Manually Framing a Dropped Ceiling

The information in this article applies to:

QUESTION
How do I create a dropped ceiling?

ANSWER
A dropped ceiling is a secondary ceiling, hung below the main, structural, ceiling. They may also be referred to as a drop ceiling, false ceiling, or suspended ceiling.

To create a dropped ceiling
1. Open the plan file in which you need to create a dropped ceiling.
2. Click the Select Objects button, then click in an empty space inside of the room that you want to assign a dropped ceiling to select it.

- If you select an object inside of the room, click the Select Next Object edit button or press the Tab key on your keyboard until the room becomes highlighted.

- With the room selected, click the Open Object edit button.
On the **Structure** panel of the **Room Specification** dialog, click the **Ceiling Finish Edit** button.

- In the **Ceiling Finish Definition** dialog:
  - Select Layer 1 of the ceiling finish definition, then click the **Insert** button to add a new layer above the selected layer.
Specify the desired **Thickness** of the new layer, which will form the dropped ceiling framing. In this example, 3 1/2" is used.

Click the **Select Material** button and in the **Select Material** dialog choose either the **Library Materials** or **Plan Materials** panel and specify the new layer's material as a Framing material. In this example, "Framing Fir Stud 16" OC is used.

Specify the **Structure Type**, which is the type of framing you want to use to frame the dropped ceiling. In this example, "Lumber" is used.

Repeat these steps if you require additional layers, such as an air gap, above the framing.

- When you are finished, click **OK** to close the **Ceiling Finish Definition** dialog and return to the **Room Specification** dialog.
Notice that the preview diagram represents the **Finished Ceiling (F)** height.

The results can also be seen in a **Backclipped Cross Section** view.

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**To manually frame a dropped ceiling**

If part or all of the platform above the dropped ceiling is a ceiling platform, a dropped ceiling's framing can be created automatically when Ceiling Framing for the floor is generated using the Build Framing dialog.
If, however, the entire platform above the dropped ceiling is a floor platform, the framing must be drawn manually.

1. Select the room with the lowered ceiling and click the Open Object \(\text{edit}\) button. On the Structure panel of the Room Specification dialog:

   - Make a note of the **Absolute Ceiling** height.
   - Click the Ceiling Finish button and make a note of the **Thickness** of the layer or layers located above the framing layer.

   ![Room Specification dialog](image)

   ![Ceiling finish definition](image)

   - Click **Cancel** to close both dialog boxes.

   - Subtract the thickness of the ceiling finish layers above the framing layer from the Absolute Ceiling height. The resulting value is the top height of your lowered ceiling framing members.

   - In this example, this height is 89 1/4".
Select **Build > Framing > General Framing** from the menu, then click and drag to draw a framing member across the room with the lowered ceiling.

![Diagram of a framing member across the room with the lowered ceiling.]

- Click on the joist to select it, then click the **Open Object** edit button. On the **General** panel of the **Framing Specification** dialog:

![Framing Specification dialog showing options for depth, height, and type.]

- Specify the desired **Width** and framing **Type**. In this example, 1 1/2" thick Lumber is used.
○ Specify the desired **Depth**, then click the radio button beside **Depth** to lock this value. In this example, 3 1/2" is used.

○ With the **Depth** locked, specify the desired **Top Height**. Use the value you determined in steps #1 and 2, above: 89 1/4" in this example.

○ Press the **Tab** key on your keyboard to update the dialog, then confirm that your changes are all correct.

• On the **Line Style** panel of the **Framing Specification** dialog:

![Framing Specification dialog](image)

○ Click the **Layer** drop-down list and select "Framing, Ceiling Joist" from the list.

○ Click **OK** to close the dialog and apply your changes.
With the framing member still selected, click the **Object Layer Properties** edit button. In the **Object Layer Properties** dialog:

- Click to place a check in the **Display** column for the "Framing, Ceiling Joists" layer and click **OK**.

- If you deselect the framing member before turning this layer on, or in version X3, select **Tools> Display Settings> Display Options** from the menu and turn on the "Framing, Ceiling Joists" layer in the Layer Display Options dialog.

- Move the framing member into position along the inside surface of a wall's Main Layer using whatever method you prefer. For example:
• Using its Move edit handle,

• Using a dimension,

• Using the **Transform/Replicate Object** edit tool.

• Once the framing member is positioned against a wall, select it and click the **Multiple Copy** edit button, then click and drag to produce copies at regular intervals.

• You can specify the intervals by first clicking the **Multiple Copy Interval** edit button.

• You can add ledger boards for the lowered ceiling joists using the same steps:
  
  ○ Draw a **General Framing** object;
- Edit its **Depth, Height**, and other attributes as needed;
- Move it into position against a wall.

- To trim the dropped ceiling joists so that they butt against the ledger instead of extending into it, use the **Trim Objects** edit tool:
  - **Zoom** in on the ledger so you can see it clearly.
  - Click on the ledger to select it;
  - Click the **Trim Objects** edit tool;
  - Click and drag to draw a temporary fence inside of the ledger and through the joists that you wish to trim.
  - When you release the mouse button, all joists touched by the temporary fence will trim to the edge of the ledger.

- You can now see the lowered ceiling framing in a **Backclipped Cross Section** if
you turn on the display of the "Framing, Ceiling Joists" layer in that view.

Related Articles

- Creating a Suspended Ceiling (/support/article/KB-00291/creating-a-suspended-ceiling.html)