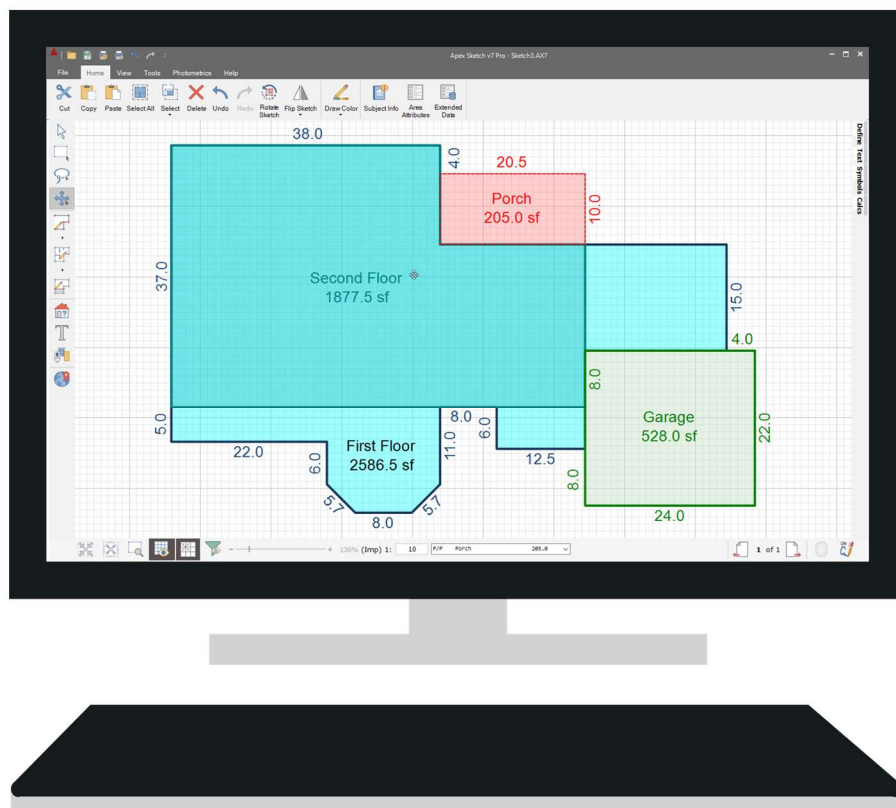


# Apex Sketch v7

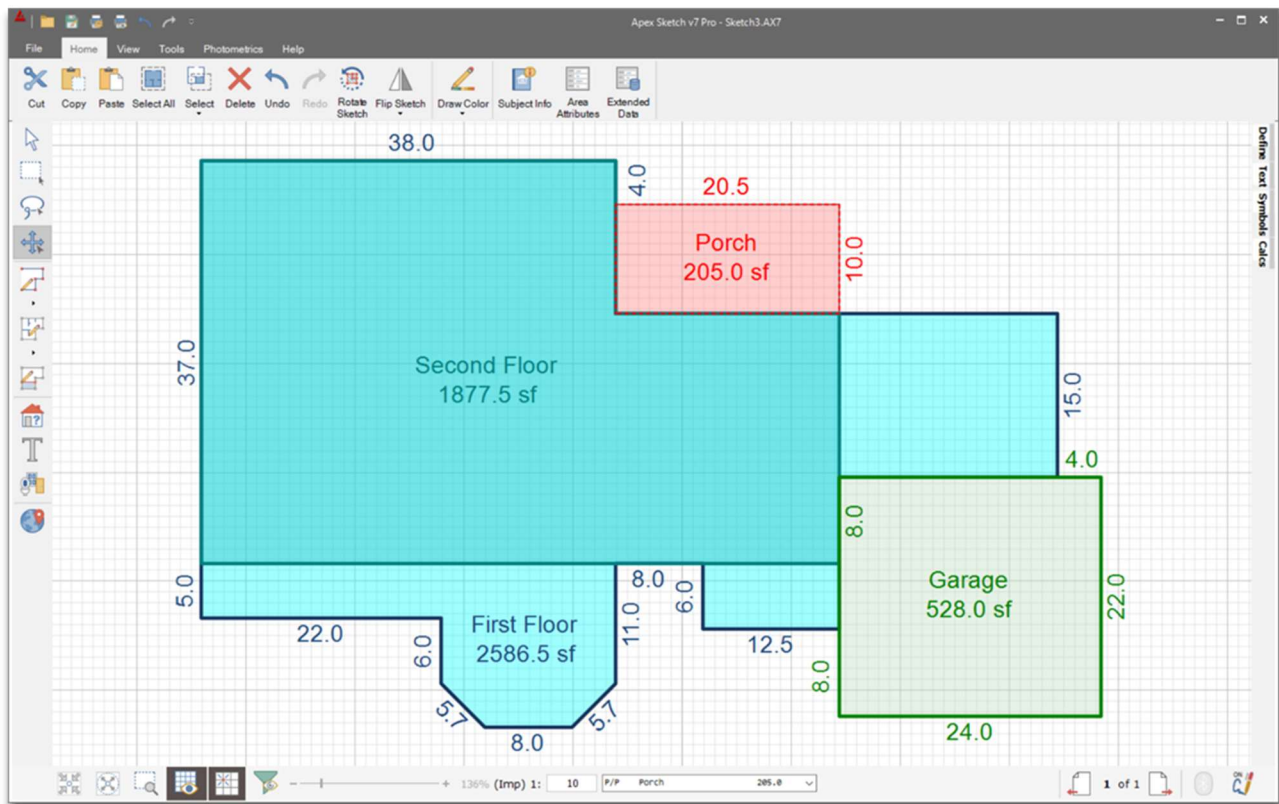
Draw First



# Apex Sketch Version 7 – Draw First

Apex Sketch Version 7 uses the same keystrokes as you would use traditionally in any other Apex program. The tutorial below will walk you step-by-step through some of the basics of drawing a 2-story residence. Before you begin, please note that we have modified the line styles and colors in the Area Code Table for this specific tutorial.

In this tutorial, we will draw the following sketch:



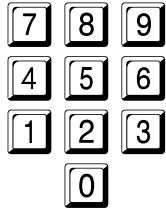
---

**Note:** Although you can draw lines using the mouse to activate Pen Down/Drawing Mode, drag lines to their desired length and left clicking to anchor, this tutorial will focus on the more efficient method of direct keyboard input of the wall or line distances & directions. This is a similar workflow to older vector-based drawing programs and may feel more comfortable for existing users.

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## General Reminders of basic Av7 Key Strokes

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**Number Keys** are used to enter the distance you would like the cursor to move.

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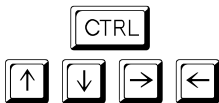
**Direction Arrow** will move the cursor or selected item in 1' (or 1 meter) increments each time you tap the direction arrow.

---



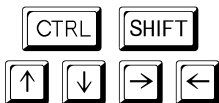
**SHIFT + Direction Arrow** will move the cursor or selected item .1' (or .1 meter) increments each time you tap the direction arrow.

---



**CTRL + Direction Arrow** will jump your cursor into alignment with the closest line in the selected direction. If there are no lines to align with, the cursor will not move.

---



**CTRL + SHIFT + Direction Arrow** will align your cursor with the closest intersecting line in its path. If there is no intersecting line in its path, the cursor will not move.

---

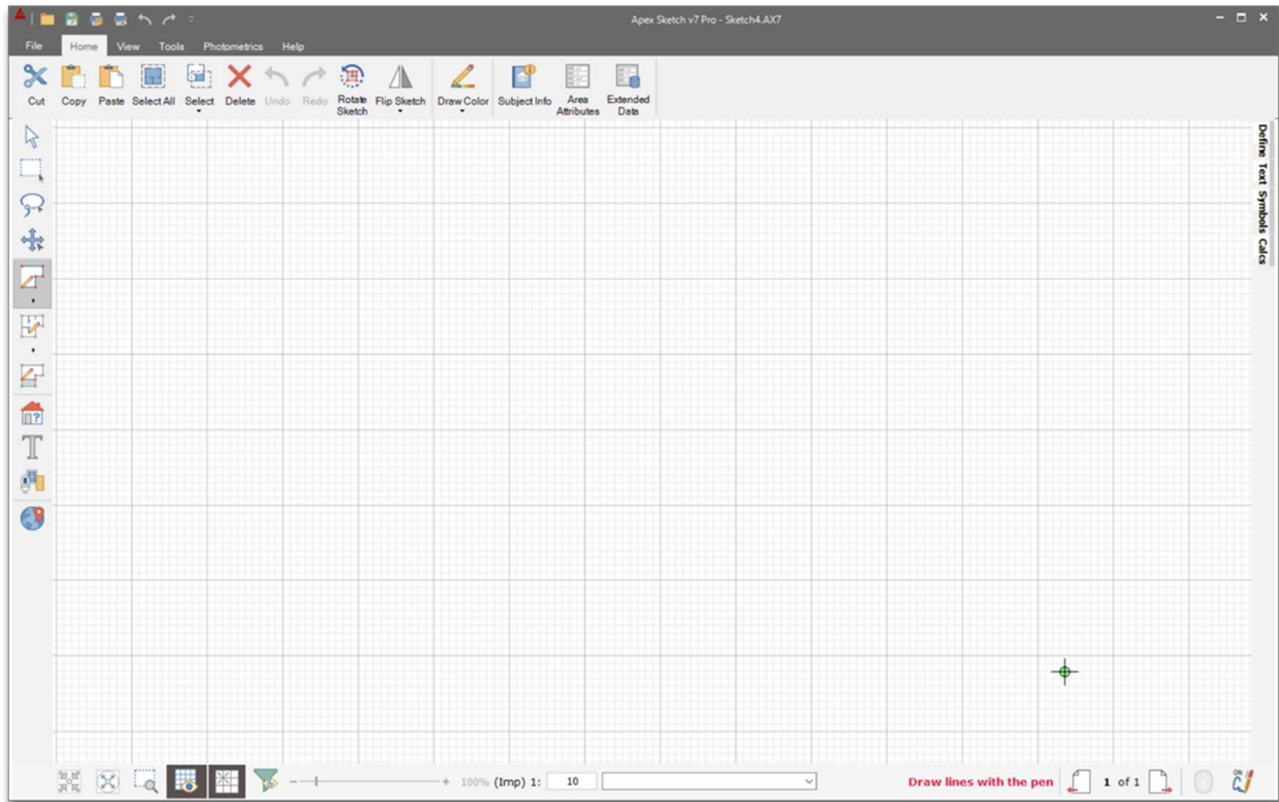


**ENTER** executes the command. Pen Up/Pen Down.

---

## Getting Started

Open Apex Sketch Version 7 on your machine. Once the program has loaded ensure Draw Area mode is enabled and position the cursor in the Drawing Pad as seen in the screen capture below. Once in place press the Enter key your keyboard to anchor the cursor. The cross-hair will turn green indicating Pen Down/Drawing Mode.



---

**Note:** It is ok to start sketching anywhere on the drawing pad as you can select the [C] key at any time to re-center the sketch. The sketch can also be resized at any point if the zoom level needs to be expanded for larger structures.

---

You are now ready to start inputting the measurements into Apex Sketch Version 7...

Using the Keyboard, enter the following:

- 
- 
- 

**Note:** fractional feet or fractional meter increments can be used as needed. Also, Tab can be used in place of the decimal point key to input inches (Av7 will convert inches to a decimal equivalent).

- 
- 
- 

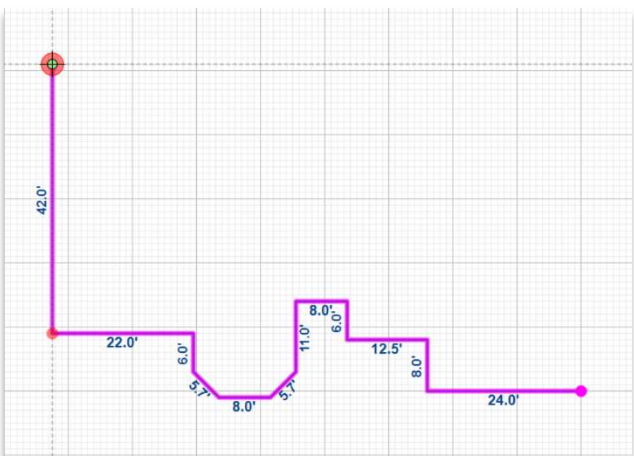
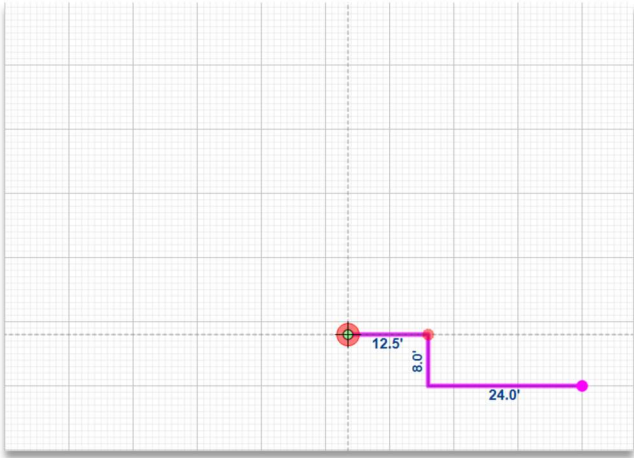
You have reached an angled wall, enter the Rise & Run as follows:

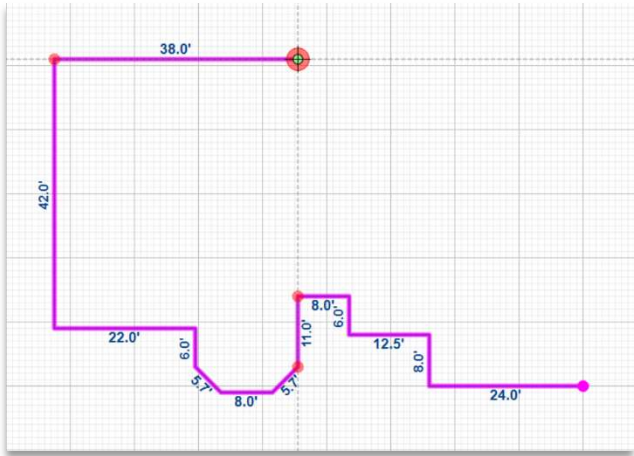
- 
- 
- 

**Note:** It is important not to press Enter between the rise and run dimension.

Continue entering:

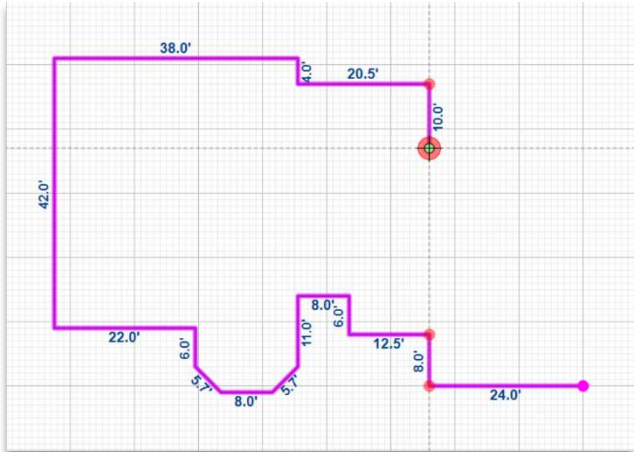
- 
- 
- 



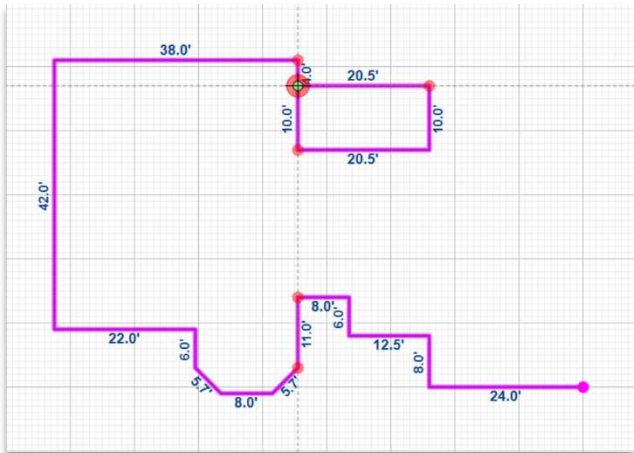


- 

**Note:** The Ctrl and Directional Arrow keys activate the Alignment feature. Each selection of the Right Arrow key will extend the line to stop at the alignment points that exist from other wall points. In this case, the line will extend to 22', then to 26', then to 34', and to the desired length of 38'.



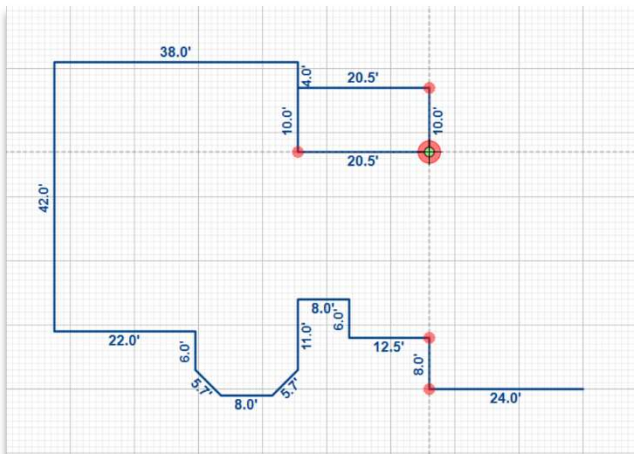
- 
- (20.5' line)
- 



Continue entering:

- (20.5' line)
- 
- 

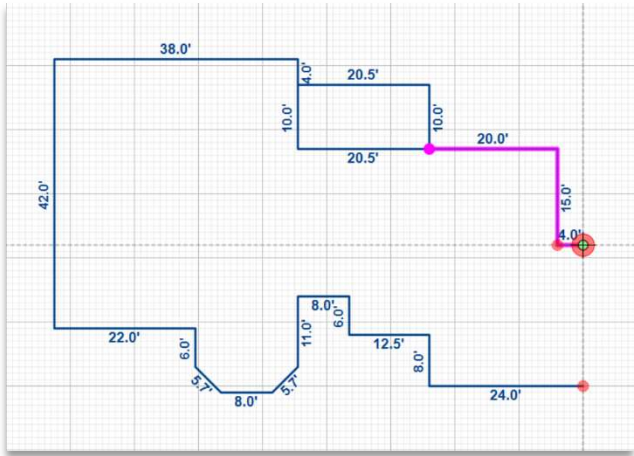
**Note:** When you re-select the Enter key, the Cross-Hair will return to the Green color for the Pen Down / Drawing Mode again. You may press the Enter key an additional time anywhere you would like to toggle between the Pen Up / Drawing Mode and the Pen Down / Drawing Mode.



Using the keyboard or the mouse, position your cursor at the end of the 20.5' line as seen in the image to the left. Once in position press Enter on the keyboard. The crosshair will turn green indicating you are ready to start sketching.

- 

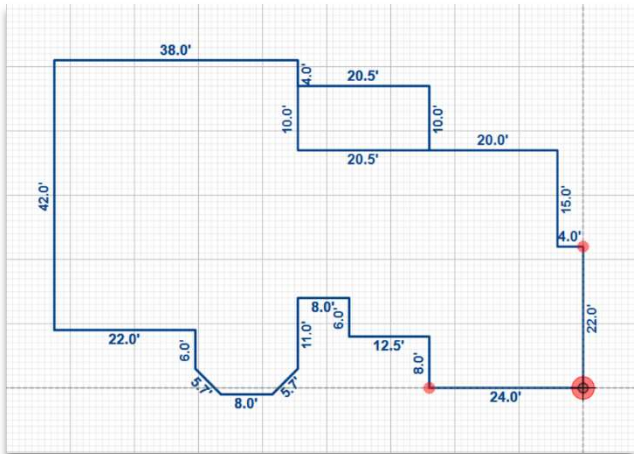
**Note:** This step is designed to show you that you can "close" area polygons anytime in the sketching process and then continue drawing other areas. When you "close" this 20.5' x 10' area, the Cross-Hair will turn black for the Pen Up / Non-drawing Mode. You can now move the cursor to another point to begin drawing again.



Continue entering the following to close the area:

- 
- 
- (4' line)

**Note:** The wall will stop at 4' in alignment with the point of beginning (POB).



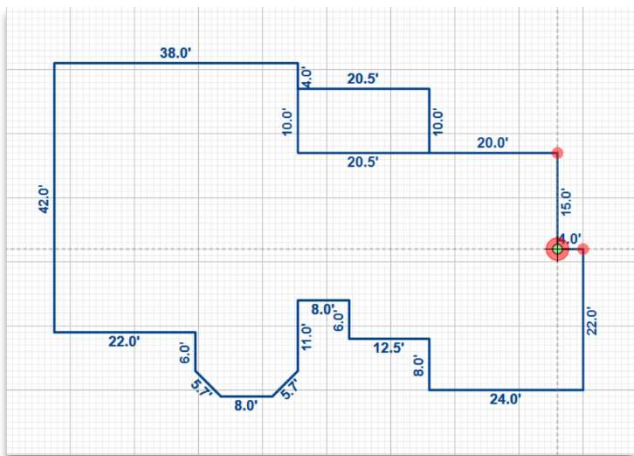
- (22' line)

**Note:** The wall will bypass all the incremental alignment points and "pop" back to the Point of Beginning. The Cross Hair will turn black (Pen Up / Non-drawing Mode)

**Congratulations!** You have completed the perimeter of the building and drawn what will become a Porch.

## Next Step

Draw the lines to 'carve out' the [Garage](#) and other lines to segment the [Second Floor](#)



With the "Pen Up", position your cursor where the 15' and 4' lines connect as seen in the image to the left. Once in position press Enter on the keyboard. The crosshair will turn green indicating you are ready to start sketching.

- (Pen Down)

**Note:** These steps will create a separation for what will become the Garage area without having to retrace the common walls.

---

Using the Keyboard, enter the following:

- 
- 
- (Pen Up)

---

With the "Pen Up", position your cursor where the 10' and 20.5' lines connect as seen in the image to the left. Once in position press Enter on the keyboard. The crosshair will turn green indicating you are ready to start sketching.

- (Pen Down)

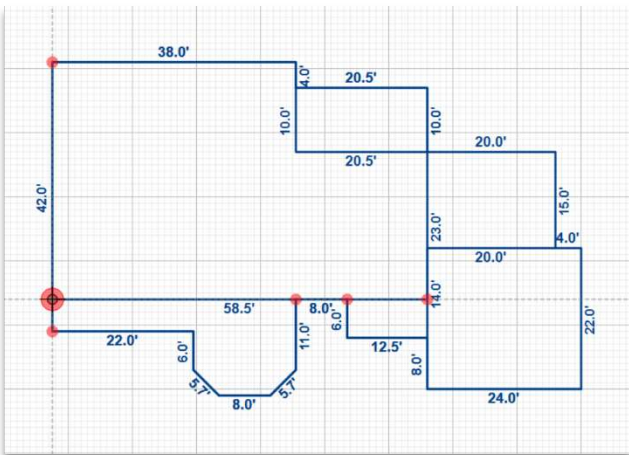
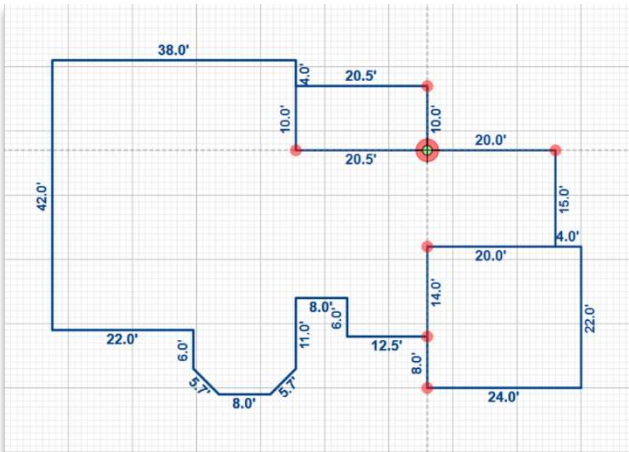
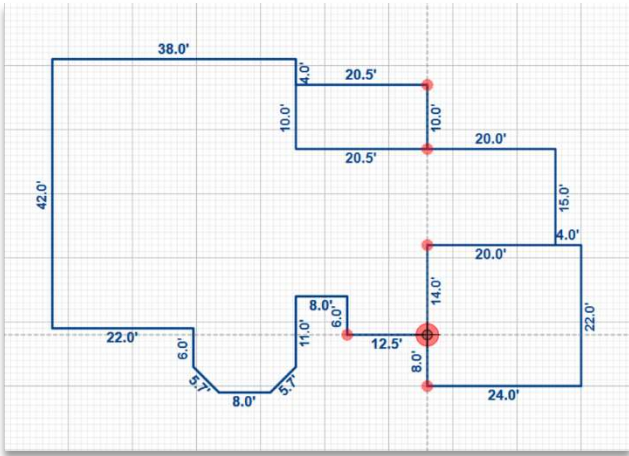
---

Insert the Second floor by entering the following:

- (23' line)
- 
- (Pen Up)

**Note:** It is ok to draw new lines over existing line segments like the 8' horizontal line in the example above.

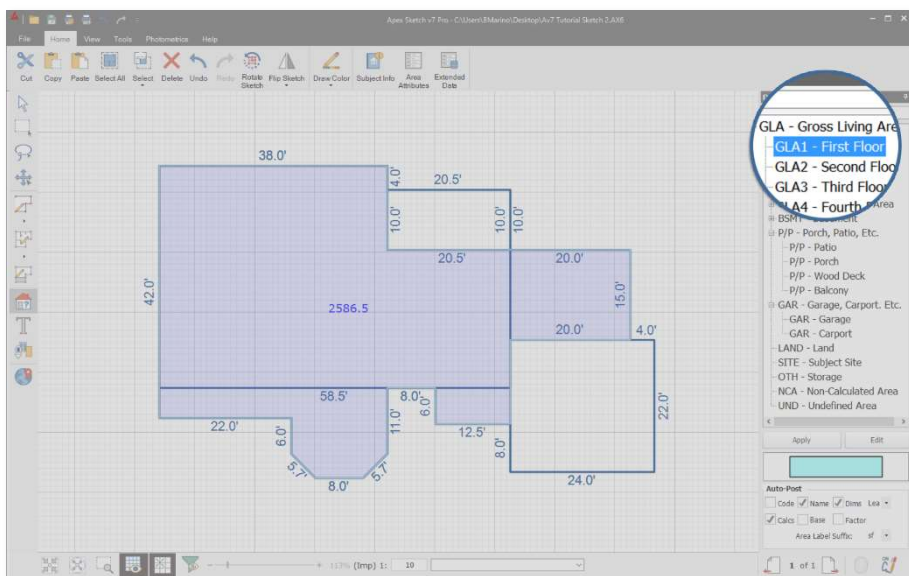
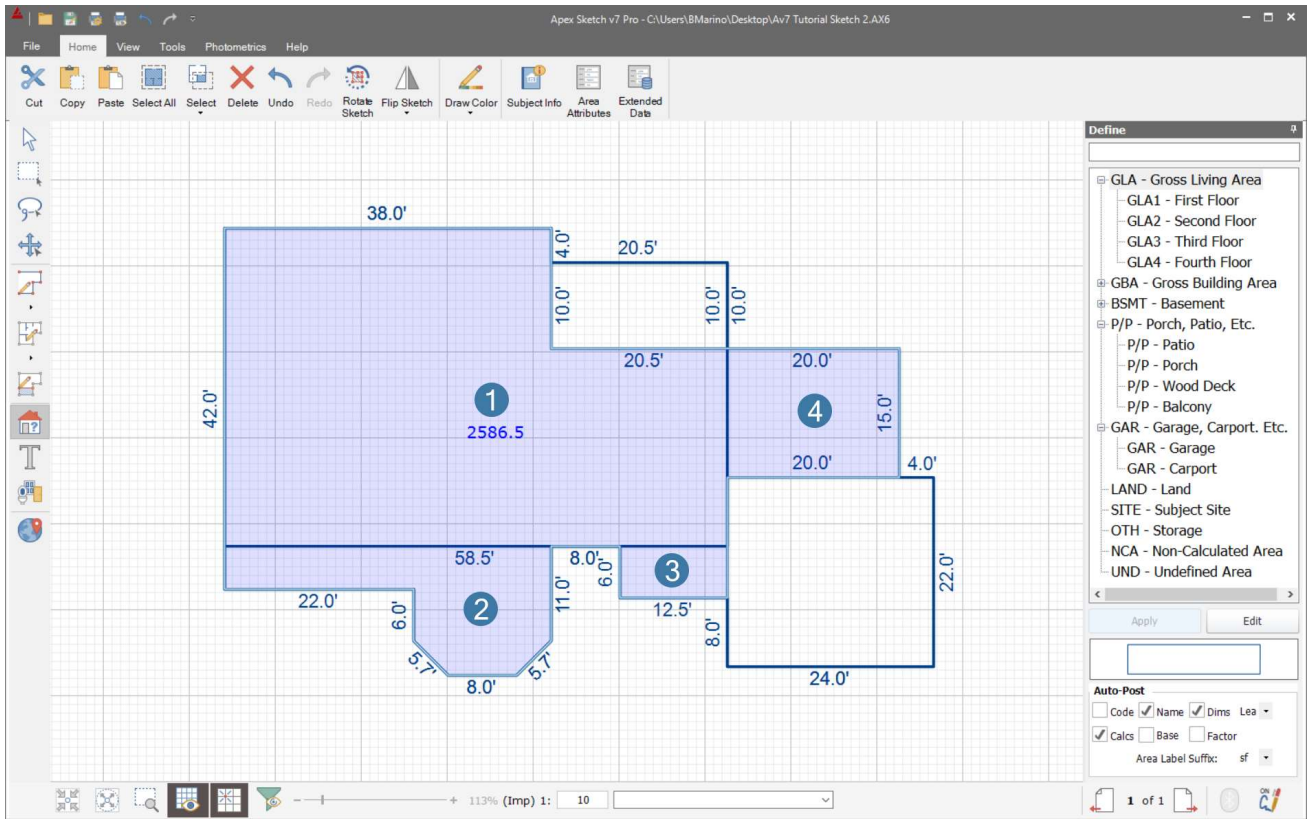
---





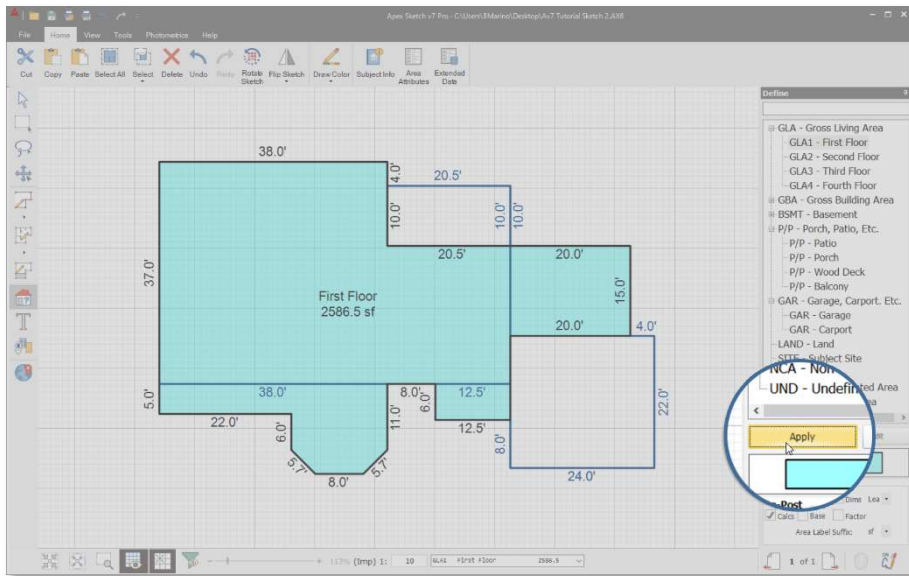
# Defining the Areas

You have completed all the lines for this building the next step is to Define the Area Polygons. Select the **Define Area** icon on the left panel. The **Area Code Table** will appear on the right side of the screen. Apex Sketch version 7 provides a multi-select option for defining area polygons. Select the **4** areas highlighted by Left clicking with the mouse: (see screen capture below)



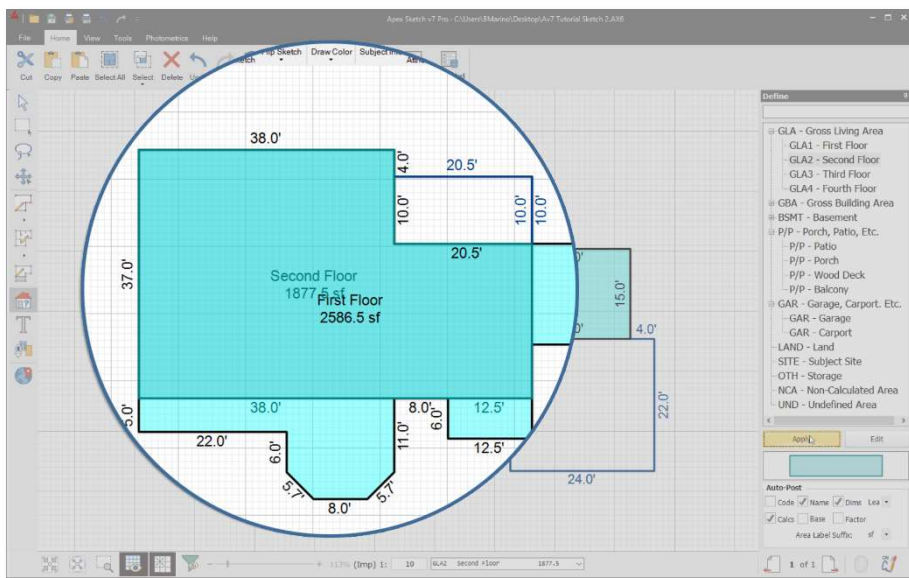
Next, click the **[+]** next to **GLA – Gross Living Area** to access the Sub-Areas. Select the **GLA1 – First Floor** area type from the list.

- **GLA1 – First Floor**



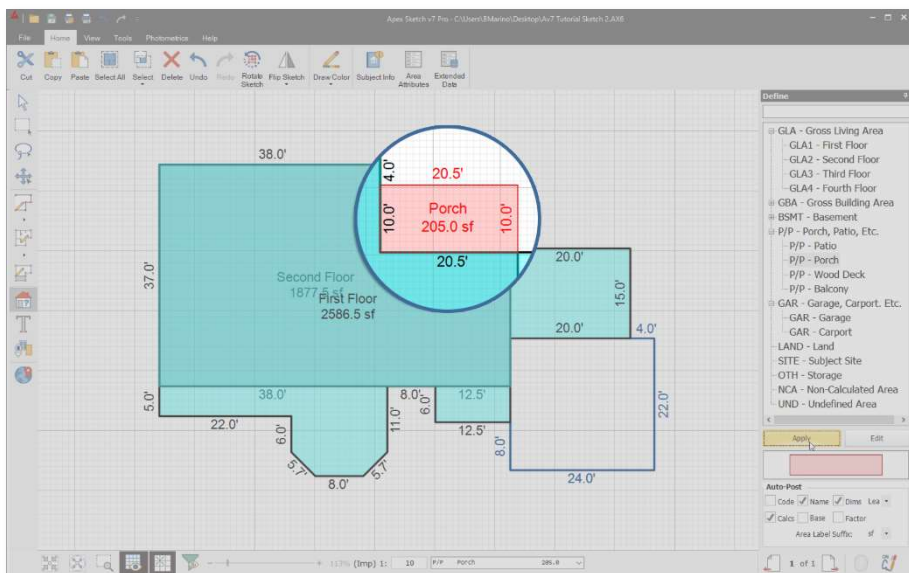
Select **Apply** in the Area Code Table to define the selected polygons.

**Note:** The 4 area polygons that you preselected will now be grouped together as a single polygon. This can be visually highlighted by the single polygon taking on the predetermined line attributes of the GLA 1



Continue Defining the remaining Areas.

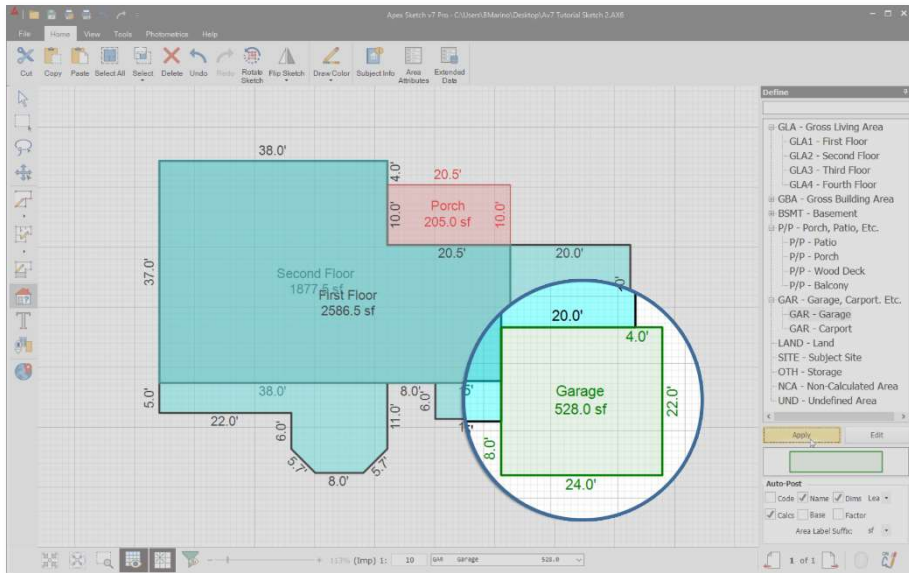
- Select the central area that will become the **Second Floor**
- Select **GLA2- Second Floor** in the area code table
- Select **Apply**



Select the **Porch** area and define as:

- **P/P – Porch**

**Note:** The Area Name and calculation text that are automatically posted may overlap, they can be cleaned up later.



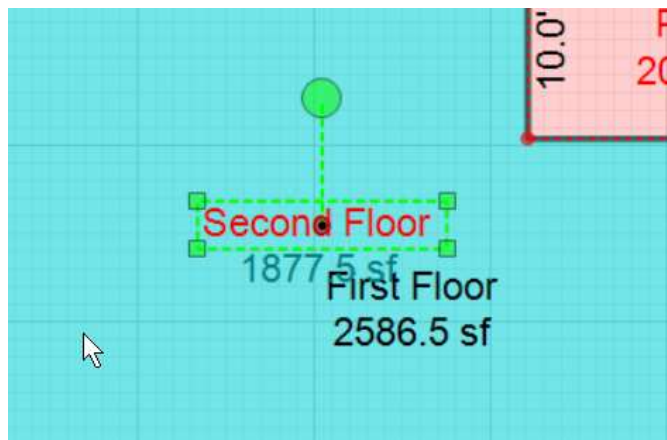
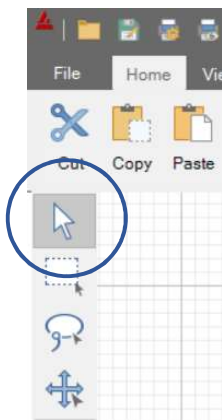
Finally select the remaining area and define it as:

- **GAR – Garage**

**Congratulations!** All the areas have been defined. You are now ready to “Clean-up” the sketch.

## Sketch Clean-up

Finally, click on the “Pointer” tool (arrow icon at the top of the Drawing Toolbar). Using your mouse, you can select individual text or dimension entries and they will turn green indicating that they can be moved, resized or rotated:



Use the mouse and/or the Arrow keys to move the items to the desired position. Click at a point away from the text to anchor it or press the Enter key. Text or Dimension font sizes can be changed by left clicking on one of the corner boxes and stretching using the mouse or arrow keys. Clicking on the green “balloon” will allow you to spin or rotate the selected item. Spinning or rotating near the item holds the rotation to 45-degree increments. Spinning or rotating with the mouse positioned farther away allows finer incremental rotation stopping points.