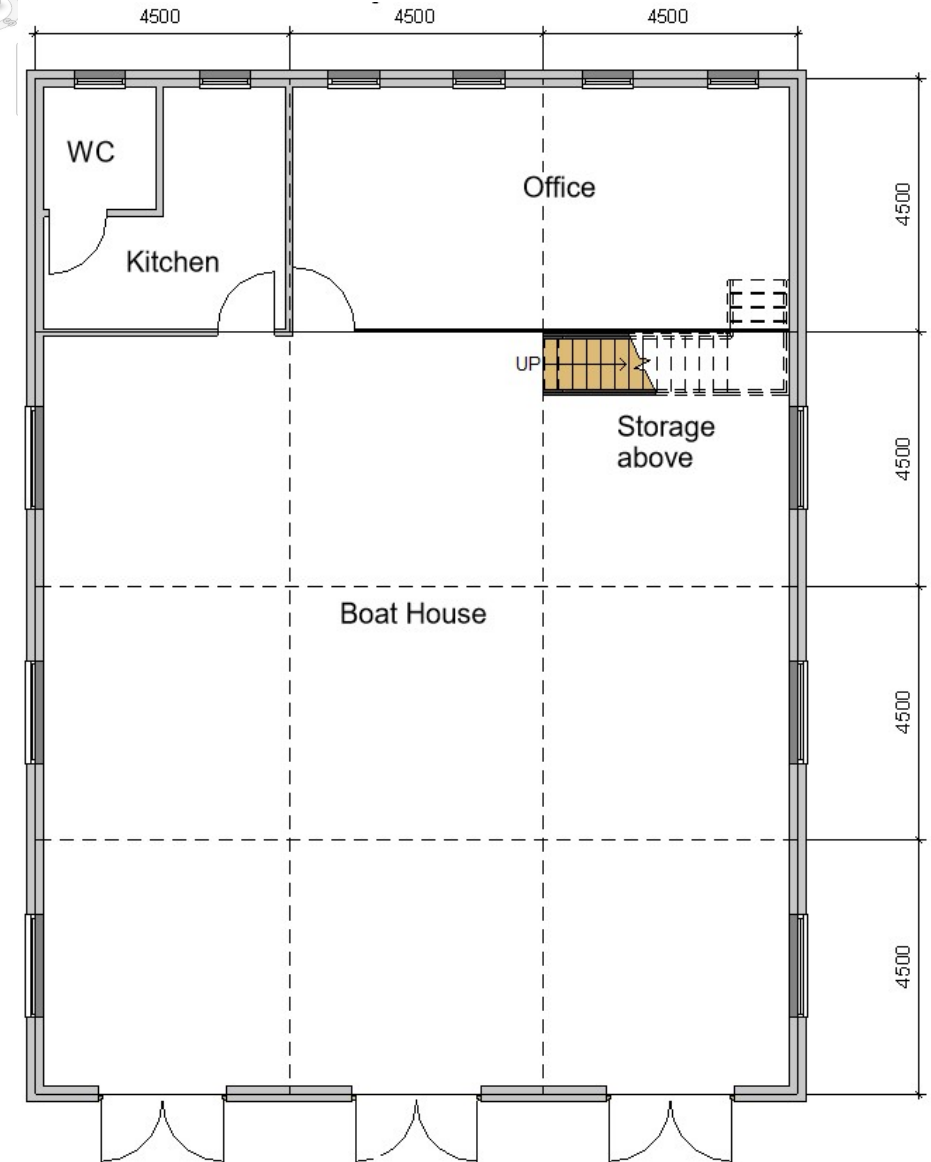
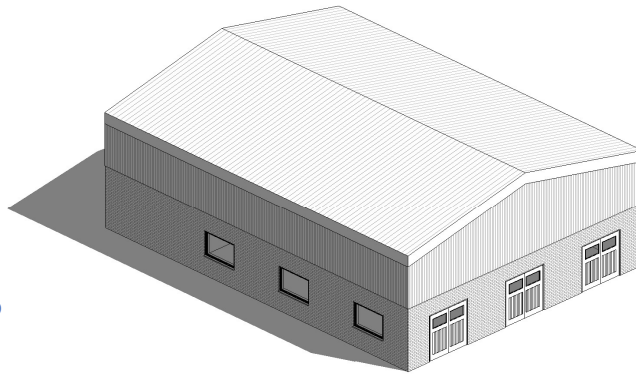
*Brickwork to First Floor and
Timber Cladding to upper areas*

Add windows doors and Rooms

*Add Sections / Elevations and
Callout details*

Set up 3D camera views & render

Add Site Topography



PART 4: PUBLISH AND COLLABORATE



33-SHEETS



34-REVISIONS



35-PRINT



36-CENTRAL
FILES



37-LINK CAD

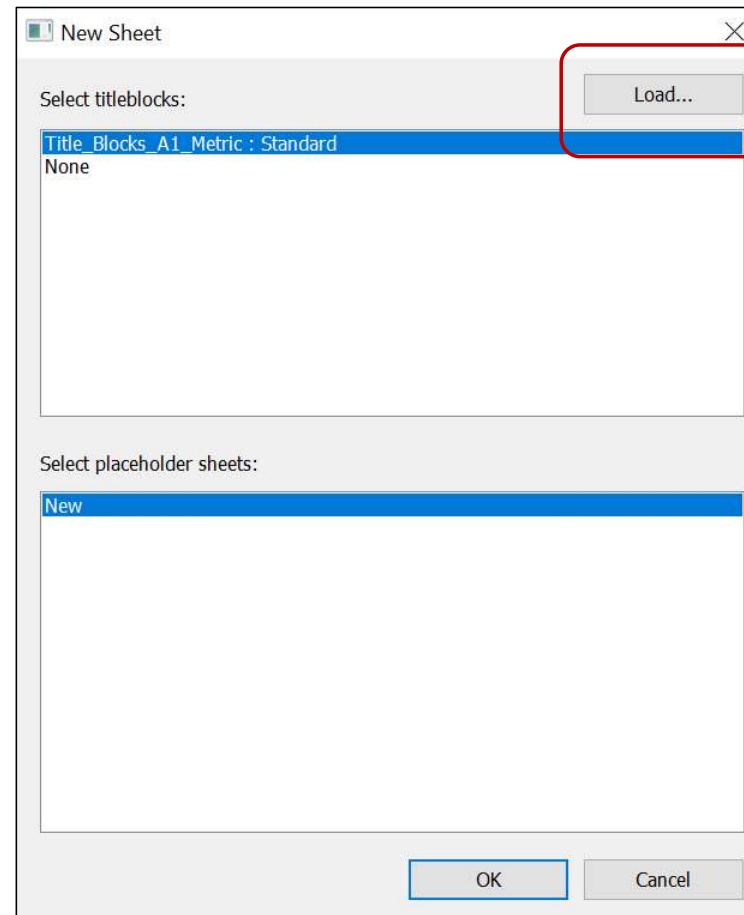
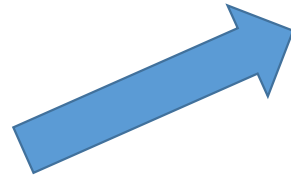
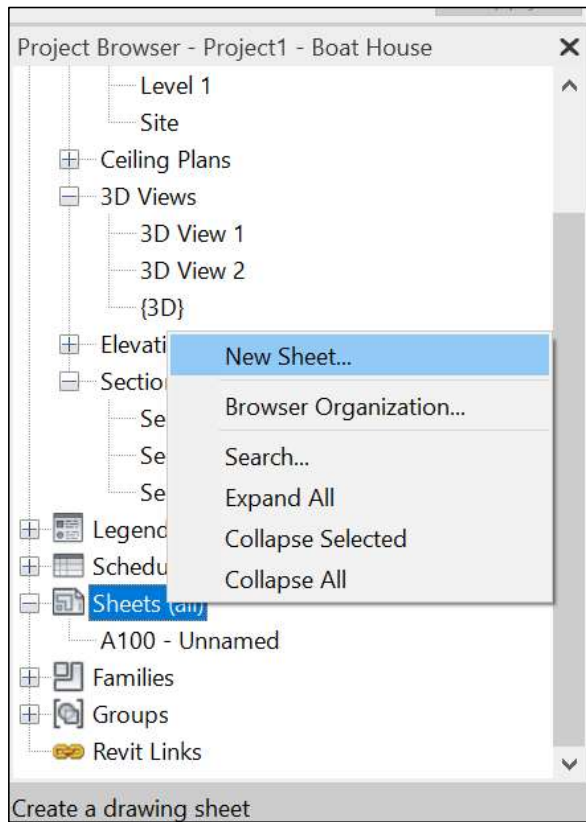


38-EXPORT
CAD



33-SHEETS

Download the UWTSD titleblock



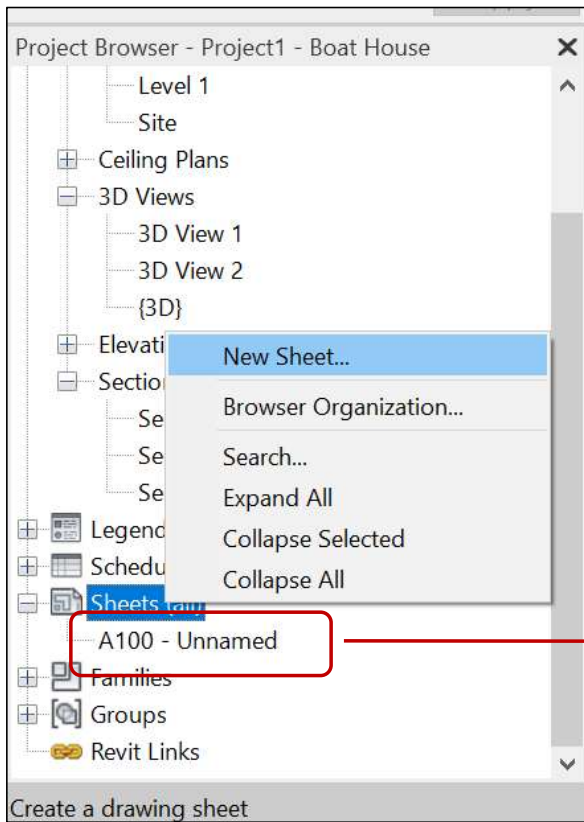
Load a titleblock



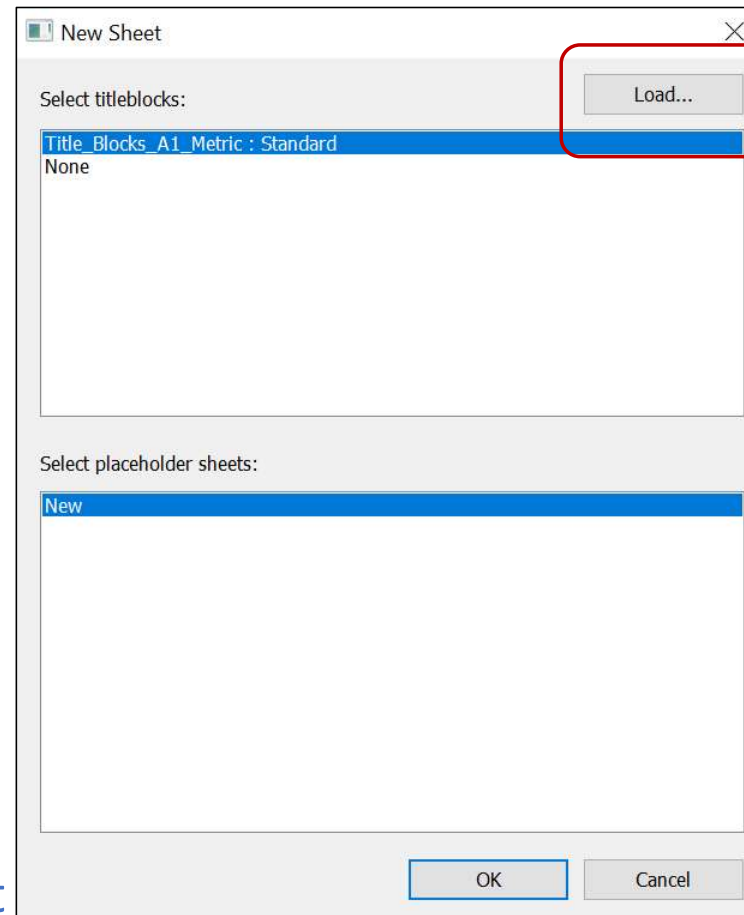
33-SHEETS

Download the UWTSD Splash Page and Titleblock from Teams

Right Click on Sheets
and select New Sheet



Right Click &
Delete
AutoDesk
Default sheet



Load:
Splash Page

Note:
Many practices use
a Splash Page to
hold common data
about the Model.

Project Name: Project Name

UPRN Code: Project Number

Originator Code:

Role Code: Designer

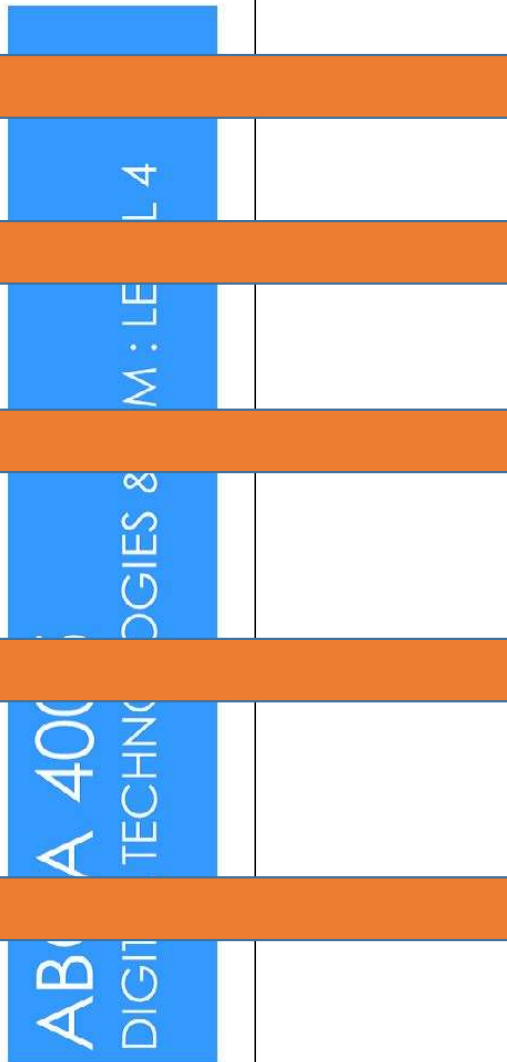
Drawn By: Author

Checked By: Checker

Date: 03/04/20

Project Status: Project Status

C:\Users\g.traylor\Documents\Project1 - Boat House.rvt



Project Name: Boat House Goodwick Beach

UPRN Code: 4005

Originator Code: UWTSD

Role Code: A

Drawn By: GMT

Checked By: ANO

Date: 03/04/20

Project Status: S0

C:\Users\lg.traylor\Documents\Project1 - Boat House.rvt



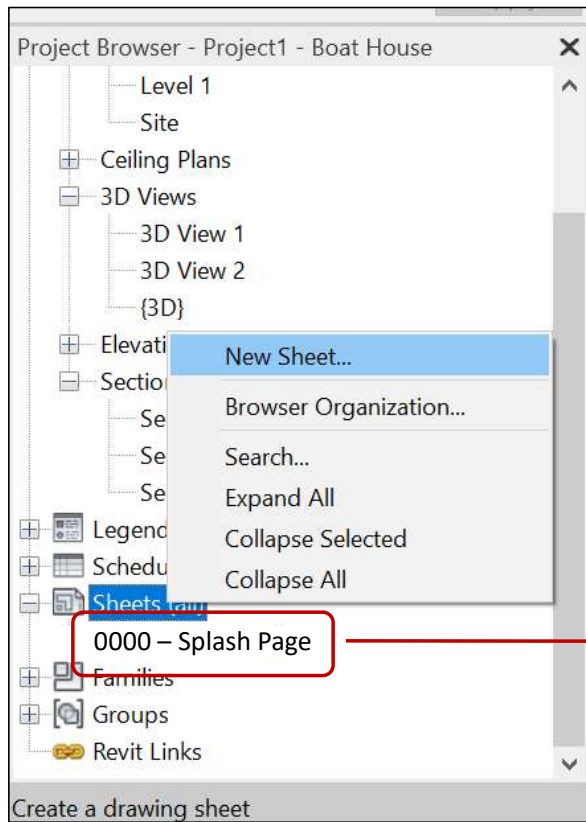
ABCA 4005
DIGITAL TECHNOLOGIES & BIM : LEVEL 4

These common
BIM fields will be
transferred to all
new sheets

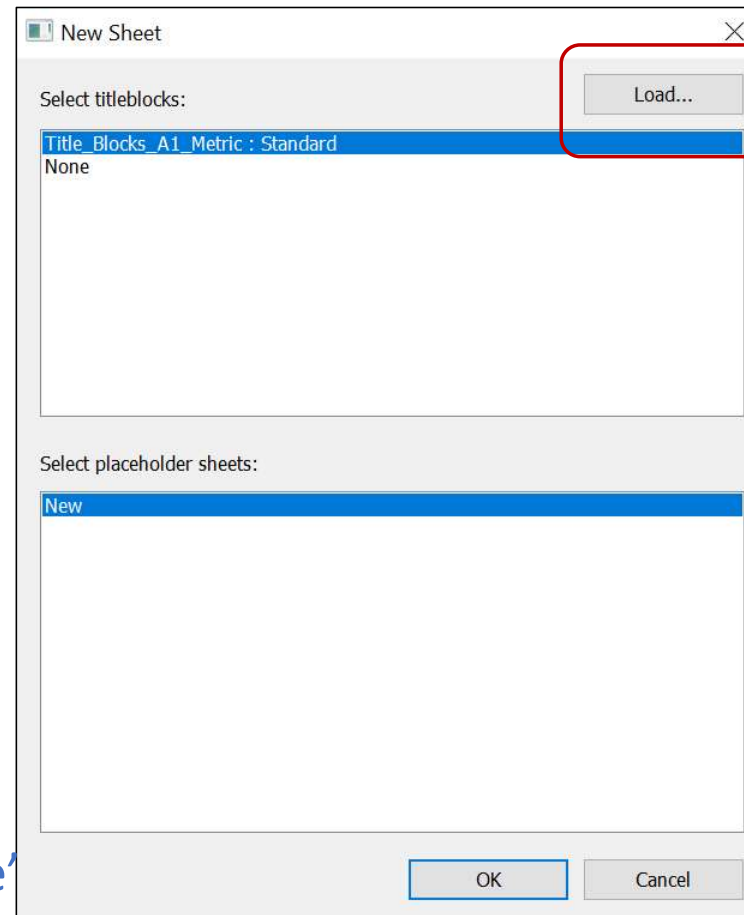


33-SHEETS

Right Click on Sheets
and select New Sheet



Right Click
and Rename
'0000'
'Splash Page'



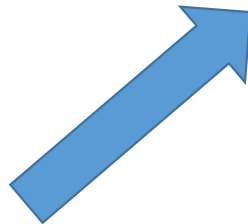
Load:
UWTSD titleblock



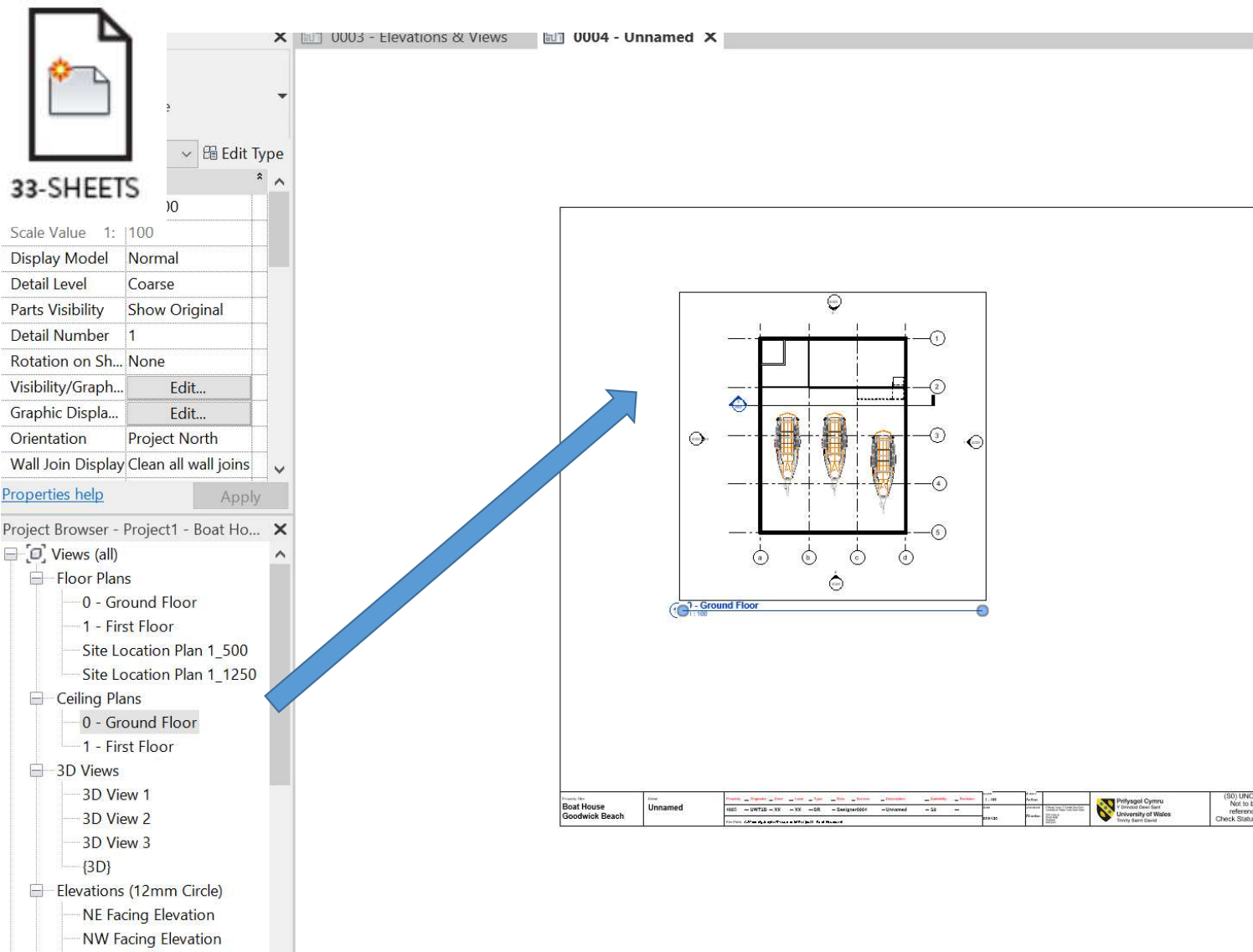
33-SHEETS

Fields can be
filled in to suit
the drawing

Property	Originator	Zone	Level	Type	Role	Number	Description	Suitability	Revision
4005	UWTSD	XX	XX	DR	Designer0004	Unnamed	S0		
File Path: C:\Users\g.traylor\Documents\Project1 - Boat House.rvt									



Property Title	Detail	Property: Originator: Zone: Level: Type: Role: Number: Description: Suitability: Revision: 4005 -- UWTSD -- XX -- XX -- DR -- Designer0004 -- Unnamed -- S0 -- File Path: C:\Users\g.traylor\Documents\Project1 - Boat House.rvt								0000	Author	 Prifysgol Cymru Y Drindod Dewi Sant University of Wales Trinity Saint David	(S0) UNCONTROLLED Not to be used as a reference document Check Status Before Quoting	Not used
Boat House	Unnamed	0001	Checker											
Goodwick Beach		0002	Reviewer											



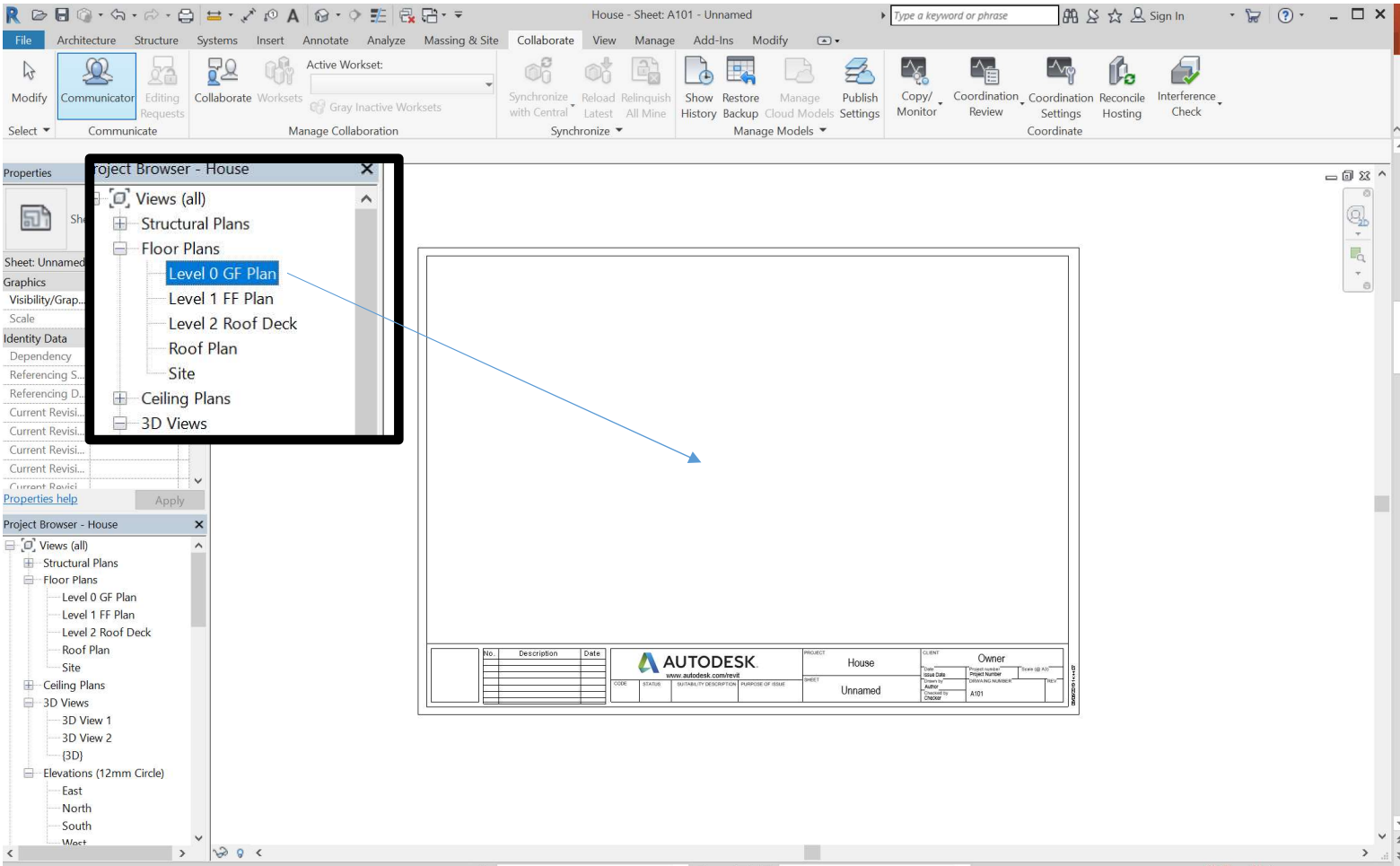
Drag and drop Views from the Project Browser onto the sheet.

Note: A view can only appear on one sheet. If you want a view to appear on more than one sheet you have to duplicate the view (right click on the view – duplicate with detailing)

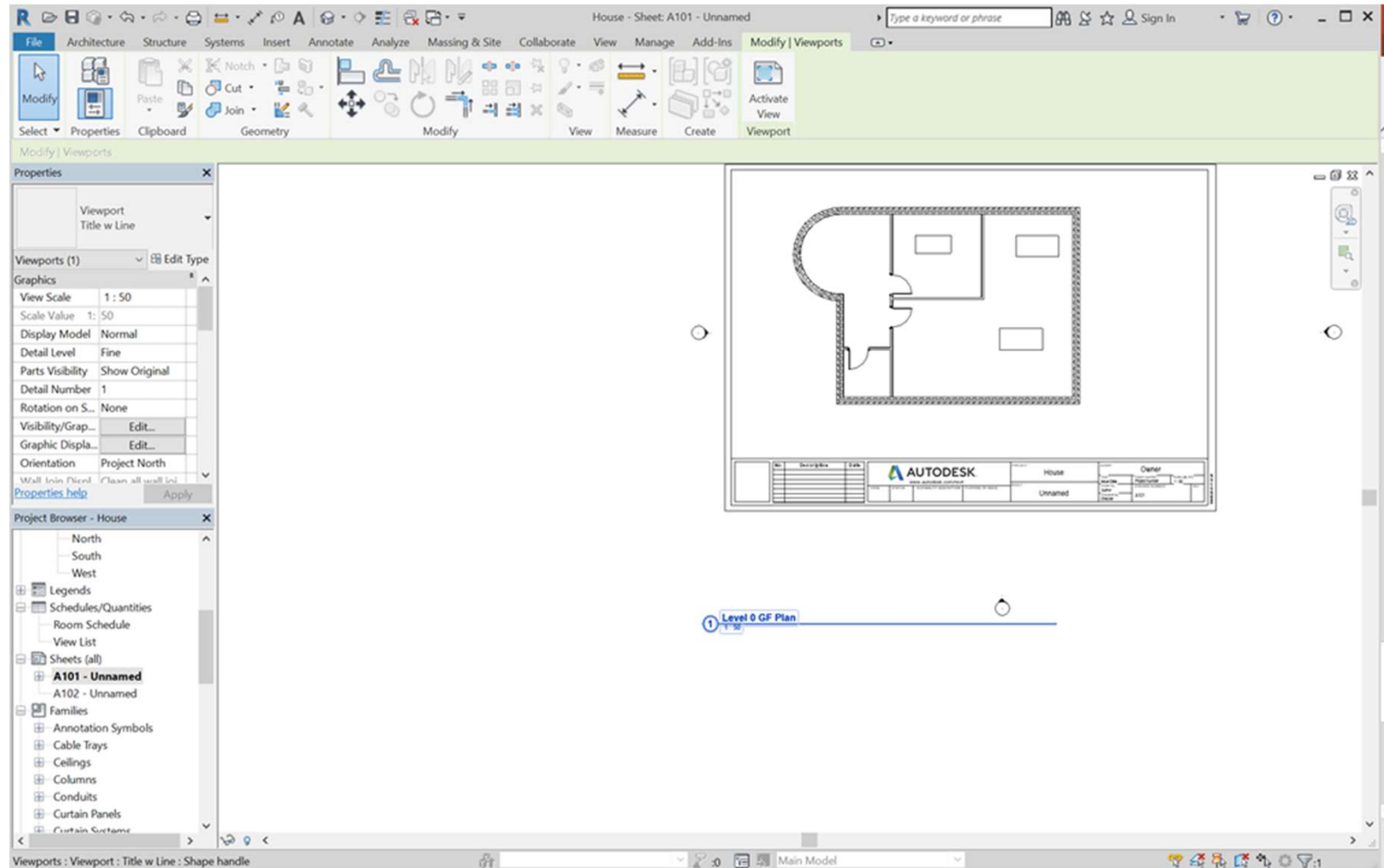


Additional
Notes on
Placing
and Editing
Views on
Sheets.

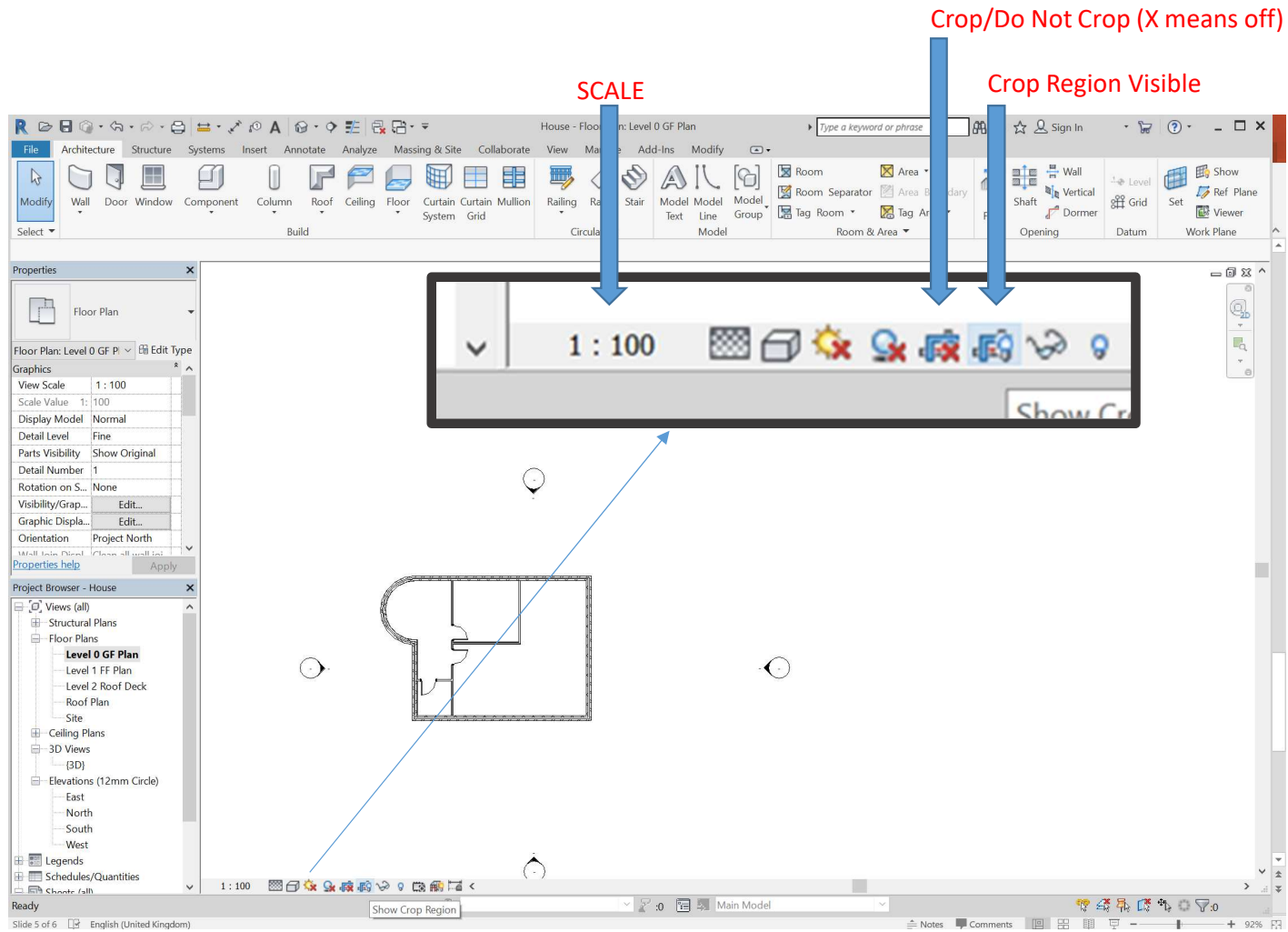
1. In the titleblock view, scroll the project browser to the View that you want to place on the titleblock.
2. Click on the view – Hold – and drag the view onto the titleblock page



3. The view will appear on the titleblock page but may need editing to fit.

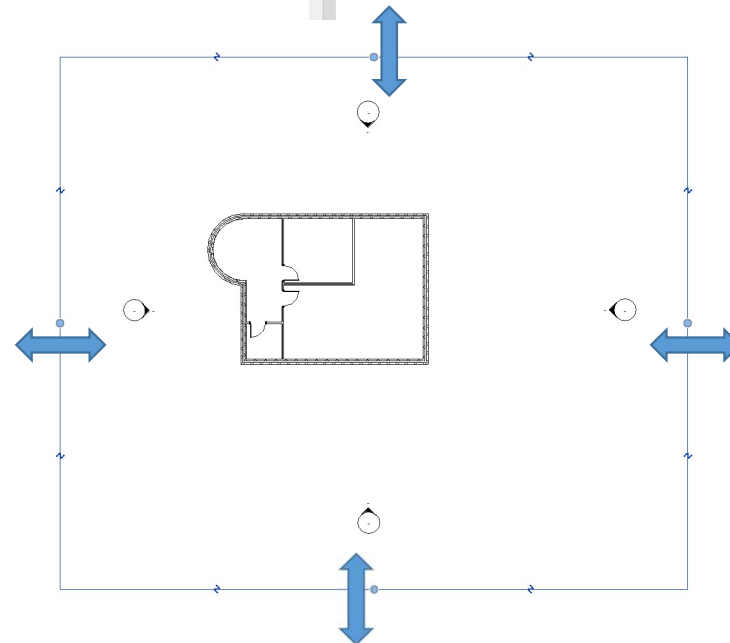
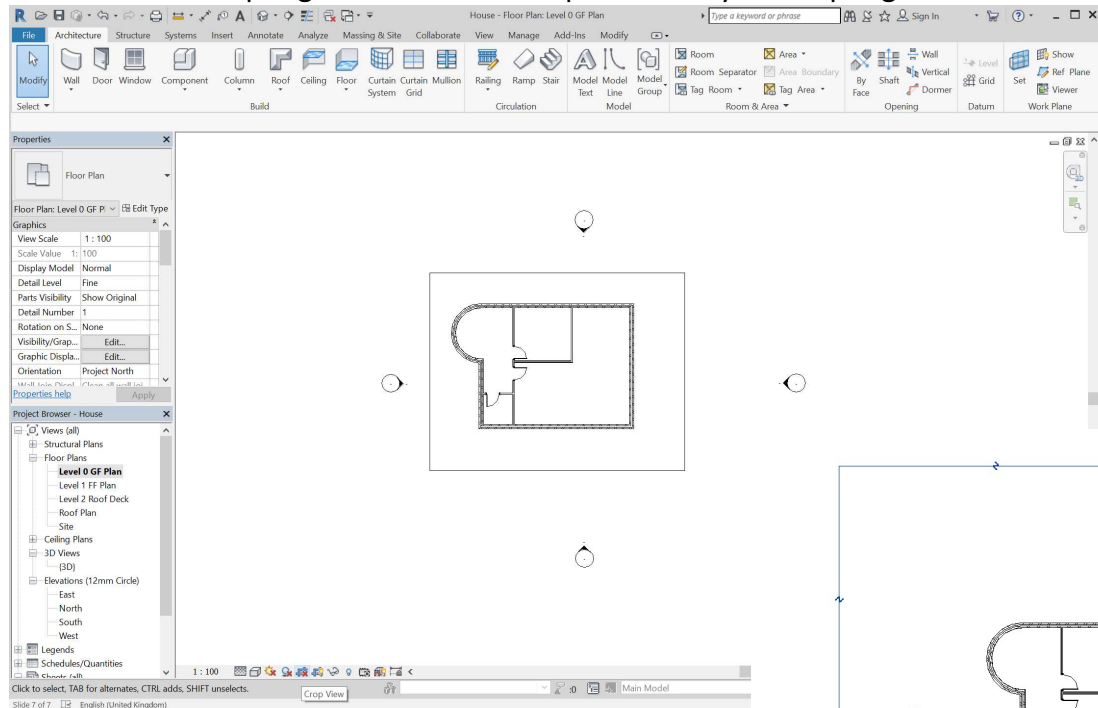


4. You can Edit but changing the Scale or Cropping the View.

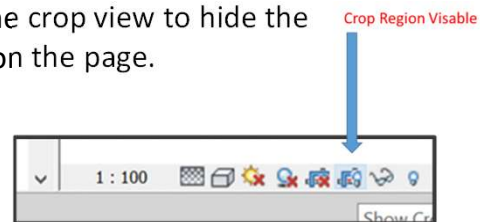


5. Switch on the crop region – it will appear as a rectangle on your screen.

6. Click on the crop region and use the Grips to move your crop region.



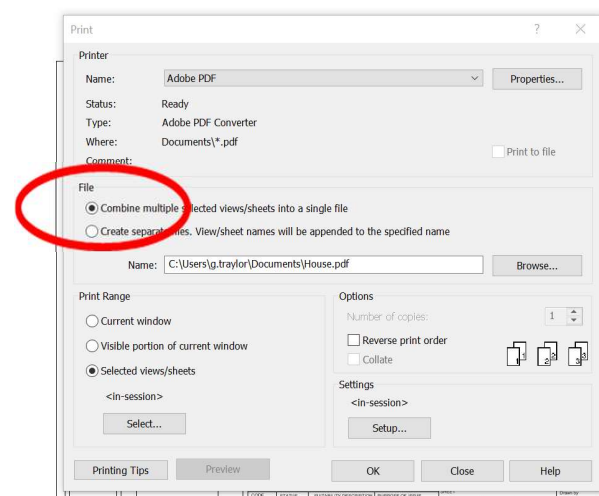
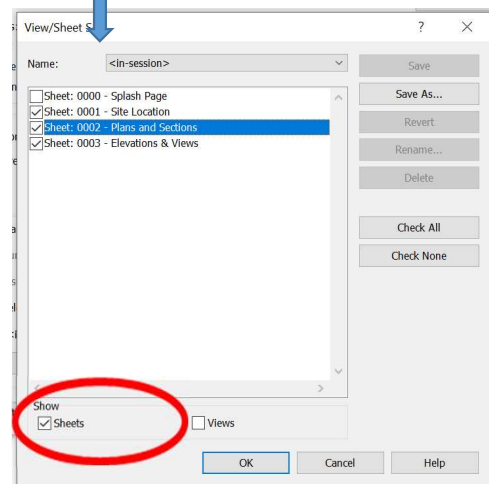
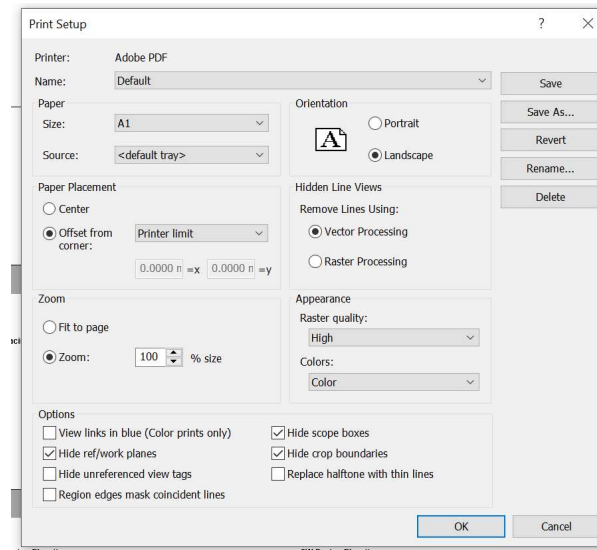
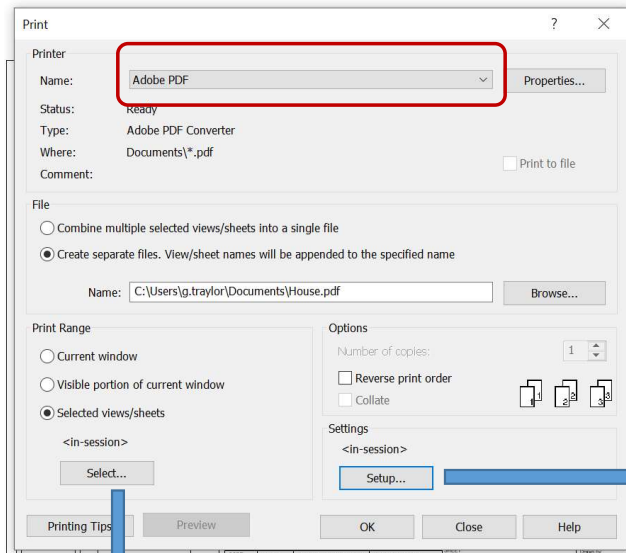
7. Once you are happy with the view. Hide the crop view to hide the crop region on the page.





The screenshot displays the Autodesk Revit software interface. The top ribbon shows various toolsets including File, Architecture, Structure, Steel, Systems, Insert, Annotate, Analyze, Massing & Site, Collaborate, View, Manage, Add-Ins, Revit 4, Enscape™, BIM Interoperability Tools, and Modify. The left-hand Project Browser pane lists the project hierarchy, with '0003 - Elevations & Views' currently selected. A 'Print' dropdown menu is open, showing options: 'Print' (Sends the current drawing area or selected views and sheets to a printer or a printable file), 'Print Preview' (Displays a preview version of the current view or sheet to print), and 'Print Setup' (Specifies print options). The main drawing area shows the 'Elevations & Views' sheet, which contains four elevation views of a building: NE Facing Elevation, NW Facing Elevation, SE Facing Elevation, and SW Facing Elevation. Each view is labeled with a scale of 1:100. To the right of the elevations are three smaller images: a perspective view of the building, a section view, and a 3D rendering of the building's interior. The bottom of the sheet features a title block with project information, a revision table, and a disclaimer: '(S) UNCONTROLLED Not to be used as a reference document Check Status Before Quoting'.

Print Dialogue: Use the **Setup** button to change Size – ensure Zoom is set to 100%. Click OK
Use **Select** button to select sheets to print – ensure Sheets is ticked. Click OK



To combine into One PDF ensure the COMBINE MULTIPLE is selected.