

Drawing a Shed Dormer Manually

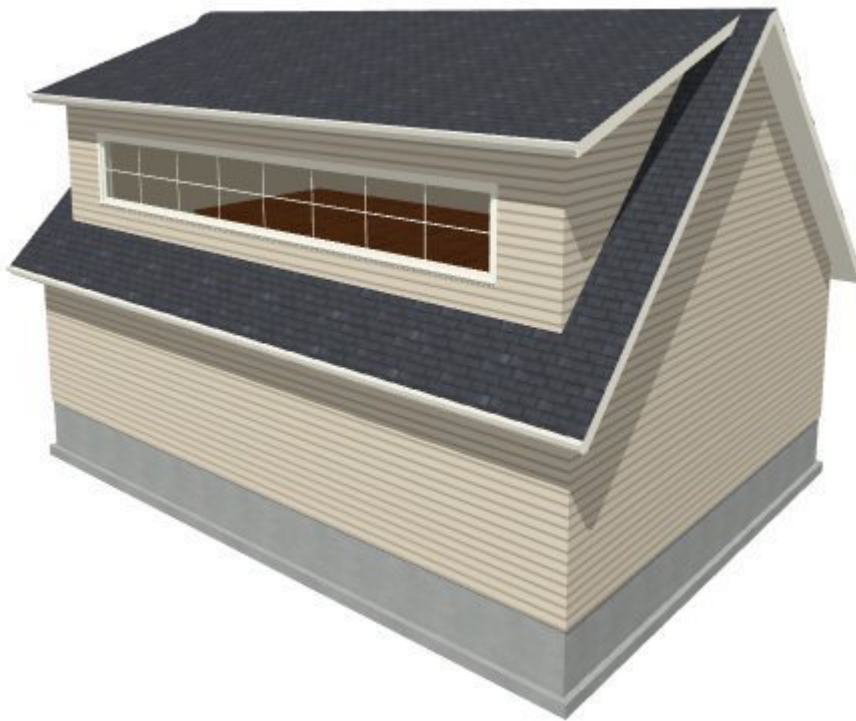
KB-00367

The information in this article applies to:



QUESTION

How can I manually create a large shed dormer roof in my plan?





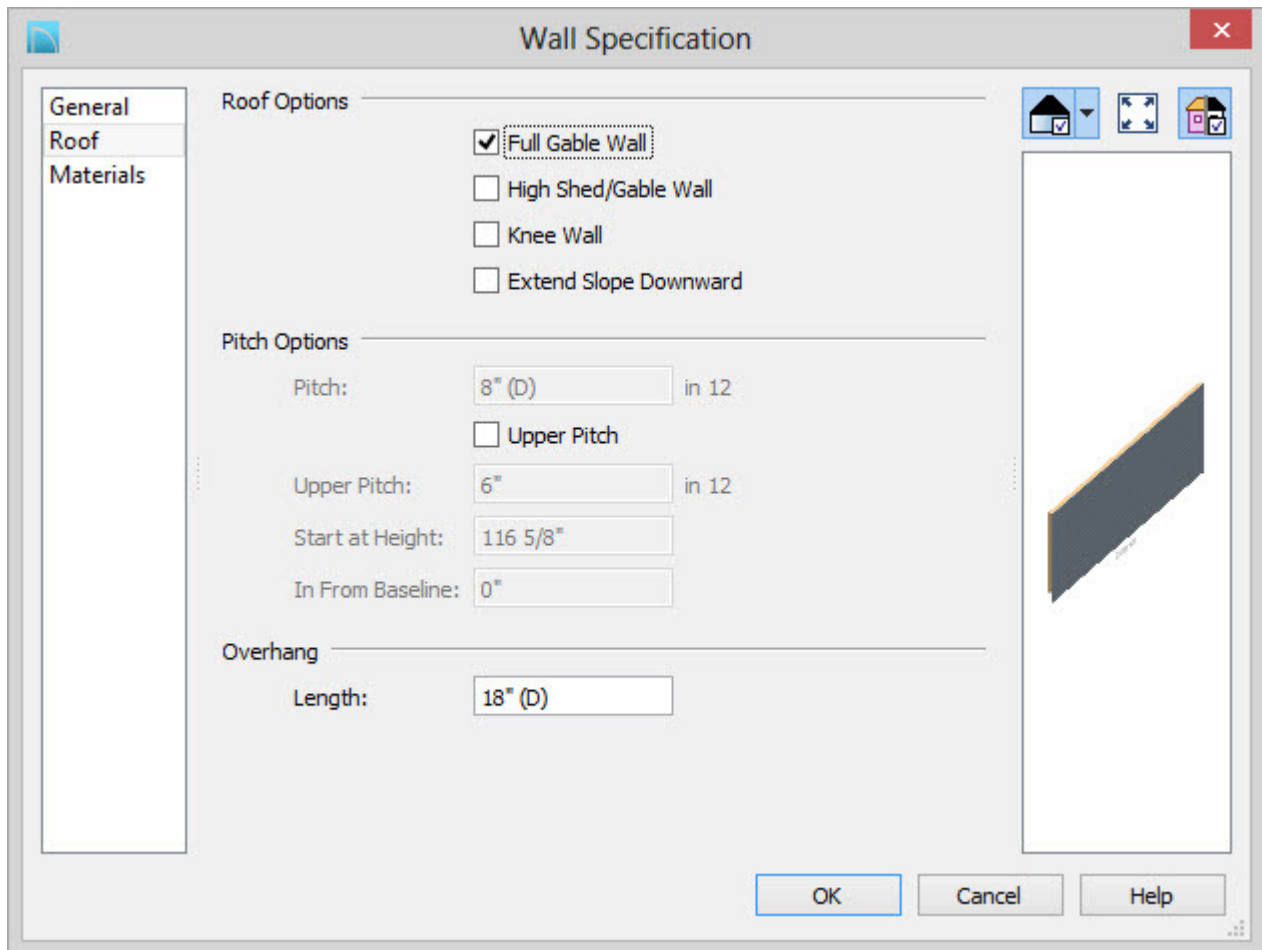
ANSWER

This article will walk you step-by-step through creating a basic plan with a manually drawn shed dormer. Once you have completed the tutorial, you can take this information and then apply it to your own designs.

To create the basic structure

1. Begin by creating a basic 40' x 30' structure on Floor 1.


- Using the **Select Objects**  tool, select the 30' wall on the left, and click on the **Open Object**  edit button to display the **Wall Specification** dialog.
- On the **Roof** panel, place a checkmark in **Full Gable** wall and click **OK**.



- Repeat this process for the right wall, so that both 30' walls are marked as **Full Gable**.

Once you have done this, you are ready to create the second story where the manually drawn shed dormer will be created.

To create the second floor

- Select **Build> Floor> Build New Floor** , choose to **Derive the 2nd Floor plan from the 1st**

Floor plan and click **OK** to display the **Floor 2 Defaults** dialog.

- Without making any changes, click **OK** in the Floor 2 Defaults dialog to generate your second floor, based on the walls from Floor 1.

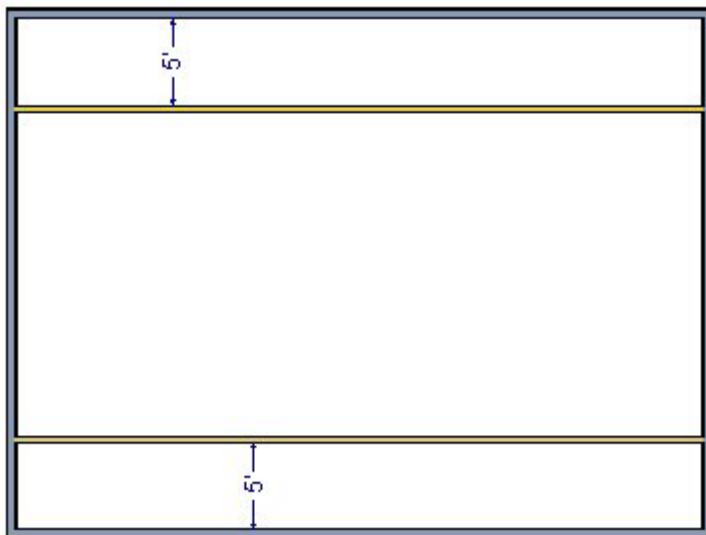
Now you are ready to create the knee walls in your plan.

Knee Walls are a bit like Attic Walls in that they are not meant to generate to full ceiling height. Instead, they build upward until they encounter a roof plane. Unlike Attic Walls, however, Knee Walls are used in the interior of a structure, typically to separate unused areas from rooms on the upper floor of a story-and-a-half structure.



Home Designer will not specify walls as Knee Walls automatically. So, if an interior wall is drawn in a location where the roof is lower than the ceiling height, you should specify it as a Knee Wall in the Wall Specification dialog.

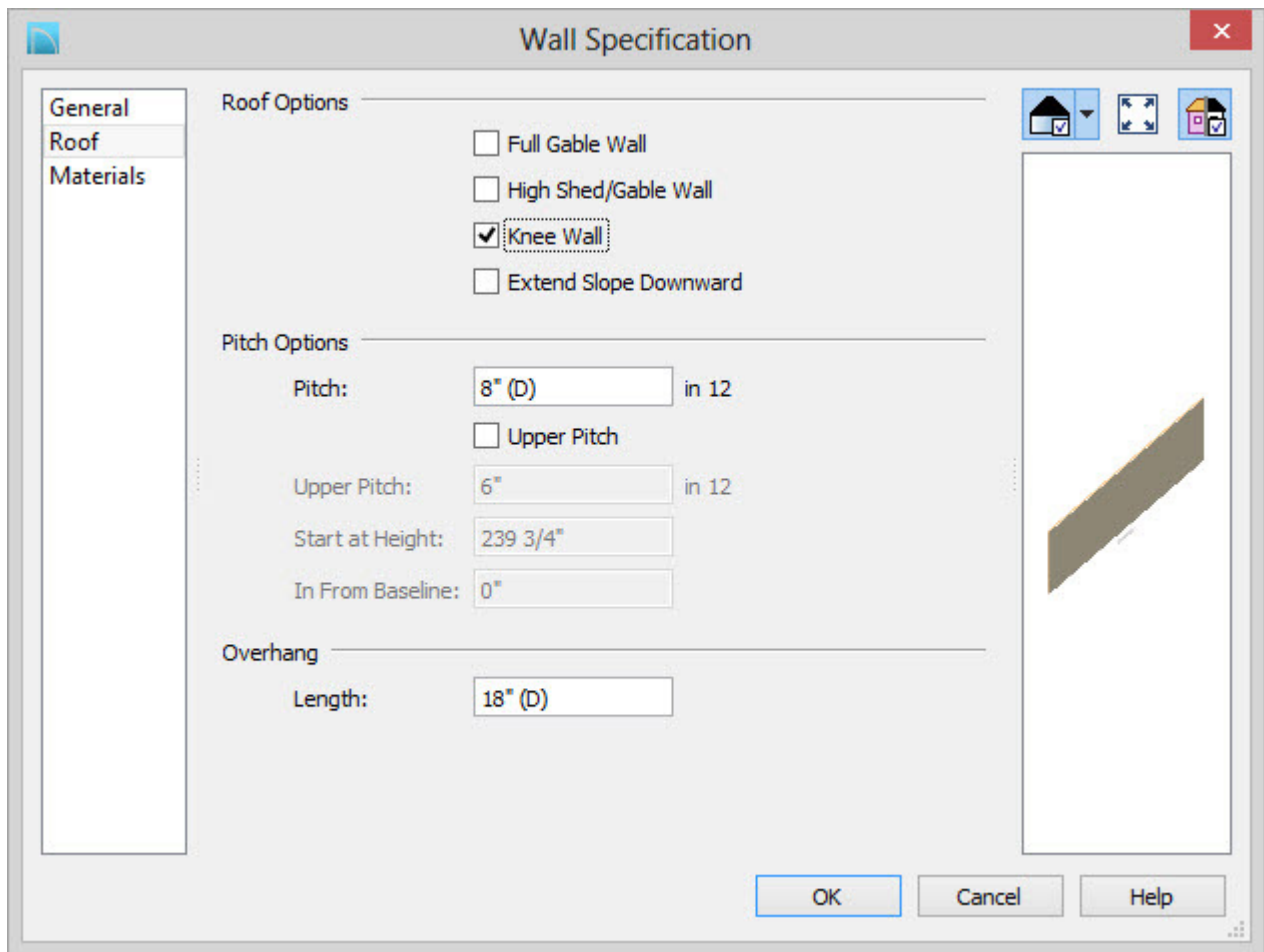
To create the knee walls

- Select **Build> Wall> Straight Interior Wall**  then click and drag out two interior walls, as shown in the image below.



For the purposes of this example, create this interior walls 5' away from the exterior walls.

- Next, use the **Select Objects**  tool to select one of the interior walls, and click on the **Open Object**  edit button to display the **Wall Specification** dialog.
- On the **Roof** panel, place a checkmark in **Knee Wall**, and click **OK**.



4. Repeat this process for the opposite interior wall, so that both are marked as Knee Walls.


Now that you have your knee walls defined, you are ready to create the walls for your shed dormer.

To create the dormer walls

1. Select **Build> Wall> Straight Exterior Wall**  and draw a rectangular box on the outside of the lower interior wall, as shown in the following image.



Position the lower wall of the dormer box 1 foot from the bottom wall, and edit the box so that it is also 1 foot from each vertical side wall.

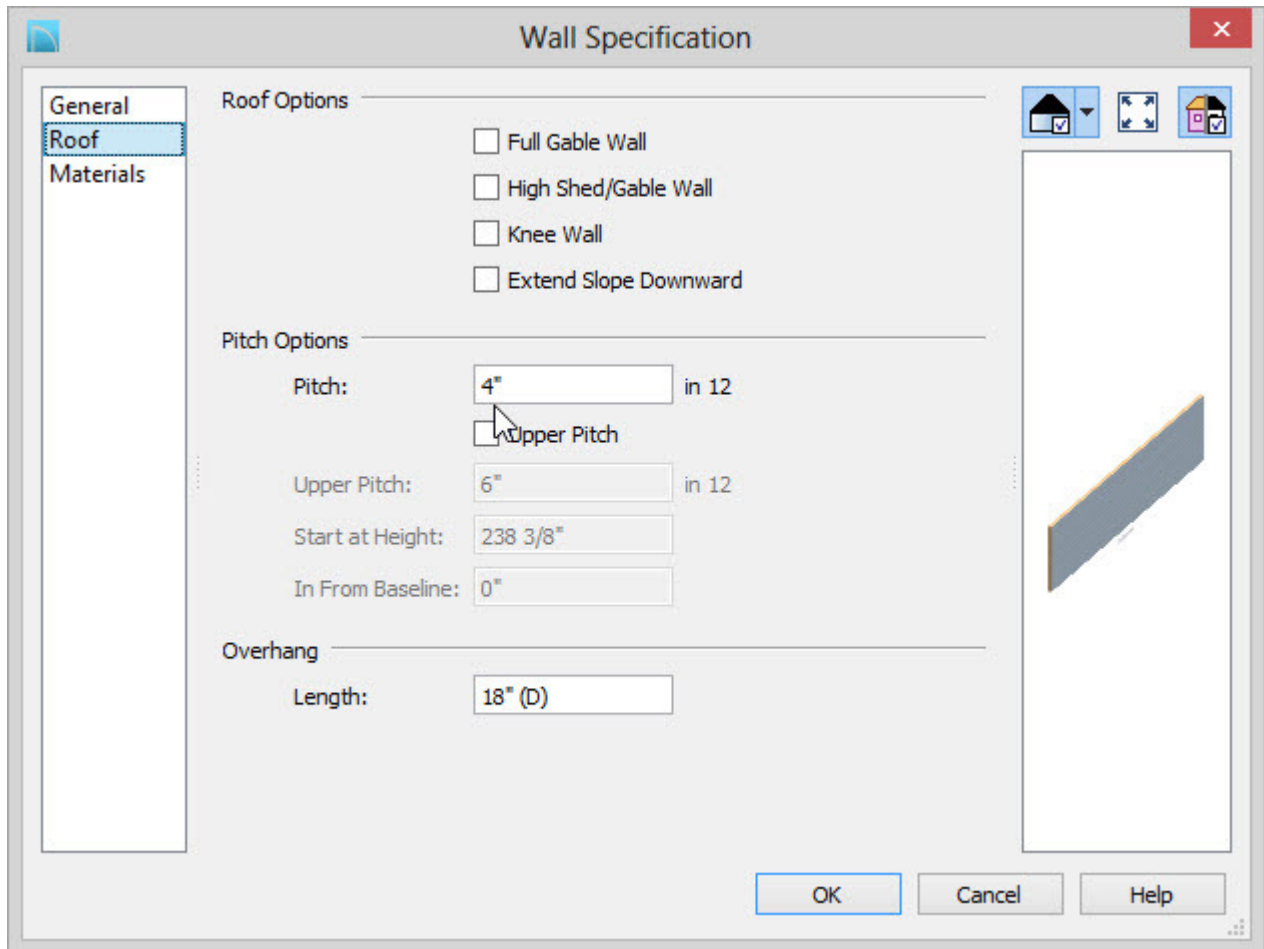
- Next, select **Build> Wall> Break Wall**  and click along the lower interior wall to place wall breaks as indicated in center of each oval in the following image.



- Delete the upper, horizontal portion of the window box.





- Next, since you will want this dormer to be a Shed dormer, select the left exterior wall of the dormer, and open its Specification dialog, and mark it as a **Full Gable** wall as well.
- Repeat this process for the right dormer wall, so that both are marked Full Gable.
- Finally, on the front wall of the dormer, open its Specification dialog and define the pitch to be less than that of the normal roof you will generate over the design, then click **OK** to apply the change.

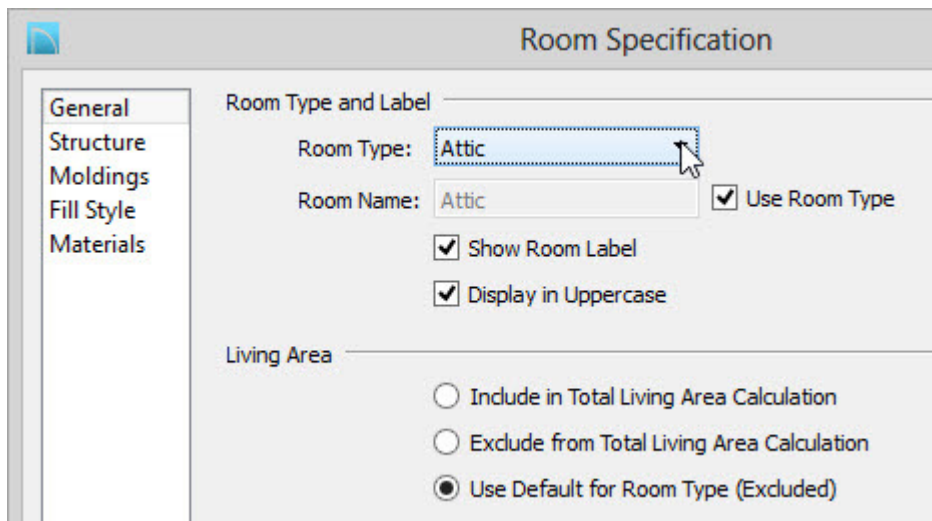


For the purposes of this example, define this wall as having a pitch of 4/12.

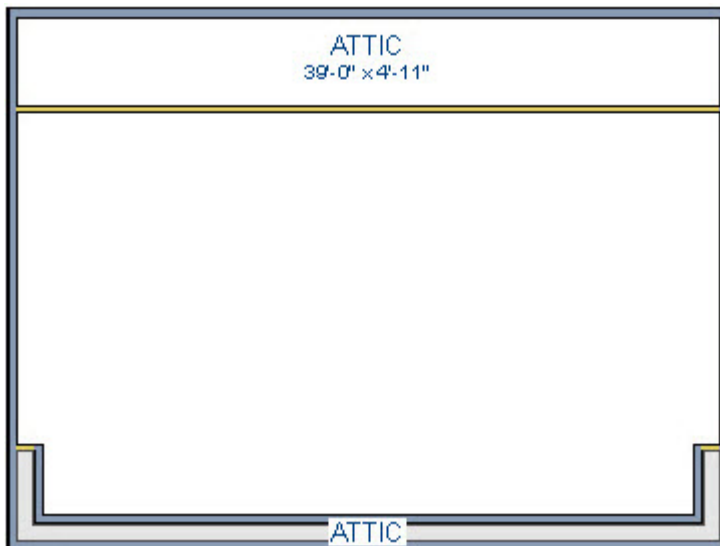
Now you are ready to define the upper and lower rooms as Attic space, so that these areas will be ignored by the program's automatic roof generator.

To define the Attic rooms

1. Use the **Select Objects**  tool to select the upper room area, and click on the **Open Object**  edit button to display the **Room Specification** dialog.
2. On the **General** tab, specify the room as Attic, and click **OK**.




3. Repeat this process for the lower Attic room as well



Now both the upper, and lower room areas should be defined as Attic, with the middle section remaining undefined for now.

To build the roof

1. To adjust roof settings, select **Build> Roof> Build Roof**  from the menu to display the **Build Roof** dialog.
2. For the purposes of this tutorial, the **Pitch (in 12)** value is set to 12".

Note: These specifications were used specifically for the plan in this tutorial, if you are designing


a building and find that it does not build as expected, you may need to increase the roof pitch or lower the room's height to accommodate the roof height.

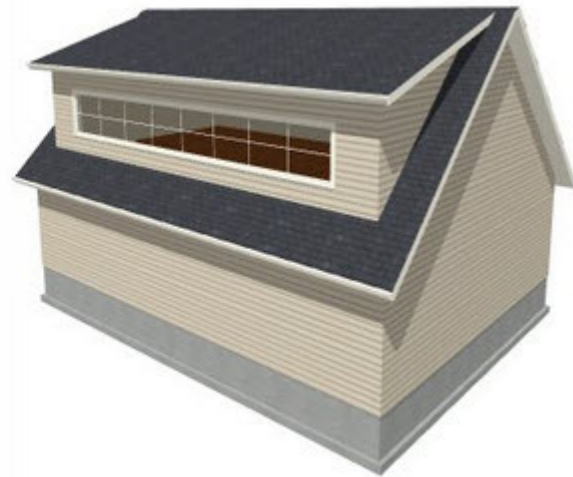
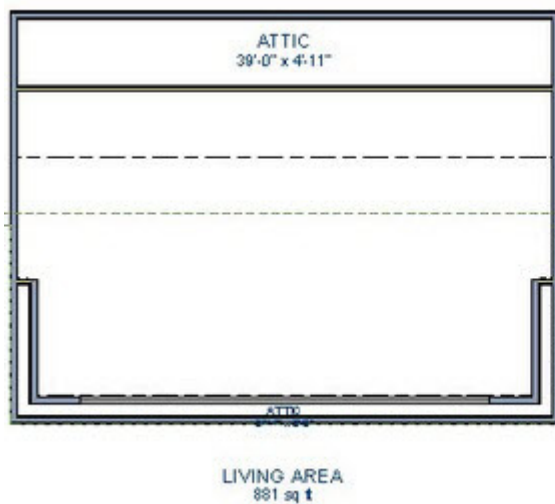
If you are using Home Designer Pro, place a checkmark in the "Build Roof Planes" option at this time. Whenever you want to regenerate the roof planes after making changes to roof directives it is necessary to place a checkmark in this setting unless you have the Auto Rebuild Roofs setting turned on.

3. Next, select **3D> Create Camera View> Full Overview** .



Notice there are small gaps in the dormer side walls. This gap is caused by the difference between the position of the knee walls, and the point at which the ceiling intersects the roof plane. This location is marked by the black dotted line in floor plan view.

4. Select **Window> Tile Vertically**  so that you can see both your 3D Camera view side by side with your 2D floor plan view.
5. In floor plan, select each of the knee walls and move them back so that they are in alignment with the ceiling plane.



The walls will snap into position when they are close to the ceiling lines.



- Next, take another look at the 3D view to see that the gaps have closed.

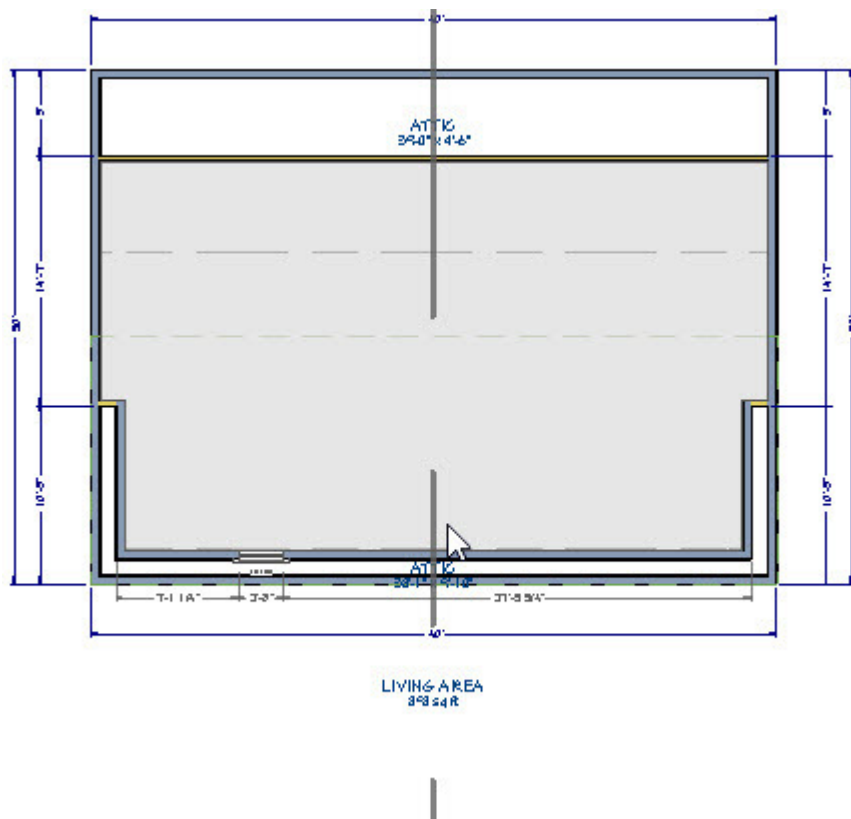
You can move the interior walls closer to or further from the outside walls to change the dormer's elevation, or change the pitch for the roof to make the dormer longer.


If there is attic space above the dormer, it may be necessary to modify the attic walls on Floor A as well as the dormer walls on Floor 2.

You can create dormers in more complex plans the same way, but you may want to experiment with wall placement and pitch to achieve the desired effect.

To add windows

- Select **Build> Window> Window**  and click on the dormer front wall to place a window.
- Select the window, then click the **Center Object**  edit button; and click near the wall containing the window to center it on the wall.



3. Next, click on the **Open Object**  edit button, which displays the **Window Specification** dialog, where you can specify the Window Type, Width, Height, and Lites.

in this article the window is set to

- Fixed Glass,
 - Width to 35',
 - Height as 48"
 - Lites to 8 across and 2 vertical
4. When you have completed making changes in the Window Specification dialog, click **OK** to apply them.