

# **Revit Efficiency, we all want it - come and get it!**

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Practice Technology BIM Specialist

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Practice Technology Firmwide BIM Manager





# Cindy Wood

## Practice Technology BIM Manager

12 years of architecture related experience

2006 Graduated – Bachelor of Environment Design Studies

Dalhousie University, Halifax, NS, Canada

# Vickie Patel

## Practice Technology Firmwide BIM Manager

12 years of architecture related experience

2009 Graduated – Masters of Architecture

University of Texas @ Arlington

2007 Graduated – Bachelors of Env. Design

Texas A&M University



Everybody learns  
differently and everybody  
gets to a certain point  
from a different direction

Stan Lee

# We all know something, but no one knows everything

## LEARNING OBJECTIVE 1

There are many ways to complete tasks in Revit and sometimes there's a way that's faster than the one you're used to.

## LEARNING OBJECTIVE 2

Visibility graphics, filters, view templates, there's just so many ways to control the graphics of a view.

## LEARNING OBJECTIVE 3

So many buttons! Revit has so many buttons that maybe we don't take the time to explore them.

## LEARNING OBJECTIVE 4

There are a few ways to cheat your views, and no I don't mean with detail lines!

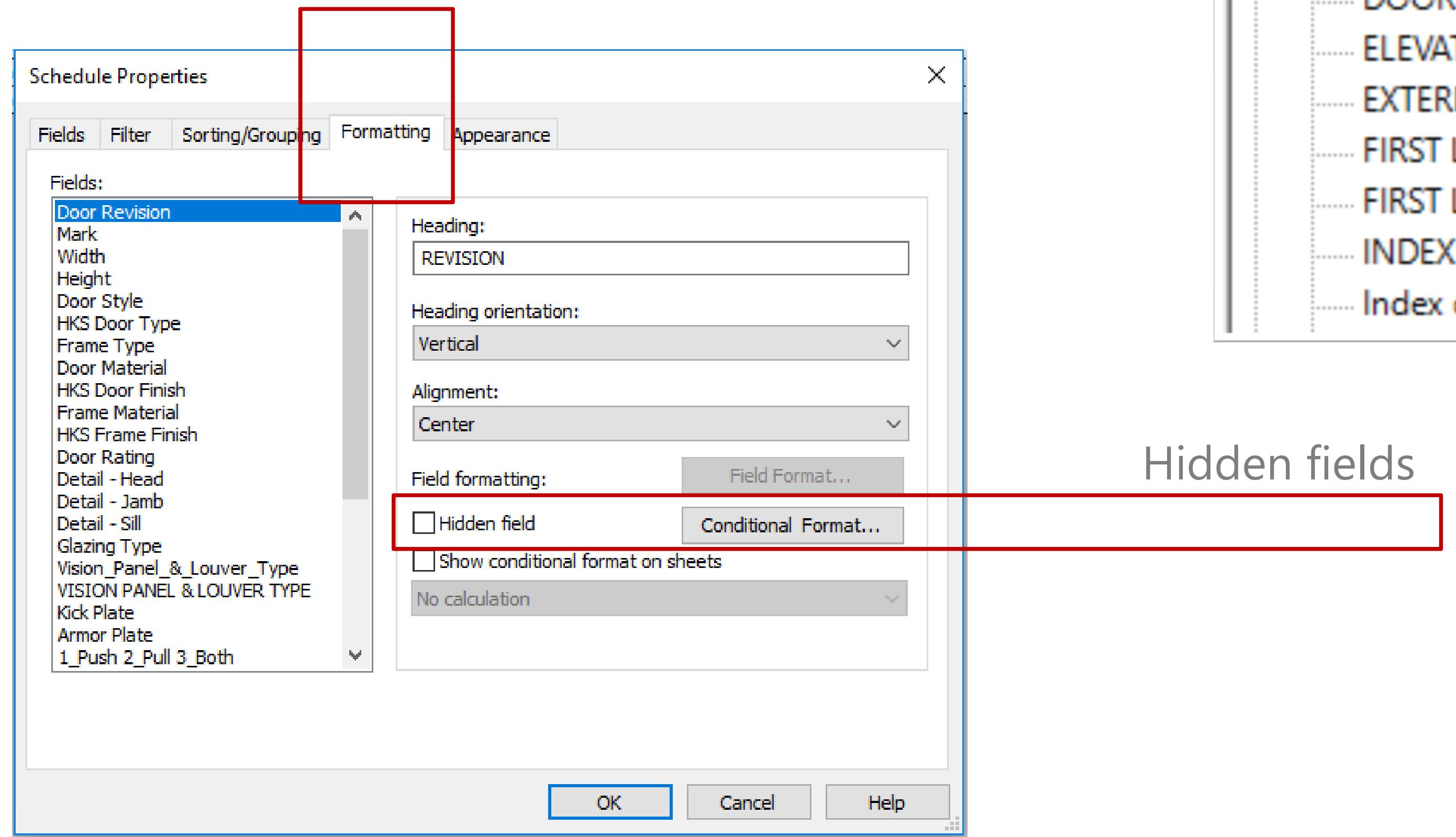
# Improving Efficiency



# Working Schedules

Schedule to be put on the sheetm

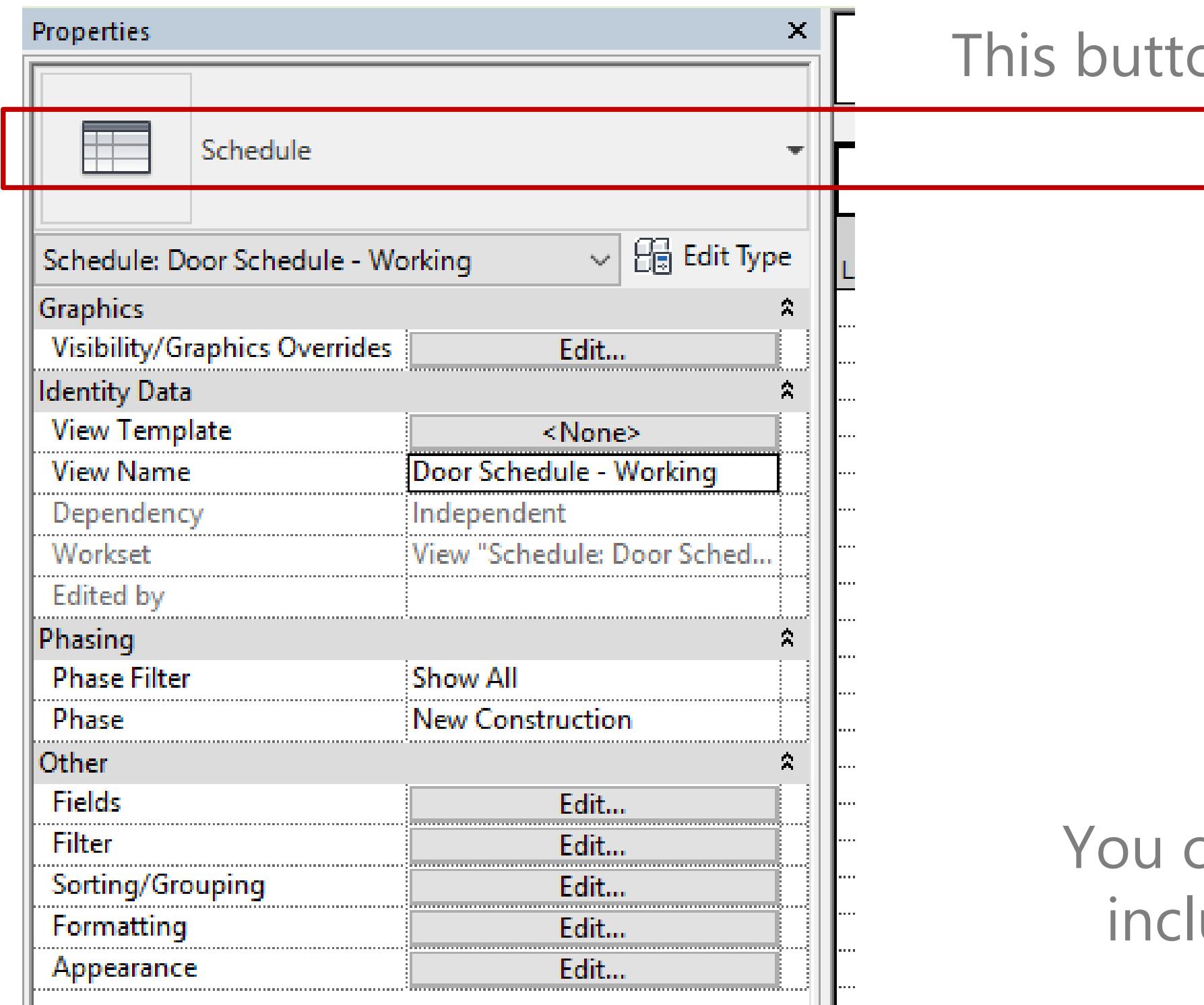
Schedule to work in (messy schedule)



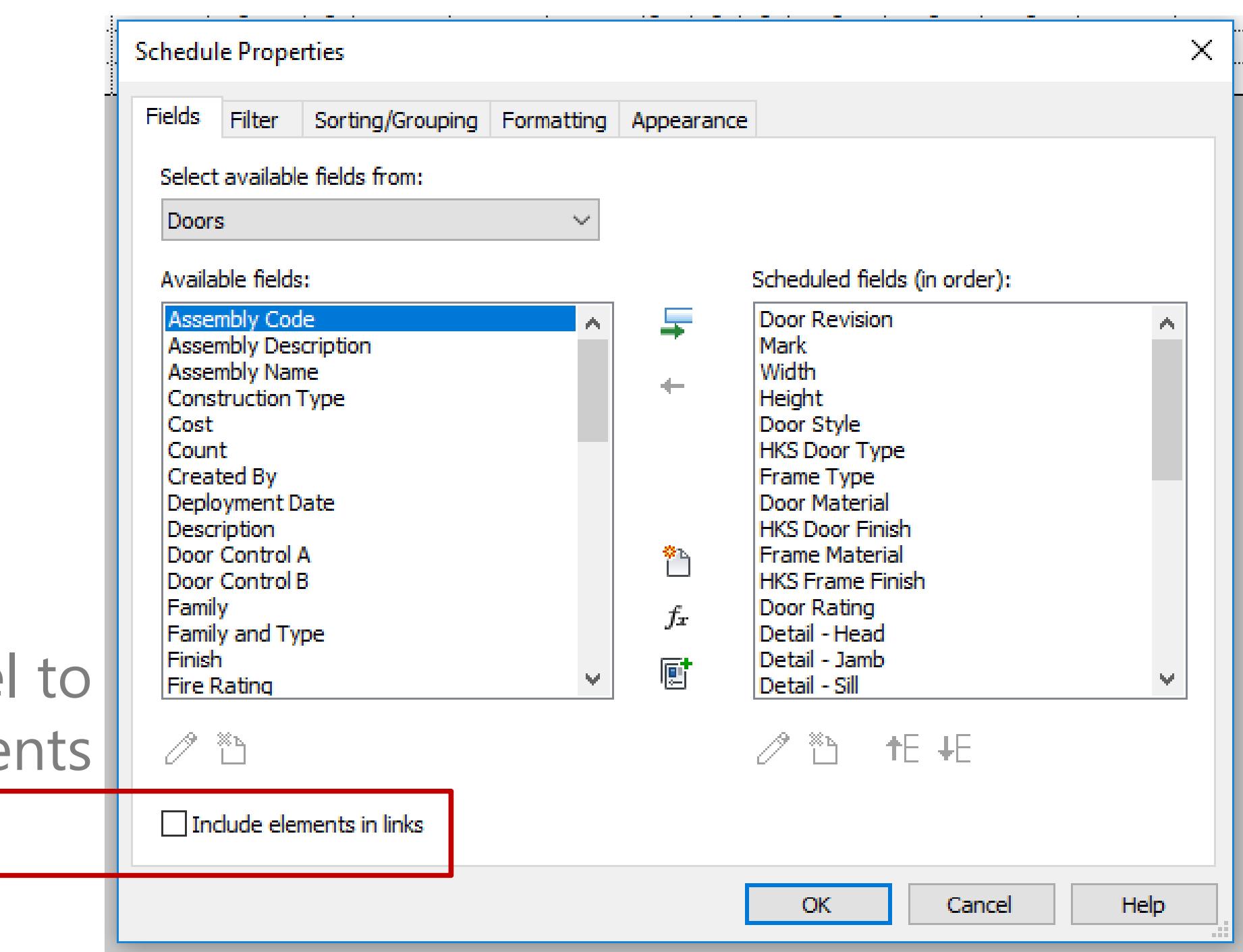
Hidden fields

# Visibility Graphics in Schedules

This button **ONLY** shows up when you have linked models



You can tell the model to include linked elements



# Key Schedules

Key Schedules will help fill out some parameters in your schedule faster

DOOR KEY SCHEDULE								
A	B	C	D	E	F	G	H	I
Key Name	Frame Type	Frame Material	Door Material	Detail - Head	Detail - Jamb	Detail - Sill	Security Rating	Comments
exterior	HM	MT01	HM	A3.21/01	A3.21/02	A3.21/03		
office	WD	WD01	WD	A3.21/04	A3.21/05	A3.21/06	-	-

Before applied to the schedule

<Door Schedule - Working>																		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
DOOR NUMBER	WIDTH	HEIGHT	Door Style	DOOR TYPE	FRAME TYPE	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	DOOR RATING	DETAILS				SECURITY	RATING	COMMENTS	
1.05 COLOR LEGENDS																		
101	4' - 0"	7' - 0"	(none)	A1			-		-	-				-	-			
102	4' - 0"	7' - 0"	(none)	A1			-		-	-				-	-			
103	4' - 0"	7' - 0"	(none)	A1			-		-	-				-	-			
104	4' - 0"	7' - 0"	(none)	A1			-		-	-				-	-			
105	4' - 0"	7' - 0"	(none)	A1			-		-	-				-	-			
106	4' - 0"	7' - 0"	(none)	A1			-		-	-				-	-			
Level 2																		
107	4' - 0"	7' - 0"	(none)	A1			-		-	-				-	-			

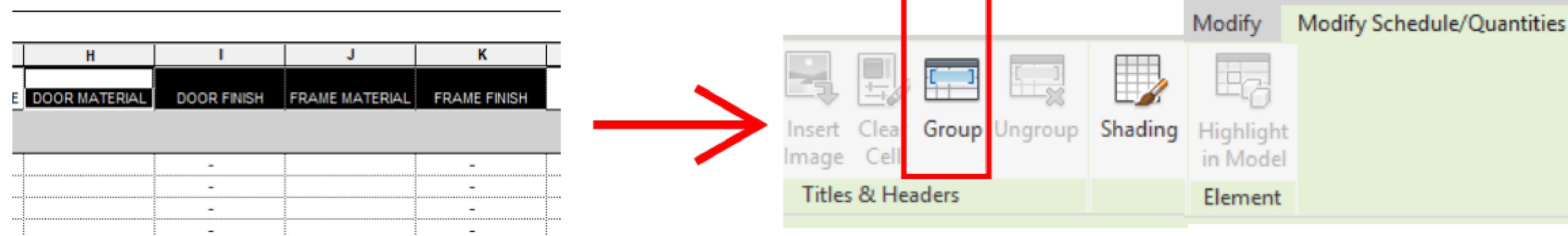
After these “door styles are applied it fills in SELECTIVE parameters

<Door Schedule - Working>																		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
DOOR NUMBER	WIDTH	HEIGHT	Door Style	DOOR TYPE	FRAME TYPE	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	DOOR RATING	DETAILS				SECURITY	RATING	COMMENTS	
1.05 COLOR LEGENDS																		
101	4' - 0"	7' - 0"	exterior	A1	HM	HM	-	MT01	-	-	A3.21/01	A3.21/02	A3.21/03	-	-			
102	4' - 0"	7' - 0"	exterior	A1	HM	HM	-	MT01	-	-	A3.21/01	A3.21/02	A3.21/03	-	-			
103	4' - 0"	7' - 0"	office	A1	WD	WD	-	WD01	-	-	A3.21/04	A3.21/05	A3.21/06	-	-	-	-	
104	4' - 0"	7' - 0"	office	A1	WD	WD	-	WD01	-	-	A3.21/04	A3.21/05	A3.21/06	-	-	-	-	
105	4' - 0"	7' - 0"	office	A1	WD	WD	-	WD01	-	-	A3.21/04	A3.21/05	A3.21/06	-	-	-	-	
106	4' - 0"	7' - 0"	exterior	A1	HM	HM	-	MT01	-	-	A3.21/01	A3.21/02	A3.21/03	-	-			
Level 2																		
107	4' - 0"	7' - 0"	exterior	A1	HM	HM	-	MT01	-	-	A3.21/01	A3.21/02	A3.21/03	-	-			

# Group Heading Schedule Columns

Key Schedules will help fill out some parameters in your schedule faster

If you highlight the columns, the group schedule option appears

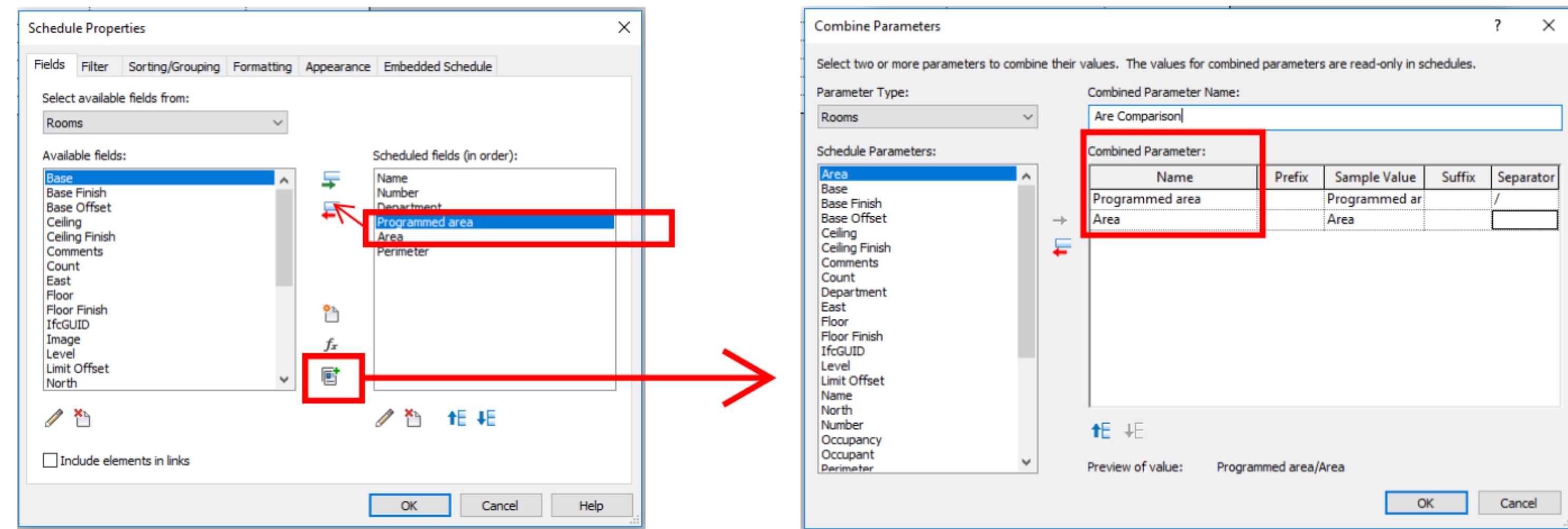


How the grouped schedule looks

	H	I	J	K
MATERIALS AND FINISHES				
E	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH

# Combining Schedule Parameters

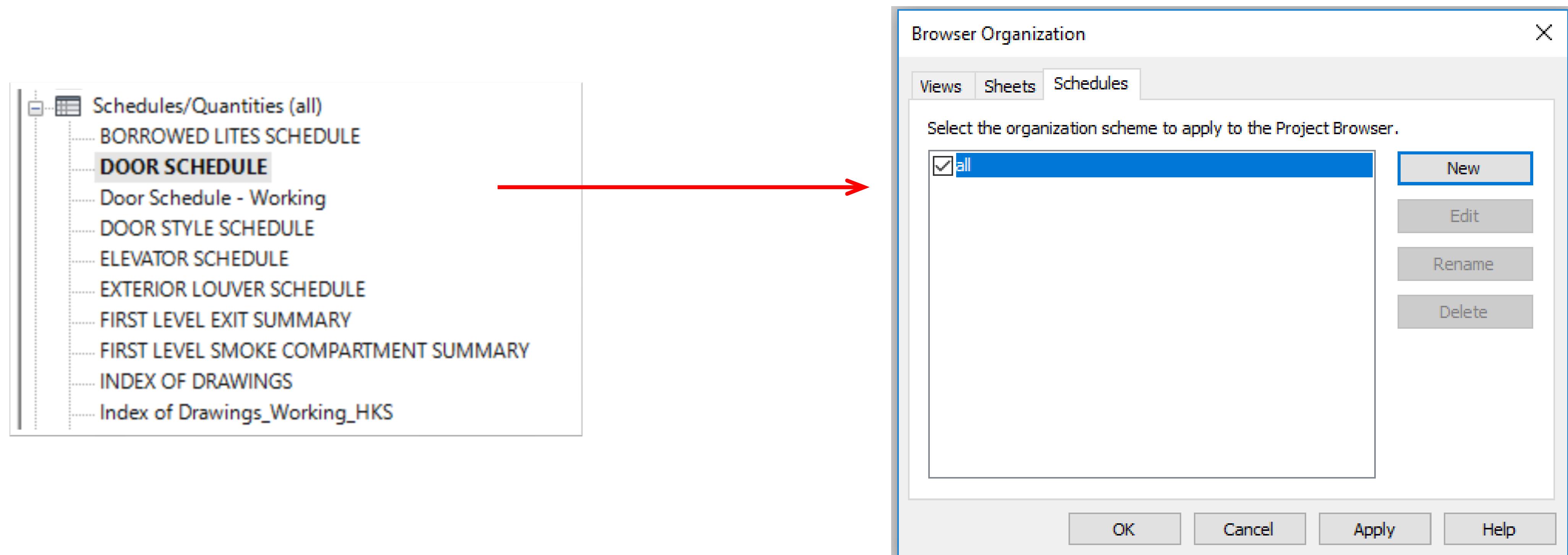
You might need to combine parameters to show up together for a certain reason like comparing areas.



<_1.04B COMBINE PARAMETERS>					
A	B	C	D	E	F
Name	Number	Department	Programmed area	Area	Perimeter
Room	101		2000	2232 SF	188' - 11 5/8"
Room	102		500	476 SF	104' - 4 1/2"
Room	103		800	816 SF	116' - 3 3/8"
Room	104		800	830 SF	117' - 1 1/8"
Room	105		75	74 SF	36' - 2 1/4"
Room	106		150	157 SF	50' - 2 1/4"
			4585 SF	613' - 1 1/8"	

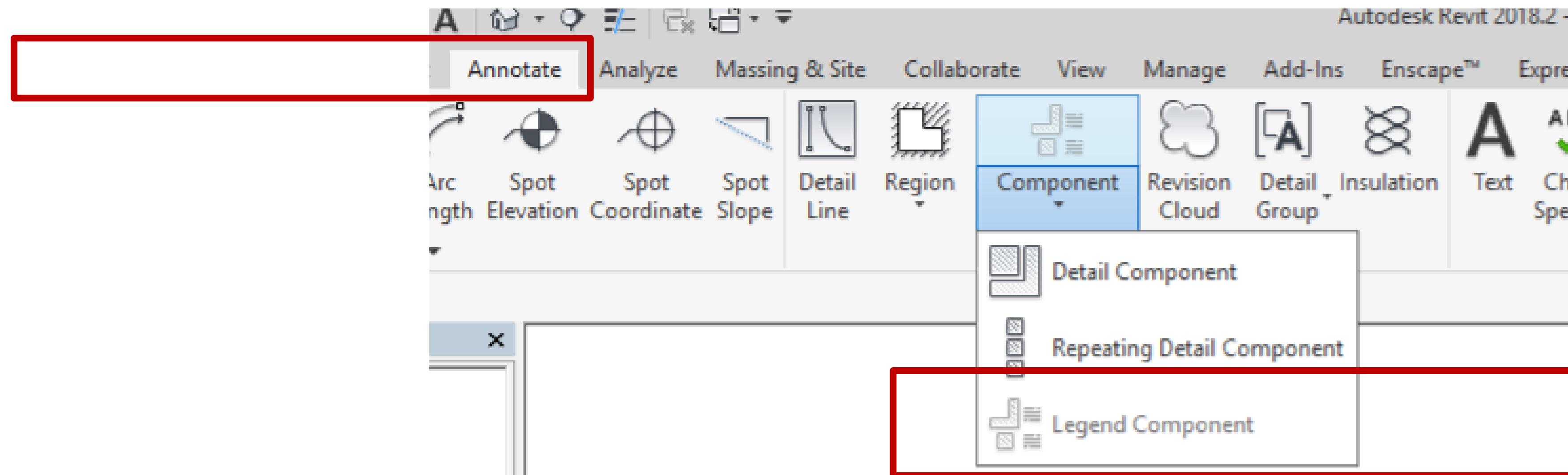
<_1.04B COMBINE PARAMETERS>					
A	B	C	D	E	F
Name	Number	Department	Perimeter	Area Comparison	
Room	101		188' - 11 5/8"	2000/2232 SF	
Room	102		104' - 4 1/2"	500/476 SF	
Room	103		116' - 3 3/8"	800/816 SF	
Room	104		117' - 1 1/8"	800/830 SF	
Room	105		36' - 2 1/4"	75/74 SF	
Room	106		50' - 2 1/4"	150/157 SF	
			613' - 1 1/8"		

# Organizing Schedules – one of the best things to happen in 2018!!



NEW in Revit 2018.1!!

# Legend Components

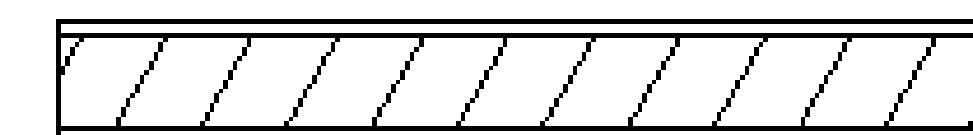
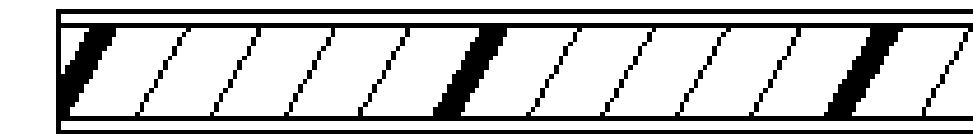
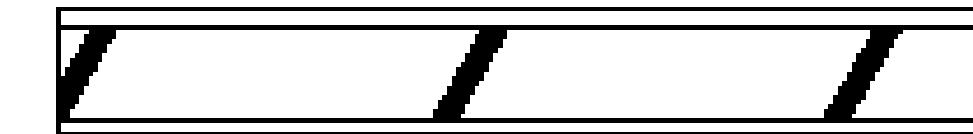
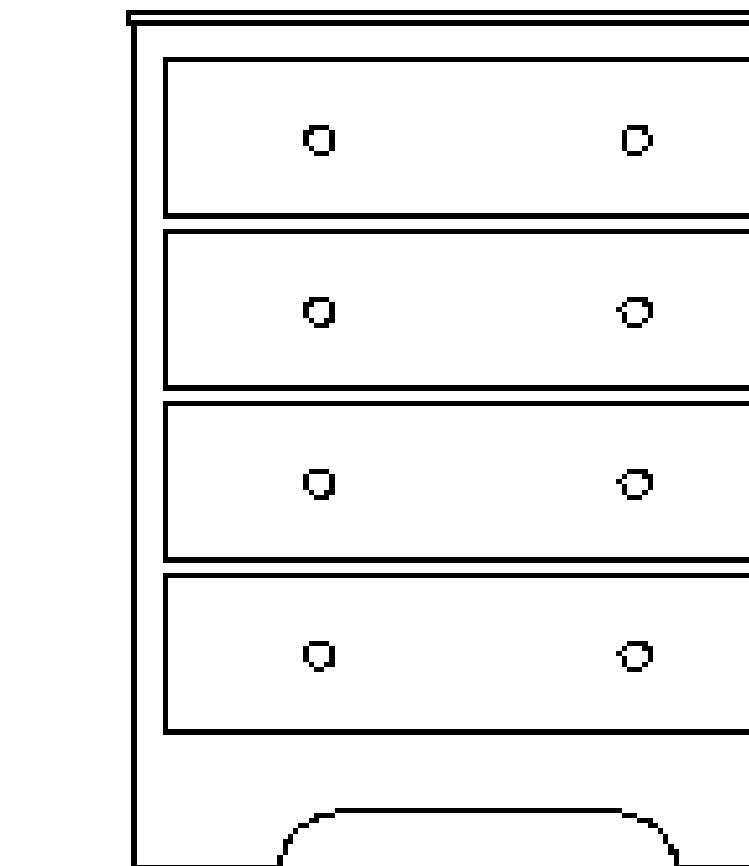
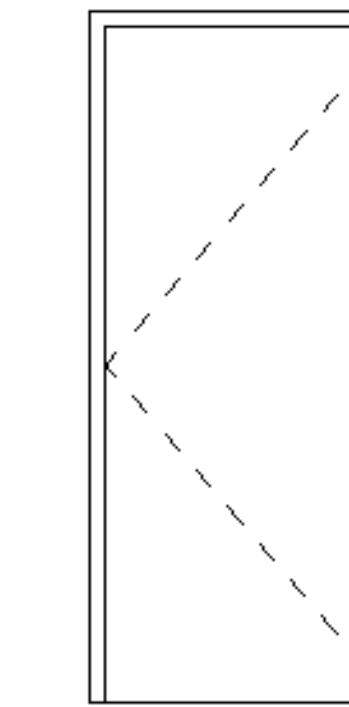
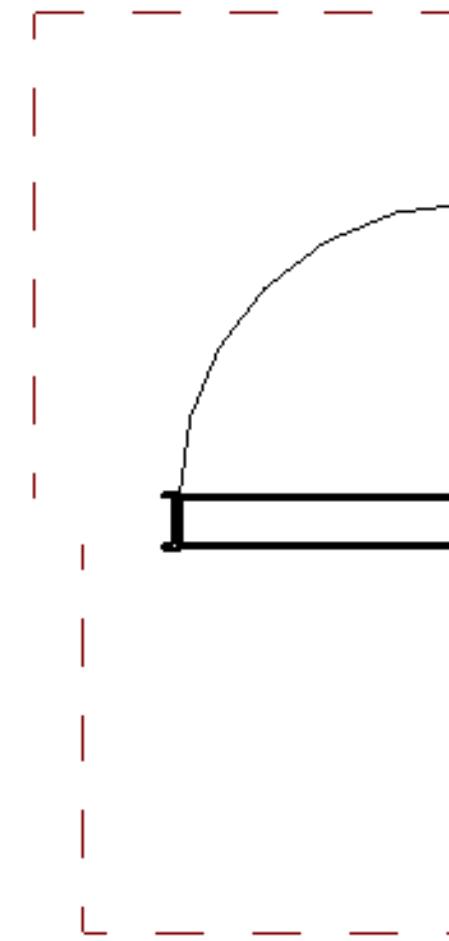
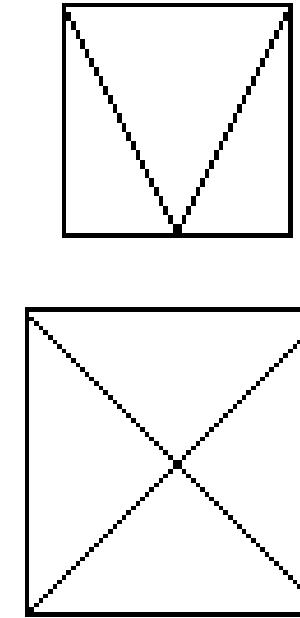
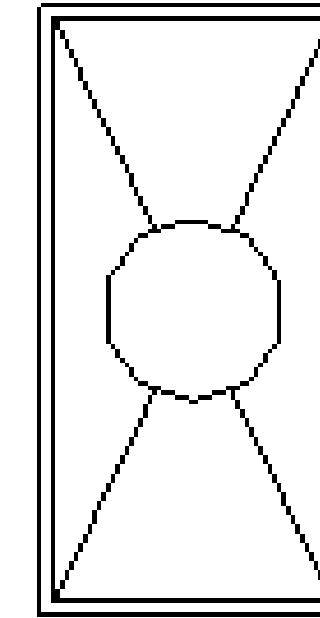


RCP Legend

Doors

Furniture

Walls

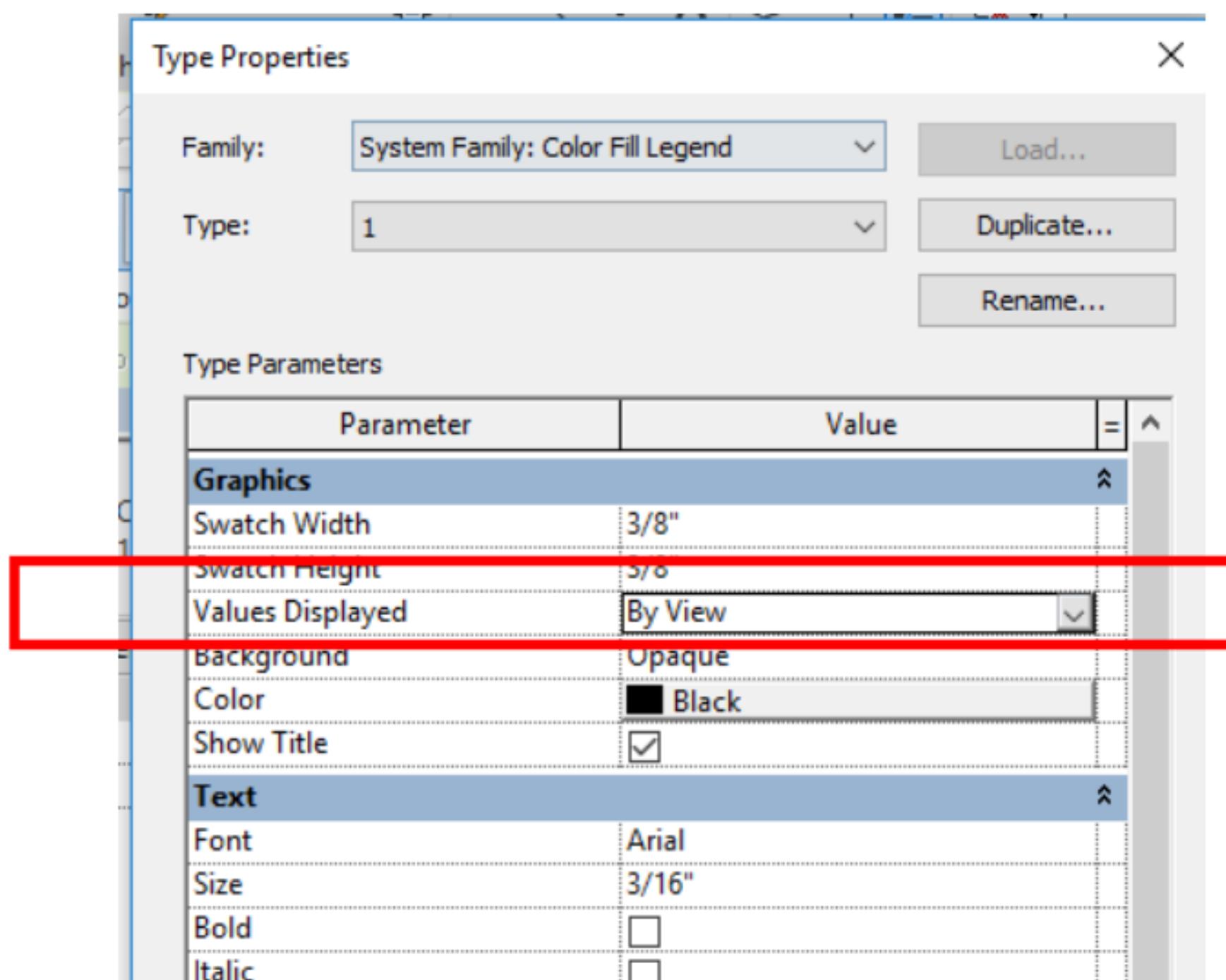


# Color Schedules

You don't have to just show all the colors in your legend, you can have it be specific to your view.

Color Palette

- Auxiliary Color
- BOH
- Building Services
- Circulation
- Core
- Diagnostic/Treatment
- Hallway
- Hotel
- Lease Space
- Outpatient Clinics
- Patient Care Units
- Public/Administrative
- Vertical Circulation



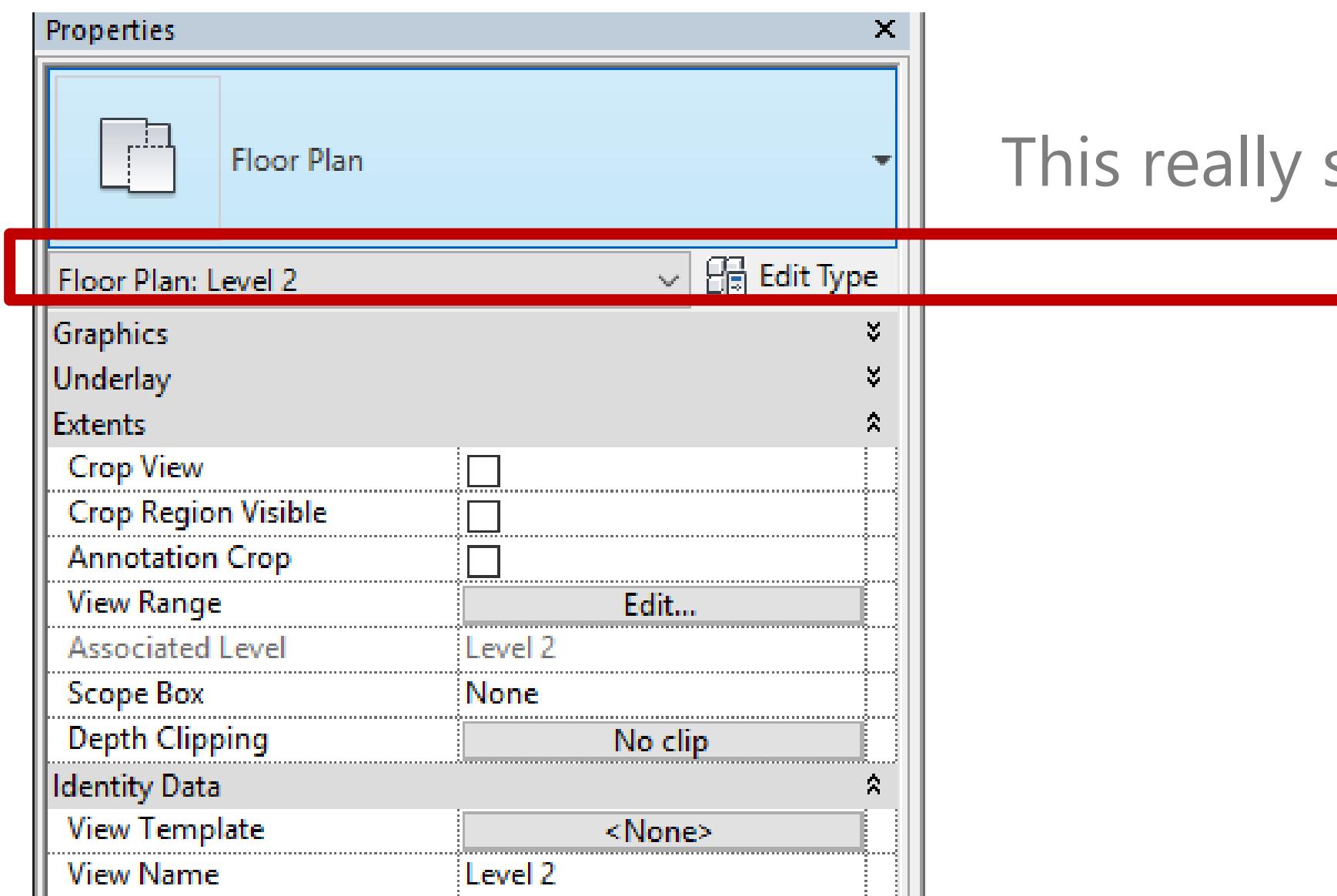
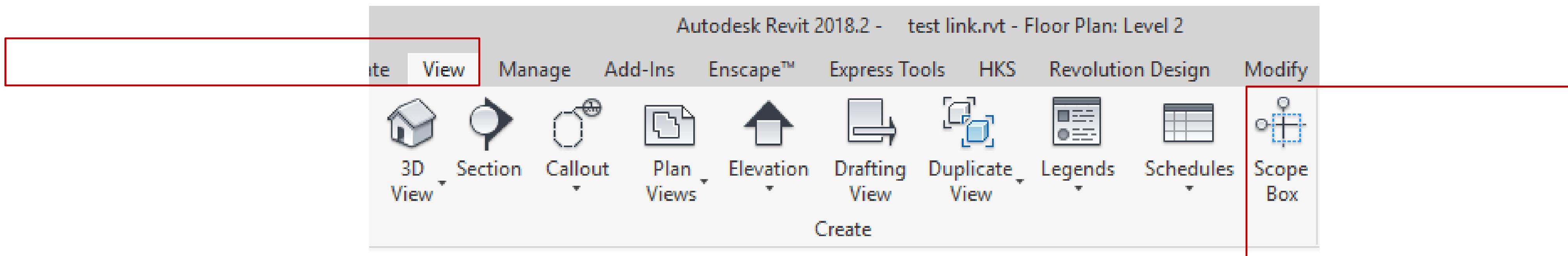
Color Palette

- BOH
- Building Services
- Core
- Hallway
- Hotel
- Lease Space

# Controlling visual graphics



# Scope Boxes

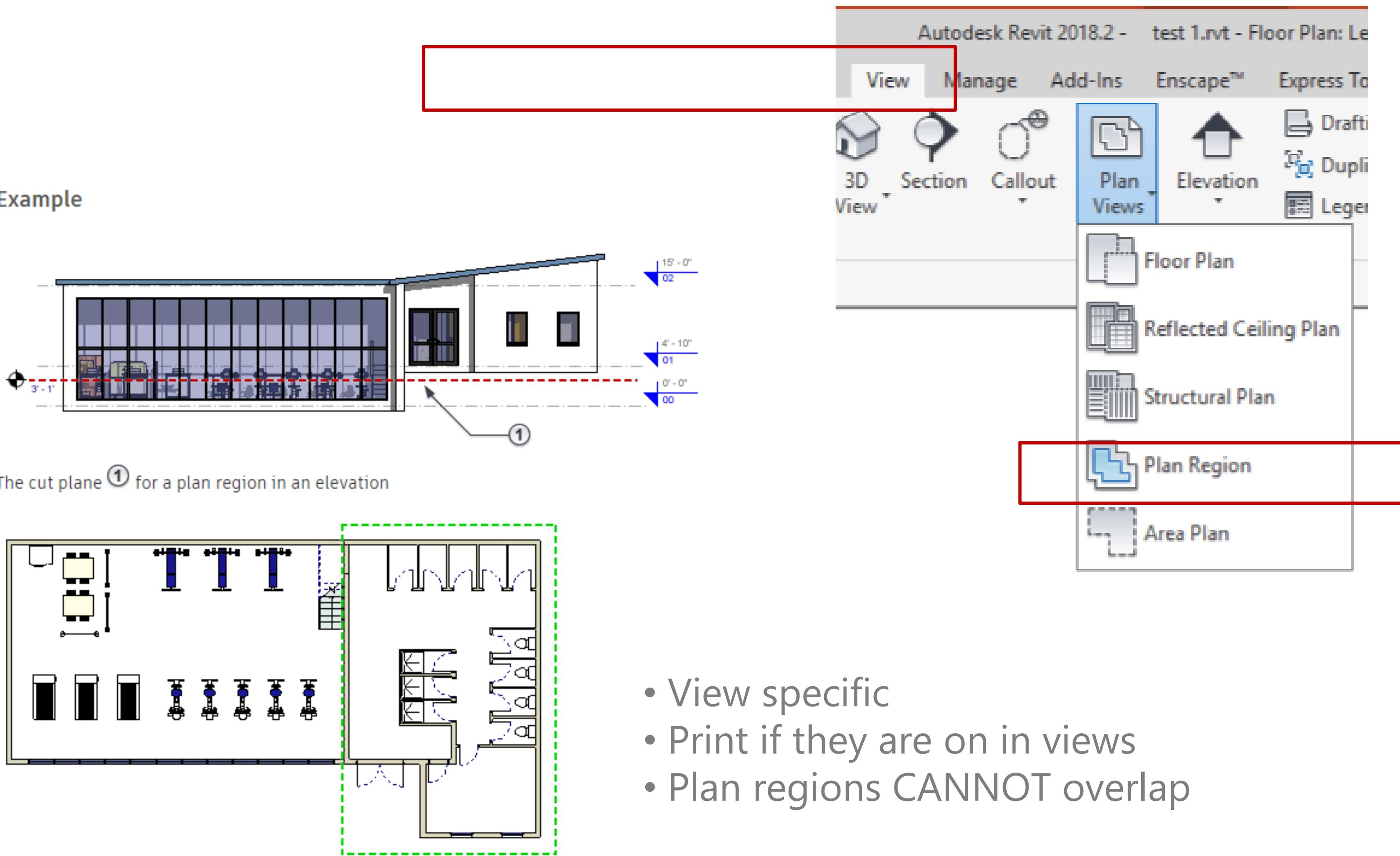


This really saves so much time for cropping on many views

- Don't mess around with adjusting crop to match in multiple views
- These are default OFF in views
- Easily control sector plans

# Plan Regions

## Example



Use when you need to have multiple cut planes in a single view

- Stairs
- Windows above
- Mezzanines

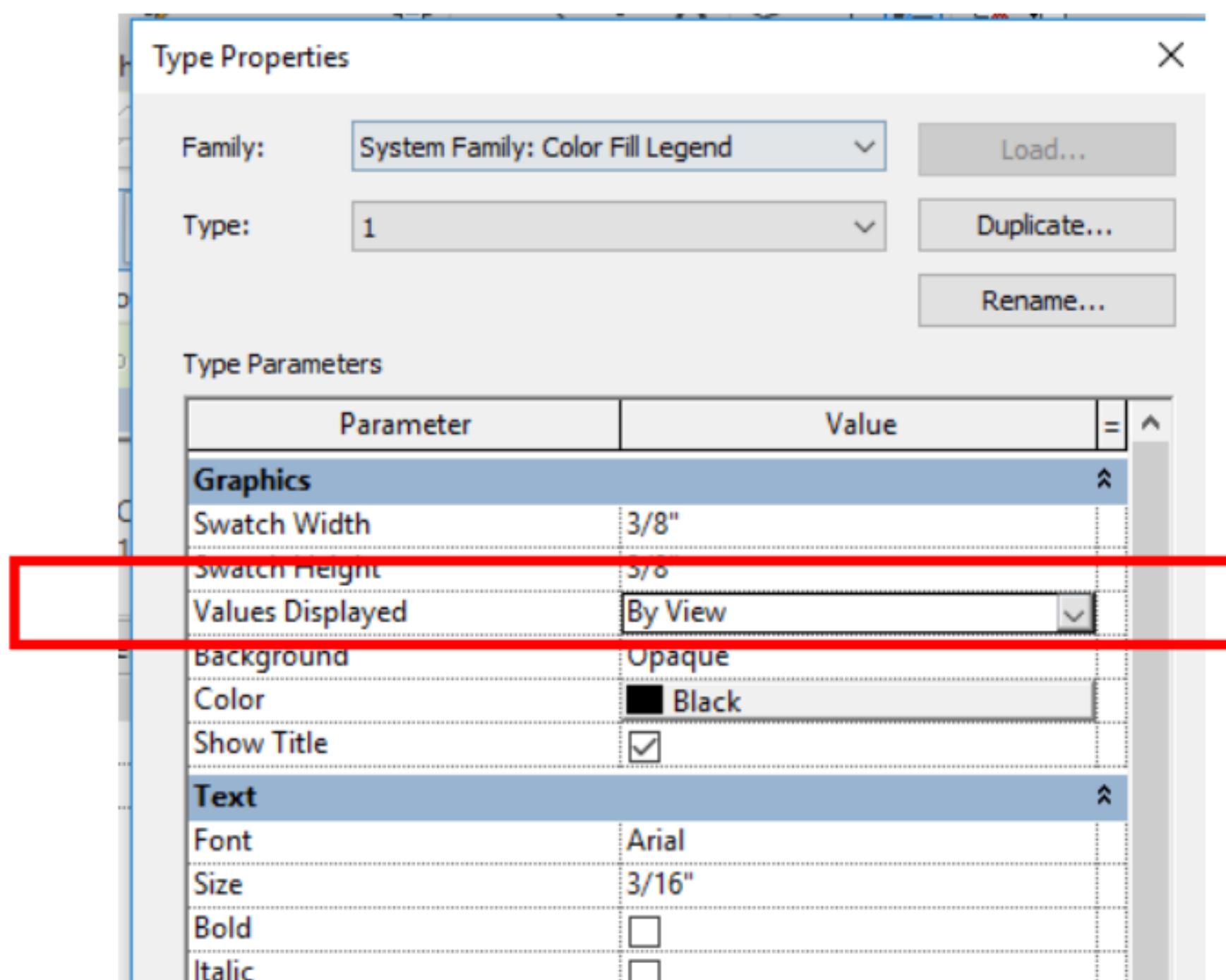
- View specific
- Print if they are on in views
- Plan regions CANNOT overlap

# Color Schedules

You don't have to just show all the colors in your legend, you can have it be specific to your view.

Color Palette

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- Circulation
- Core
- Diagnostic/Treatment
- Hallway
- Hotel
- Lease Space
- Outpatient Clinics
- Patient Care Units
- Public/Administrative
- Vertical Circulation

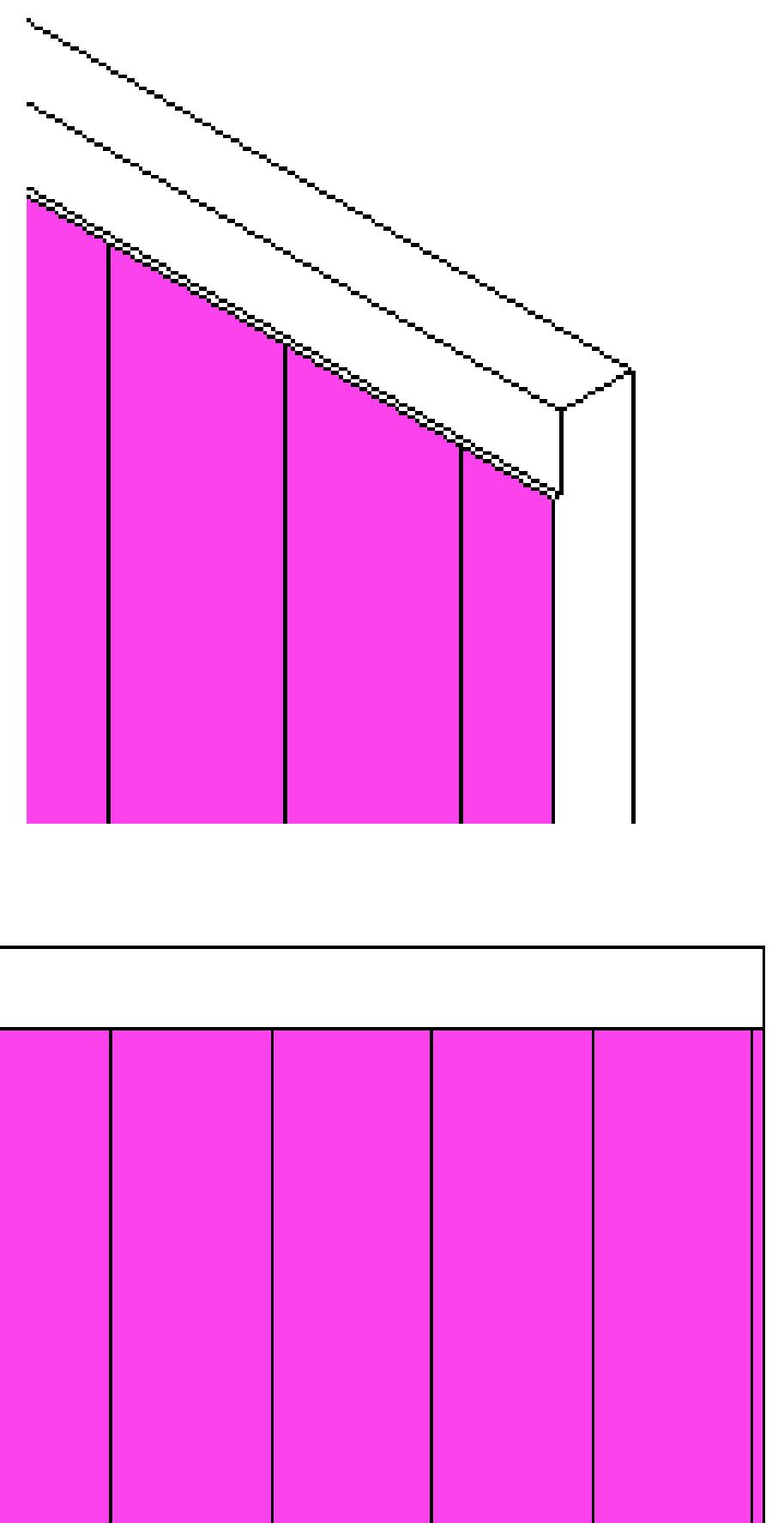
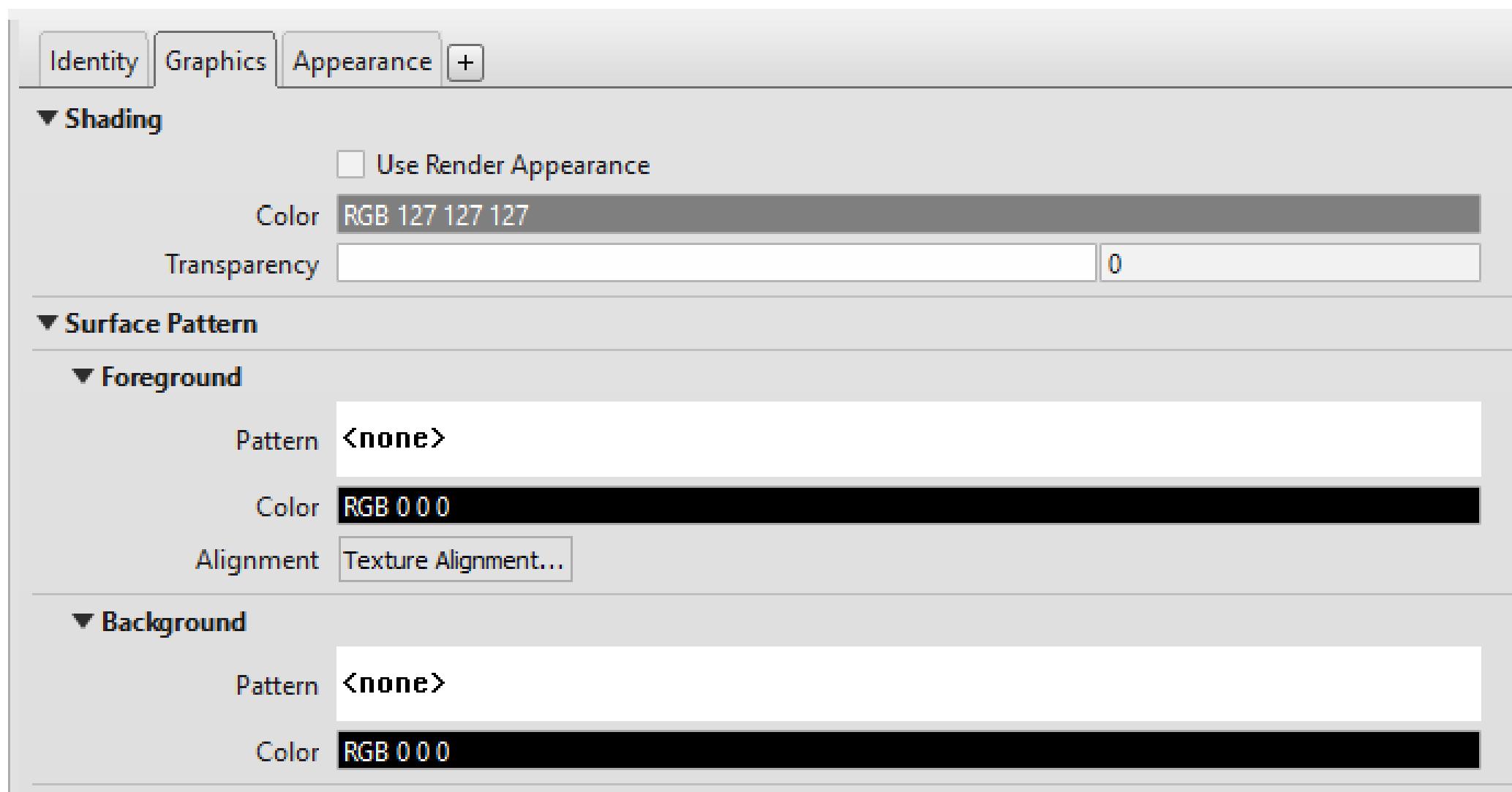


Color Palette

- BOH
- Building Services
- Core
- Hallway
- Hotel
- Lease Space

# 2 Patterns on one surface!

You don't have to just show all the colors in your legend, you can have it be specific to your view.

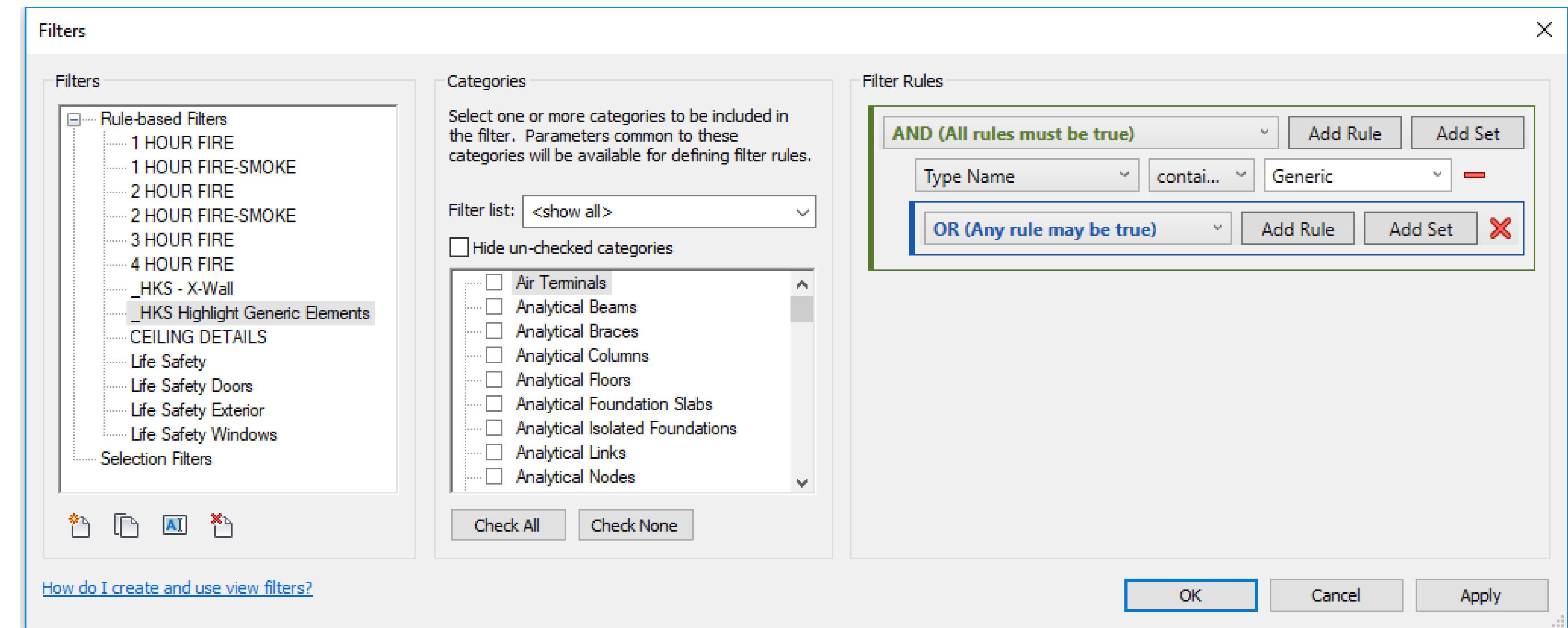


NEW in Revit 2019!!!

# New Filter Conditions

Most people used to put the and condition like an or condition and couldn't figure out why it didn't work.

GREEN for AND rules  
BLUE for OR rules



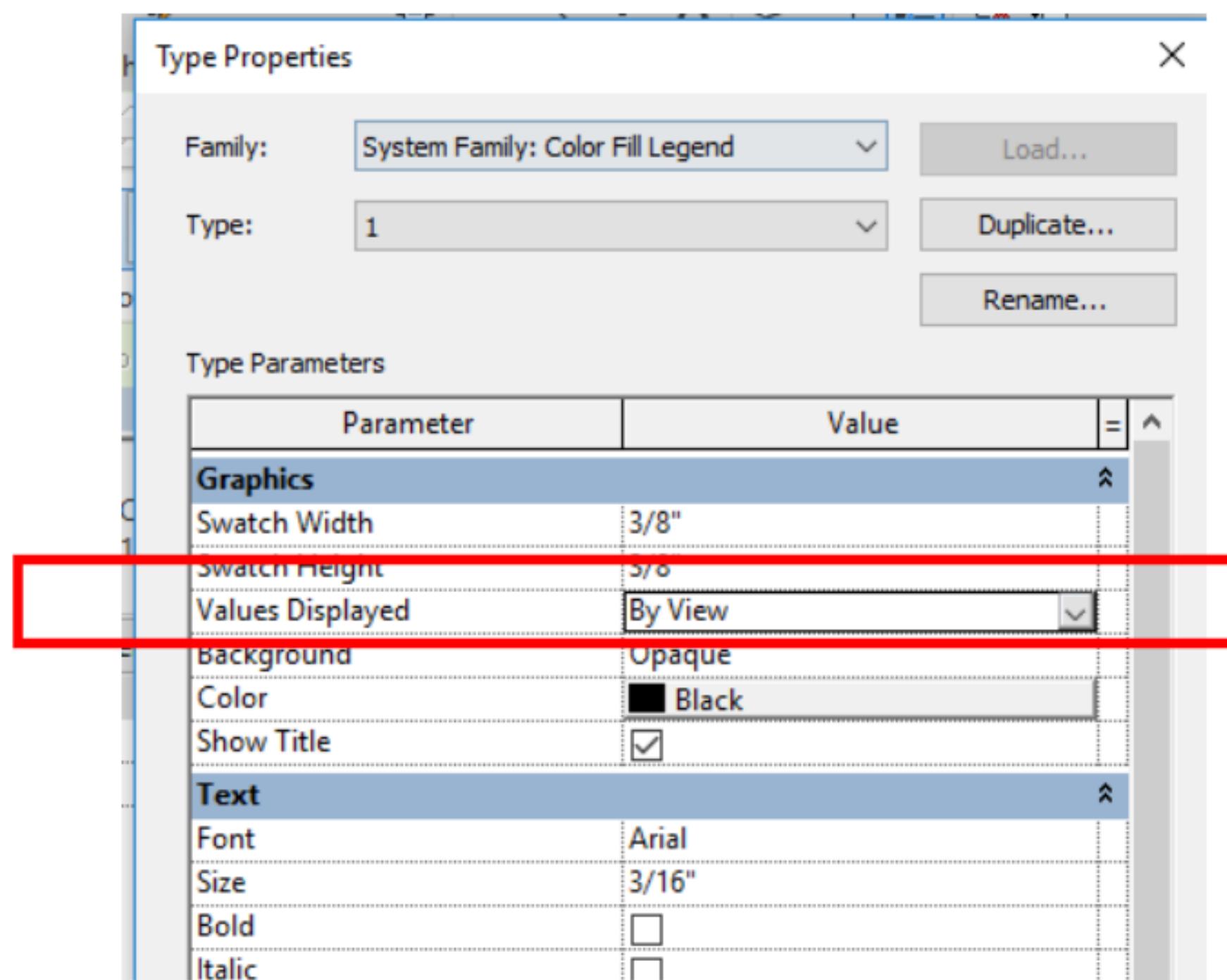
NEW in Revit 2019!!!

# Color Schedules

You don't have to just show all the colors in your legend, you can have it be specific to your view.

Color Palette

- Auxiliary Color
- BOH
- Building Services
- Circulation
- Core
- Diagnostic/Treatment
- Hallway
- Hotel
- Lease Space
- Outpatient Clinics
- Patient Care Units
- Public/Administrative
- Vertical Circulation



Color Palette

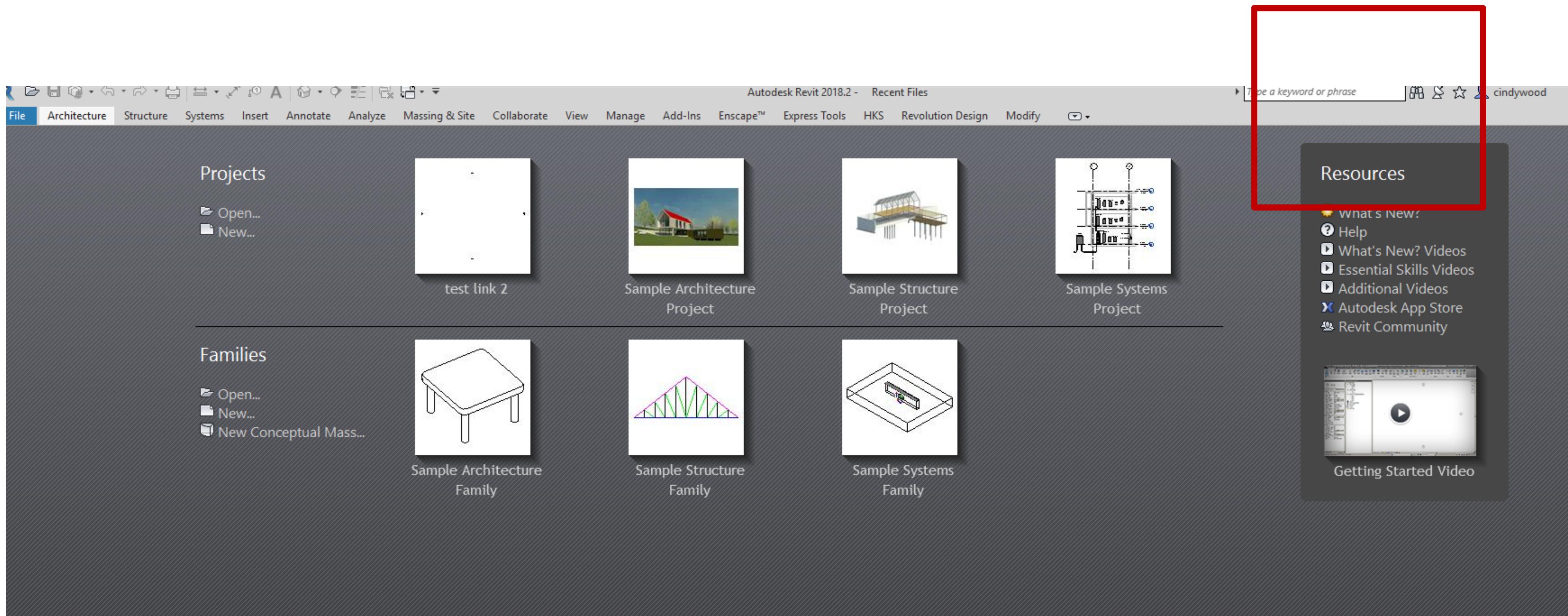
- BOH
- Building Services
- Core
- Hallway
- Hotel
- Lease Space

**WAIT.....That button does WHAT????**



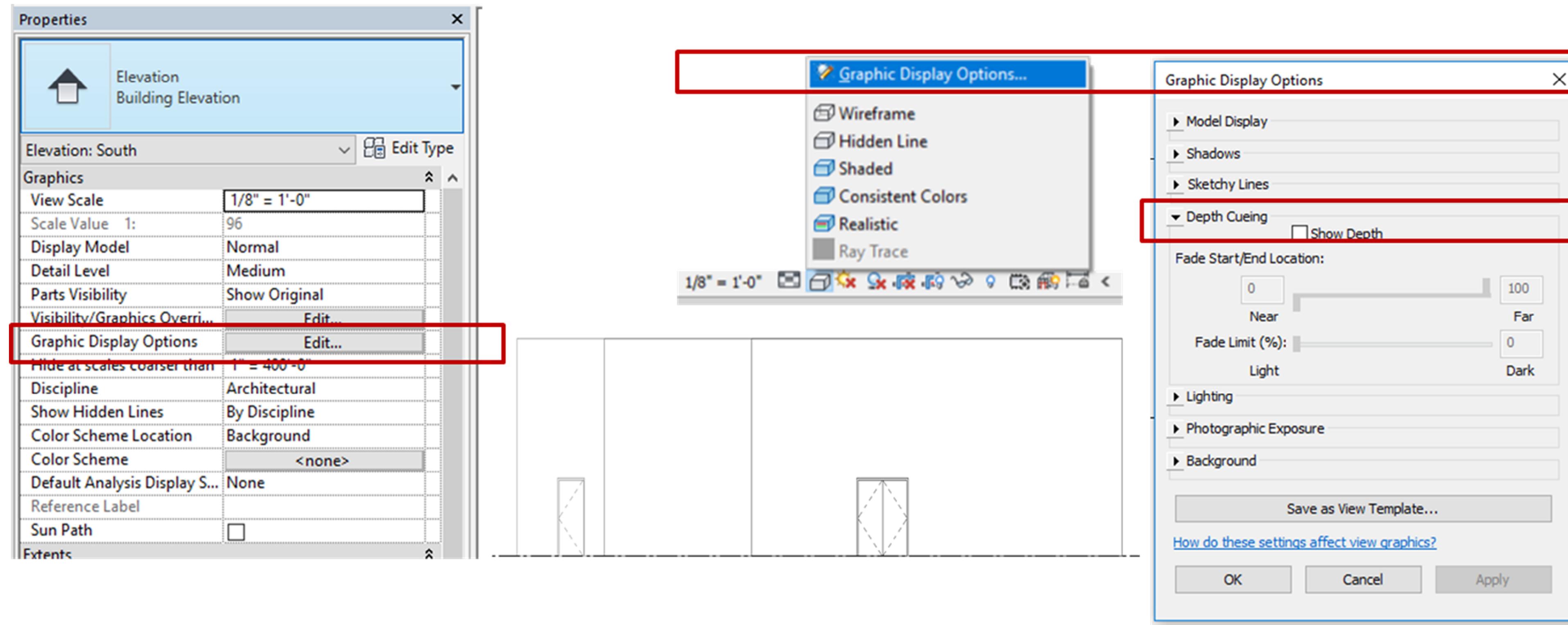
# The What's new button

Every version and update comes with new features



# Depth Cueing

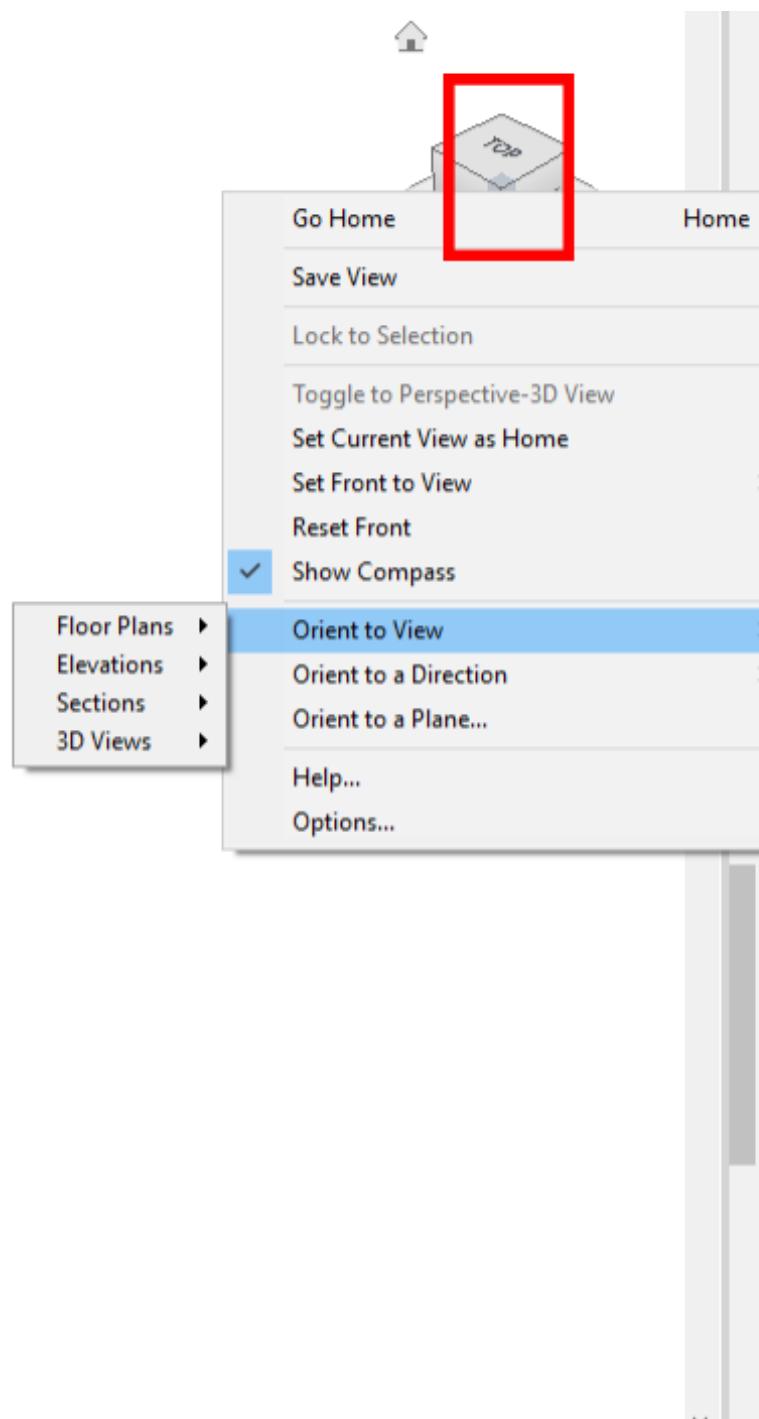
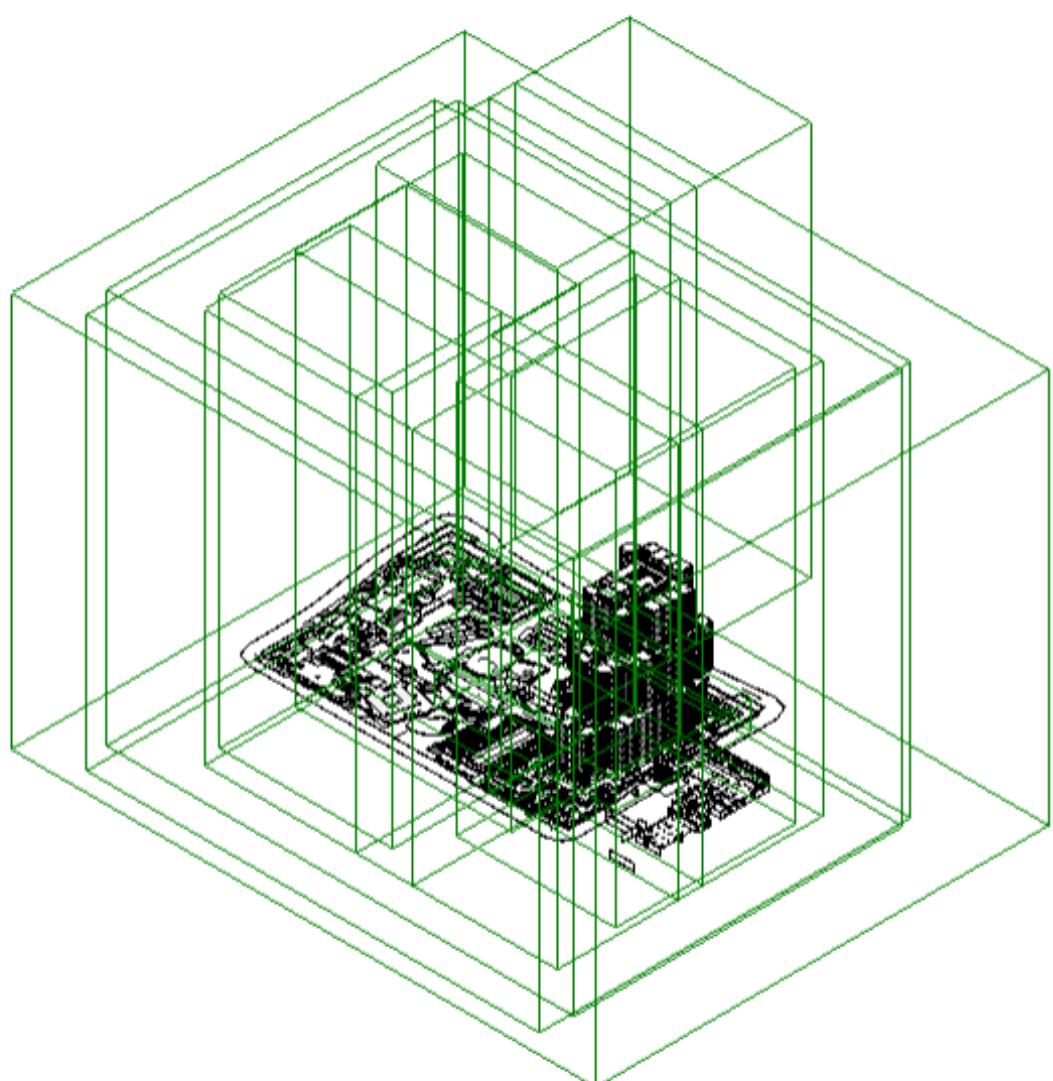
It's not perfect, but it's a step in the right direction for something that PM's have asked for.....for a long long time



NEW in Revit 2017!!!

# 3D Orient to view

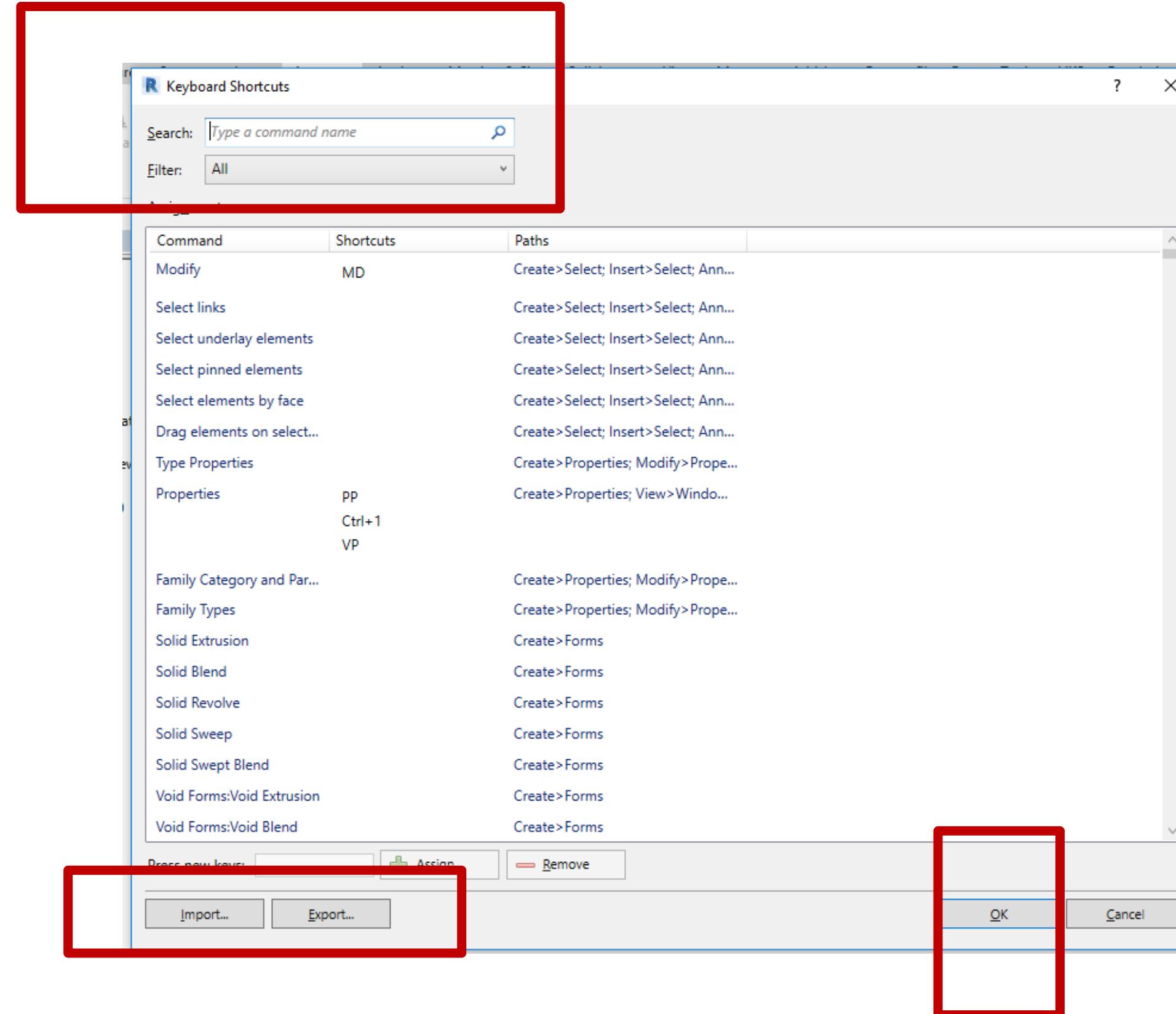
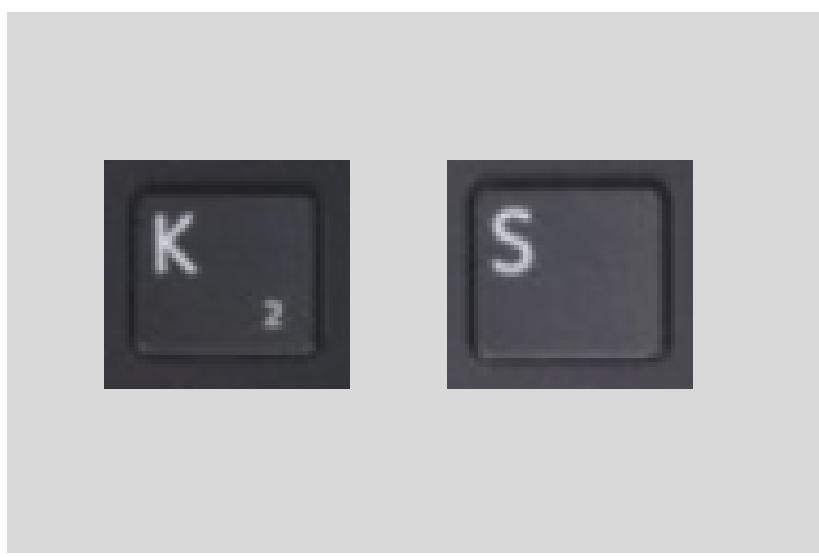
Need a cropped 3D view? Here's how!



- Area Plan (Gross Building): T1 LEVEL 18
- Area Plan (Gross Building): T1 LEVEL 19
- Area Plan (Gross Building): T1 LEVEL 20
- Area Plan (Gross Building): T1 LEVEL 21
- Area Plan (Gross Building): T1 LEVEL 22
- Area Plan (Gross Building): T1 LEVEL 23
- Area Plan (Gross Building): T1 LEVEL 24
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVEL 08
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVEL 13
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVEL 14
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVEL 19
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVEL 20
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVEL 24
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVELS 09-12
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVELS 15-18
- Area Plan (Life Safety): LIFE SAFETY PLAN - LEVELS 21-23
- Area Plan (Rentalable): PO LEVEL 00
- Area Plan (Rentalable): T1 LEVEL 5
- Area Plan (Rentalable): T1 LEVEL 6
- Area Plan (Rentalable): T1 LEVEL 7
- Floor Plan: 1 BED SUITE 1502 ENLARGED FLOOR PLAN
- Floor Plan: 1 BED SUITE 2005 ENLARGED FLOOR PLAN
- Floor Plan: 1 BED SUITE 2007 ENLARGED FLOOR PLAN
- Floor Plan: 1BS1
- Floor Plan: 1BS2
- Floor Plan: 1BS2-C
- Floor Plan: 1BS3
- Floor Plan: 922 KING ENLARGED FLOOR PLAN
- Floor Plan: 2108 KING ENLARGED FLOOR PLAN
- Floor Plan: A2.111 - 01 - K1 GUEST ROOM
- Floor Plan: A2.111 - 01 - K1 GUEST ROOM Copy 1
- Floor Plan: A2.111 - 03 - K1 GUEST ROOM FINISH PLAN
- Floor Plan: A2.111 - 04 - K1 GUEST ROOM POWER PLAN
- Floor Plan: A2.602 - 01 - DF1 GUESTROOM
- Floor Plan: A2.602 - 03 - DF1 GUESTROOM FINISH PLAN
- Floor Plan: A2.602 - 04 - DF1 GUESTROOM POWER PLAN
- Floor Plan: A2.615 - 01 - K1-C GUESTROOM

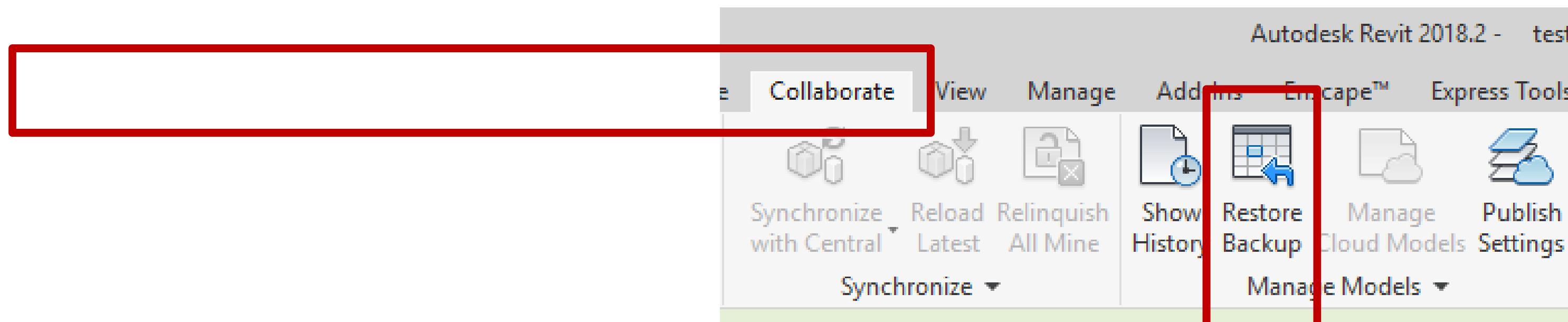
# Keyboard Shortcuts

People always talks about the AutoCAD keyboard shortcuts and how they're different  
You can make yours whatever you want them to be



Know that these don't carry over when you install a new version

# Restoring backup files



Name	Date modified	Type	Size
1272_730011.rws	1/19/2018 10:46 AM	Rhino Worksessio...	268,896 KB
a_Interior_16166_2018.slog	1/19/2018 10:49 AM	SLOG File	2 KB
basicfileinfo.4719.dat	1/19/2018 10:46 AM	DAT File	3 KB
contentdocuments.4496.dat	1/19/2018 10:46 AM	DAT File	3,028 KB
contents.1273.dat	1/19/2018 10:46 AM	DAT File	66 KB
deltas.dat	1/19/2018 10:46 AM	DAT File	1 KB
elemetable.4767.dat	1/19/2018 10:46 AM	DAT File	1,713 KB
ep perms.dat	1/19/2018 10:46 AM	DAT File	9,244 KB
formats.0286.dat	1/19/2018 10:46 AM	DAT File	147 KB
global.4767.dat	1/19/2018 10:46 AM	DAT File	234 KB
history.4767.dat	1/19/2018 10:46 AM	DAT File	164 KB
incrementable.4782.dat	1/19/2018 10:46 AM	DAT File	117 KB
partitiontable.4767.dat	1/19/2018 10:46 AM	DAT File	130 KB
preview.4764.dat	1/19/2018 10:46 AM	DAT File	2 KB
projectinformation.4487.dat	1/19/2018 10:46 AM	DAT File	2 KB
requests.dat	1/19/2018 10:46 AM	DAT File	1 KB
transmissiondata.4496.dat	1/19/2018 10:46 AM	DAT File	35 KB
users.dat	1/19/2018 10:46 AM	DAT File	1 KB
wperms.dat	1/19/2018 10:46 AM	DAT File	1 KB

Don't delete all these weird files even though you think that you can't open them.

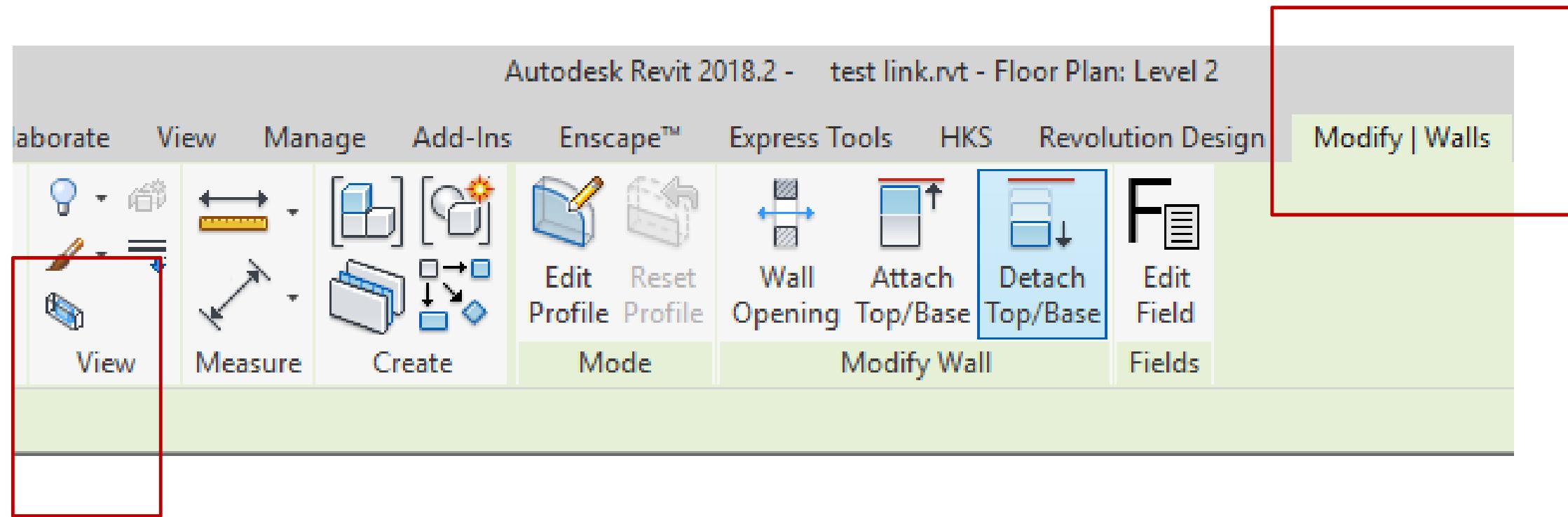
The files in the folder turn into the files from the last syncs

**IT HAPPENS!!**  
Files crash  
Elements go missing

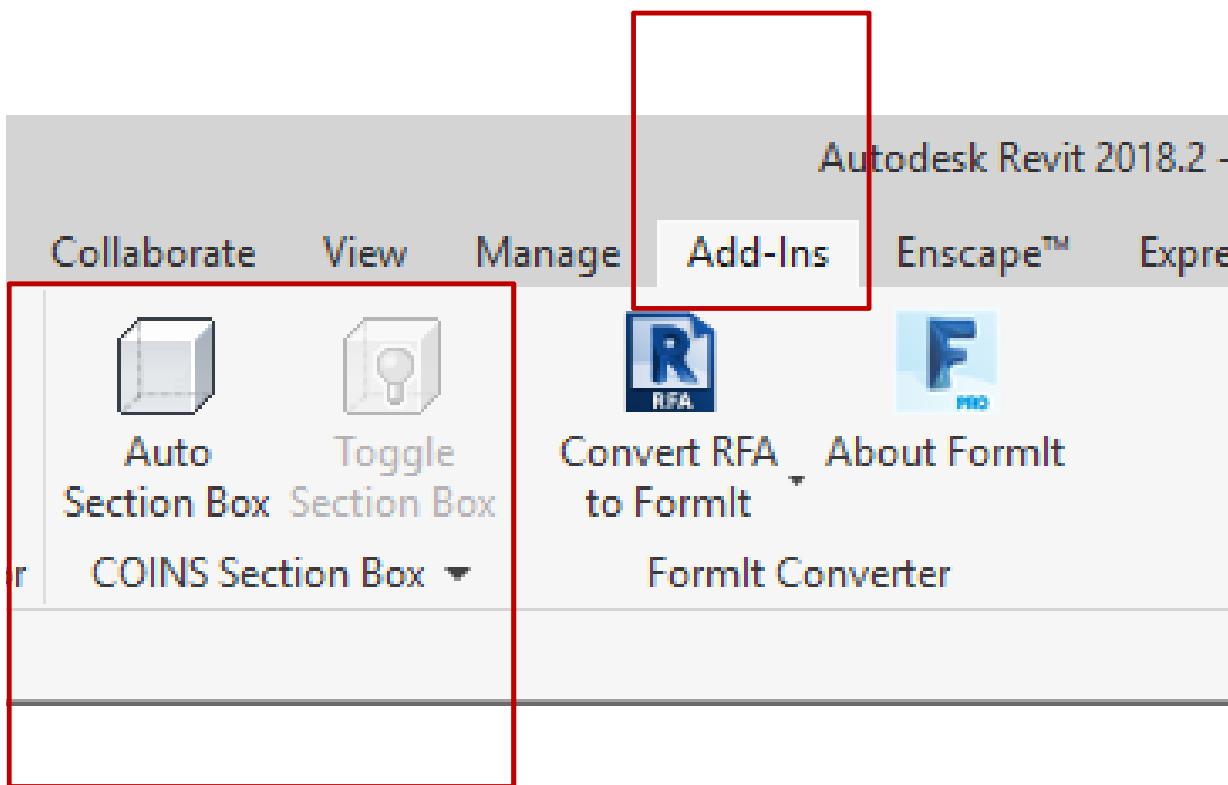
Project Backup Versions			
Version	Saved By	Date/Time Saved	Comment
8278	sochoa	2/28/2018 12:01:52 PM	
8277	sochoa	2/26/2018 5:17:28 PM	
8276	sochoa	2/26/2018 10:15:37 AM	
8275	sochoa	2/26/2018 10:01:38 AM	
8274	schristian	2/15/2018 12:18:37 PM	
8273	schristian	2/15/2018 6:13:32 AM	
8272	schristian	2/14/2018 4:30:10 PM	
8271	schristian	2/14/2018 2:43:21 PM	
8270	schristian	2/8/2018 7:28:42 AM	
8269	schristian	2/8/2018 6:24:39 AM	
8268	schristian	2/8/2018 6:14:32 AM	

Generate more backup files with larger teams

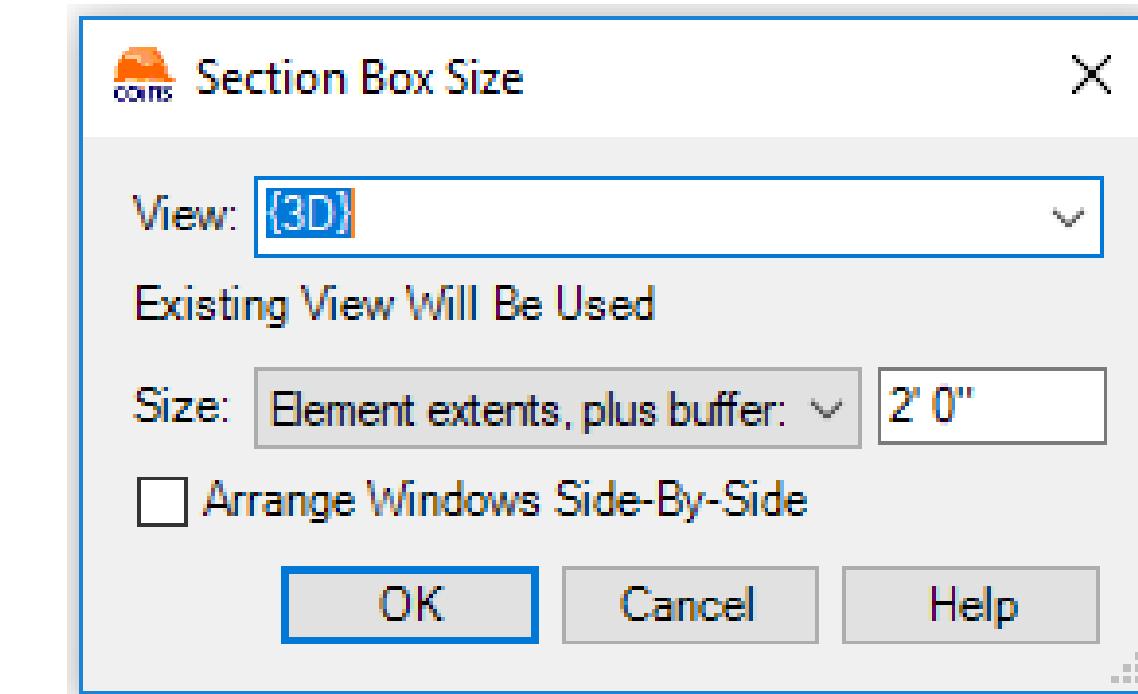
# Section Box vs Selection Box



This one shows as your default 3D view and then does not save it that way



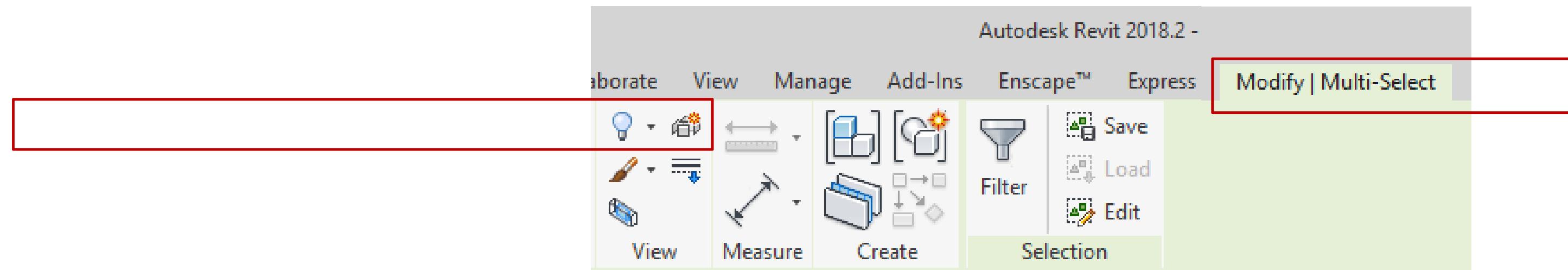
This option will ask you to name/save your view.



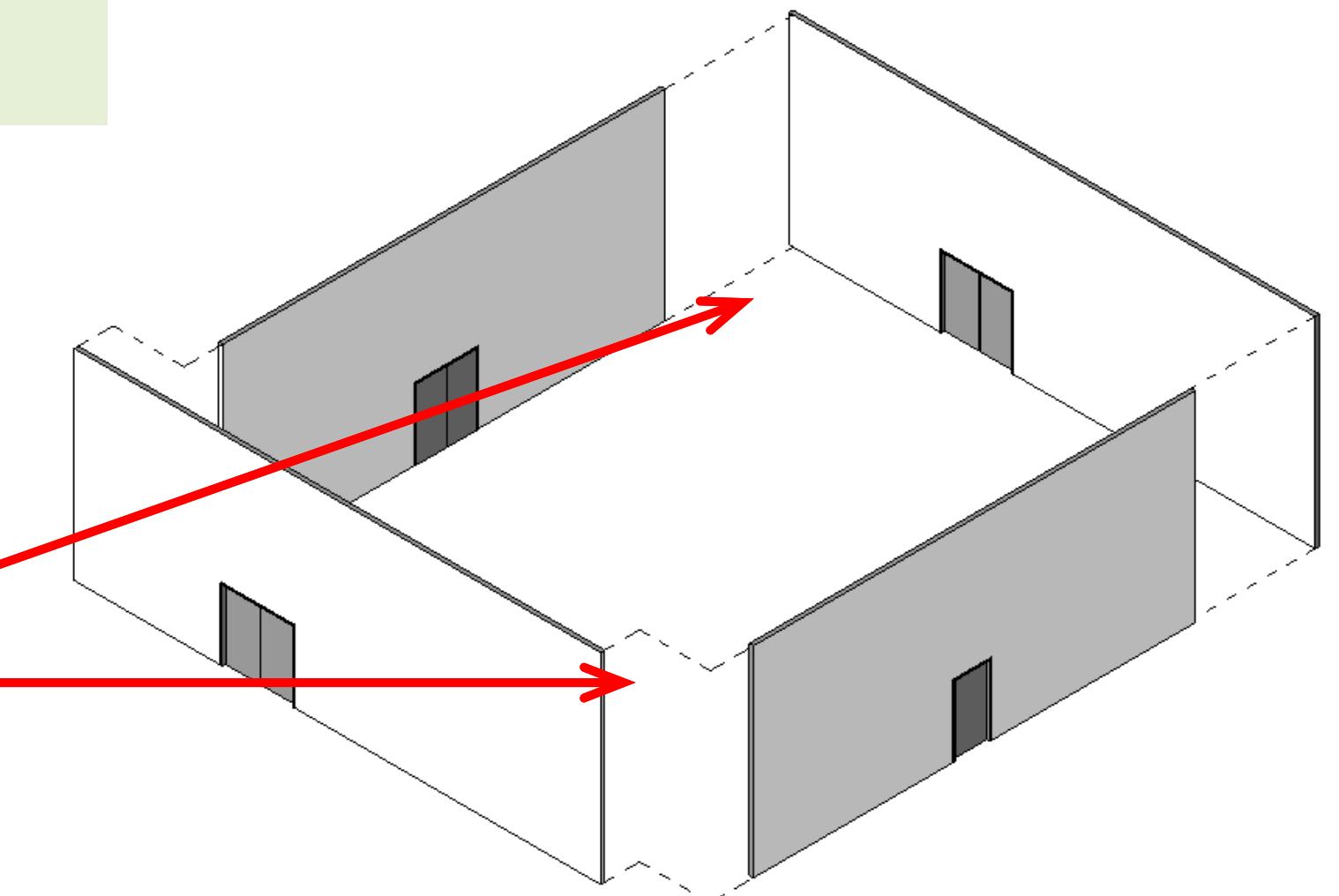
Only **REAL** difference : One saves the 3D image to the project where the other does not

# Displaced Views

Just a fancy name for exploded axonometric



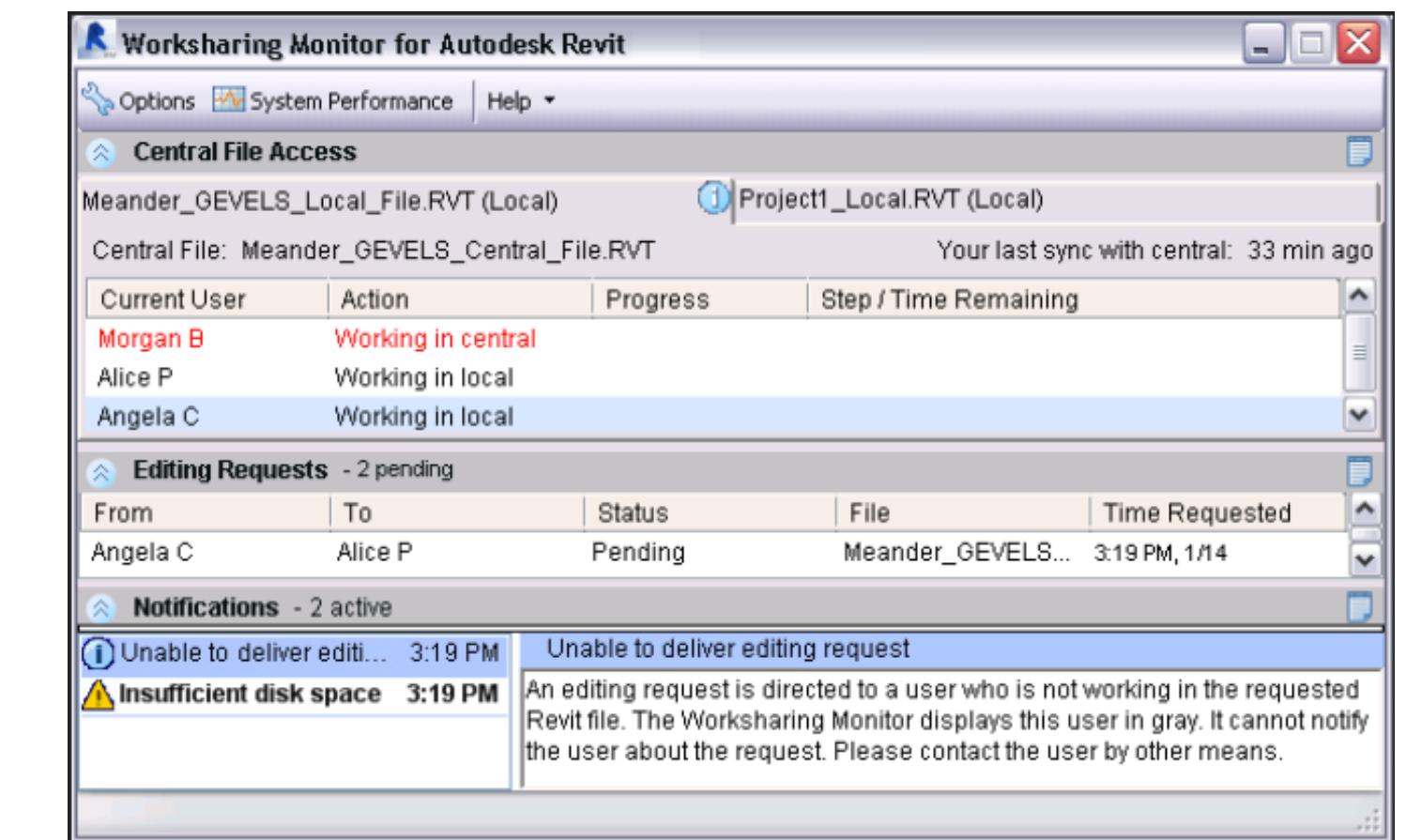
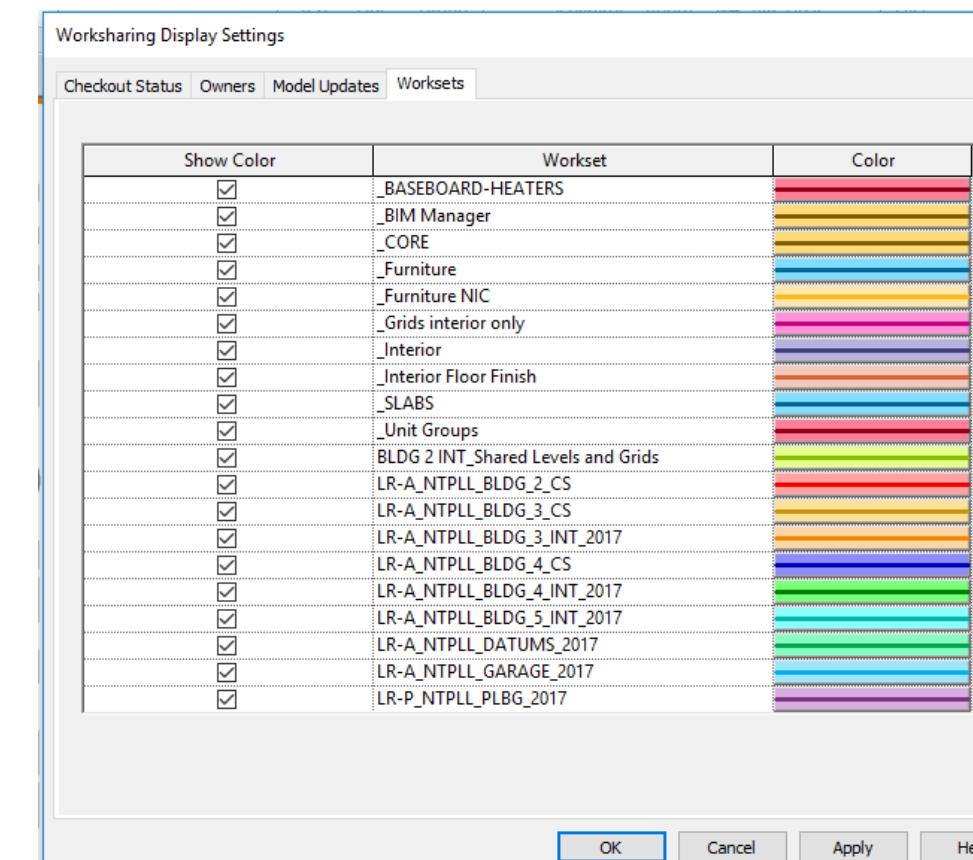
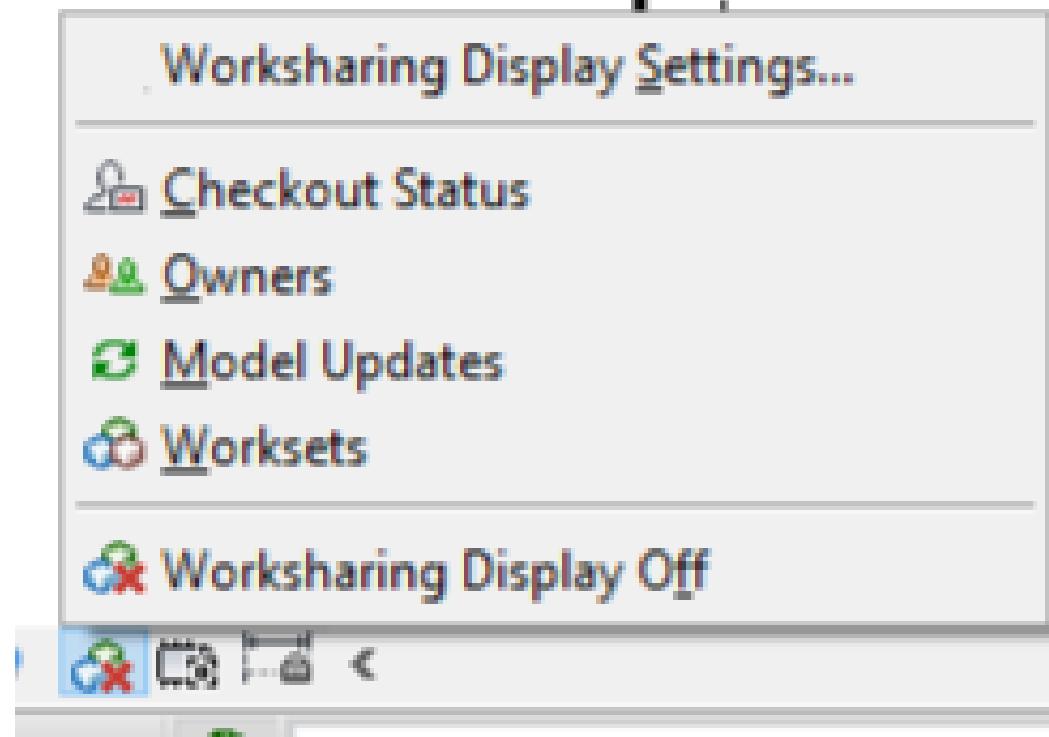
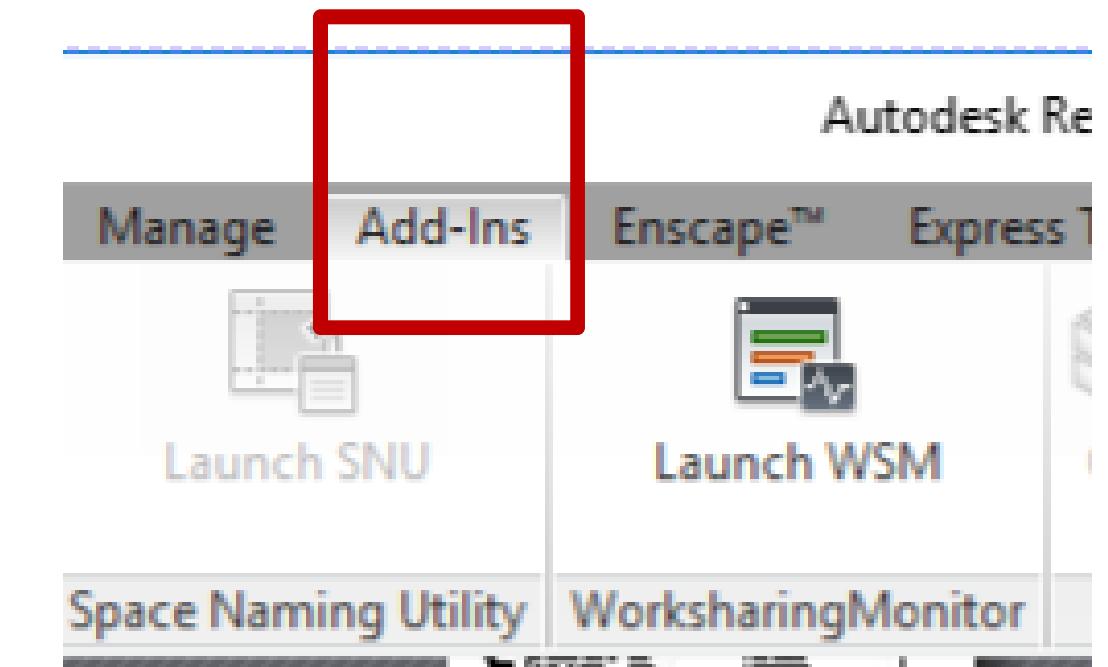
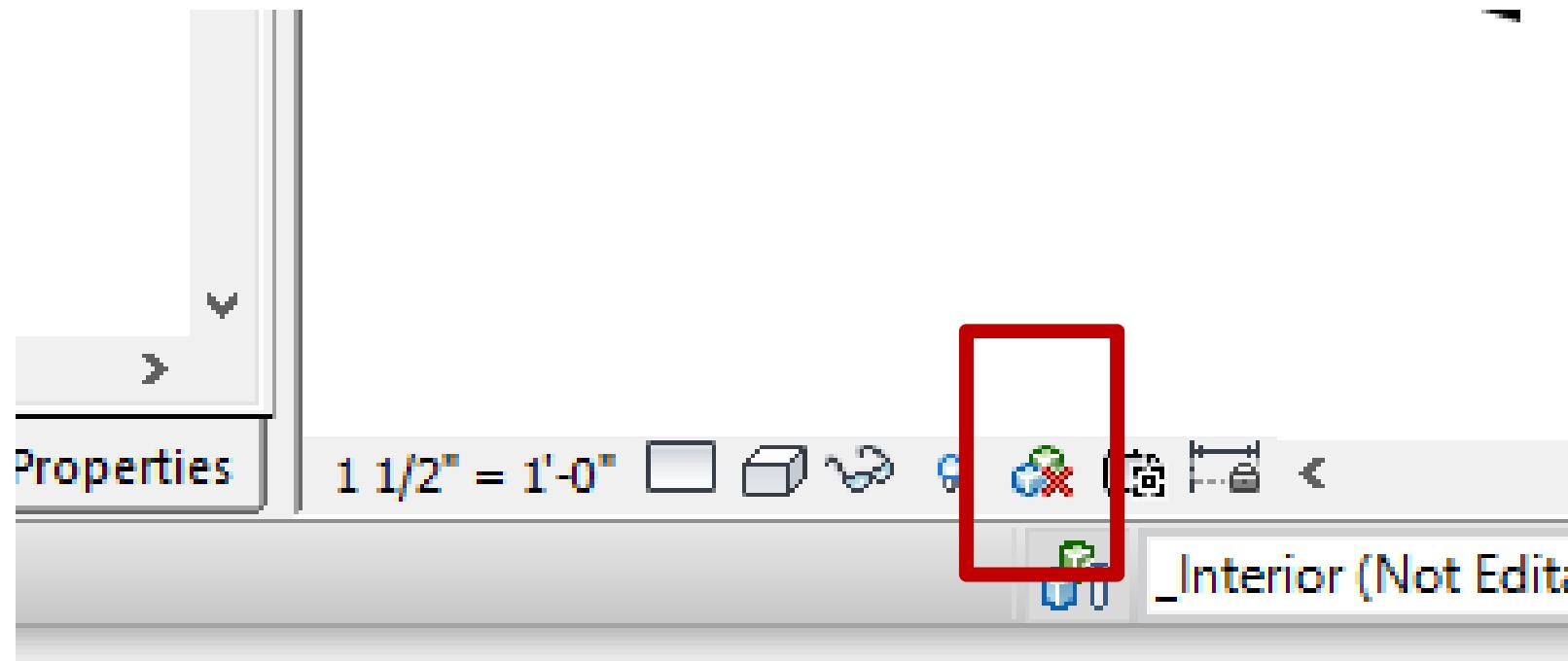
The displaced elements apply to this view only.  
It DOES NOT move the element in the actual model



Path lines articulate how things go together

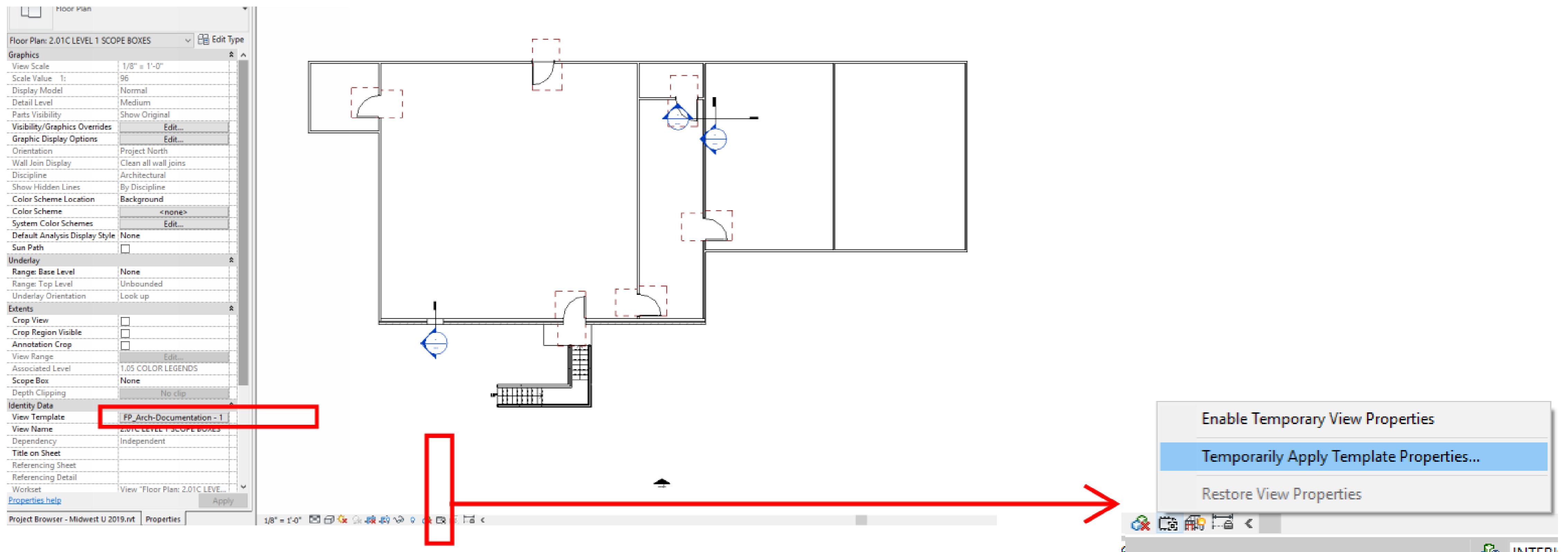
\*\*This button is greyed out unless you are in a 3D view and have items selected\*\*

# Workshare Display/Workshare Monitor

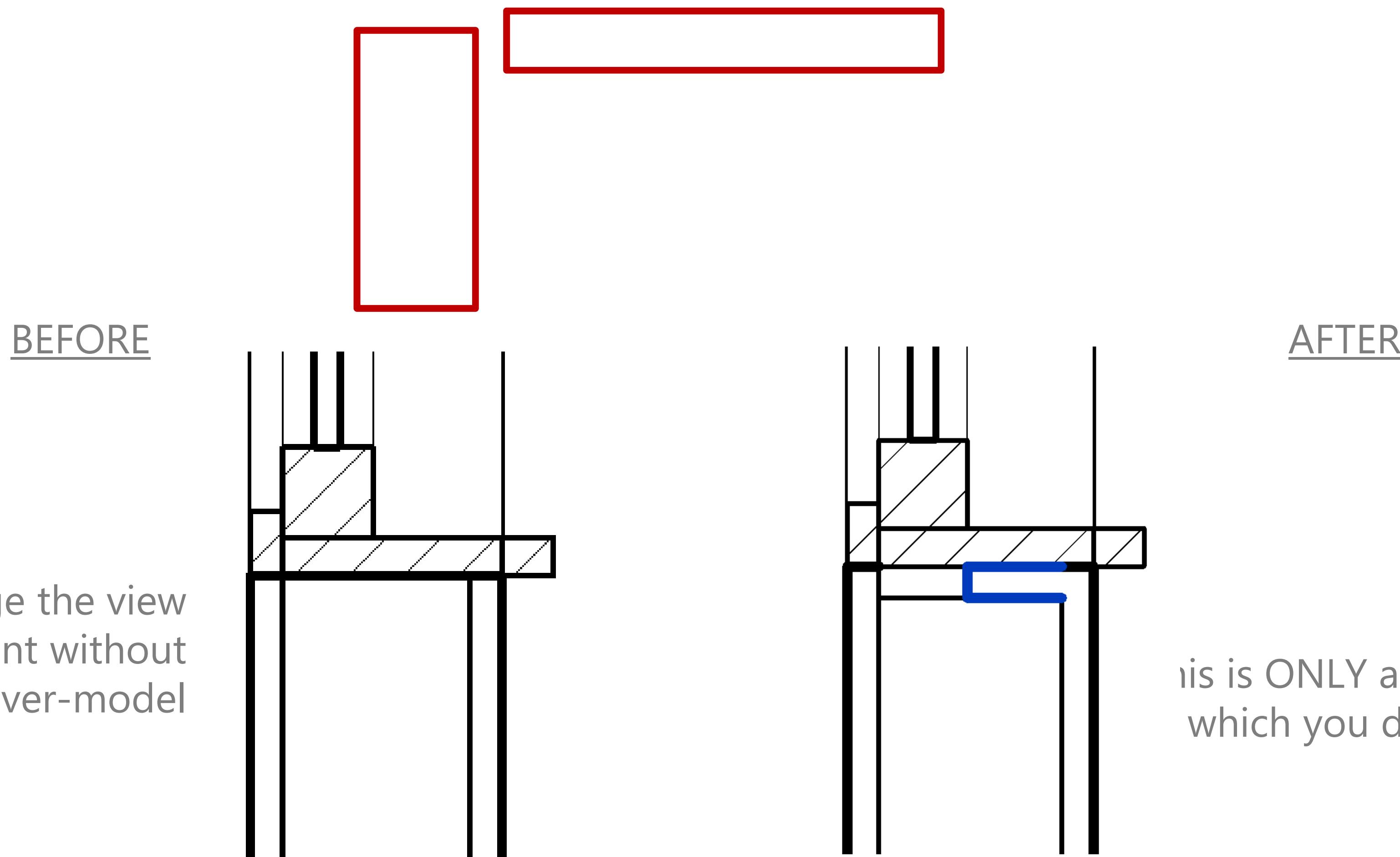


Manage what's on each workset and who placed it and see who's in the model

# Temporary View Properties



# Cut Profile

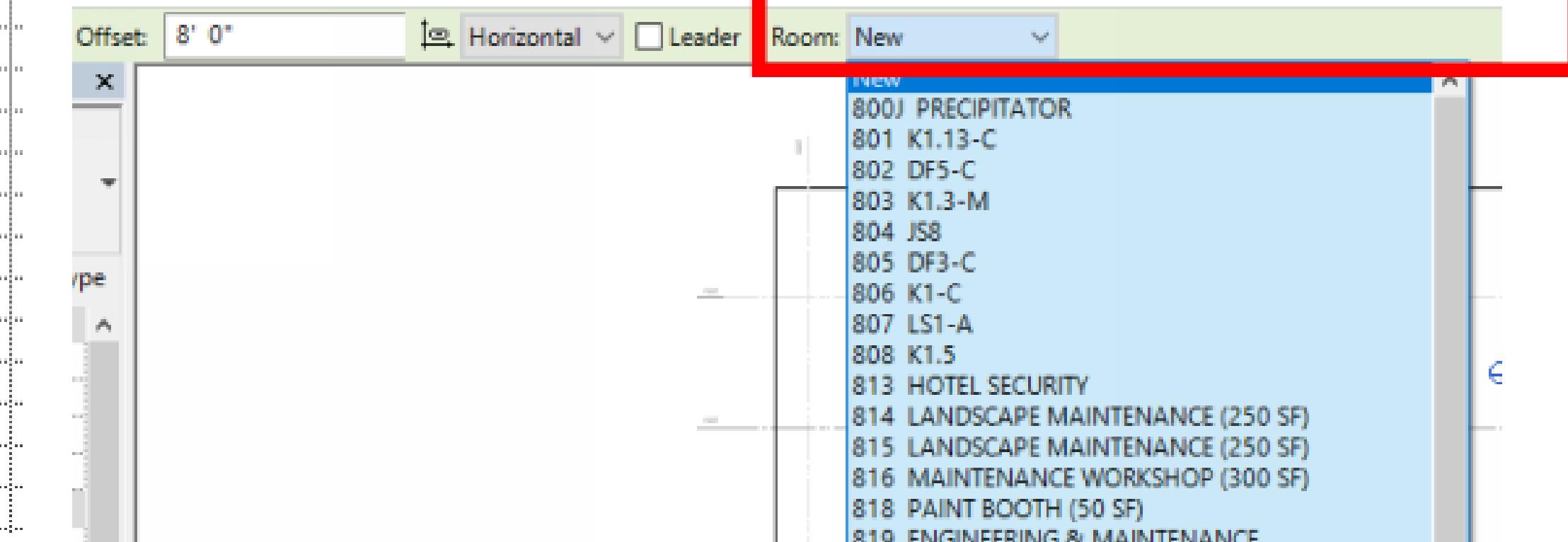
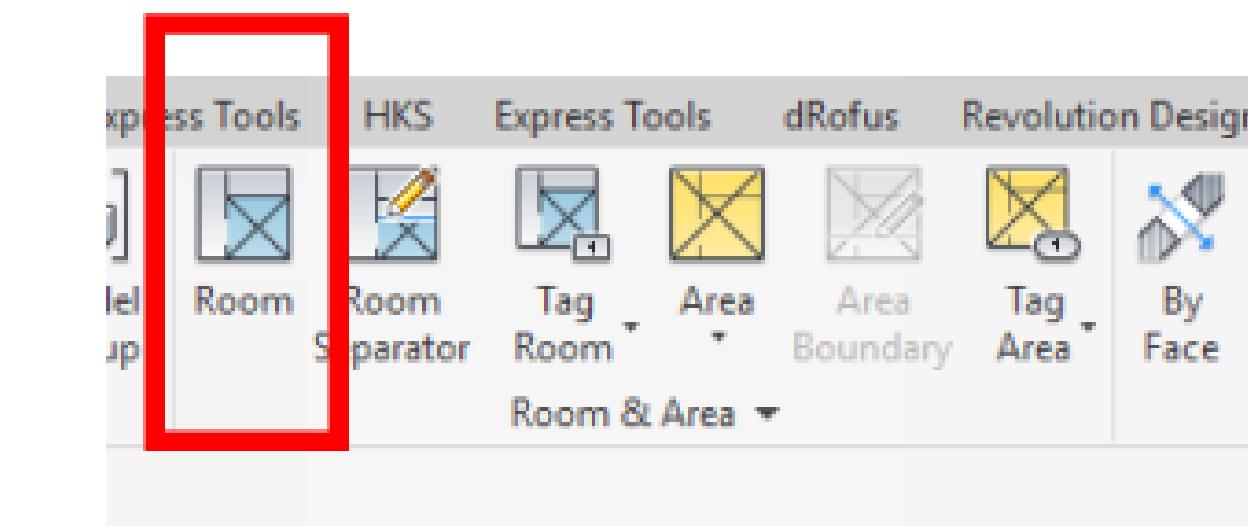


# Room Replacing dropdown

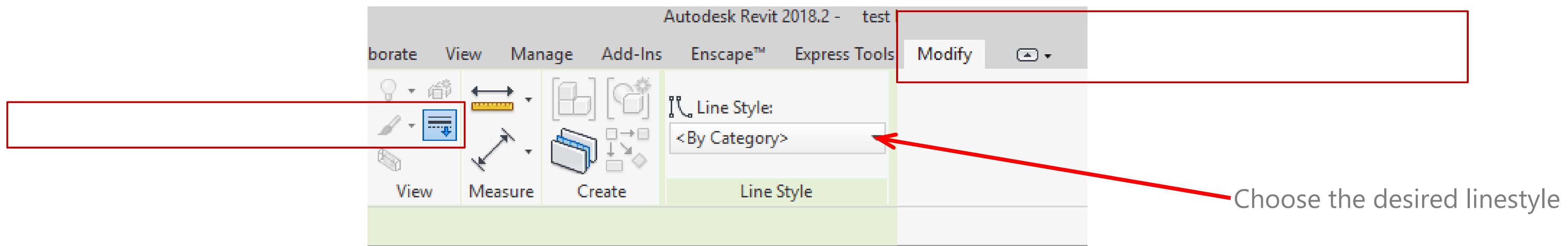
Warning  
A Room was deleted from all model views but still remains in this project.  
The room can be removed from any schedule or placed back in the model using  
the Room command.

A	B	C	D	E	F
Area	LOCATION ROOM NUMBER	Department	Accessibility	Connecting Door	Communication
Not Placed	802	GUESTROOM		CONNECTING	
Not Placed	801	GUESTROOM		CONNECTING	
Not Placed	803	GUESTROOM			
Not Placed	805	GUESTROOM		CONNECTING	
Not Placed	806	GUESTROOM		CONNECTING	
Not Placed	807	GUESTROOM	ACCESSIBLE		
Not Placed	808	GUESTROOM			
390 SF	XX05	GUESTROOM			
357 SF	XX06	GUESTROOM			
348 SF	XX07	GUESTROOM			
366 SF	XX08	GUESTROOM			
357 SF	XX09	GUESTROOM			
354 SF	XX10	GUESTROOM		CONNECTING	
355 SF	XX11	GUESTROOM		CONNECTING	
367 SF	XX12	GUESTROOM			
379 SF	XX13	GUESTROOM			

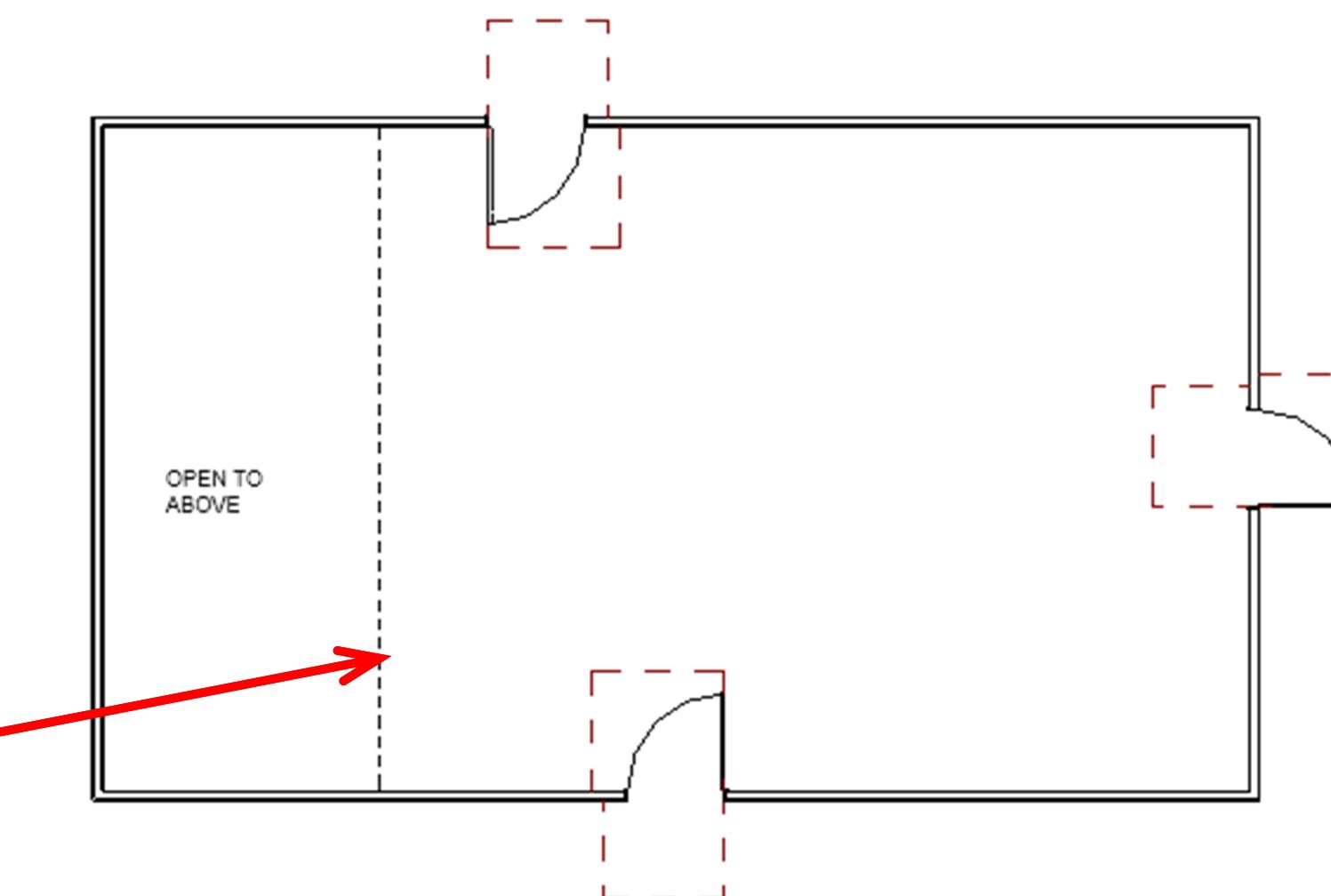
Place them back in after you click the room button,  
there reveals a place to put back in the rooms



# Smart lines overhead



No detail lines for this!



# What we hope you learned

1. Quicker ways to improve efficiency
2. Easier ways to control how the drawing looks visually
3. A function of a button maybe you didn't know about
4. Time saving tips without “cheating”

# Thank you!!

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Vickie

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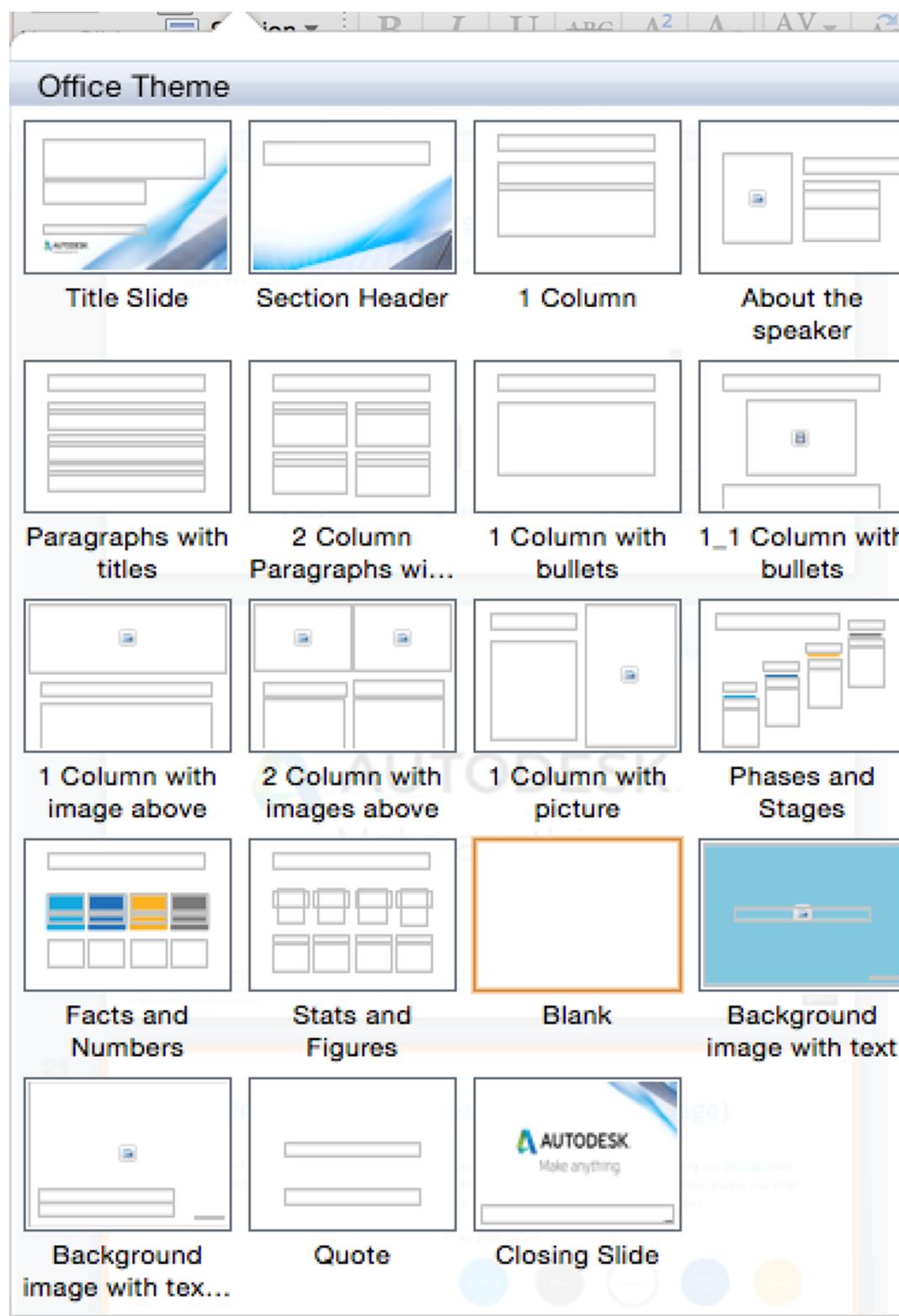
Step by step instructions are in the handout!

# Questions?!

PS.....Don't forget to fill out your survey

# Instructions and resources (Delete page)

- Access the slide layouts for this template on the Home tab under Slides/Layout.
- AU 2018 Fonts: Artifakt or as a backup please use Arial.

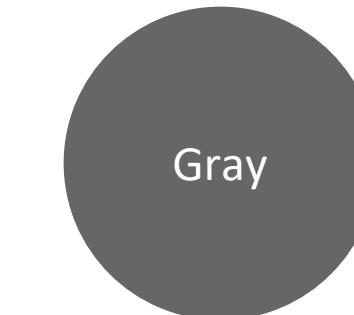


- AU 2018 Colors



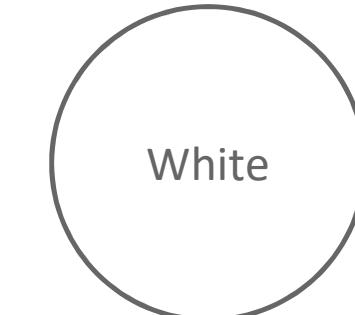
ADSK blue

R 6 G 150 B 215  
HEX: 0696D7



Gray

R 102 G 102 B 102  
HEX: 666666



White

R 255 G 255 B 255  
HEX: FFFFFF



Dark blue

R 24 G 88 B 168  
HEX: 1858A8



Orange

R 250 G 162 B 27  
HEX: FAA21B

- AU Resources

- Branding and editorial guidelines – Autodesk [Brand Hub](#)