Creating a Vaulted Ceiling and Scissor Trusses

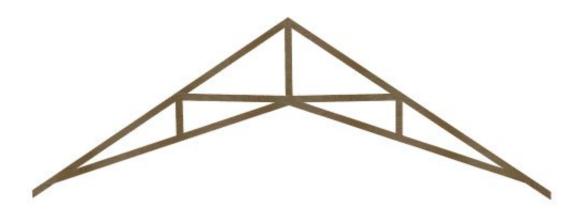
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The information in this article applies to:



QUESTION

How do I create a vaulted ceiling and scissor trusses?



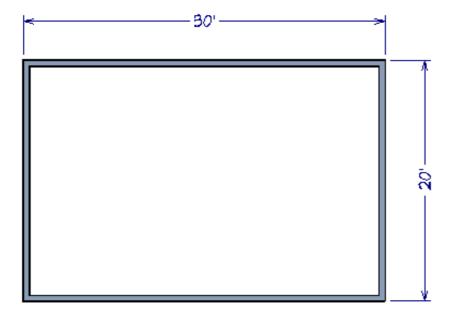
ANSWER

In Chief Architect, roof trusses are generated in the space between the roof planes above and ceiling planes below. When a vaulted ceiling has a different pitch than the roof planes above, scissor trusses are produced.

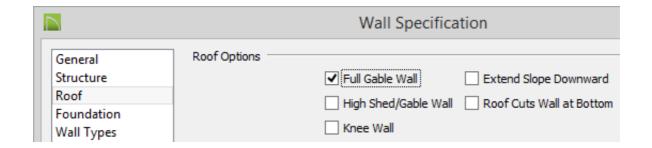
To build the roof

1. Launch Chief Architect and choose to **Open** the Chief Architect plan in which you would like to create scissors trusses.

In this example, a simple 20' x 30' rectangular plan is used.



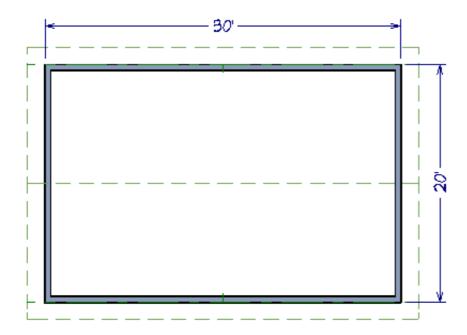
- 2. Using the **Select Object** tool, Select the walls to make gable ends. In this example the left and right walls. then click the **Open Object** details edit button.
- 3. On the Roof panel of the **Wall Specification** dialog put a checkmark in **Full Gable Wall** and then click **OK**.



- 4. Select **Build> Roof> Build Roof** and in the **Build Roof** dialog on the Roof panel:
 - Put a checkmark in **Build Roof Planes**.
 - Set the desired pitch in the **Pitch (in 12)** field. For this example 10 in 12 pitch is

used.

- Put a checkmark in Trusses (No Birdsmouth).
- Click **OK** to build the roof.

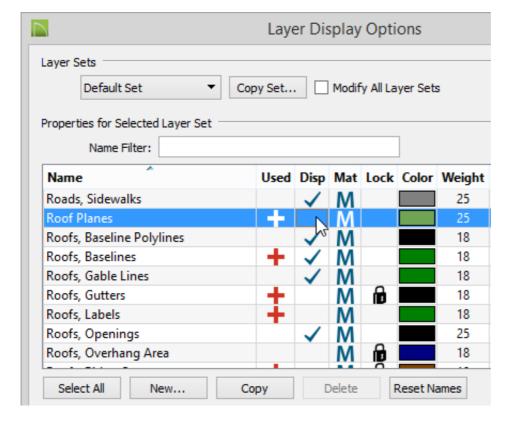


To build the ceiling

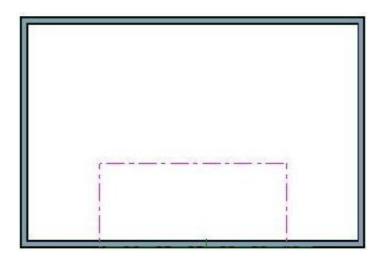
- 1. Using the **Select Objects** tool, click in the room that will have a vaulted ceiling to select it, then click the **Open Object** edit button.
- 2. On the STRUCTURE panel of the **Room Specification** dialog, uncheck the box beside **Ceiling over this room**, then click **OK**.
- 3. To make it easier to draw ceiling planes, select **Tools> Layer Settings> Display Options** from the menu.

In the Layer Display Options dialog for your currently active layer set:

- Scroll down to the **Roof Planes** layer and remove the checkmark in the **Disp** column.
- Click **OK** to close the dialog and turn off the display of the roof planes in your plan.



- 4. Select **Build> Roof> Ceiling Plane** from the menu.
 - Click and drag a baseline along a wall defining the room that will have a vaulted ceiling.
 - For best results, the baseline should be above the outside edge of the framing layer of that wall.
 - When the baseline is complete, click once in the room to set the ceiling plane's ridge.

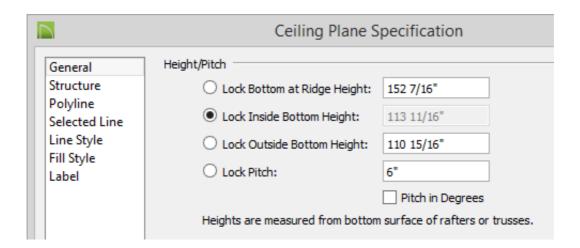


5. Click on the ceiling plane to select it, then use the edit handles that display to stretch it across the room to the inside surfaces of the gable walls.

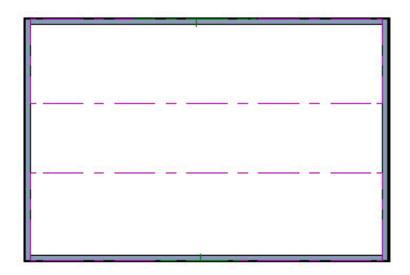
 In this example, two ceiling planes will form a ridge in the center of the room, so make sure the ridge edge of this plane does not extend past the middle of the room.



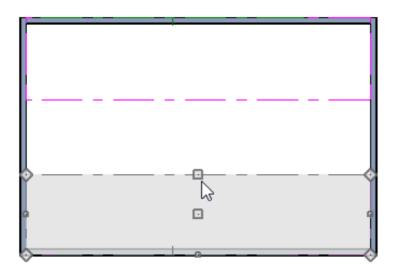
- 6. With the ceiling plane still selected, click the **Open Object** edit button.
 - On the General panel of the Ceiling Plane Specification dialog:



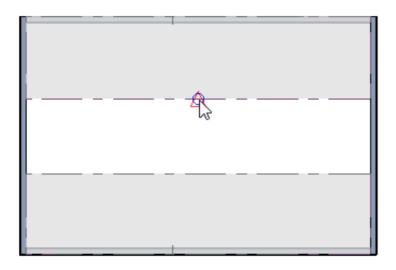
- Make sure that the **Inside bottom** height is locked.
- o Specify the desired **Pitch** for your vaulted ceiling. For this example 6 in 12 is used.
- Click **OK** close the dialog and apply the change.
- 7. Repeat steps 2 through 4 to create a second ceiling plane opposite the first one.



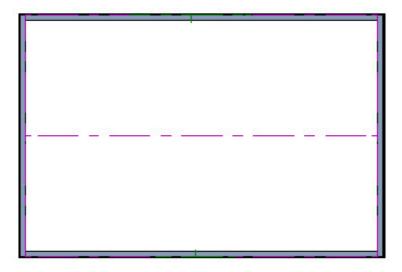
8. Click on the ridge edge of one of the ceiling planes,



9. Click the **Join Roof Planes** edit button then click the ridge edge of the other ceiling plane.



10. The two ceiling planes will calculate pitch and distance and will join where the two planes would intersect.

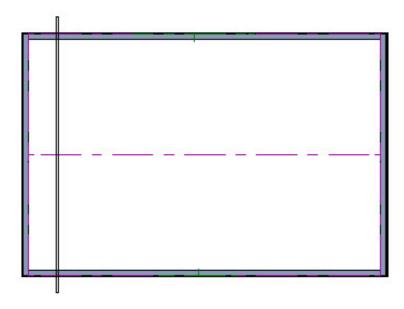


If you wish, you can turn the display of roof planes back on in the **Layer Display Options** dialog.

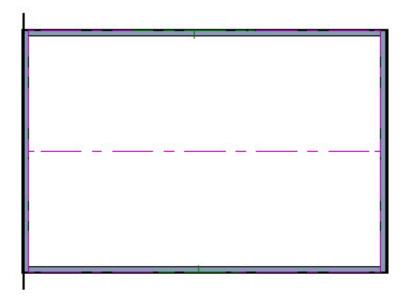
To create scissor trusses

With both the ceiling and roof planes in place, you can now create roof trusses.

- 1. Select **Build> Framing> Roof Truss** \triangle from the menu.
- 2. Click and drag to draw a roof <u>truss</u> perpendicular to the ridge line of the roof and ceiling planes.

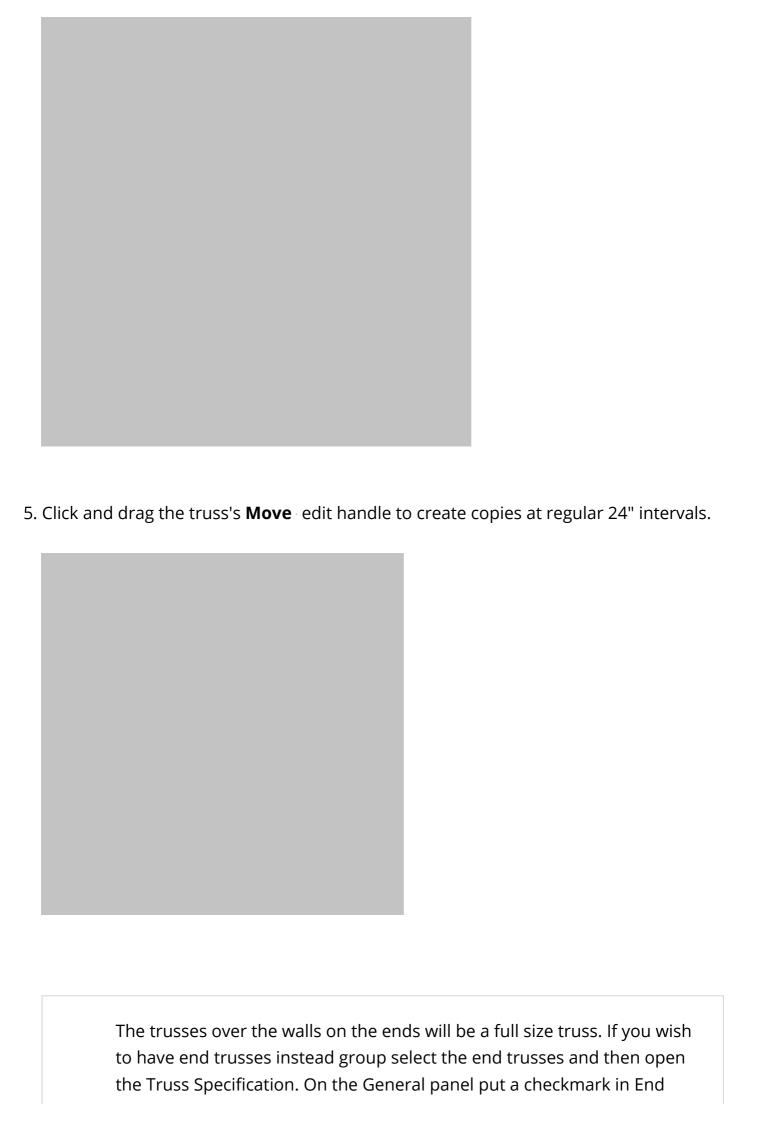


3. Click on the truss to select it and move it so that the exterior edge of the truss is aligned with the exterior edge of the framing layer of the wall.



4. With the truss still selected, click the **Multiple Copy** dialog.

Verify that **Offset Between Copies When Dragging** is selected and that the **Primary Offset** for Trusses is the O.C. spacing desired for the trusses.



Truss and Force Truss Rebuild then click OK.

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