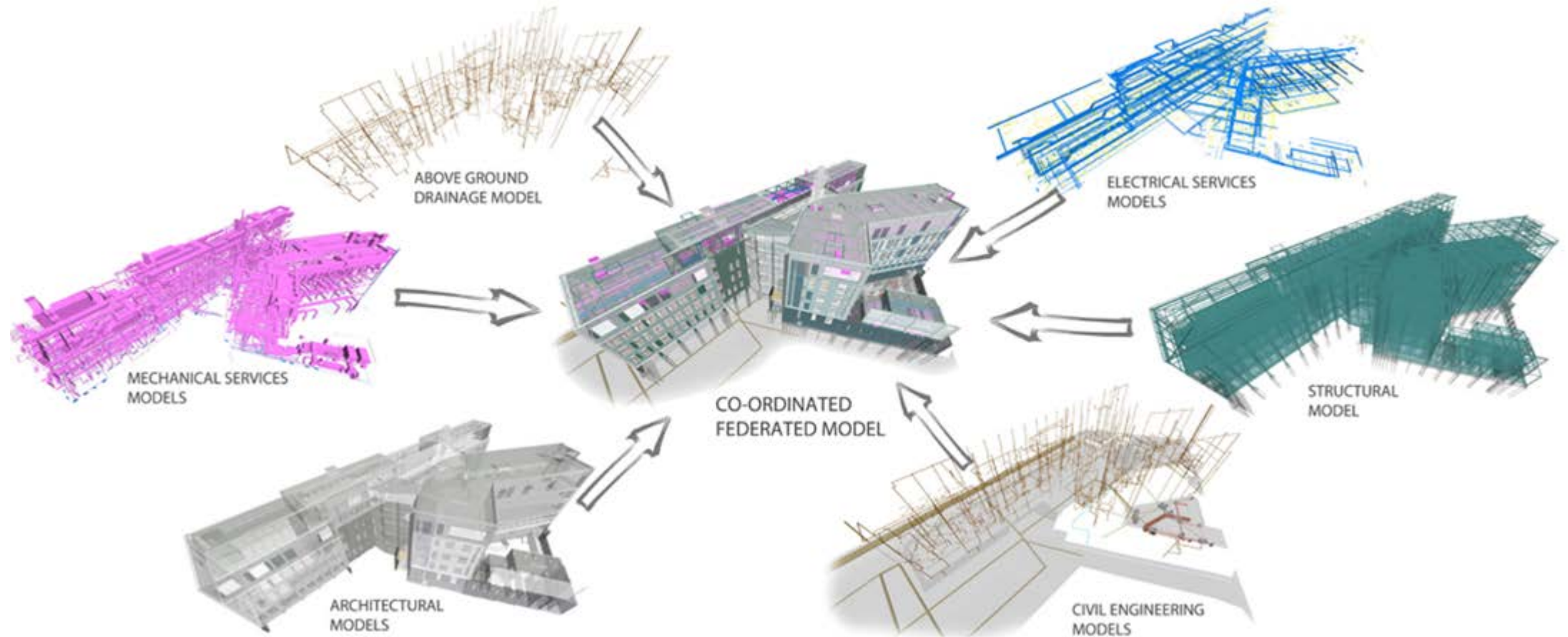


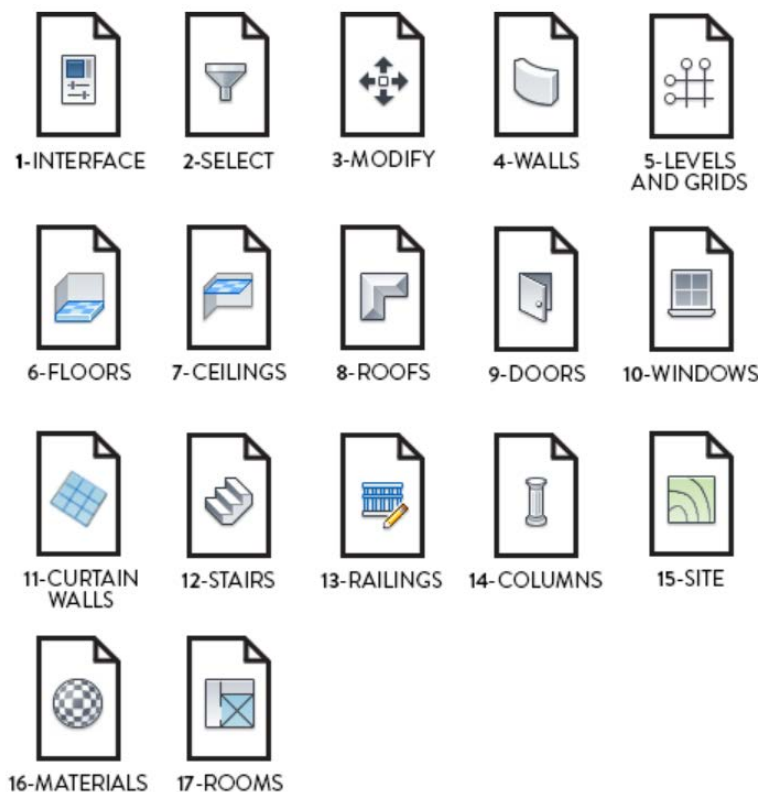
Working with Digital Technologies & BIM



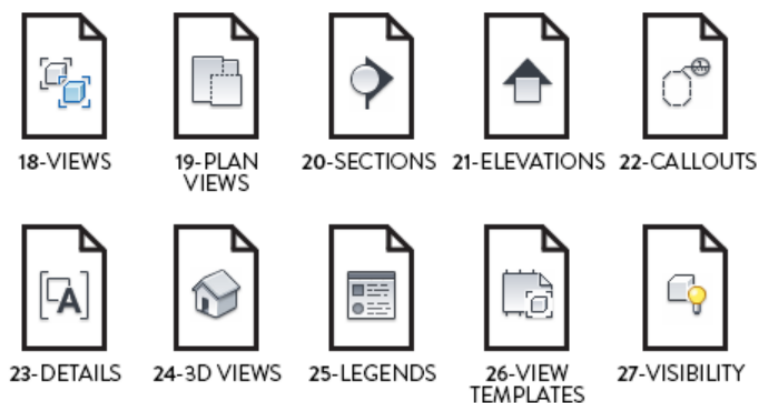


AUTODESK®
REVIT®

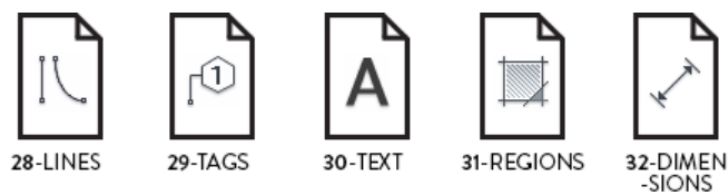
PART 1: MODEL



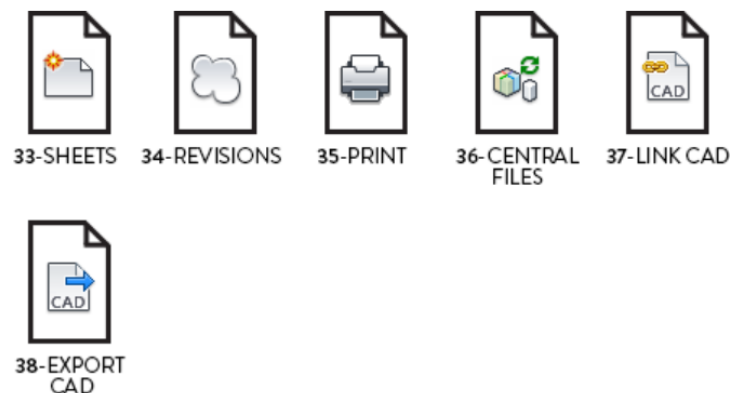
PART 2: VIEWS



PART 3: ANNOTATE



PART 4: PUBLISH AND COLLABORATE



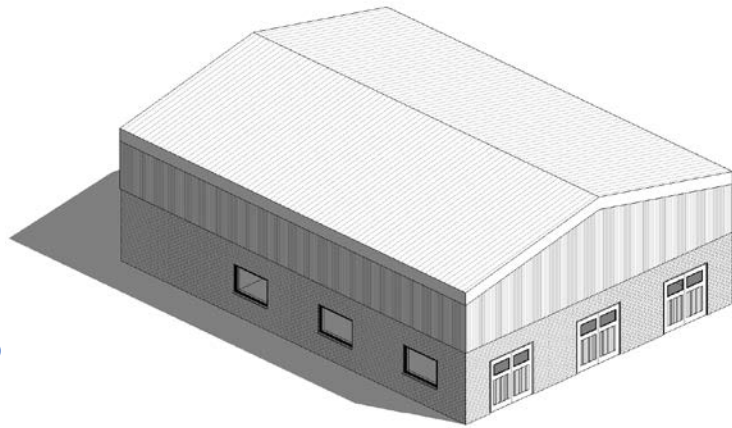
PART 5: ADVANCED TOOLS



<https://revitpure.com/basics>

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

Boat House



Create a new project

Download the OSMAP
from Moodle

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

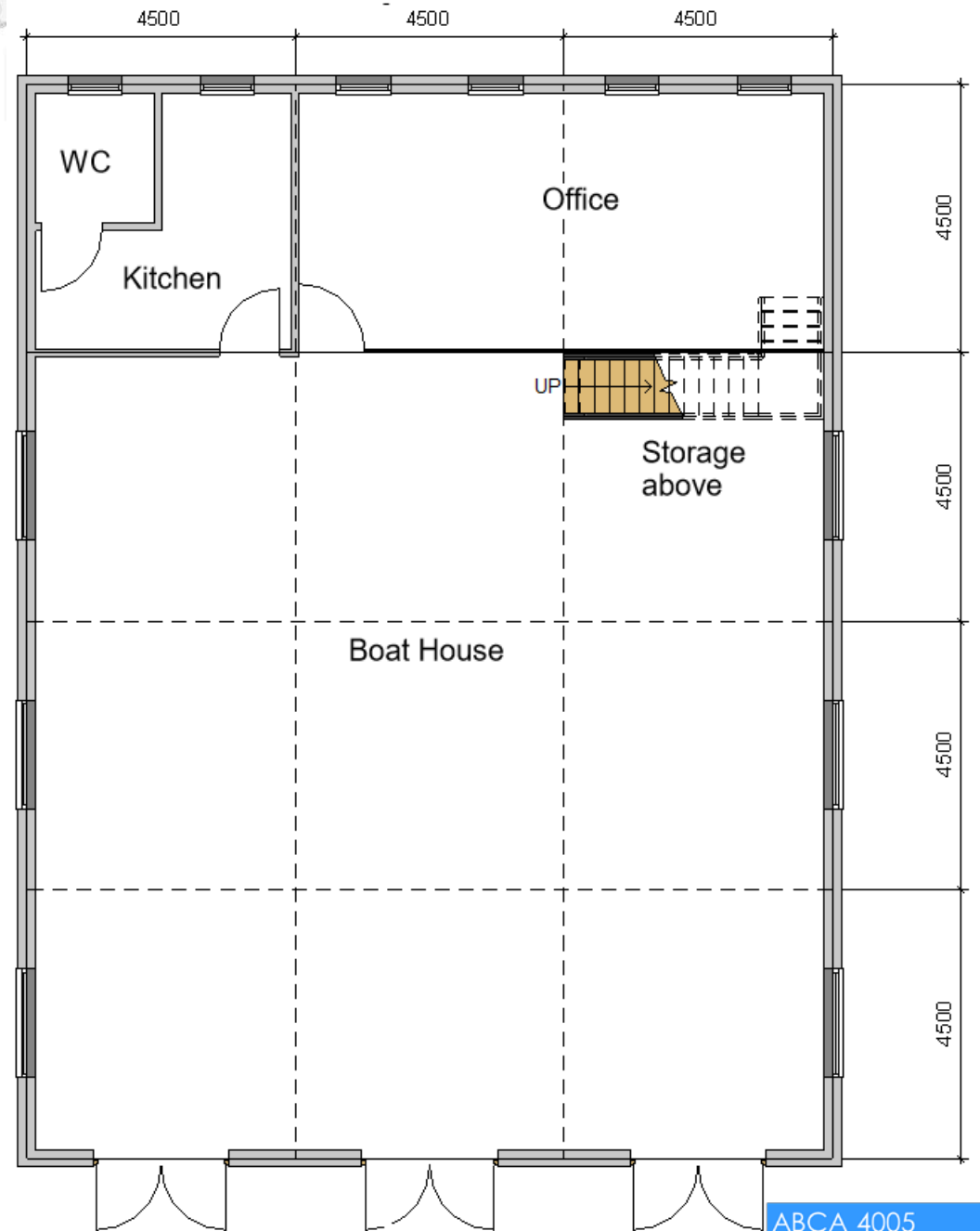
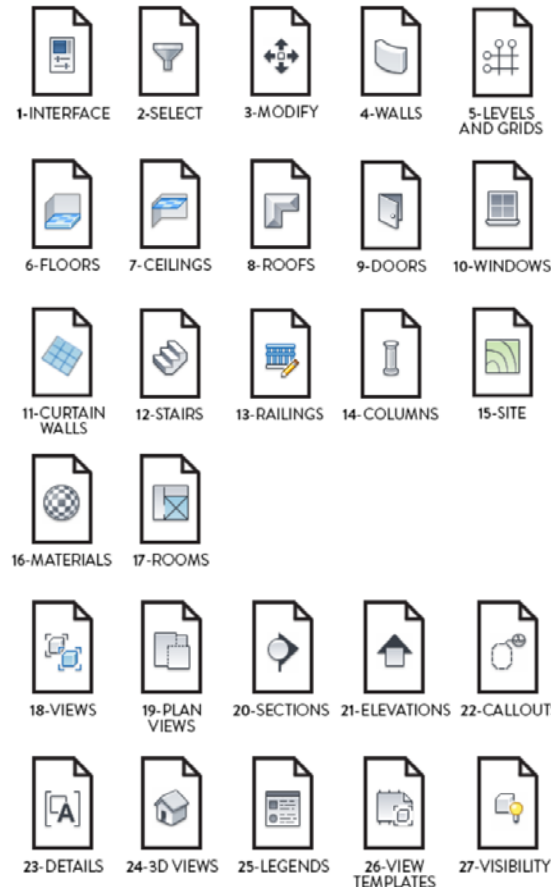
Add windows doors and Rooms

Add Sections / Elevations and

Callout details

Set up 3D camera views & render

Add Site Topography



PART 3: ANNOTATE



28-LINES



29-TAGS



30-TEXT

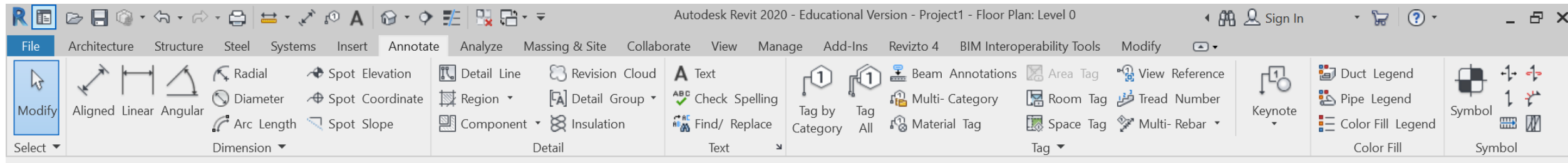


31-REGIONS



32-DIMEN
-SIONS

Annotate menu



Dimensions

Details Text

Tags

Legends

Regions
Details Lines
Detailed Component
Insulation
Revision Clouds

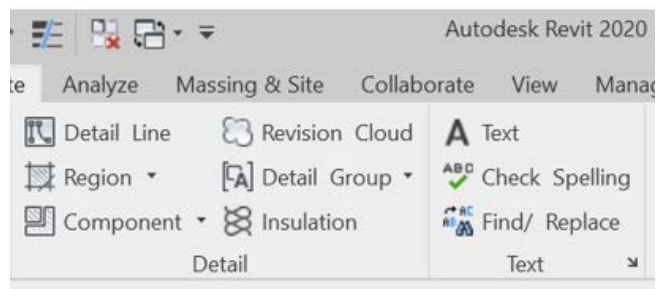
Rooms
Windows
Doors
Spaces

Colour fill
By Room
By Department

Symbols

North Points

Adding 2D data



Details Text

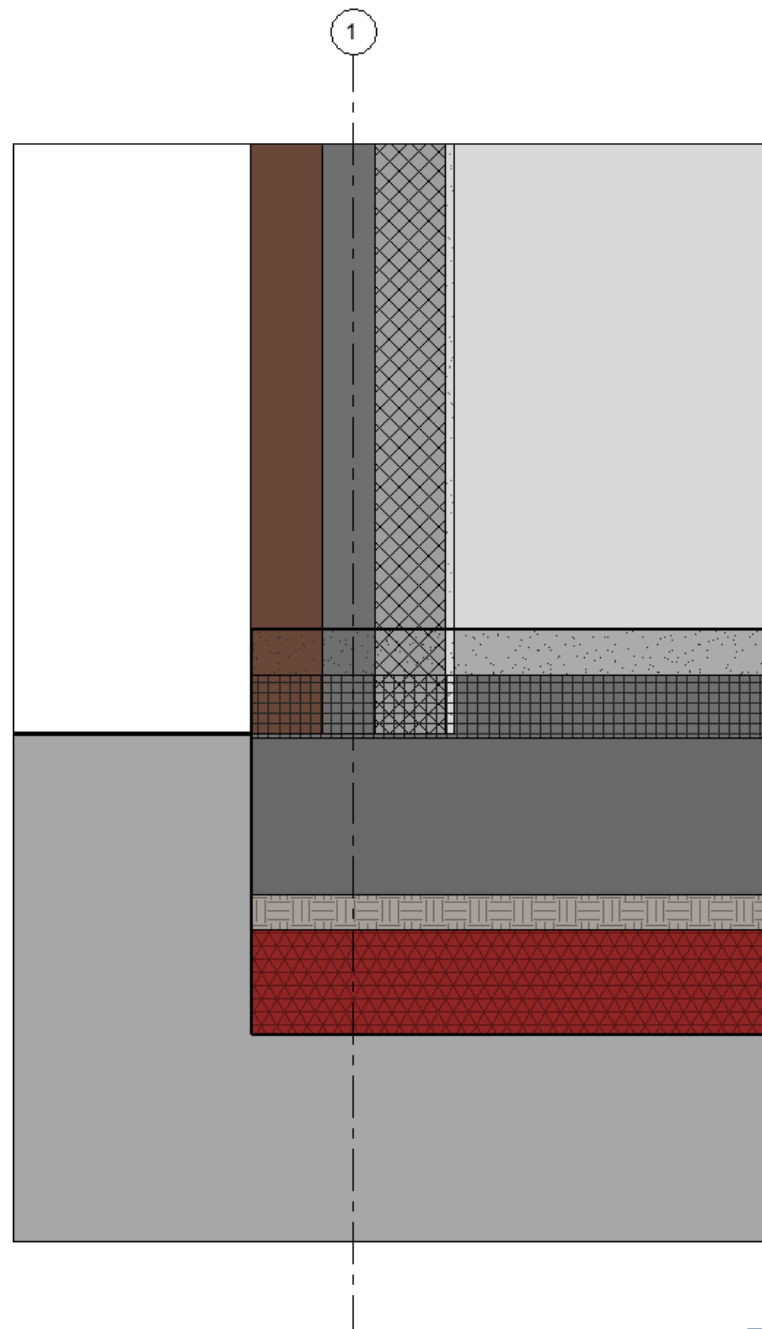
Regions

Details Lines

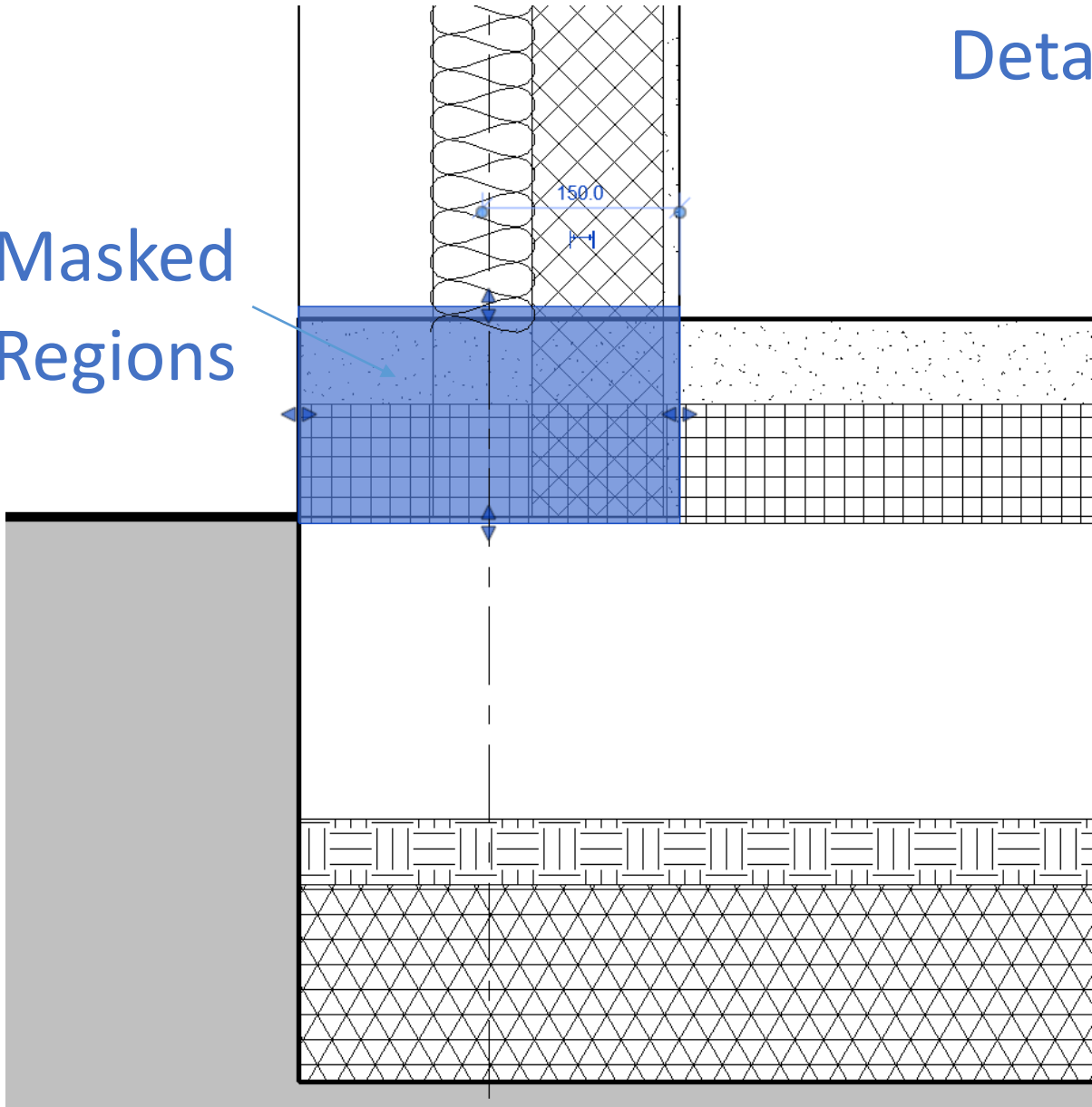
Detailed Component

Insulation

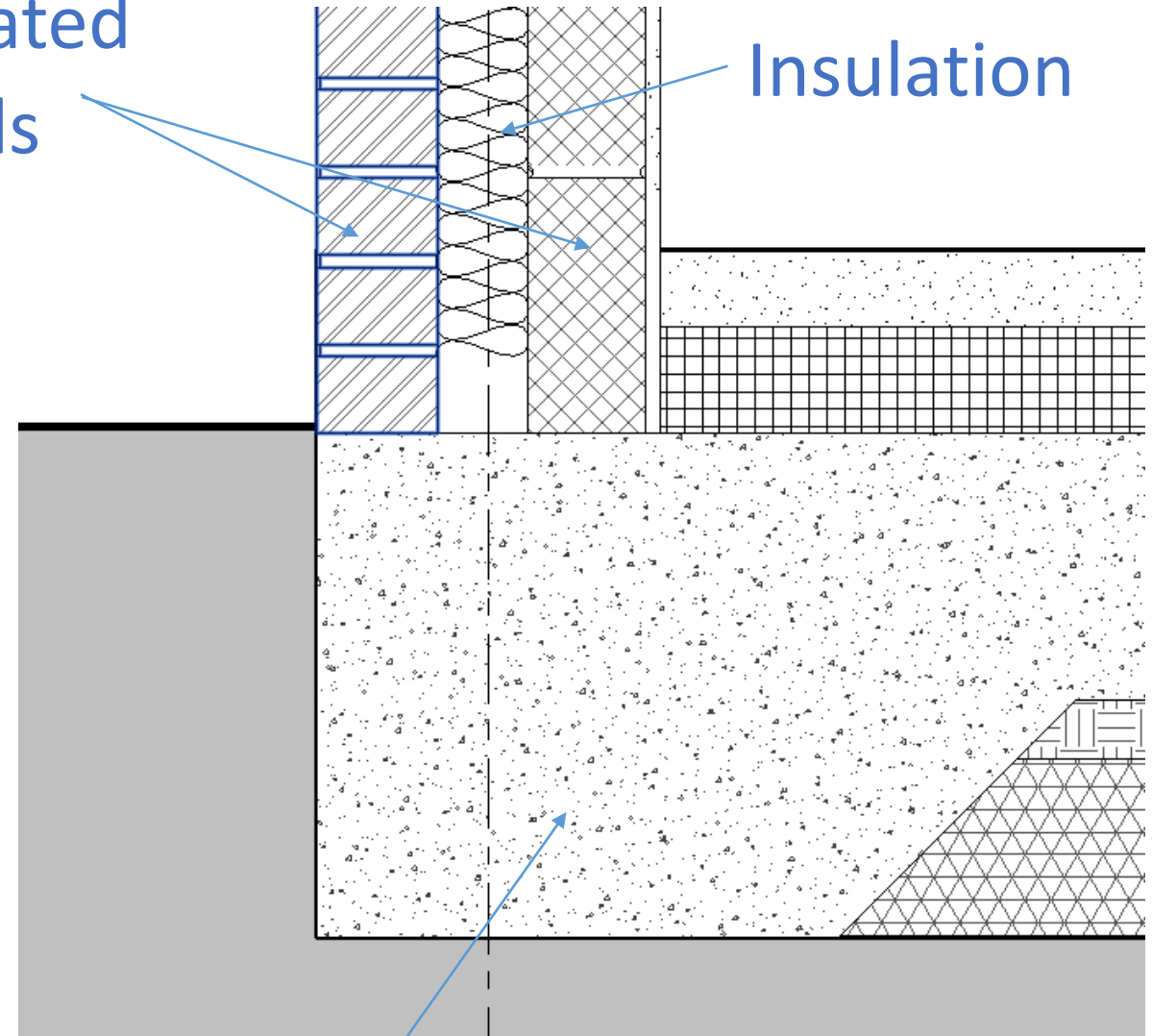
Revision Clouds



Masked
Regions



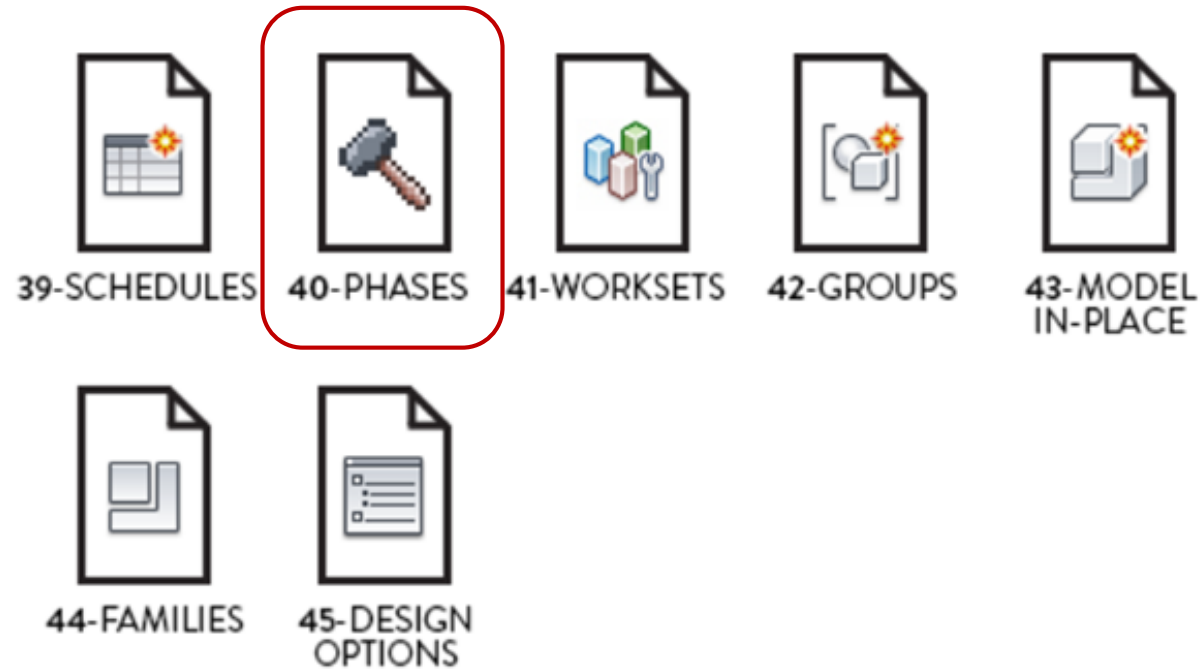
Repeated
Details



Insulation

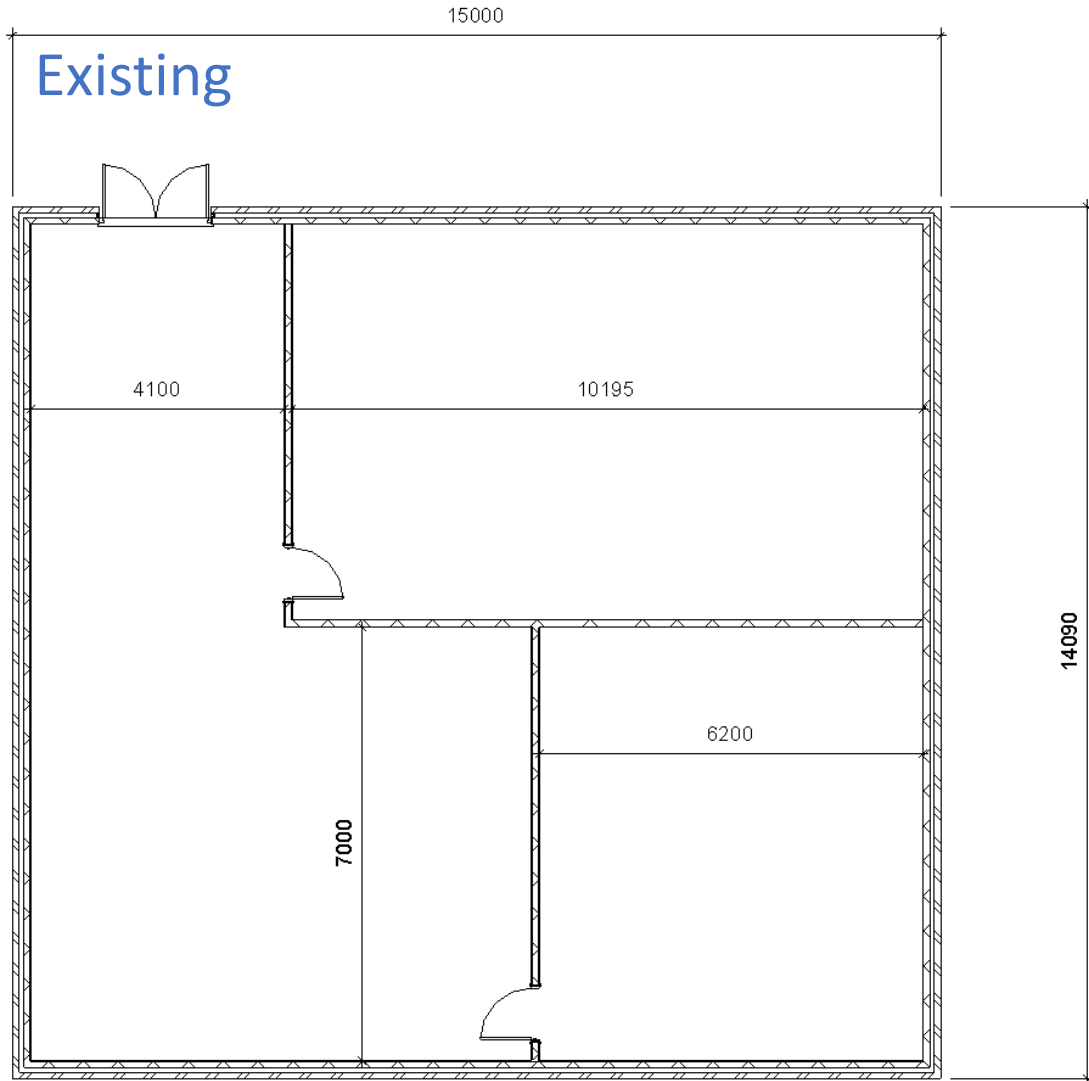
Filled
Regions

PART 5: ADVANCED TOOLS

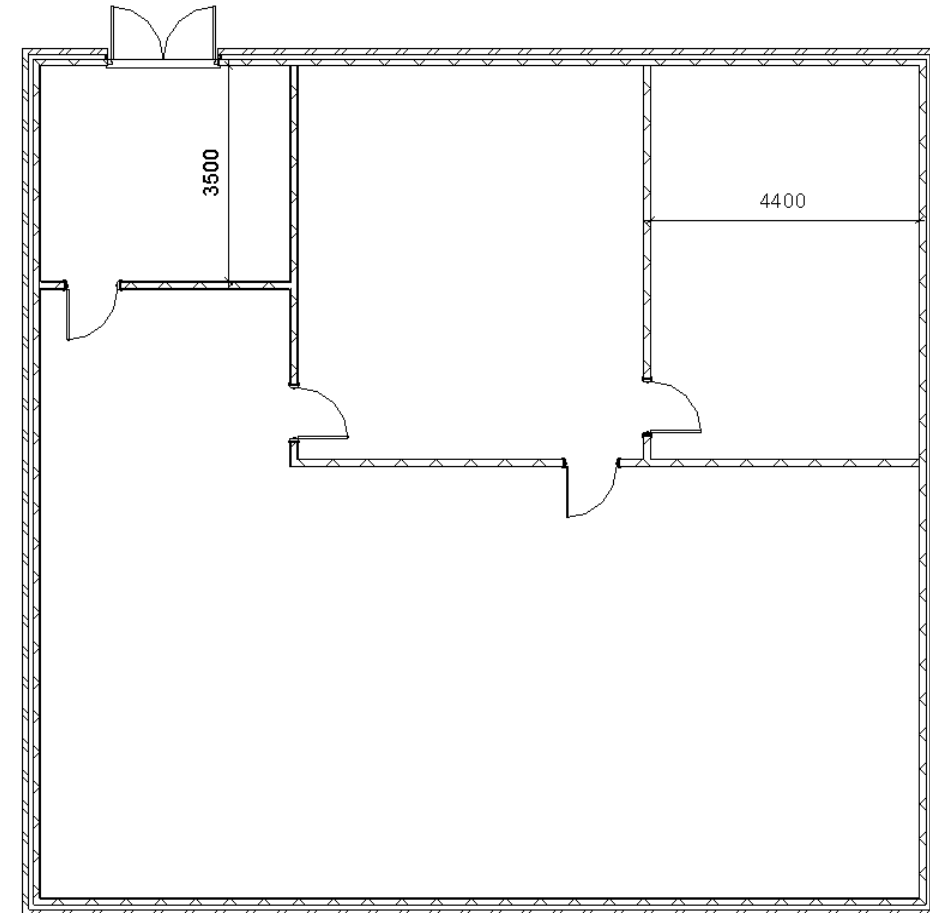


Phasing in Revit 'Exercise'

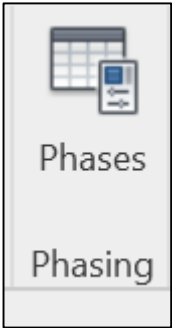
Revit enables you to show both existing and proposed plans using Phasing.



Proposed



Manage



Phases

Phasing

Phasing

Project Phases Phase Filters Graphic Overrides

PAST

	Name	Description
1	Existing	
2	New Construction	

Insert

Before

After

Combine with:

Previous

Next

Phasing

Project Phases Phase Filters Graphic Overrides

	Filter Name	New	Existing	Demolished	Temporary
1	Show All	By Category	Overridden	Overridden	Overridden
2	Show Complete	By Category	By Category	Not Displayed	Not Displayed
3	Show Demo + New	By Category	Not Displayed	Overridden	Overridden
4	Show New	Overridden	Overridden	Overridden	Not Displayed
5	Show Previous + Demo	Not Displayed	Overridden	Overridden	Not Displayed
6	Show Previous + New	By Category	Overridden	Not Displayed	Not Displayed
7	Show Previous Phase	Not Displayed	Overridden	Not Displayed	Not Displayed

New Delete

OK Cancel Apply Help

Phasing

Project Phases Phase Filters Graphic Overrides

Phase Status	Projection/Surface		Cut		Halftone	Material
	Lines	Patterns	Lines	Patterns		
Existing				Hidden	☐	Phase - Exist
Demolished				Hidden	☐	Phase - Demo
New					☐	Phase - New
Temporary					☐	Phase - Temporary

OK Cancel Apply Help

Phasing in Revit

Revit enables you to show both existing and proposed plans using Phasing Filters and Graphical Overrides

Existing

Floor Plan

Floor Plan: Level 0 existing floor plan

Edit Type

Depth Clipping

No clip

Identity Data

View Template

<None>

View Name

Level 0 existing floor p...

Dependency

Independent

Title on Sheet

Referencing Sheet

Referencing Detail

Phasing

Phase Filter

Show All

Phase

Existing

Proposed

Floor Plan

Floor Plan: Level 0 proposed floor pl...

Edit Type

Depth Clipping

No clip

Identity Data

View Template

<None>

View Name

Level 0 proposed floo...

Dependency

Independent

Title on Sheet

Referencing Sheet

Referencing Detail

Phasing

Phase Filter

Show Complete

Phase

New Construction

Works Plan

Floor Plan

Floor Plan: Level 0 works plan

Edit Type

Depth Clipping

No clip

Identity Data

View Template

<None>

View Name

Level 0 works plan

Dependency

Independent

Title on Sheet

Referencing Sheet

Referencing Detail

Phasing

Phase Filter

Show New

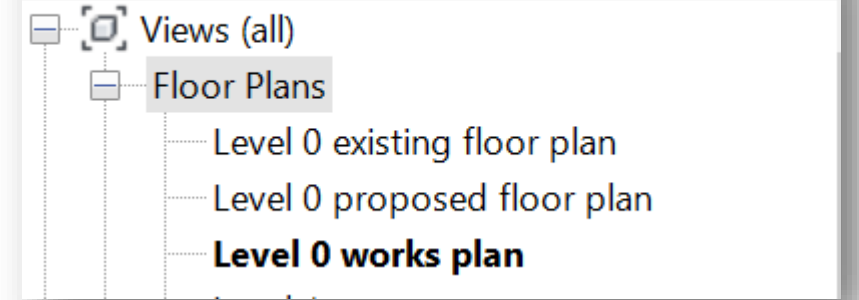
Phase

New Construction

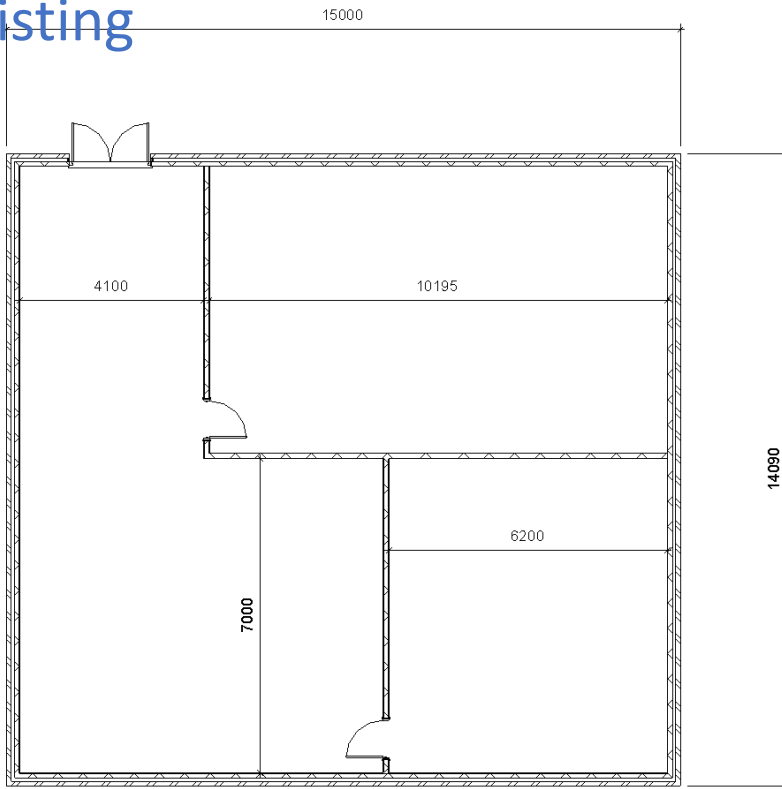
Phasing in Revit

Revit enables you to show both existing and proposed plans using Phase Filters and Graphical Overrides

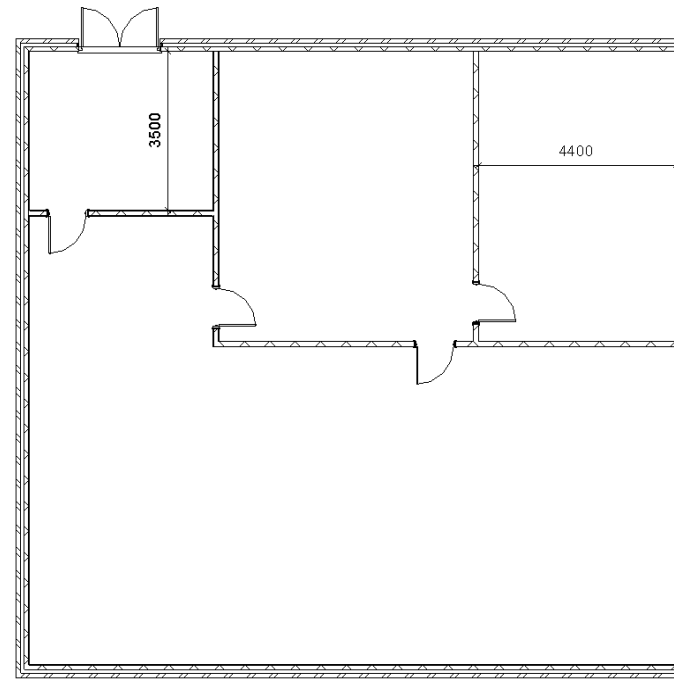
Project Browser - Project1 - Introduction to Phasi...



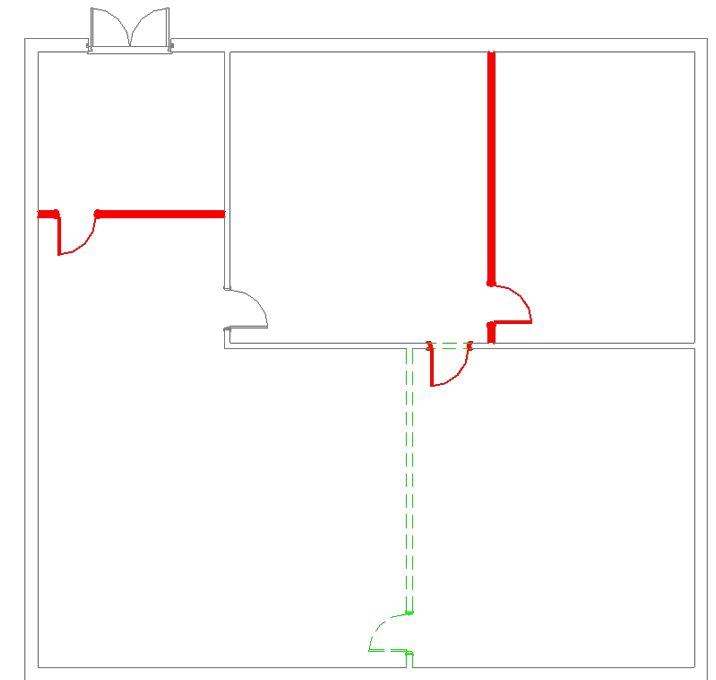
Existing



Proposed



Works Plan



PART 4: PUBLISH AND COLLABORATE



33-SHEETS



34-REVISIONS



35-PRINT



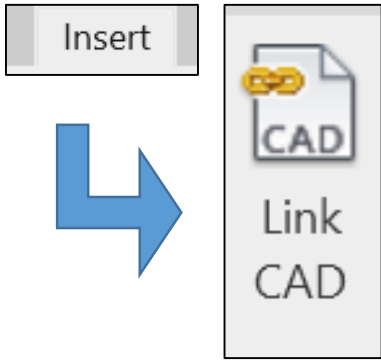
36-CENTRAL
FILES



37-LINK CAD



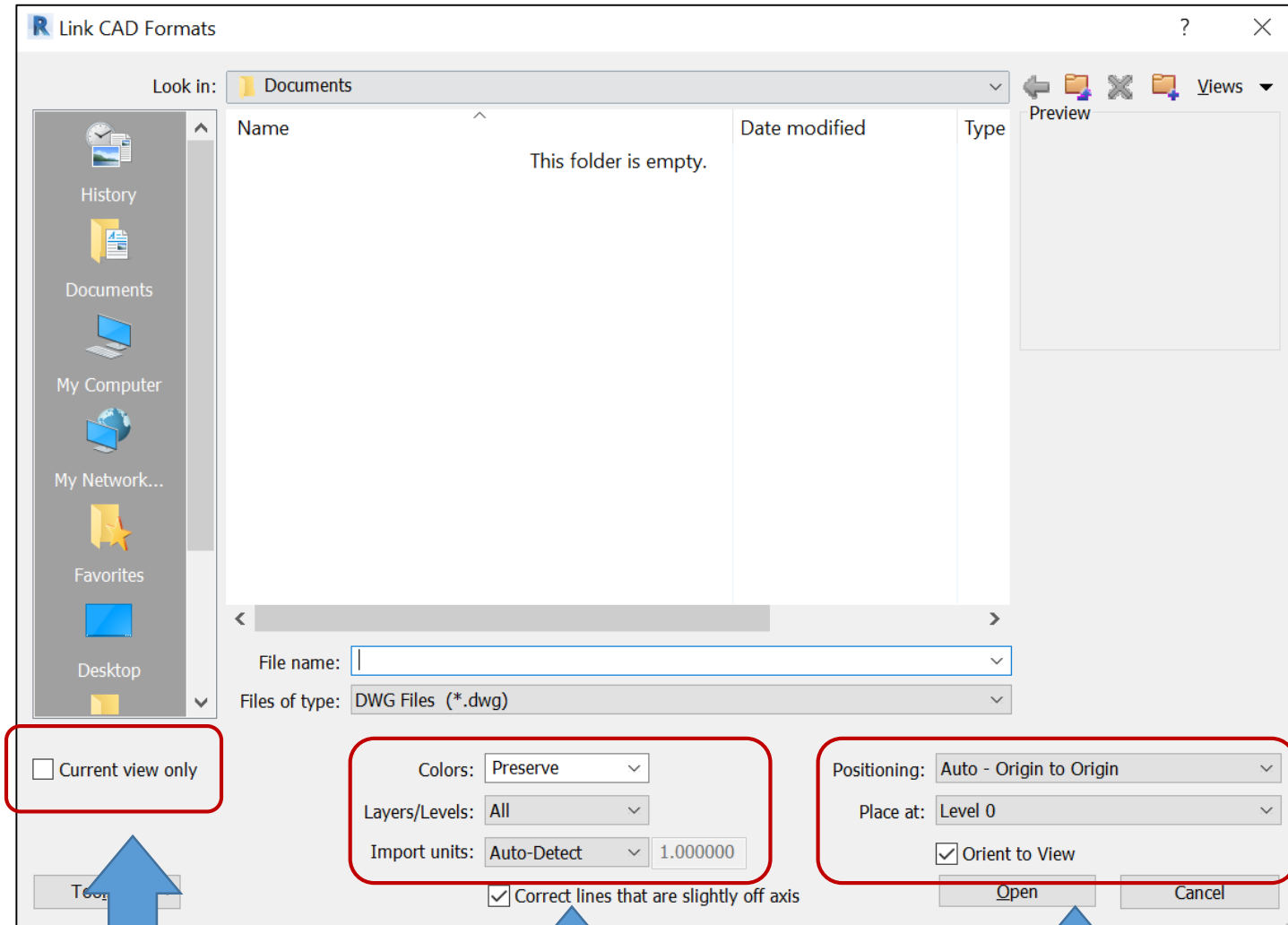
38-EXPORT
CAD



CAD files

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

Check the fields highlighted before importing files.



Manage Links

Revit IFC CAD Formats DWF Markups Point Clouds Topography

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

Visibility/Graphic Overrides for Floor Plan: Site

Model Categories Annotation Categories Analytical Model Categories Imported Categories Filters

☒ Show imported categories in this view

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

Visibility	Projection/Surface		
	Lines	Patterns	Halftone
☒ 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

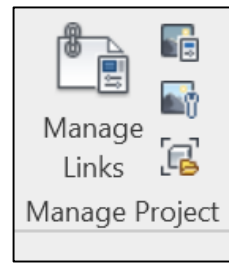
Categories that are not overridden are drawn according to this project's Imported Object Style settings.

Object Styles...

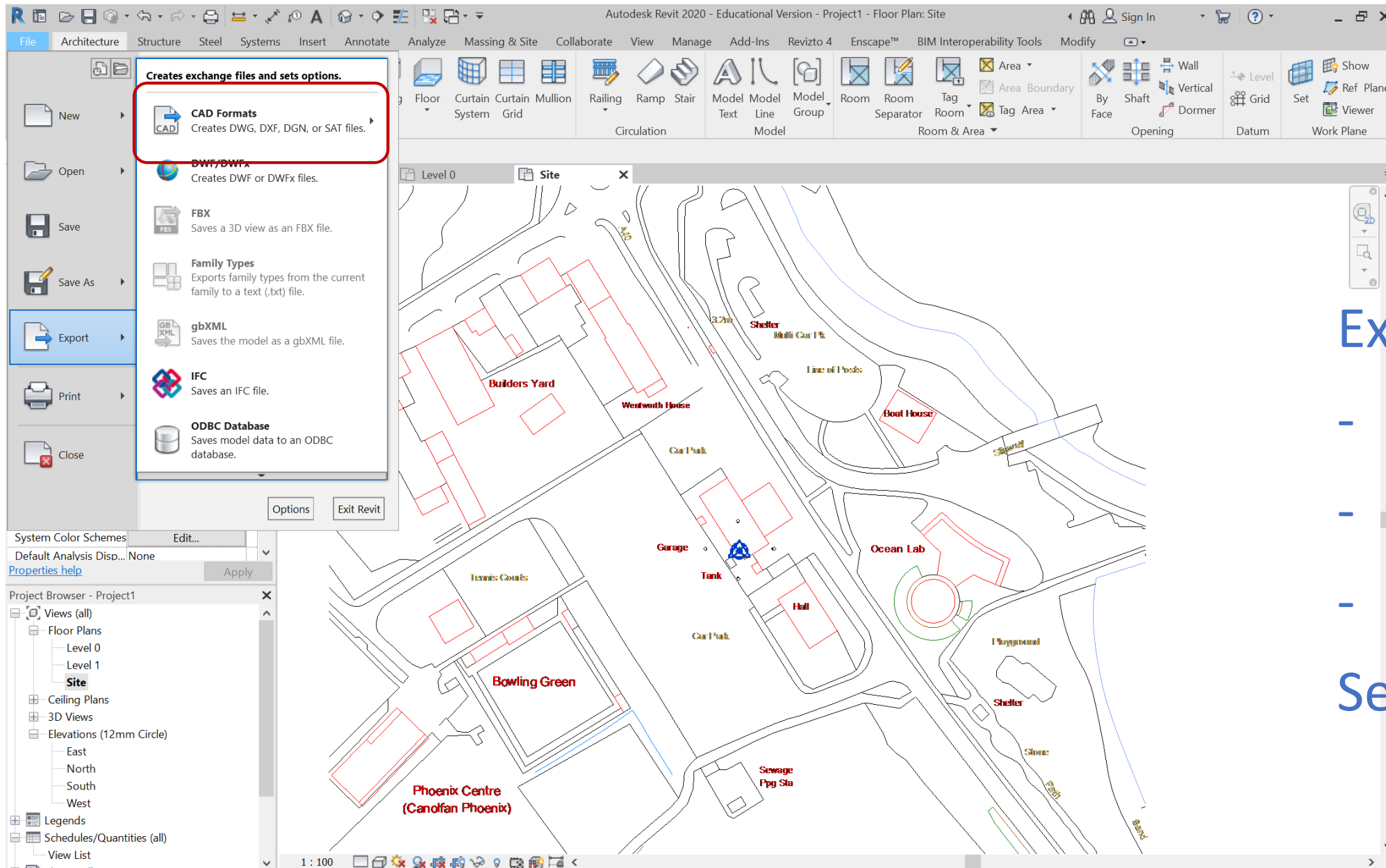
OK

Cancel

Manage Links to unload / load updated linked files



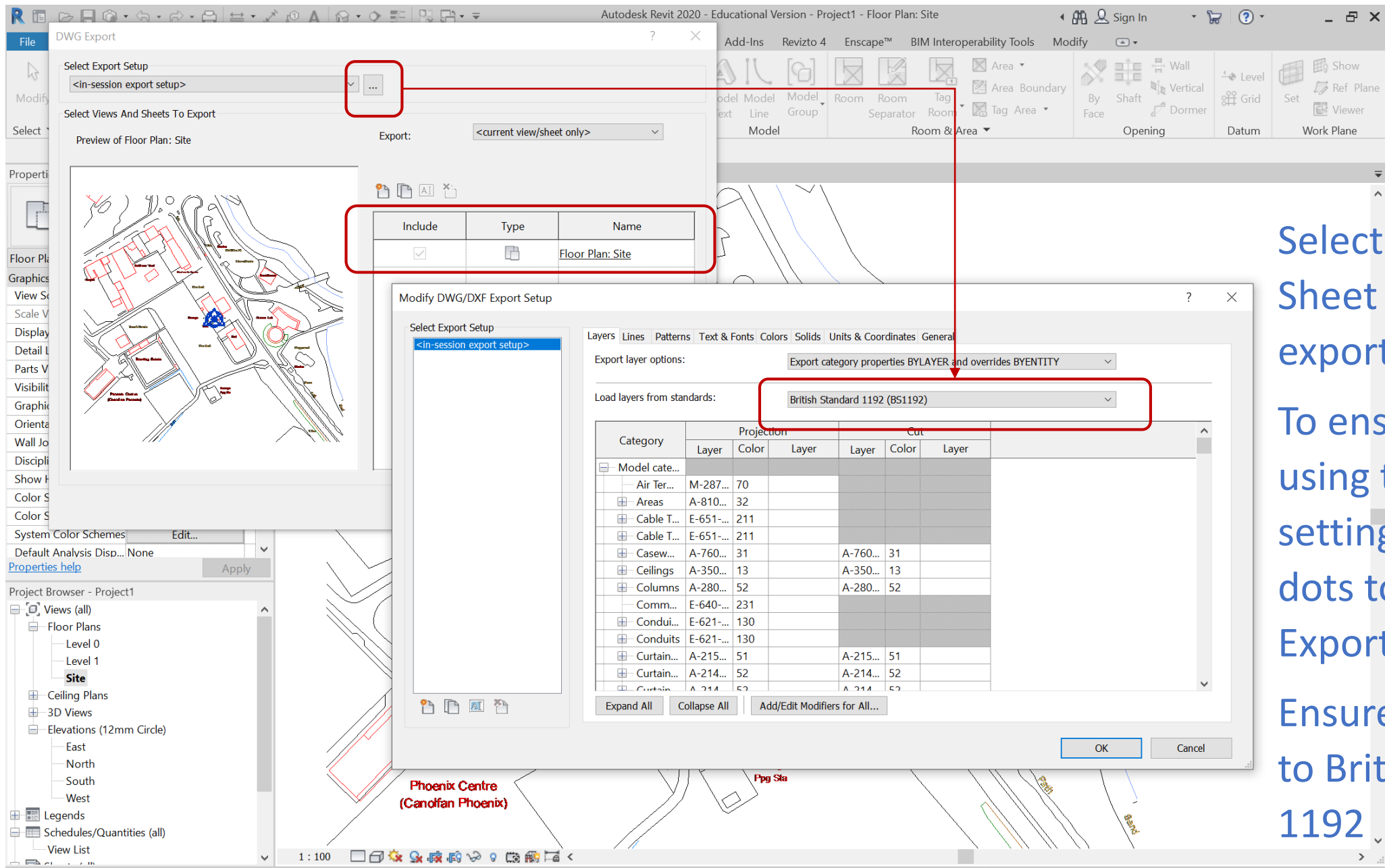
Visibility of Links from Visibility / Graphics – Imported Categories. CAD Layers can be switched on and off.



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

Assessment 2

Submission
deadline:

4th May 2020

PART 1 Essay: (weighting 20%)

What is BIM and how is it used within the Construction Industry?

Explain your understanding of the digital processes that are used as part of a CDE?

The essay can incorporate the use of diagrams and figures to illustrate the text.

A list of references is required and all referencing is to be clearly indicated throughout the essay.

Assessment 2

Submission
deadline:

4th May 2020

PART 2 Drawings A1 Digital Submission: (weighting 80%)

Scenario:

You have been approached by a client who wishes to extend their house. They have provided you a set of 2D CAD drawings prepared when they purchased the house and have asked you to design a two storey extension to the side of the property.

They would like you to consider providing:

- A new double bedroom
- ensuite bathroom
- dressing room
- small study / sun room with views to the garden.

Convert the 2D drawings into a 3D model using Revit.

Assessment 2

Submission
deadline:

4th May 2020

PART 2 Drawings A1 Digital Submission: (weighting 80%)

Prepare a set of existing & proposed drawings of the property that includes.

Site Location Plan @1:1250

Existing Site Plan @ 1:500

Existing Floor Plans@ 1:100

Proposed Site Plan @ 1:500

Proposed Floor Plans@ 1:100

Proposed Elevations:@ 1:100

Proposed Long and Short Section @ 1:50

Proposed Section Callout Detail @ 1:5

Proposed Visualisation. (NTS)

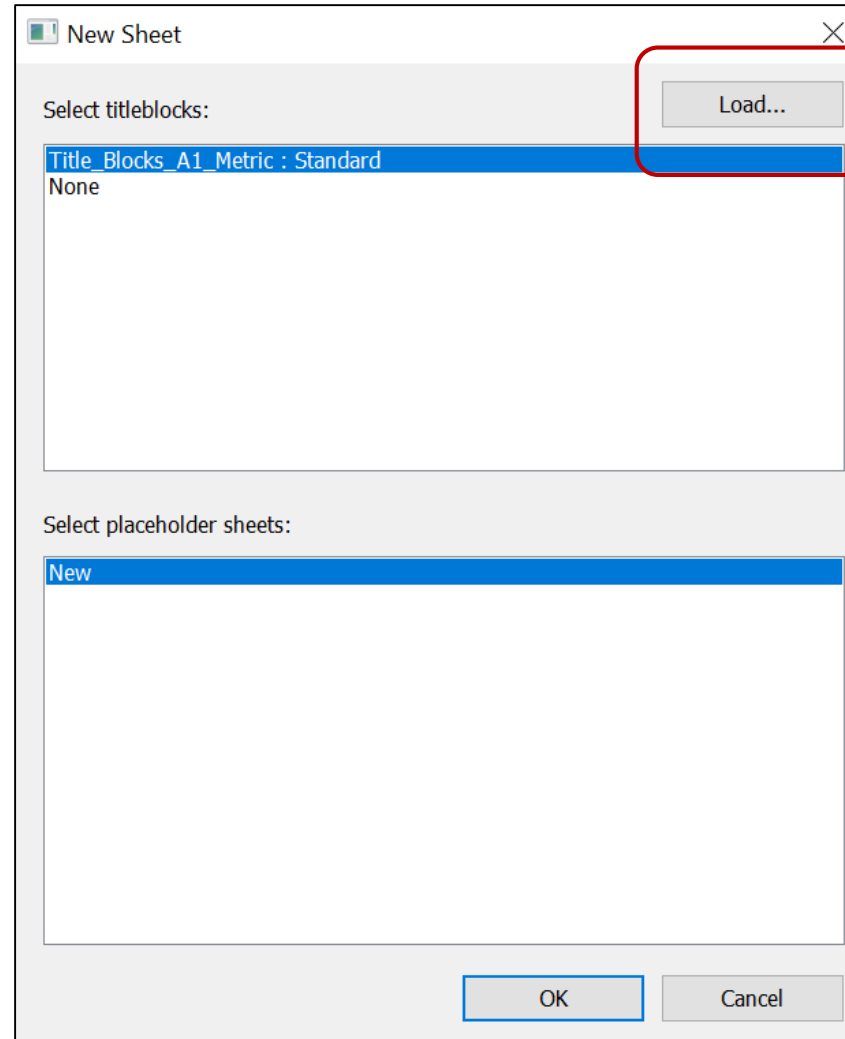
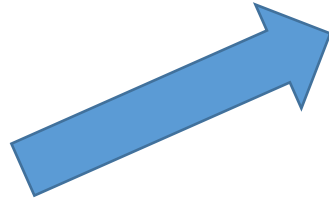
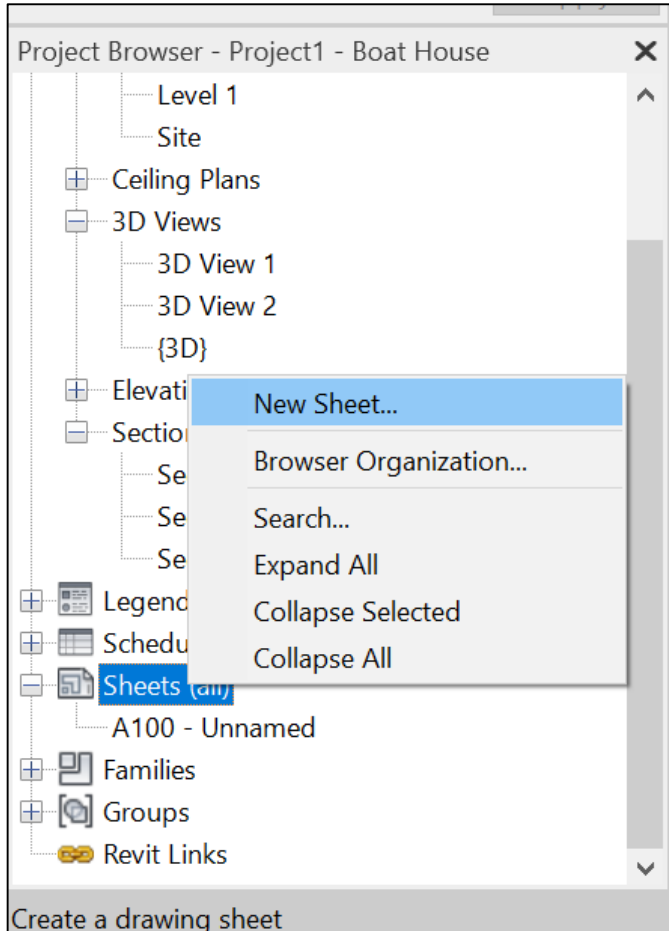
The project **must** include. Project Base point. Room names, Legends, Tags & Annotations, Dimensions, Levels, North Point. Project Phasing in Revit is recommended.

All Drawings must be appropriately scaled at A1 size and presented in the **uwtsd BIM titleblock format with the appropriate naming conventions. Digital Submission required in RVT and PDF format.**



33-SHEETS

Download the UWTSD titleblock



Load a titleblock