

Creating Exposed Rafter Tails

Reference Number: **KB-00488**

Last Modified: **July 15, 2021**

The information in this article applies to:



QUESTION

I would like to create and display exposed rafter tails in designs. How can I do this?



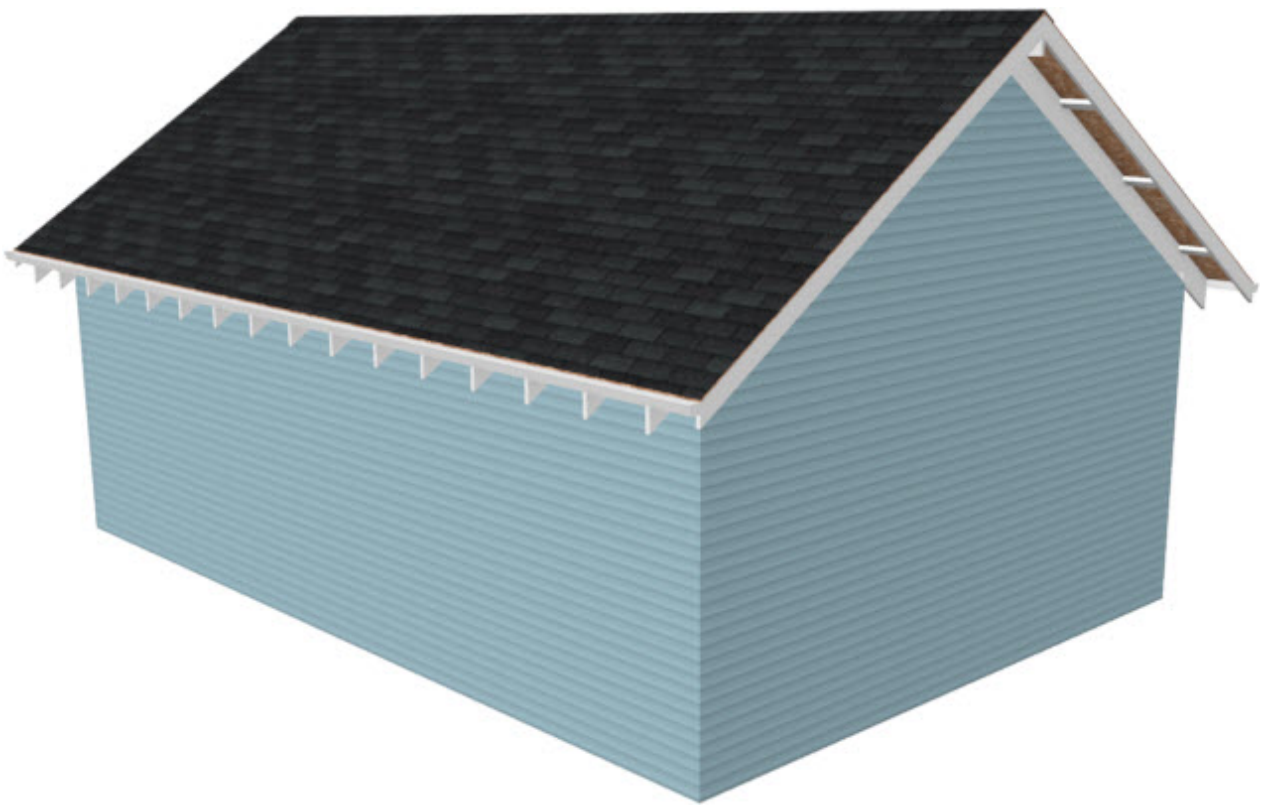
ANSWER


Rafter tails are rafter ends that overhang the bearing walls and are located under the eaves. They can be the full rafter depth or trimmed to the depth of the soffits and sometimes feature decorative profiles. Rafter tails can also be fully exposed, or partially enclosed by soffits.

- To create fully exposed rafter tails
- To create partially exposed rafter tails


This article assumes you have already specified your Roof Framing Defaults.

To create fully exposed rafter tails



1. **Open**  the plan file in which you would like to create exposed rafter tails.

Note: The following steps assume that you have not yet created roof planes. If your plan already has a roof built, Group Select all of the roof planes that will have exposed rafters and complete the steps described in the Roof Plane Specification instead of the Build Roof dialog.

2. Select **Build> Roof> Build Roof**  and in the **Build Roof** dialog that displays:

- On the **ROOF** panel, check the **Build Roof Planes** box.

Properties associated with a birdsmouth cut can also be adjusted on this panel. For more information, click the Help button located at the bottom of the dialog to open your program's documentation.

- On the **STRUCTURE** panel:
 - Check **Build Roof Framing**
 - Remove the check from **Soffits**
 - Remove the check from **Eave Sub Fascia**
 - Remove the check from **Gable Fascia**
 - Remove the check from **Eave Fascia**.

Build Roof

Roof
Options
Structure
Rafter Tails
Ridge Caps
Gutter
Frieze
Shadow Boards
Arrow
Materials
Components
Roof Styles

☐ Automatically Build Roof Framing
☐ Use Framing Reference

Roof

☒ Build Roof Framing
☒ Angled Dormer Hole
☒ Trim Framing To Soffits

Rafter Spacing: On Center
Maximum Lookout Spacing: On Center
Blocking Style: ☐ Vertical ☐ Cross/Bridging ☐ Stagger ☒ In Line

Roof Layers

Surface:
Structure:
Ceiling: ☒ Use Room Ceiling Finish
☒ Soffits: ☐ Flat Under Eave Sub Fascia

Roof Size

| | Width | Depth |
|--|------------------------------------|---------------------------------------|
| Rafter: | <input type="text" value="1 1/2"/> | X Determined by Roof Structure |
| Ridge: | <input type="text" value="1 1/2"/> | X <input type="text" value="11 1/4"/> |
| <input checked="" type="checkbox"/> Lookout: | <input type="text" value="3 1/2"/> | X <input type="text" value="1 1/2"/> |
| Gable Sub Fascia: | <input type="text" value="1 1/2"/> | X <input type="text" value="5 1/2"/> |
| <input type="checkbox"/> Eave Sub Fascia: | <input type="text" value="1 1/2"/> | X <input type="text" value="5 1/2"/> |
| <input type="checkbox"/> Gable Fascia: | <input type="text" value="3/4"/> | X <input type="text" value="7 1/4"/> |
| <input type="checkbox"/> Eave Fascia: | <input type="text" value="3/4"/> | X <input type="text" value="7 1/4"/> |
| Blocking: | <input type="text" value="1 1/2"/> | X <input type="text" value="5 1/2"/> |

- If a decorative rafter end is going to be used, select the **RAFTER TAILS** panel and click **Add New** to browse the library for a suitable rafter tail profile.

Build Roof



Roof
Options
Structure
Rafter Tails
Ridge Caps
Gutter
Frieze
Shadow Boards
Arrow
Materials
Components
Roof Styles

Molding Profiles

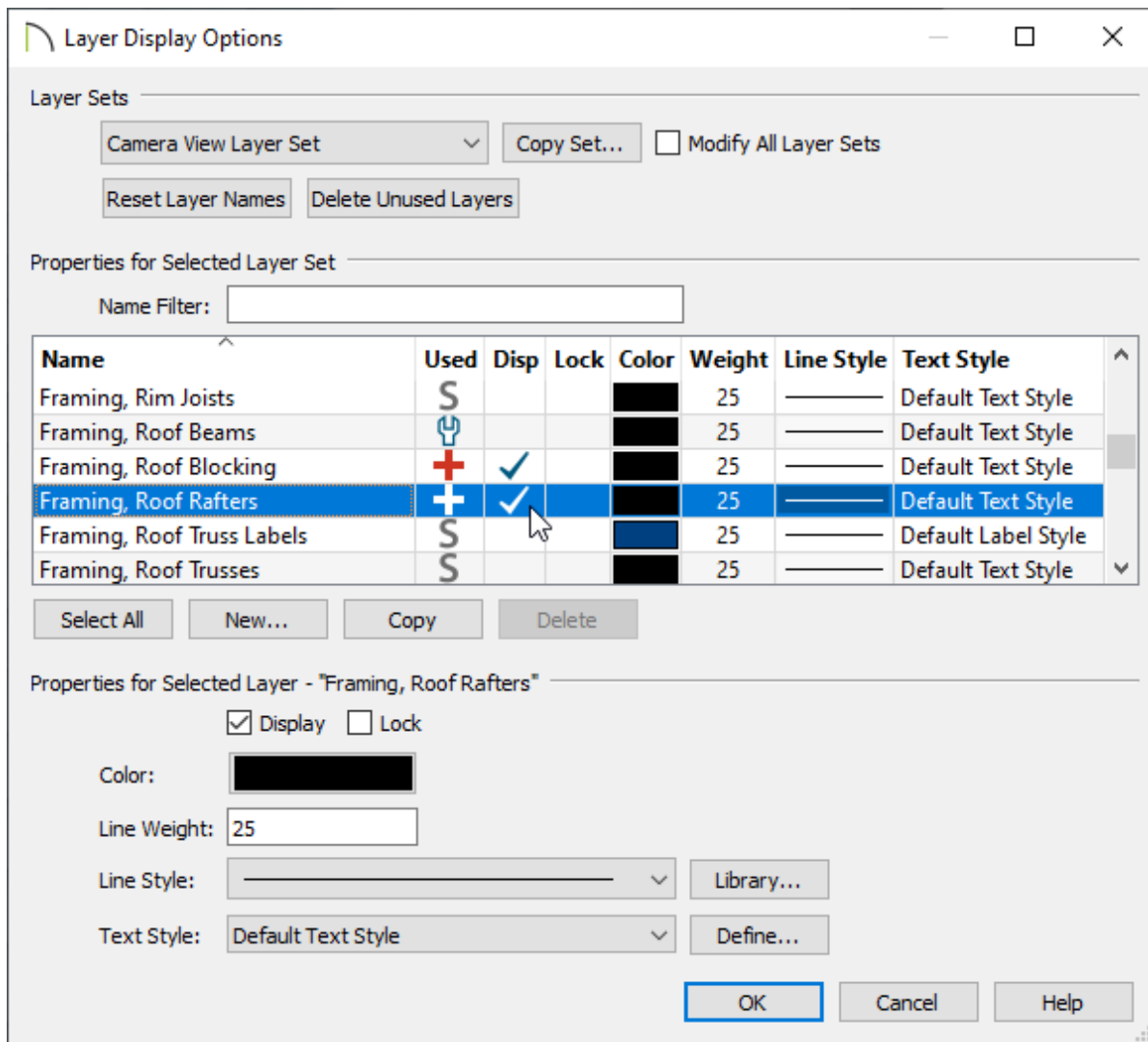
| Name | Width | Height | Extend |
|------|-------|--------|--------|
| | | | |

☐ Retain Aspect Ratio

- If the decorative end extends past the inside surface of the subfascia, specify a desired value in the **Extend** column for the profile.

- Click **OK** to close the dialog and generate the roof.
- 3. If a Question dialog appears, click **Yes** if you want to see the rafters displayed in the plan view, or click **No** if you don't want to see the rafters in the plan view.
- 4. Select **3D> Create Perspective View> Perspective Full Overview**  to create a 3D view of the structure.
- 5. Framing layers are not displayed in this type of camera view by default. To turn on roof rafters, select **Tools> Layer Settings> Display Options**  and in the **Layer Display Options** dialog that opens:

The Active Layer Display Options side window can also be used to toggle the display of layers on and off. For more information, please watch [Video 5302: Active Layer Display Options Side Window](https://www.chiefarchitect.com/videos/watch/5302/active-layer-display-options-side-window.html?playlist=100) (<https://www.chiefarchitect.com/videos/watch/5302/active-layer-display-options-side-window.html?playlist=100>).

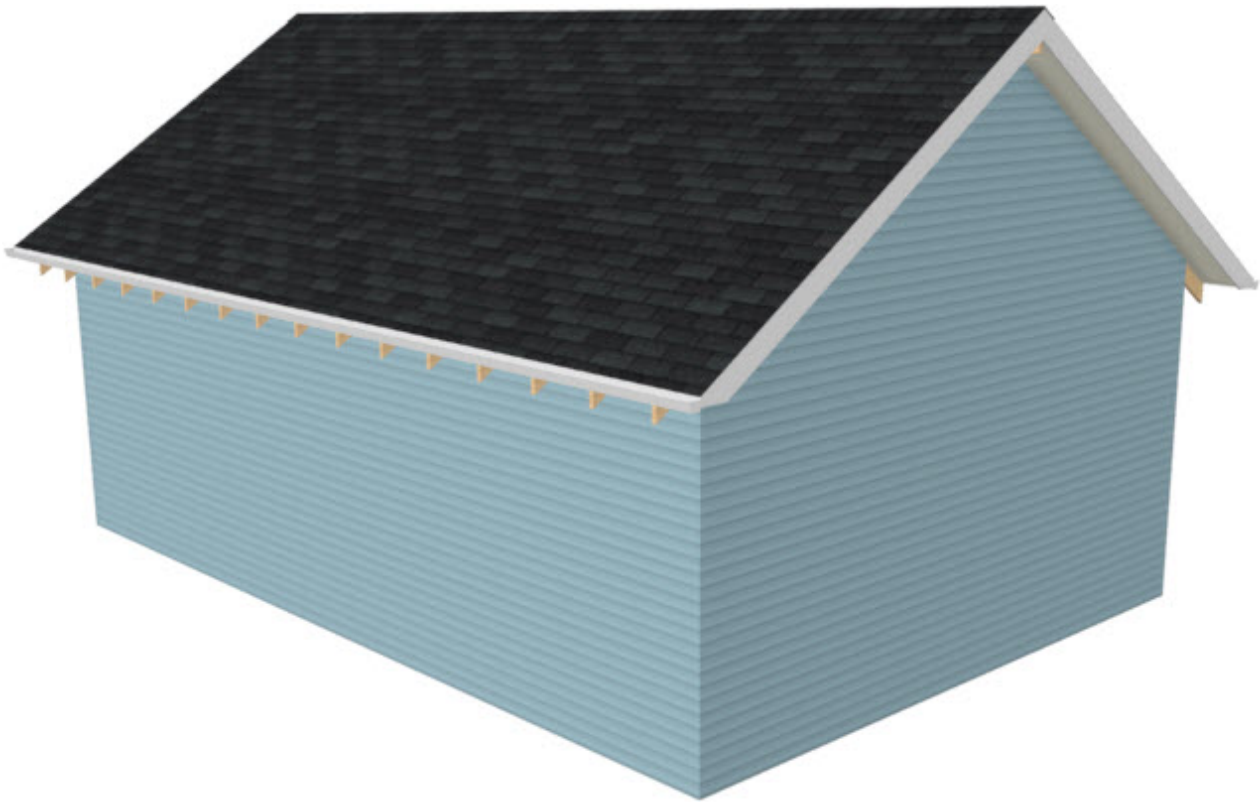



- Verify that the correct Layer Set is selected.

In this example, the Camera View Layer Set is selected, which is the default for the Perspective Full Overview tool.

- Locate the **Framing, Roof Rafters** layer and place a check in the **Disp** column.
- Click **OK** to confirm the change and close the dialog.

To create partially exposed rafter tails



1. **Open**  the plan file in which you would like to create exposed rafter tails.

Note: The following steps assume that you have not yet created roof planes. If your plan already has a roof built, Group Select all of the roof planes that will have exposed rafters and complete the steps described in the Roof Plane Specification instead of the Build Roof dialog.

2. Select **Build> Roof> Build Roof**  and in the **Build Roof** dialog:

- On the **Roof** panel, check the **Build Roof Planes** box.

Properties associated with a birdsmouth cut can also be adjusted on this panel. For more information, click the Help button located at the bottom of the dialog to open your program's documentation.

- On the **STRUCTURE** panel:
 - Check **Build Roof Framing**
 - Remove the check from **Trim Framing to Soffits**
 - Check **Soffits**

- Specify the desired **Fascia** and **Sub Fascia Depths**.

Build Roof

Roof Options

- ☐ Automatically Build Roof Framing
- ☐ Use Framing Reference

Roof Structure

- ☒ Build Roof Framing
- ☒ Angled Dormer Hole
- ☐ Trim Framing To Soffits
- Rafter Spacing: 24" On Center
- Maximum Lookout Spacing: 48" On Center
- Blocking Style: ☐ Vertical ☐ Cross/Bridging ☐ Stagger ☒ In Line

Roof Layers

- Surface: 5/8"
- Structure: 9 1/4"
- Ceiling: N/A ☒ Use Room Ceiling Finish
- ☒ Soffits: 3/8" ☐ Flat Under Eave Sub Fascia

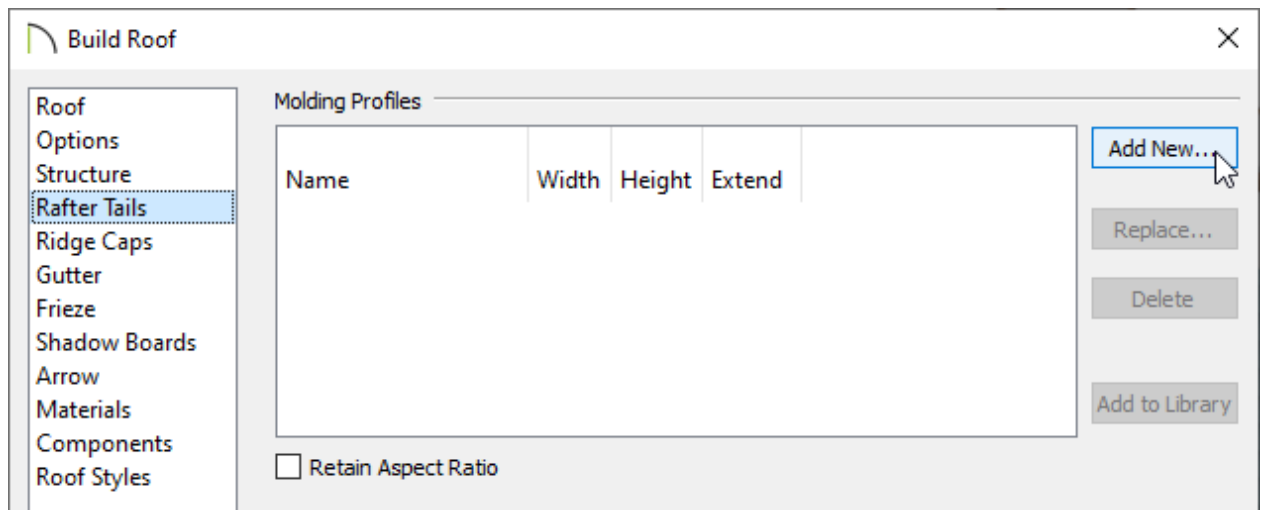
Roof Size



| | Width | Depth |
|--|--------|--------------------------------|
| Rafter: | 1 1/2" | X Determined by Roof Structure |
| Ridge: | 1 1/2" | X 11 1/4" |
| <input checked="" type="checkbox"/> Lookout: | 3 1/2" | X 1 1/2" |
| Gable Sub Fascia: | 1 1/2" | X 3" |
| <input checked="" type="checkbox"/> Eave Sub Fascia: | 1 1/2" | X 2" |
| <input checked="" type="checkbox"/> Gable Fascia: | 3/4" | X 7 1/4" |
| <input checked="" type="checkbox"/> Eave Fascia: | 3/4" | X 2 1/2" |
| Blocking: | 1 1/2" | X 5 1/2" |

For this example, the Gable Sub Fascia Depth is set to 3", the Eave Sub Fascia Depth is set to 2", and the Eave Fascia Depth is set to 2 1/2".

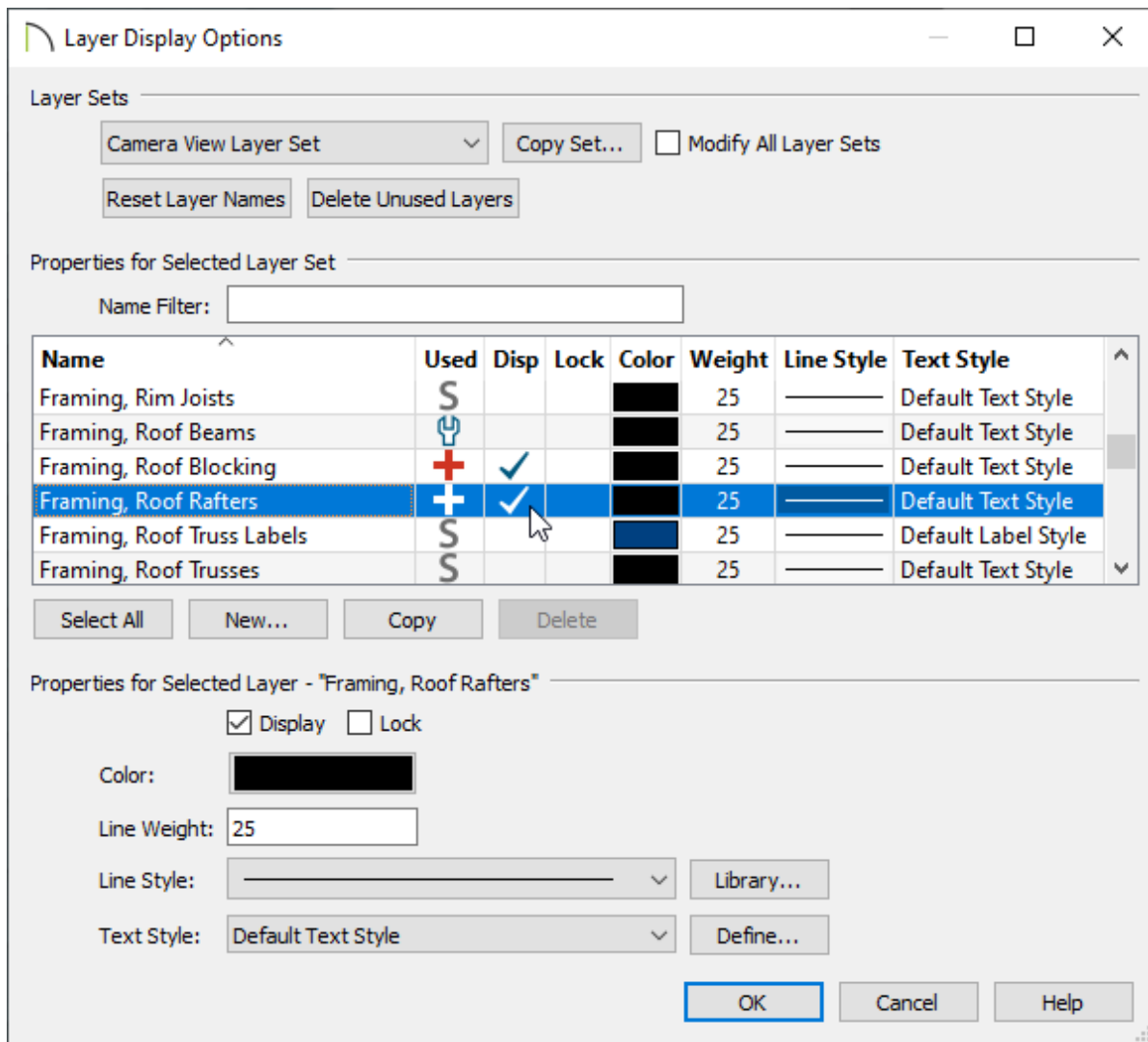
The Soffit height is determined by the depth of the Gable Sub Fascia.

- If a decorative rafter end is going to be used, select the **RAFTER TAILS** panel and click **Add New** to browse the library for a suitable rafter tail profile.



- Click **OK** to accept the changes and close the dialog.
3. If a Question dialog appears, click **Yes** if you want to see the rafters displayed in the plan view, or click **No** if you don't want to see the rafters in the plan view.
 4. Select **3D> Create Perspective View> Perspective Full Overview**  to create a 3D view of the structure.
 5. Framing layers are not displayed in this type of camera view by default. To turn on roof rafters, select **Tools> Layer Settings> Display Options**  and in the **Layer Display Options** dialog that opens:

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- Verify that the correct Layer Set is selected.

In this example, the Camera View Layer Set is selected, which is the default for the Perspective Full Overview tool.


- Locate the **Framing, Roof Rafters** layer and place a check in the **Disp** column.
- Click **OK** to confirm the change and close the dialog.

Related Articles

- 🔗 [Creating a Beam or Joist with a Decorative End \(/support/article/KB-00894/creating-a-beam-or-joist-with-a-decorative-end.html\)](/support/article/KB-00894/creating-a-beam-or-joist-with-a-decorative-end.html)
- 🔗 [Generating Automatic Hip and Gable Roofs \(/support/article/KB-00758/generating-automatic-hip-and-gable-roofs.html\)](/support/article/KB-00758/generating-automatic-hip-and-gable-roofs.html)
- 🔗 [Manually Drawing Framing Members \(/support/article/KB-00727/manually-drawing-framing-members.html\)](/support/article/KB-00727/manually-drawing-framing-members.html)



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