

## Design and Production

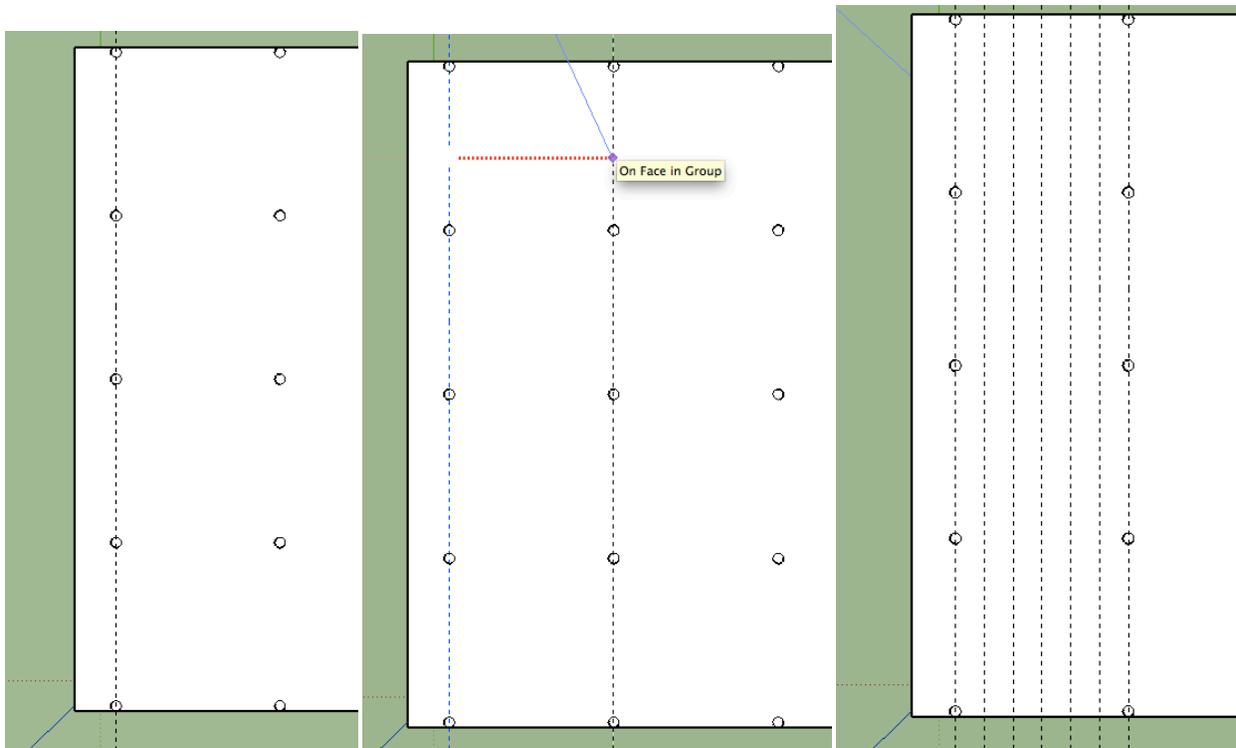
### Building Ville Savoye Part 4 – BUILDING THE INTERIOR

This document will show you how to draw your interior walls for your Ville Savoye. You will use your plans as a reference, but you may (and you are encouraged to) modify them and improve upon them as you are working in SketchUp.

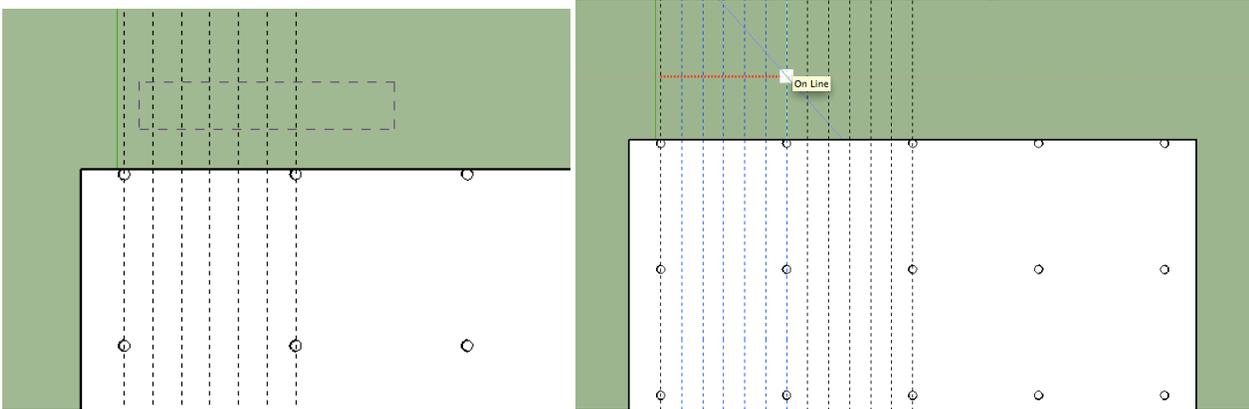
Please look at the directions carefully – there are many ways to get confused during this process. Pay especially close attention when you get to the part where you need to offset your line drawings to create walls with thickness. The process of cleaning up the lines properly (erasing unnecessary parts or drawing lines to close gaps that appear) is very important otherwise you will not have your walls turn into faces that can be pulled up.

We'll start at the beginning – creating the grid.

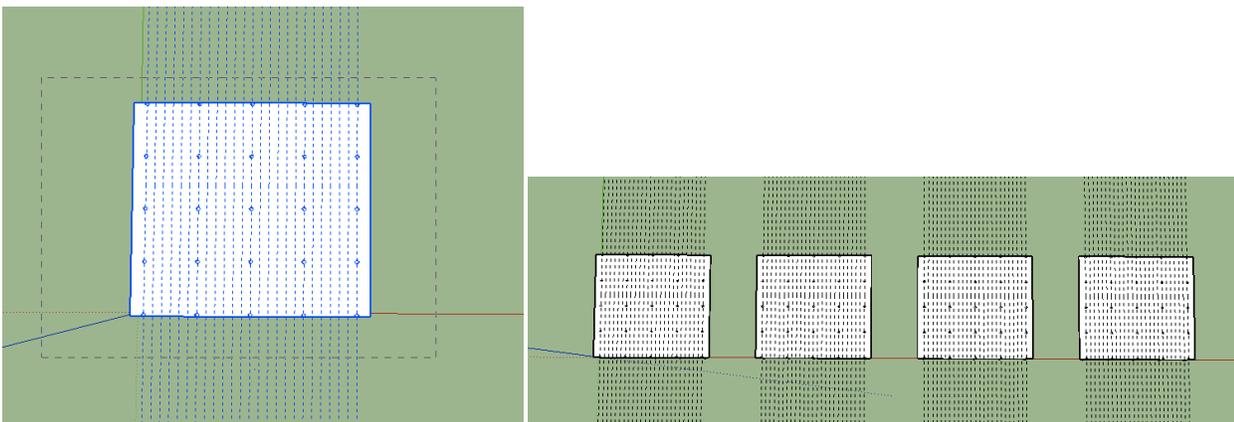
1. Start by placing a tape measure line 4' to the right of the left edge of your floor. Then you want to select that guideline, Move>Copy it to the right 15'9", and before doing anything else type /6 and hit enter ( /6, NOT 6x!!)– this creates 6 evenly spaced copies. **IMPORTANT – this guideline is meant to line up with the columns as shown in the images – YOU MAY NEED TO ROTATE YOUR FLOOR OBJECT SO IT IS LINED UP AS SHOWN BELOW – with the spaces between the edge and the column on the left and right side, not the top and bottom.**



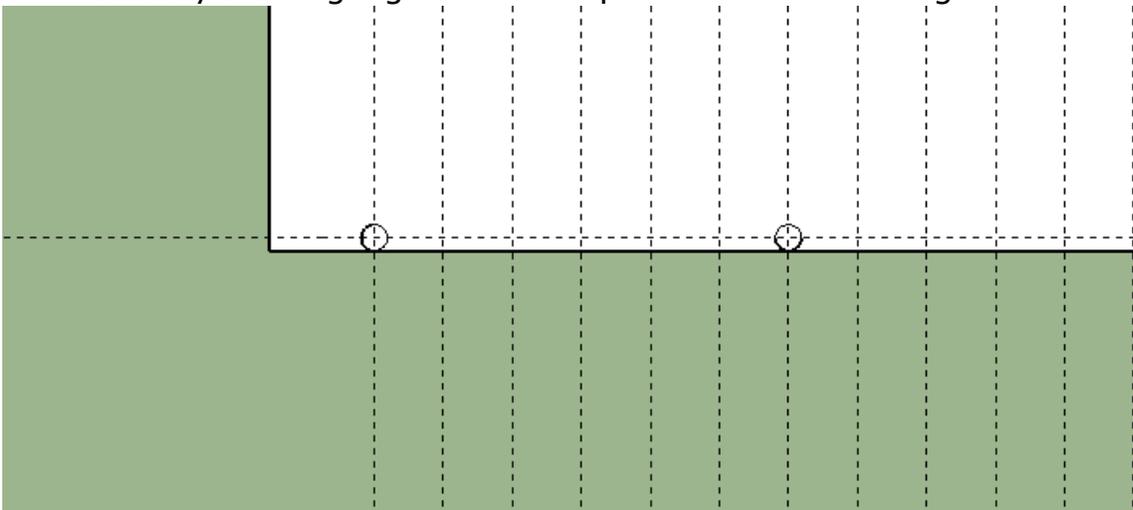
2. Now select the 6 guidelines on the right, all except the first one. Move>Copy them to the right 15'9", and enter 3x for the number of copies.



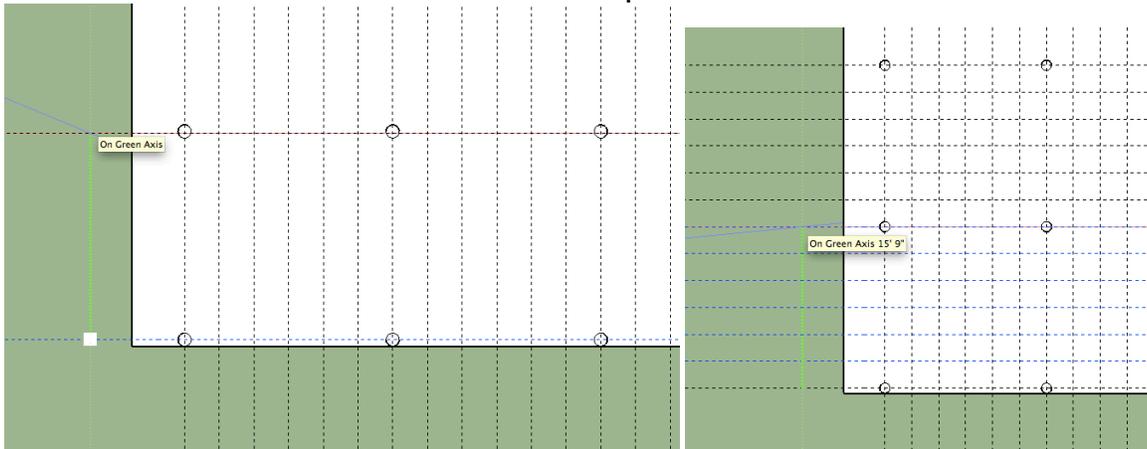
3. Now select the floor and all the guidelines with a window from the right to the left. Move>Copy them to the right 100' and enter 3x for the number of copies (2x if you are only doing 3 total floors).



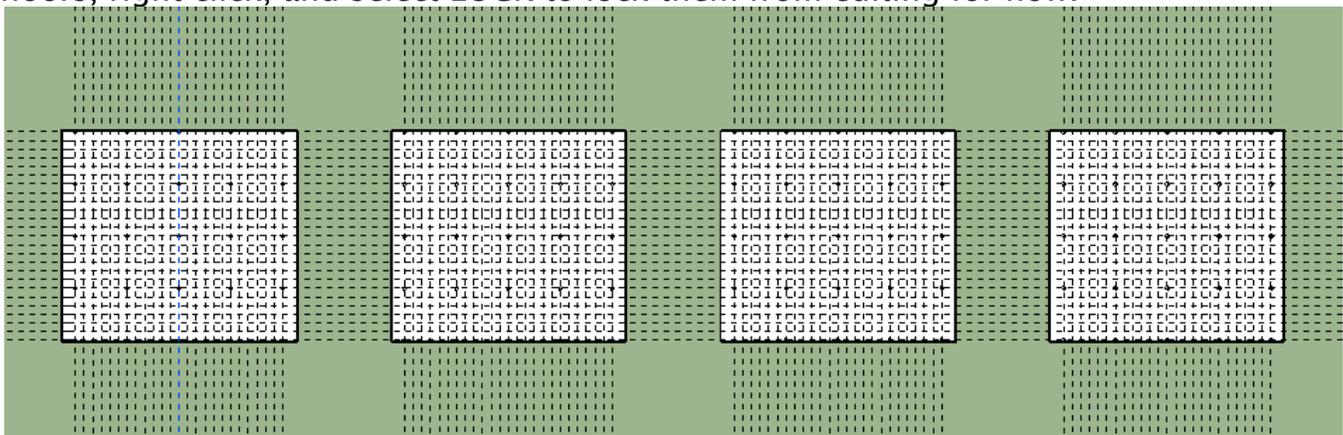
4. Now we want to create the horizontal guidelines. Basically the same process - start by creating a guideline 6" up from the bottom edge.



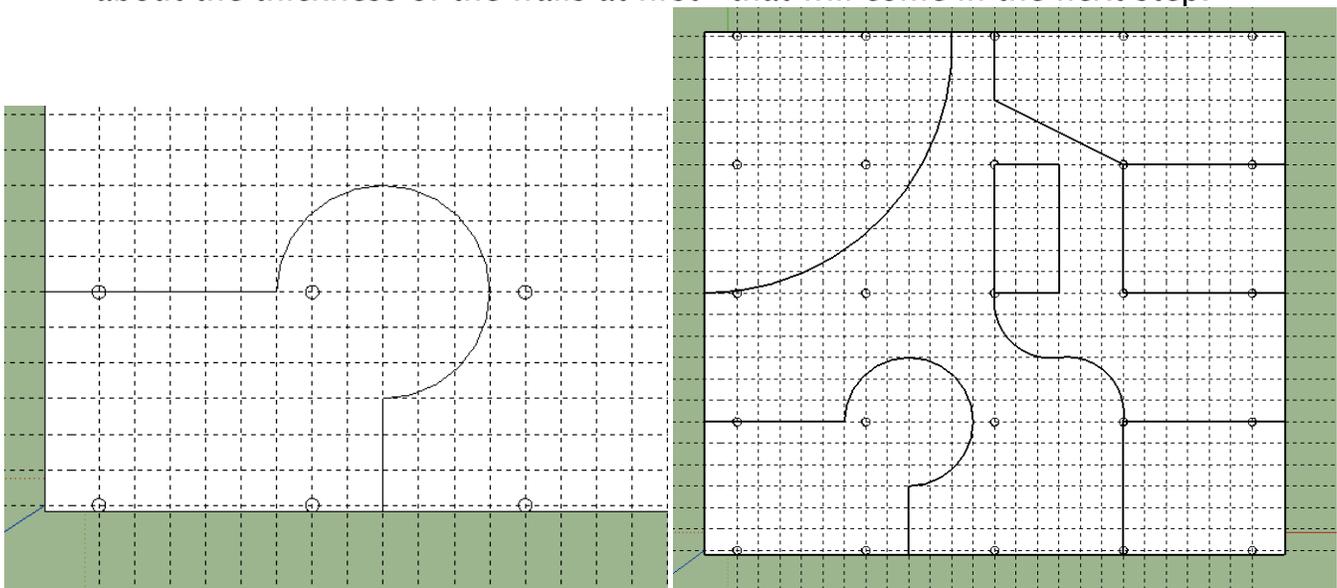
5. Move>Copy that upward 15'9 and enter /6 for the evenly spaced copies. Select the top 6 of them (all but the first one), and Move>Copy them upwards 15'9 and enter 3x for the number of copies.



This is your end result – 4 floors with a grid on each floor. You can select all of the floors, right click, and select LOCK to lock them from editing for now.



6. Now you want to start drawing your plans on the grid. Using the plans you designed, draw SINGLE LINES, Arcs, Circles, etc, cleaning up the unwanted lines as necessary (be careful of deleting guidelines while you do this). Do not worry about the thickness of the walls at first - that will come in the next step.

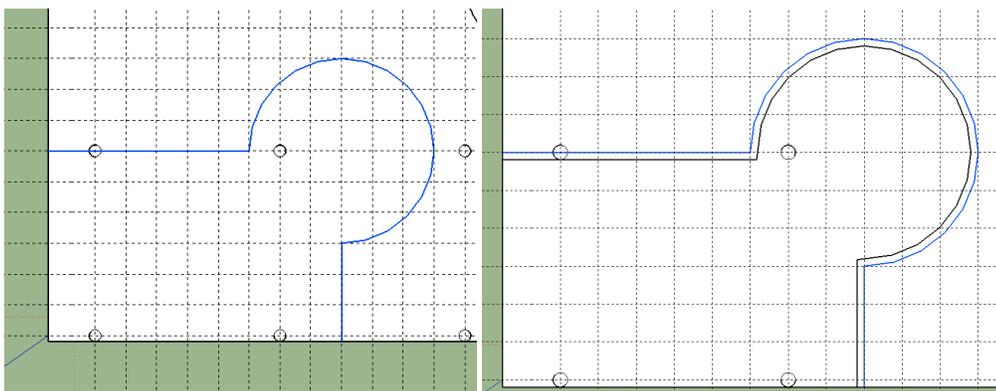


7. Once you have your overall design laid out, now we want to start using the Offset tool on the lines to create walls with a thickness. We will use 6 inches as the standard thickness for the walls.

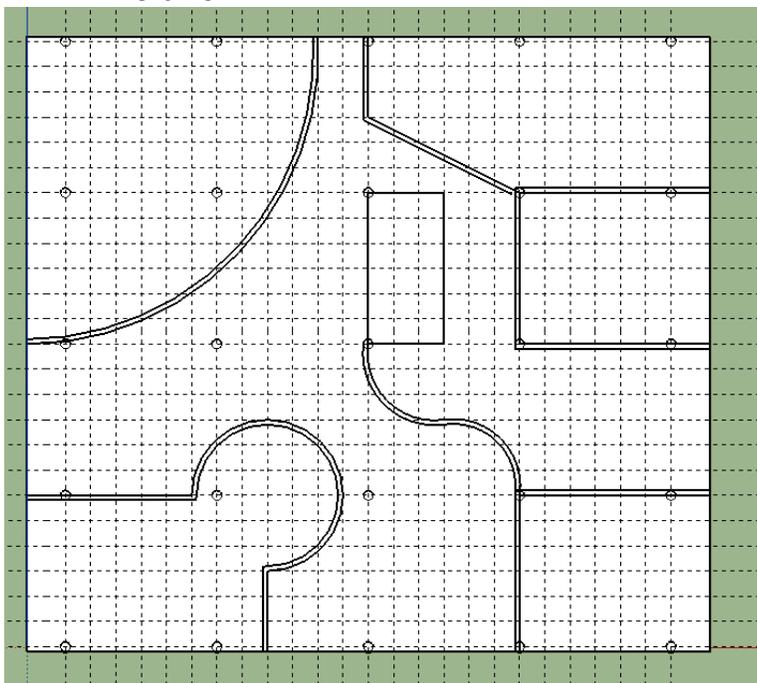
**IMPORTANT** - normally when we use offset we are offsetting a face. When you get the offset tool up and hover the mouse over a face, it becomes highlighted, and you can offset the face inwards or outwards.

When using Offset on LINES that are not part of a face, it can get tricky. You need to select the lines you want to offset BEFORE activating the offset tool (F on the keyboard). Then you can click to offset them.

Select multiple objects with a window from the LEFT to the RIGHT, or by clicking on them while holding down the SHIFT key. Once you have the lines that make up a single room selected, hit Offset and you will be able to offset the lines inwards or outwards 6 inches.

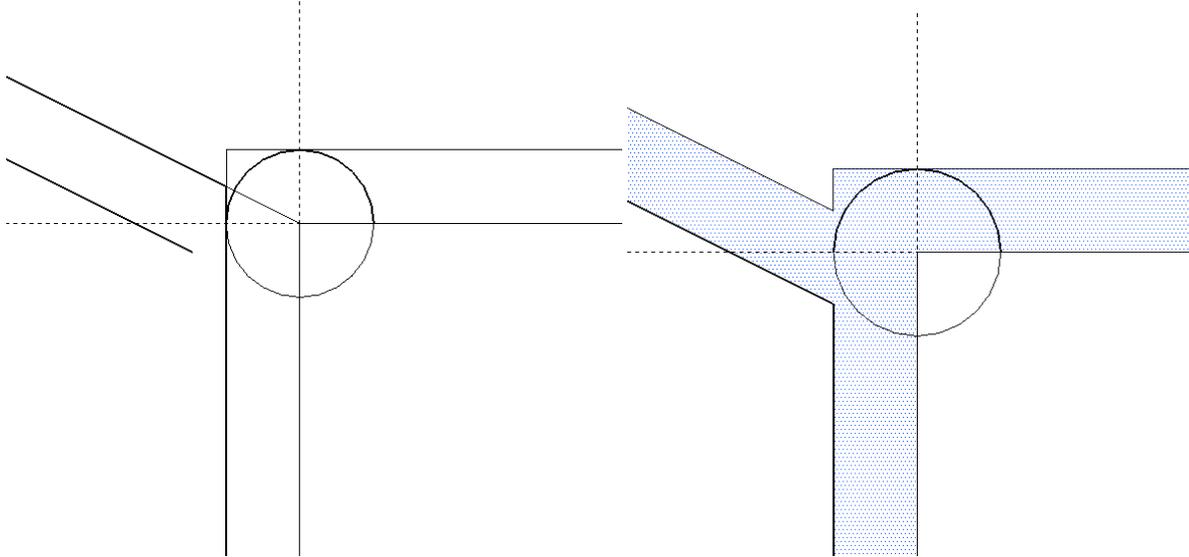


8. After you go around offsetting each of the rooms you should see something like this.

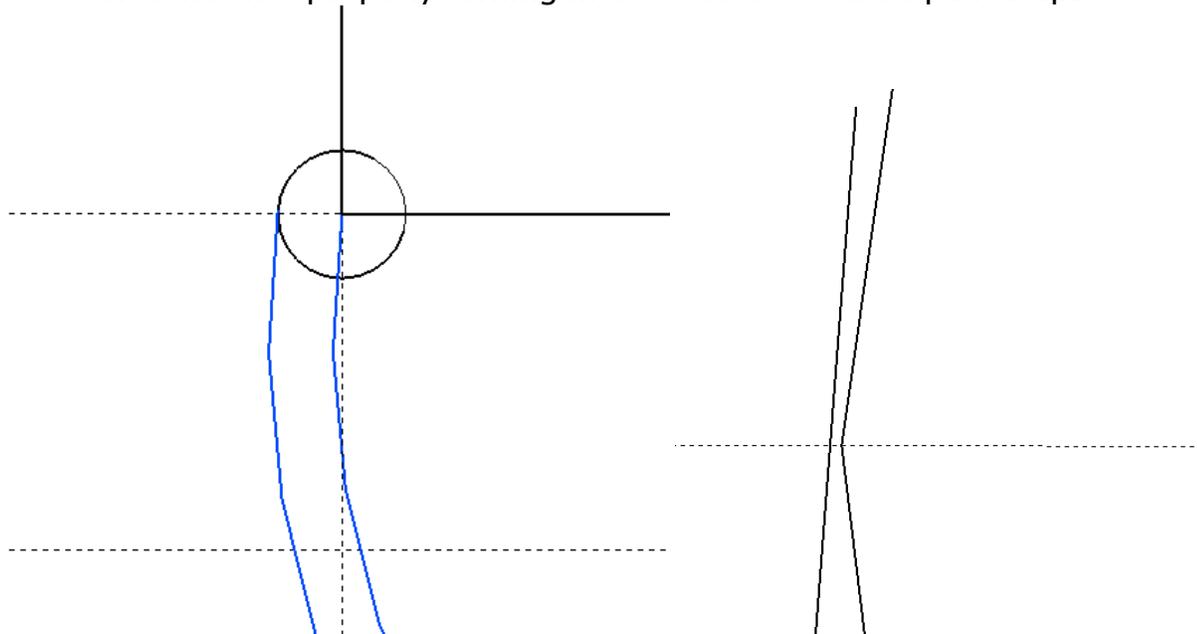


9. First draw a rectangle around the entire floor, from one corner to the opposite. This may create some faces inside the rooms - you can select them with a single click and delete them.

Now you need to go around and clean up any lines that have gaps or overlaps so that the individual walls will create faces that can be pulled up. You need to zoom in and inspect each place where your walls meet with each other, begin, and end. This process requires that you are very careful not to erase things that need to be there.



10. Especially with curved edges, you may need to zoom in closely to see where the edges are not connecting. This will be the main reason that a section of wall is not properly turning into a face that can be pulled up.



11. Once you have gone around and cleaned up the edges, you should be able to pull up the walls individually - they should be pulled up 9'6". Complete this process for each floor - if you have any spaces you planned to have open to the air or to the floor below, we will work this out in future steps.

