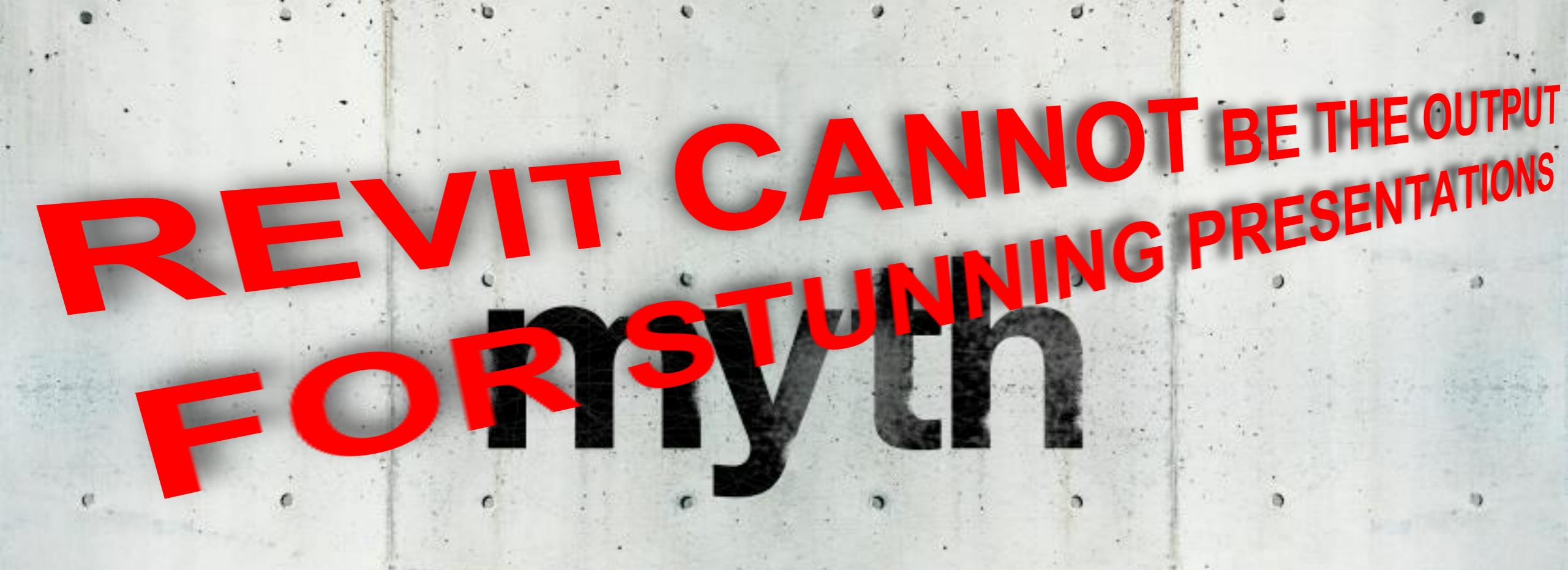


REVIT FOR PRESENTATIONS GRAPHICS THAT "POP"

Jason Grant - http://jasongrant.squarespace.com/ - @jasongrantarch

David Light - http://autodesk-revit.blogspot.com - @davewlight BIM Manager, HOK



Maybe in the early days, but not now! Autodesk Revit 7 changed all that.....

Presentation Graphics

Revit Architecture includes in-built tools which allows you to create compelling presentation graphics without the need for full rendering......









Drafting Techniques Apply

 The hardcore BIM gurus may disagree; however....

- In many cases your deliverables are still 2D
- How you present your model may be difference between winning or loosing work
- Maximise the "model" as much as you can
- Don't forget the approaches you appled when you drafted on a drawing board
- Punch out building elements where you need to
- Experiment.....& develop a style

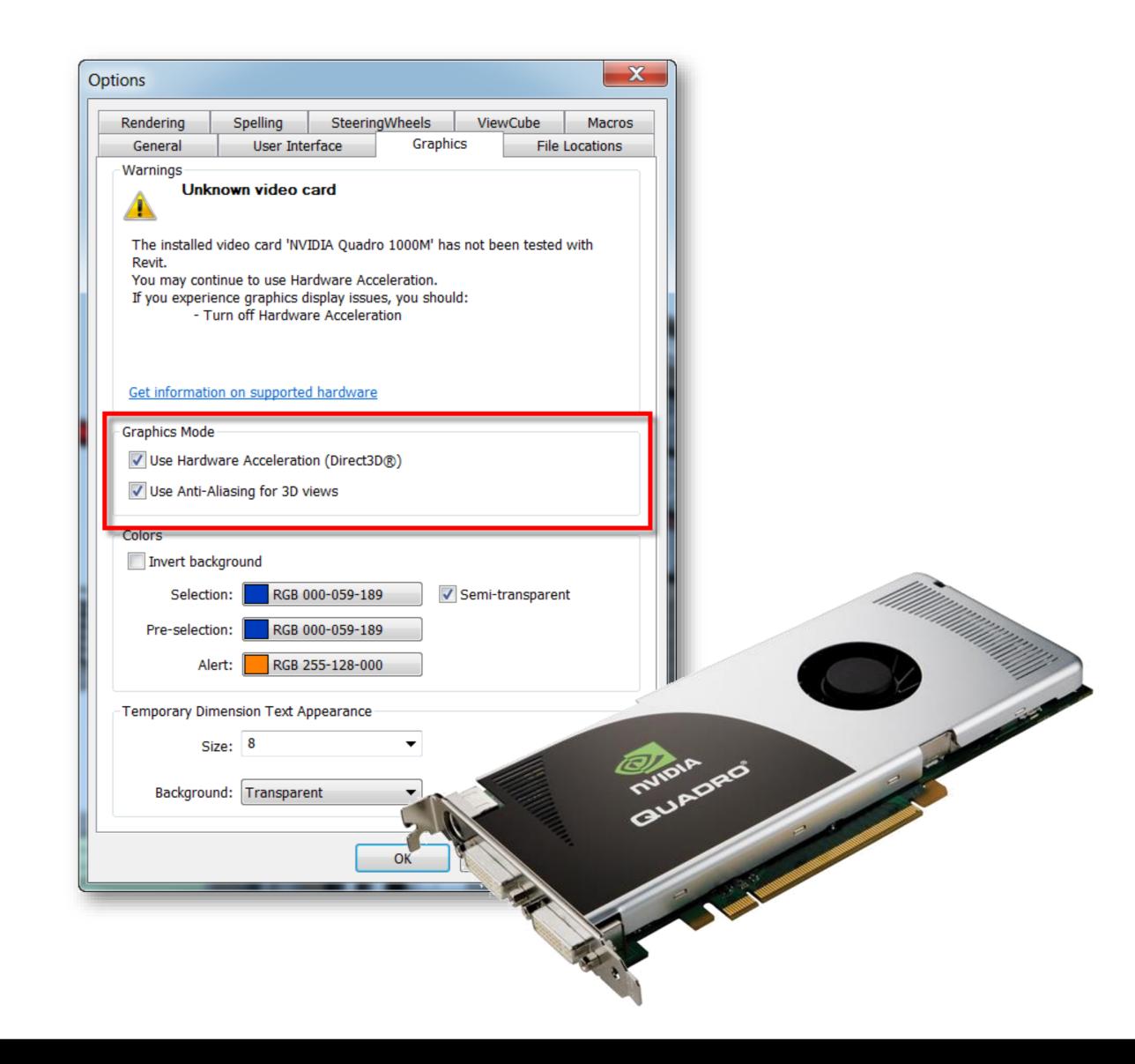


Graphics Cards

- To maximise the ability to work with some of the graphic functions within Revit, ensure your graphics card can use Hardware Acceleration.
- For more details on Graphic Card drivers go to

http://www.autodesk.com/us/revit/revit_graphics_hardware_list_June02.html

http://usa.autodesk.com/adsk/servlet/ps/dl/item?siteID=12311 2&id=15387396&linkID=9243099



Display Settings

Wireframe

Displays the model as a wireframe only

Hidden Line

Displays the model as a linework to define geometry

Shaded

Displays the model as shaded colour geometry only

Shaded with Edges

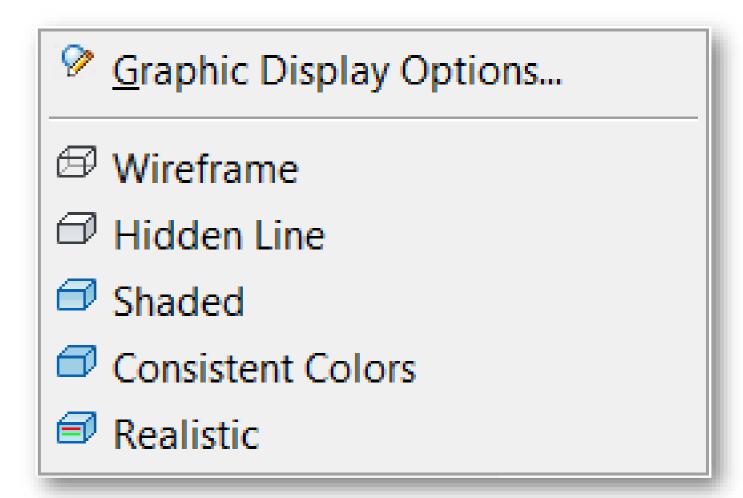
Displays the model as shaded colour with line work to define geometry edges

Consistent Colours

Displays faces of elements in flat colour; faces of elements that are oriented at different angles to the camera will display in the same shaded colour.

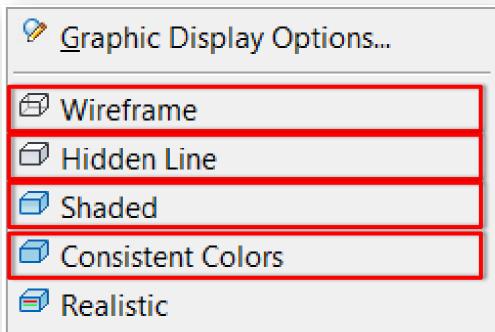
Realistic

Elements that have material definitions assigned will display texture maps in real time.



Graphic Display Settings





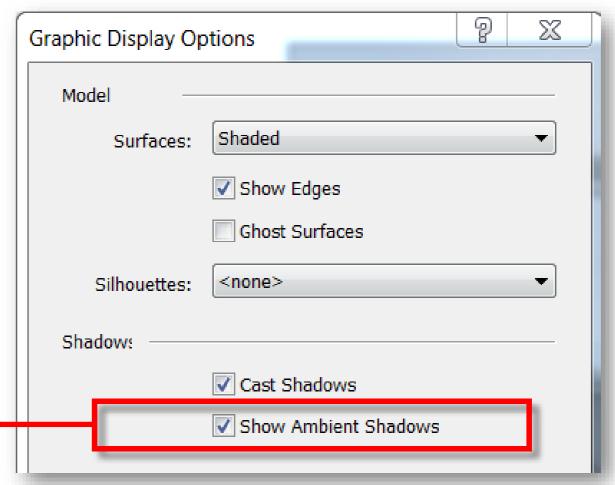
Realistic



Ambient Shadows







Ambient Light Settings

- Playing with the Ambient Light settings can yield differing results.
- **0** -100%
- As you increase the value, this will affect the material colour.

0 50 100



Shadows





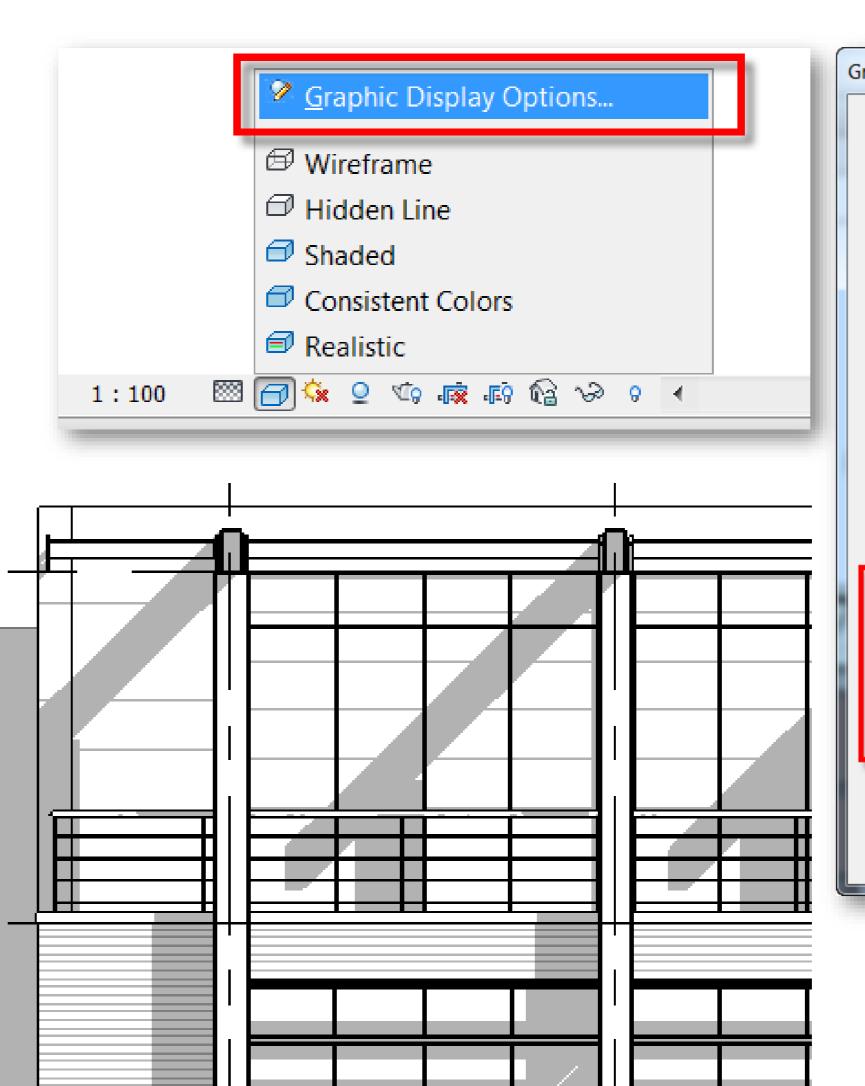
Shadow Settings

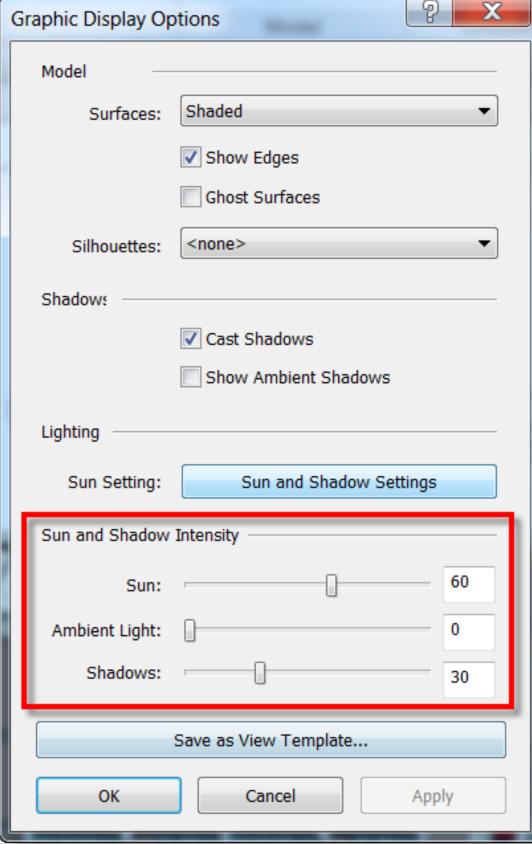
The Graphic Display Options allows you to control the shadow settings. You can control –

- Sun Intensity
- Ambient Light
- The shadow Intensity

From experience, playing down the depth of the shadows helps to pop the view.

Try Sun Intensity set to 60 and Cast Shadows to around 20 to 30.





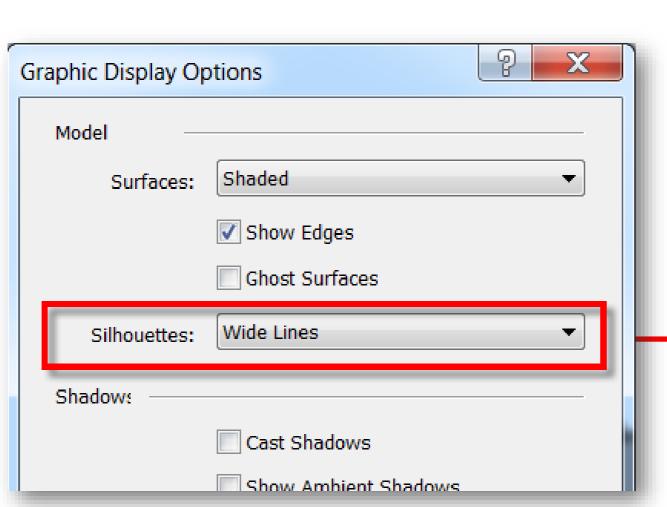
Silhouette Settings

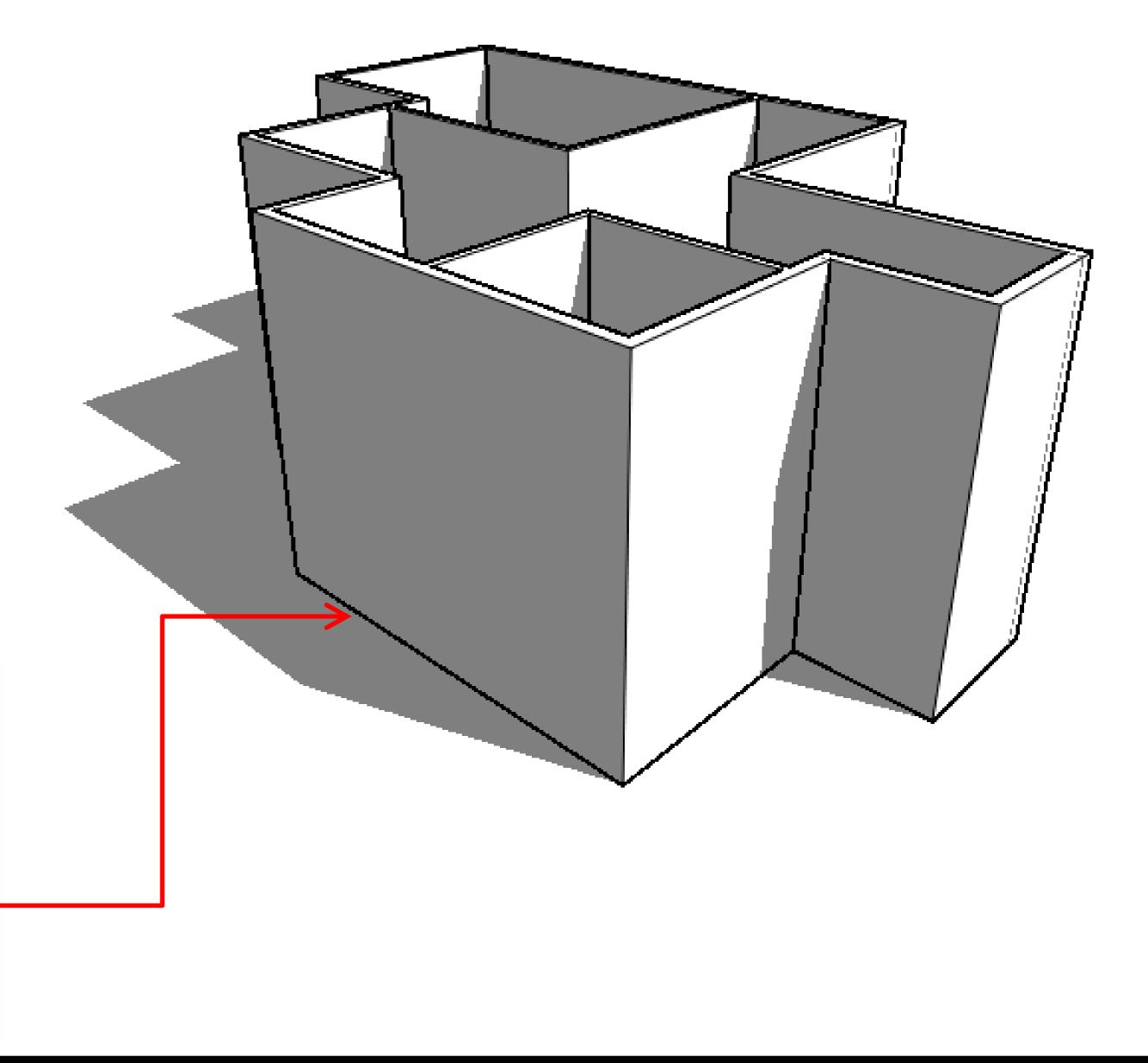
 Elevations and 3d views can be given graphic emphasis automatically.

The Graphics Display tools allow the user to specify line styles to be used as overrides on the profiled edges seen in elevation and 3d views.

Linework can be used to further refine

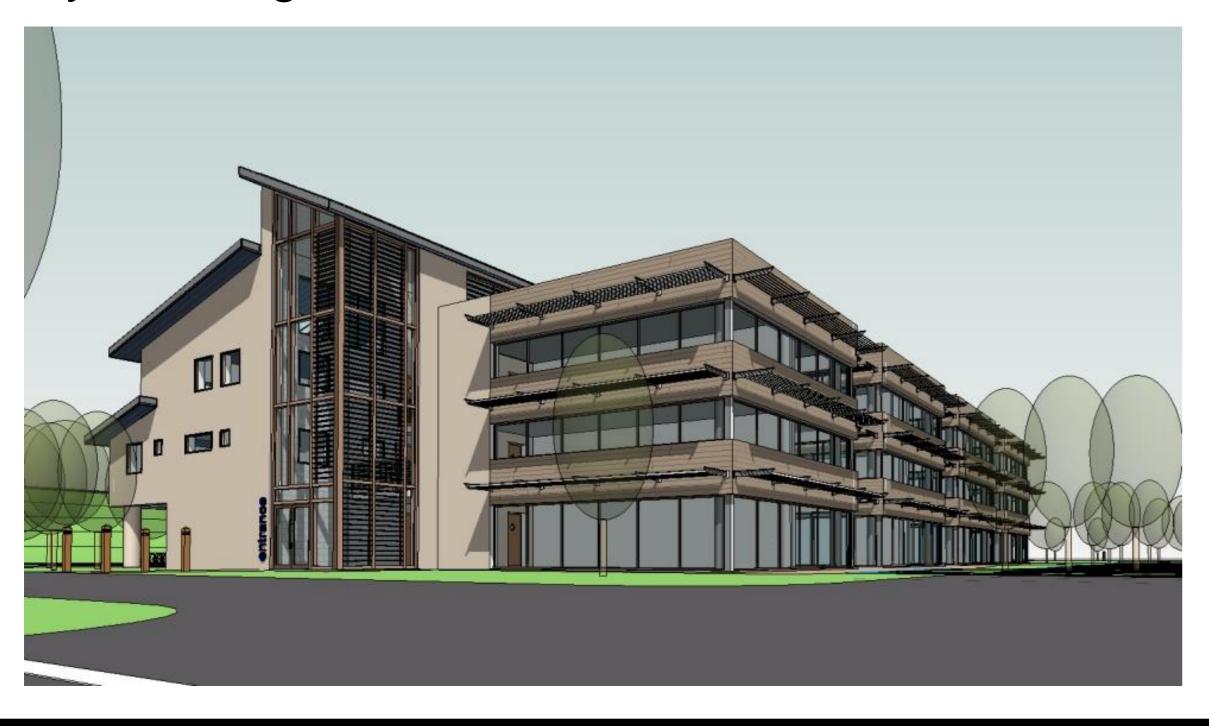
the profiles.

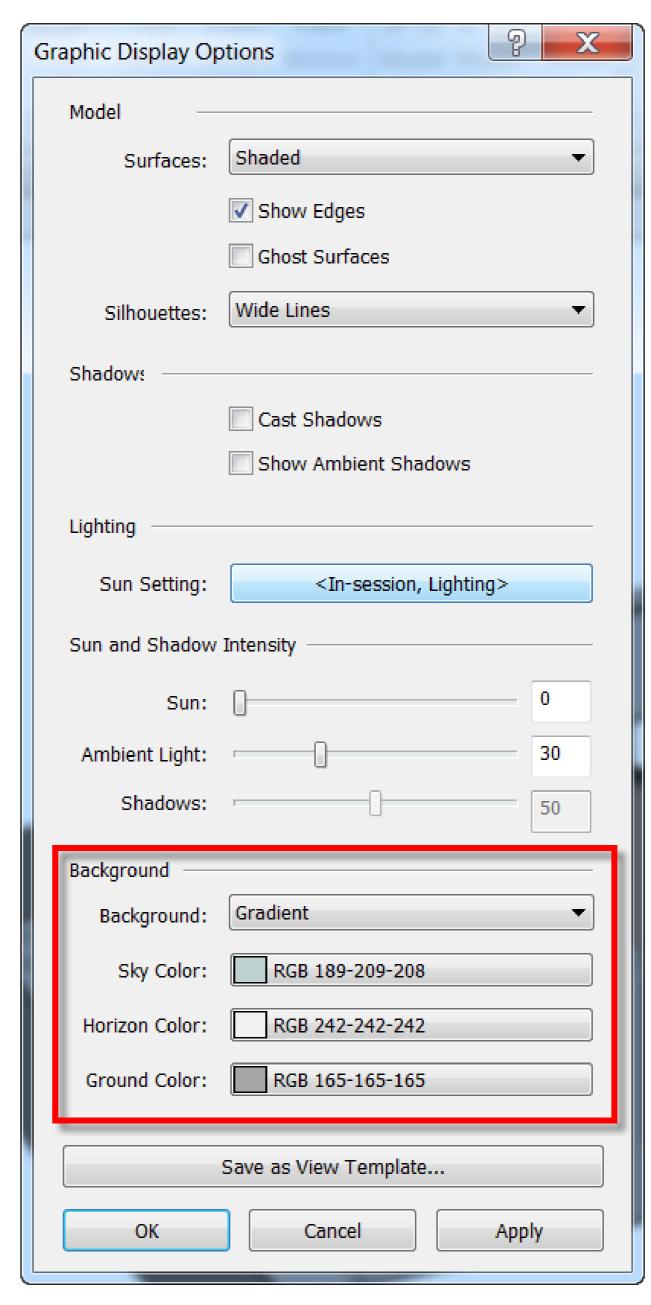




Background Graphics

- Under Graphic Display Options you have the ability to display a Gradient background in 3d and perspective views.
- Play with different Background color's to give your image a different ambience.









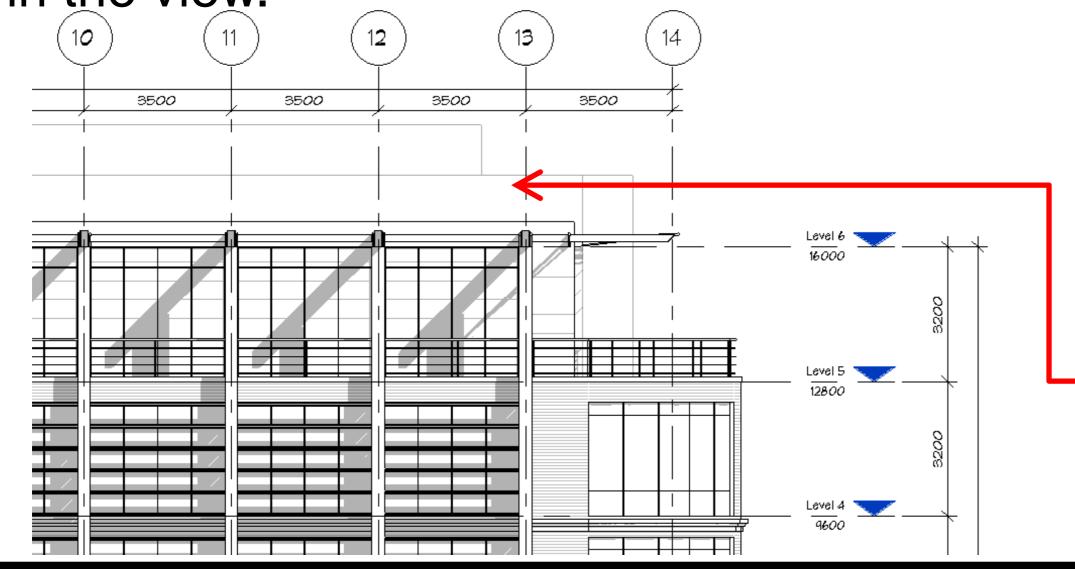


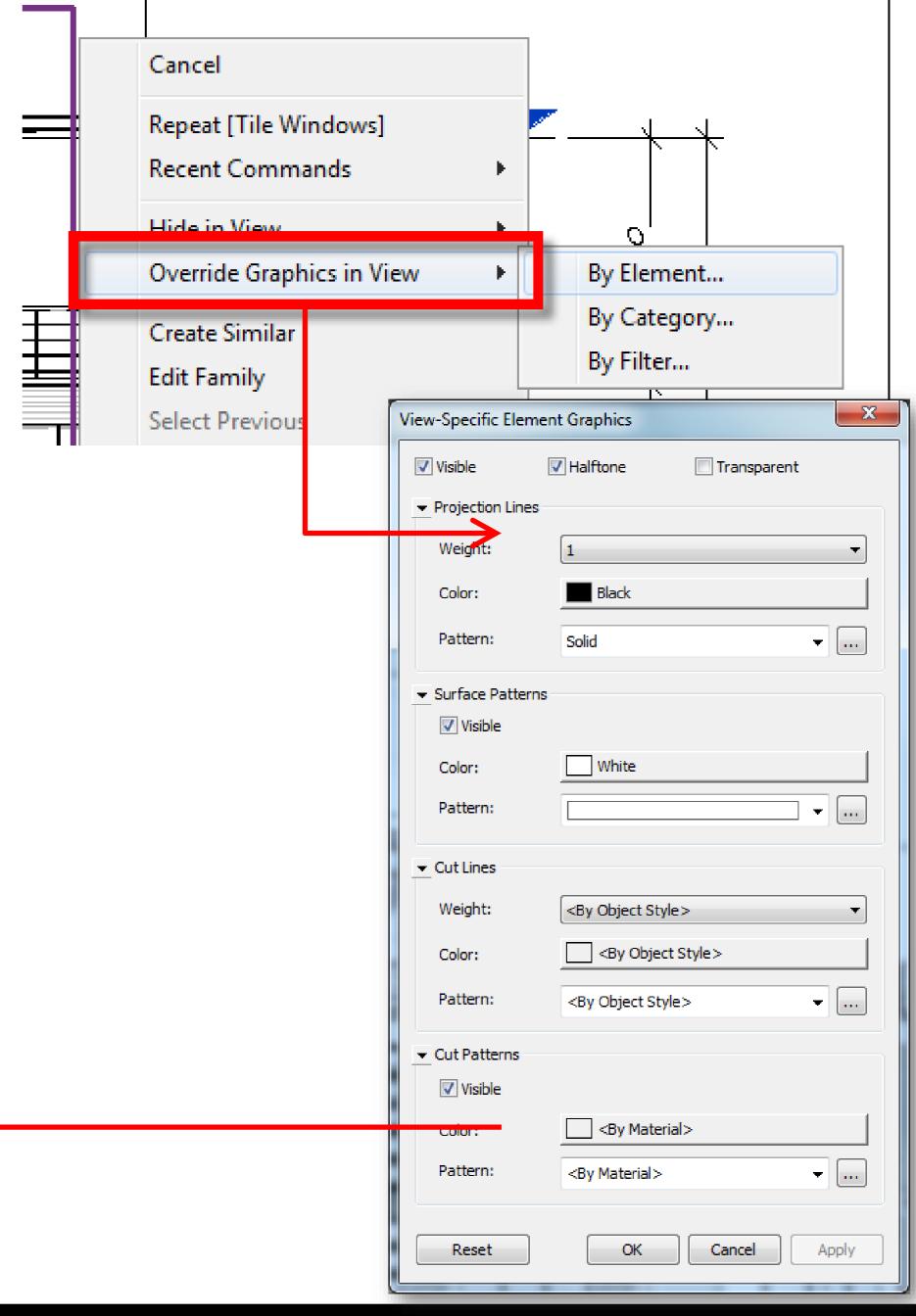


Depth of Field in Elevations

 You can't technically control the depth of field of elements between what is close and what is far away.

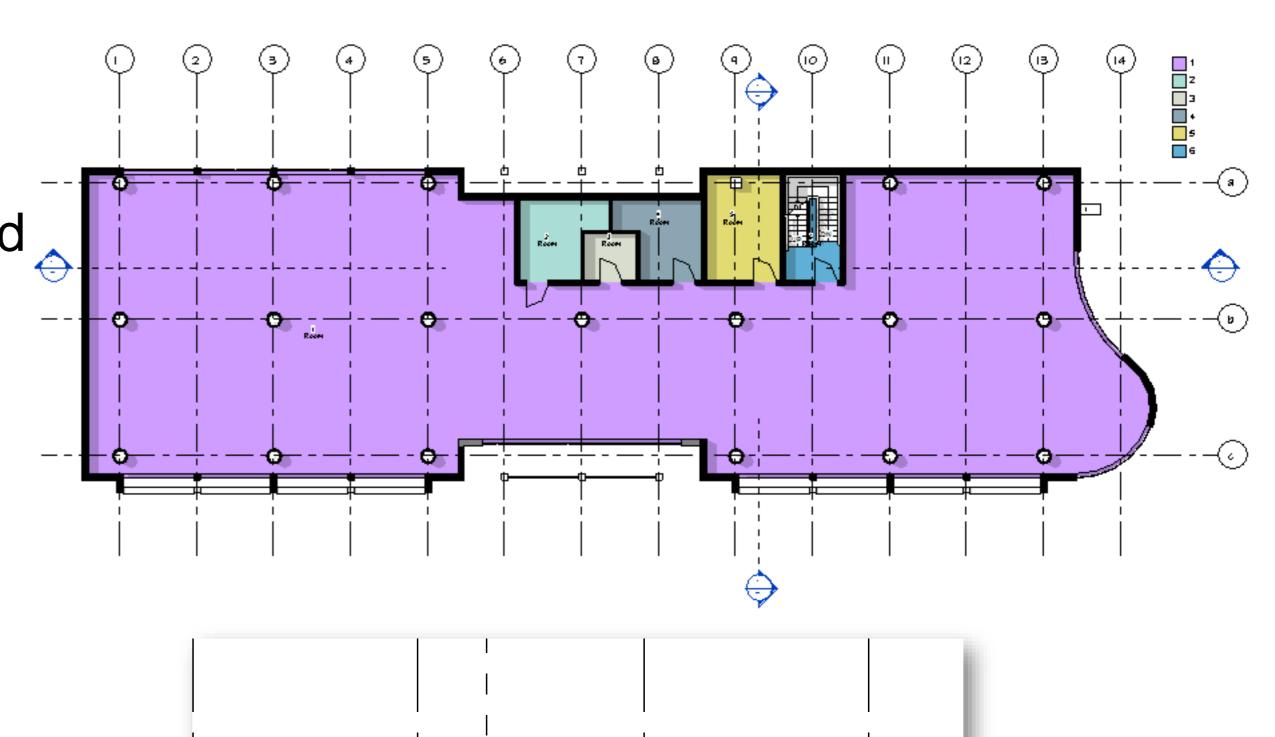
 However, with some strategic use of the override graphic tools you can alter certain elements to fade them into the background so they are less dominate in the view.

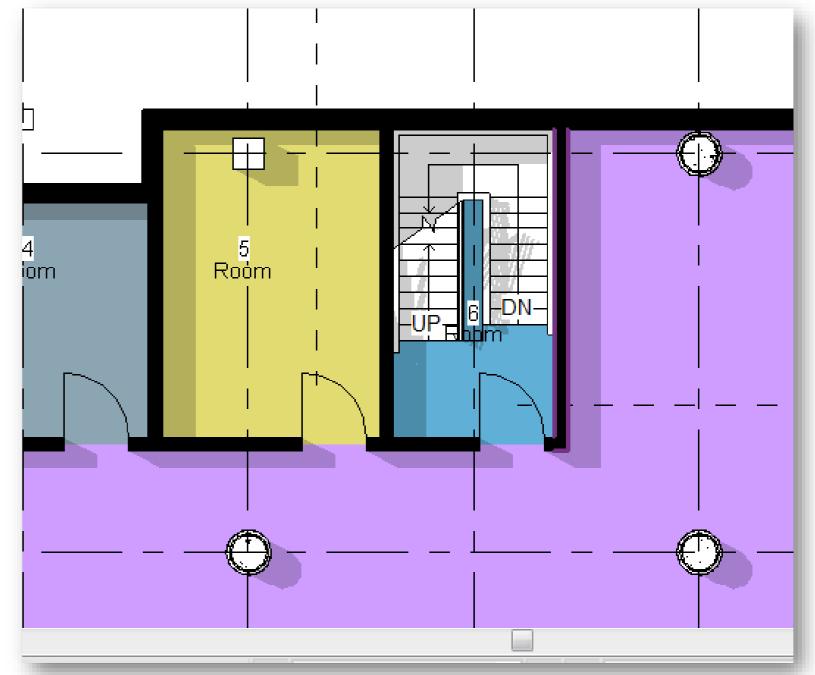




Give a Basic Plan some kick

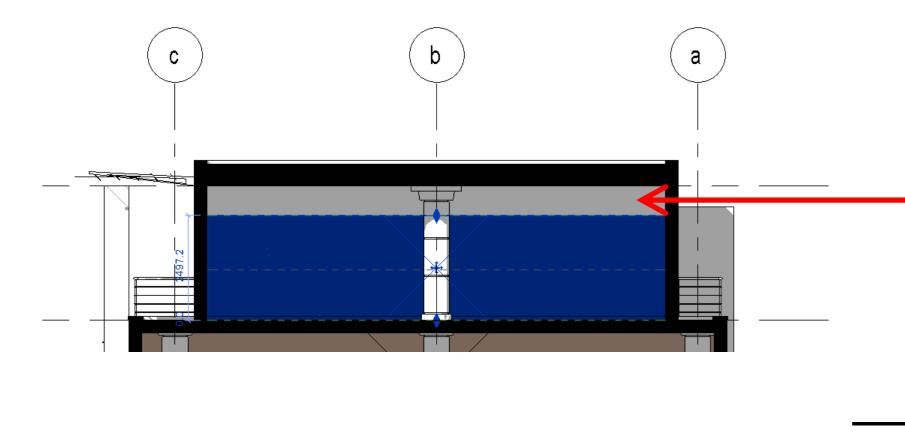
- Adding some colour, via Colour Fill Legends and
 Room Tags, to communicate the spaces use.
- Editing Visibility Graphics to clean up the view, change line-weights, and screen certain Elements.
- Swapping in better looking symbols and dimensions, and editing the annotations so they aren't so dense.
- Making the plan punch by adding a coarse fill to the walls, and turning on shadows (but keeping them light & the sun bright).

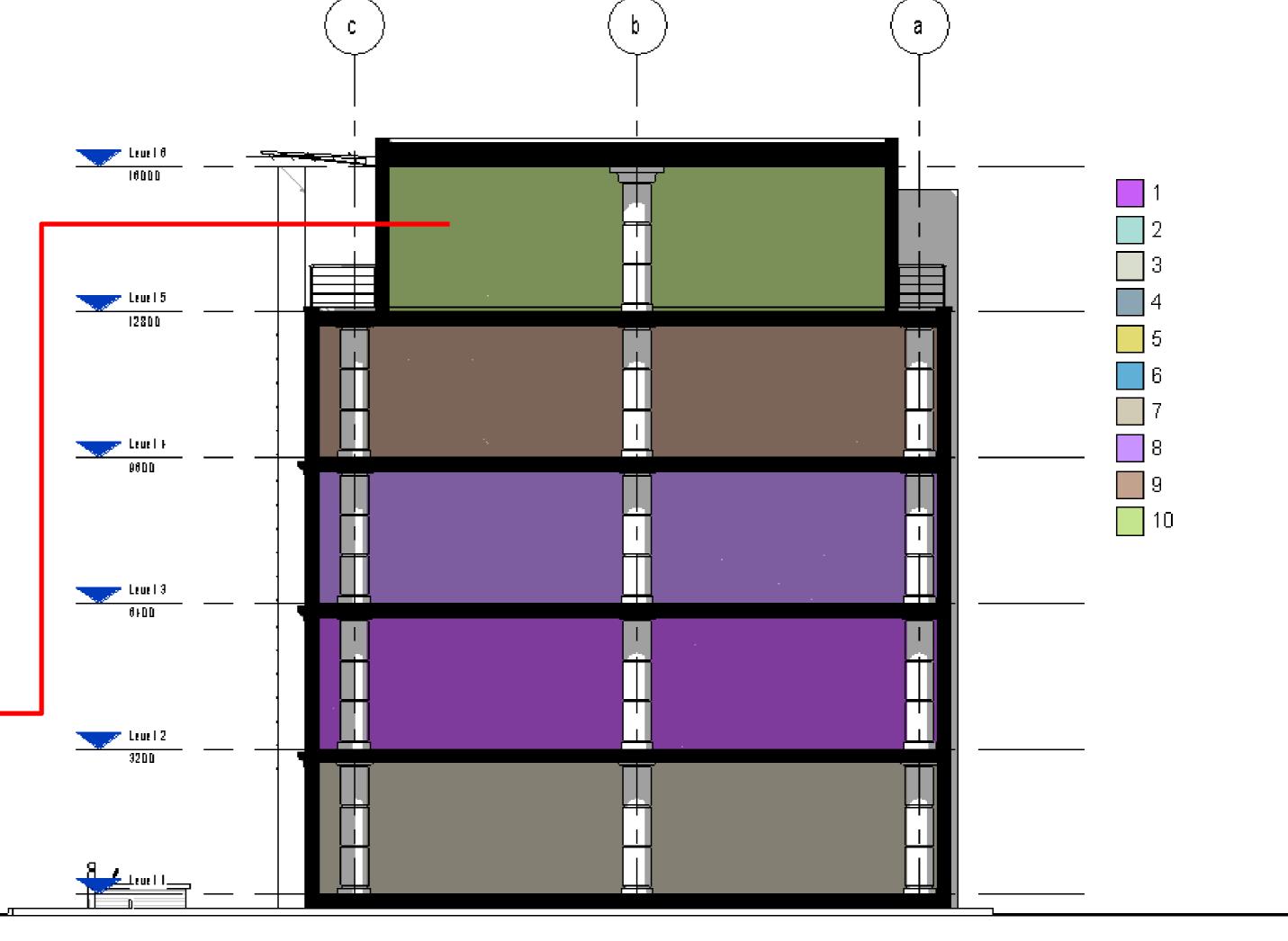




Give a Basic Section some kick

- Don't forget you can use colour legends in sections views as well as plans.
- The important factor is that the room volume extends from the floor finish all the way to the underside of the floor above.

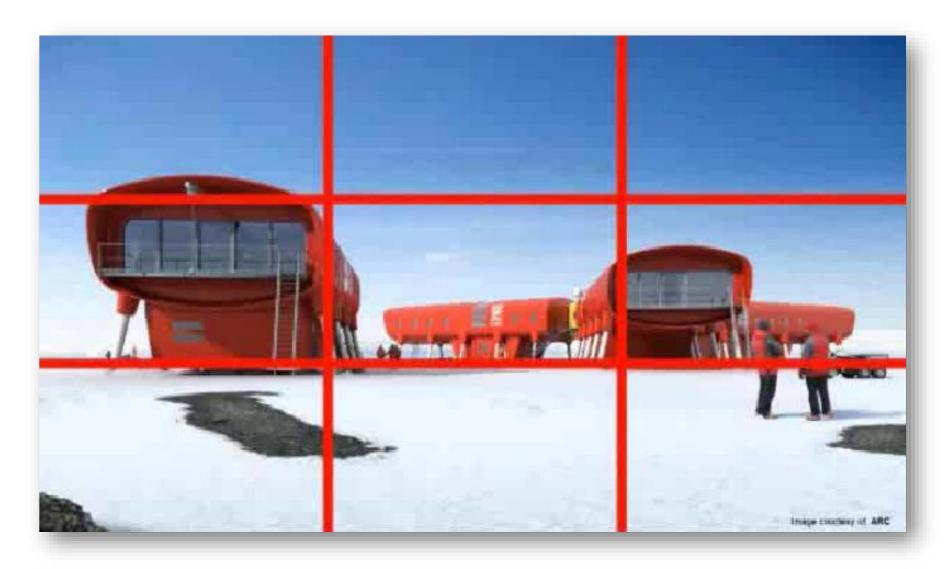


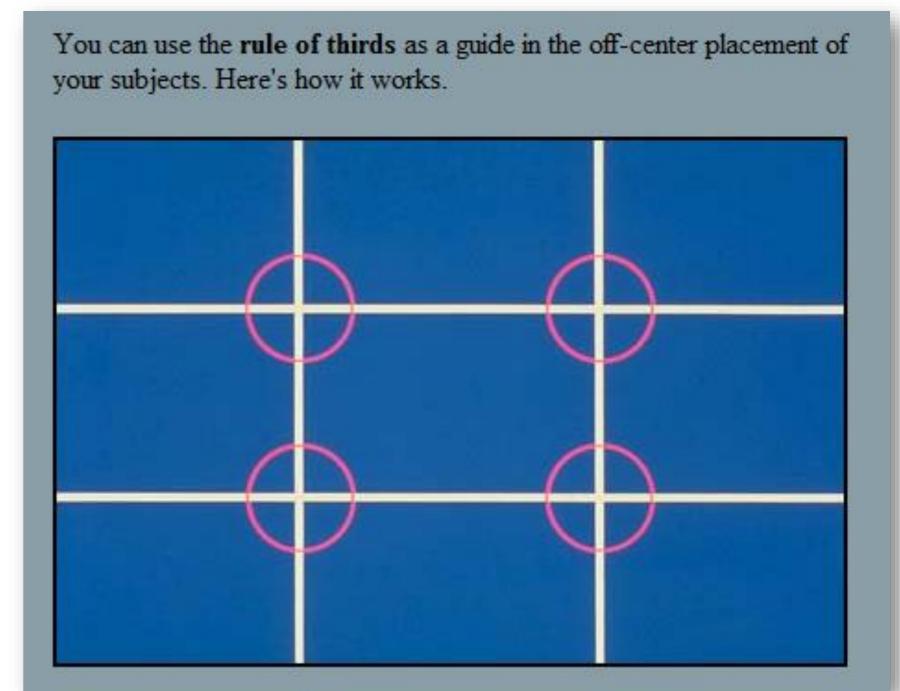


Consider your Image – Rule of Thirds

- This might seam obvious, but when creating a 3d view - consider the Rule of 3rds
- Used extensively in the world of 3d visualisation
 & photography
- Setup image composition exactly like a photographer sets up a shot
- Links to sites which explain more:-

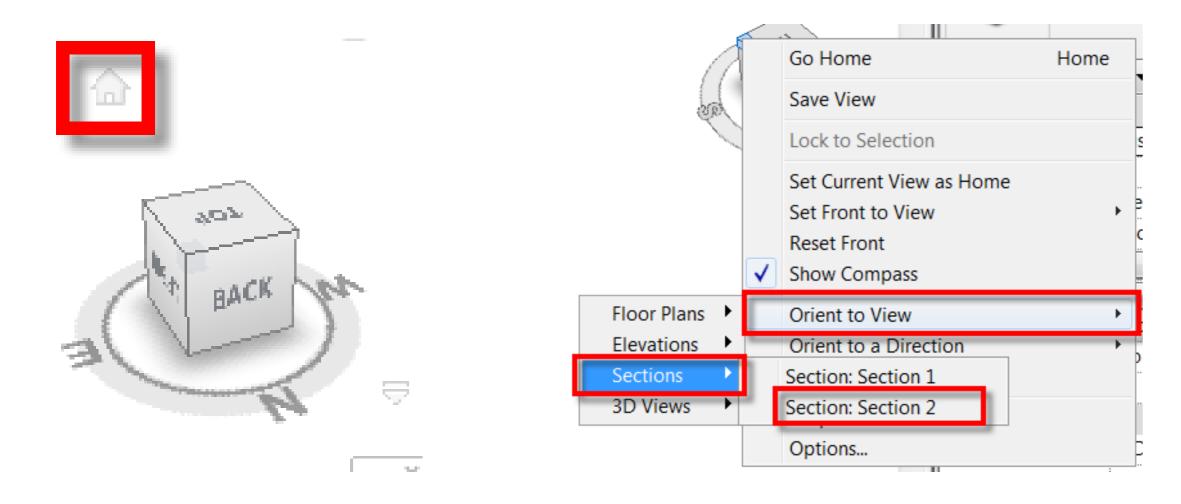
http://www.digital-photography-school.com/rule-of-thirds
http://photoinf.com/General/KODAK/guidelines_for_better_photographic_c
omposition_rule_of_thirds.html
http://en.wikipedia.org/wiki/Rule_of_thirds



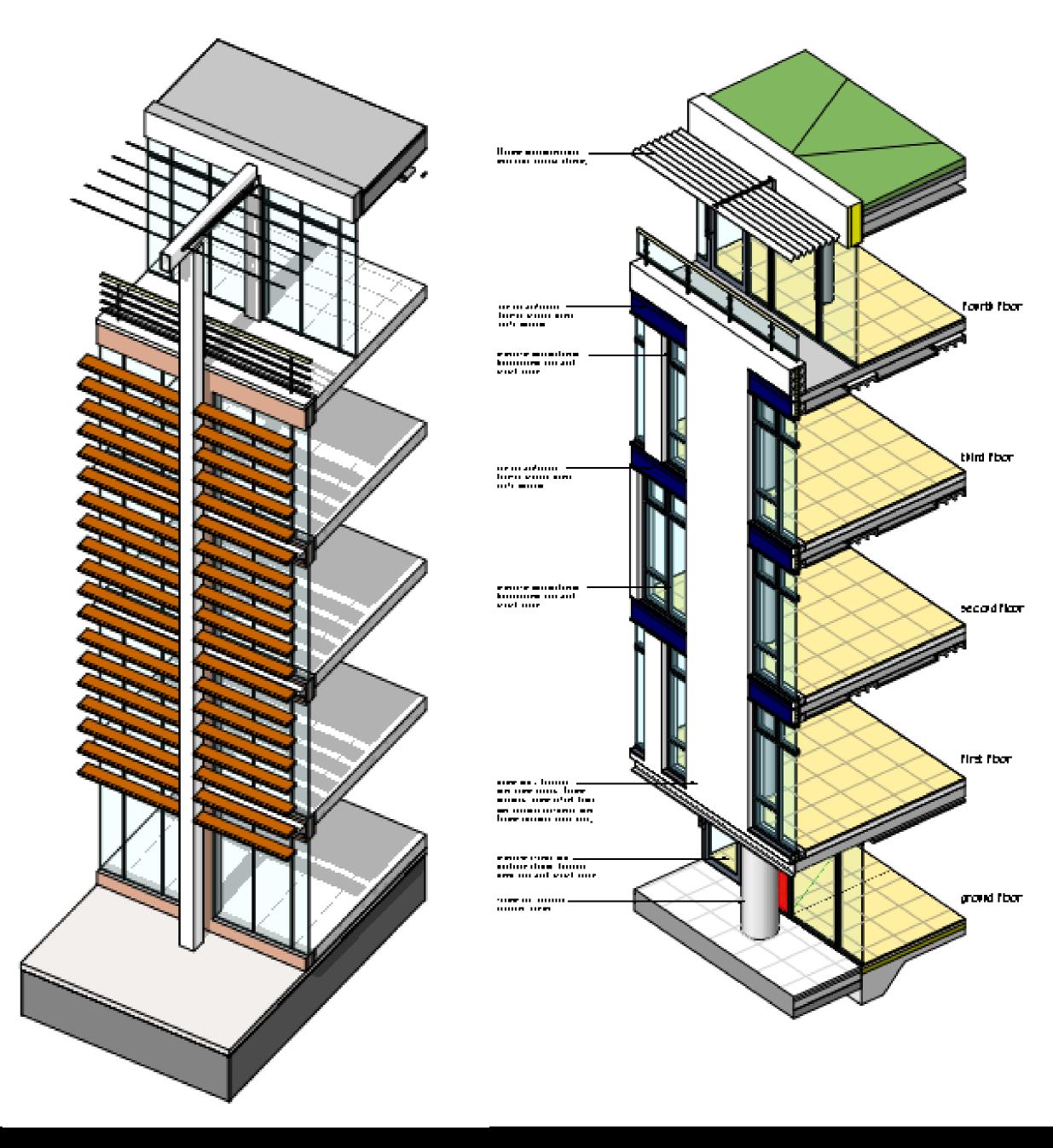


Orient to View Tool

- Create a section or a wall section
- Create a new 3d view
- Then from the view cube select Orient to View



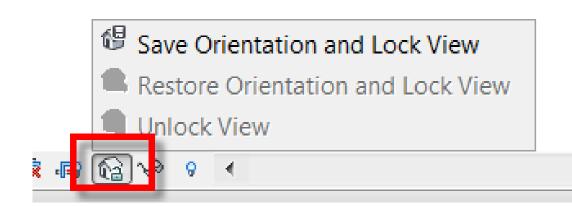
- Pick your section and the 3d view will be oriented to the section.
- Free rotate as required to generate a 3d section.

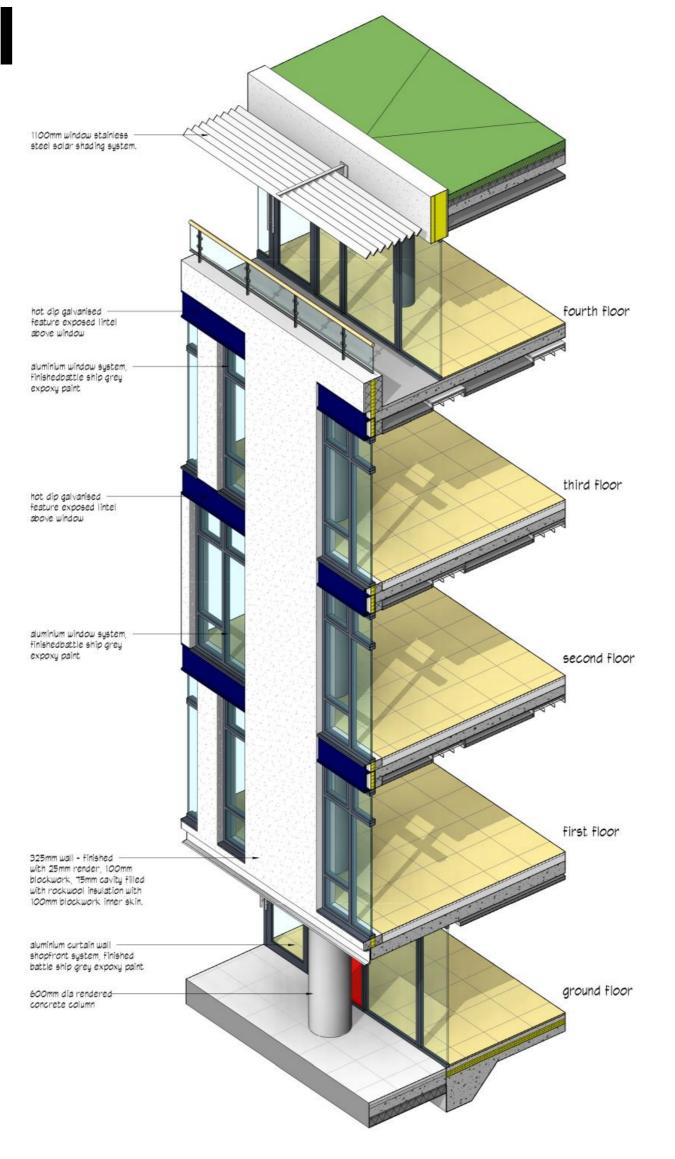


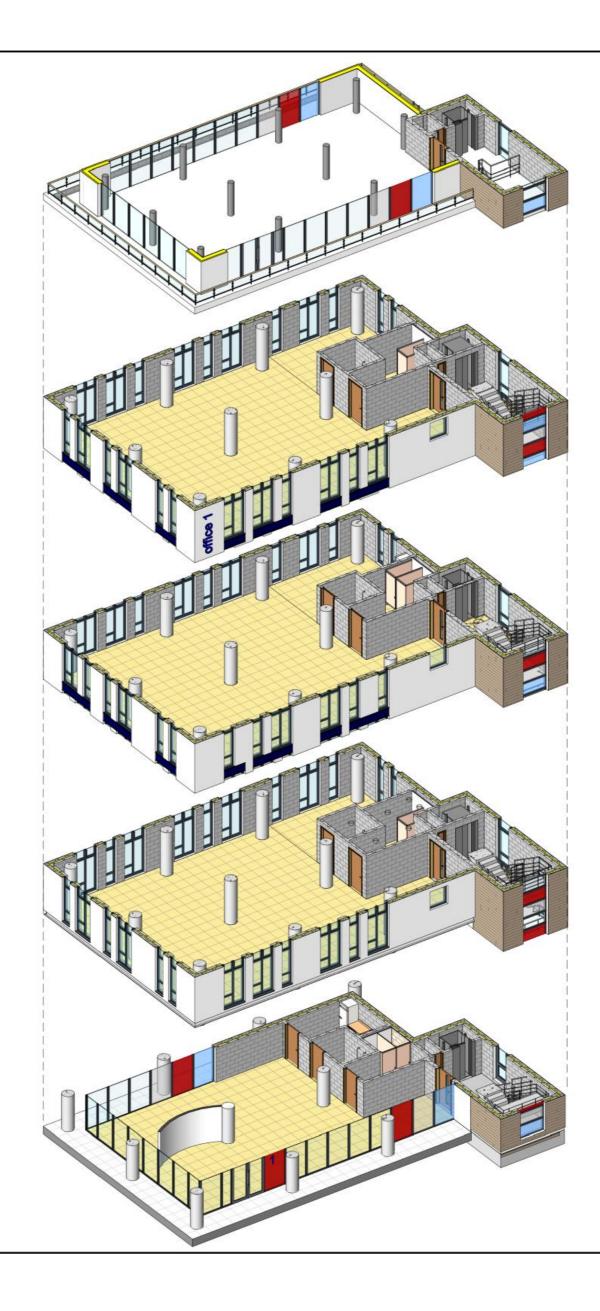
Orient to View Tool

 Use the Orient to view to create floor slices for stacking diagrams

- Or 3d details....
- Don't forget in Revit
 2012 you can now lock
 a 3d view







client logo placed her

Office Development

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Project No: 2



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Key P

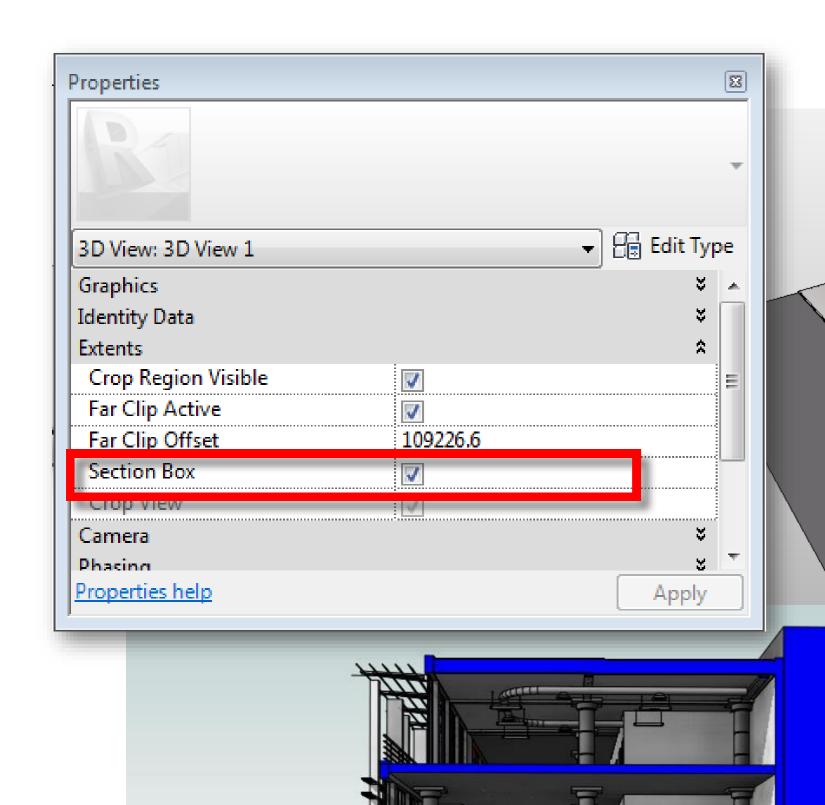
Rev. Description	Date E
Drawn by: Author	Reviewed by: Checker

Stacking Diagram

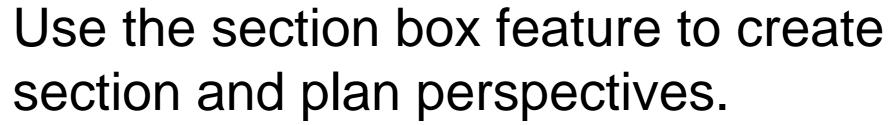
Original drawing is A1. Do not scale contents of this drawing Sheel Number; Revisit

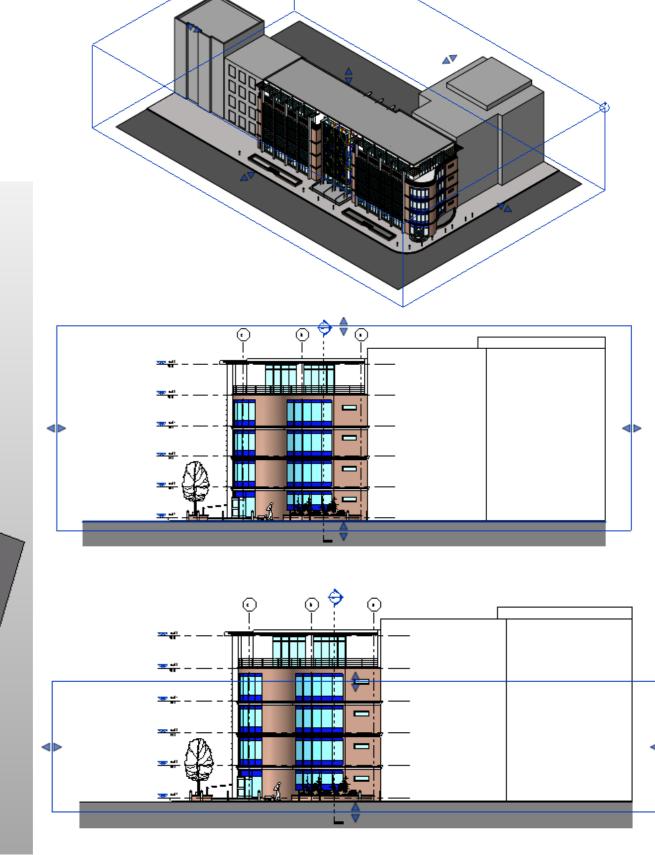
L119

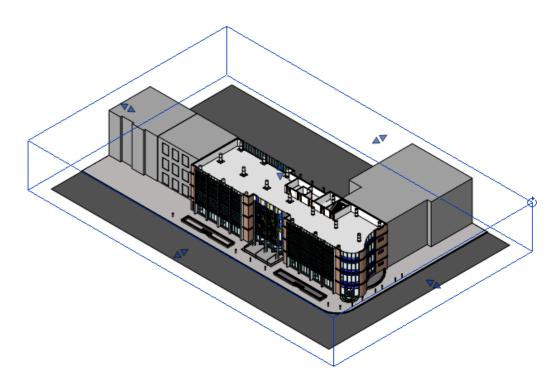
3D Sections





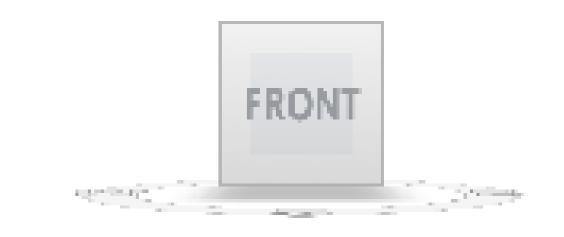


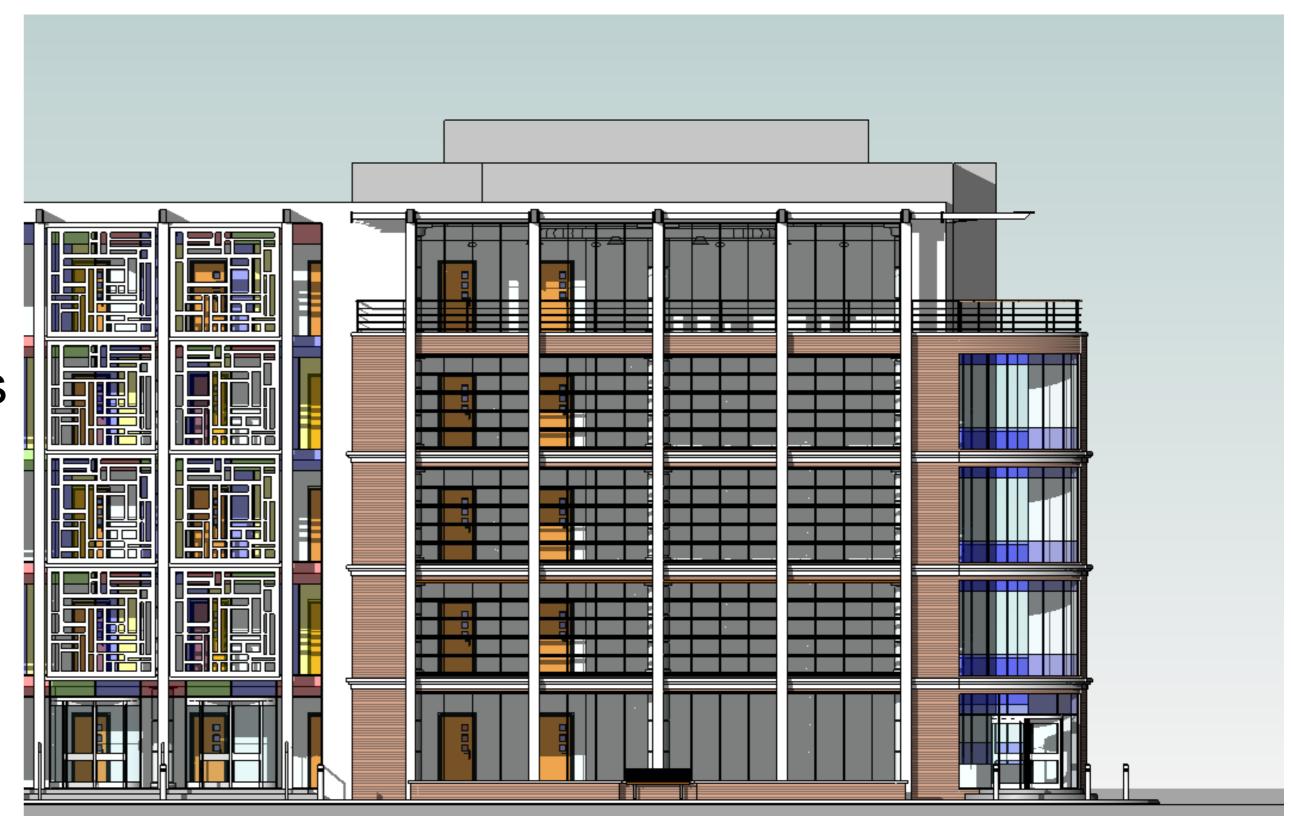




Transparent Glass

- One particular challenge is that glass material displays as a solid color in elevation.
- If you require glass to be transparent, use a combination of a 3d isometric view and the view cube to orient to an elevation of the model.
- The glass will be transparent, but you will not be able to add text, dim etc in the view. This is better placed in a sheet view.



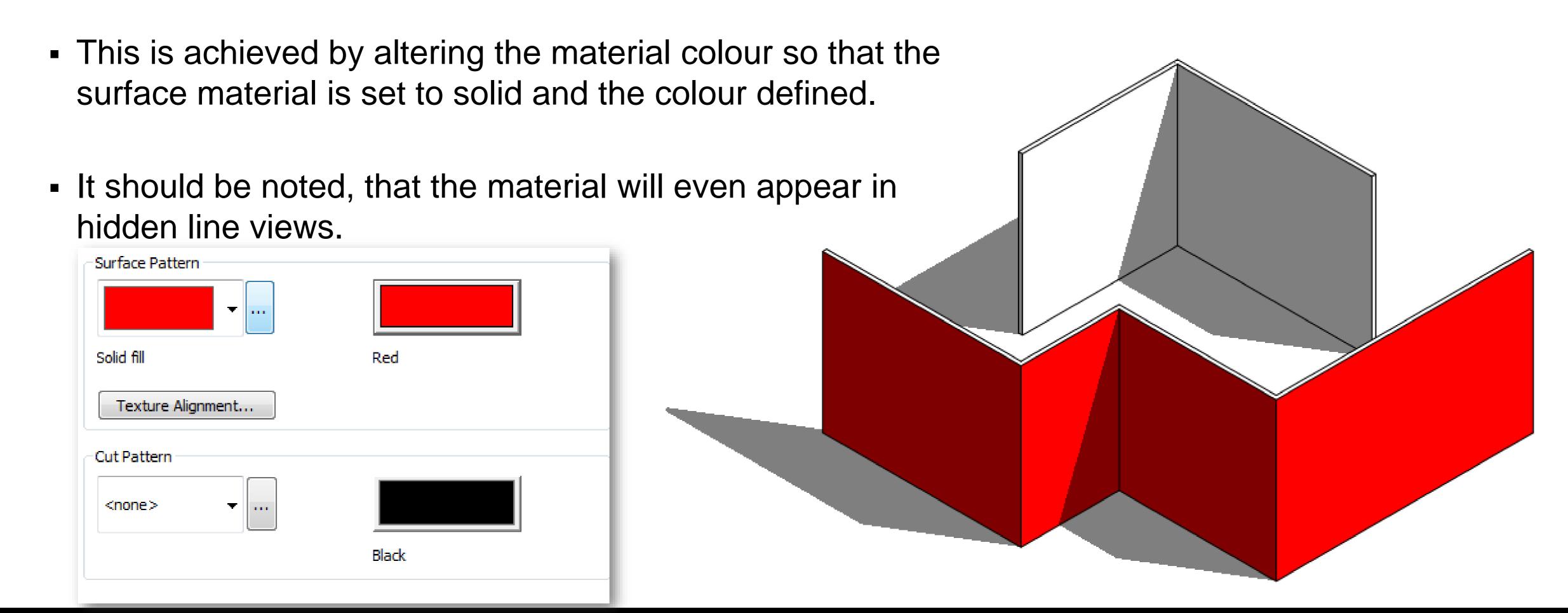


Using Visibility Graphics to get a Sketchy Feel

 Be creative with graphic overrides to alter line work.....

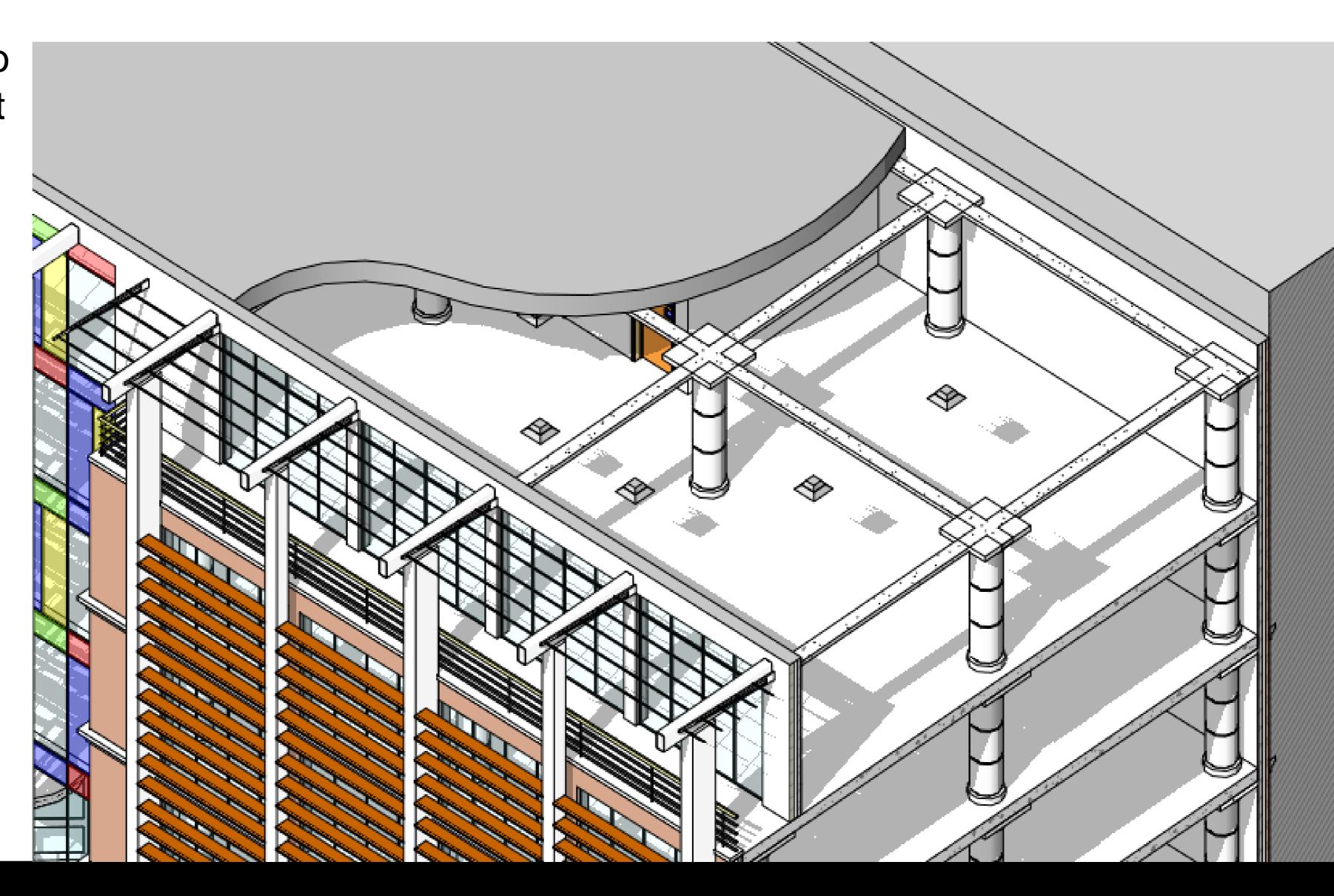
Material Overrides

 You can override the materials of objects with solid colours.



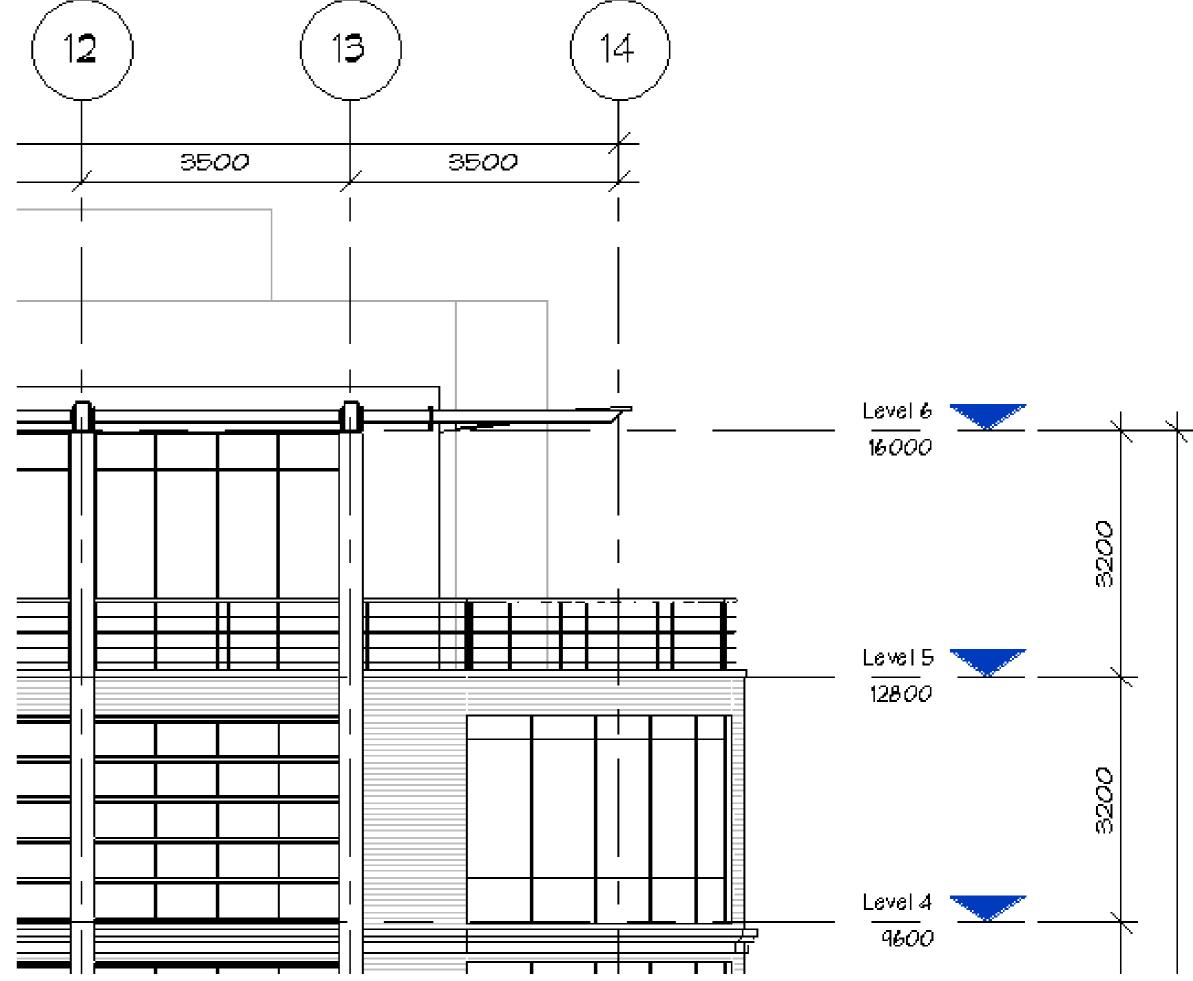
Using Filters to Control Geometry

- Consider creative ways to breakup geometry so that you can hide them in certain views.
- In this example, the roof has been broken up, so that it can be hidden.
- Consider using visibility filters to hide items globally rather than per view.



Use Your Fonts

Whilst fonts such as Arial and Arial Narrow are commonly used, there may be occasions with presentation work where mixing up the fonts you use can improve the overall look and style of the output.



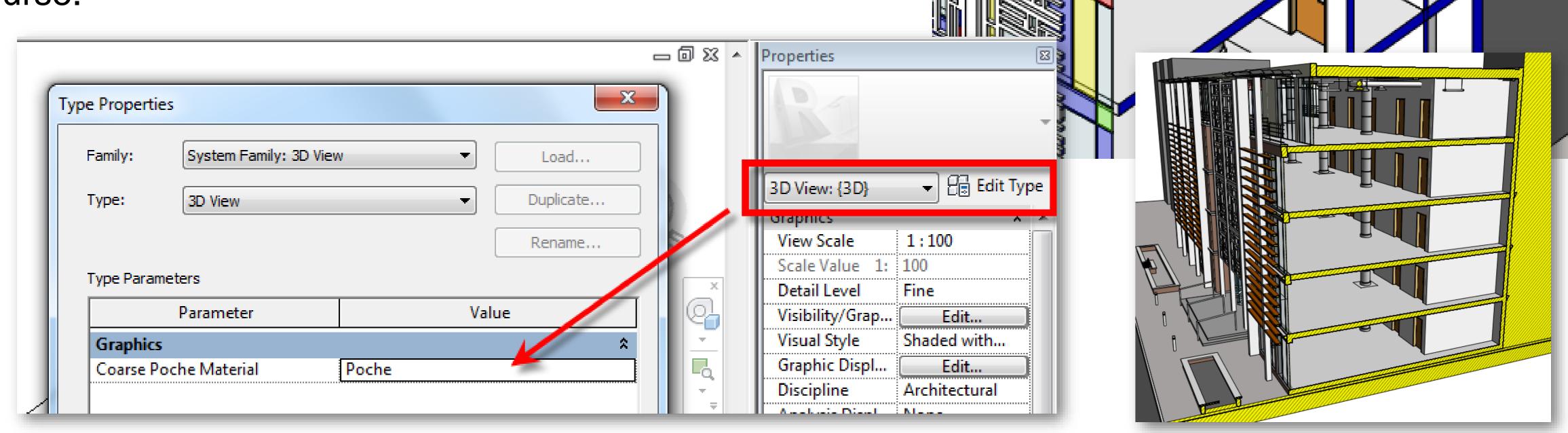
The quick brown fox jumps over the lazy dog. 1234567890

The quick brown fox jumps over the lazy dog. 1234567890
The quick brown fox jumps over the lazy dog. 1234567890

The quick brown fox jumps over the lazy dog. 1234567890

Understanding Poche

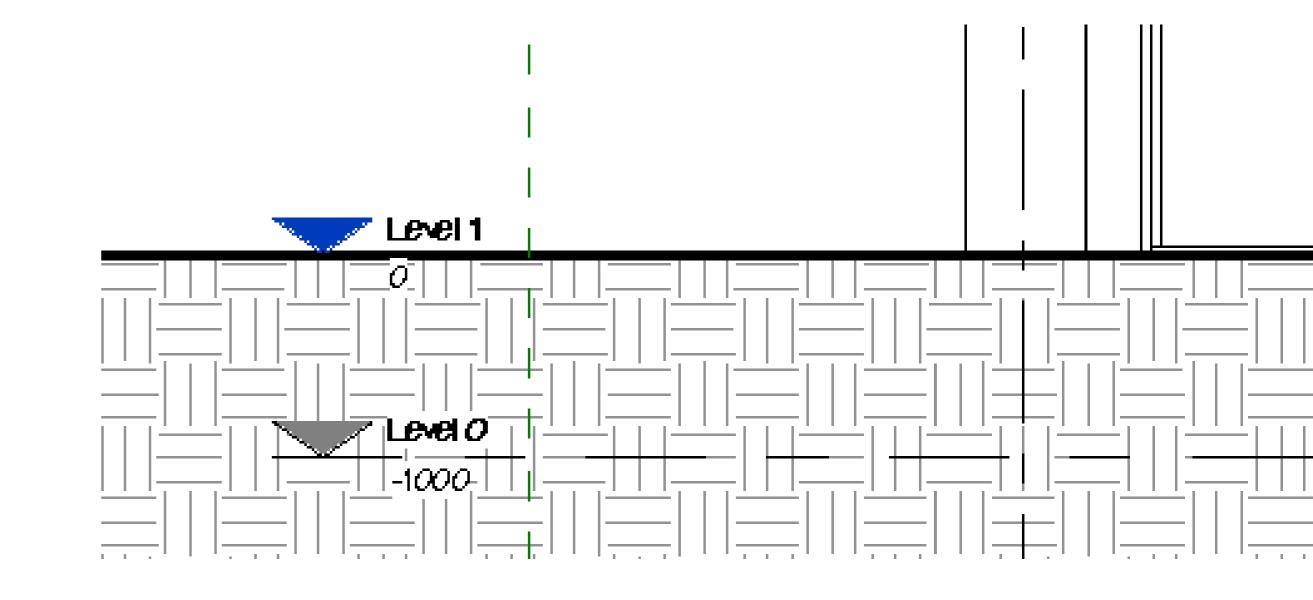
- What is Poche?
- The Poche material is the material colour you see when a section box is defined in a 3d view.
- It will only display when the level of detail is set to course.

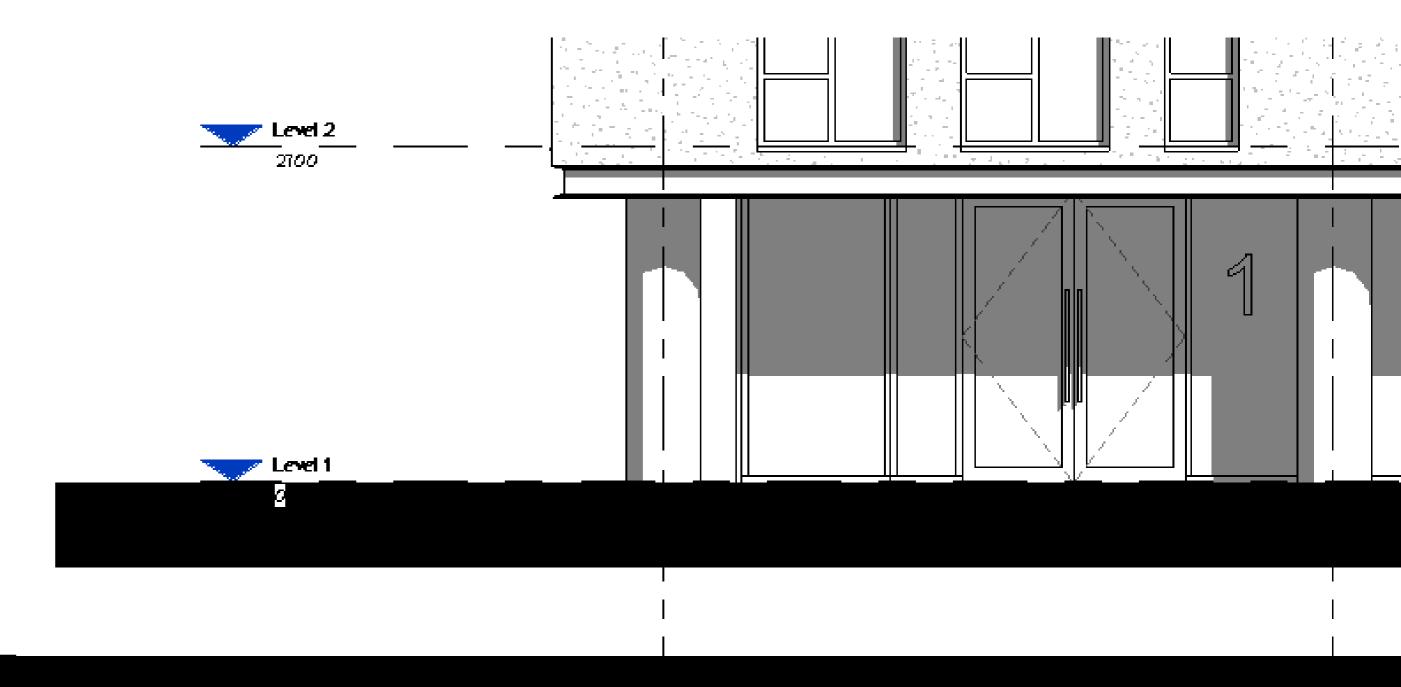


Give Your Elevation a Base

 Elevations can look scrappy with the default terrain shown in an elevation view.

 Hide terrain in the view and use a filled region to give your an elevation a base to sit on.





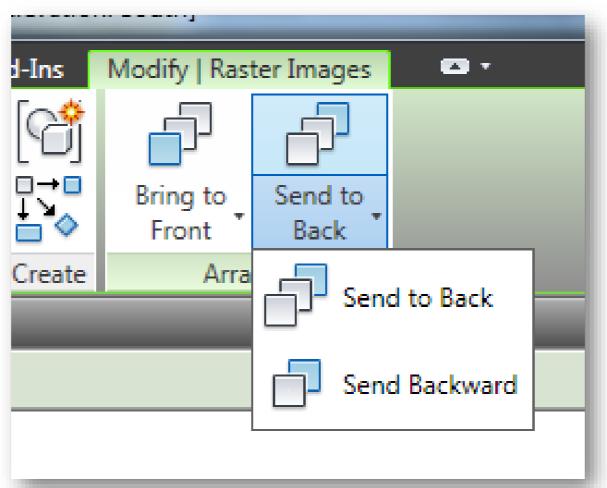
Entourage Can Make All The Difference

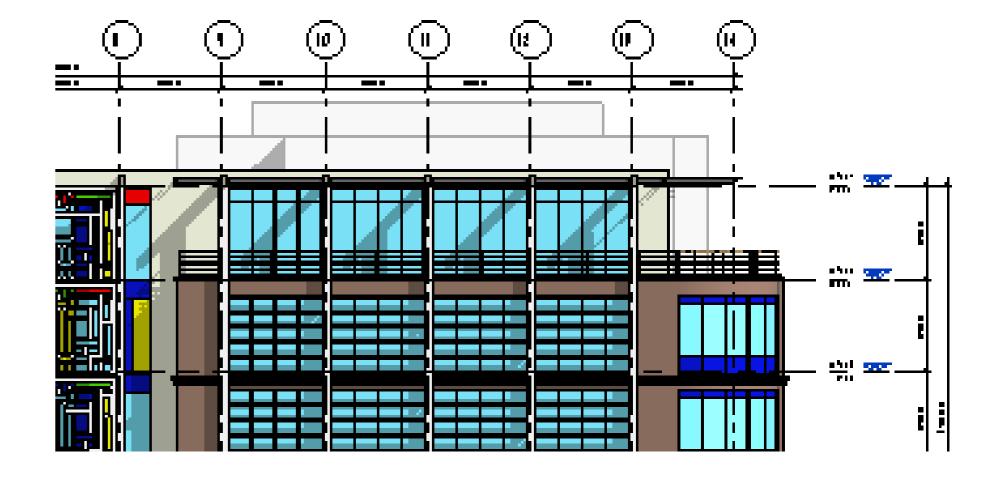
Use 2d Entourage families to make your elevations less "Revit" like!

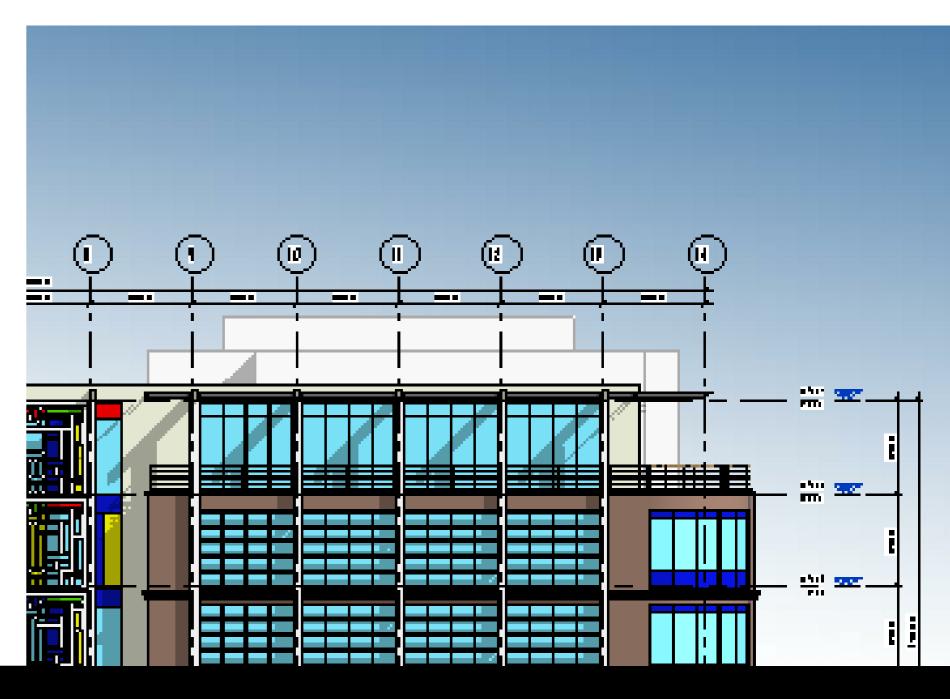


Using Images

- Use images in the background to give your elevations a sense of depth. These can be gradients or sky backgrounds.
- Edit these in Photoshop and save the image as a PNG.
- In Revit choose Insert > Image and import your image.
 Place the image as required. Select the image and then choose send to background.



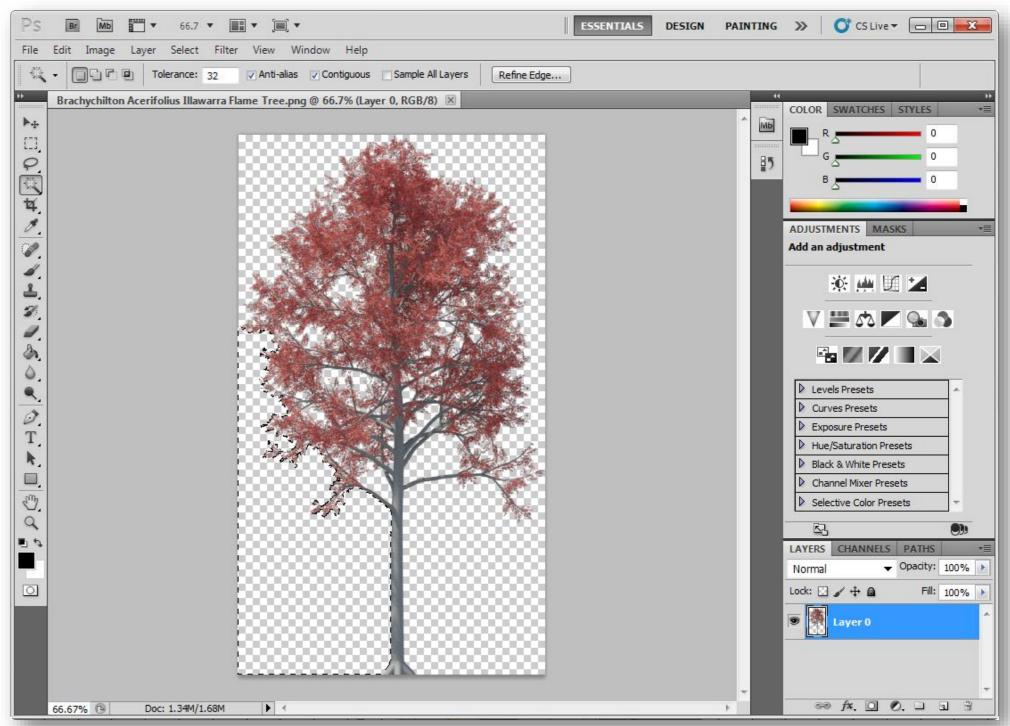




Using Images

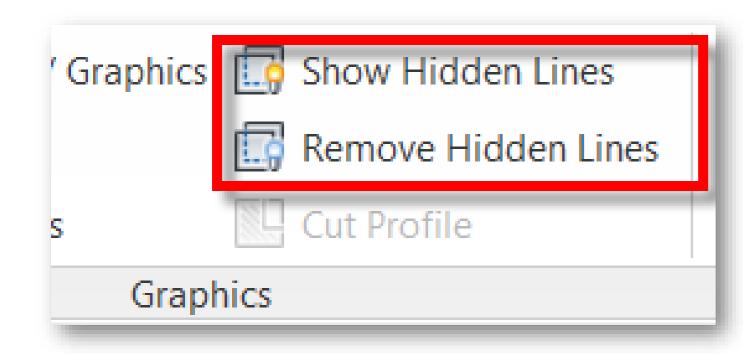
- Use images to with transparency to add interest to your elevations.
- In Photoshop, remove any background and save the image as a PNG image.
- In Revit choose Insert > Image and import your image. Place the image as required.

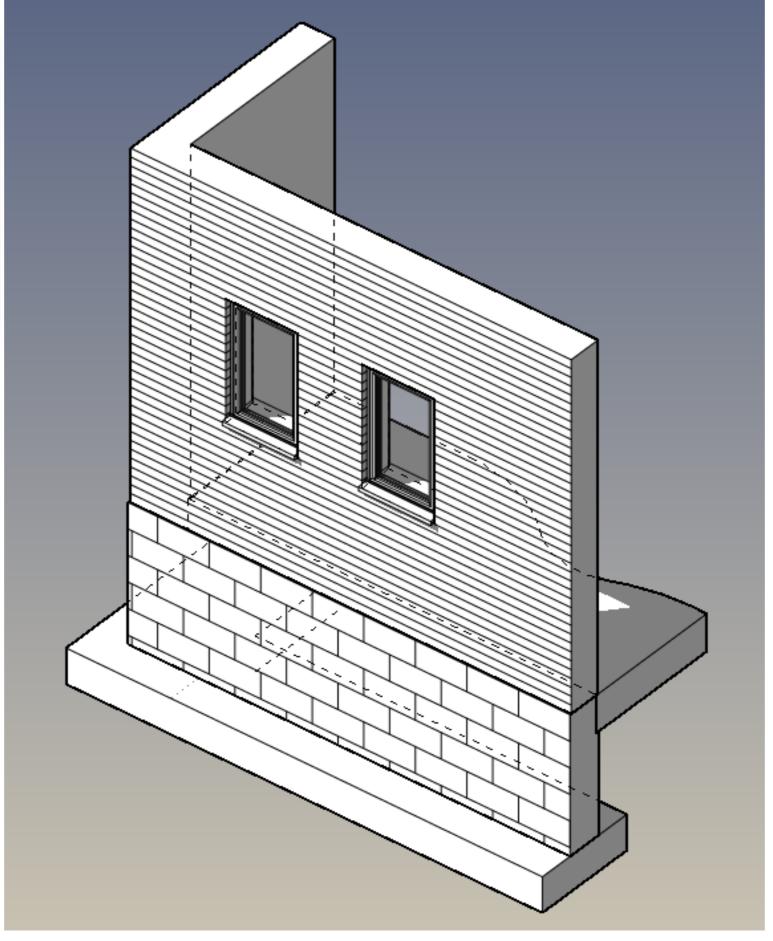




Hidden Linework

Allows you to display elements which are obscured by other elements





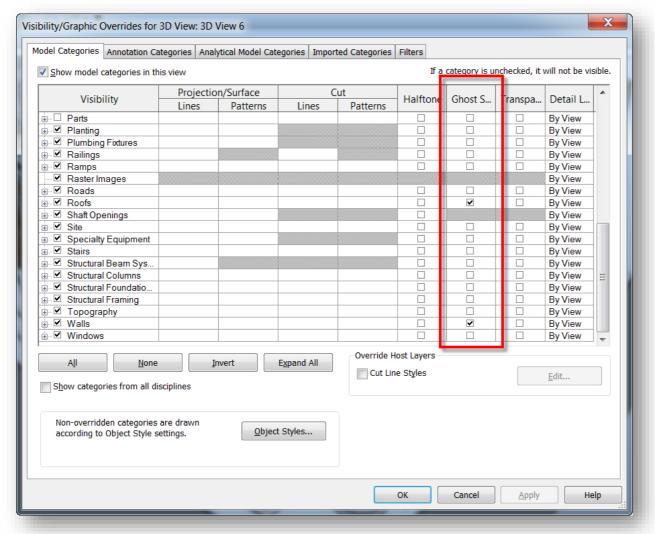
Ghosted Surfaces

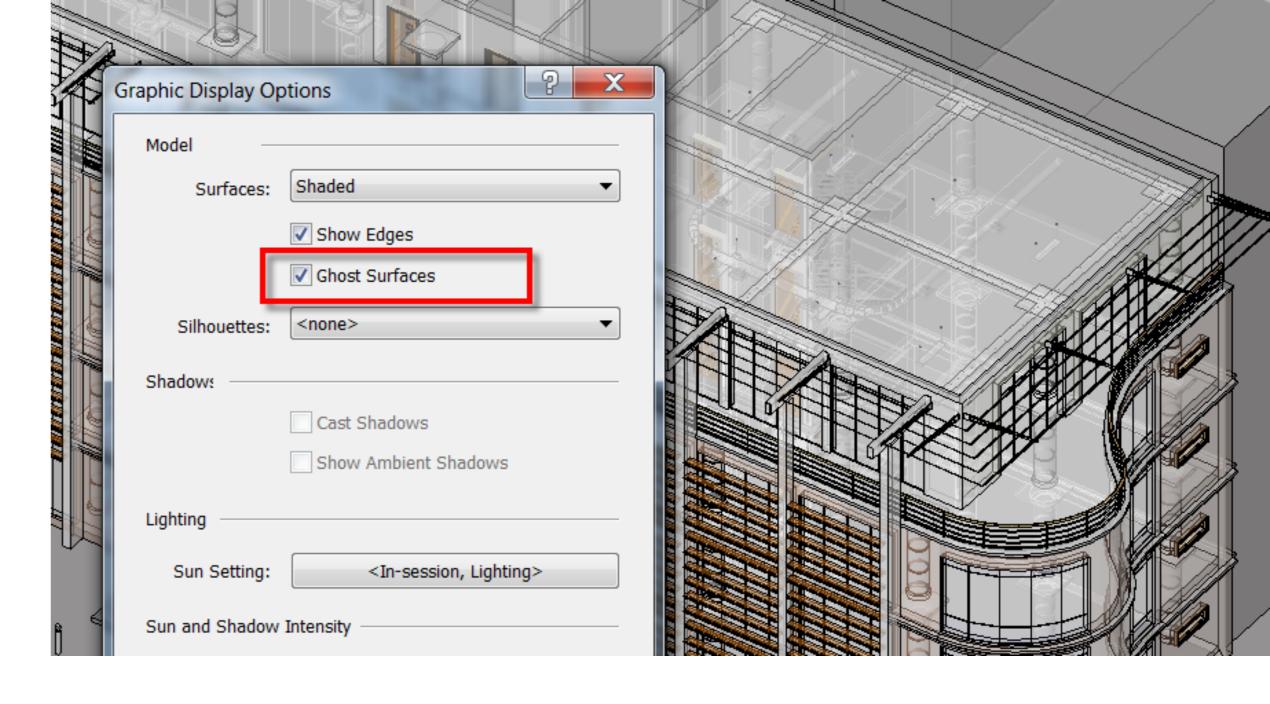
 Ghosted Surfaces allow you to override graphics to apply surface with 30% transparency to building elements

 Ghost Surface can be applied to a whole view, by element, category or by filter.

Percentage of transparency cannot be

changed.



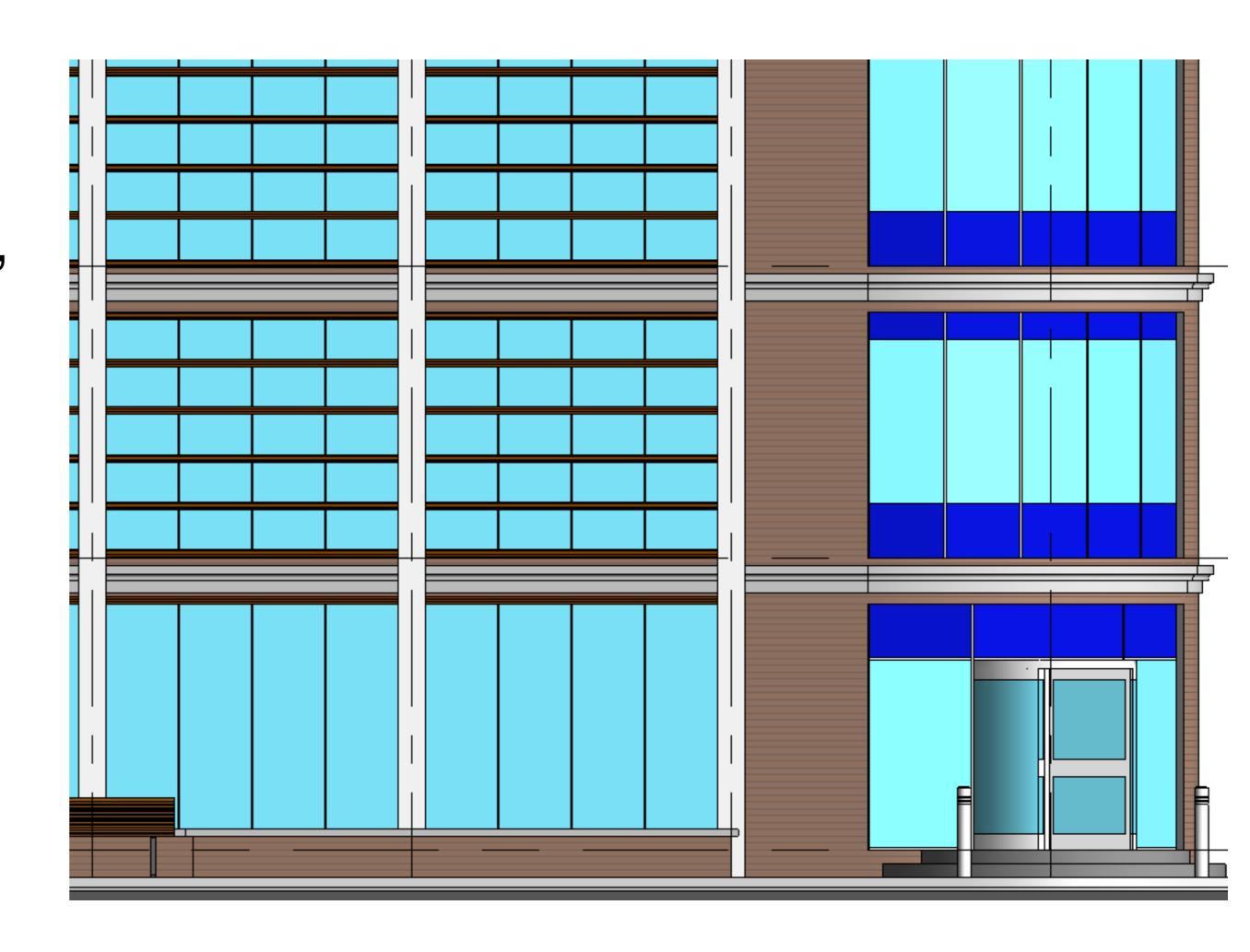




Hatch Patterns

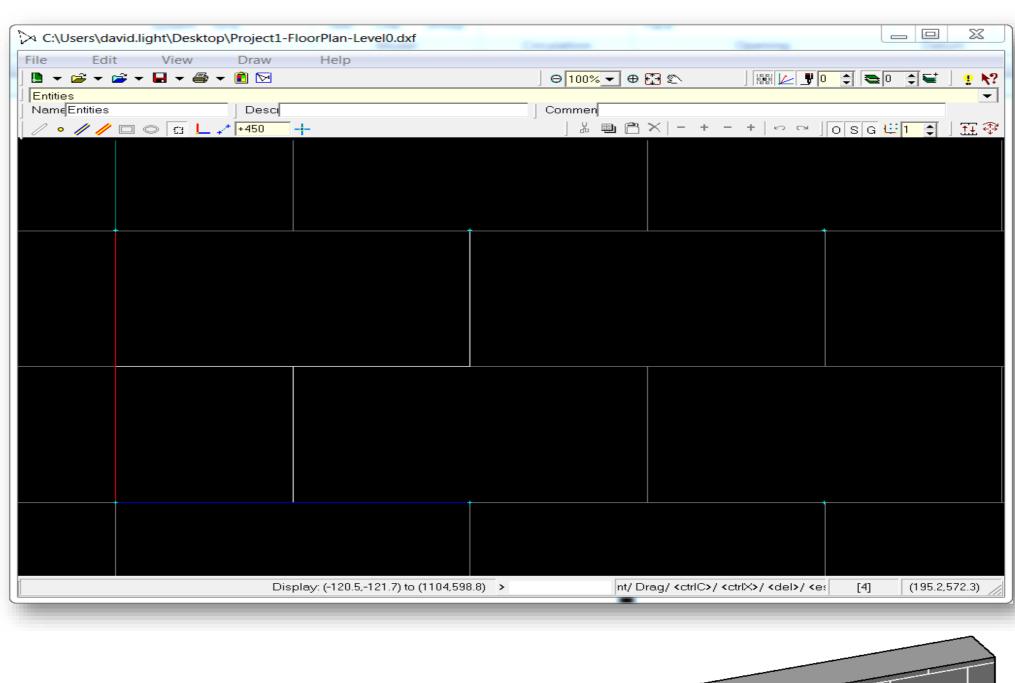
- Consider the use of hatch patterns
- Instead of using black lines for hatch, use a dark grey to soften linework,
- Whilst brick hatch looks nice, sometimes it can be a bit too heavy depending on the scale!

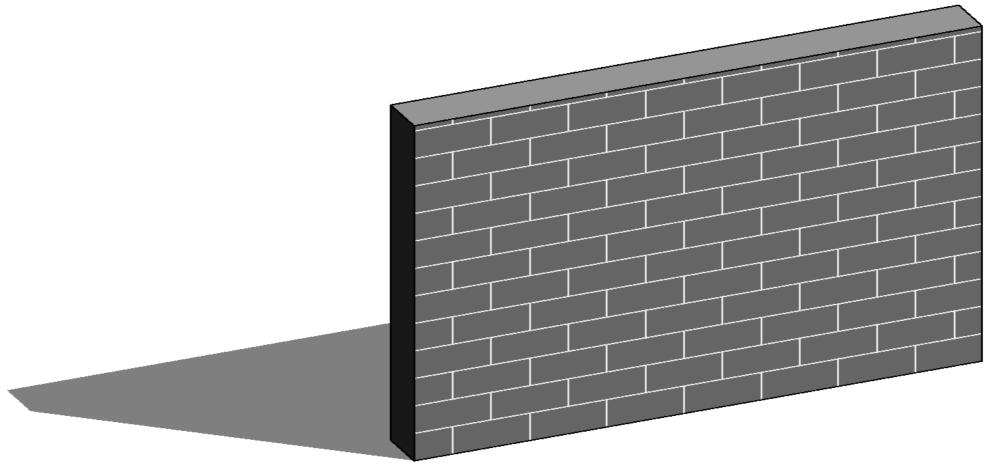




Hatch Patterns

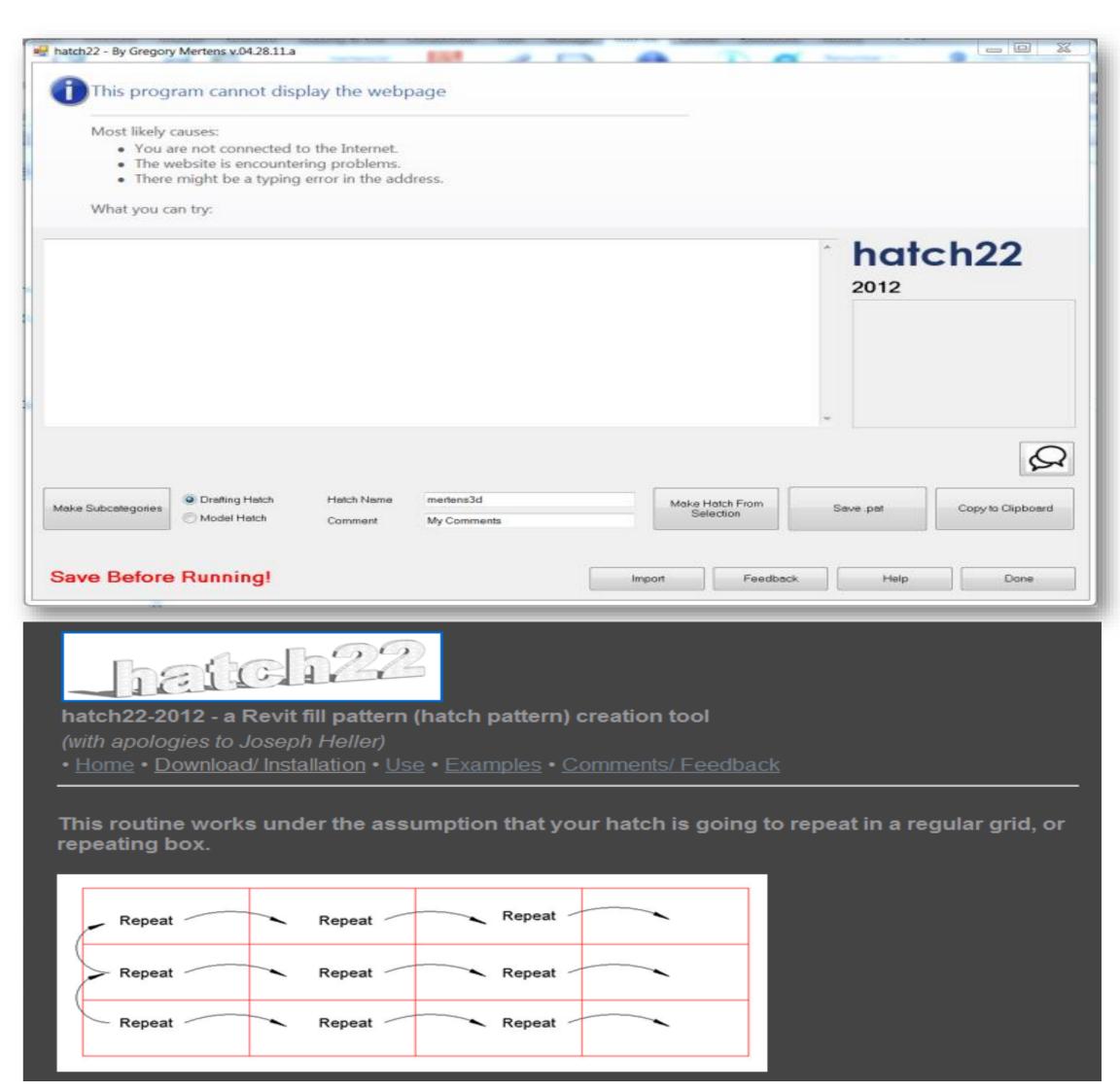
- Need custom hatch patterns?
- Then get Hatch Kit Pro, it will be the best \$125 you will ever spend!
- Best off drawing pattern in AutoCAD, export as DXF, import into Hatch Kit, export as a .PAT suitable for Revit.
- http://www.hatchkit.com.au/





Custom Hatches for free - Hatch22

- Free app which allows you to create custom hatch patterns directly within Revit.
- The app / plugin can be downloaded from here -
- http://mertens3d.com/tools/revit/2012/h
 atch22-2012/hatch22-2012-use.php



Summary - Elevation Techniques







Elevations Creation Tips

- Use VH to turn off all unwanted categories
- Use VG to turn all projection and cut planes to neutral colour, line type and thickness
- Use Orient to view (Elevation) to see through glazing etc
- Use default shadow settings to set shadows
- Keep sun light up and shadows down
- Use bright materials with glow turned on to illuminate objects
- Use sky and ground images as backdrop
- Use 3D Camera to create perspective elevations.

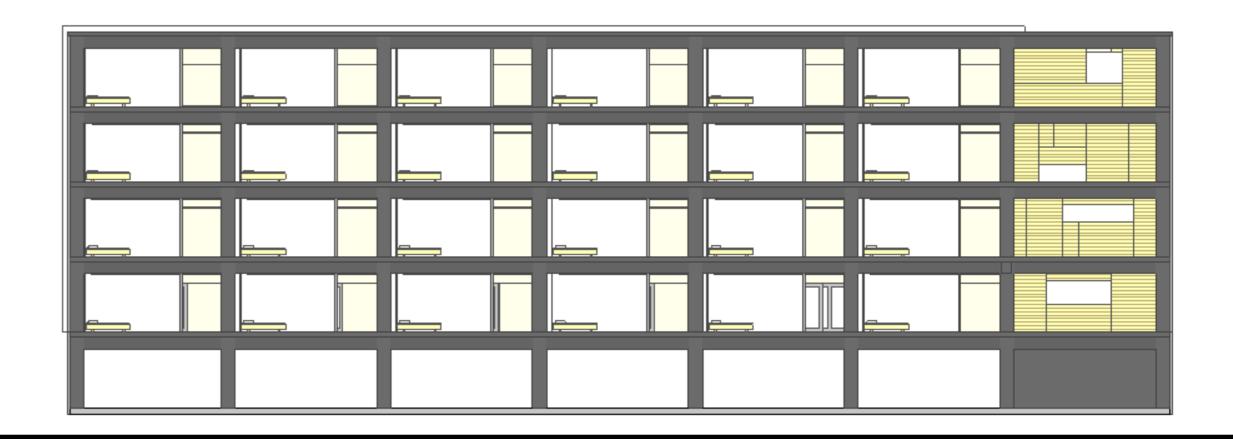
Summary - Concept Sections





Concept Section Creation Tips

- Use VH to turn off all unwanted categories
- Use VG to turn all projection and cut planes to neutral colour, line type and thickness
- Use VG to override the cut pattern fill
- Use default shadow settings to set shadows
- Keep sun light up and shadows down
- Use bright materials with glow turned on to illuminate objects
- Transfer legacy CAD details to create entourage
- Use sky and ground images as backdrop



Summary - Perspective Views





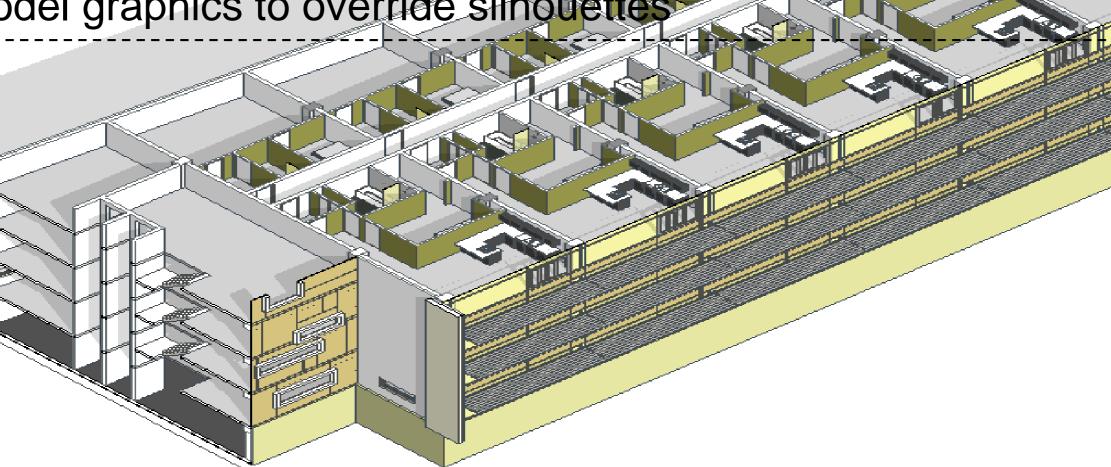
3D Creation Tips

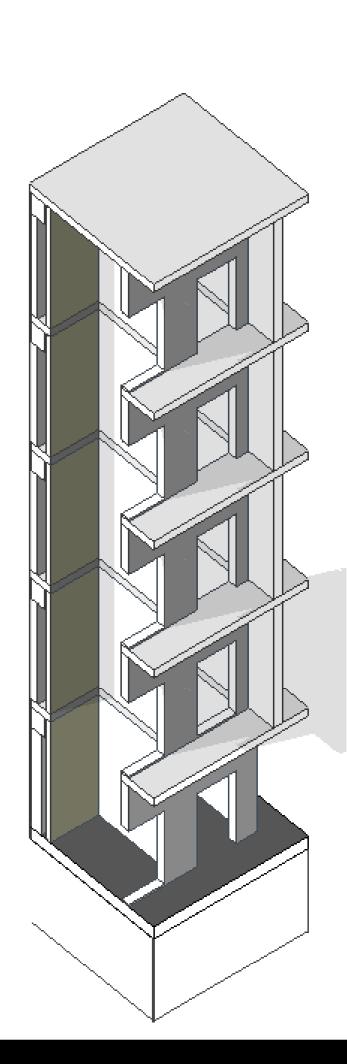
- Use VH to turn off all unwanted categories
- Use VG to turn all projection and cut planes to neutral colour, line type and thickness
- Use default shadow settings to set shadows
- Keep sun light up and shadows down
- Use bright materials with glow turned on to illuminate objects
- Use gradient backdrops
- Use Steering Wheel to dynamically modify view.
- Use Advanced Model graphics to override silhouettes
- Be creative with camera angles (rule of 3rds)

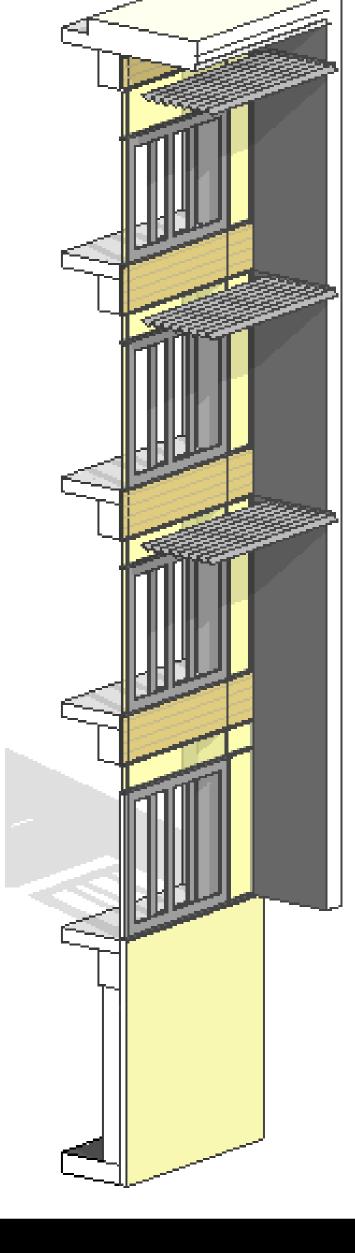
Summary - Cropped 3D Views

3D Creation Tips

- Create Callout or section view
- Click into the default 3D view
- Press F8 and orient to new callout view
- Use the crop region to refine crop box
- Use VH to turn off all unwanted categories
- Use VG to turn all projection and cut planes to neutral colour, line type and thickness
- Use default shadow settings to set shadows
- Keep sun light up and shadows down
- Use Advanced Model graphics to override silhouettes







Questions

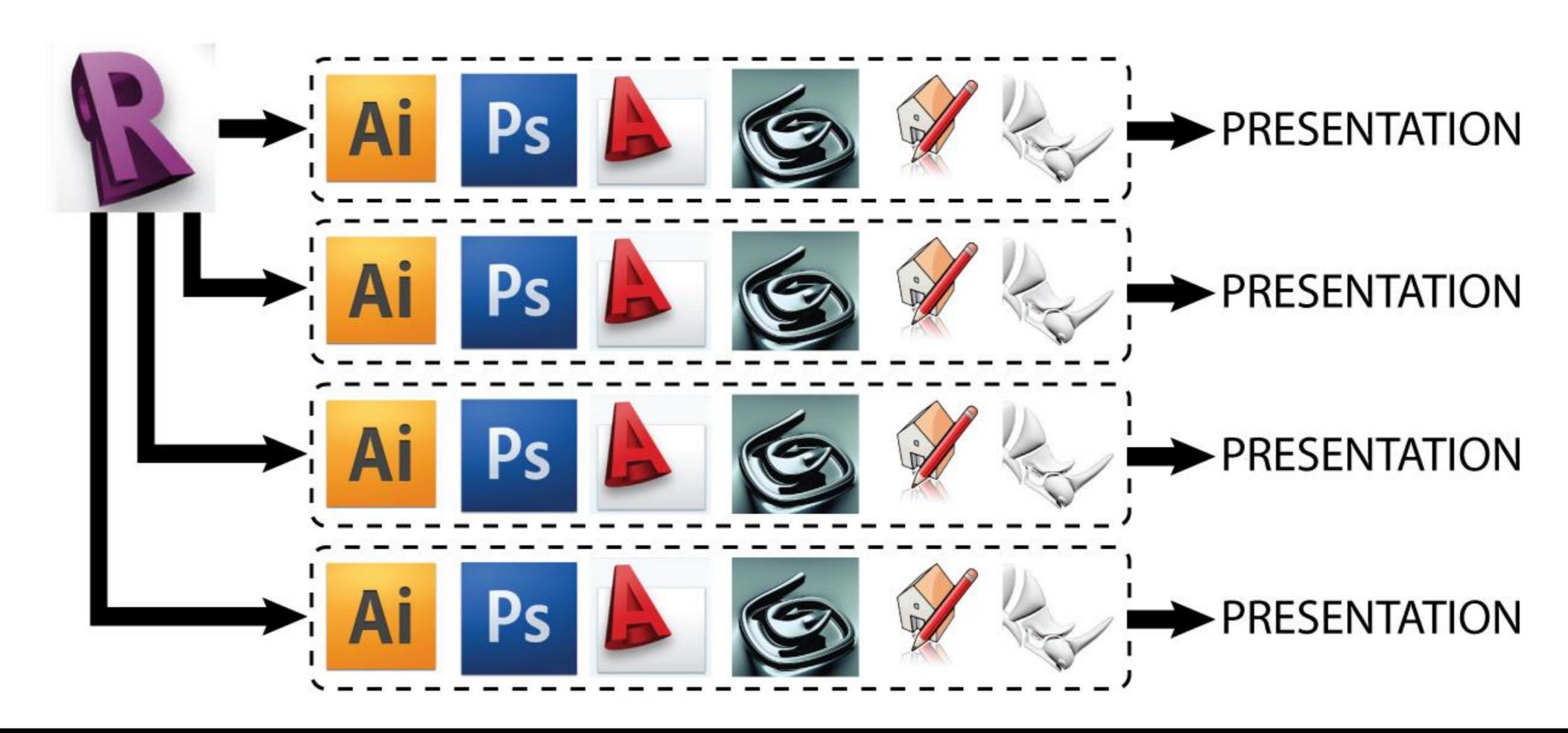


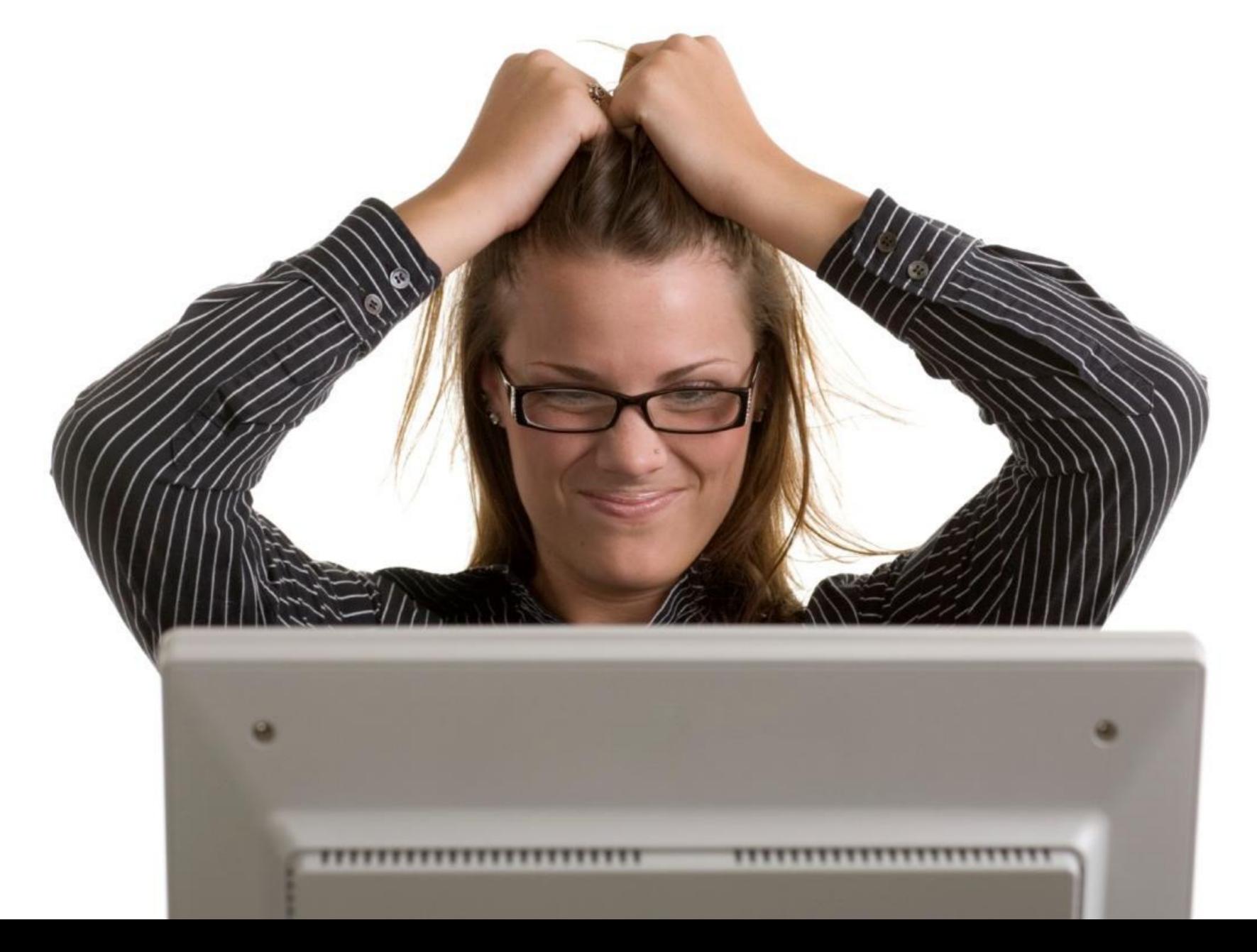
WHY DESIGNERS SOMETIMES SAY...

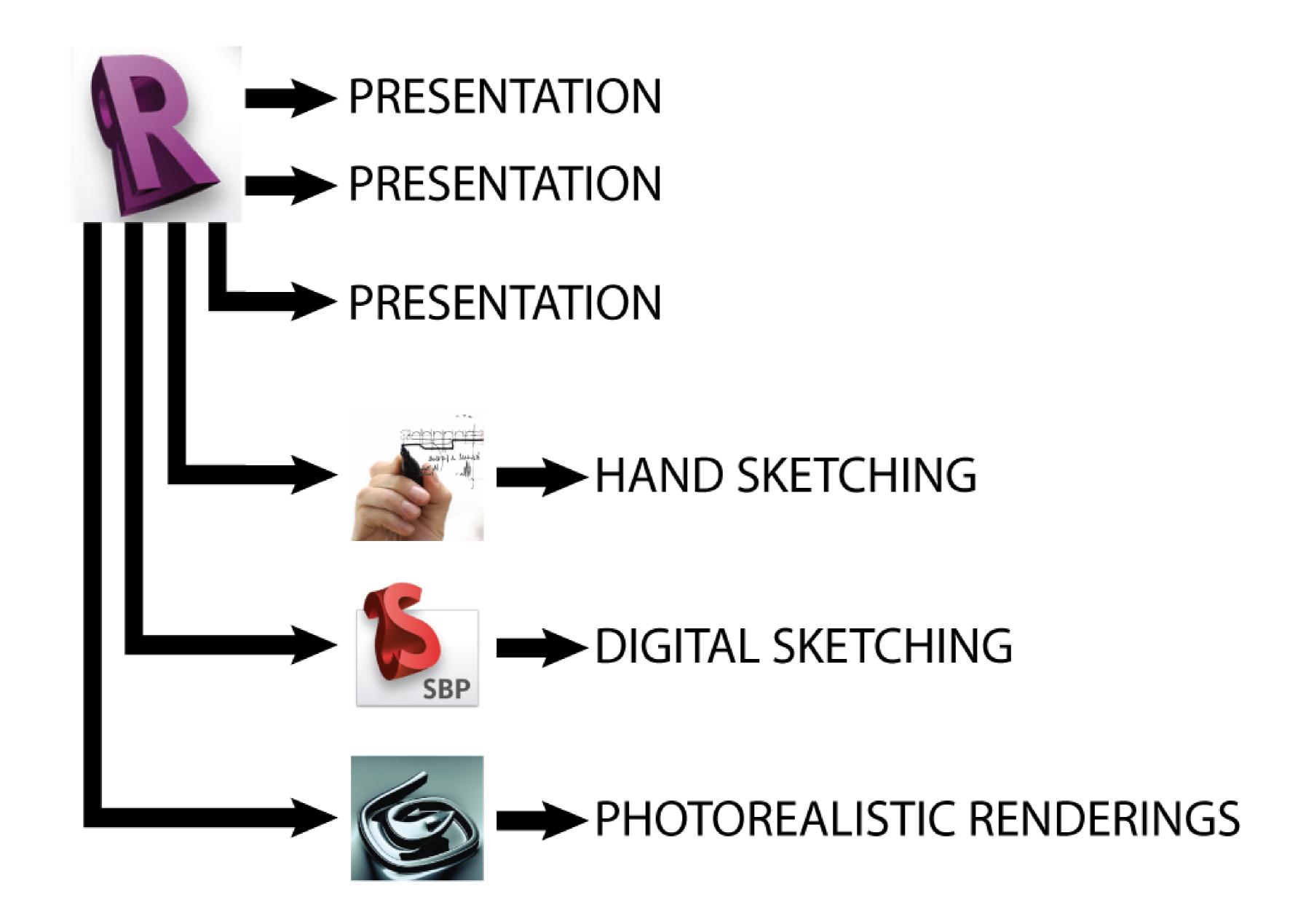
- The graphics are not great...
- Too hard to show options...
- Renderings take too long...
- Need to assign materials to everything...
- Lifeless views...

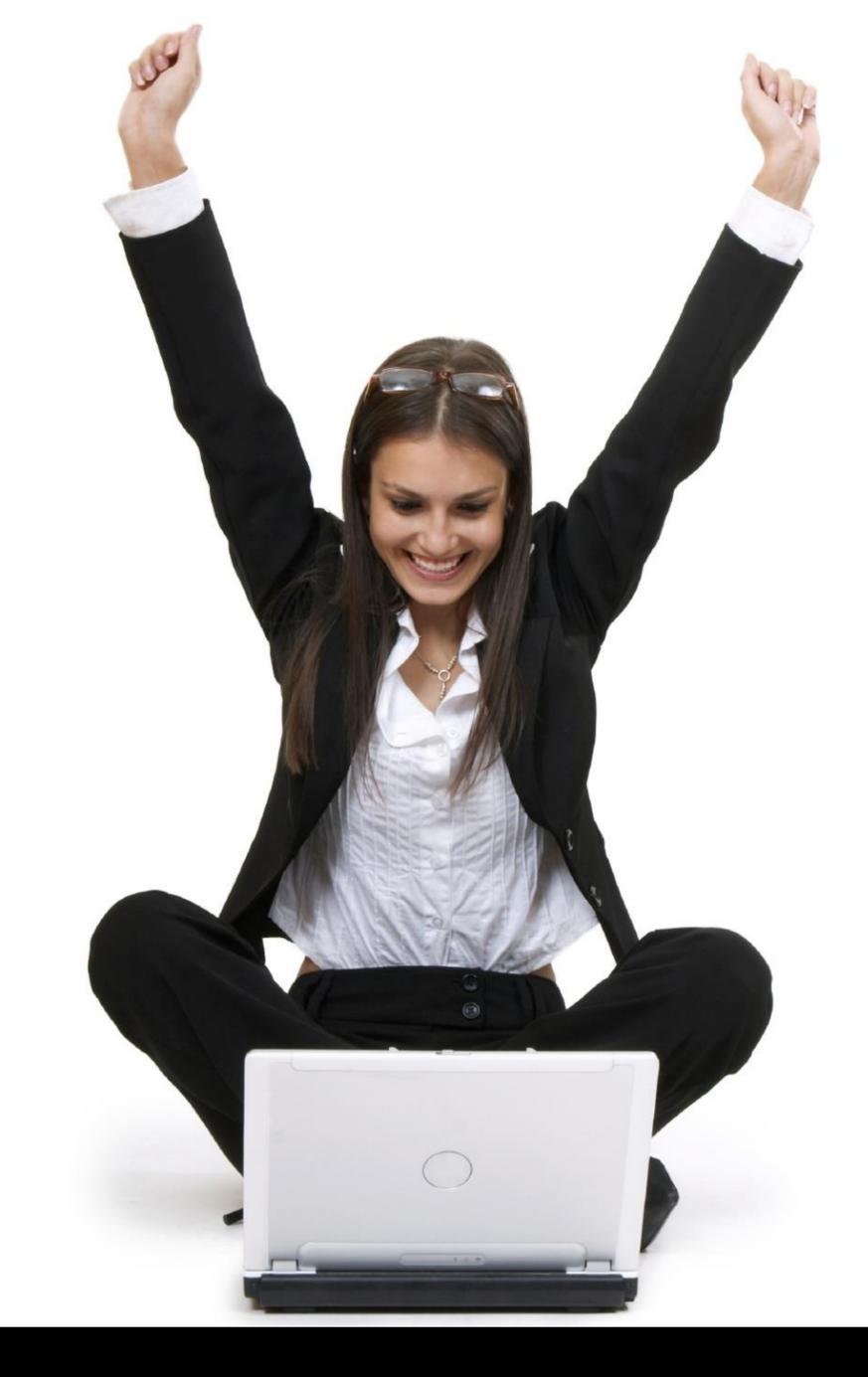






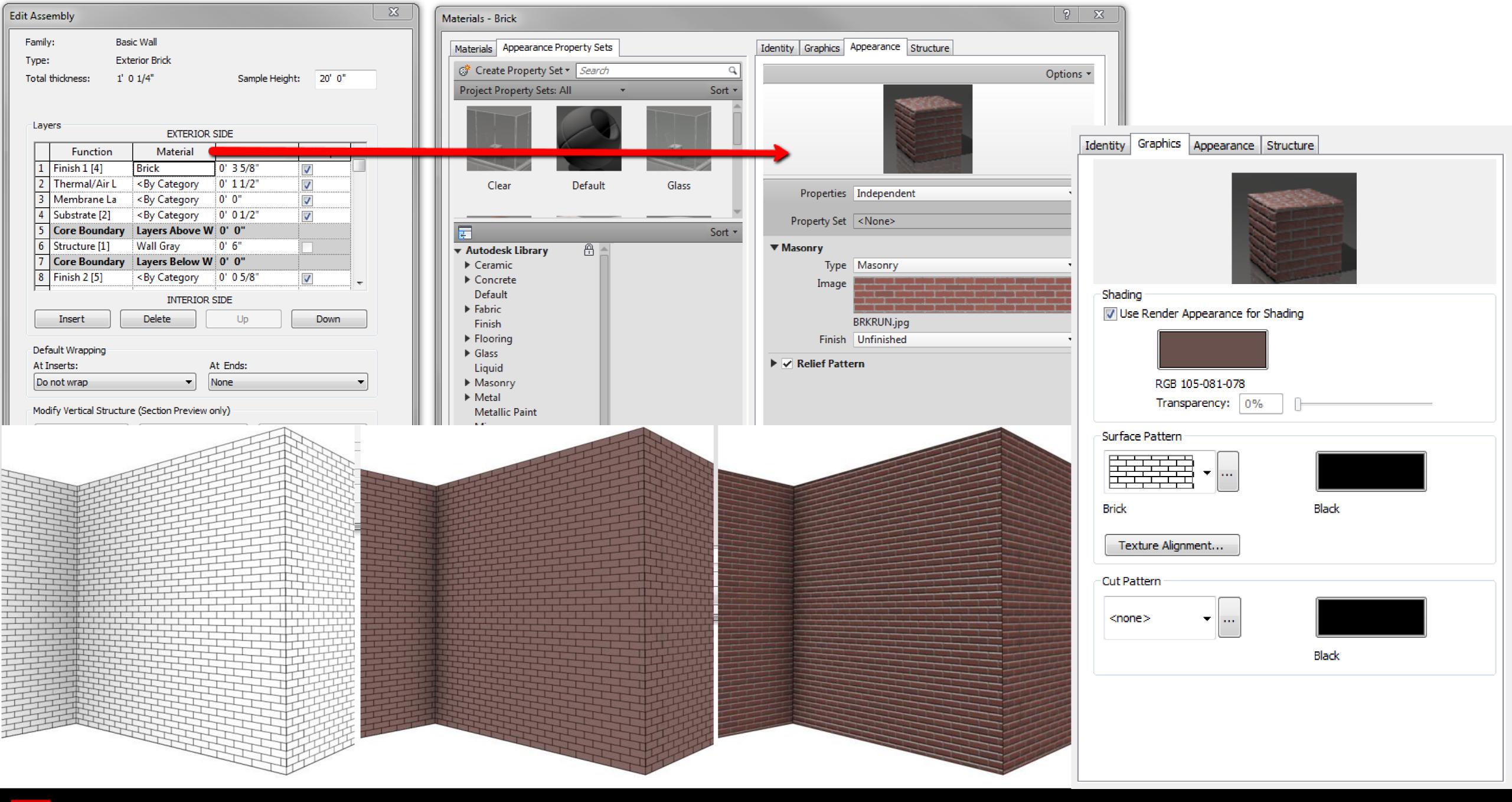




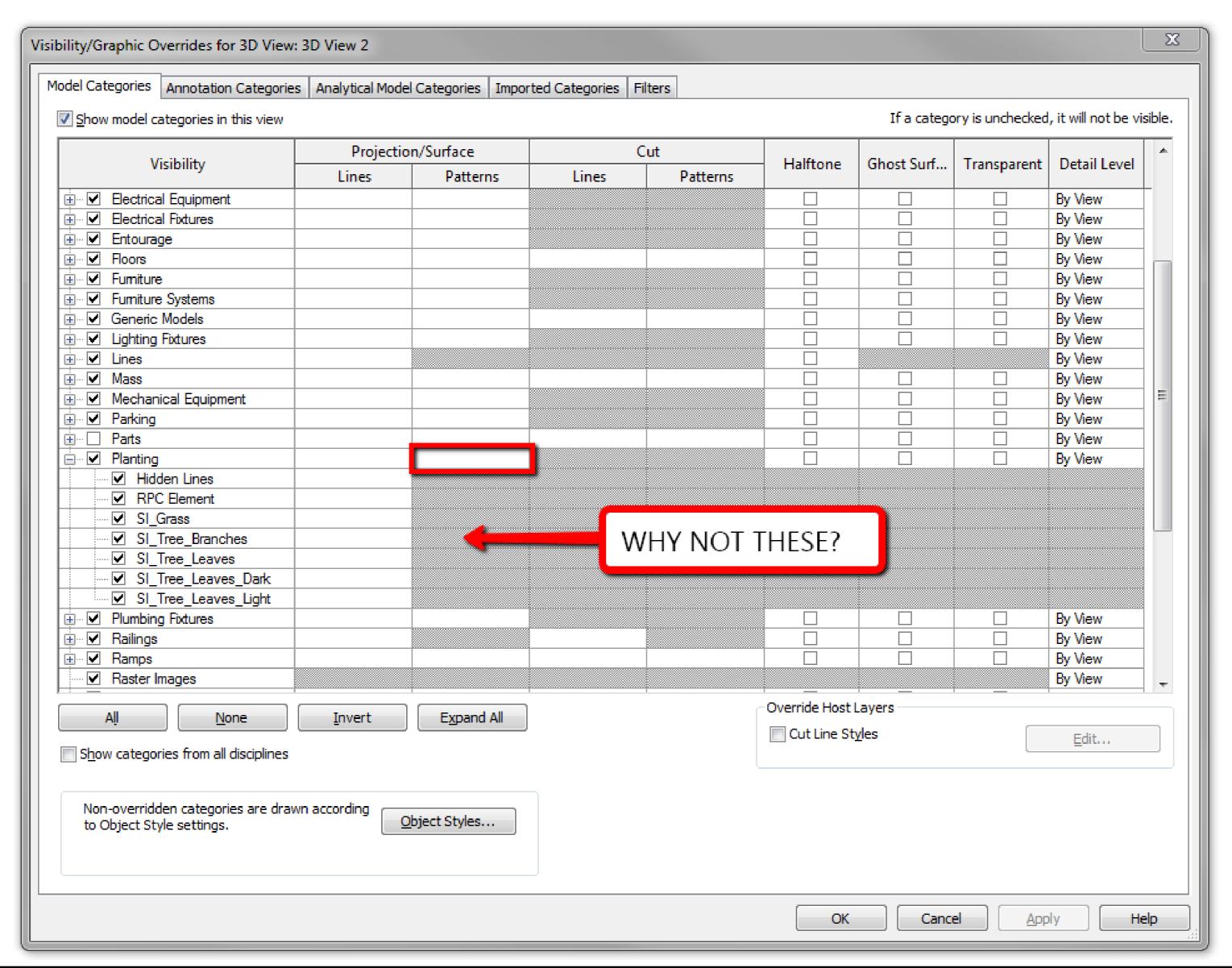








VISIBILITY GRAPHICS CONTROLS





Research



the world's most visited architecture website

- www.ArchDaily.com
- Over a year of collecting
- 4,500+ Images
- 2.5 GB
- Great cross section of firms and styles
- Probably most not done in Revit



LIFE / FEELING

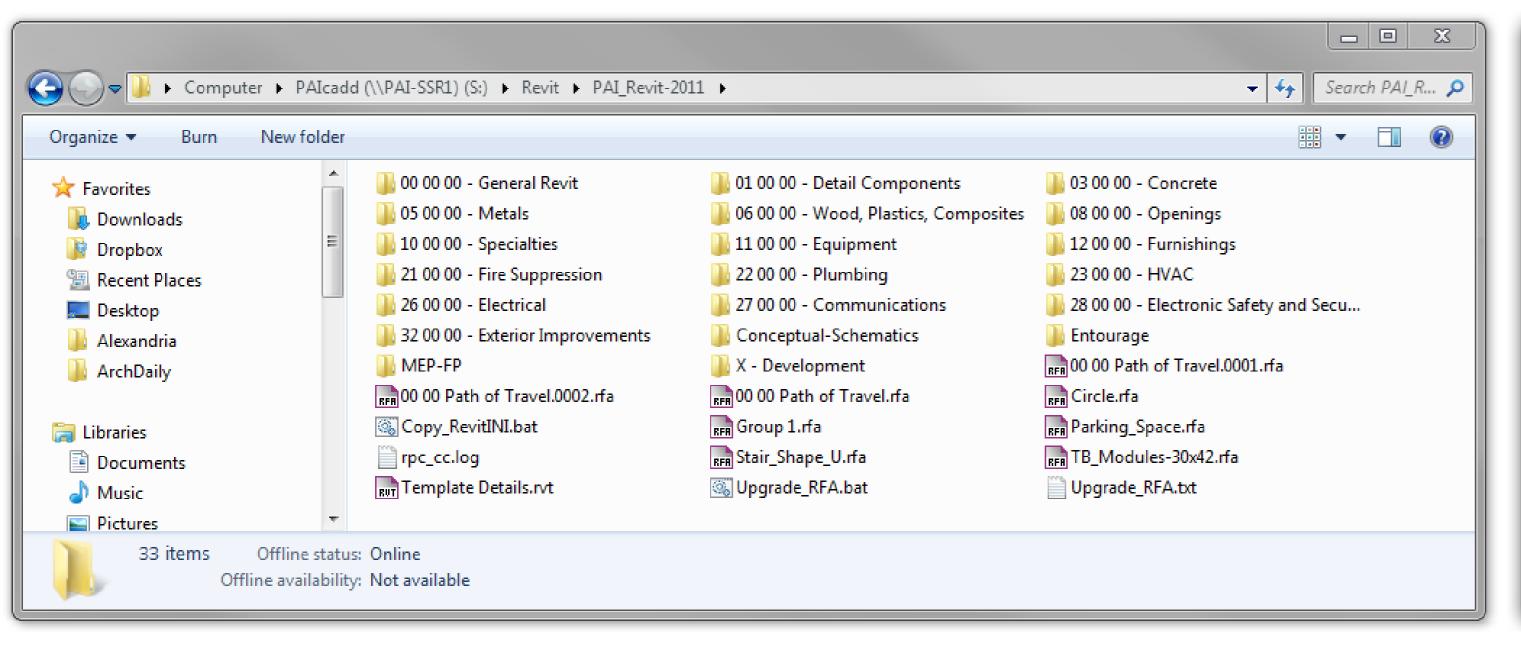
SIMPLICITY / FOCUS

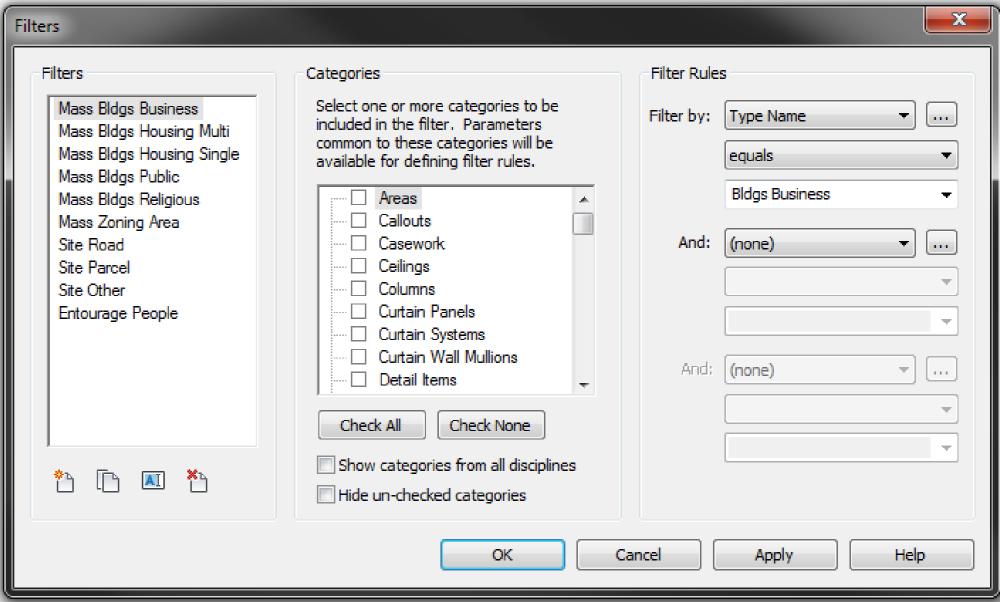




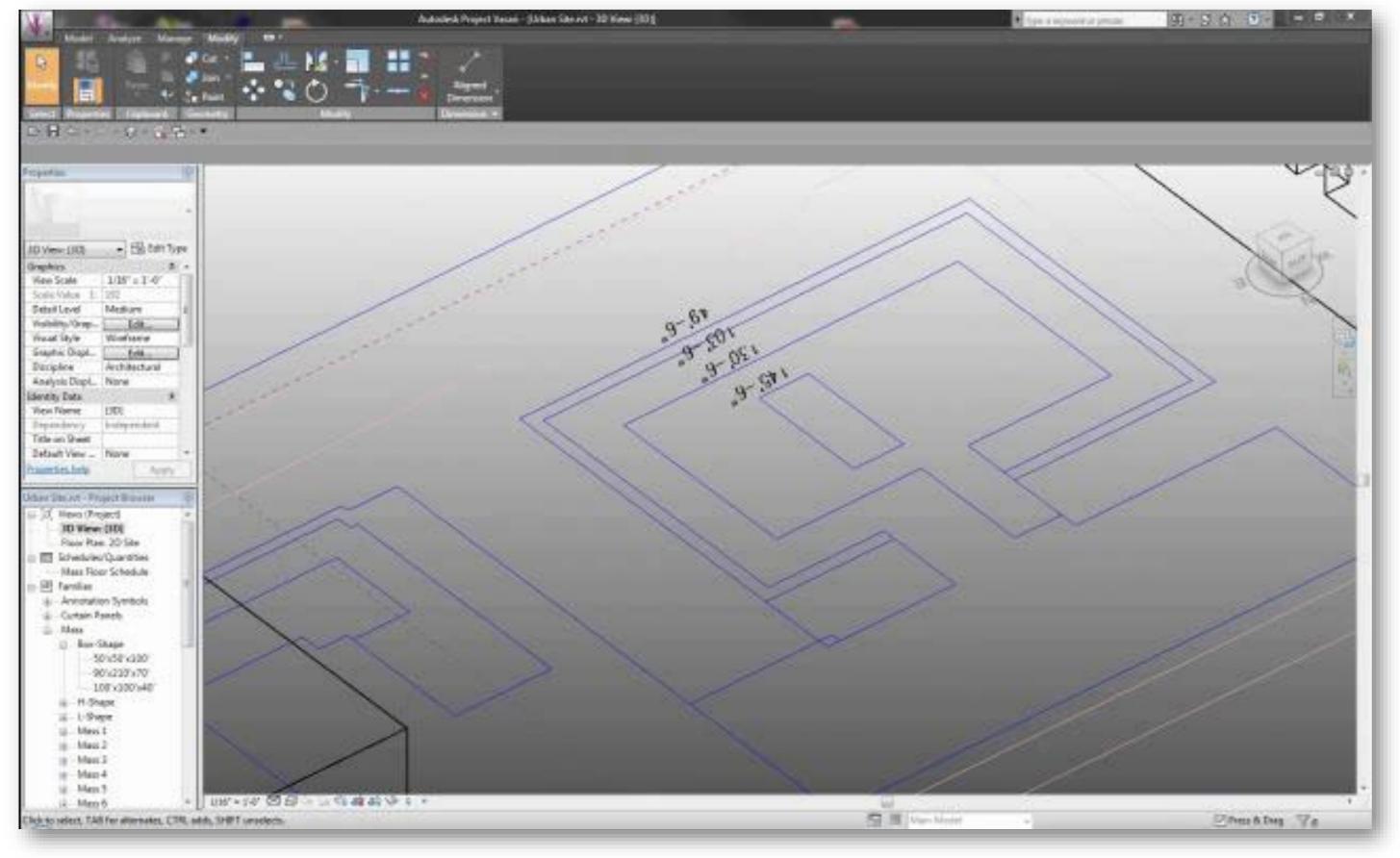
CONTENT

FILTERS

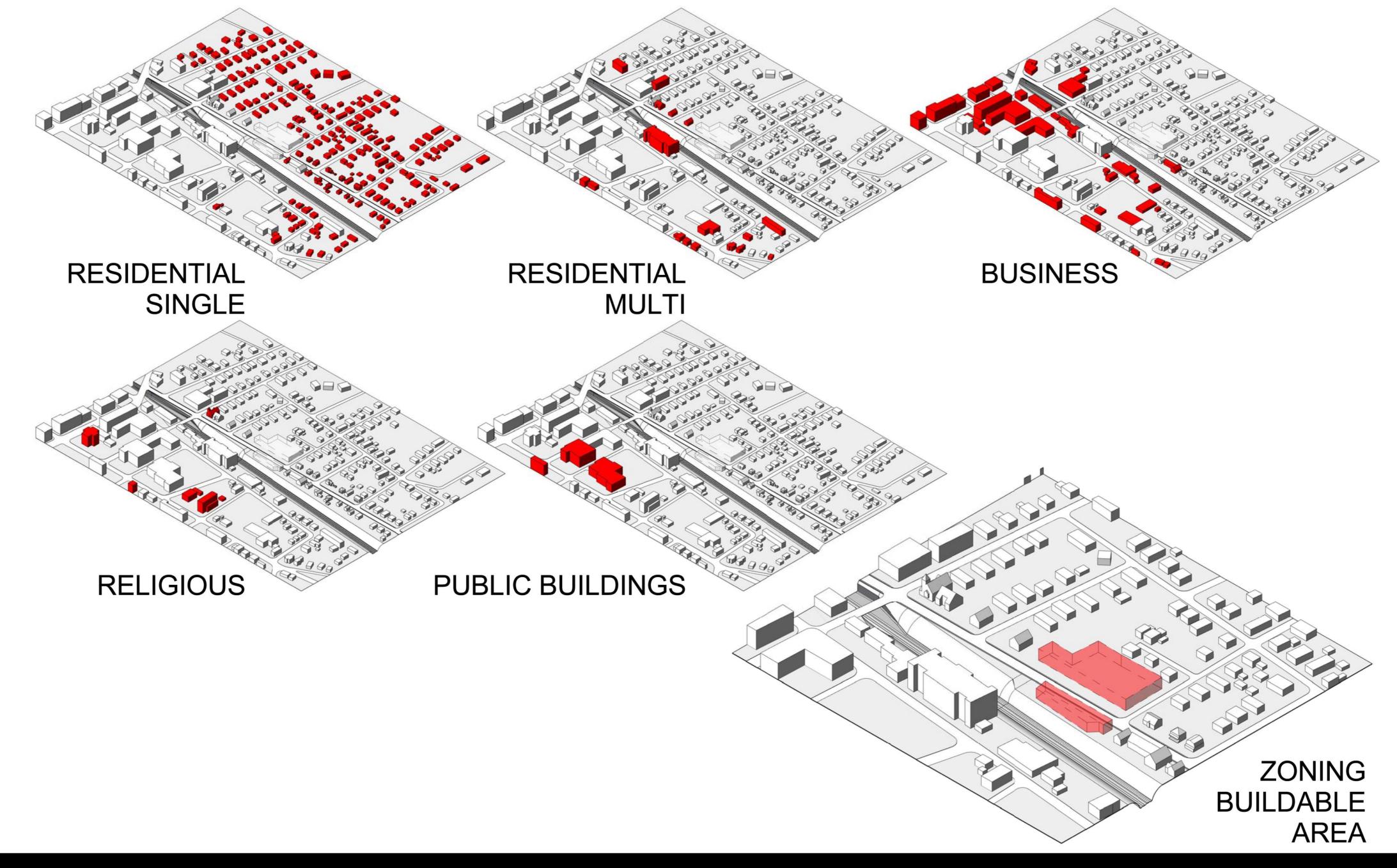


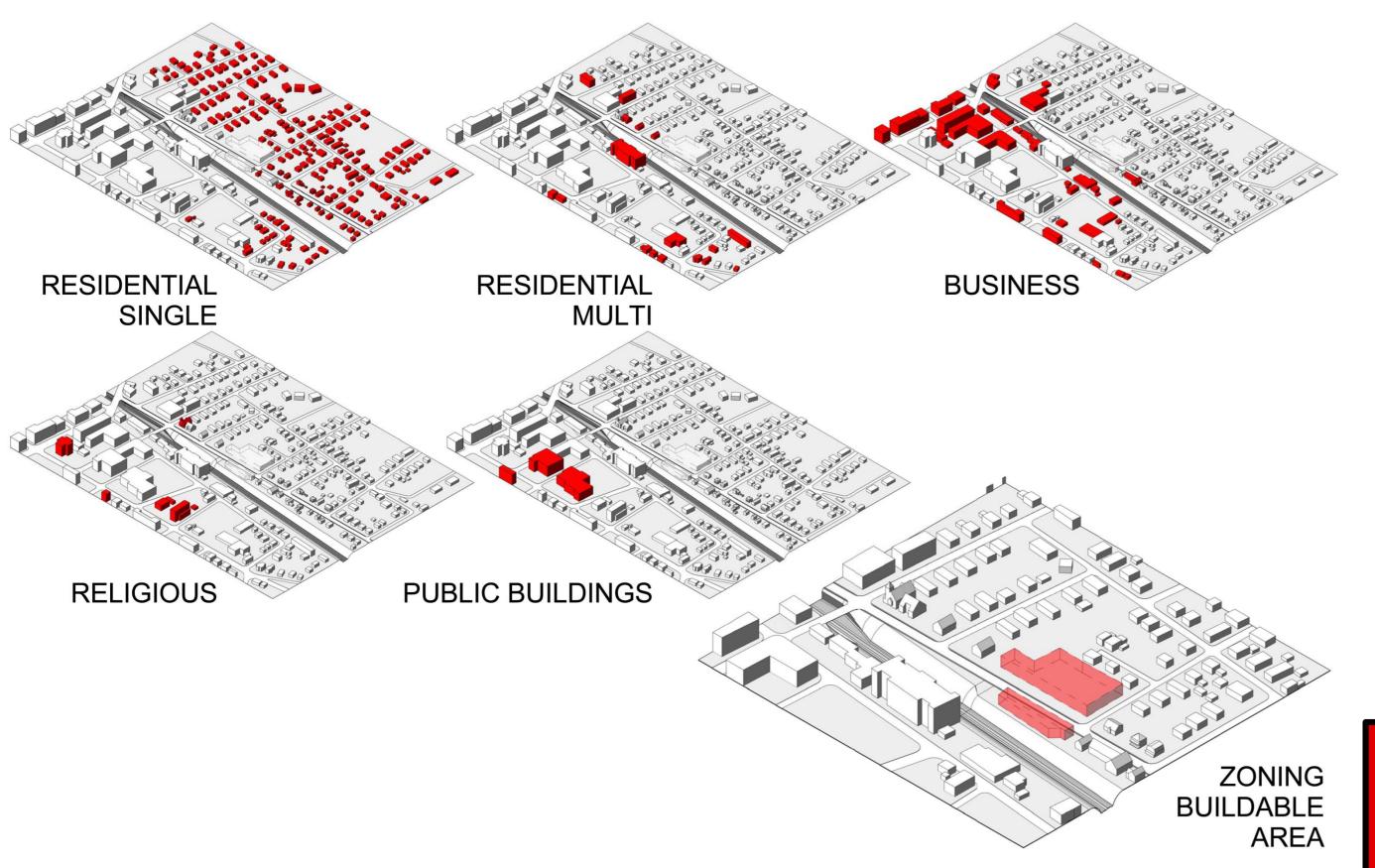


Web Research MASSING

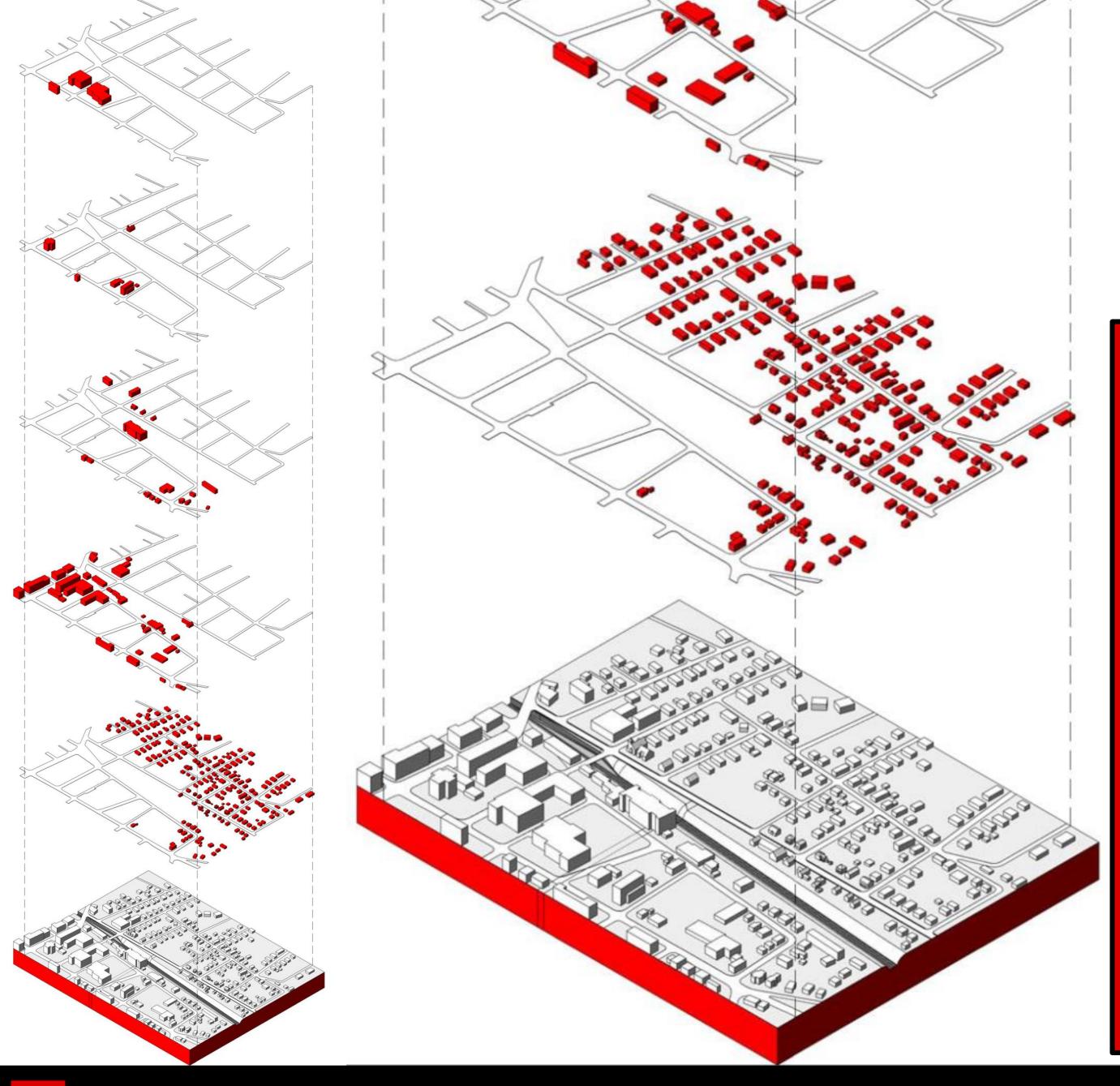






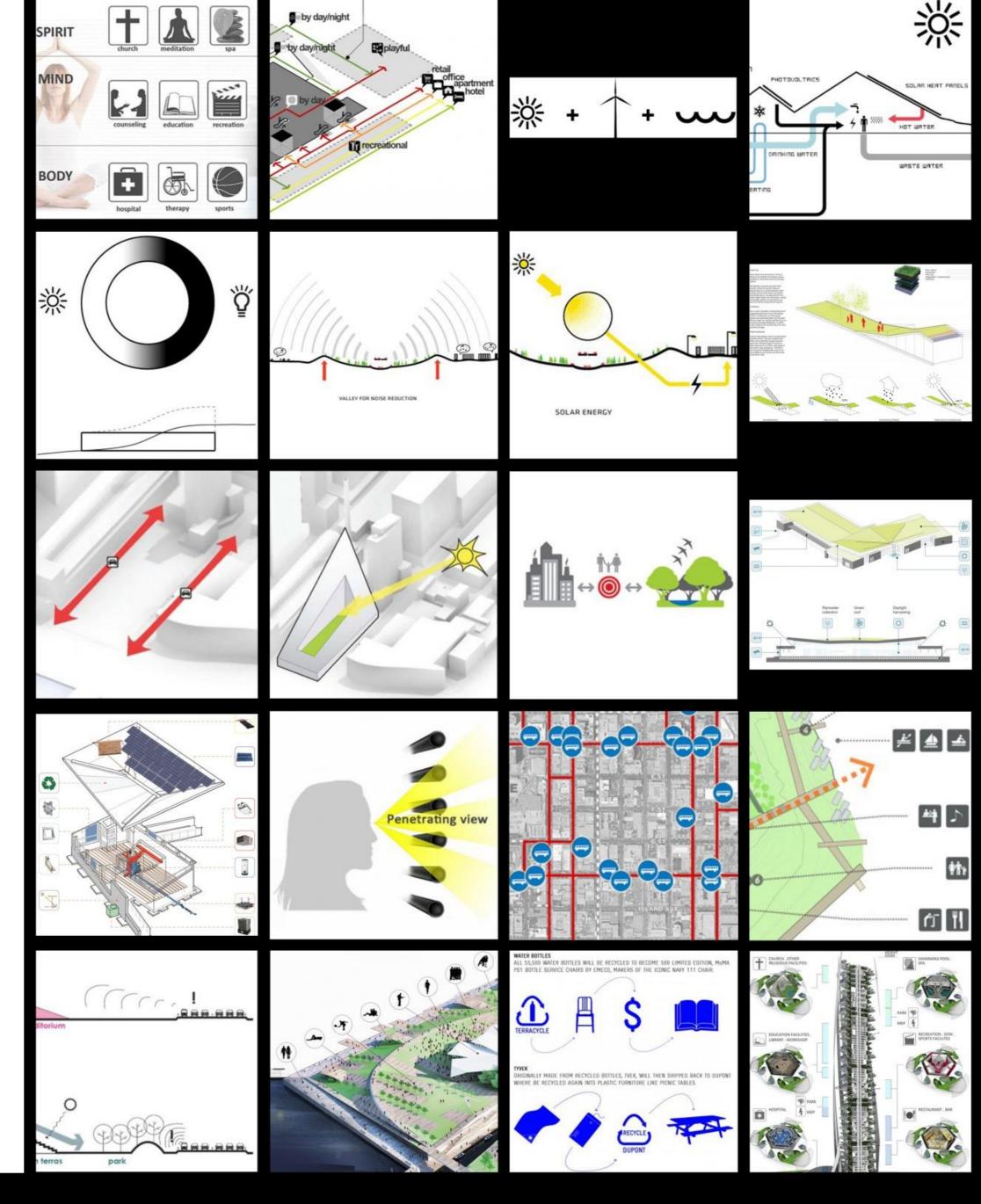


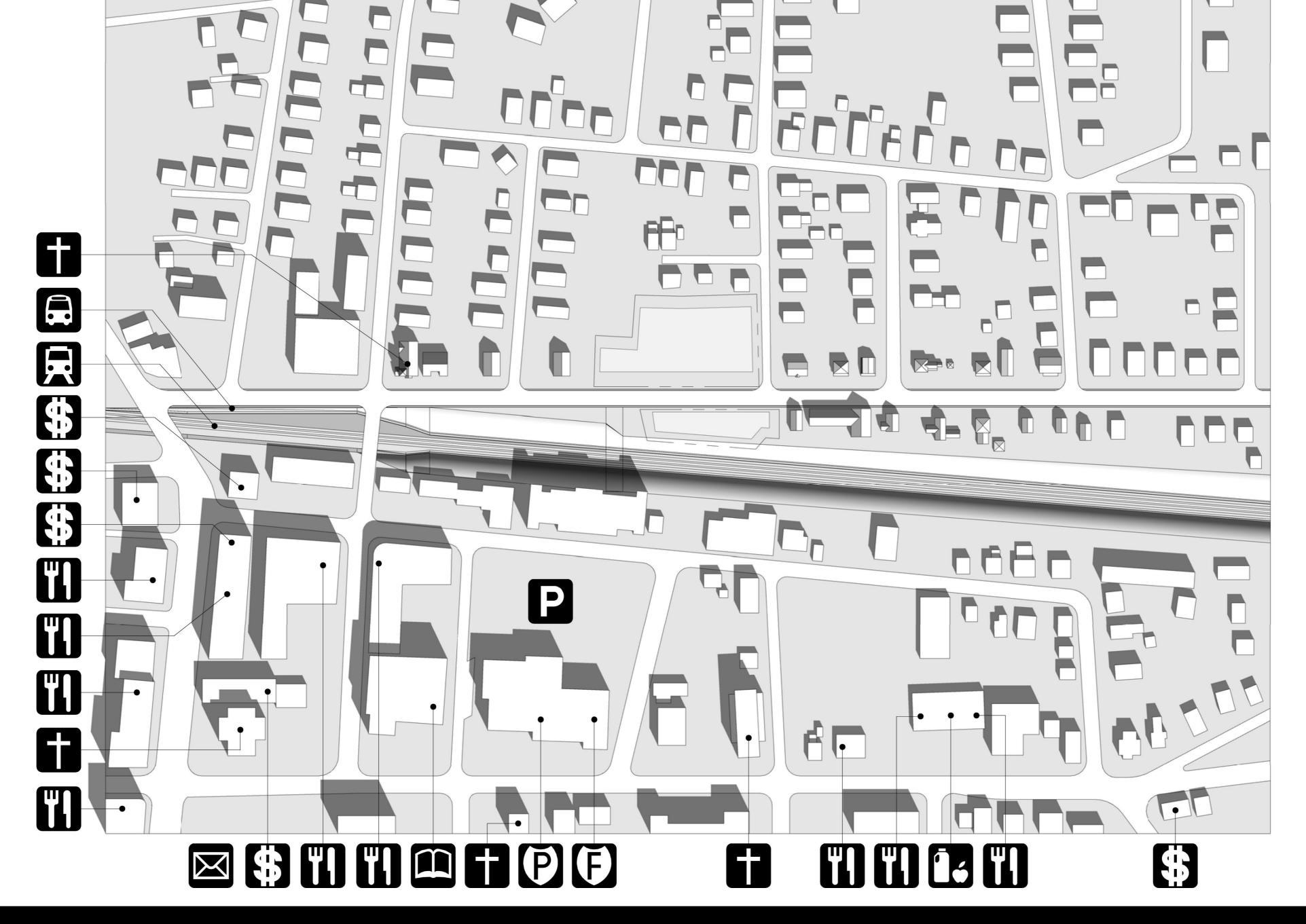
- •6 Separate 3D Views
- Site Created by Massing and Roofs Applied
- Filters to Turn Non-Focus Structures and Roofs White
- Filter to Turn Focus Elements Red



- 6 Separate 3D Views
- Site Created by Massing and Roofs Applied
- Site Massing Left On for Ground Thickness
- Filters to Turn Non-Focus Structures and Roofs White
- Filter to Turn Focus Elements Red
- Filter to Turn Ground Mass Red

CARTOGRAPHICS + INFOGRAPHICS

















SO BICYCLE



















FIRE DEPARTMENT





FIRST AID























? INFORMATION

















PARKING





POLICE DEDATE DEPARTMENT





POST OFFICE





RECYCLE





RESTROOM





RESTROOM UNISEX





RESTROOM WOMEN





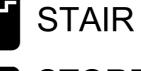
SAILING













STORE CONVENIENCE













TELEPHONE

















Parameter	Value	Formula
Graphics		
Black Fill (default)	V	_
White Fill (default)		= not(Black Fill)
Other		
Masking On or Off	V	=
Black Filled Cartographics < Generic Annotations >	Fire_Black	=
White Filled Cartographics < Generic Annotations >	Fire_White	=
Cartographics <generic annotations=""> (default)</generic>	Fire_Black	= if(Black Fill, Black Filled Cartographics, White Filled Cartographics)

- Generic Annotations Family
- 62 Families Loaded into 1
- Edit an Existing one and Load into Master for Future Needs and Expansion.



- Drafting Lines on Sheet for **Enlargement Lines**
- Three Views Stacked on Sheet



Filled Regions (Grey and Red)

Detail Lines

Drawn Over Image

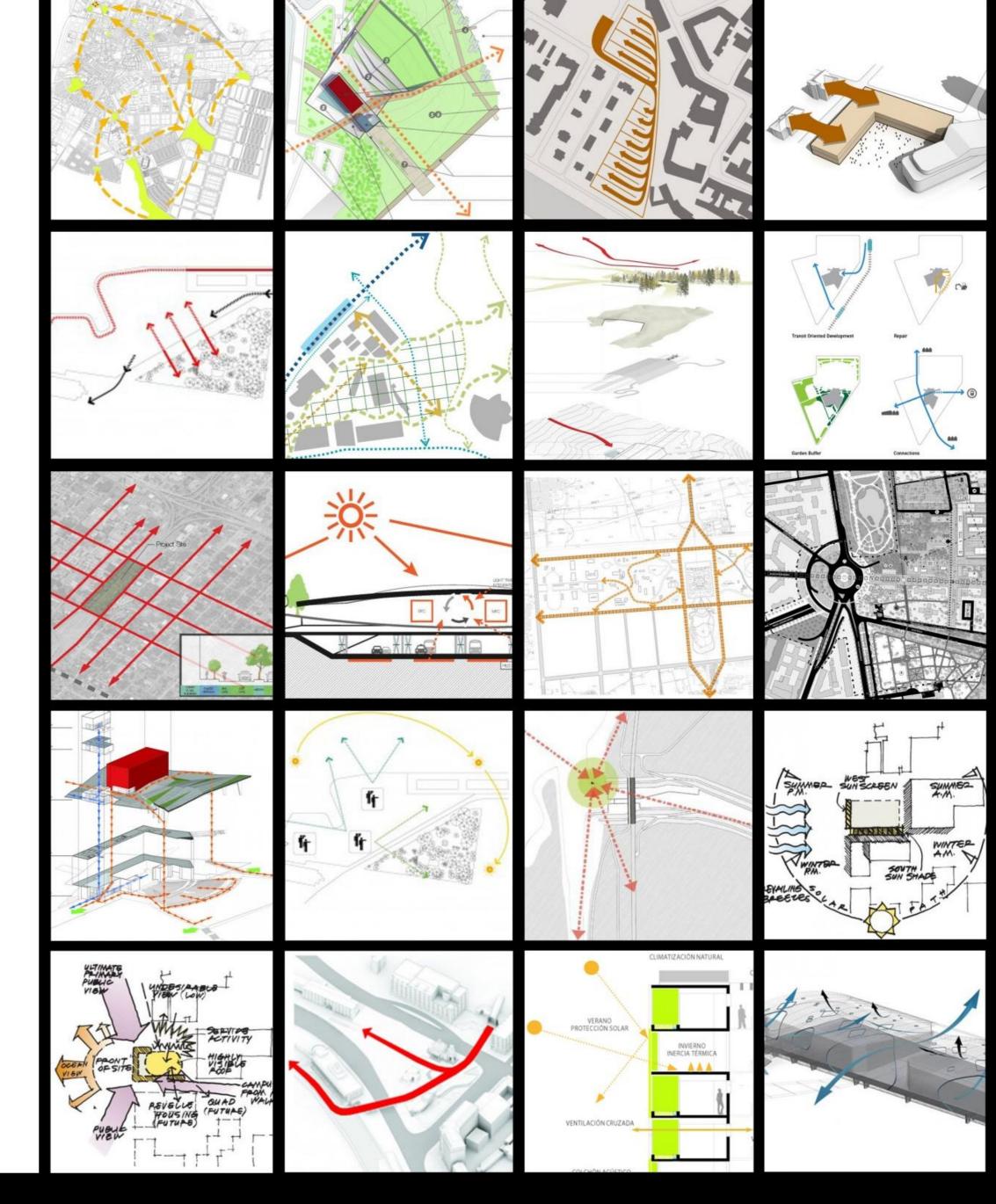


- Drafting View
- Filled Regions (Grey and Red)
- Detail Lines
- Drawn Over Image

Plan View

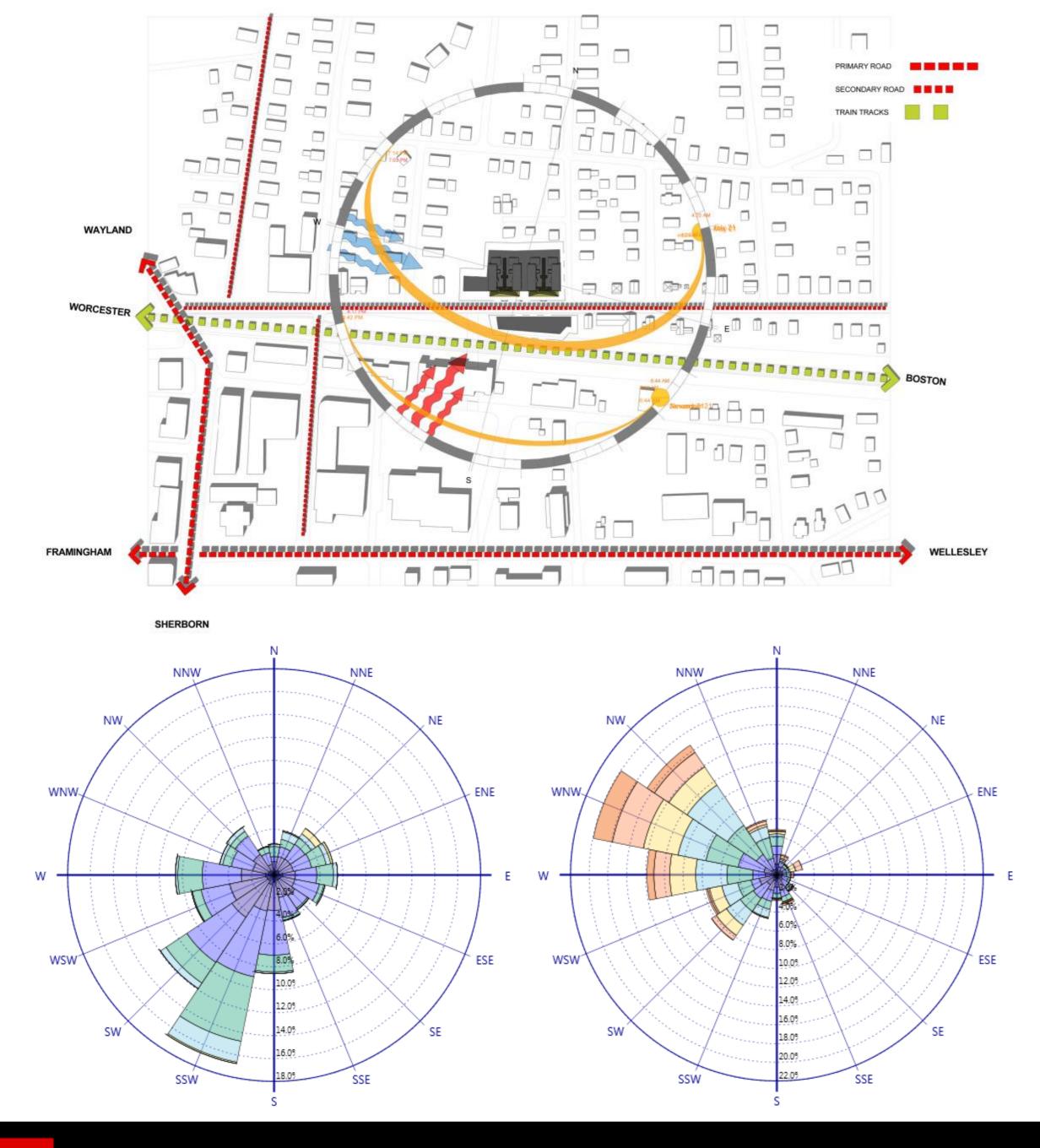
- Masking Region for Circular View
- Filters to Turn Roads to Black, Buildings to Grey, Site to White and Building Location to Red

SITE ANALYSIS + DEPICTION



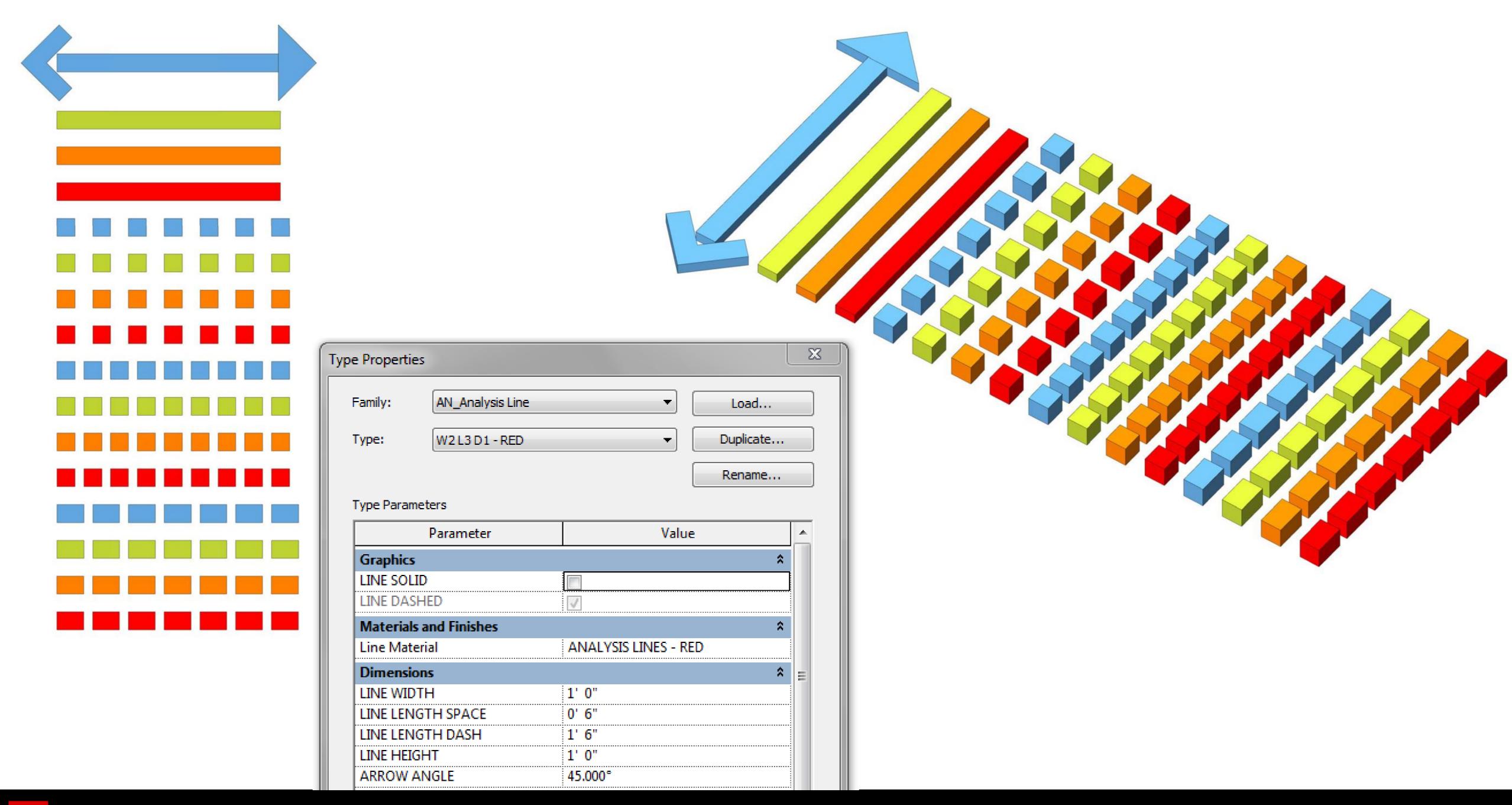


SHERBORN



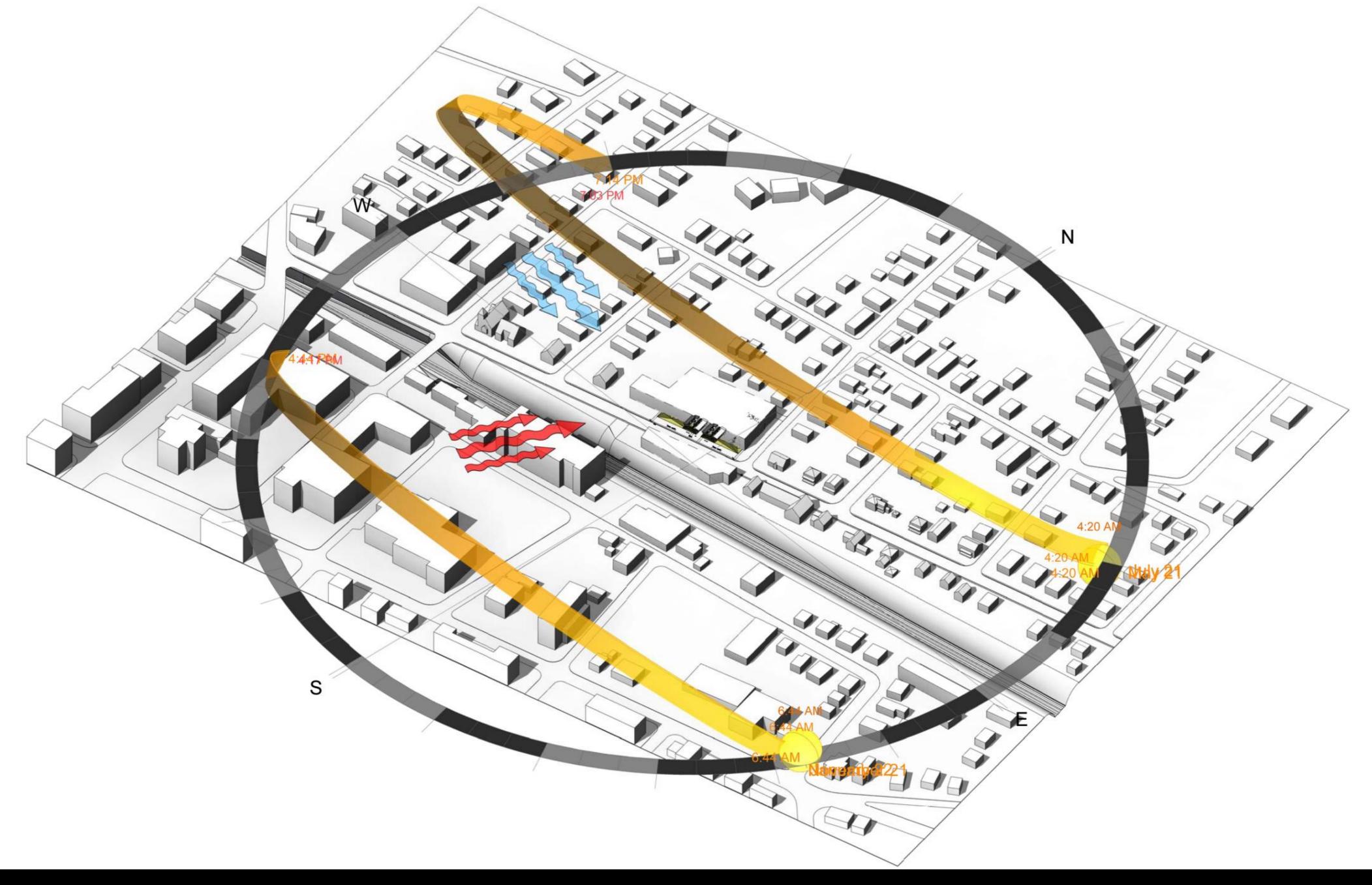
- •3 Views (Site, Solar Path Winter, Solar Path Summer)
- Solar Path Views are 3D Views Oriented to Plan with everything else turned off in VG.
- Analysis Lines 3D Components
- Wind Lines 3D Components with **Ghost Surfaces**
- Wind Direction Derived from Wind Rose

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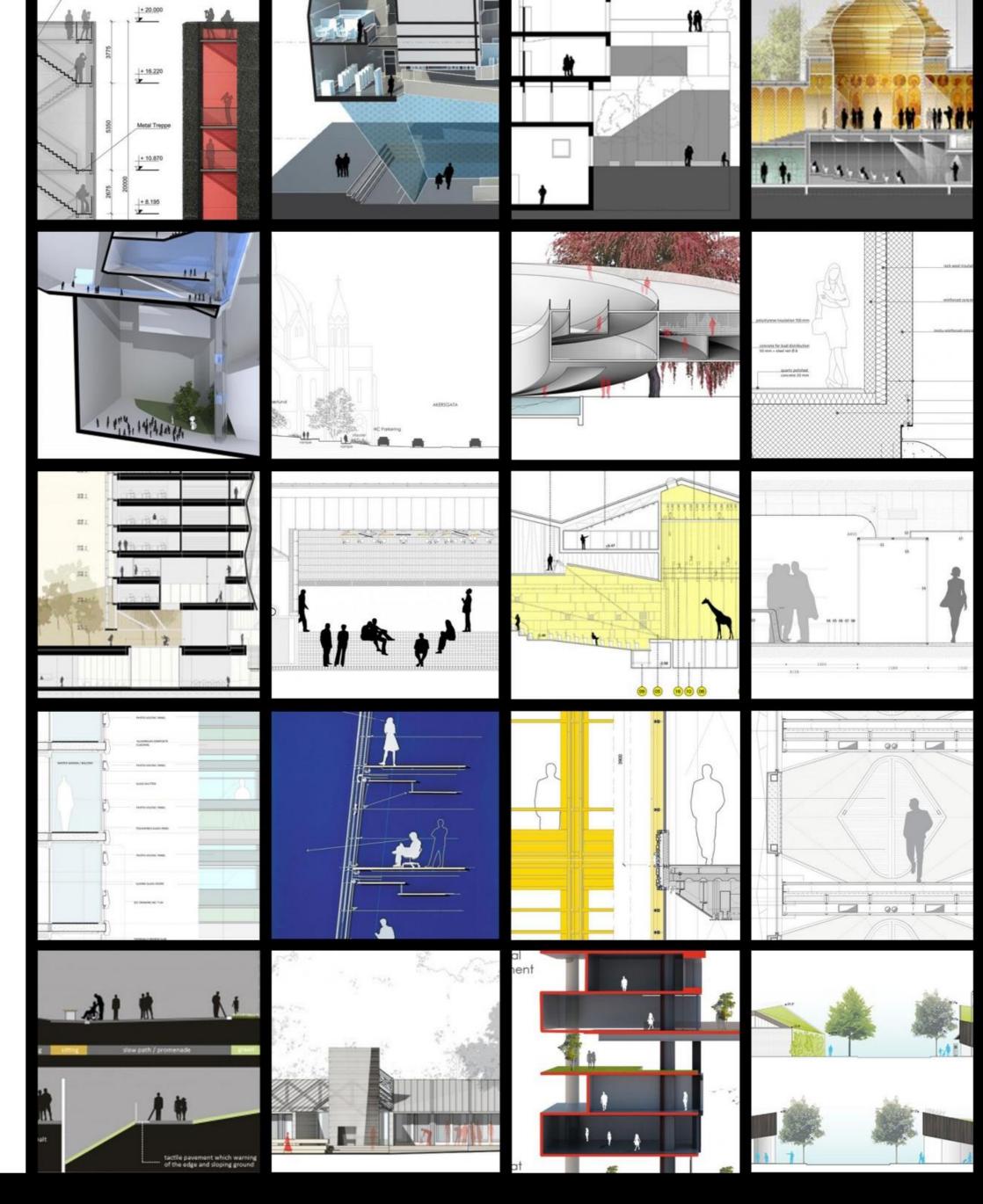


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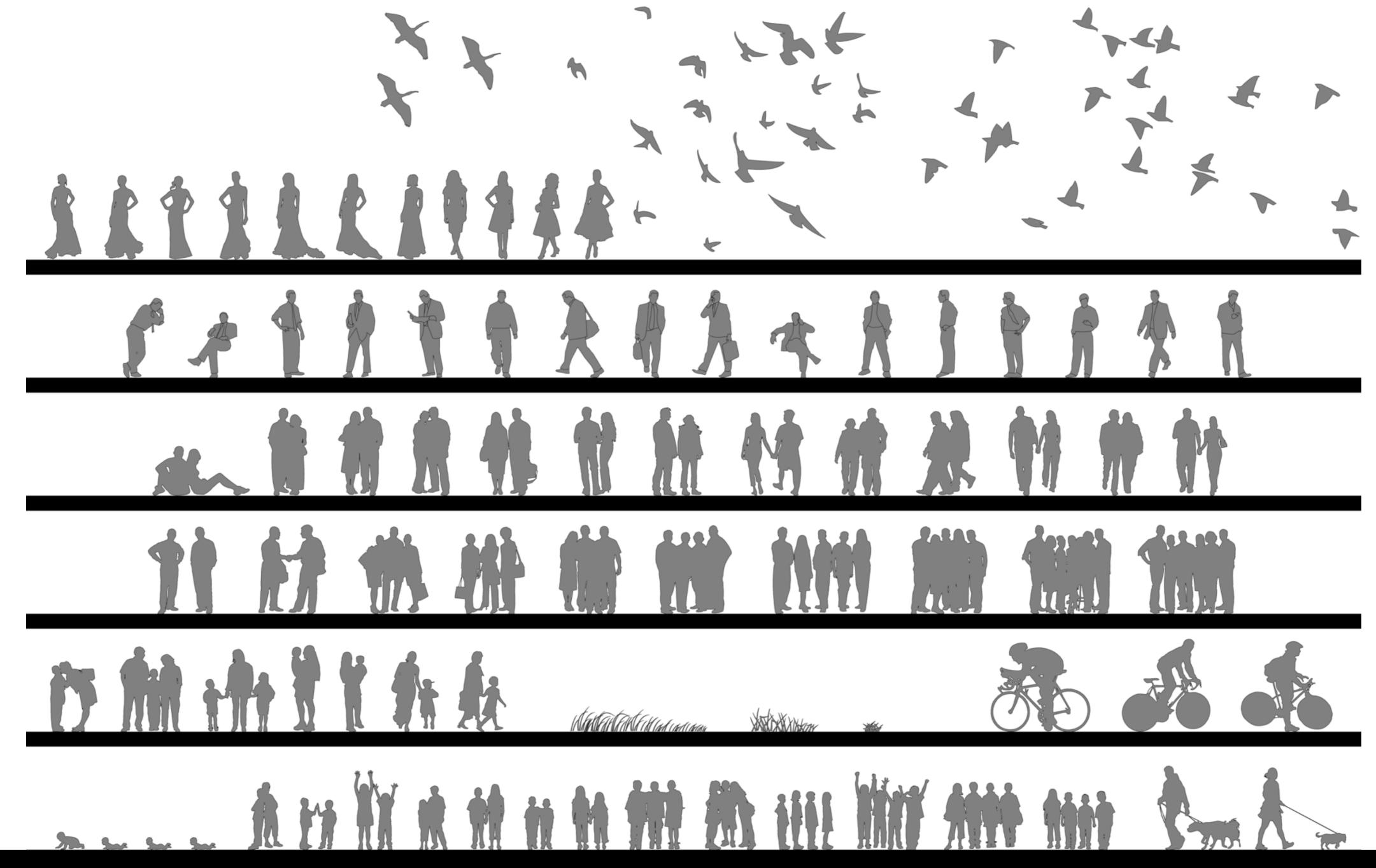
PEOPLE - SECTIONS + ELEVATIONS



PEOPLE IN PERSPECTIVE







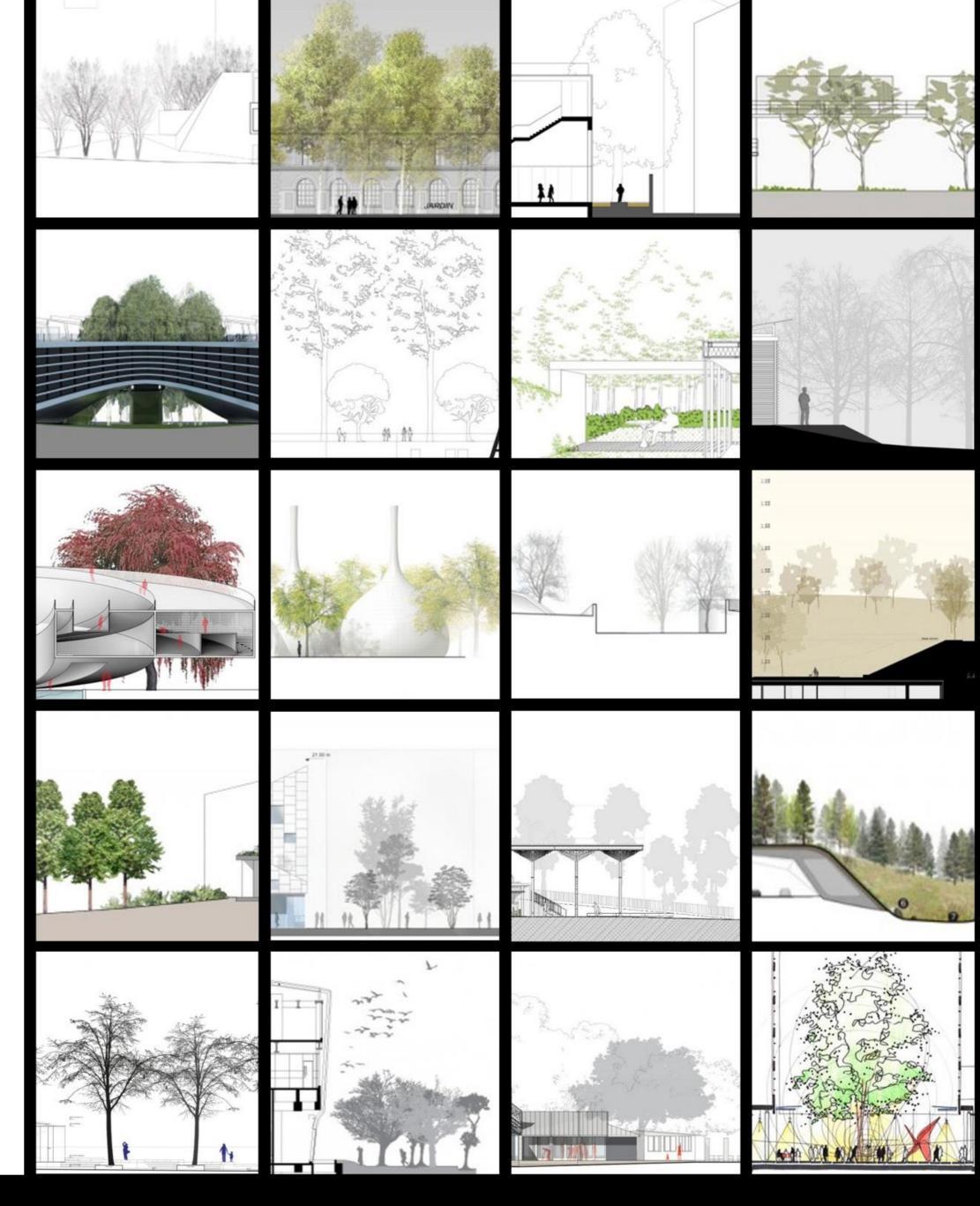
Web Research

TRES IN PLAN

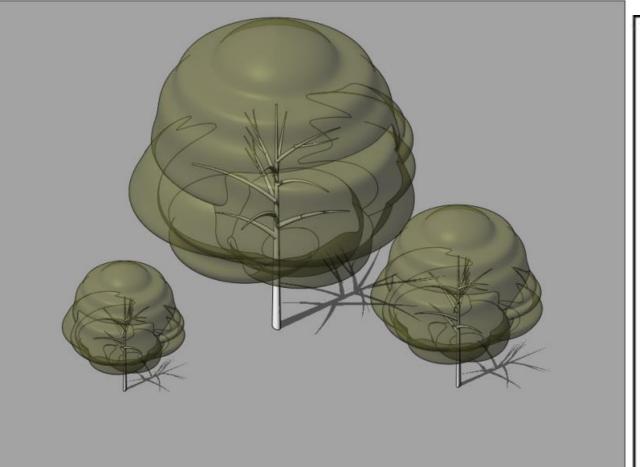


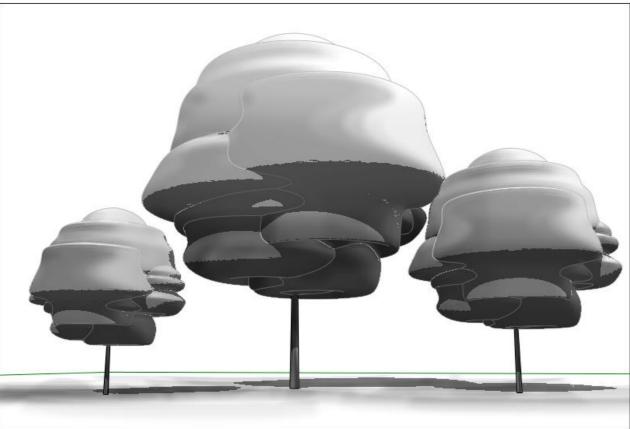
Web Research

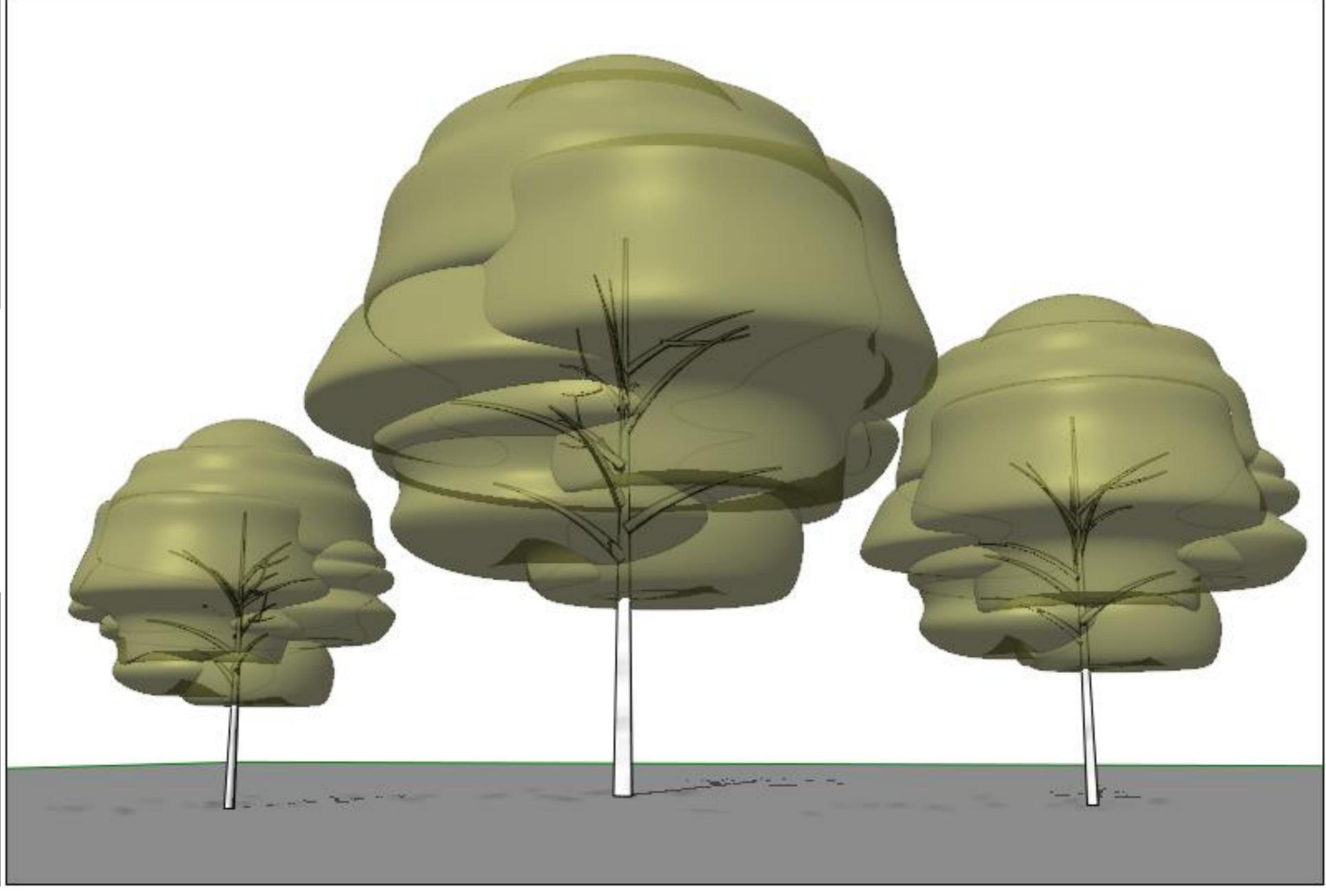
TRES IN ELEVATION

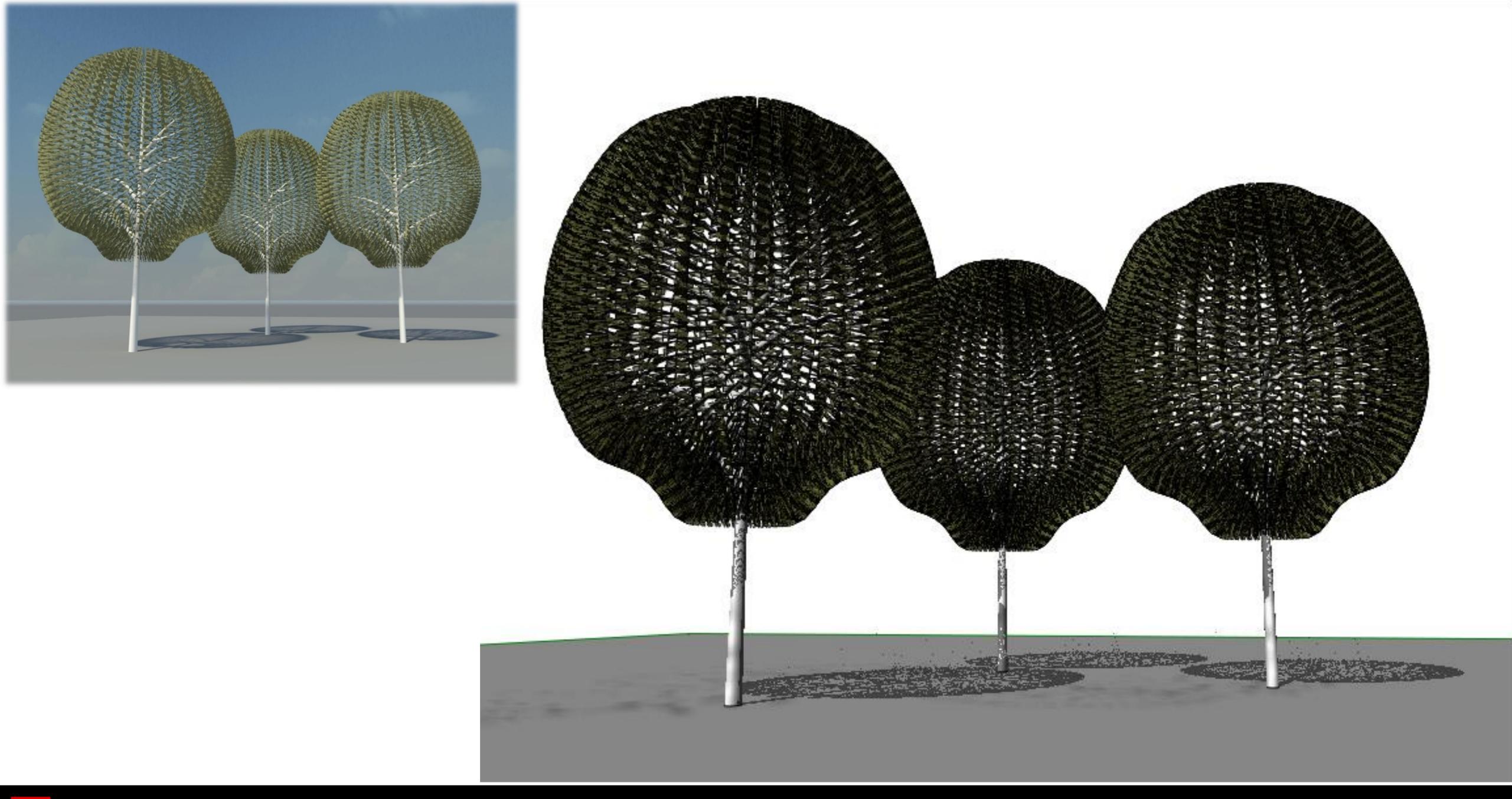


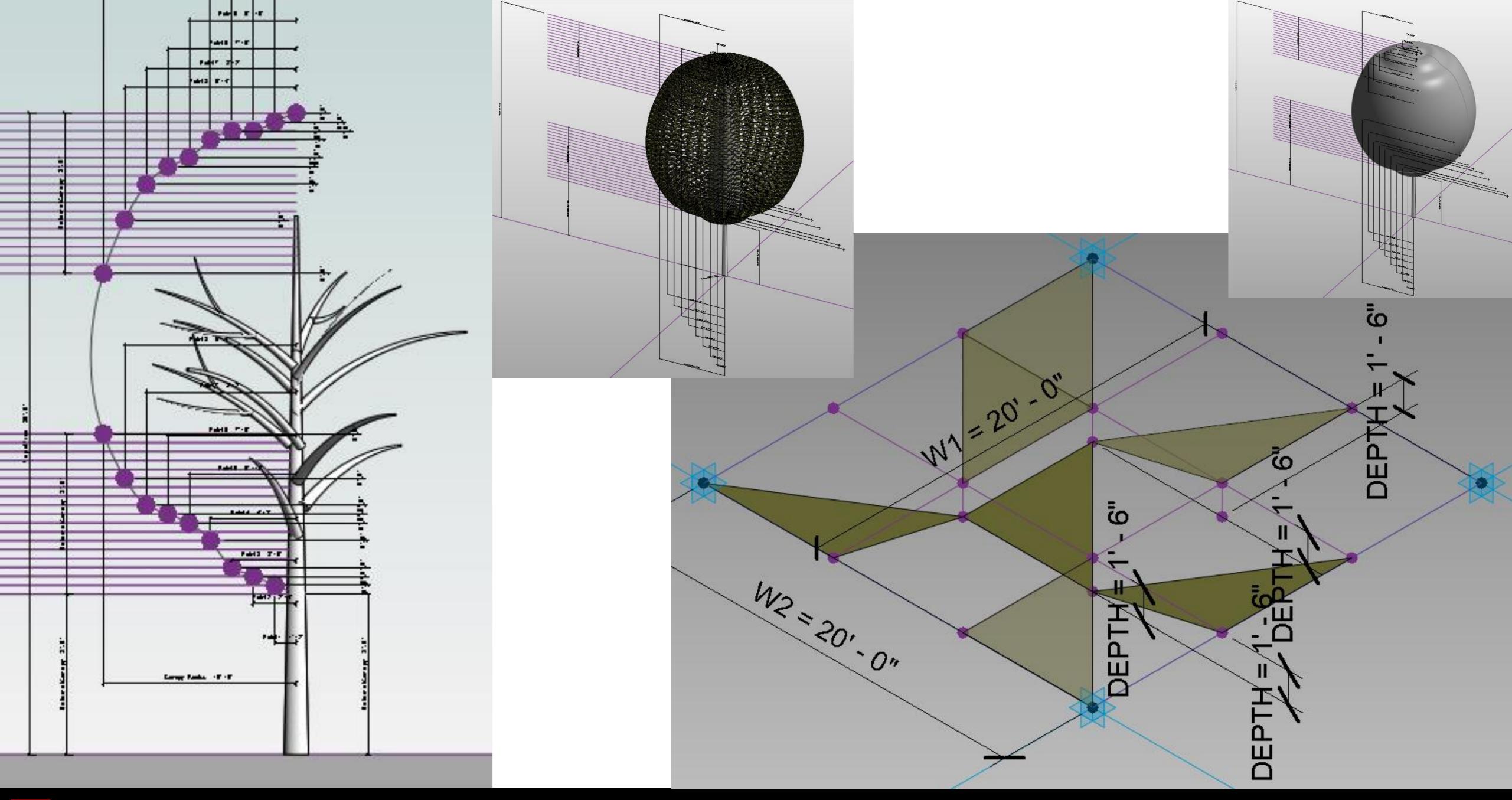




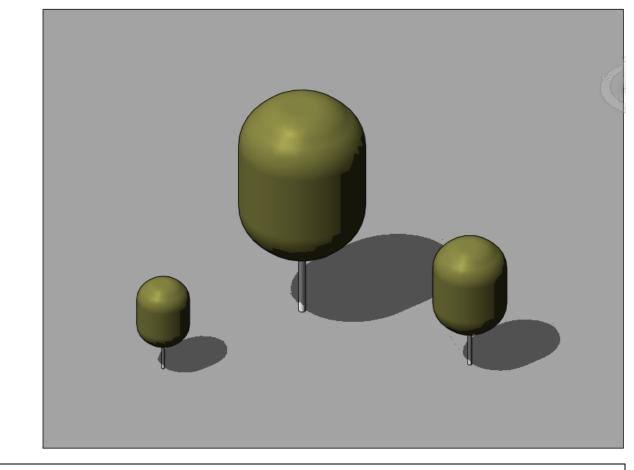


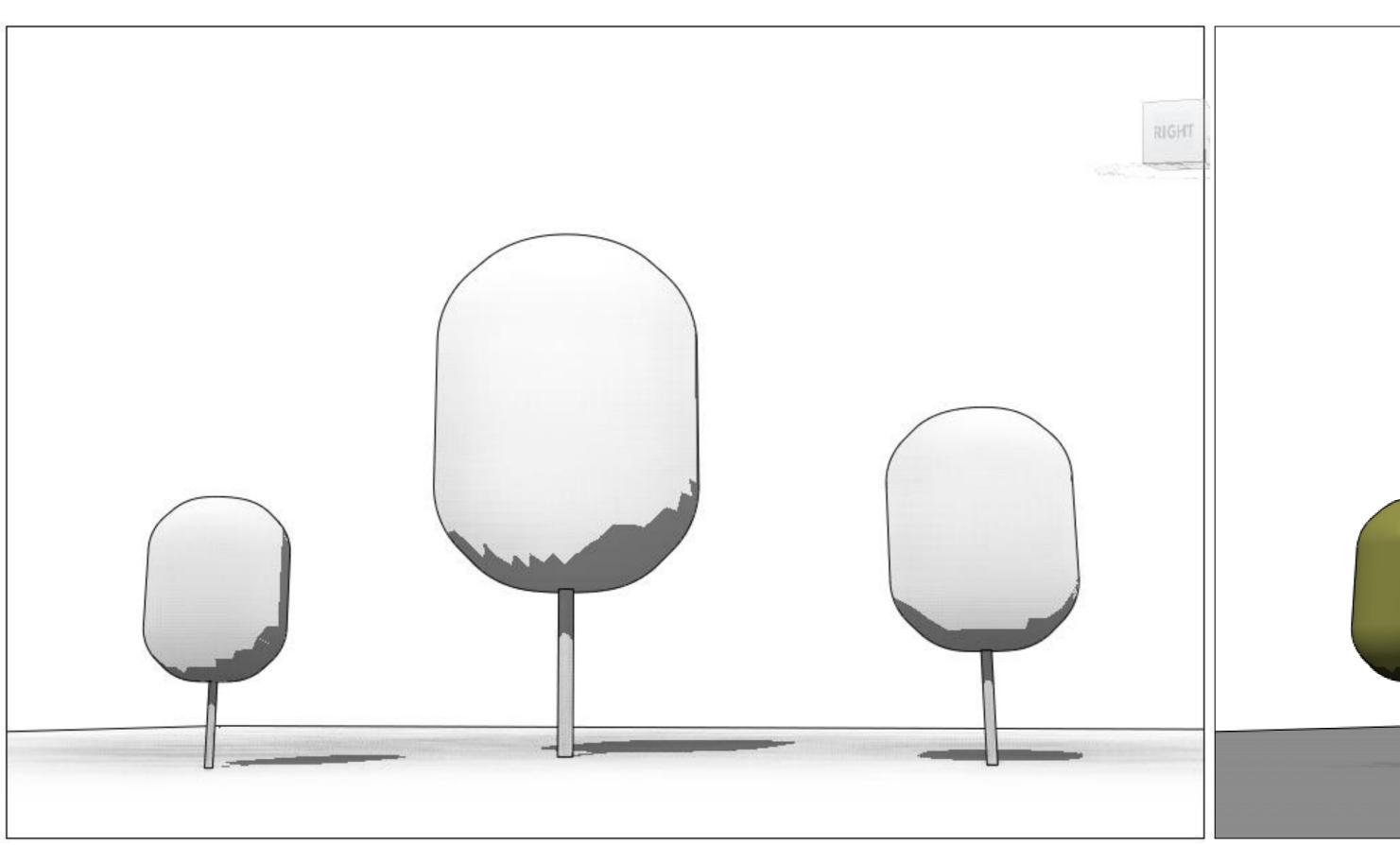


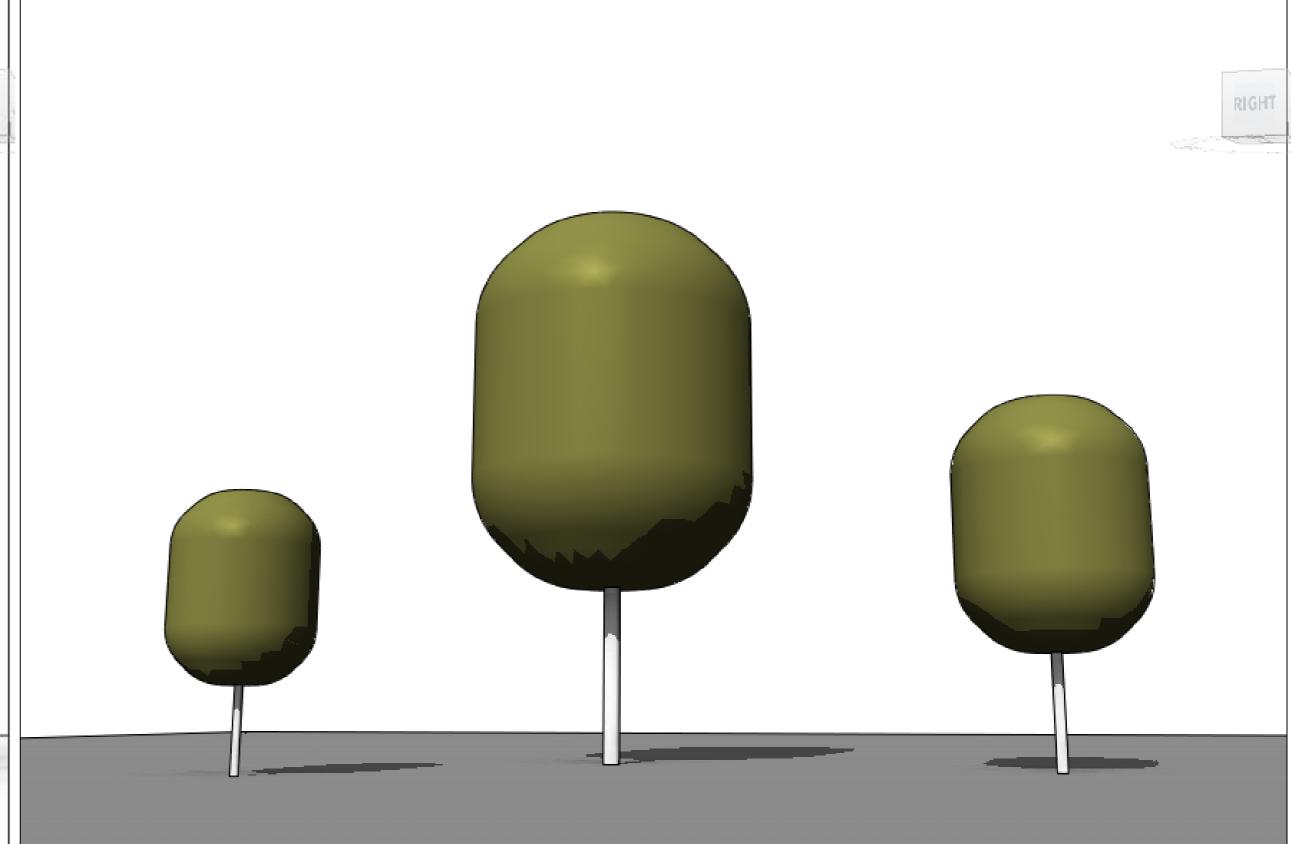




Tree – Coarse Setting



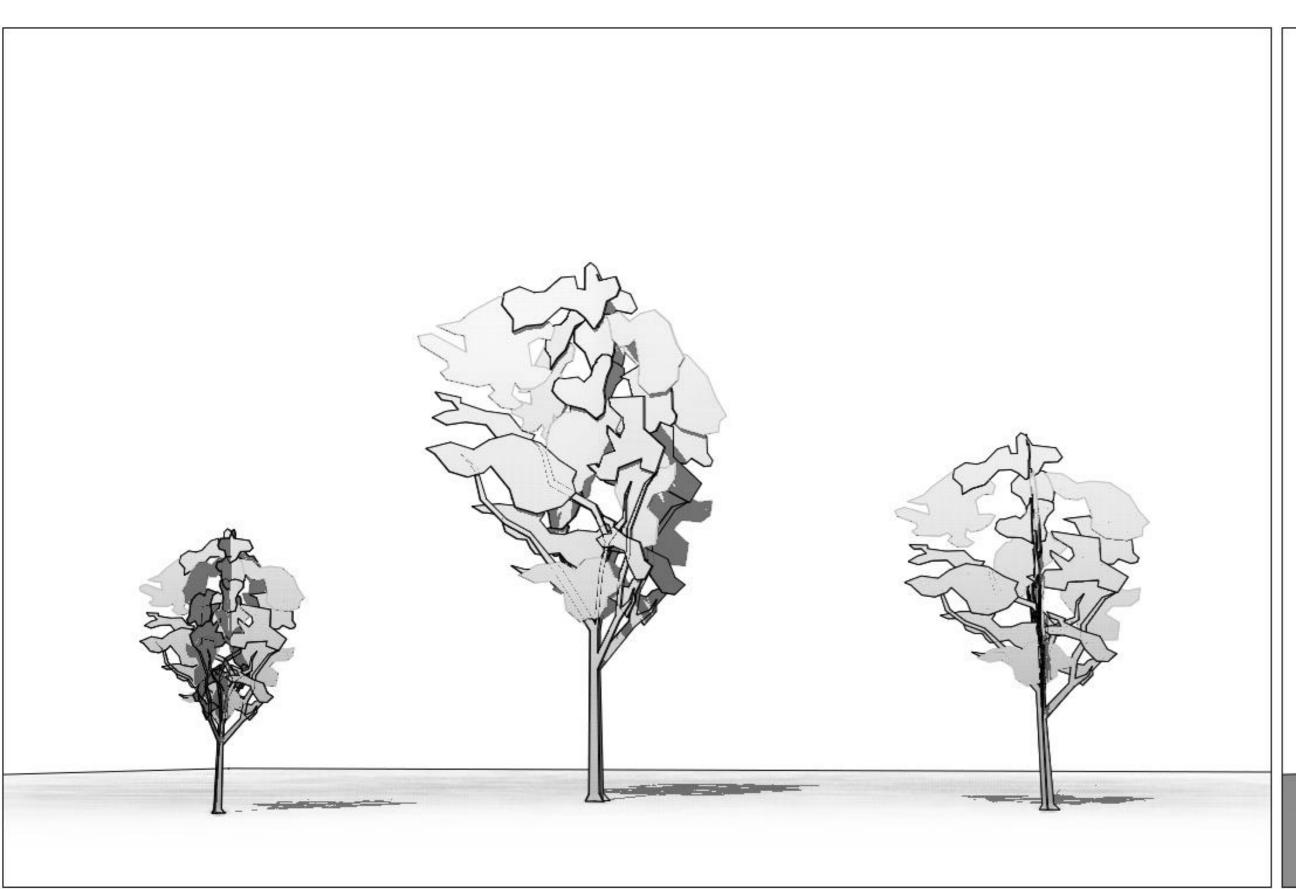




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Tree – Medium Setting



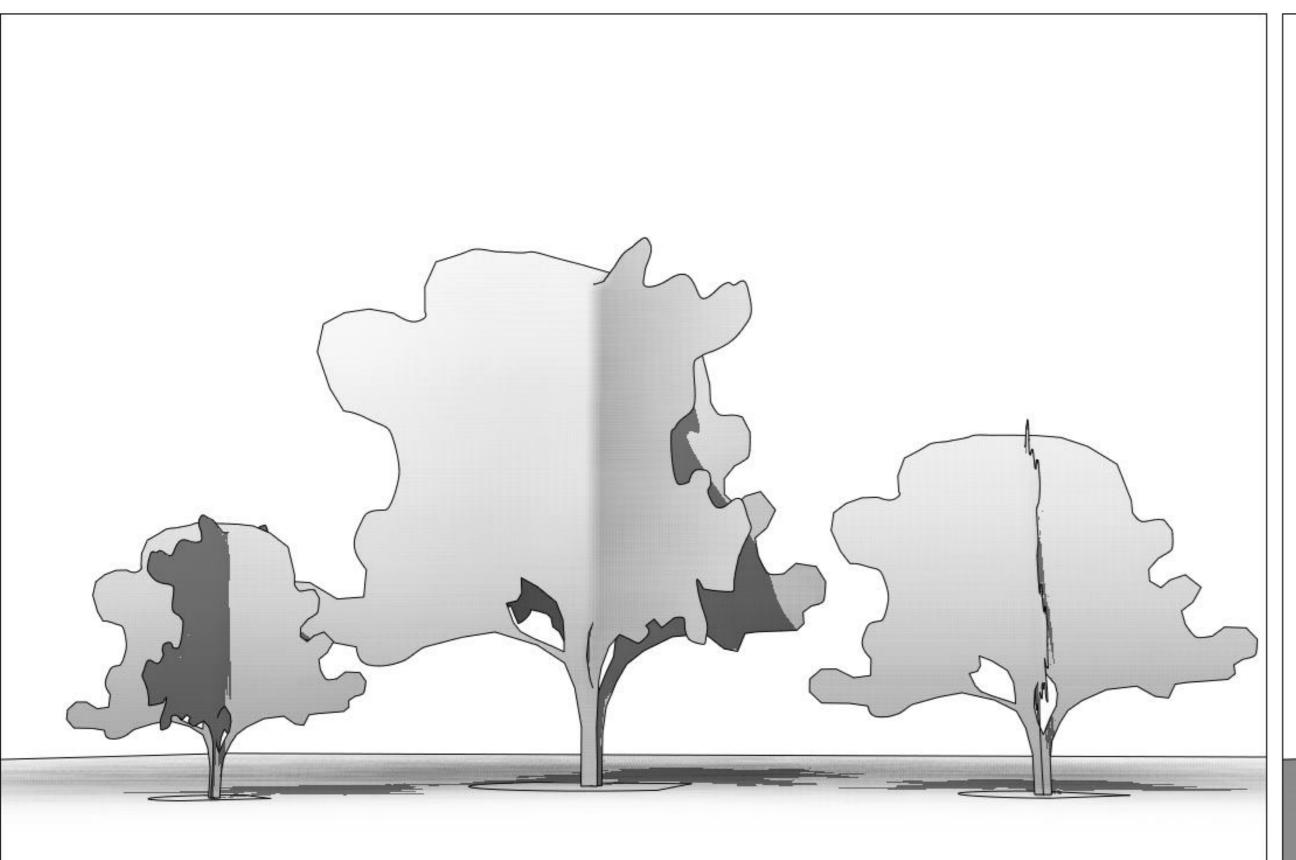


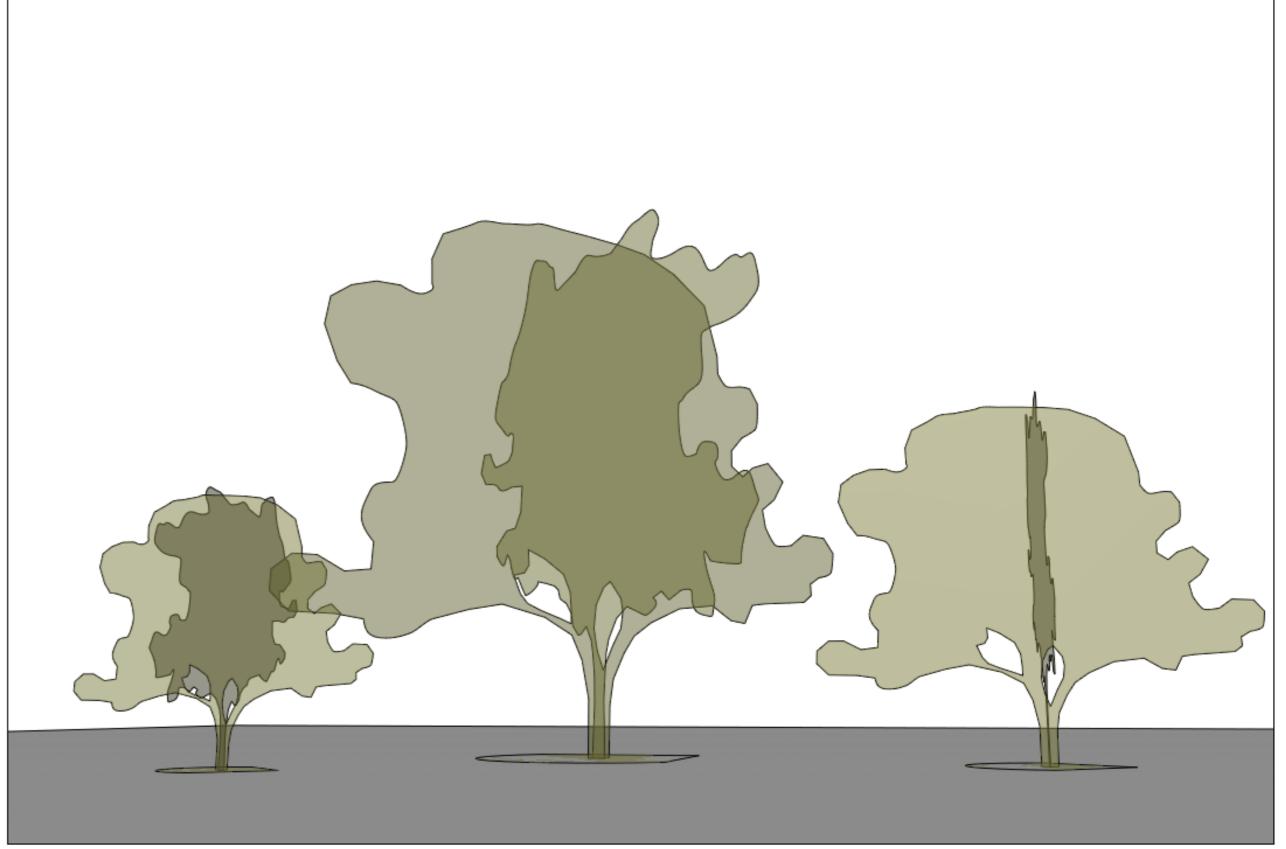


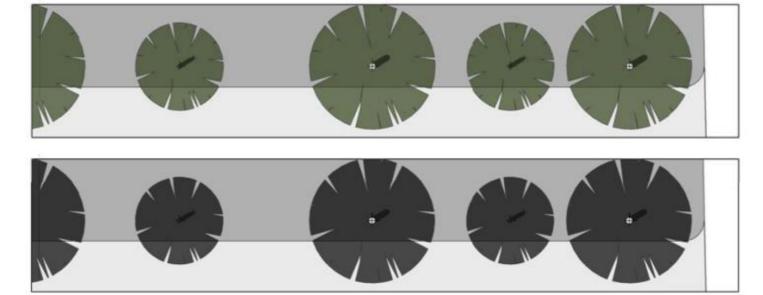
Tree – Fine Setting

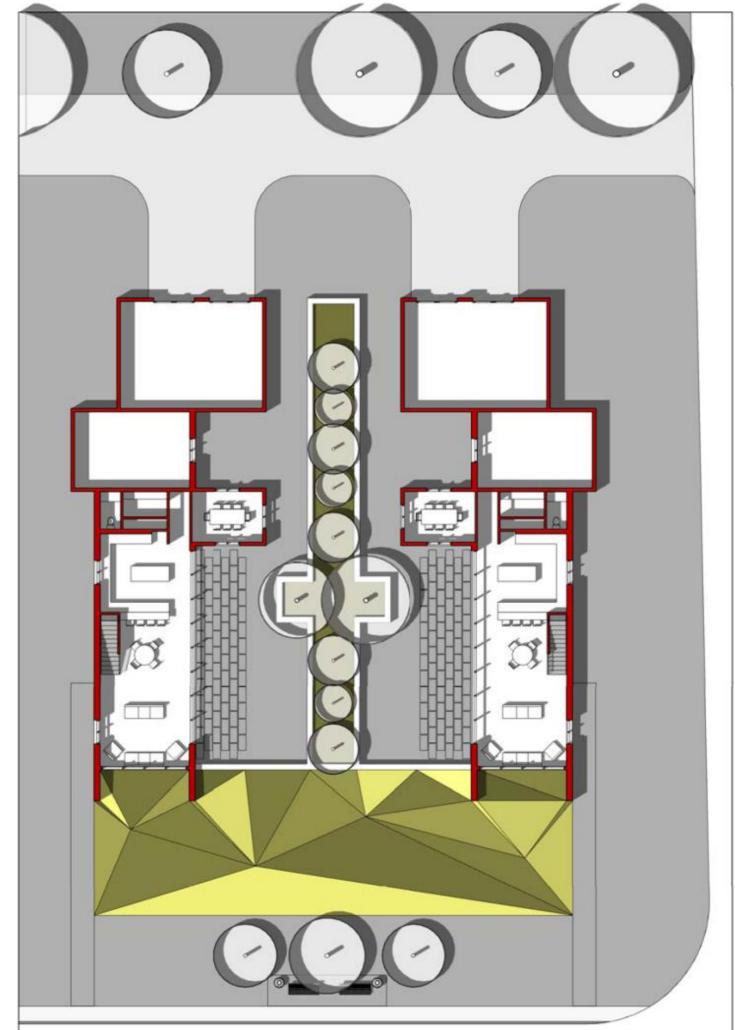


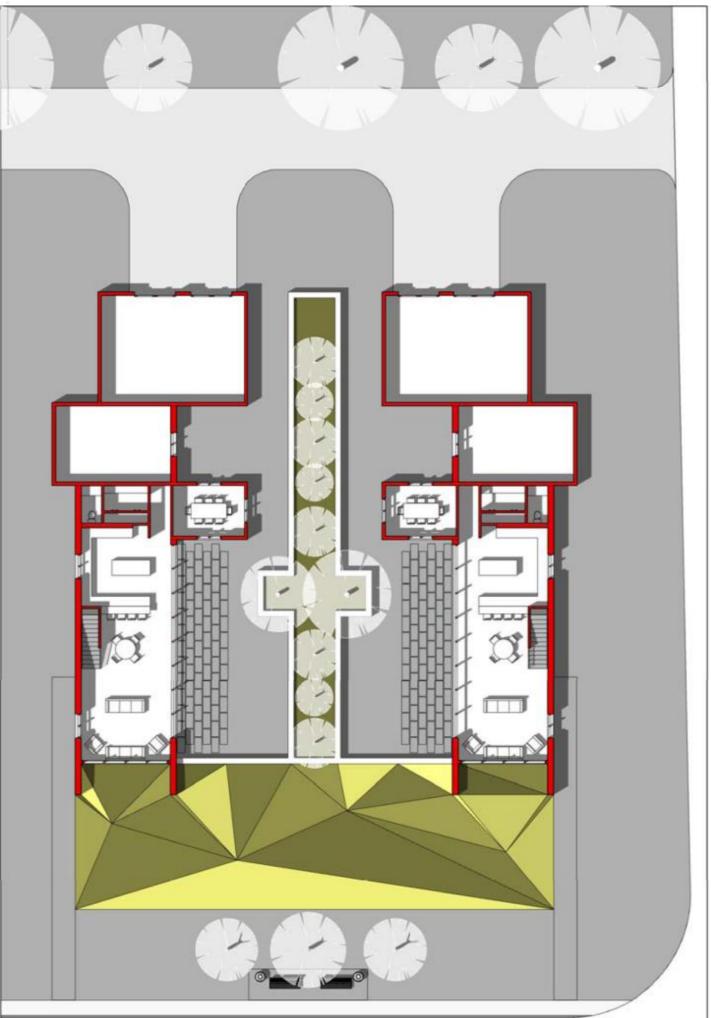


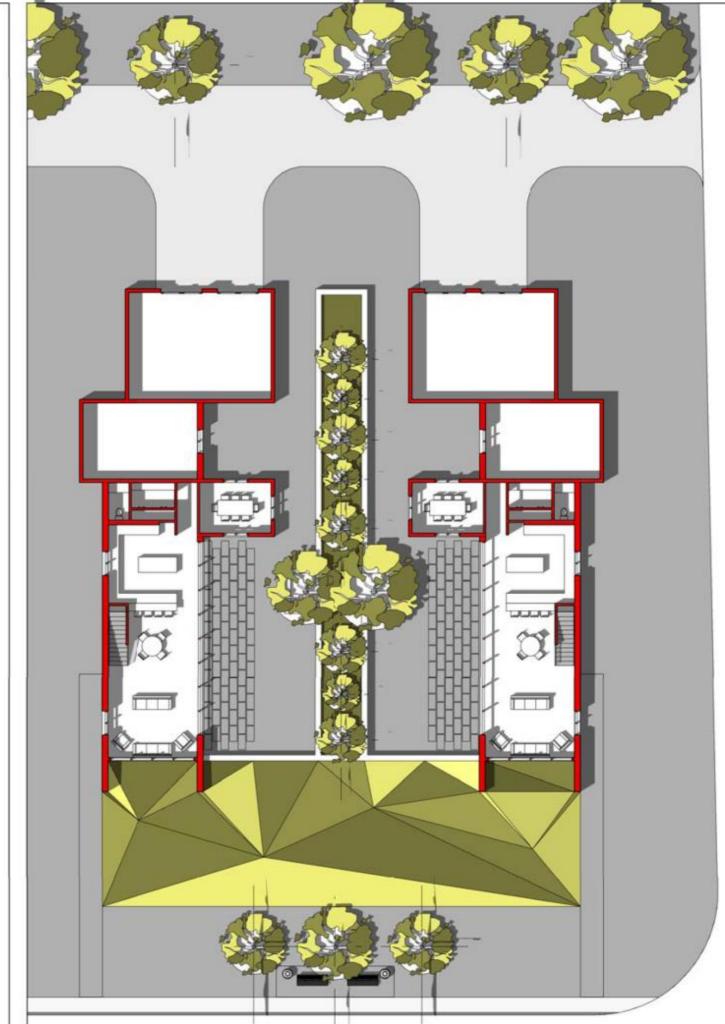


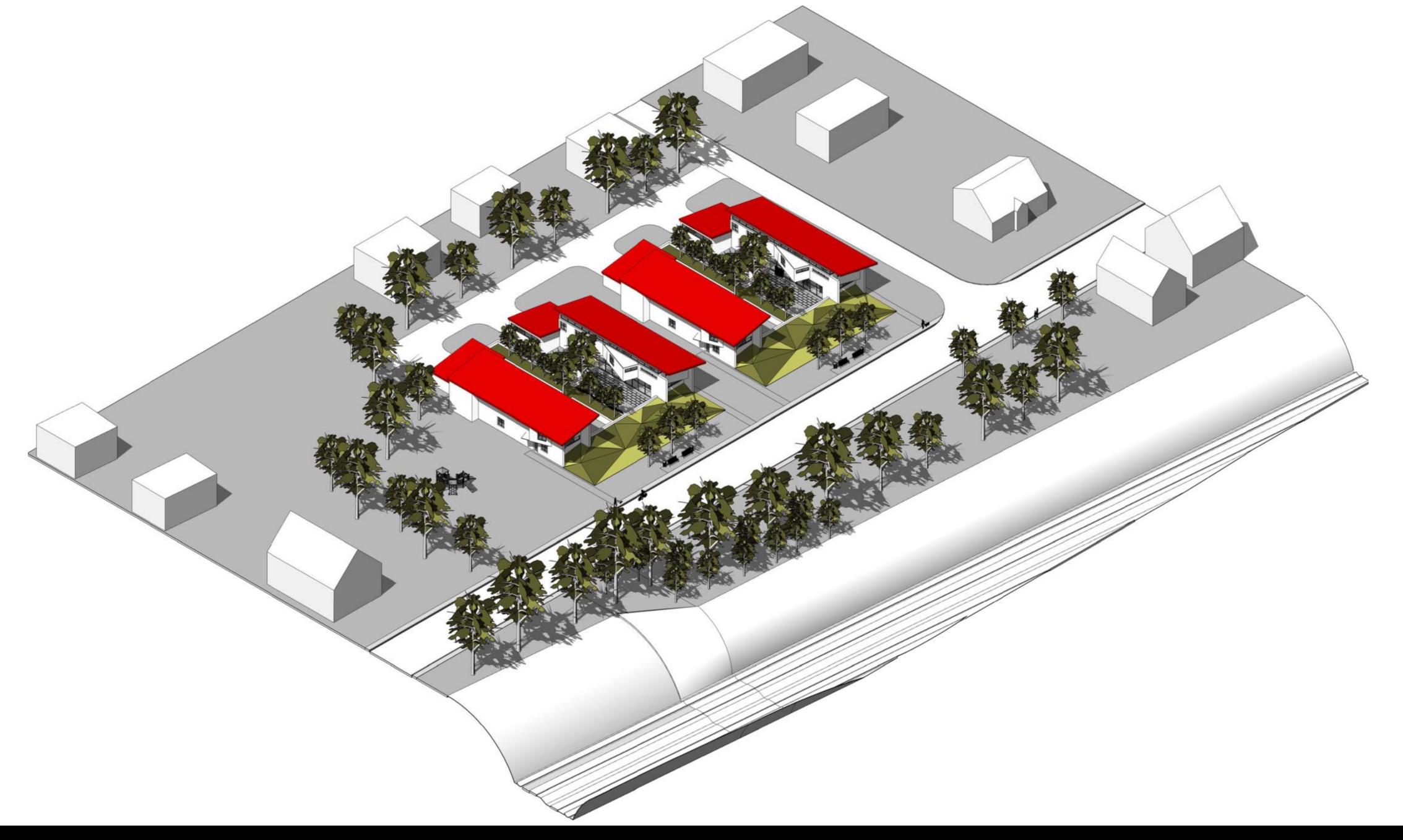


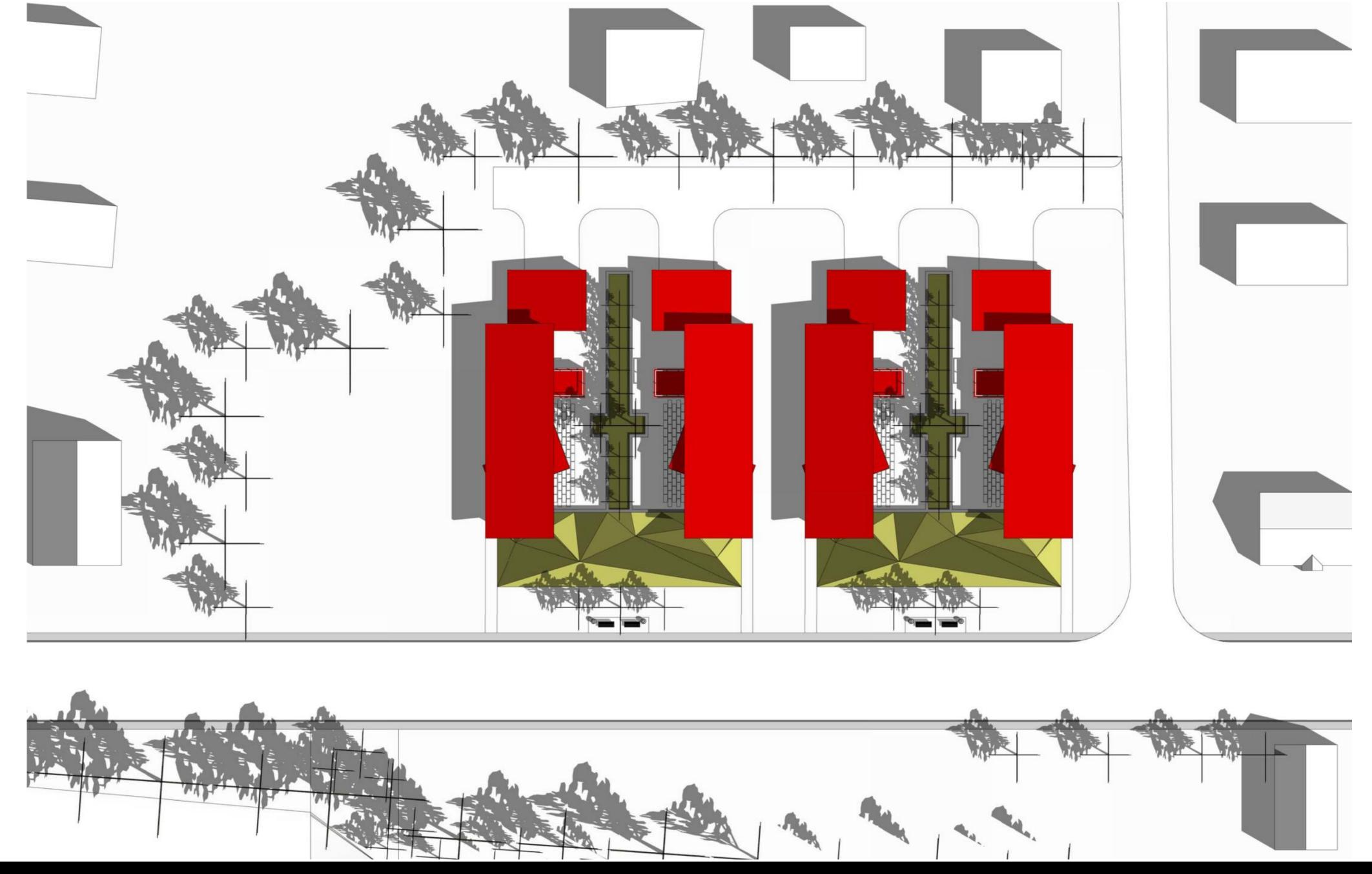


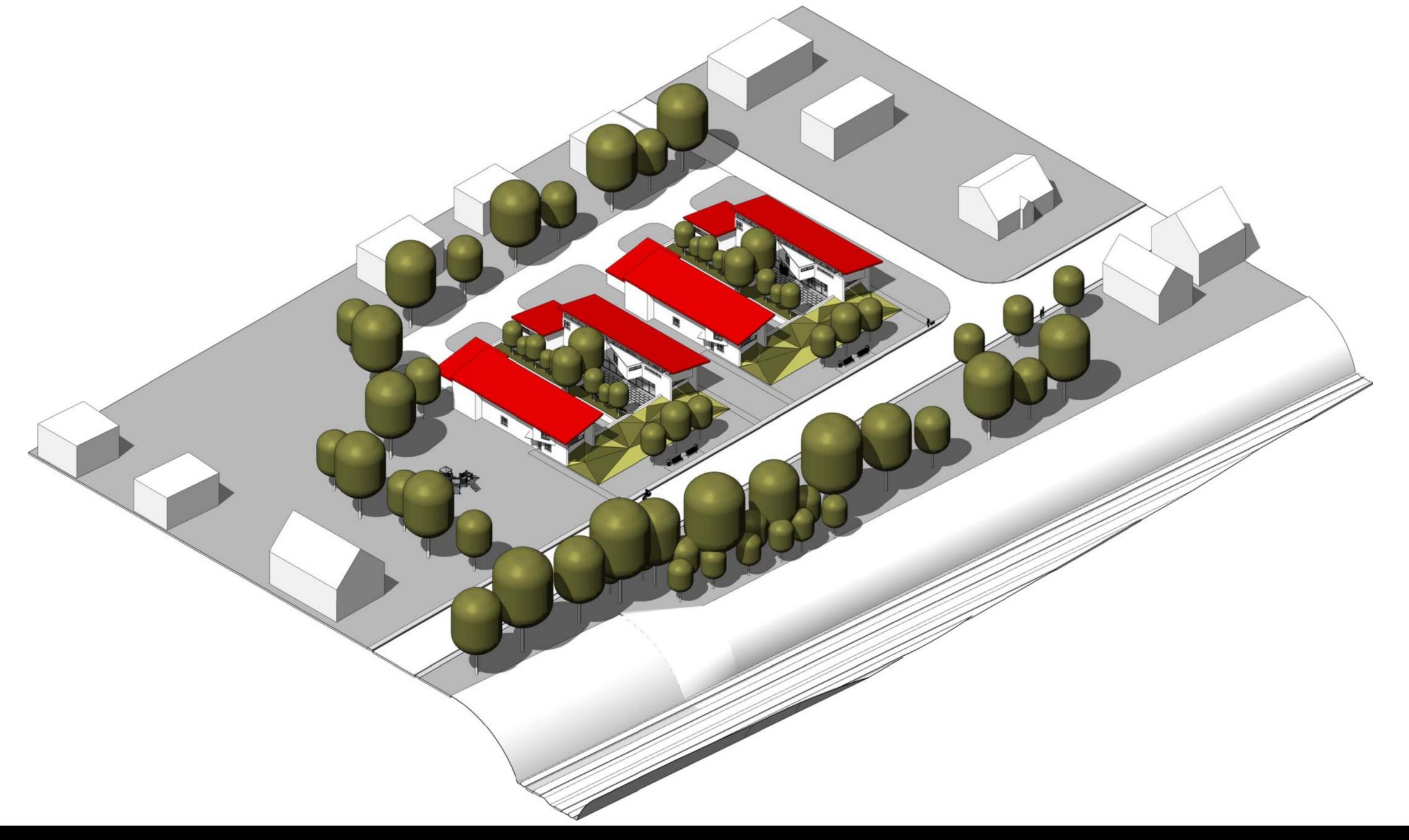


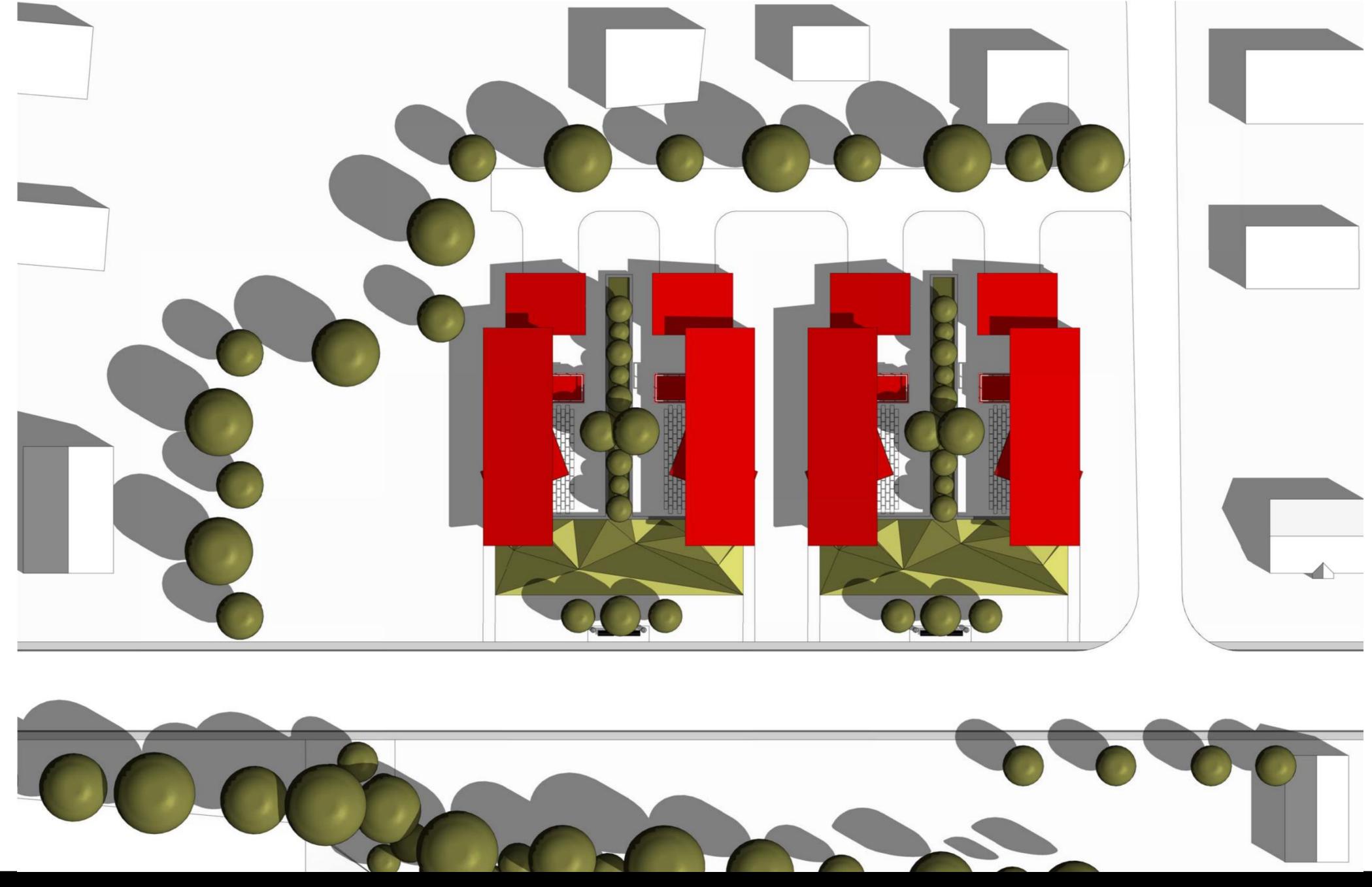
















GREEN OPEN SPACE WALK

DRIVE

WALK

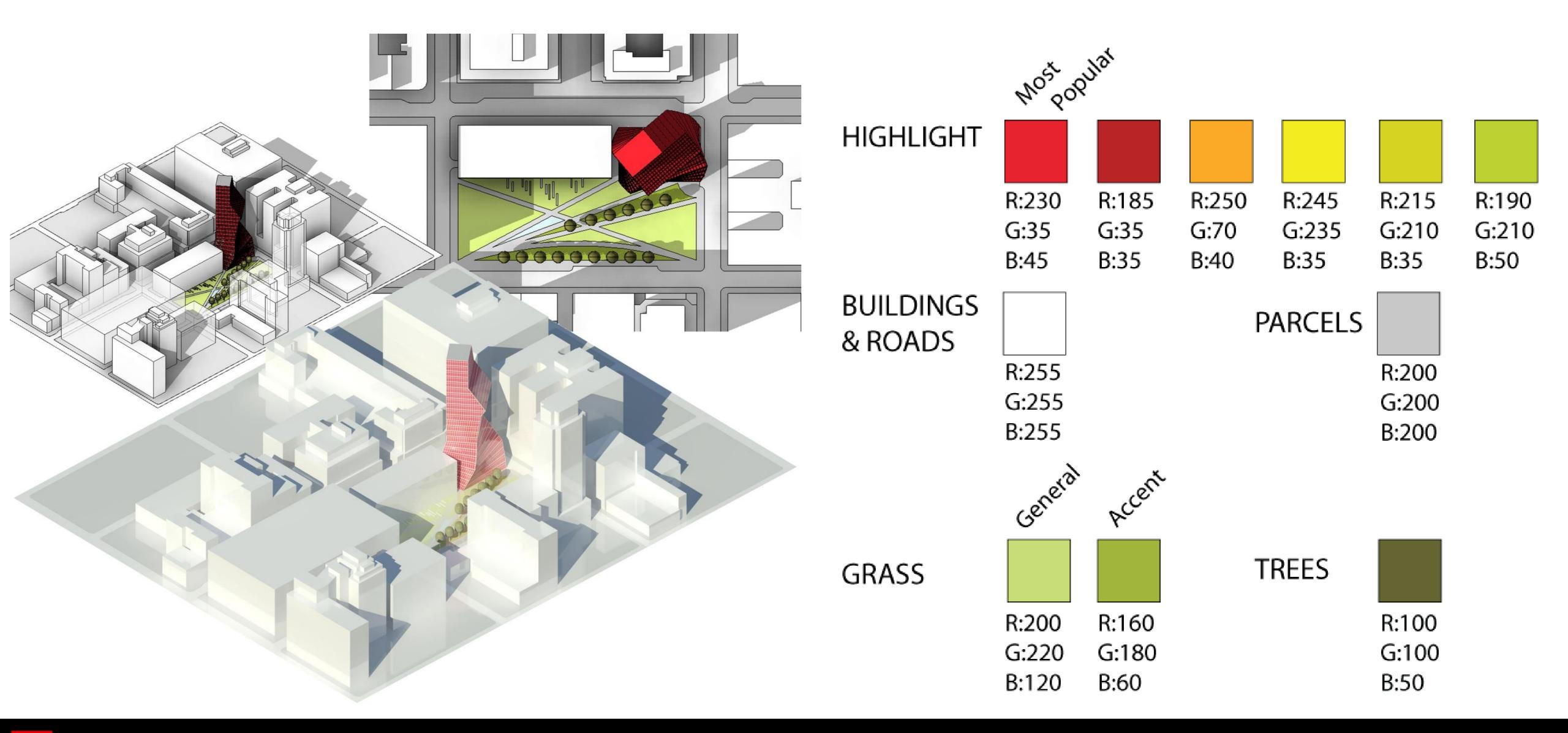
REST

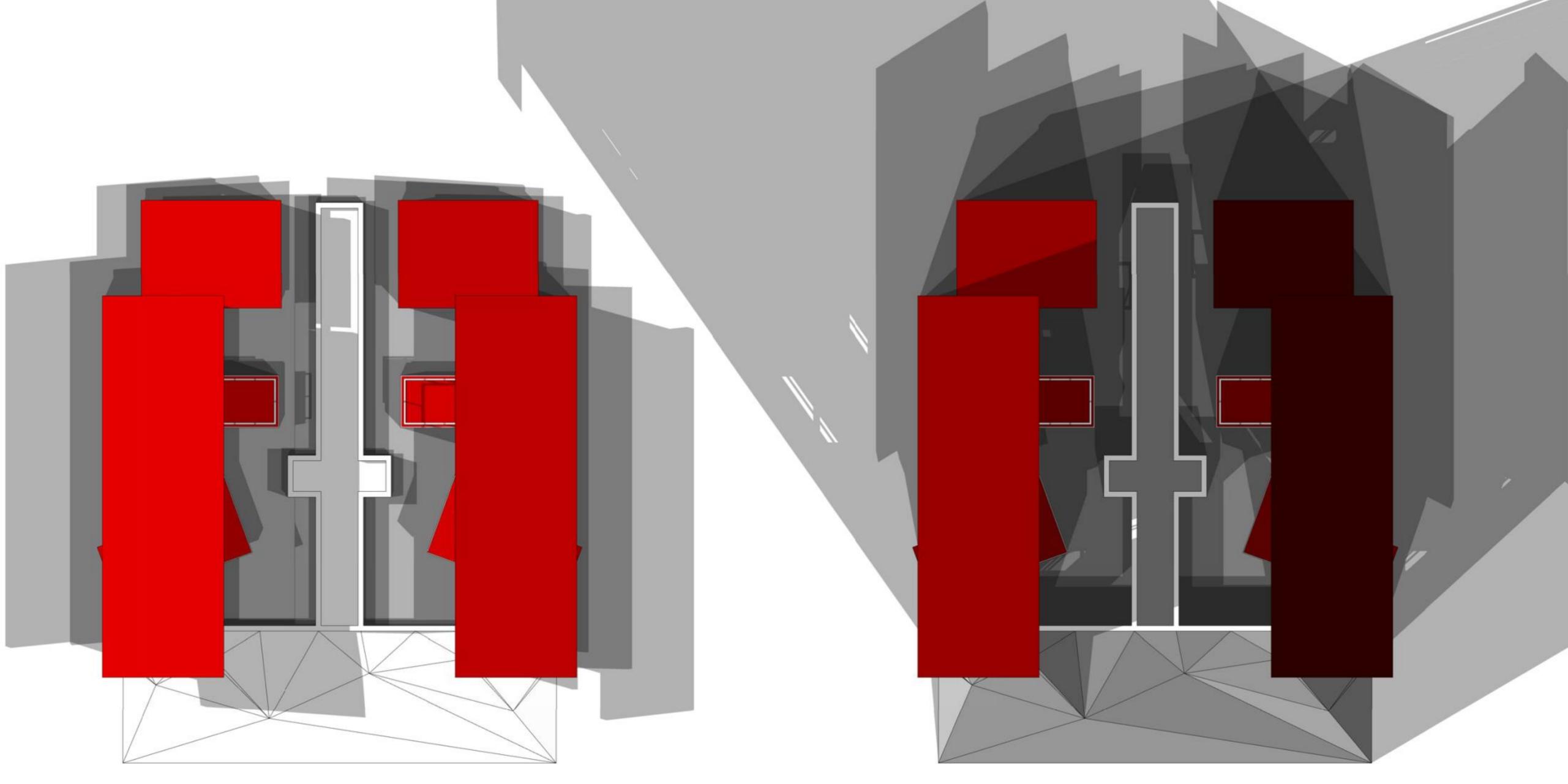
GREEN BUFFER

PROPERTY

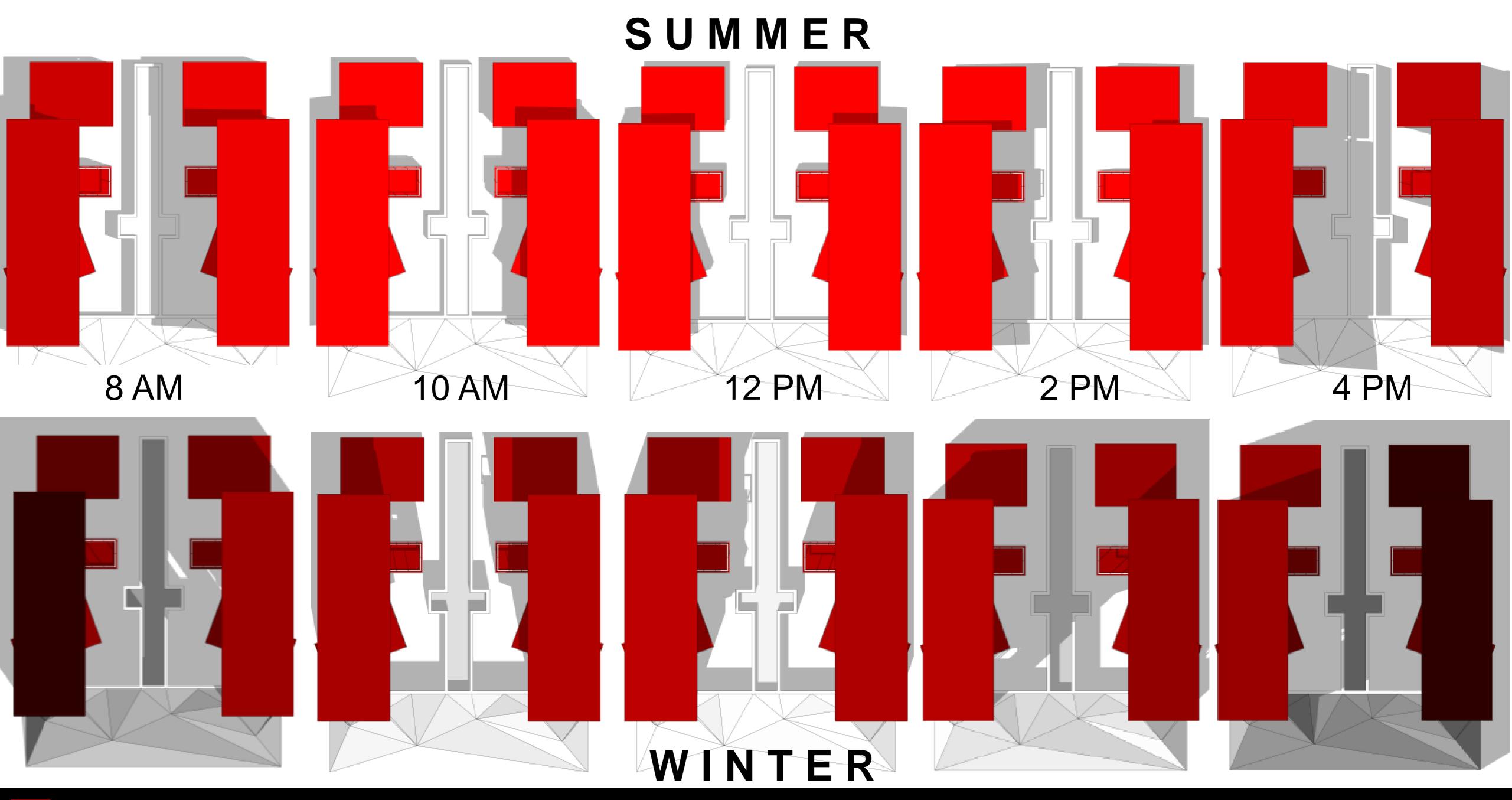


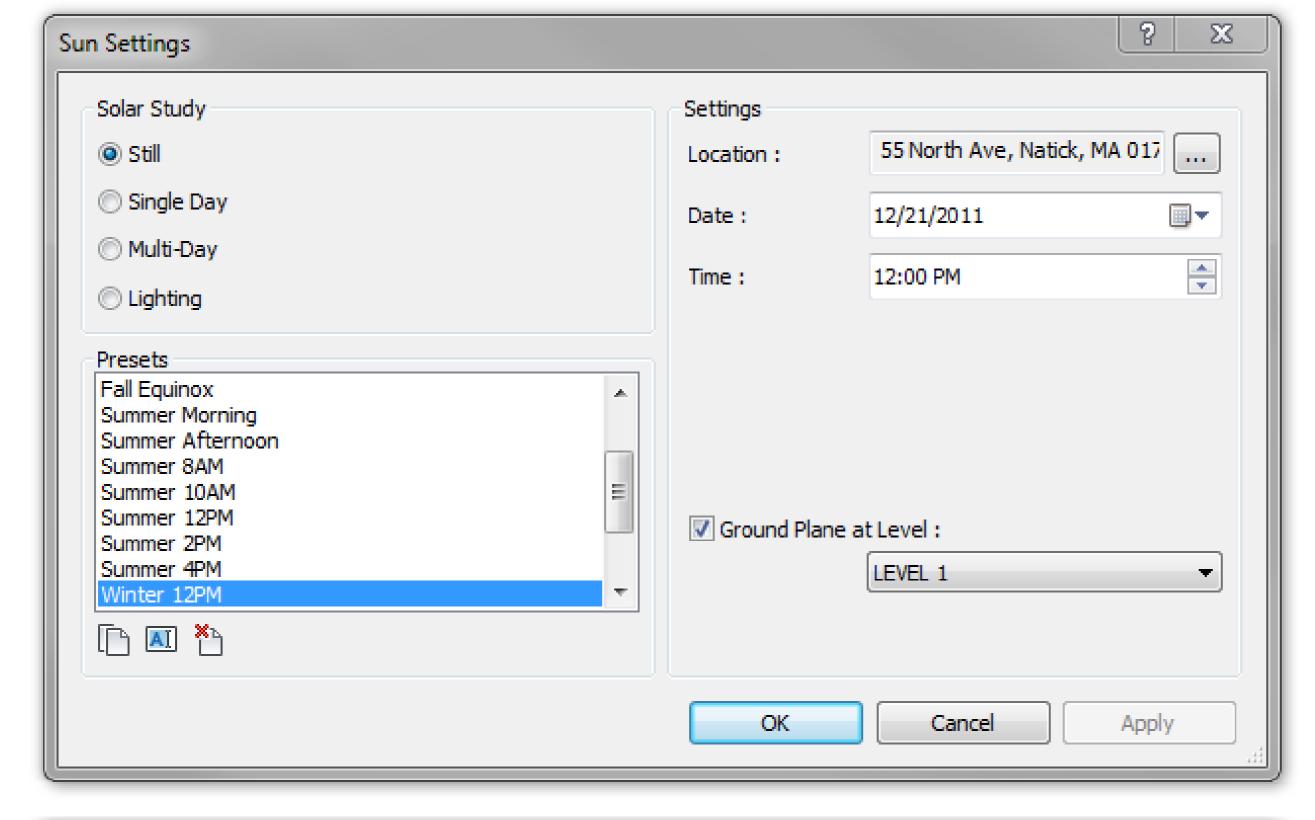
Web Research – MOST POPULAR COLORS

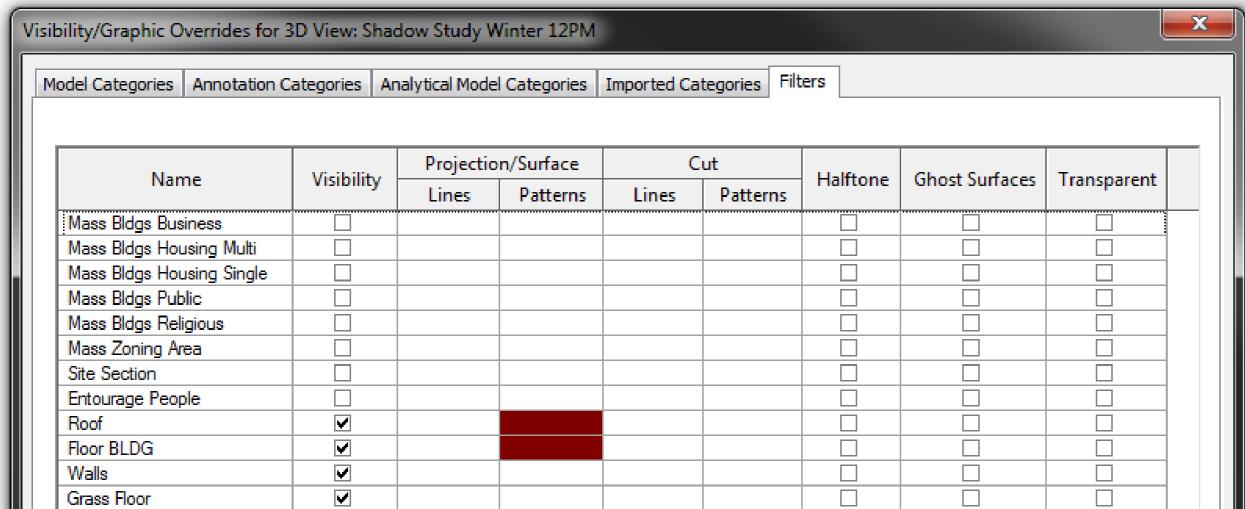


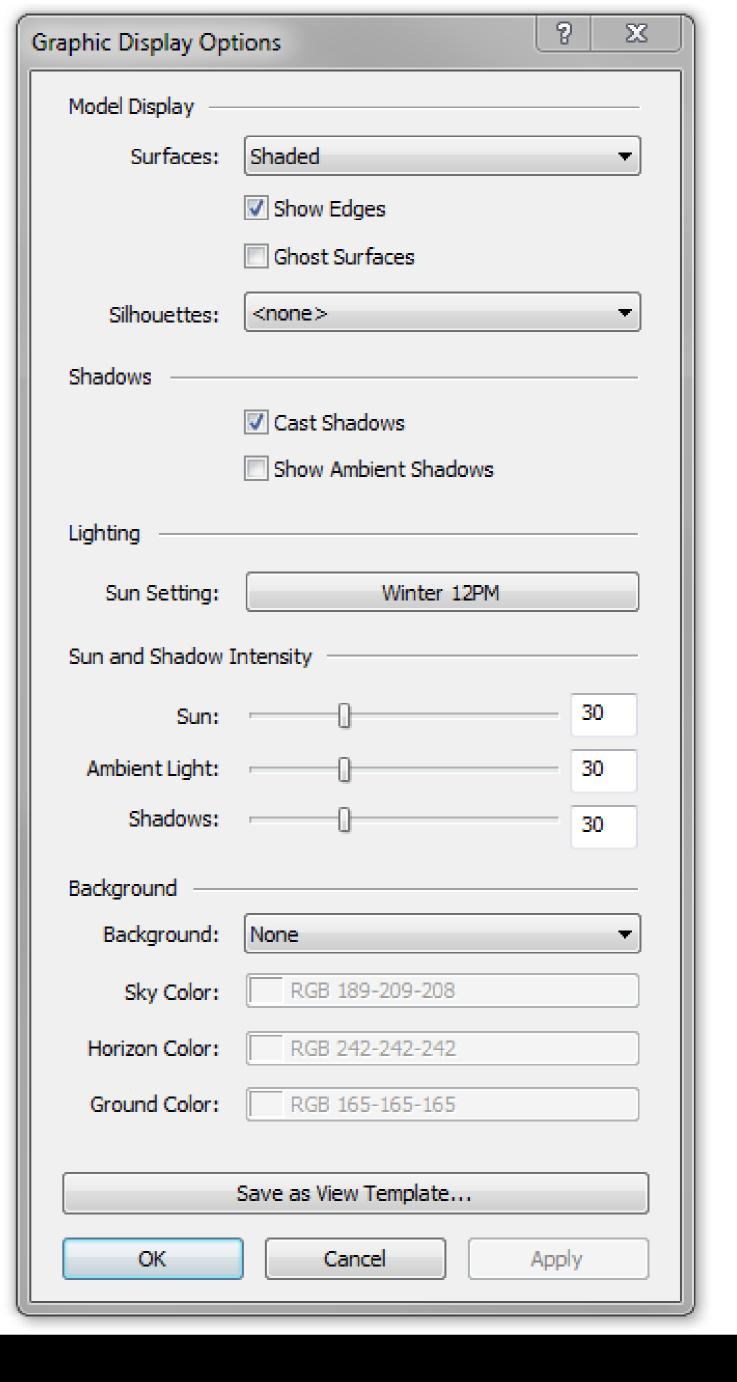


SUMMER **WINTER**

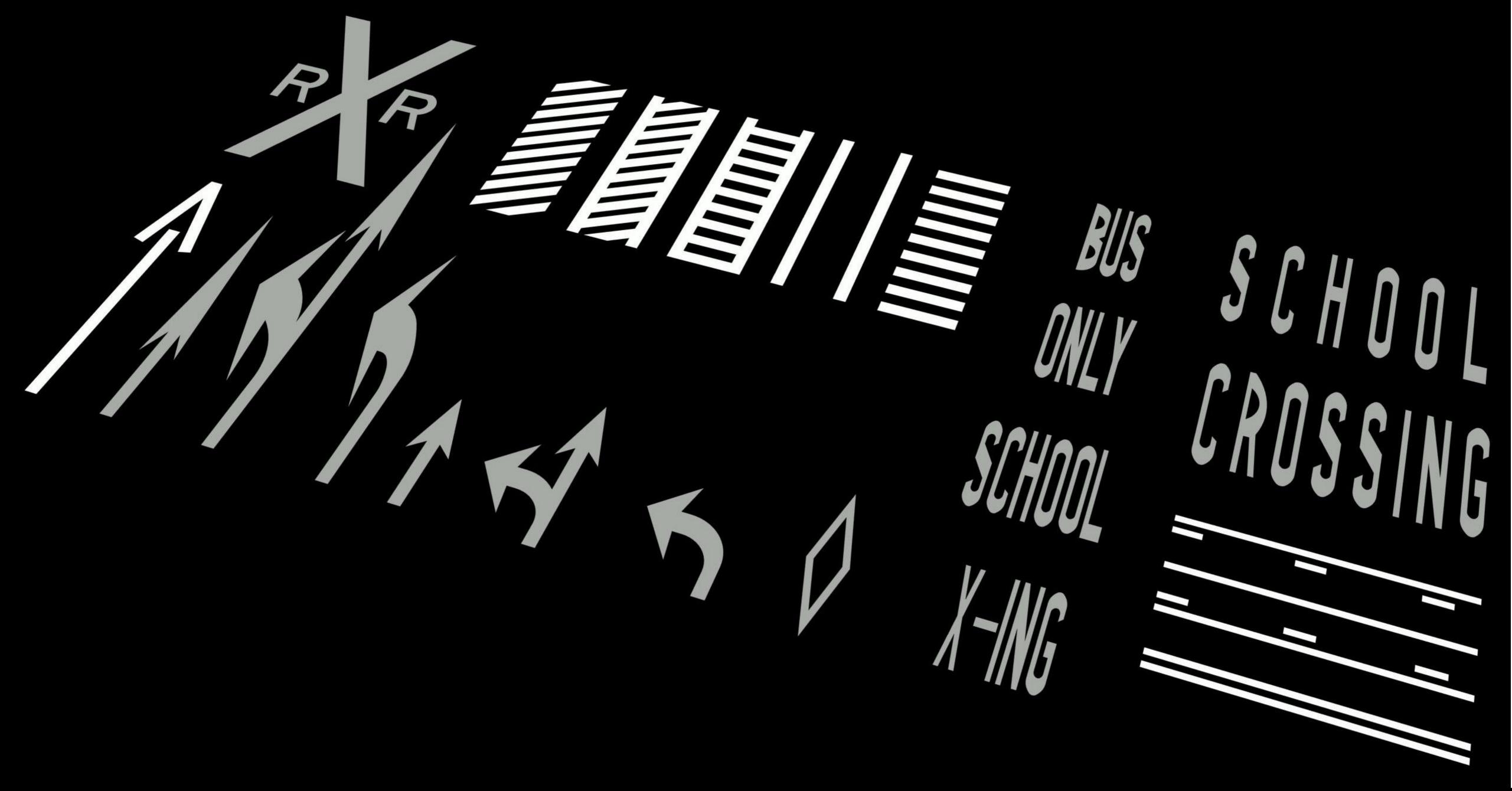


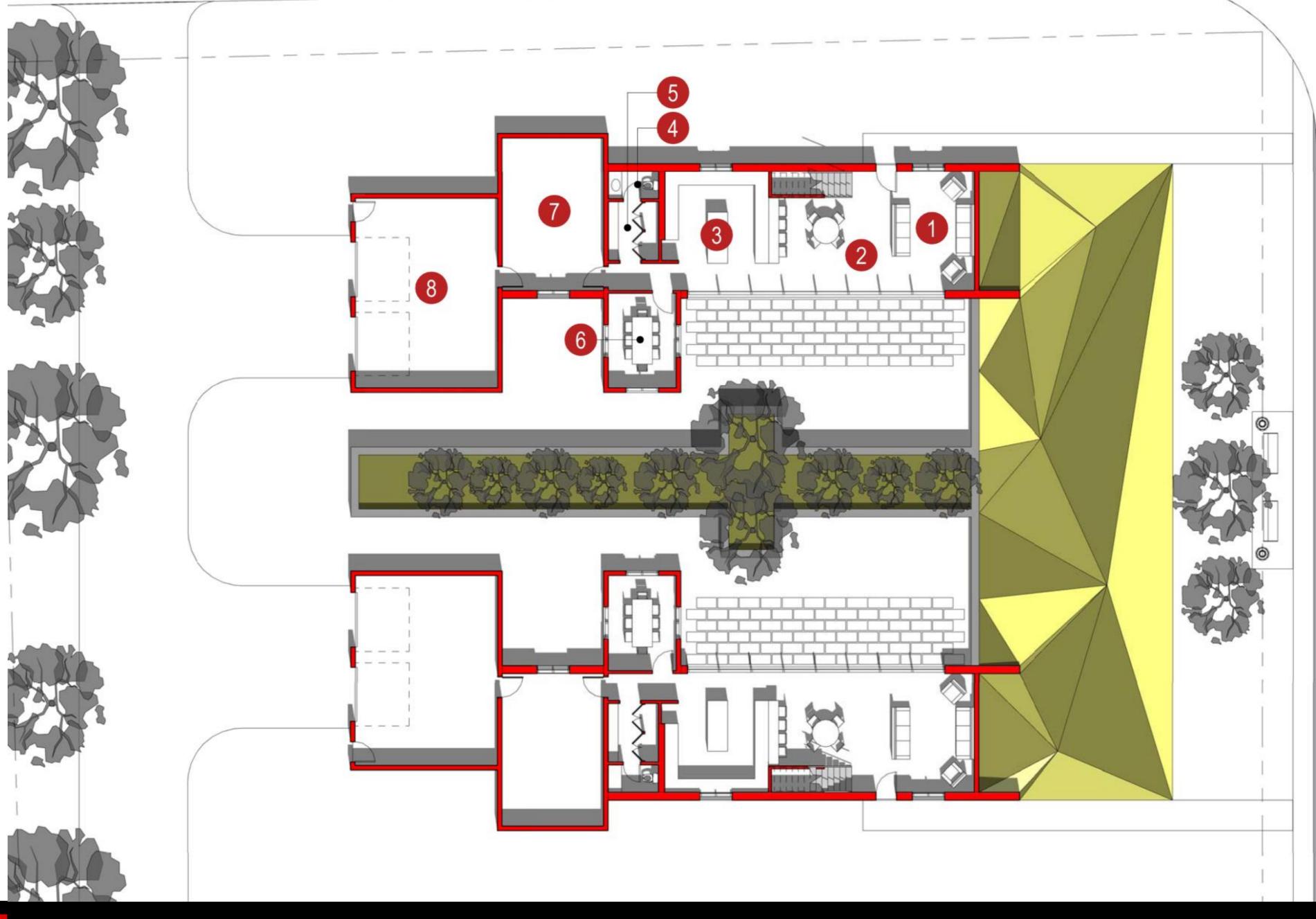




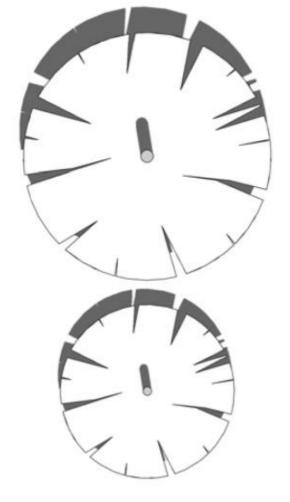








- 1 LIVING ROOM
- 2 BREAKFAST AREA
- 3 KITCHEN
- 4 HALF BATH
- **5** MUDROOM
- 6 DINING ROOM
- OFFICE / FAMILY ROOM / MEDIA ROOM
- 8 GARAGE









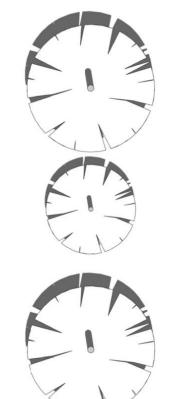


- 1 BEDROOM 1
- 2 LAUNDRY
- 3 BEDROOM 2
- 4 BATHROOM
- MASTER CLOSET
- 6 MASTER BEDROOM
- MASTER BATHROOM
- 8 DECK



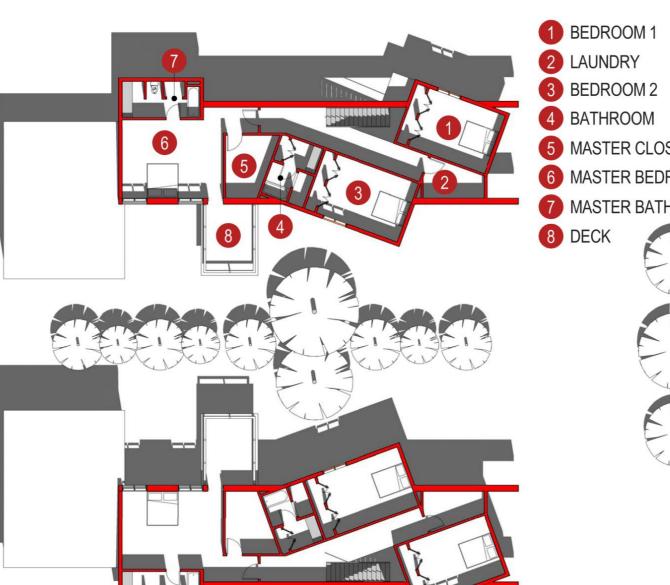


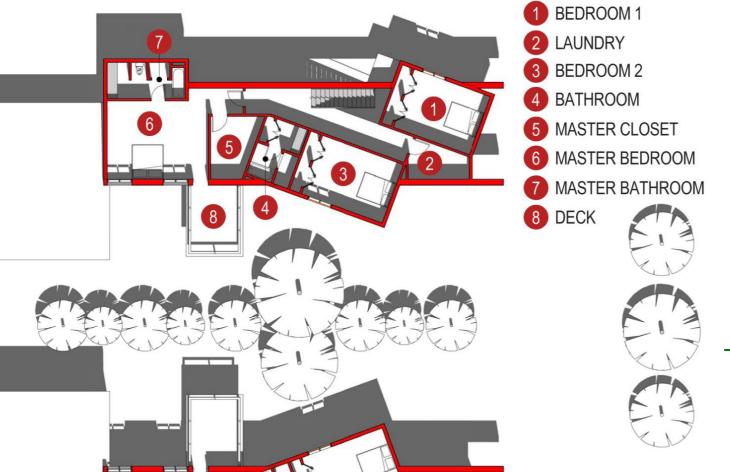




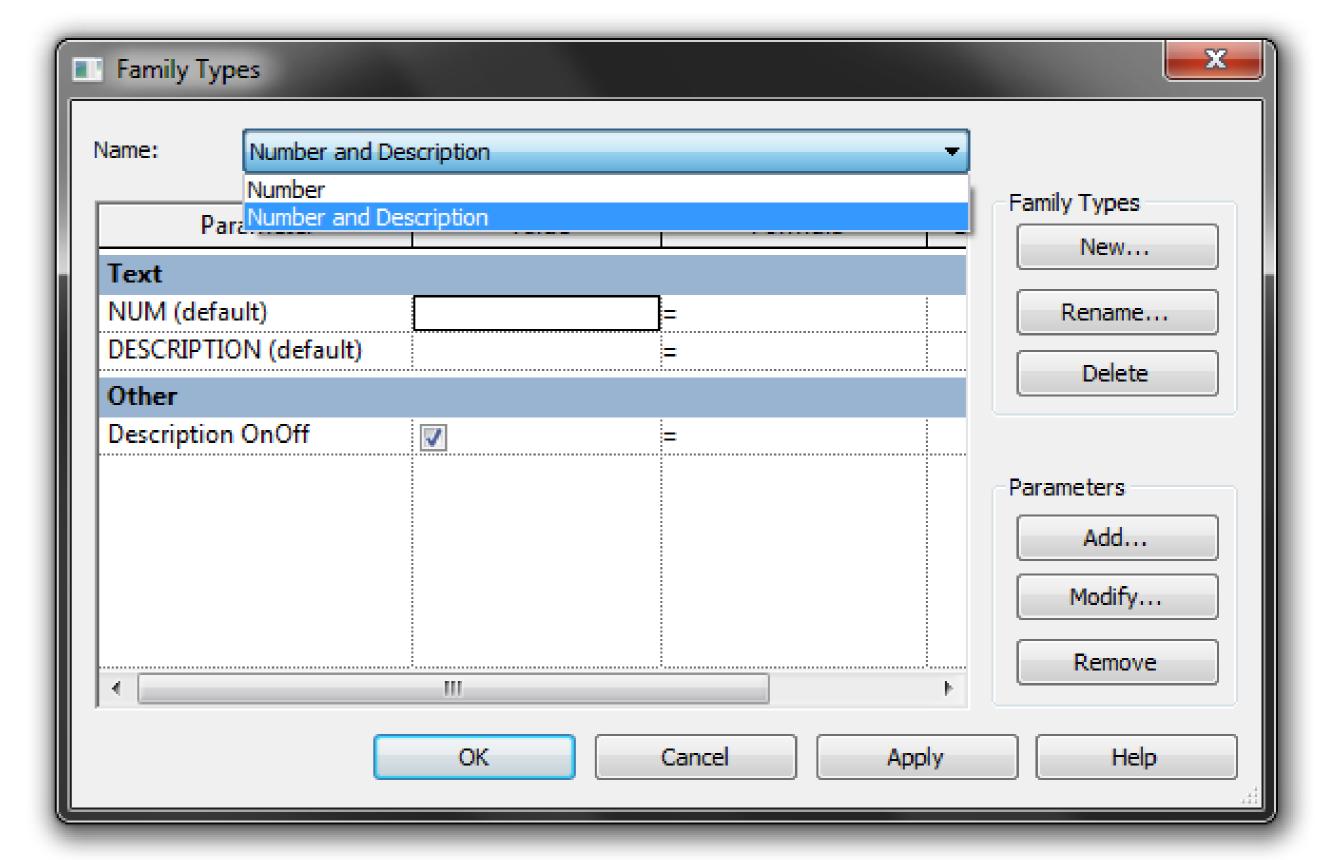




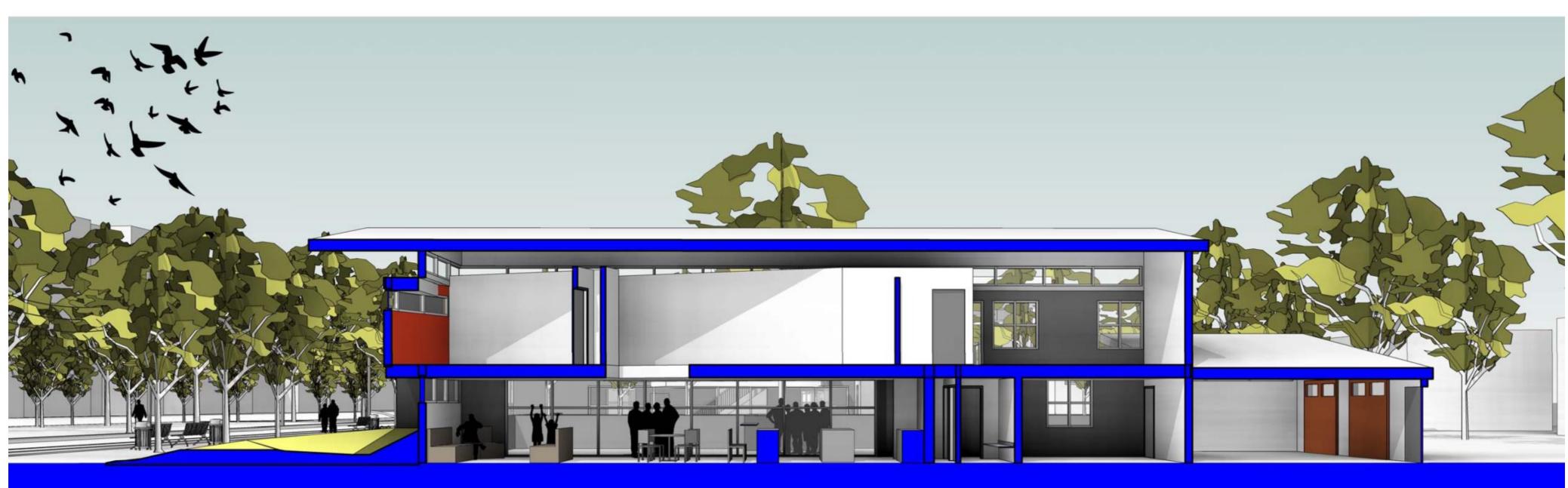




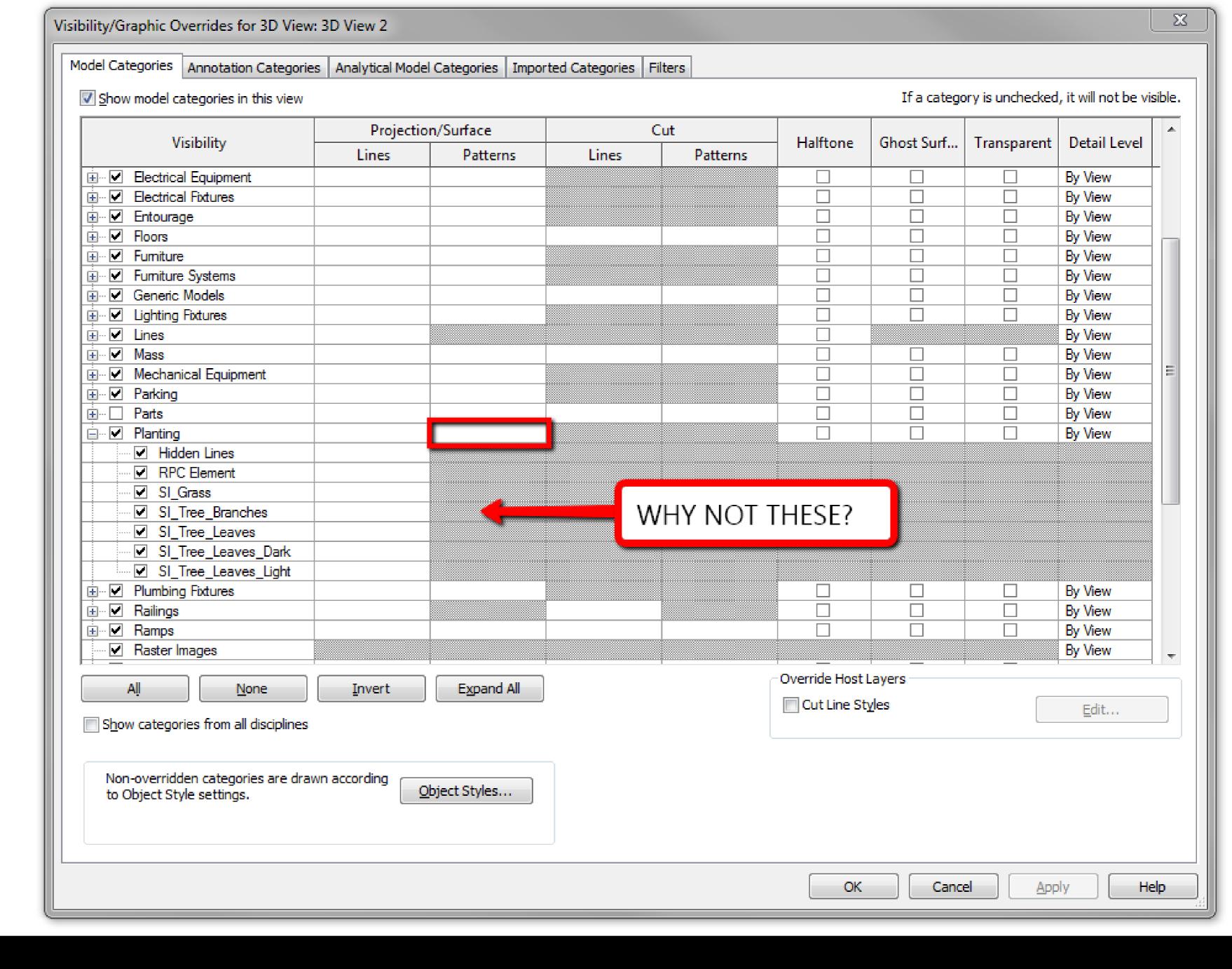




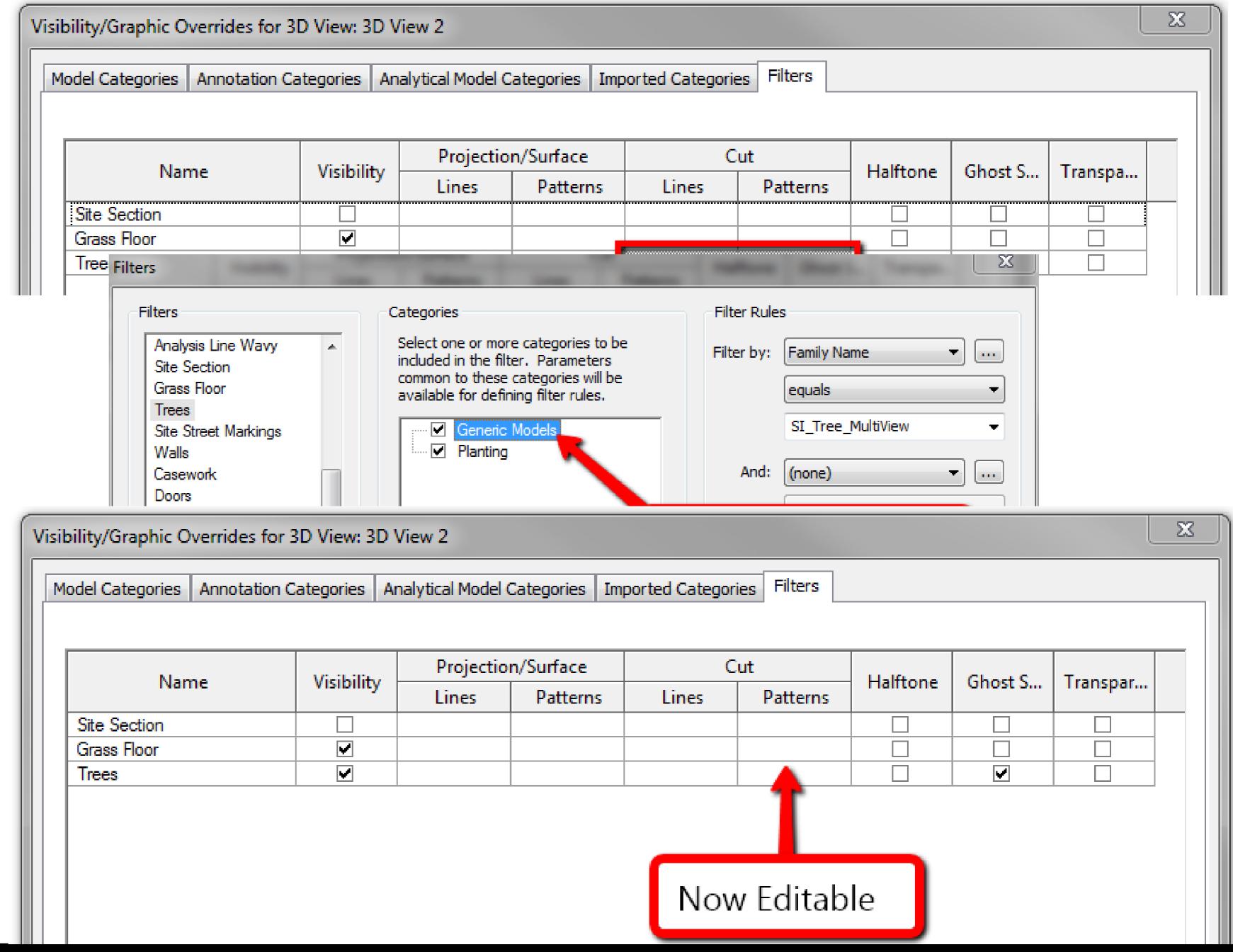




Filter Hack

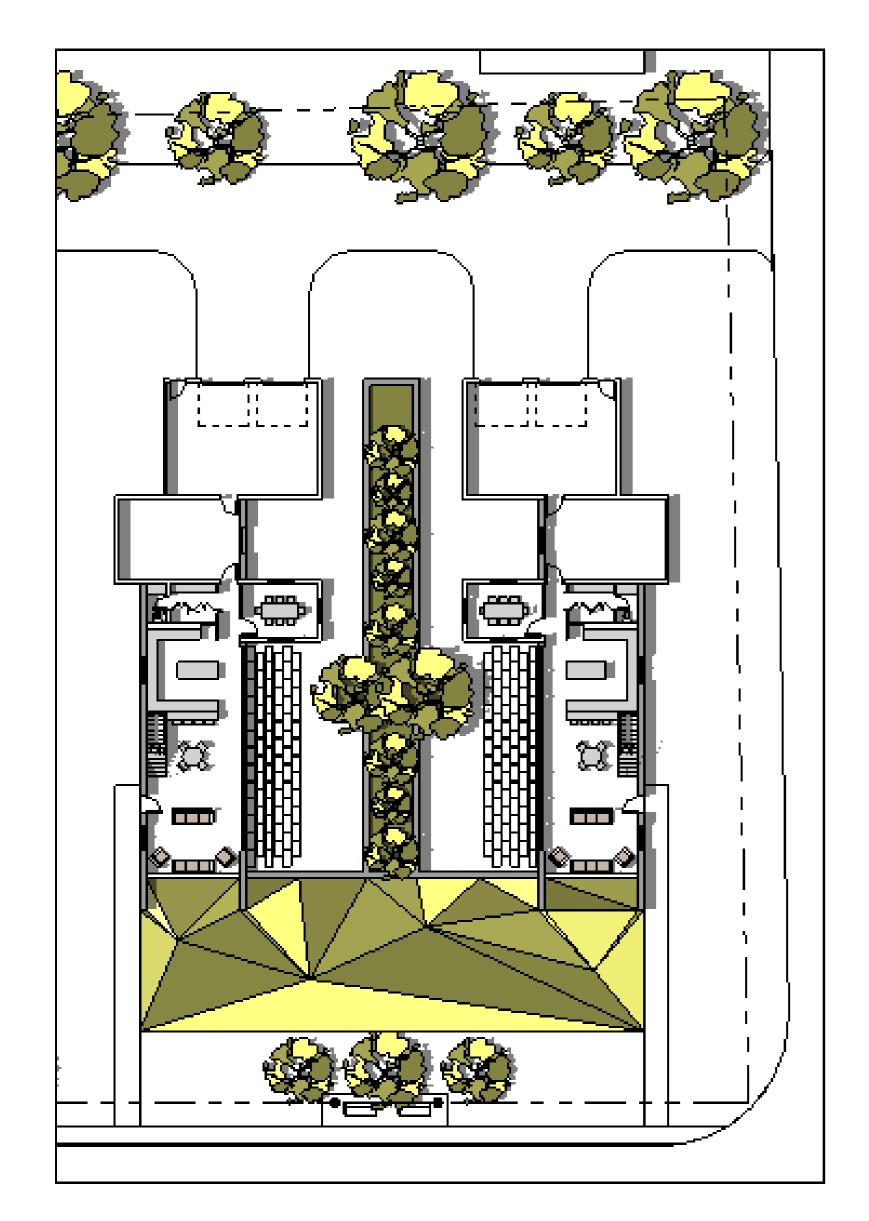


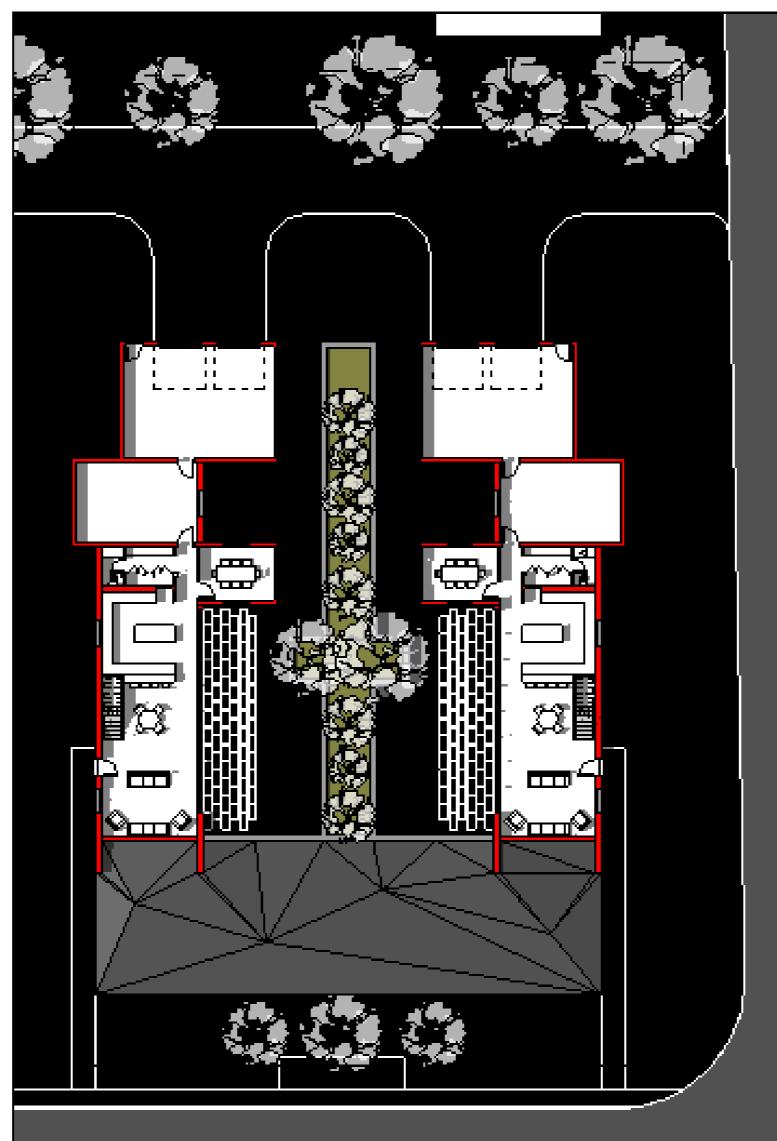
Filter Hack

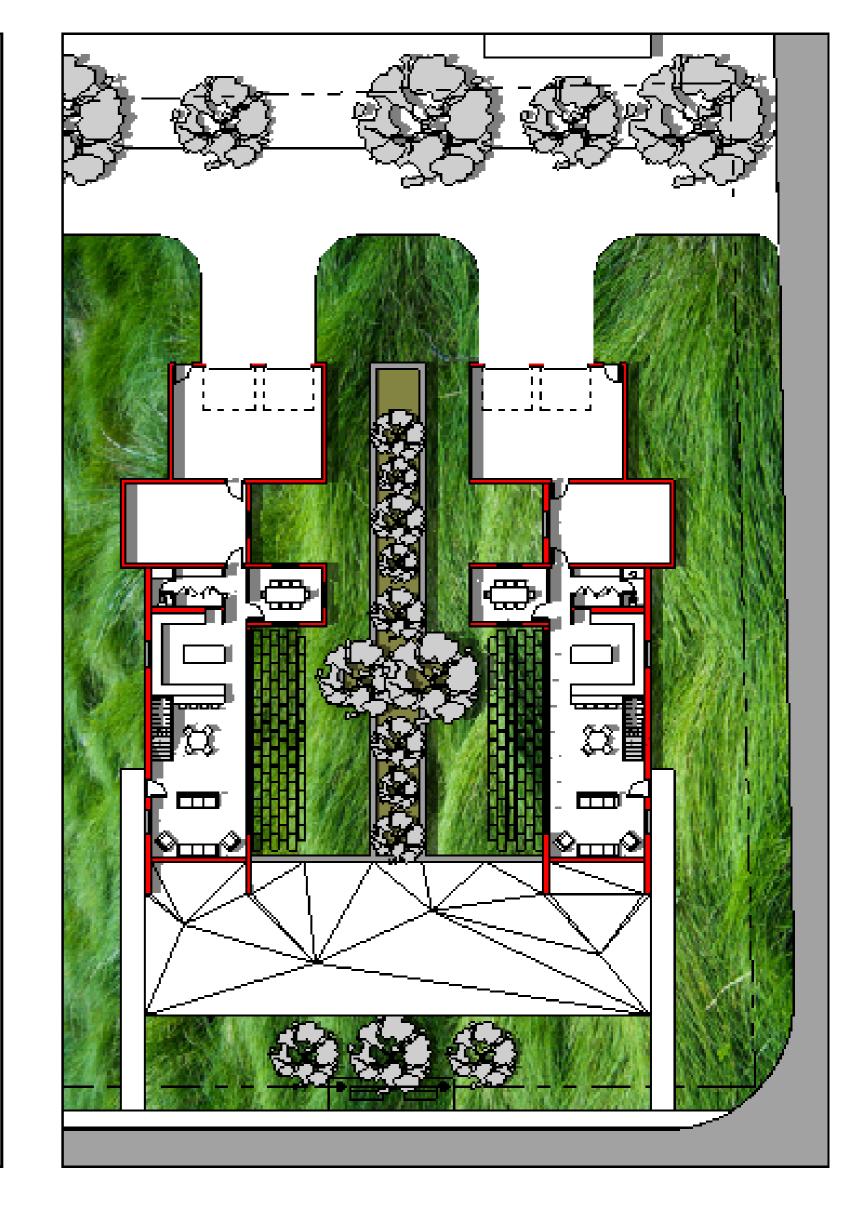


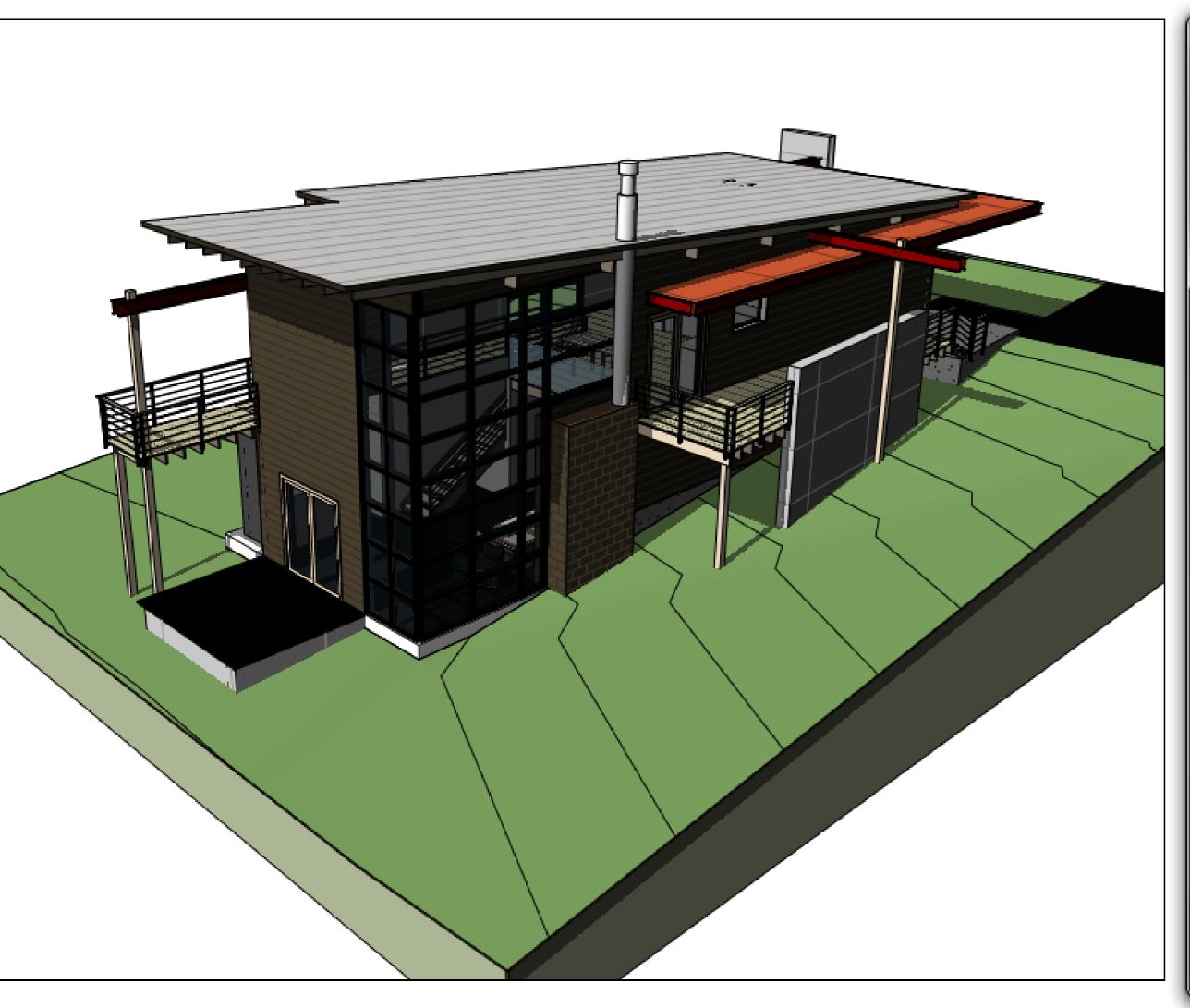
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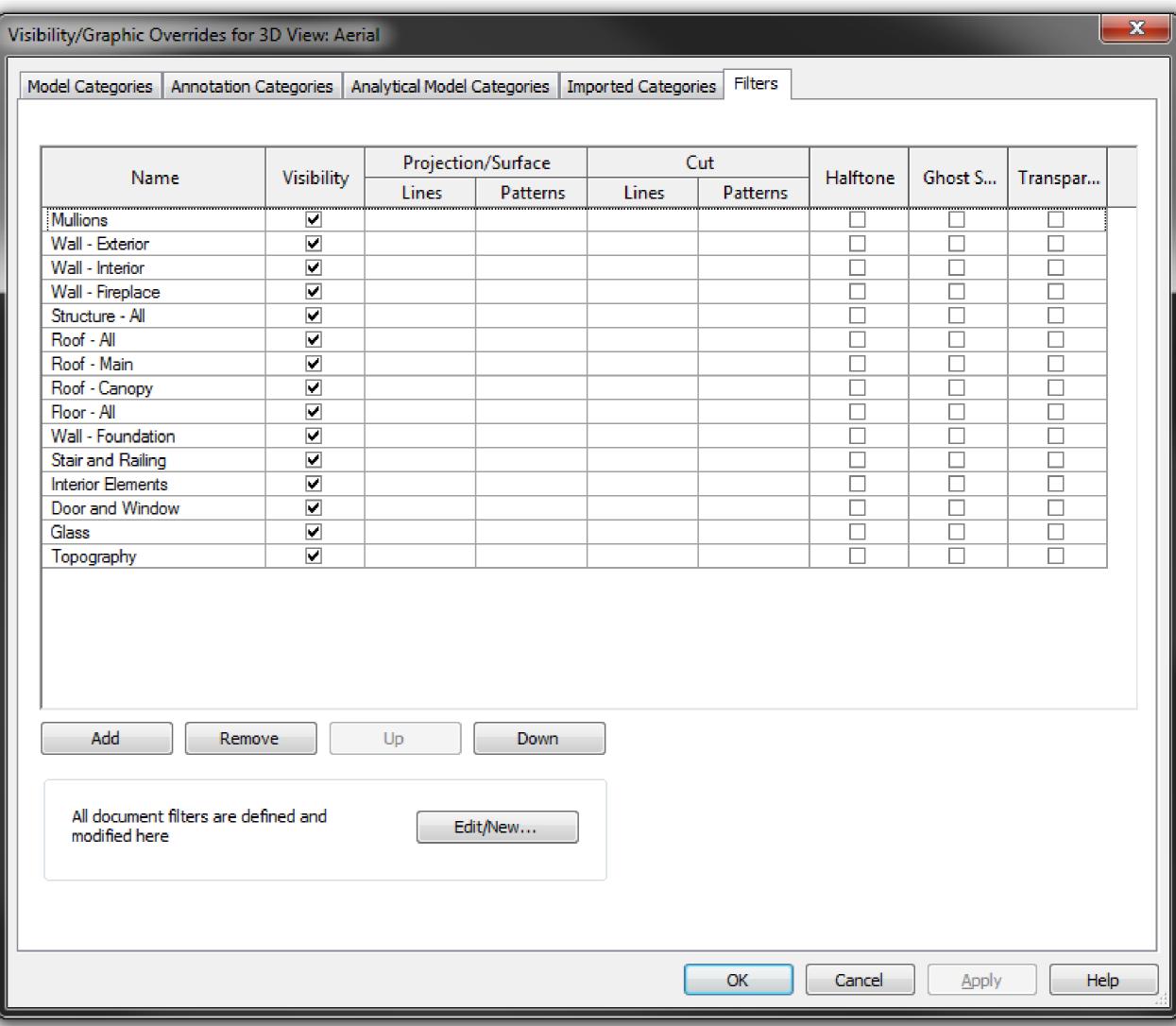
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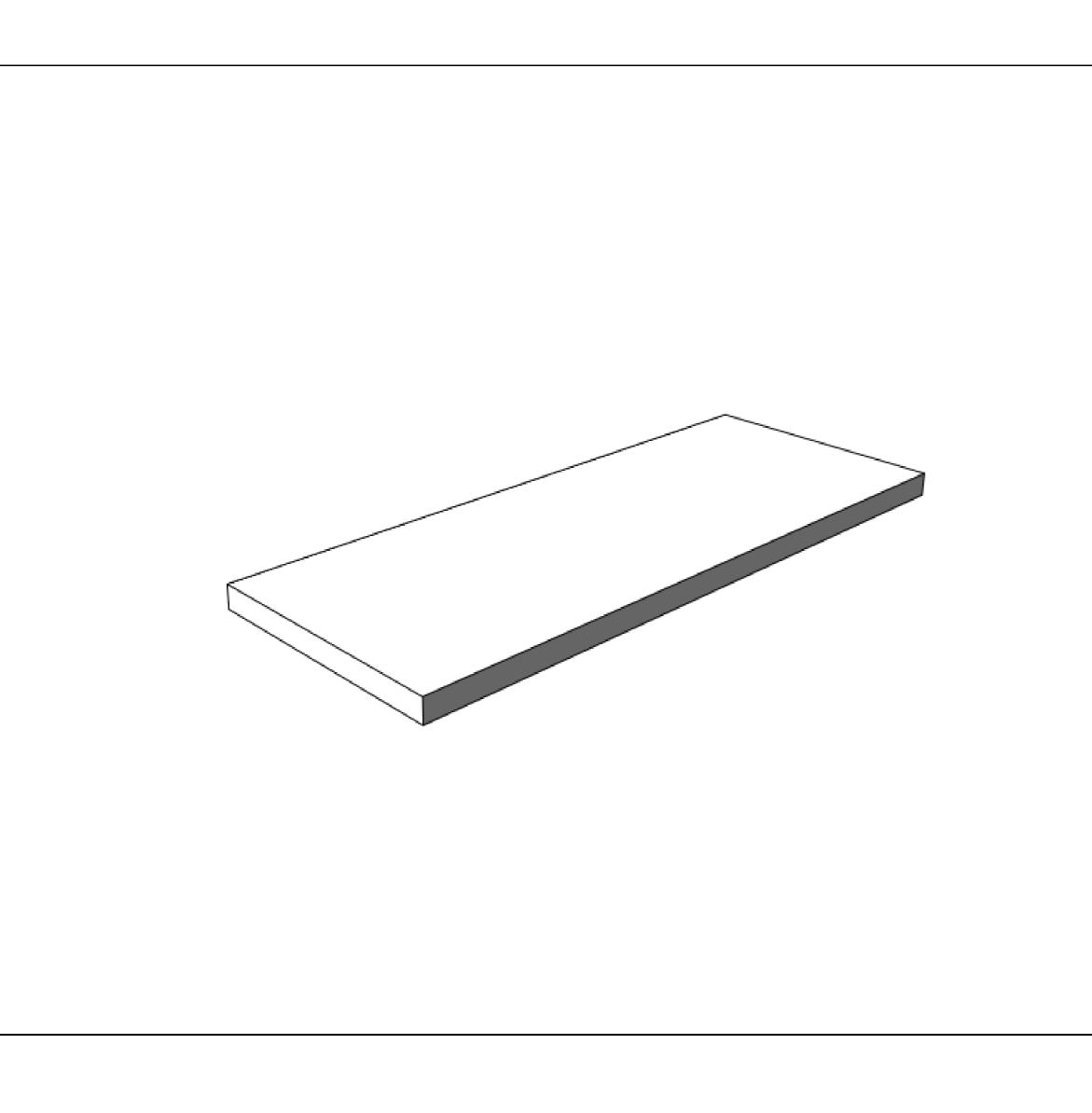


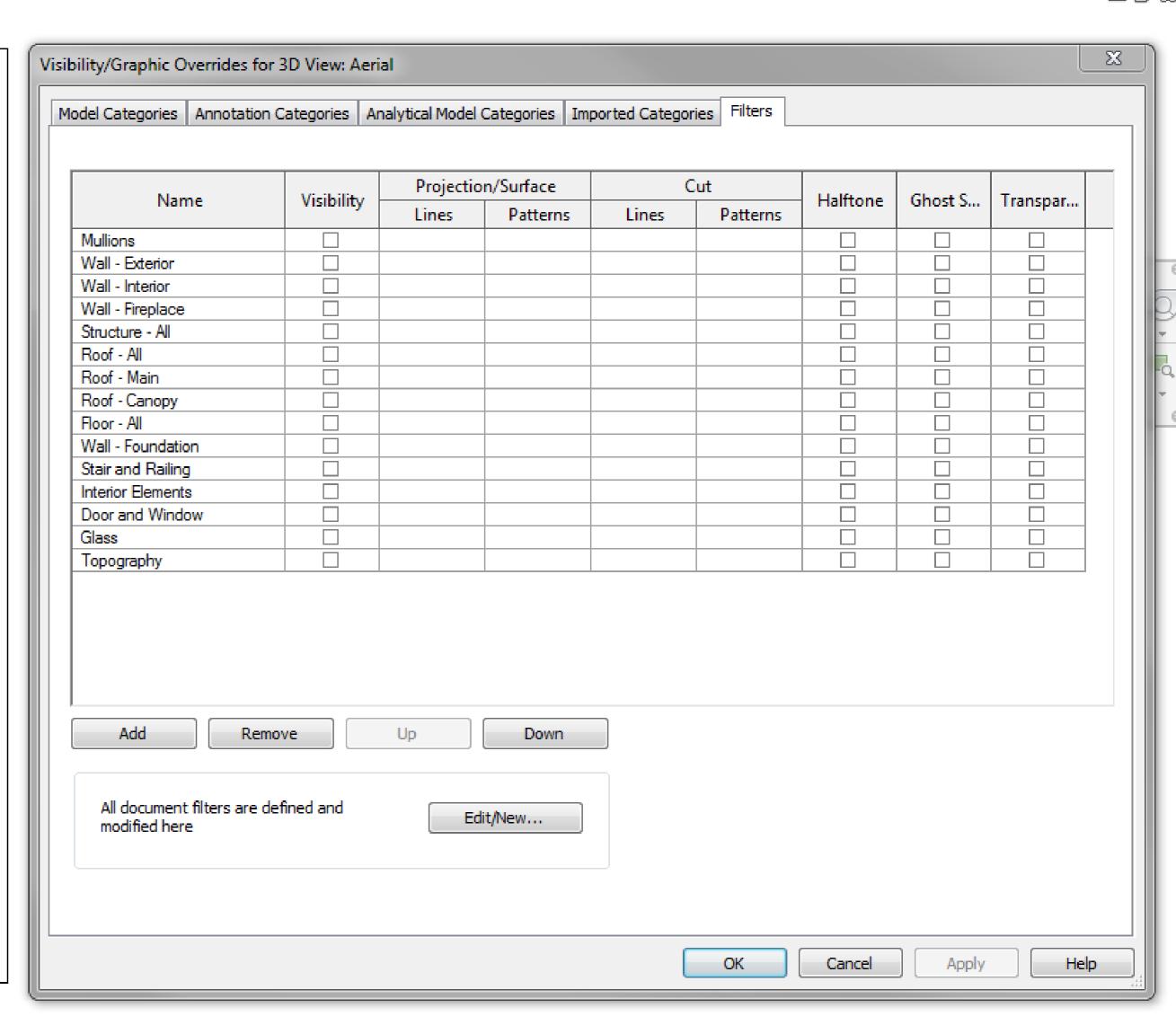


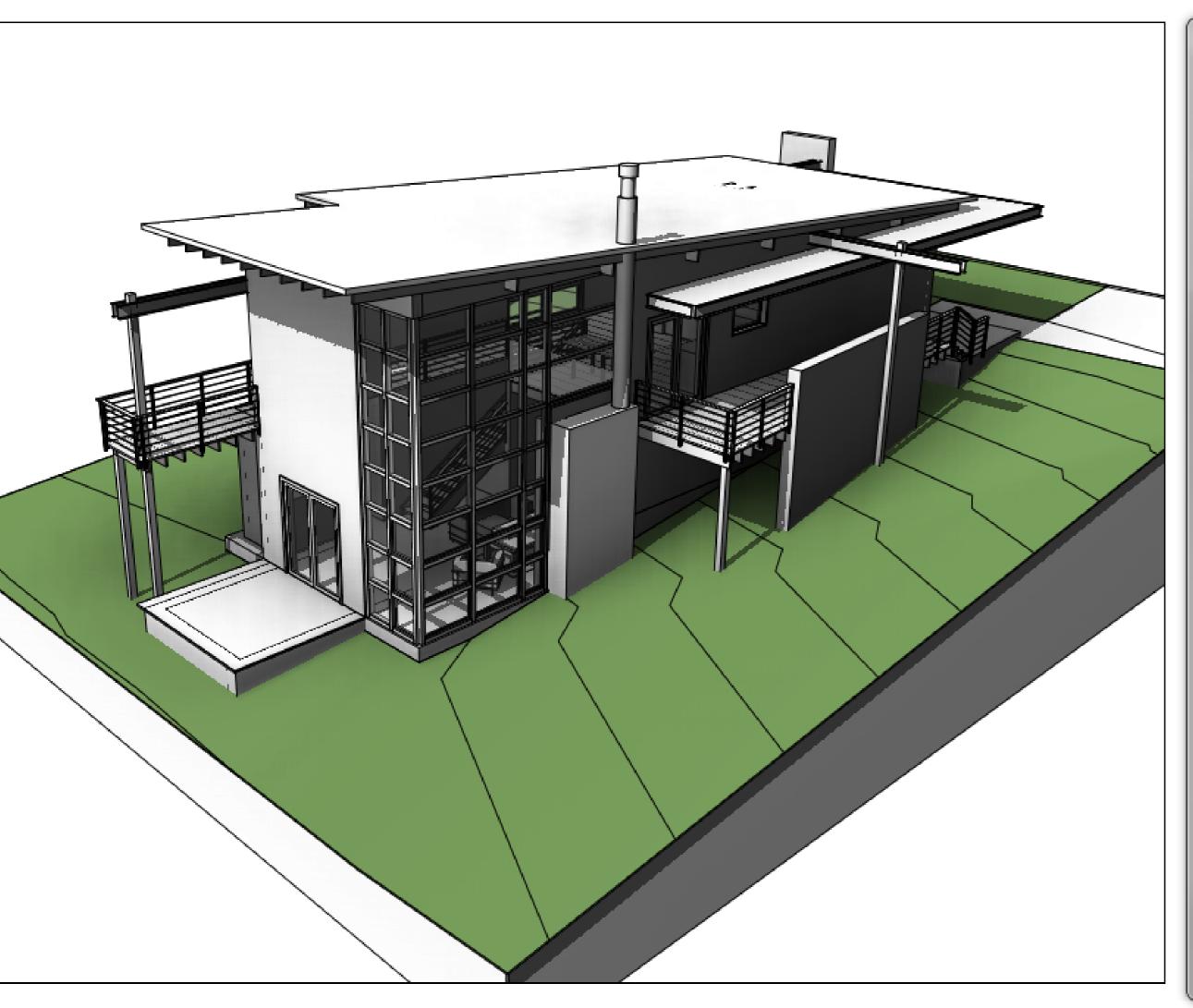


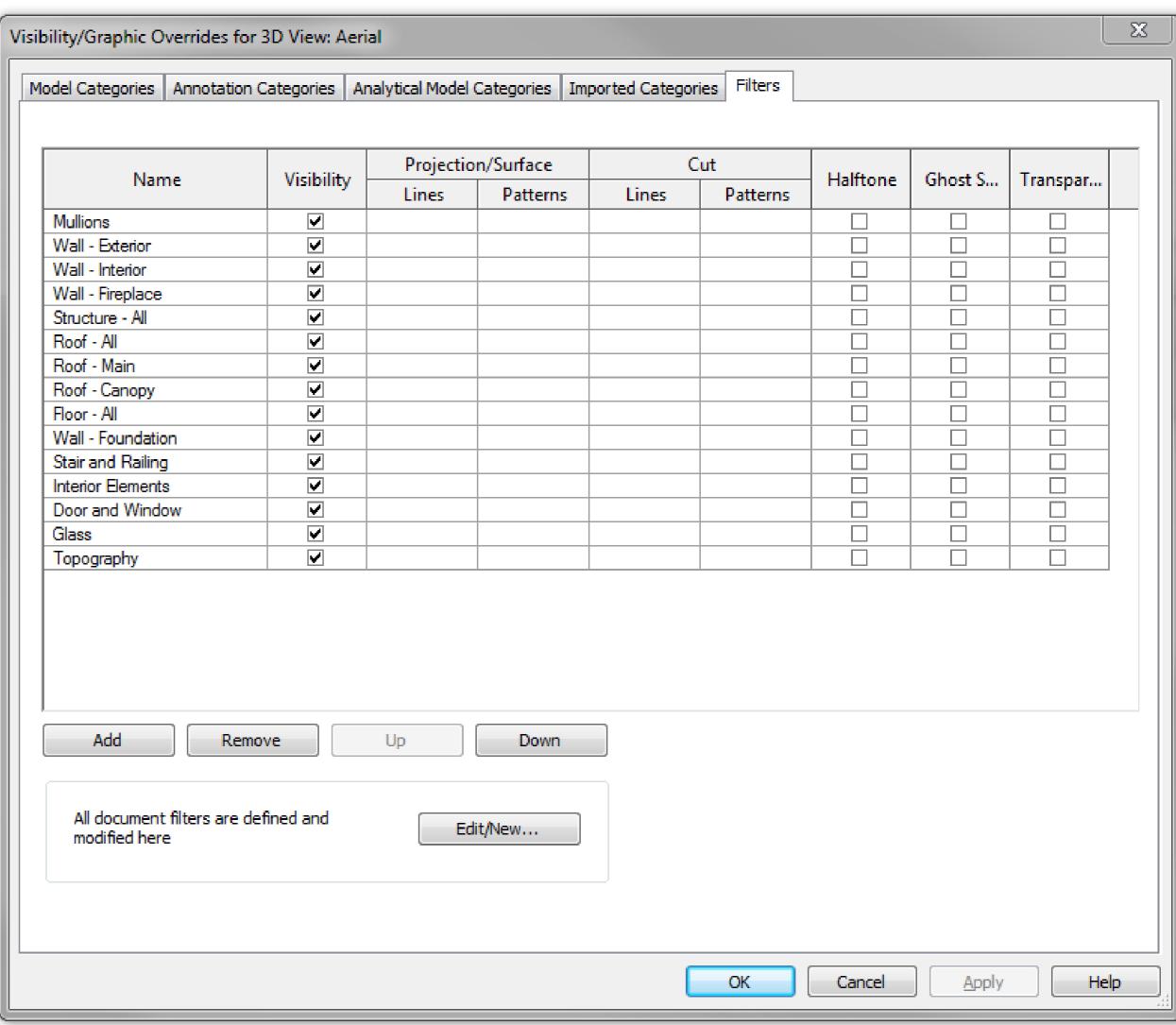


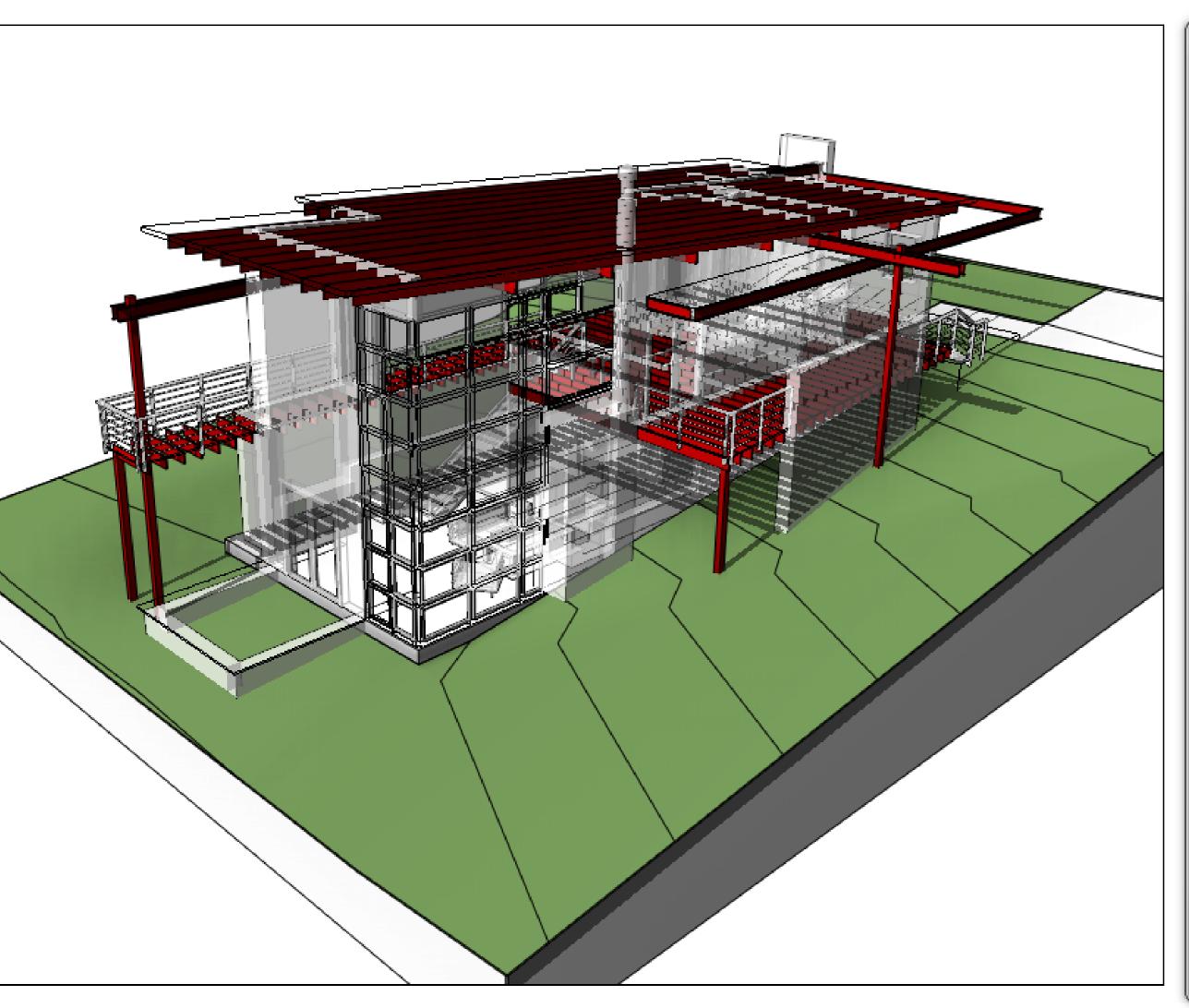


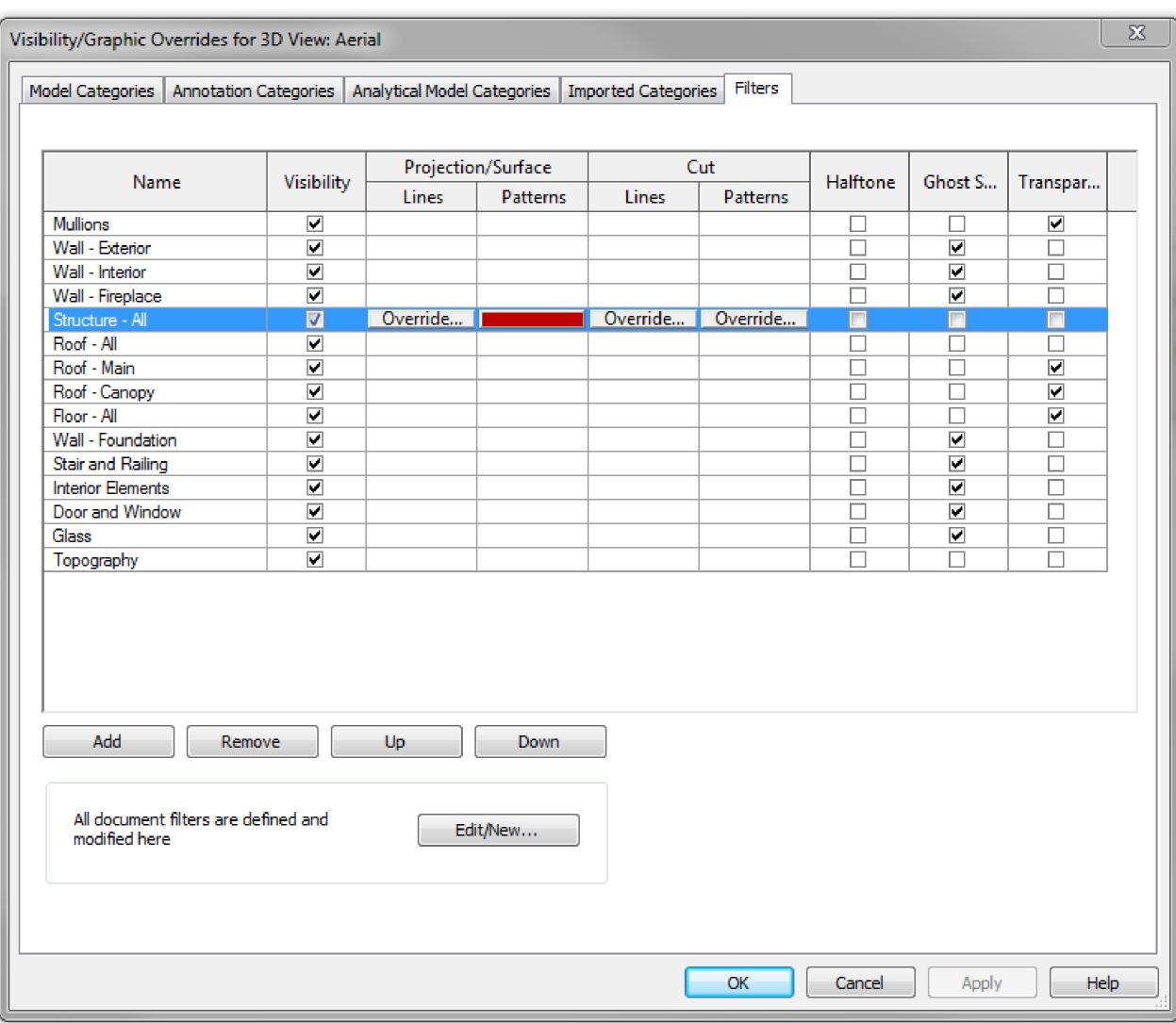


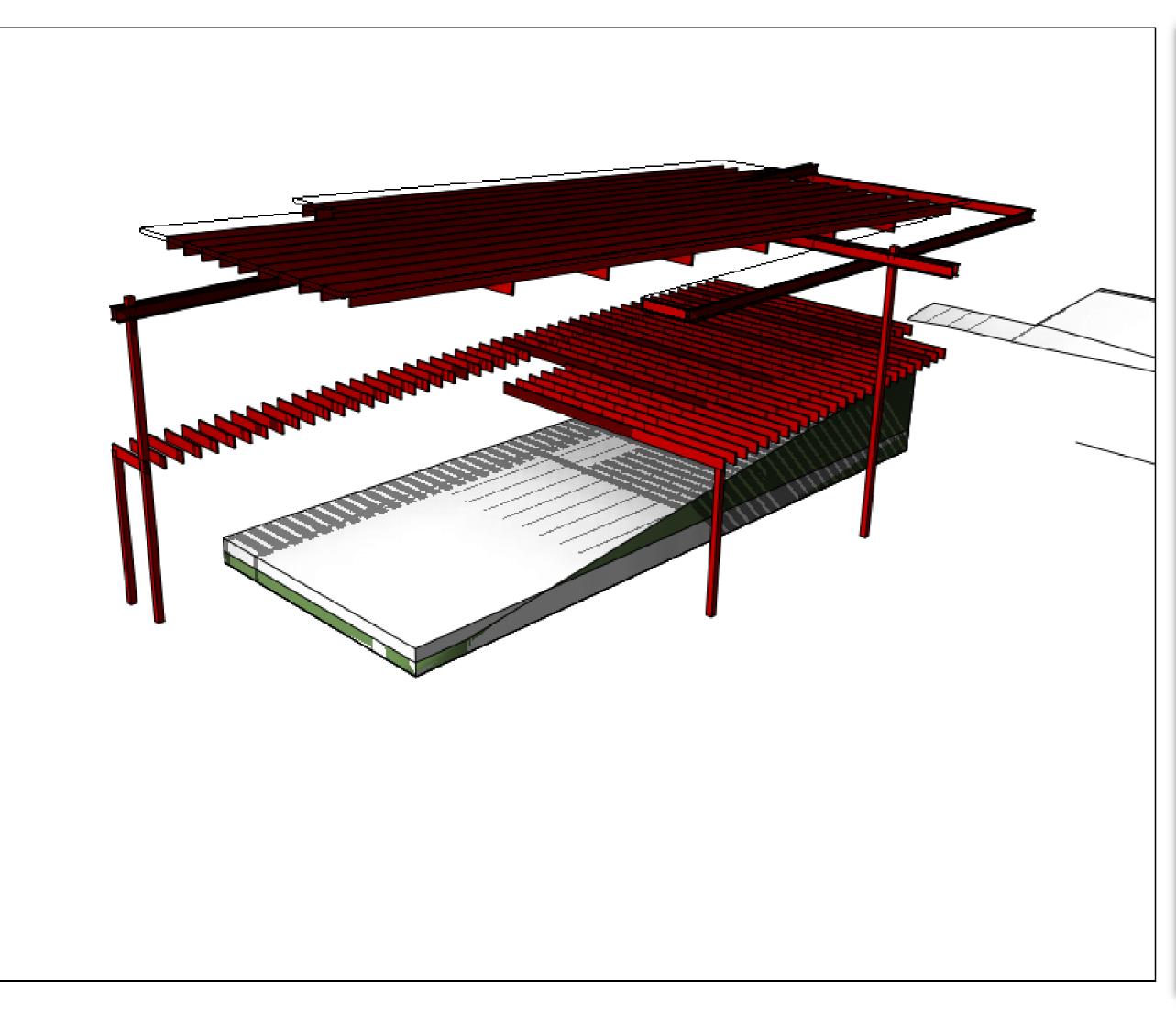


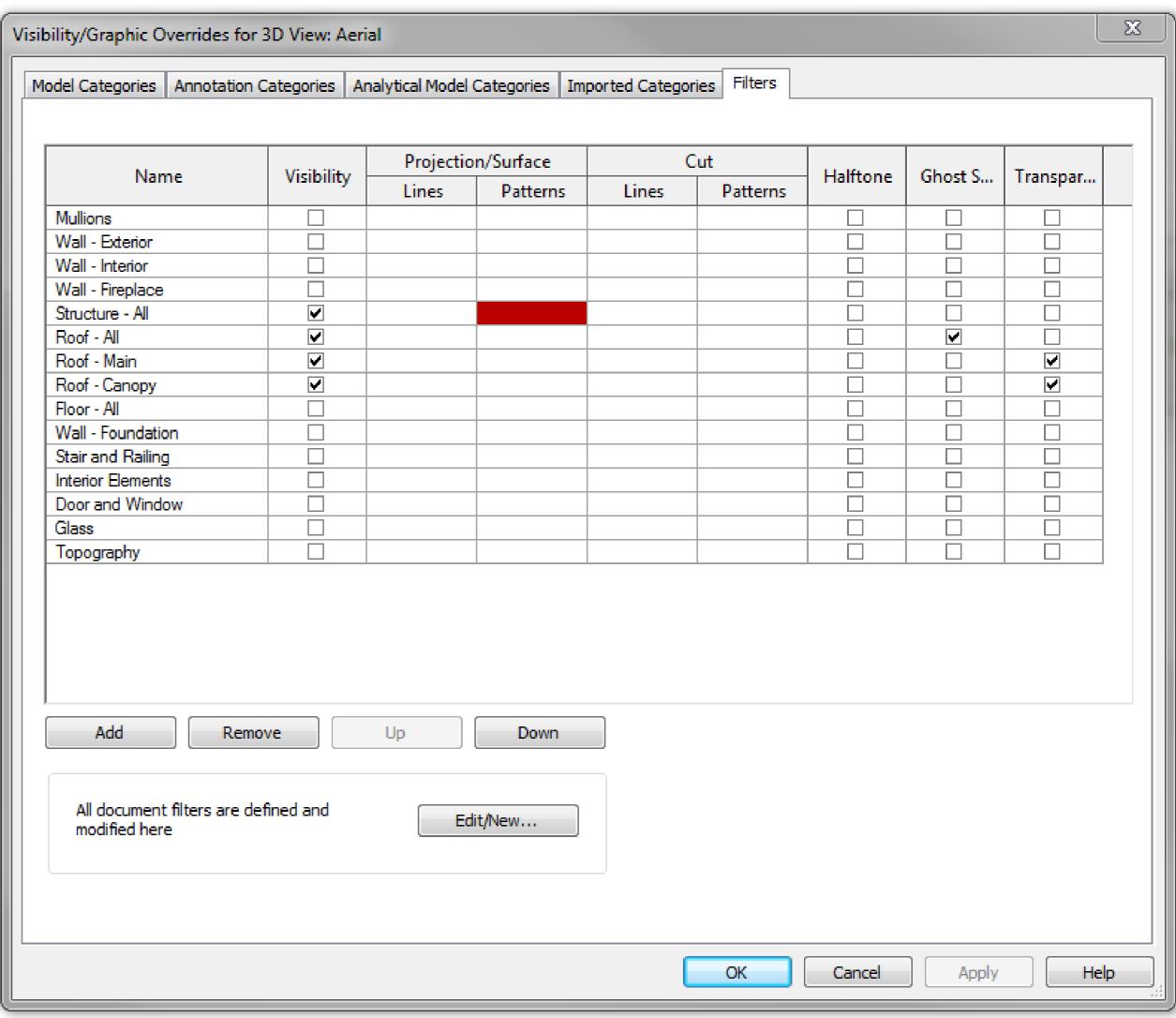


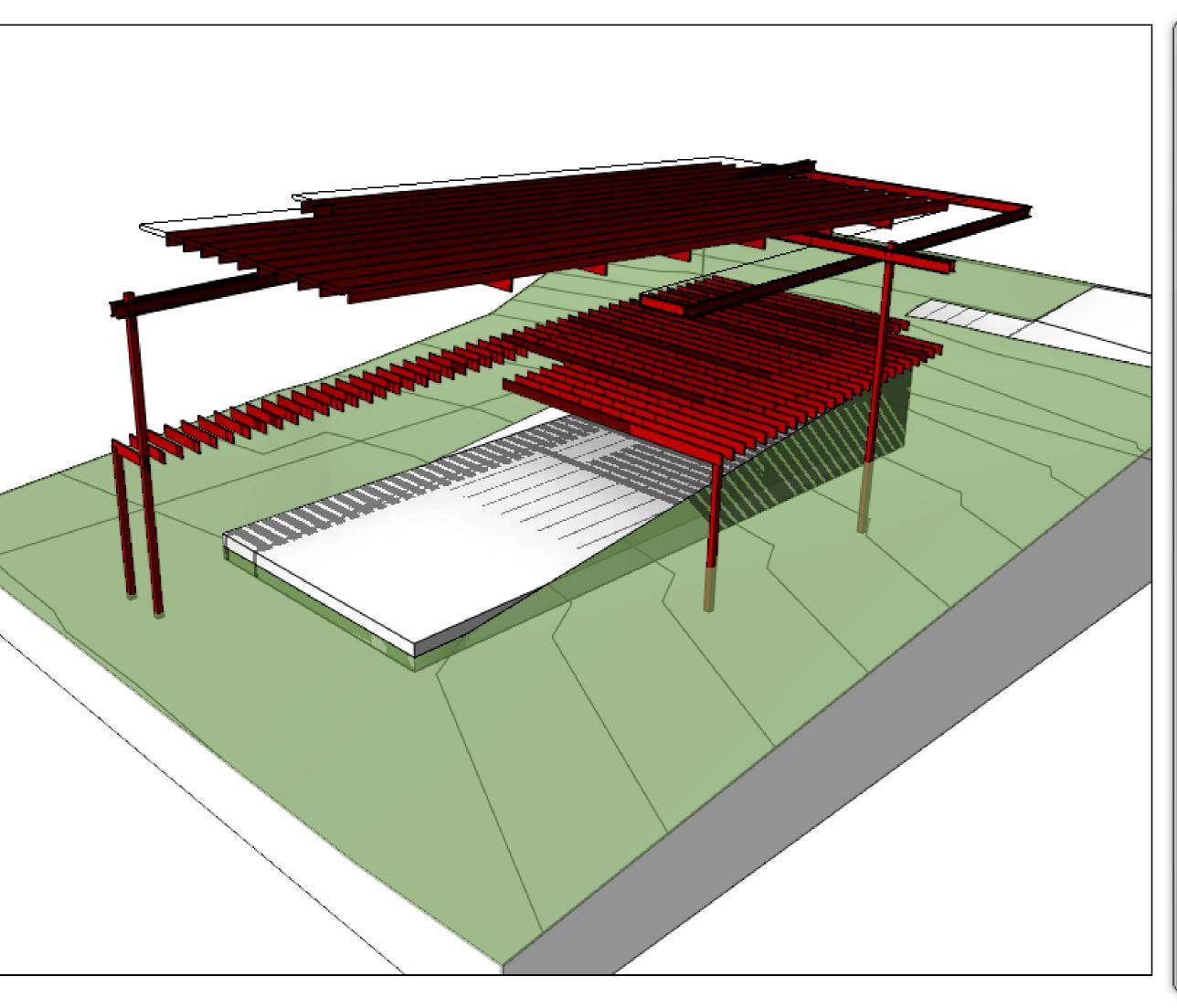


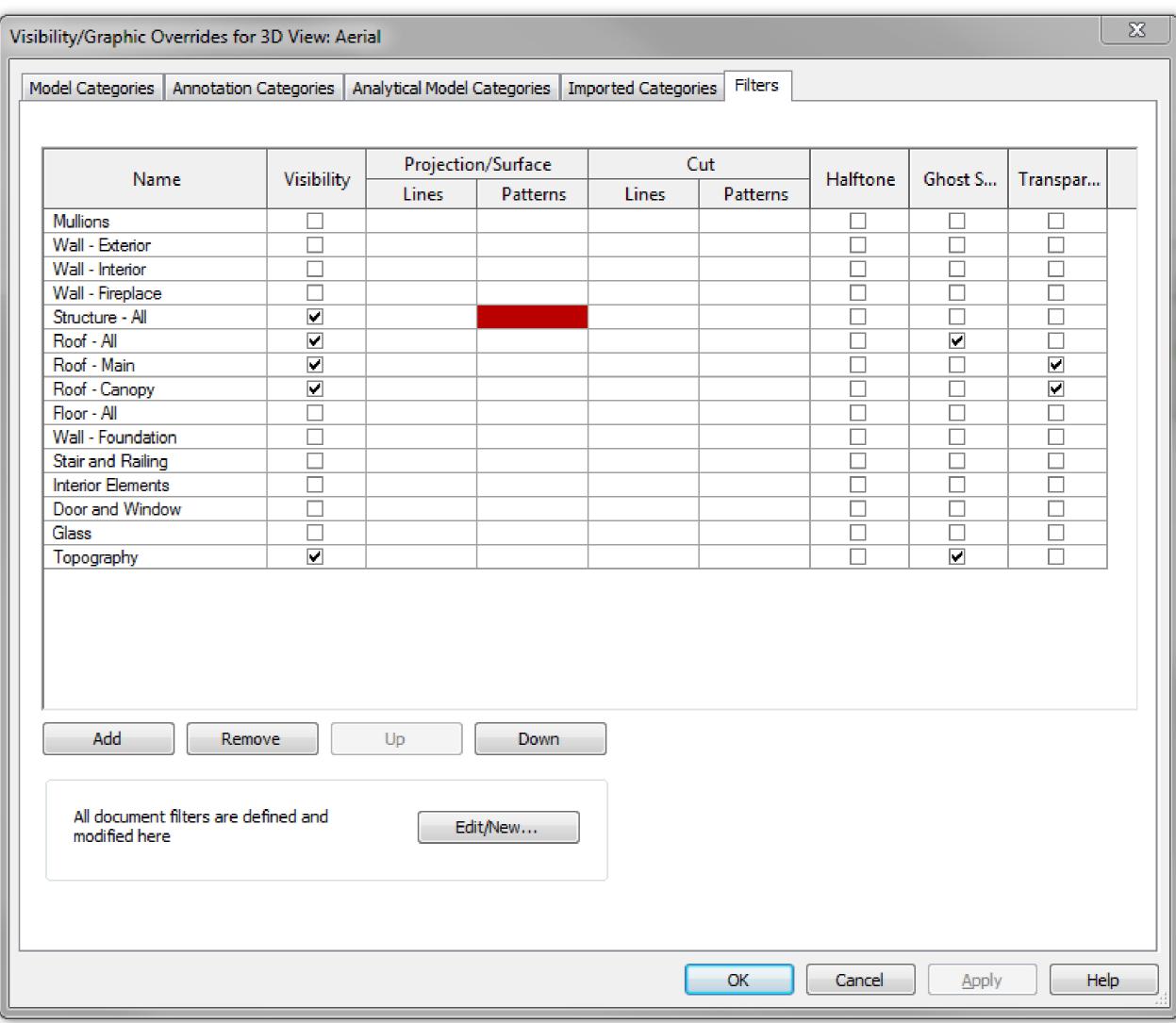


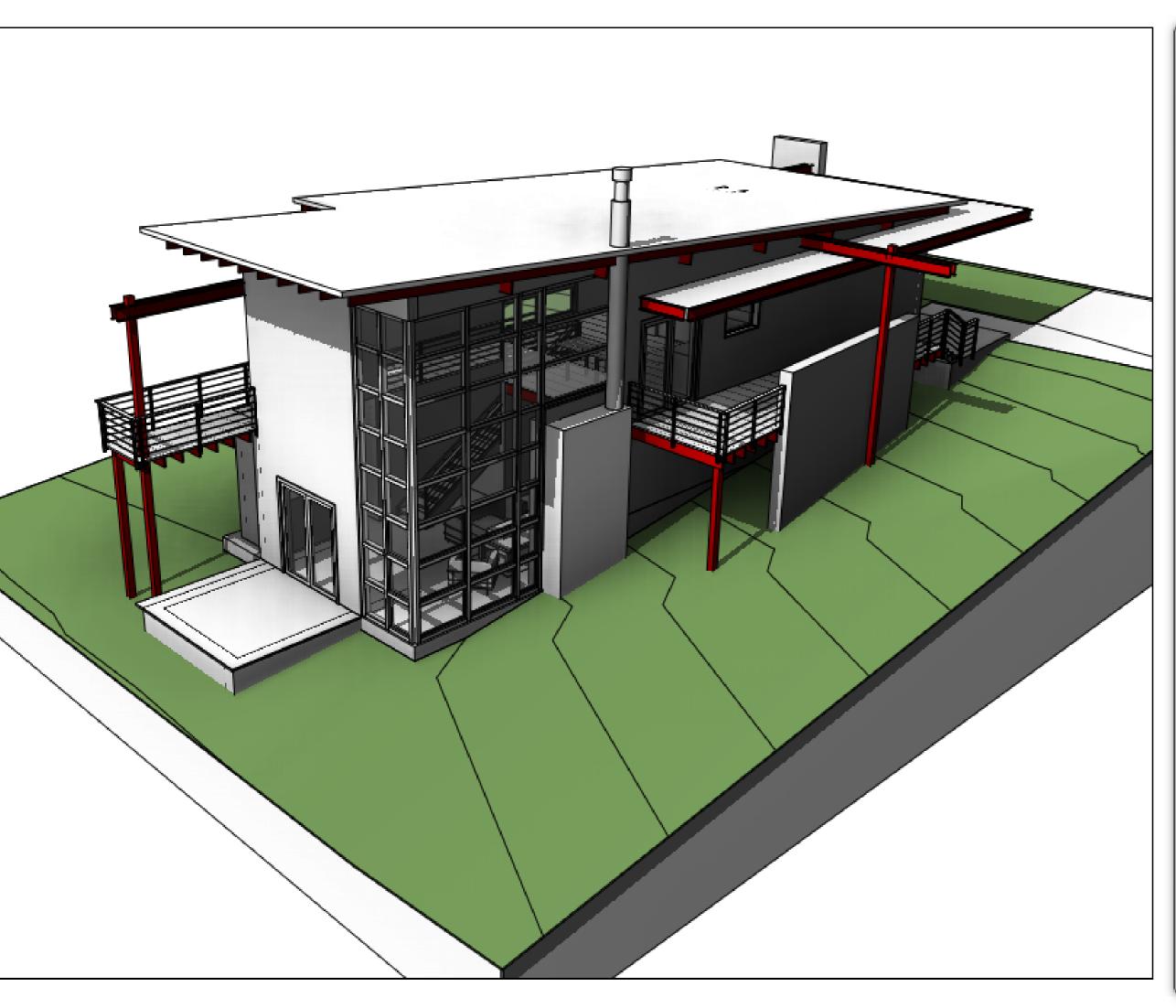


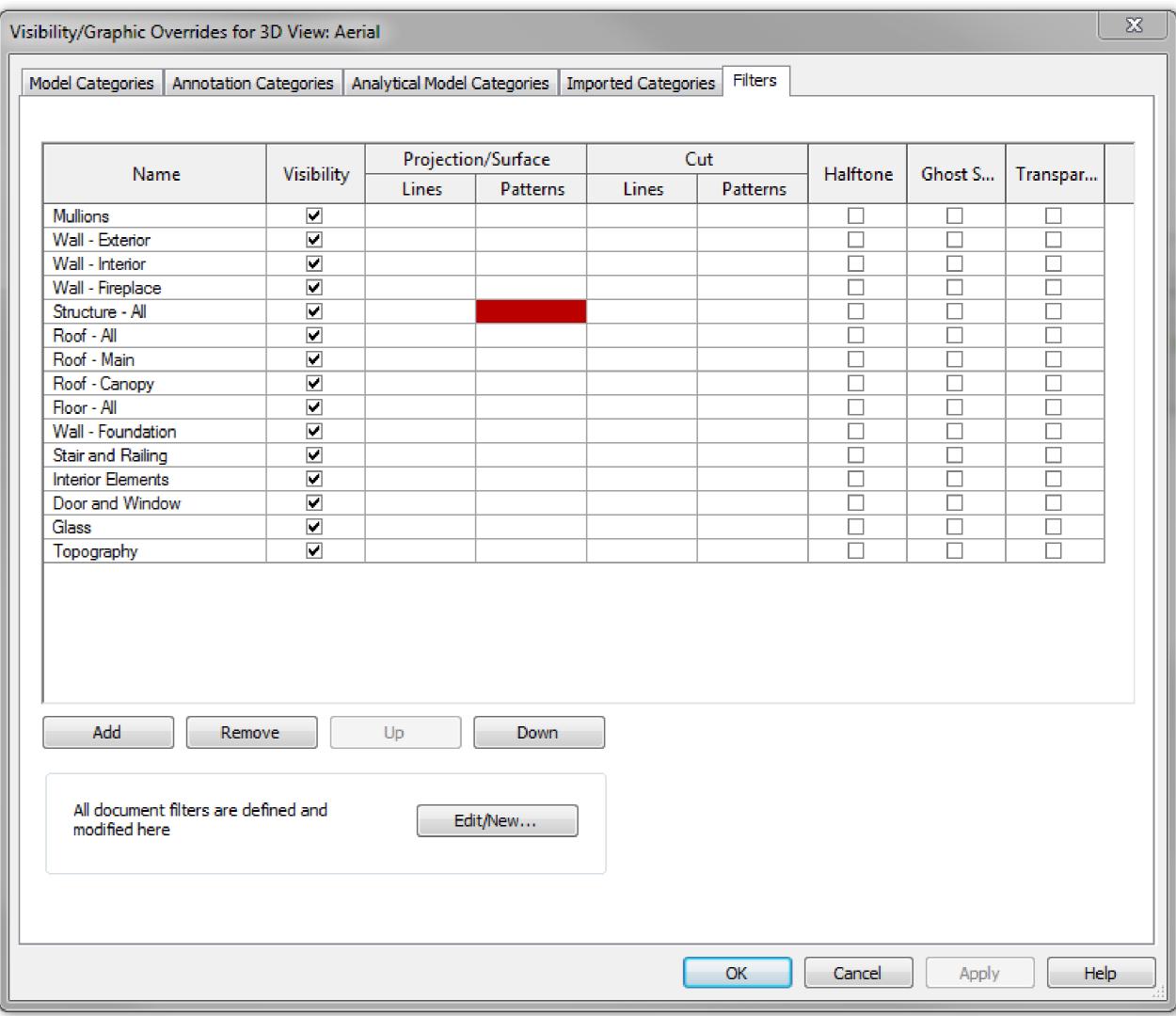


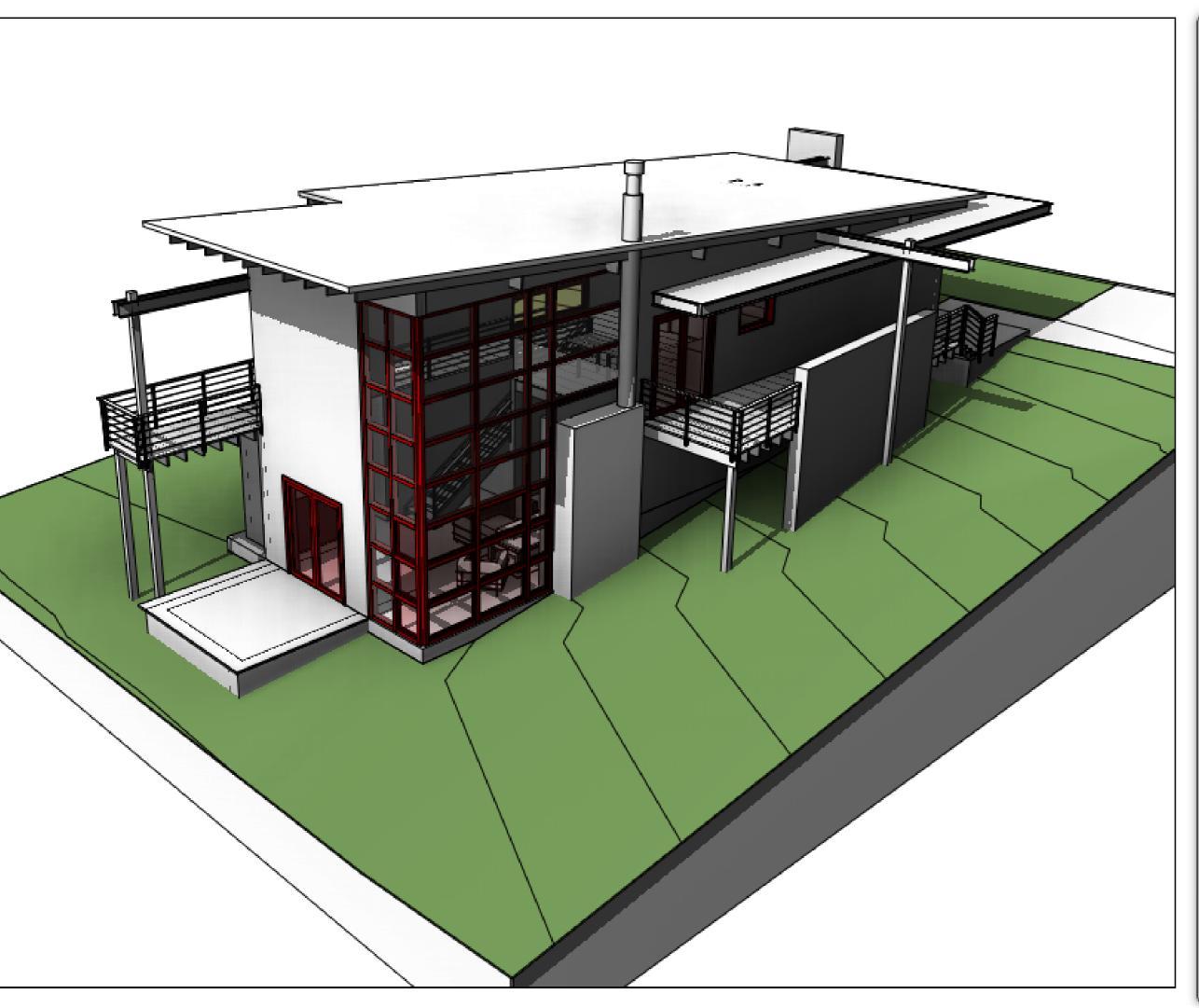


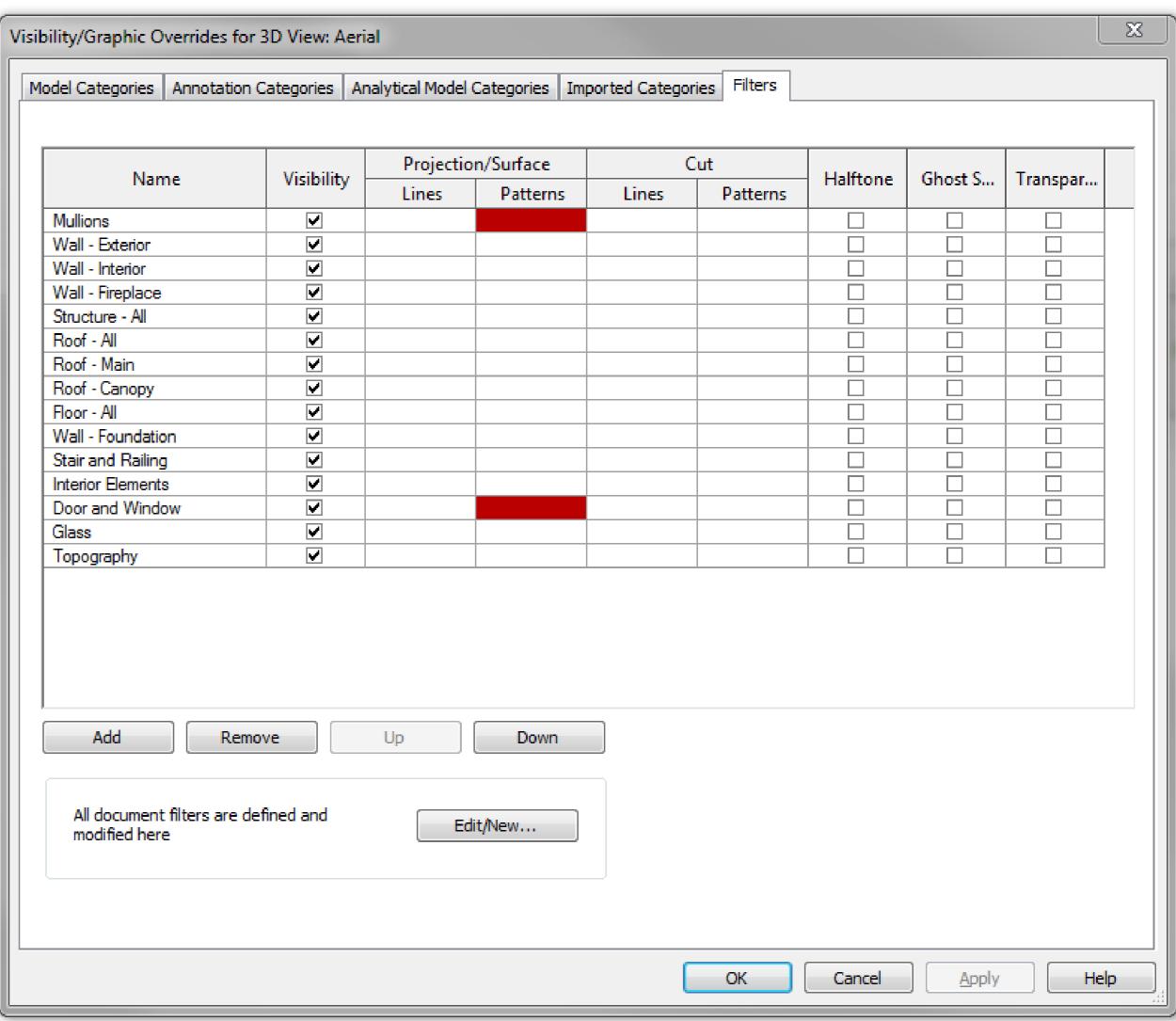


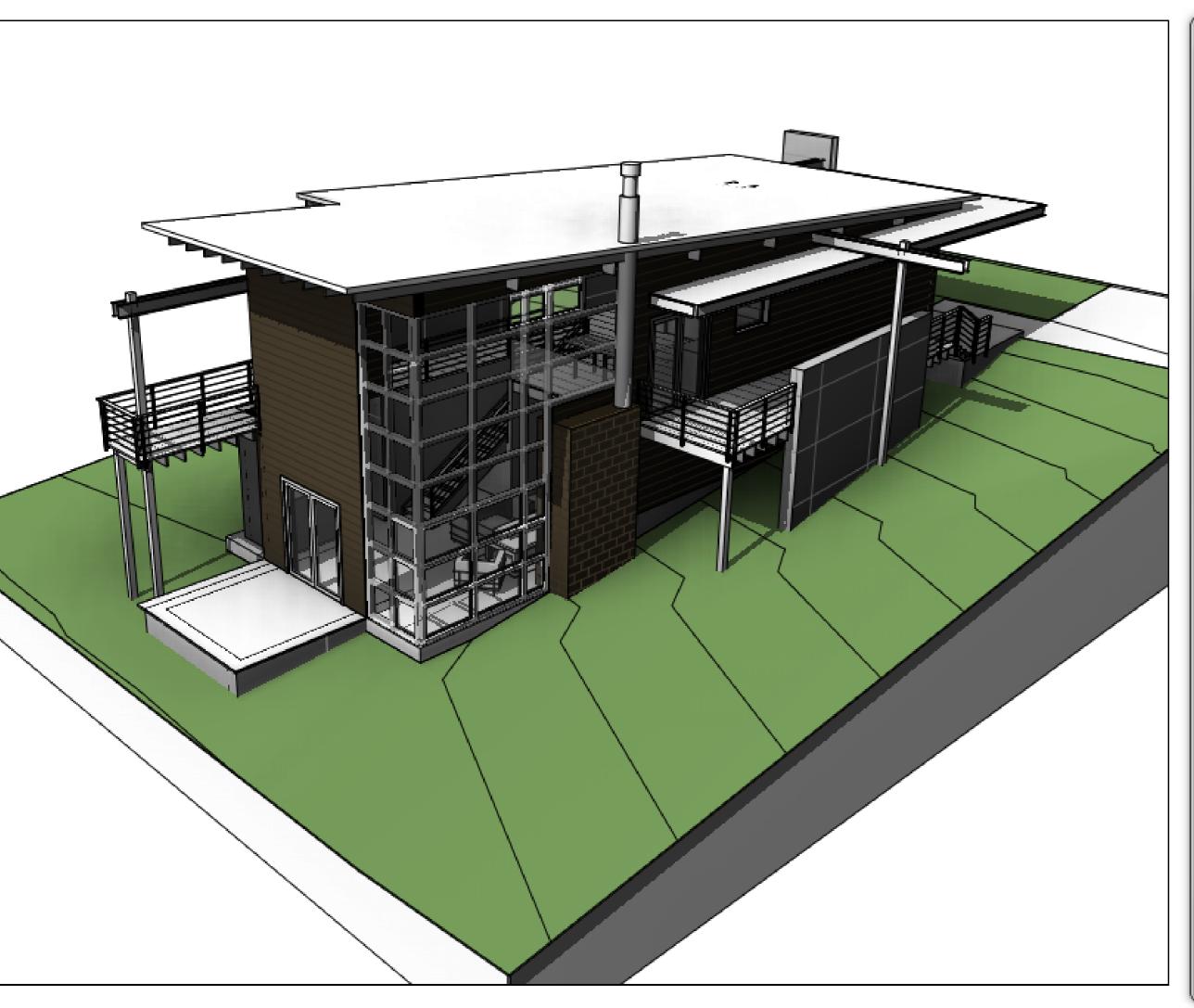


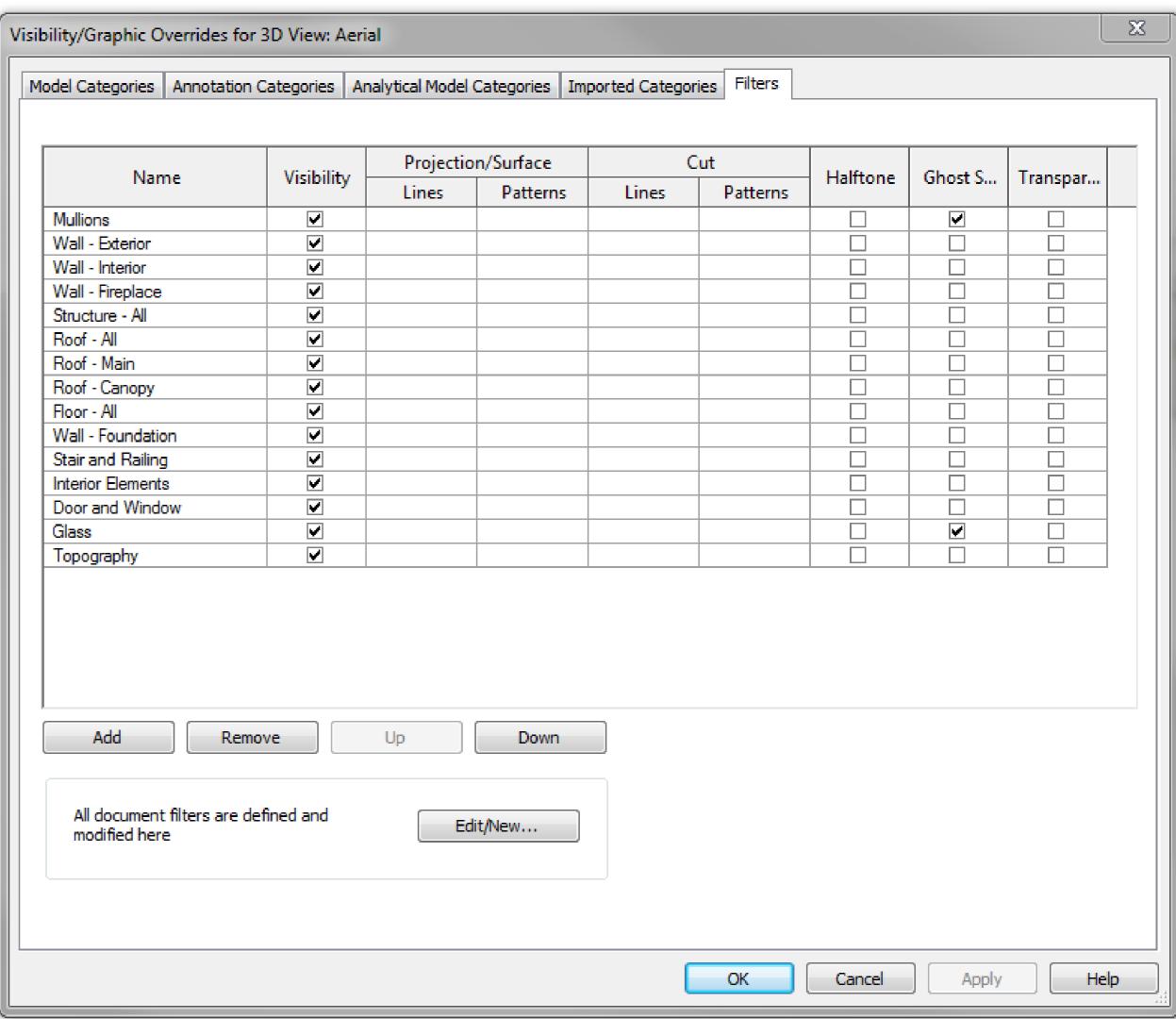




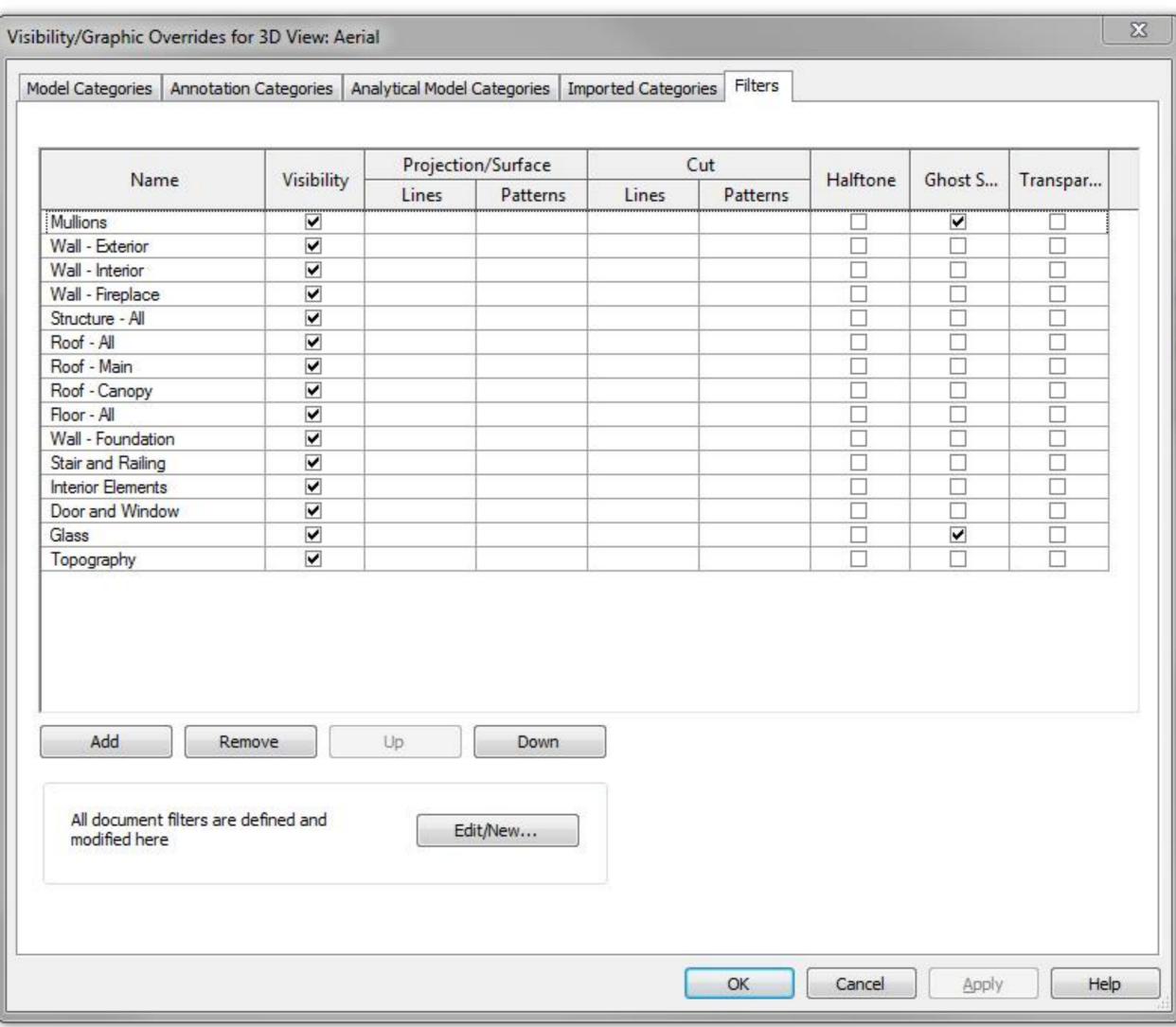




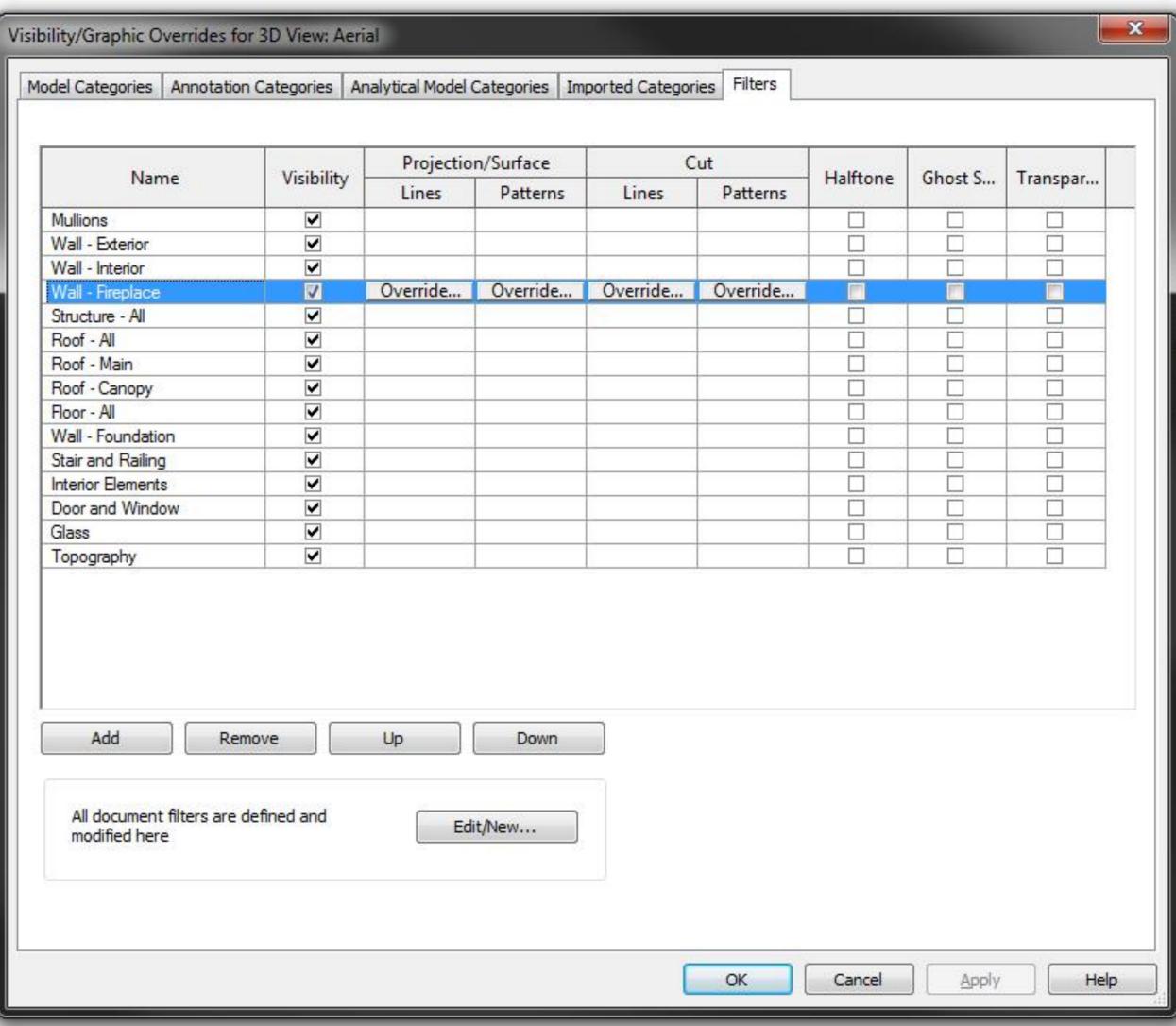






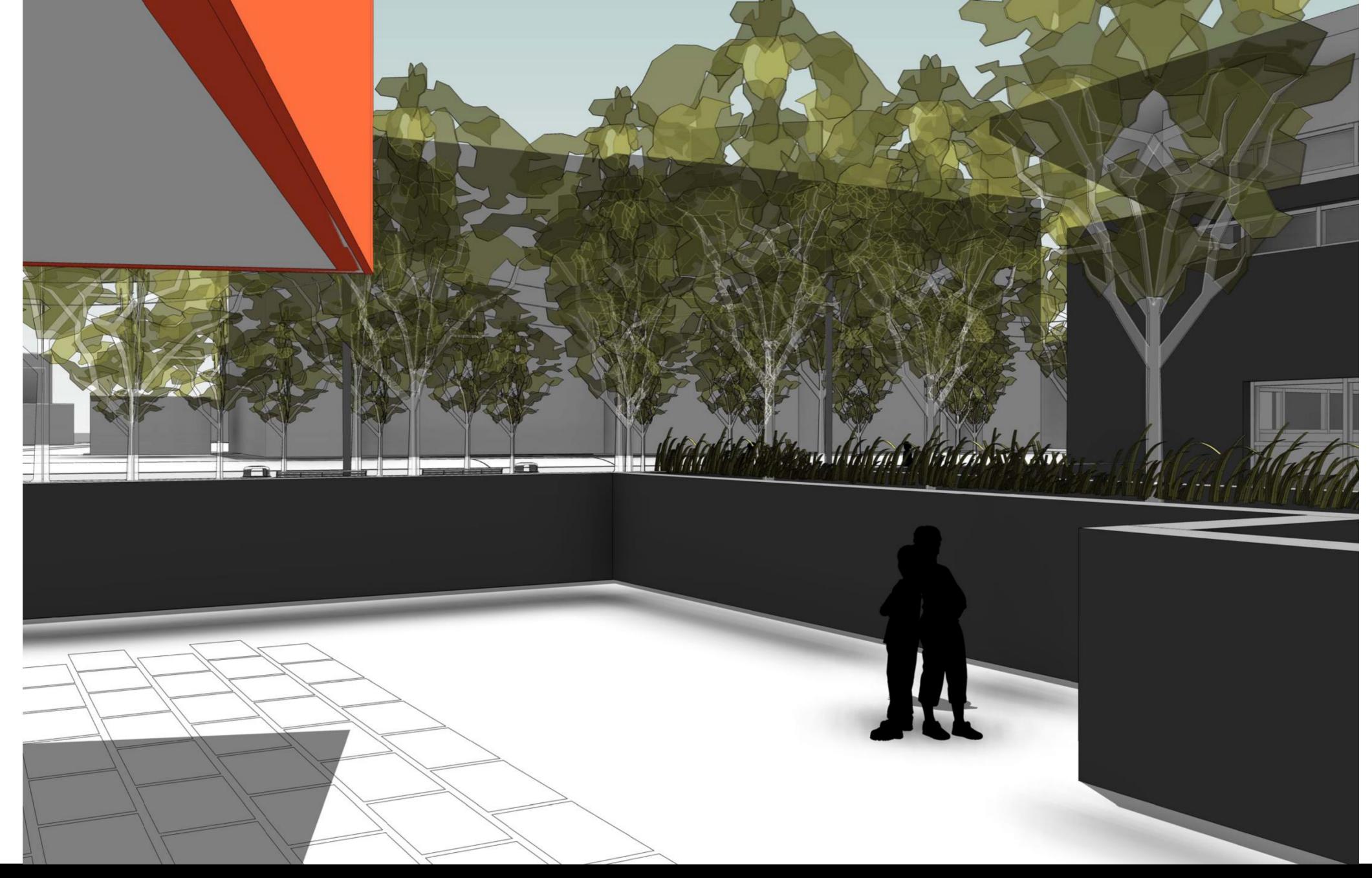






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