

# Revit Modeling Guidelines



# Project Browser Organization

“communication...”

The screenshot displays the Revit interface with a focus on the Project Browser and Properties panels. The Project Browser on the right shows a hierarchical structure for a project named 'RevitTesting\_2013\_kgosselin.rvt'. The '3D Views' folder is expanded, showing a '3D Team' folder containing 'Bridges', 'Building75', 'Building125', 'Panels', 'Structure', 'Whole Building', 'Copy (2) of -Bridges', and 'Copy of -Bridges'. The 'Building75' folder is highlighted with an orange box and labeled '\_3D Visualization'. The Properties panel on the left shows the '3D View: -Building75' selected, with various settings like 'View Scale' (1/8" = 1'-0"), 'Scale Value' (96), 'Detail Level' (Coarse), 'Parts Visibility' (Show Original), 'Visibility/Graphic...' (Edit...), 'Graphic Display ...' (Edit...), 'Discipline' (Architectural), 'Default Analysis ...' (None), 'Visible In Option' (all), and 'VIEW SUBGROUP' (3D Team). The 'Sun Path' checkbox is also visible. The central view shows a 3D model of a building structure.

Properties

3D View

3D View: -Building75

Graphics

View Scale 1/8" = 1'-0"

Scale Value 1: 96

Detail Level Coarse

Parts Visibility Show Original

Visibility/Graphic... Edit...

Graphic Display ... Edit...

Discipline Architectural

Default Analysis ... None

Visible In Option all

VIEW SUBGROUP 3D Team

Sun Path

Views (PAYETTE)

3D Team

-Bridges

-Building75

-Building125

-Panels

-Structure

-Whole Building

Copy (2) of -Bridges

Copy of -Bridges

3D Visualization

3D View

3D View: -Building75

Graphics

View Scale 1/8" = 1'-0"

Scale Value 1: 96

Detail Level Coarse

Parts Visibility Show Original

Visibility/Graphic... Edit...

Graphic Display ... Edit...

Discipline Architectural

Default Analysis ... None

Visible In Option all

VIEW SUBGROUP 3D Team

Sun Path

Views (PAYETTE)

3D Team

-Bridges

-Building75

-Building125

-Panels

-Structure

-Whole Building

Copy (2) of -Bridges

Copy of -Bridges

3D Visualization



# Central File - Project Worksets

“when in doubt – duplicate”

Architecture

Structure

Systems

Insert

Annotate

Analyze

Massing & Site

Collaborate

View

Manage

Add-Ins

Extensions

Modify

vitTesting\_2013\_...

Type a keyword or phrase

ksgossel

Modify

Worksheets

Active Worksets:

Shell (Not Editable)

Gray Inactive Worksets

Synchronize with Central

Reload Latest

Relinquish All Mine

Show History

Restore Backup

Editing Requests

Copy/Monitor

Coordination Review

Coordination Settings

Reconcile Hosting

Interference Check

Properties

3D View

3D View: -Building75

Edit Type

Graphics

View Scale: 1/8" = 1'-0"

Scale Value: 1: 96

Detail Level: Coarse

Parts Visibility: Show Original

Visibility/Graphic... Edit...

Graphic Display ... Edit...

Discipline: Architectural

Default Analysis ... None

Visible In Option: all

VIEW SUBGROUP: 3D Team

Sun Path

Identity Data

View Template: <None>

View Name: -Building75

Dependency: Independent

Title on Sheet

Workset: View "3D View: ...

Edited by: ksgosselin

Team Member

View Use

Extents

Crop View

Crop Region Visible

Annotation Crop

Far Clip Active

Section Box

Camera

Rendering Settings Edit...

Locked Orientation

Perspective

Eye Elevation: 1643' 4 15/256"

Target Elevation: 34' 3 19/64"

Properties help

Apply

Click to select, TAB for alternates, CTRL adds, SHIFT unselects

Shell (Not Editable)

Main Model

Exclud

Worksets

Active workset:

(Not Editable) Binney Shell and

Gray Inactive Workset Graphics

Name	Editable	Owner	Borrowers	Opened	Visible in all views
Binney Shell and Core	No			Yes	<input checked="" type="checkbox"/>
Binney Slabs	No			Yes	<input checked="" type="checkbox"/>
Exterior Mockup	No			Yes	<input type="checkbox"/>
Finish Floors	No			Yes	<input type="checkbox"/>
Level 0 Sub Basement	No			Yes	<input checked="" type="checkbox"/>
Level 1	No			Yes	<input checked="" type="checkbox"/>
Level 2	No			Yes	<input checked="" type="checkbox"/>
Level 3	No			Yes	<input checked="" type="checkbox"/>
Level 4	No			Yes	<input checked="" type="checkbox"/>
Level 5	No			Yes	<input checked="" type="checkbox"/>
Level 6, 8, 9, 10 - INPATIENT	No				
Level 7	No				

Show:

☒ User-Created

☐ Project Standards

☐ Families

☐ Views

New

Delete

Rename

Open

Close

New Workset

Enter new workset name:

\_3D Visualization

☐ Visible in all views

OK

Cancel

Help



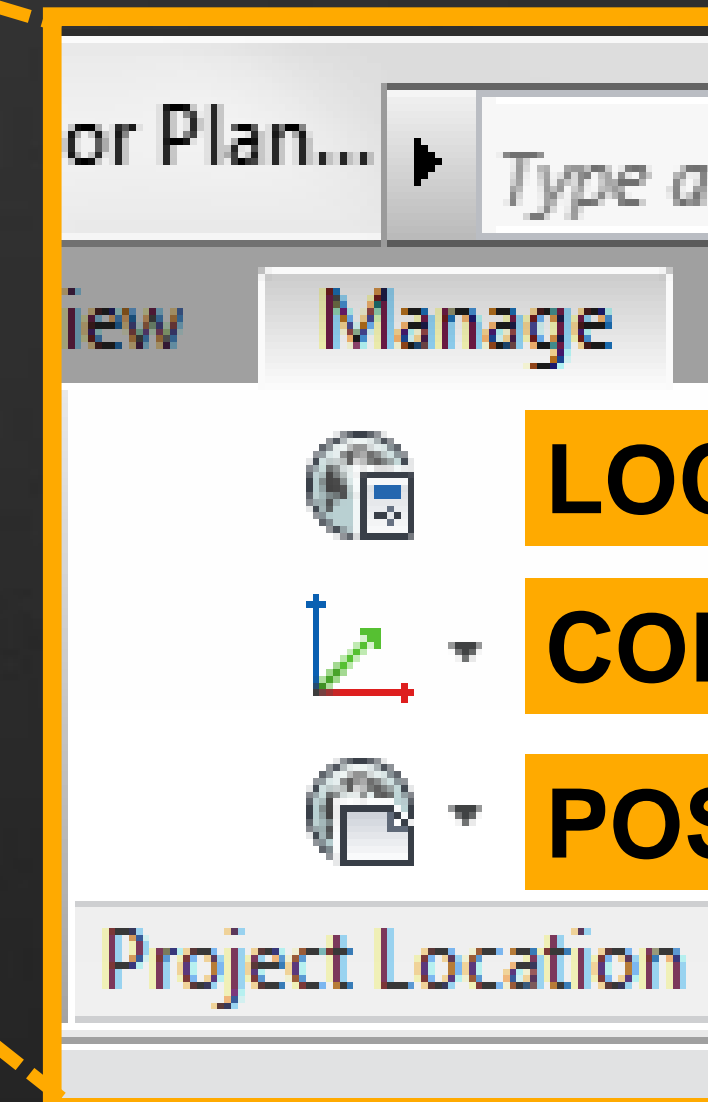
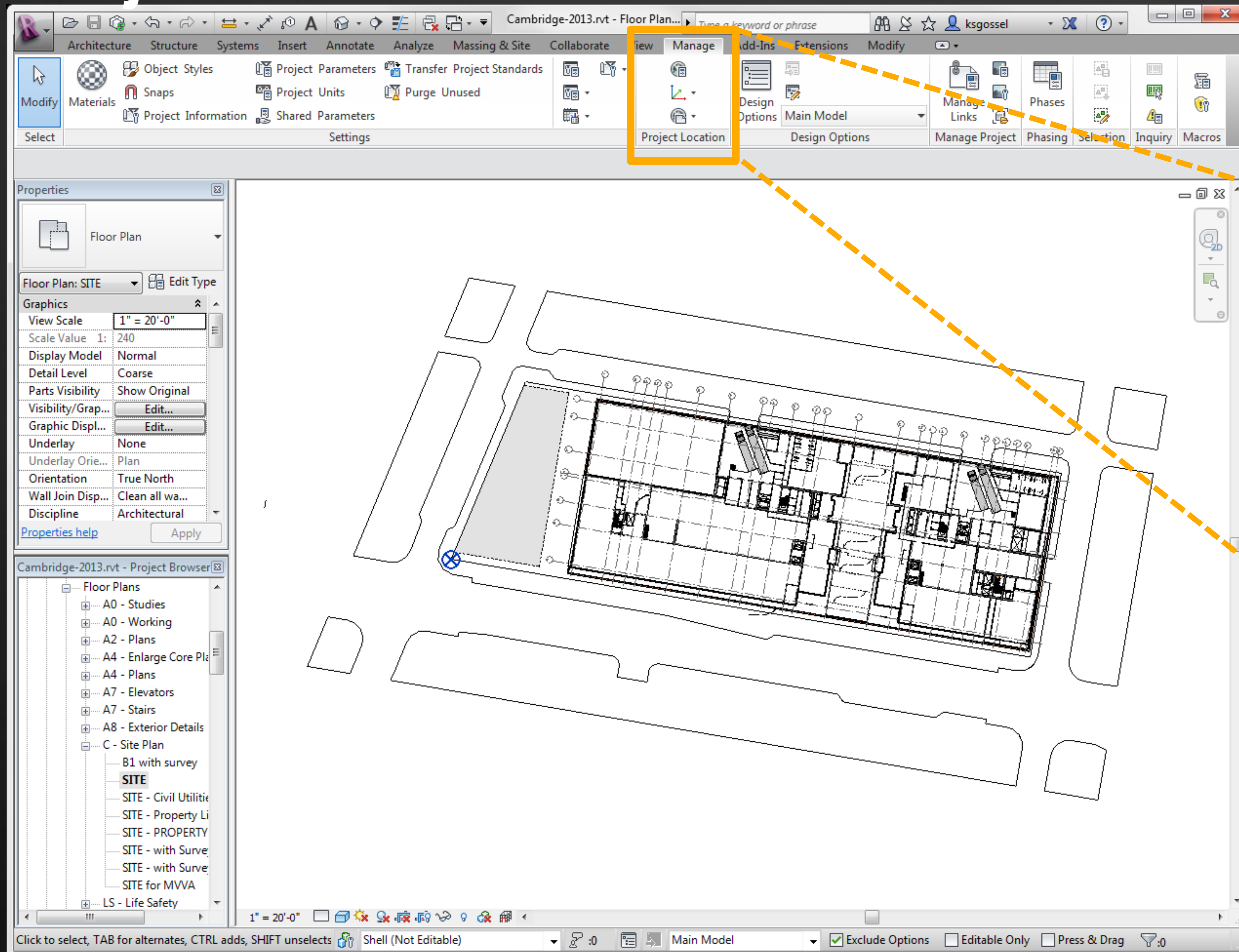
# Project Workset \_3D Visualization

*“when in doubt – duplicate”*





# Project Location



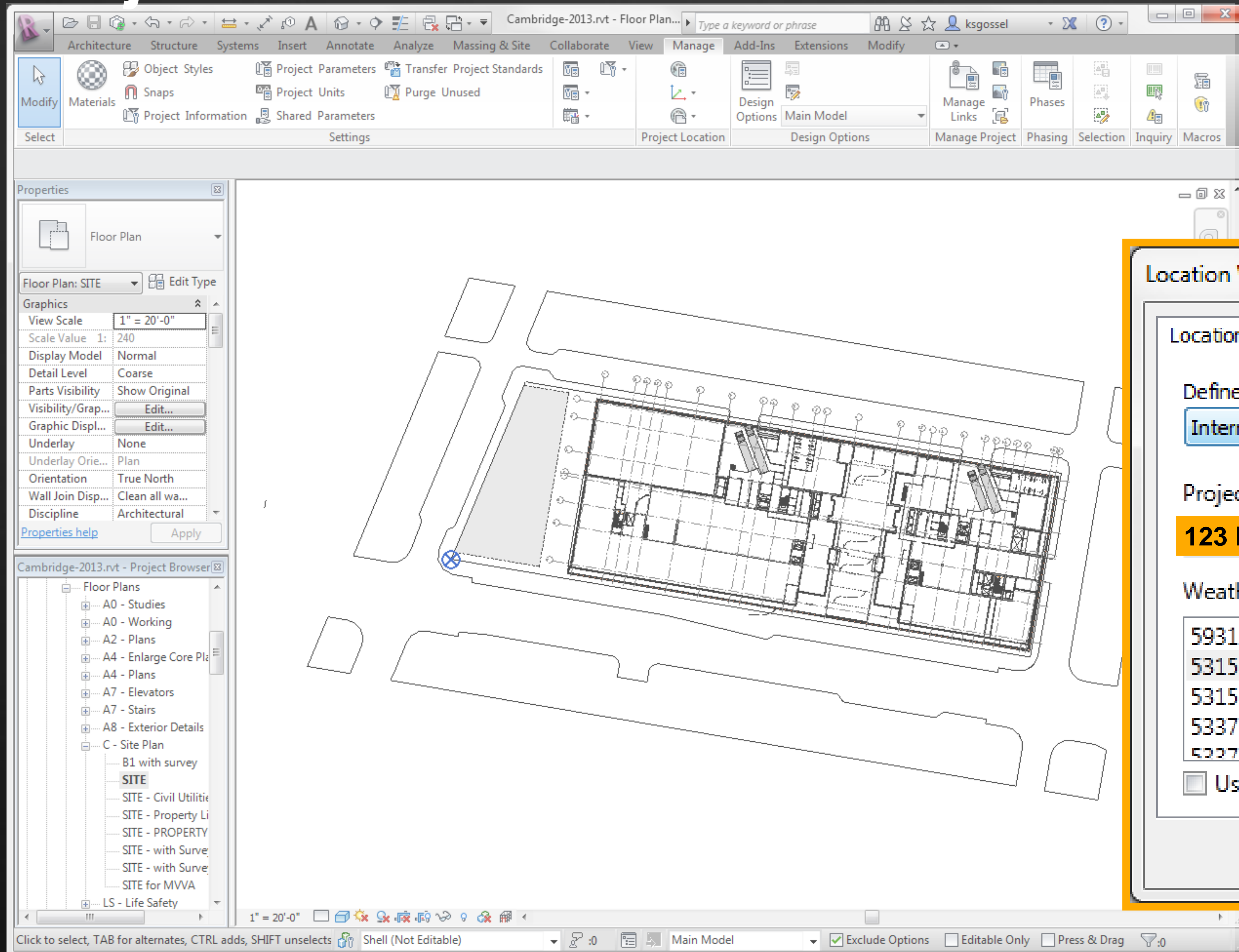
**LOCATION**

**COORDINATES**

**POSITION**

Project Location

# Project Location - LOCATION



**Location Weather and Site**

Location Weather Site

Define Location by:

Internet Mapping Service

Project Address:

**123 First St, Cambridge, MA 10001, USA** Search

Weather Stations:

59315 (0.00 miles away)
53158 (5.60 miles away)
53159 (5.60 miles away)
53377 (12.50 miles away)
53378 (12.50 miles away)

☐ Use Daylight Savings time

OK Cancel Help



# Project Location – POSITION True North

The image displays the Revit software interface for the 'Project Location' tool. The top ribbon shows the 'Manage' tab with the 'Project Location' panel active. The 'Properties' panel on the left shows the 'Floor Plan' view selected. The 'Project Location' panel on the right shows the 'Angle from Project to True North' set to 9° 36' 00", the 'West' direction, and the 'Center of rotation' set to 'Place'. A callout box points to the 'Center of rotation' button, stating 'Click to enter rotate start ray or drag or click the rotation center control'. The main view shows a floor plan of a building with a grid. A dashed orange line indicates the rotation path from the 'Center of rotation' button to the 'Project Location' panel. A purple arrow points from the 'Project Location' panel to the 'Project Location' panel.

Angle from Project to True North: 9° 36' 00" West CCW Rotation Angle: Center of rotation: Place Default

Properties

Floor Plan

Floor Plan: SITE Edit Type

Graphics

View Scale	1" = 20'-0"
Scale Value 1:	240
Display Model	Normal
Detail Level	Coarse
Parts Visibility	Show Original
Visibility/Grap...	Edit...
Graphic Displ...	Edit...
Underlay	None
Underlay Orie...	Plan
Orientation	True North
Wall Join Disp...	Clean all wa...
Discipline	Architectural

Properties help Apply

Cambridge-2013.rvt - Project Browser

- Floor Plans
  - A0 - Studies
  - A0 - Working
  - A2 - Plans
  - A4 - Enlarge Core Pl...
  - A4 - Plans
  - A7 - Elevators
  - A7 - Stairs
  - A8 - Exterior Details
  - C - Site Plan
    - B1 with survey
    - SITE
    - SITE - Civil Utilitie
    - SITE - Property Li
    - SITE - PROPERTY
    - SITE - with Surve
    - SITE - with Surve
    - SITE for MVVA
  - LS - Life Safety

1" = 20'-0"

Click to enter rotate start ray or drag or click the rotation cent

Click to enter rotate start ray or drag or click the rotation center control

# Project Location – POSITION *Project North*

The screenshot shows the Revit software interface with a floor plan of a building. The 'Properties' panel on the left shows the 'Floor Plan' view with a scale of 1" = 20'-0". The 'Project Browser' on the left shows the project structure, including 'Floor Plans' and 'SITE'. The 'Rotate Project' dialog box is open, displaying the following options:

**Rotate Project**

Rotates all model elements, model views, and annotations in non-drafting views. Which angle of rotation do you want to use?

- 90° clockwise
- 90° counterclockwise
- 180°
- **Align selected line or plane**  
Align the selected line/plane to North/South or East/West, whichever is closest.

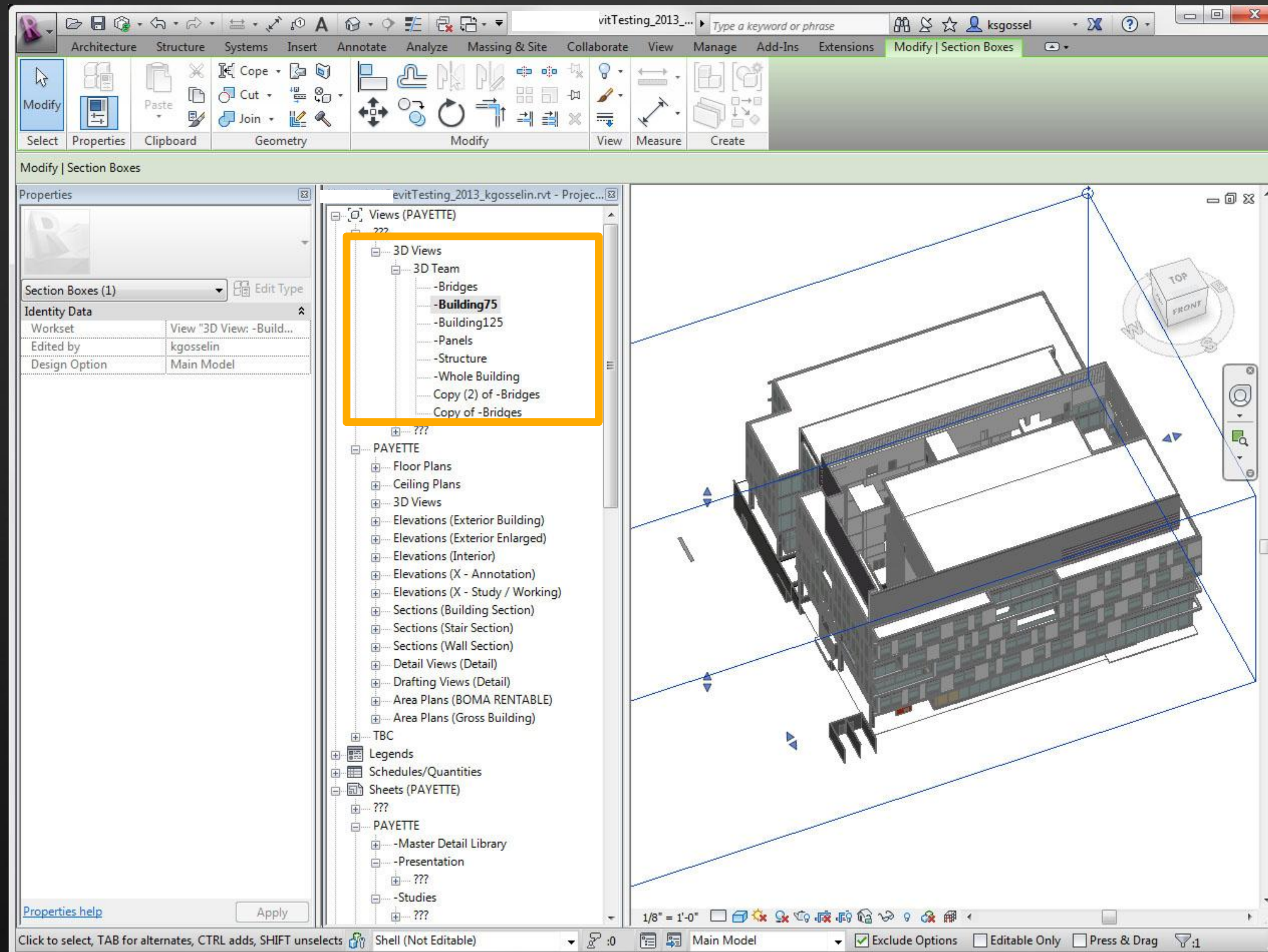
▼ Show details

[Click here to learn more](#)

Cancel



# View Creation



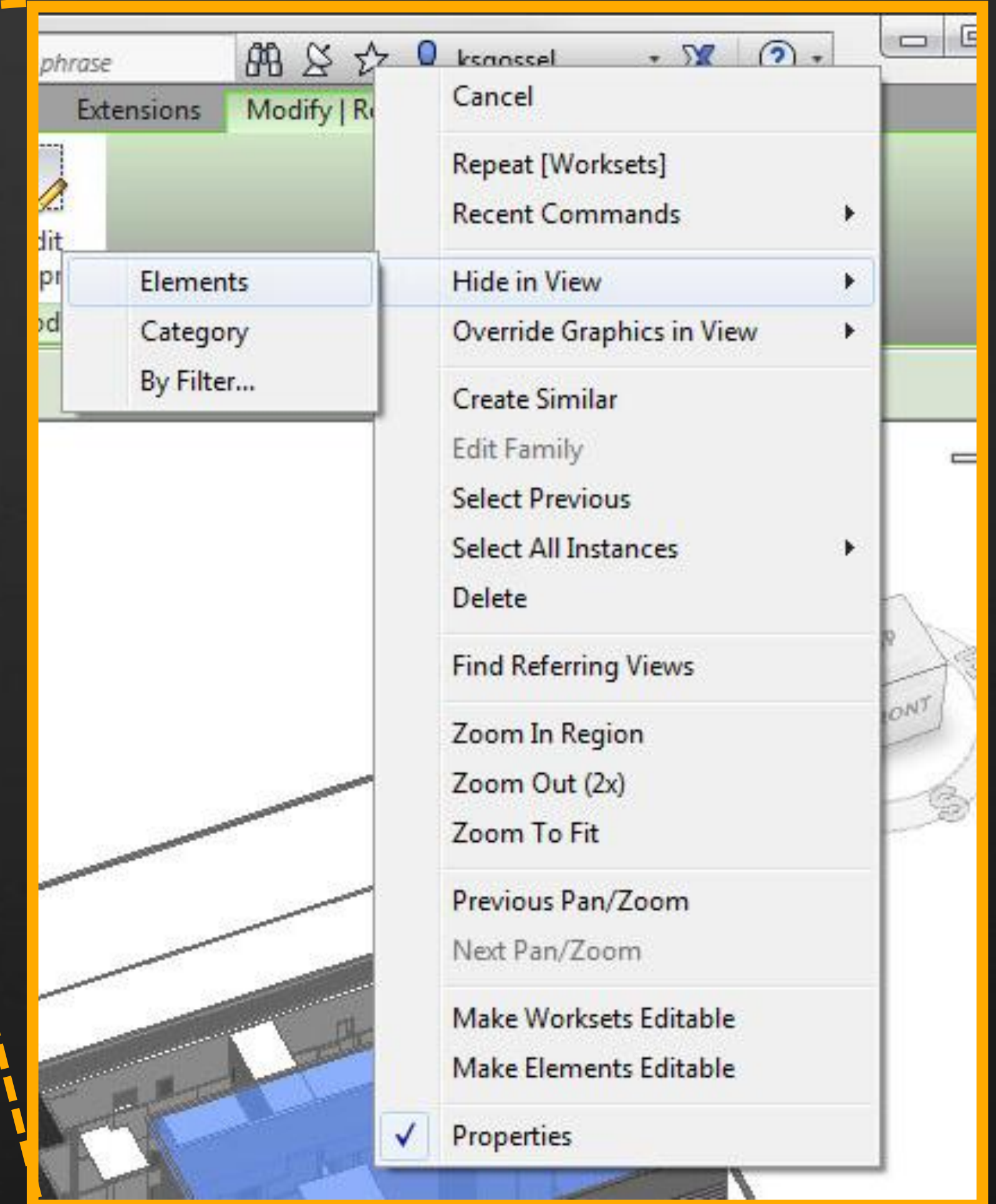
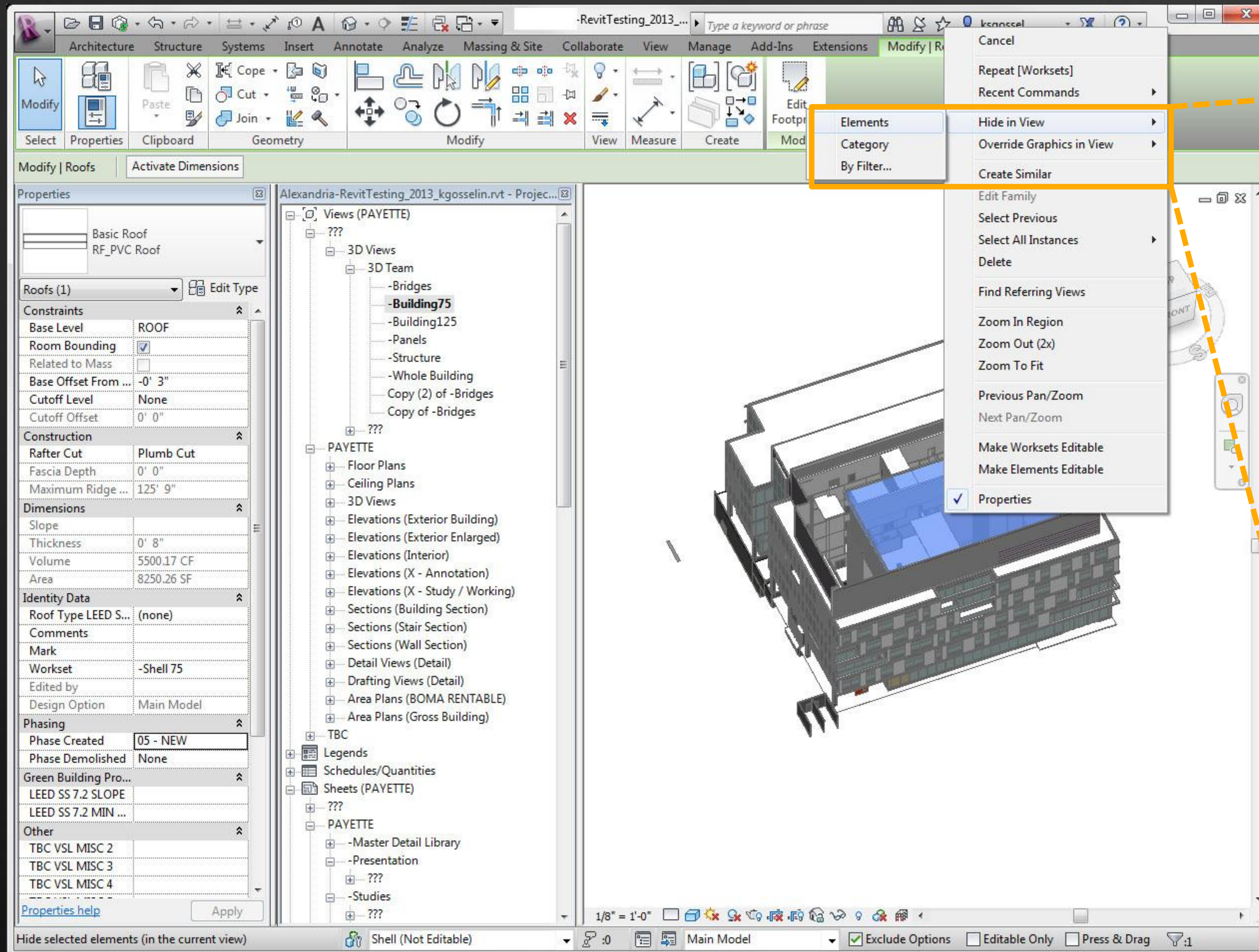
*“if you can see it – it will link!”*

## Visibility Graphics OFF

- Furniture
  - Topography
  - Entourage
  - Plantings/ Parking/ Site
  - Raster Images
  - Electrical Fixtures
  - Lighting
  - Mass
- 
- Any worksets not visible in view to be exported



# View Creation





# View Creation - Templates

The screenshot shows the Revit software interface with the 'View Templates' dialog box open. The dialog box is divided into two main sections: 'View Templates' and 'View Properties'.

**View Templates Section:**

- Discipline filter:** A dropdown menu showing '<all>'.
- View type filter:** A dropdown menu showing '<all>'.
- Names:** A list of view templates. '3D Bridges' is selected and highlighted in blue. Other templates include '3D Courtyard Studies', '3D L1 Enlarged Elevations', '3D L1 Studies', '3D Slot Studies', '3D Street Views', '\_Survey Off', 'A0 - Working Plans', 'A1 - LIFE SAFETY', 'A2 - Plans', 'A3 - Elevations 1/16"', 'A3 - Exterior Elevation - 1/16"', 'A3 - Exterior Elevation Enlarged', 'A3 - Exterior Elevation Presentation', 'A3 - Sections', and 'A4 - Enlarged Plans'.

**View Properties Section:**

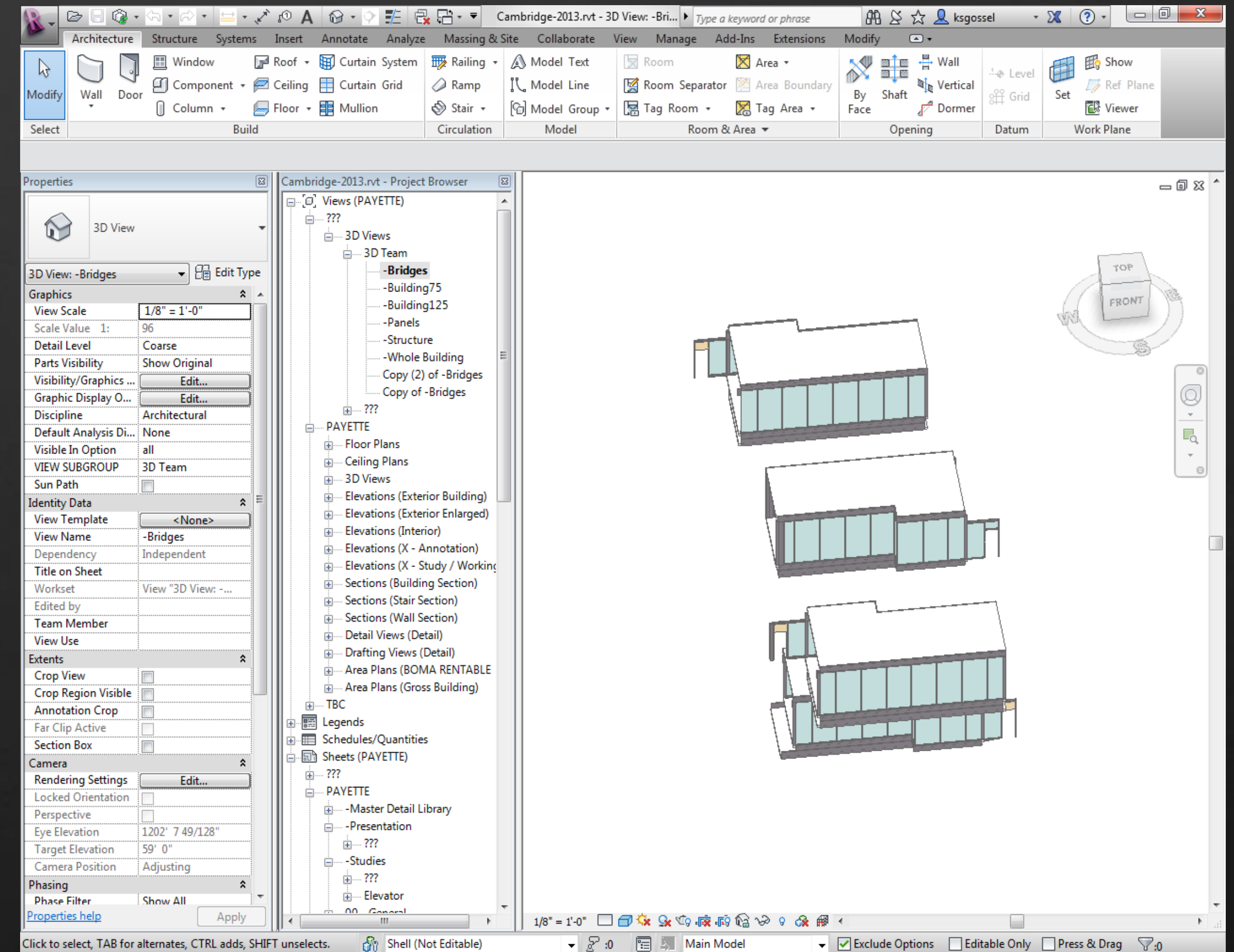
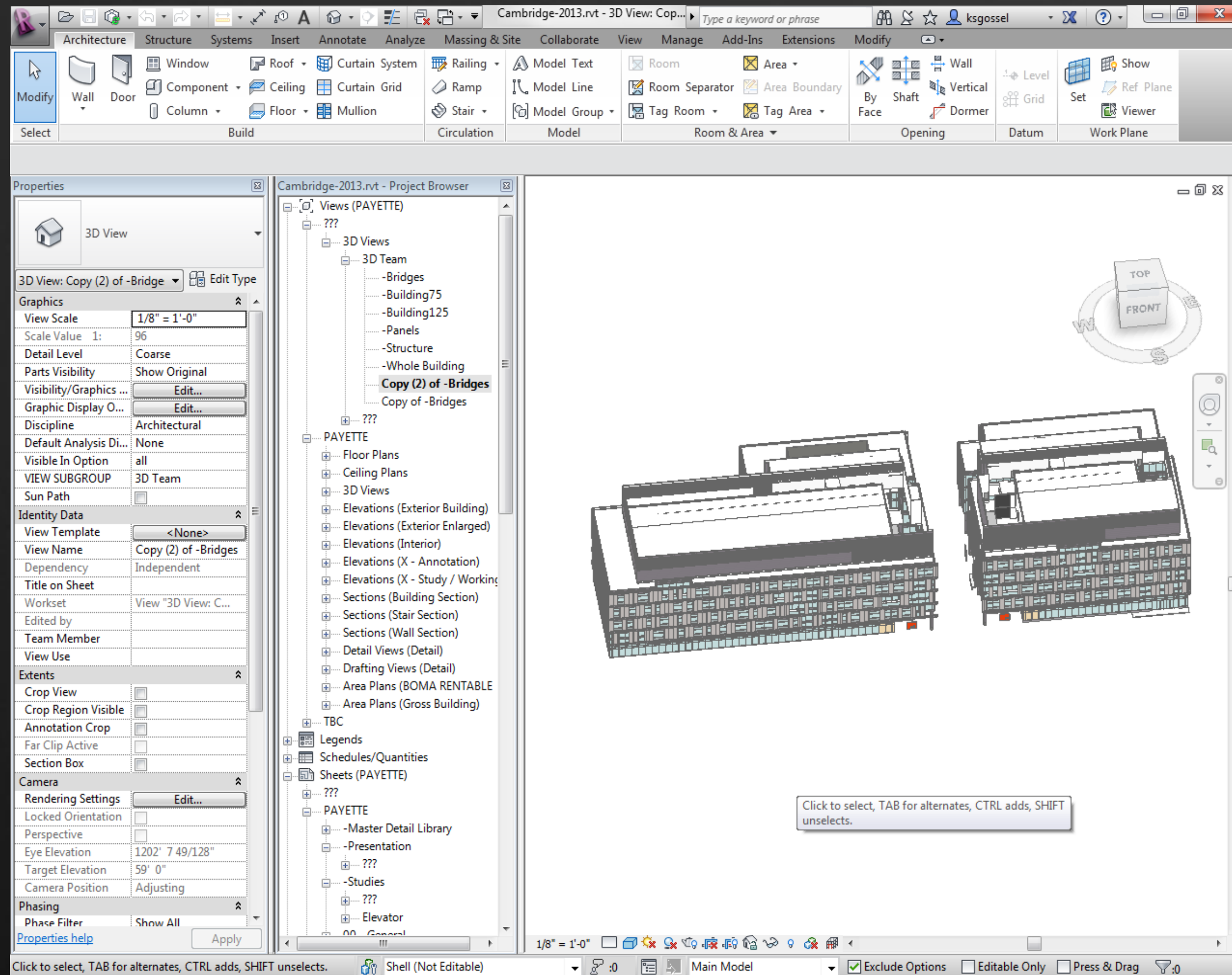
Number of views with this template assigned: 0

Parameter	Value	Include
View Scale	1/8" = 1'-0"	<input type="checkbox"/>
Scale Value 1:	96	
Detail Level	Medium	<input type="checkbox"/>
Parts Visibility	Show Original	<input type="checkbox"/>
V/G Overrides Model	Edit...	<input type="checkbox"/>
V/G Overrides Annotati	Edit...	<input type="checkbox"/>
V/G Overrides Analytic	Edit...	<input type="checkbox"/>
V/G Overrides Import	Edit...	<input type="checkbox"/>
V/G Overrides Filters	Edit...	<input type="checkbox"/>
V/G Overrides Worksets	Edit...	<input type="checkbox"/>
V/G Overrides Design O	Edit...	<input type="checkbox"/>
Model Display	Edit...	<input checked="" type="checkbox"/>
Shadows	Edit...	<input checked="" type="checkbox"/>
Lighting	Edit...	<input checked="" type="checkbox"/>
Photographic Exposure	Edit...	<input type="checkbox"/>
Background	Edit...	<input checked="" type="checkbox"/>
Phase Filter	Show Complete	<input type="checkbox"/>
Discipline	Architectural	<input type="checkbox"/>
Rendering Settings	Edit...	<input type="checkbox"/>

Buttons at the bottom: OK, Cancel, Apply Properties, Help.

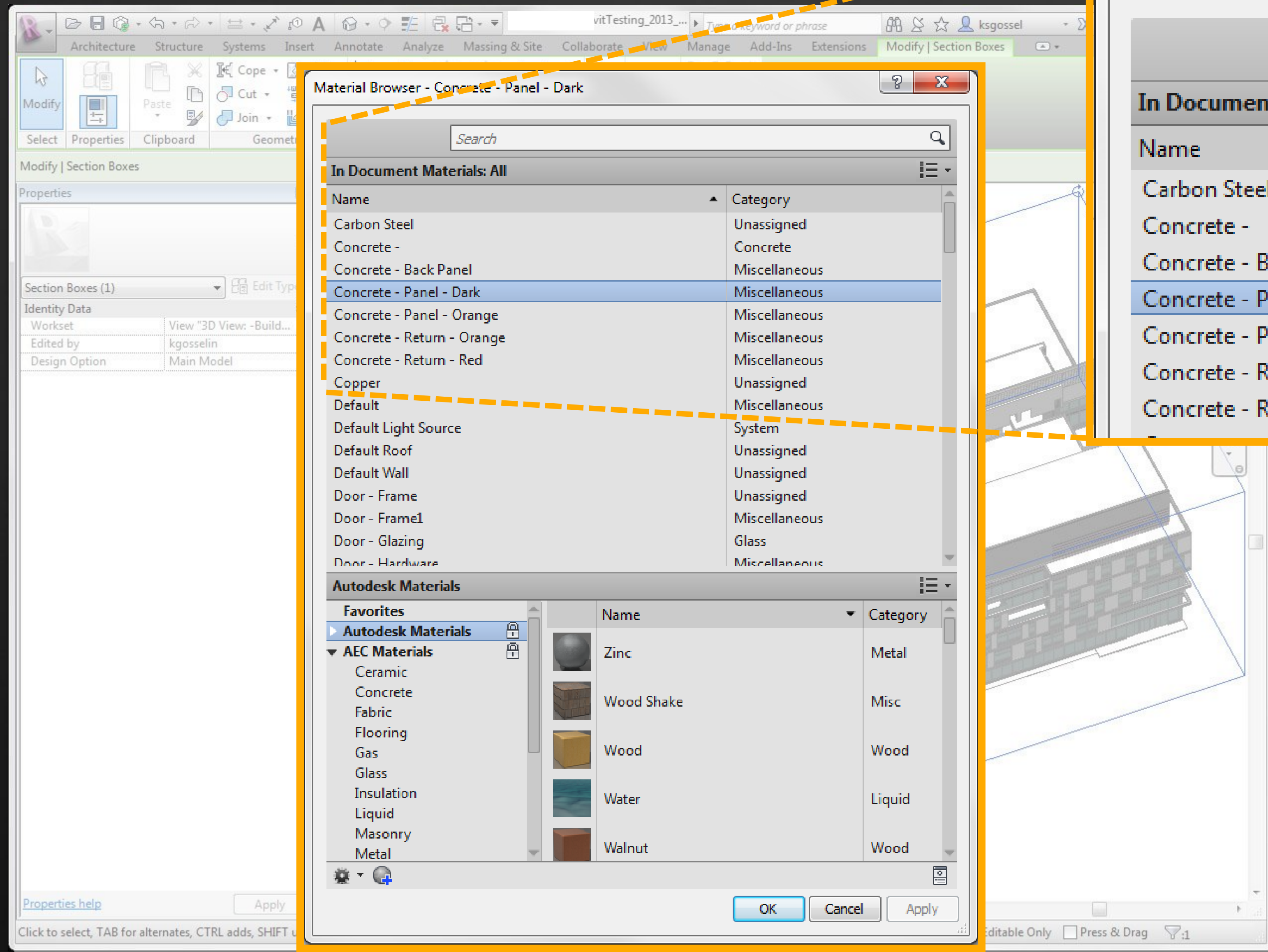


# View Creation – Multiple Links





# Materials

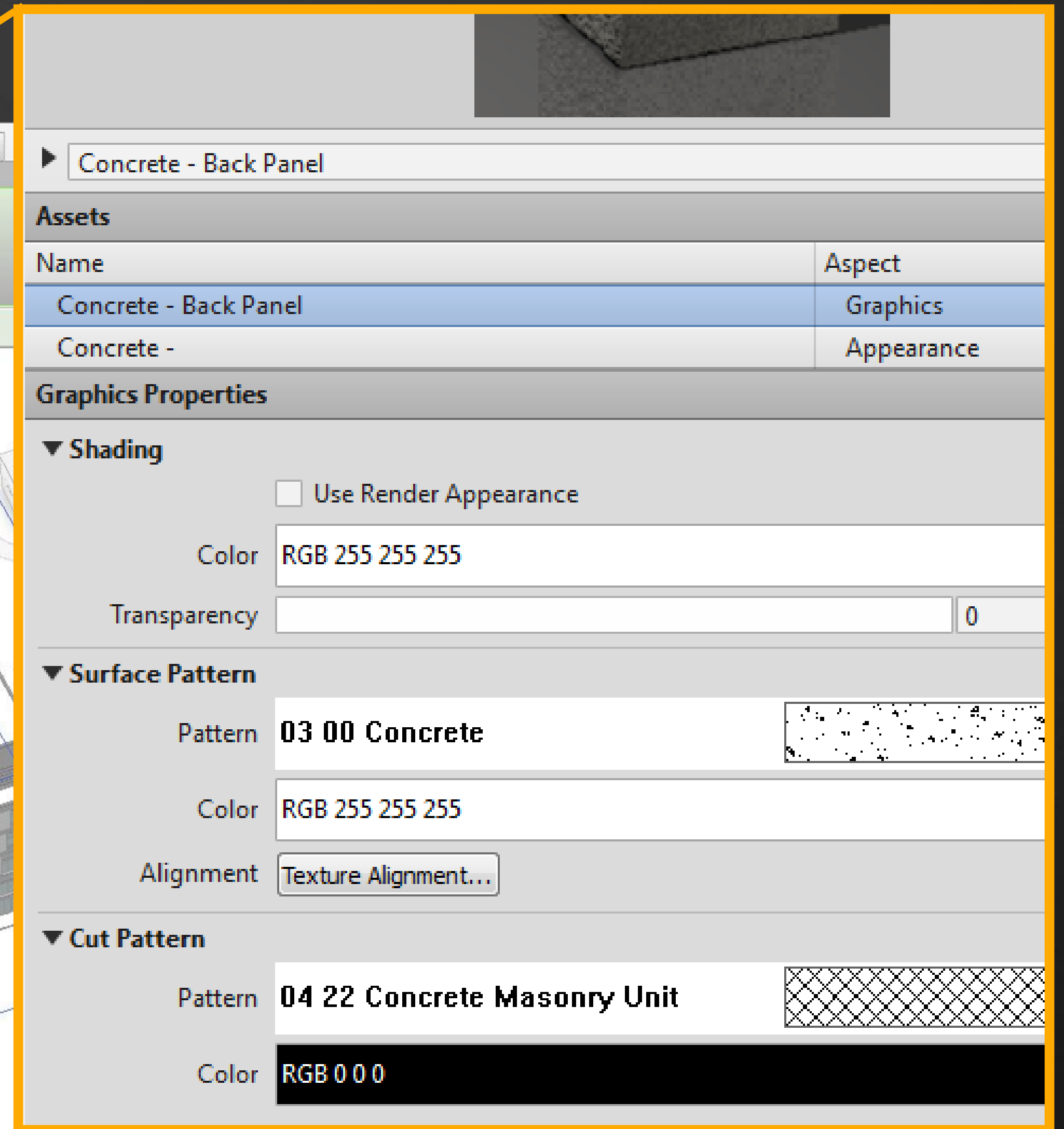
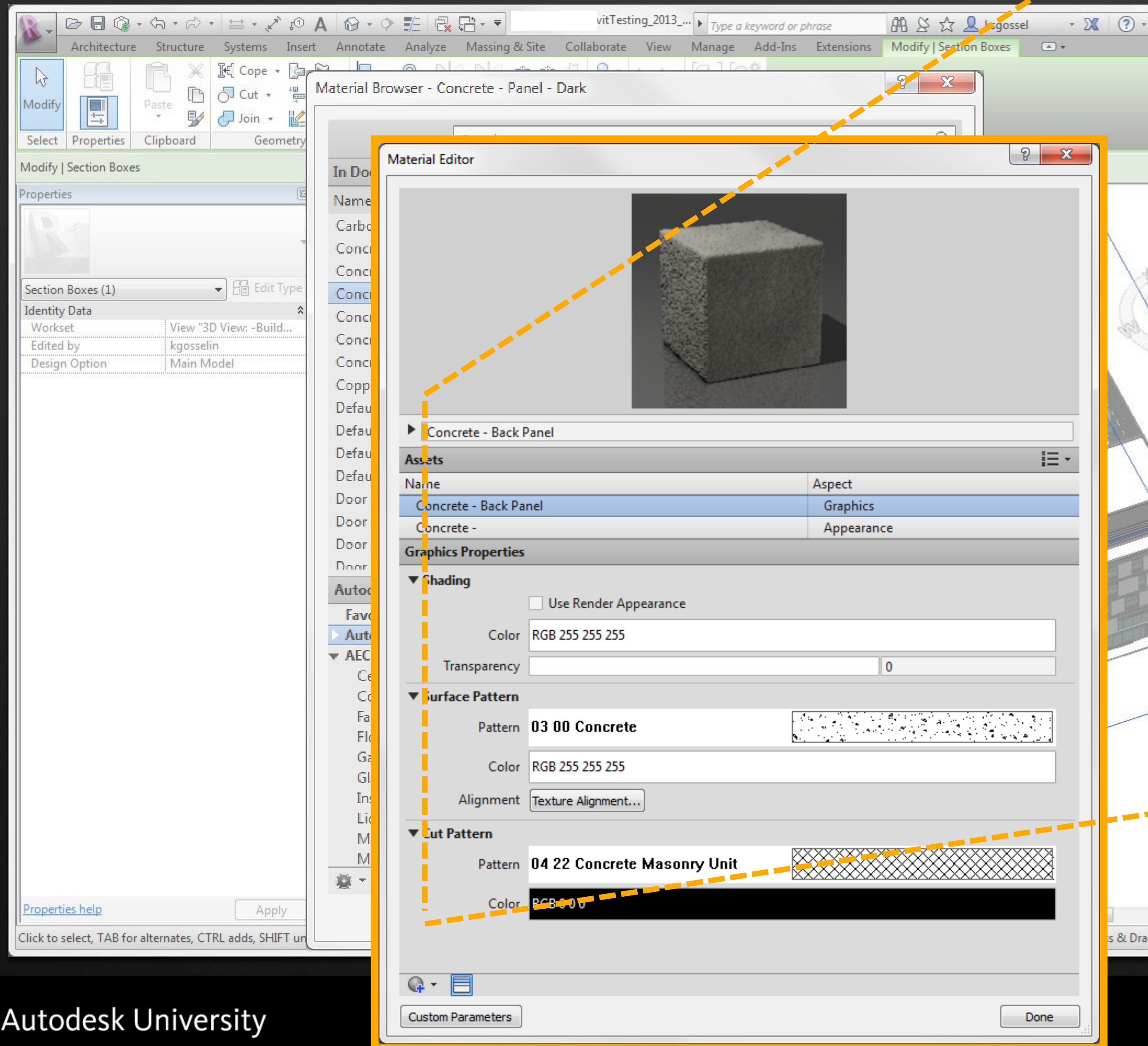


Material Browser - Concrete - Panel - Dark

Search	
In Document Materials: All	
Name	Category
Carbon Steel	Unassigned
Concrete -	Concrete
Concrete - Back Panel	Miscellaneous
Concrete - Panel - Dark	Miscellaneous
Concrete - Panel - Orange	Miscellaneous
Concrete - Return - Orange	Miscellaneous
Concrete - Return - Red	Miscellaneous

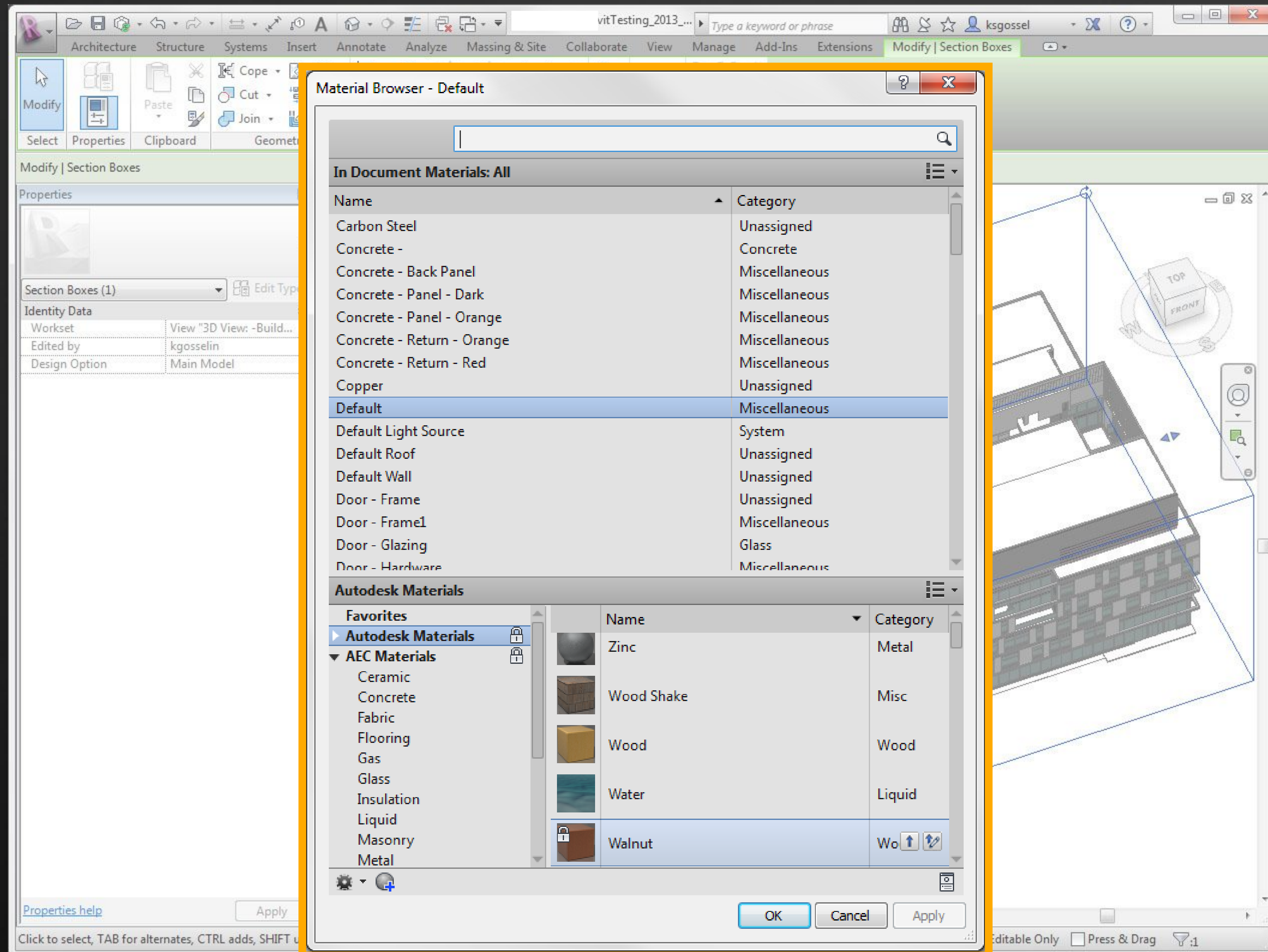


# Materials



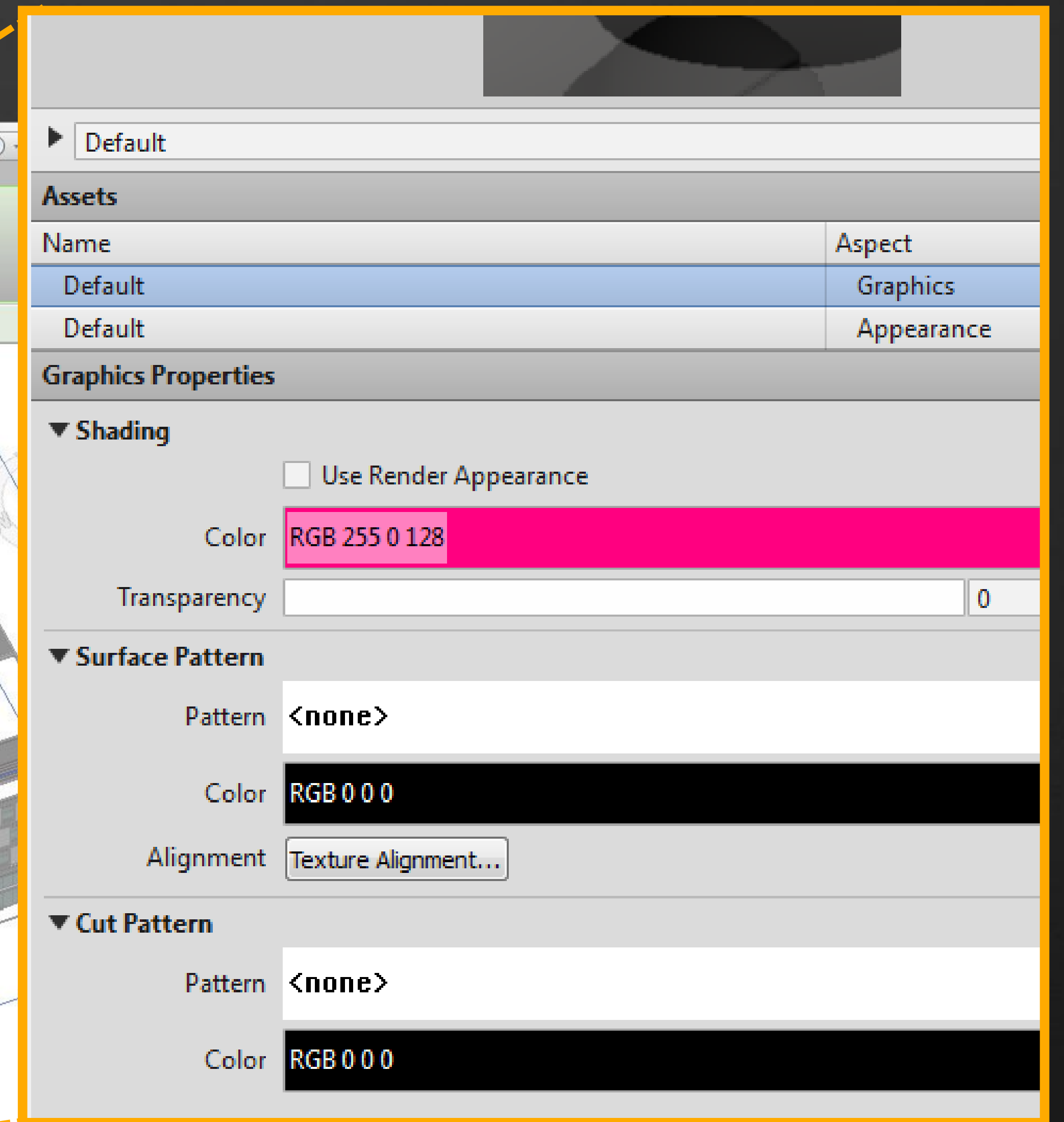
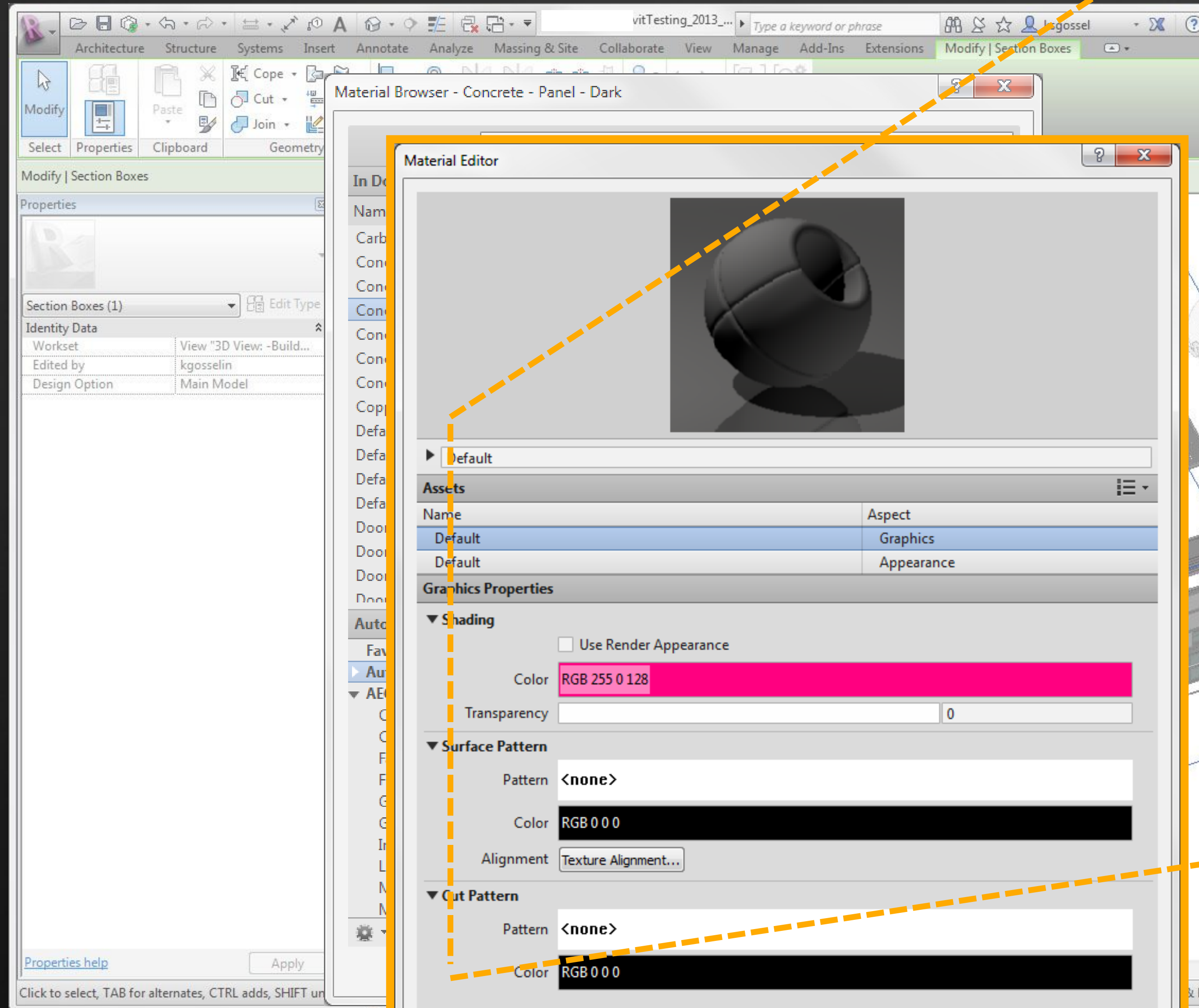


# Materials – “Check”



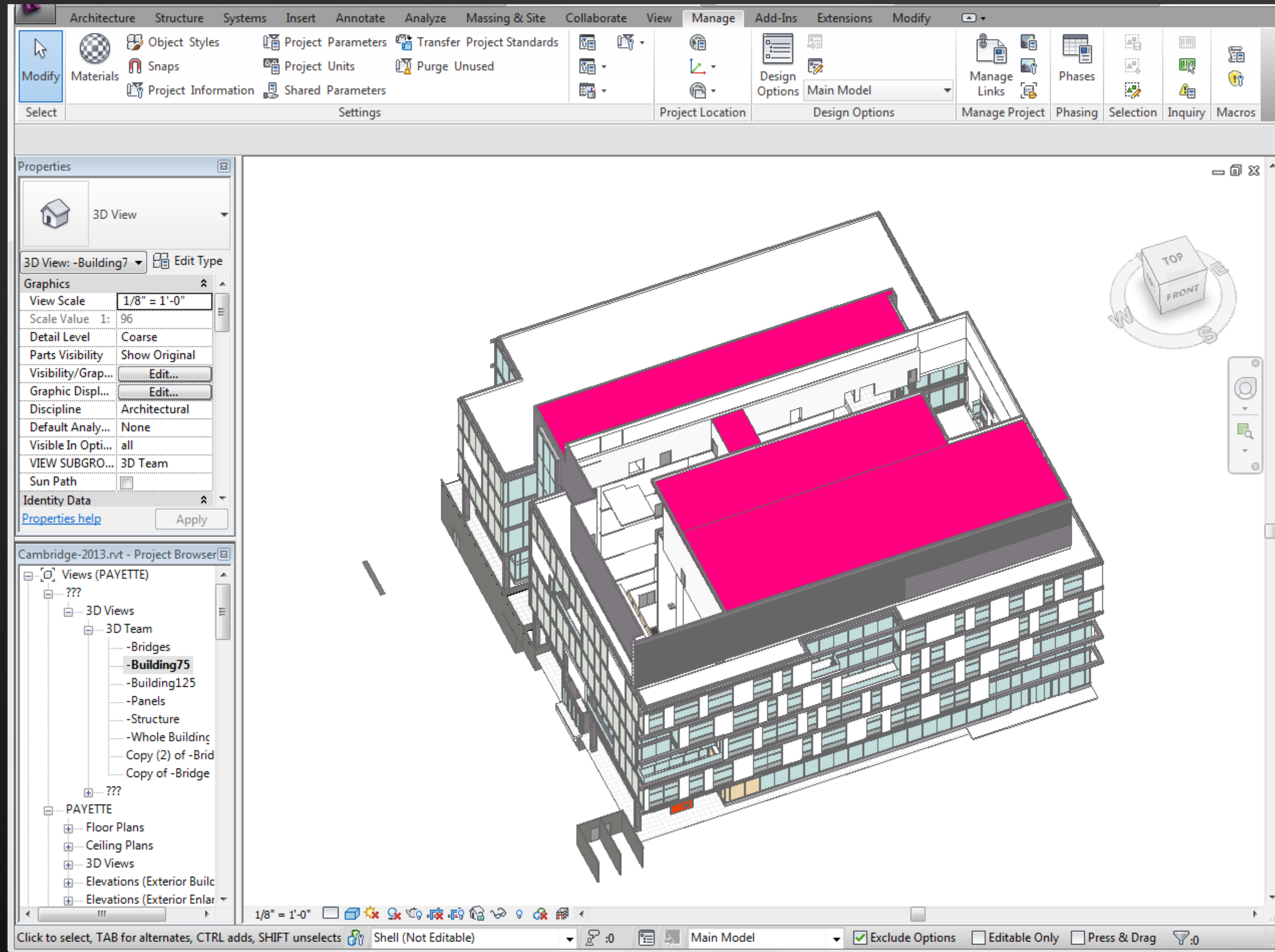


# Materials – “Check”





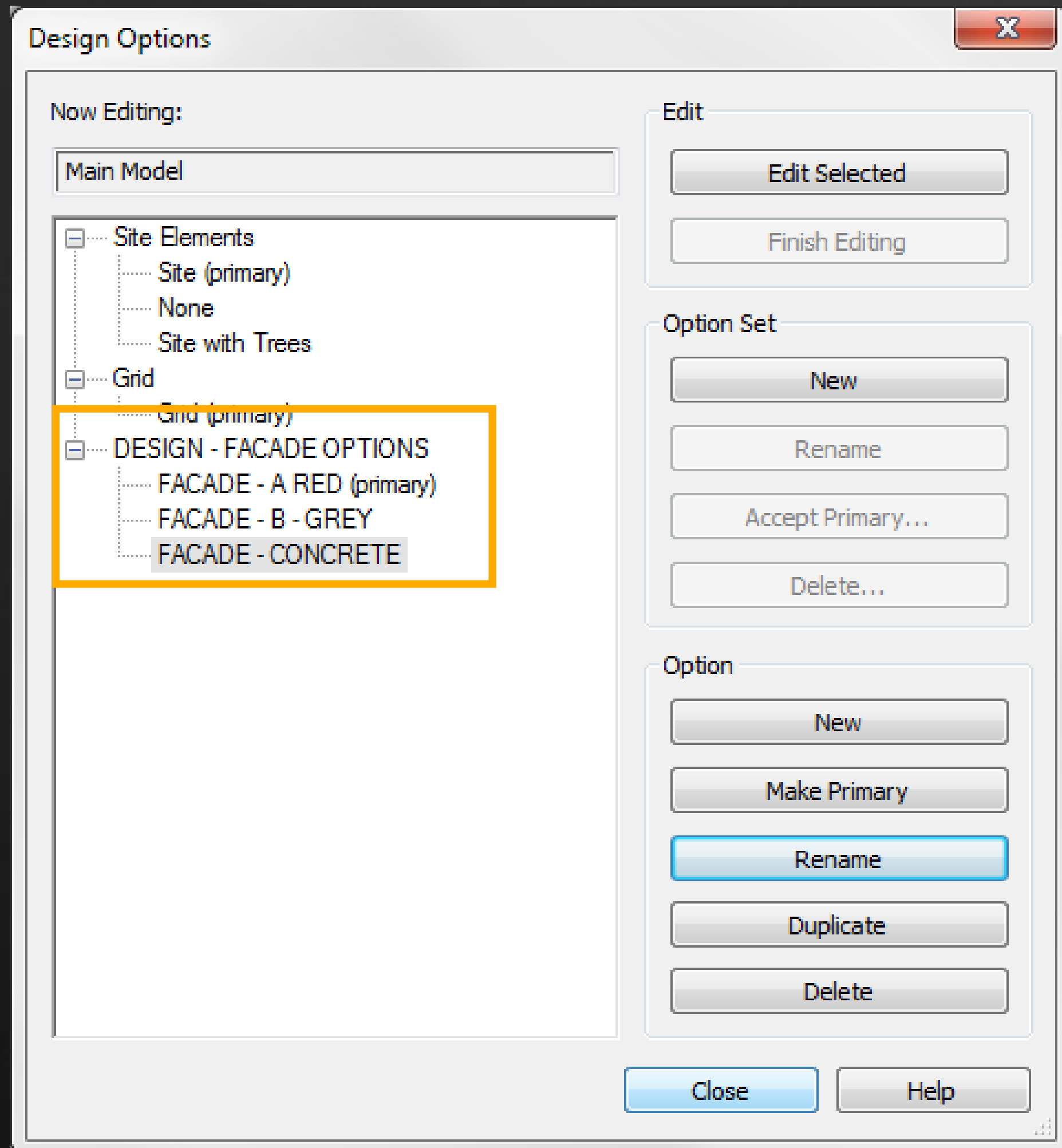
# Materials – “Check”





# Design Iterations

By Design Option





# Design Iterations

## By Workset

Worksets

Active workset:  
(Not Editable) Binney Shell and ☐ Gray Inactive Workset Graphics

Name	Editable	Owner	Borrowers	Opened	Visible in all views
Level 7	No			Yes	<input checked="" type="checkbox"/>
Level 12 Upper Penthouse	No			Yes	<input checked="" type="checkbox"/>
Level Roof	No			Yes	<input checked="" type="checkbox"/>
Linked CAD Drawings	No			Yes	<input checked="" type="checkbox"/>
Linked Revit Models - 6th Floor Mec	No			Yes	<input checked="" type="checkbox"/>
Linked Revit Models - Consultants	No			Yes	<input type="checkbox"/>
Linked Revit Models - Structural / Ex	No			Yes	<input checked="" type="checkbox"/>
Shared Levels and Grids	No			Yes	<input checked="" type="checkbox"/>
SITE	No			Yes	<input checked="" type="checkbox"/>
_3D GROUP	Yes	kgosselin		Yes	<input type="checkbox"/>

Show:  
☒ User-Created ☐ Project Standards  
☐ Families ☐ Views

New  
Delete  
Rename  
Open  
Close  
Editable  
Non Editable

OK Cancel Help





# Design Iterations

## By Phases

Phasing

Project Phases

Phase Filters

Graphic Overrides

PAST

	Name	Description
1	01 - EX	Existing
2	02 - TEMP	Temporary Construction
3	03 - DEMO	Demo Existing
4	04 - FOUNDATIONS	Early Package Foundations
5	05 - NEW	New Construction
6	06 - TENANT	Tenant Additions
7	ANNOTATION	

FUTURE

Insert

Before

After

Combine with:

Previous

Next

OK

Cancel

Apply

Help





# Design Iterations

## Copy/Paste

