Creating Exposed Rafter Tails

Reference Number: **KB-00488** Last Modified: **June 7, 2024**

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
- <u>To create partially exposed rafter tails</u>

This article assumes you have already specified your Roof Framing Defaults, but you have not yet created roof planes. If your plan already has a roof built and Auto Rebuild Roofs is disabled, group select all of the roof planes that will have exposed rafters and complete the steps described below in the Roof Plane Specification instead of the Build Roof dialog.

To create fully exposed rafter tails



1. In your desired plan select **Build> Roof> Build Roof** and in the **Build Roof** dialog that displays:

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

Heel height/birdsmouth cut properties 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 **S**TRUCTURE panel:
 - Check **Build Roof Framing**.
 - Remove the check from **Soffits**.
 - Remove the check from **Eave Sub Fascia**.
 - Remove the check from Gable Fascia or Eave Fascia. Unchecking one will also uncheck the other.

Roof	Automatically Build R	oof Framing			
Options		-			
Structure	Use Framing Referenc	e			
Rafter Tails	Roof				
Ridge Caps			n	Roof Fram	
Gutter		_	the second second to		
rieze			🗹 Angle	d Dormer	Hole
Shadow Boards Arrow			🗹 Trim F	raming To	Soffits
Materials	Rafter/Truss Spacir	ng:	24"		On Center
Components Roof Styles	Maximum Lookou	it Spacing:	48"		On Center
	Blocking Style:		U Vertica		ss/Bridging 🔘 Stagger 🧿 In Line
	Roof Layers				
			E /01	E .C.	
	Surface:		5/8"	Edit	
	Structure:		9 1/4"	Edit	
	Ceiling:		N/A	Edit	🛛 🗹 Use Room Ceiling Finish
	Soffits:		3/8"		Flat Under Eave Sub Fascia
	Roof Size				
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		width	Depth	iype	
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	Rafter/Truss:	1 1/2"			of Structure
	🕑 Ridge:	1 1/2"	11 1/4"	Lum	ber
	 Ridge: Lookout: 	1 1/2" 3 1/2"	11 1/4" 1 1/2"	Lum	ber ber
	 Ridge: Lookout: Gable Sub Fascia: 	1 1/2" 3 1/2" 1 1/2"	11 1/4" 1 1/2" 5 1/2"	Lum Lum Lum	ber ber ber
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	 ✓ Ridge: ✓ Lookout: Gable Sub Fascia: — Eave Sub 	1 1/2" 3 1/2" 1 1/2" 1 1/2"	11 1/4" 1 1/2" 5 1/2" 5 1/2"	Lum Lum Lum	ber ber ber

• 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	Molding Profile	25			
Options					Add New
Structure	Name	Width	Height	Extend	2
Rafter Tails					Replace
Ridge Caps					
Gutter					Delete
Frieze					Add to Library
Shadow Boards					Add to Eibrary
Arrow	Retain Aspe	ct Ratio			

• Click **OK** to close the dialog and generate the roof.

Note: 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.

- Select **3D> Create Perspective View> Perspective Full Overview** to create a 3D view of the structure.
- 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 or off. For more information, please watch <u>Video 5302</u>: Active Layer Display Options Side Window (<u>https://www.chiefarchitect.com/videos/watch/5302/active-layer-display-options-side-window.html?playlist=100</u>).

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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.

To create partially exposed rafter tails



- 1. In your desired plan select **Build> Roof> Build Roof** and in the **Build Roof** dialog that displays:
 - On the ROOF panel, check the **Build Roof Planes** box.

Heel height/birdsmouth cut properties 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 **S**TRUCTURE panel:
 - Check Build Roof Framing.
 - Remove the check from Trim Framing to Soffits.
 - Check **Soffits**.
 - Check and specify the **Fascia** and **Sub Fascia Depths**, if desired.

In 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", though these will likely vary for your roof, depending on what you want to show.

Build Roof										
Roof	Automatically Build R	oof Framing								
Options Structure	Use Framing Reference									
Rafter Tails	B (
Ridge Caps	Roof									
Gutter		_	Build Ro	pof Framing						
Frieze			Angled	Dormer Hole						
Shadow Boards Arrow		-	Trim Fra	ming To Soffits						
Materials	Rafter/Truss Spacir	ng:	24"	On Center						
Components	Maximum Lookou	t Spacing:	48"	On Center						
Roof Styles			Vertical	○ Cross/Bridging ○ Stagger ○ In Line						
	Blocking Style:									
	Roof Layers									
	Surface:		5/8"	Edit						
			_							
	Structure:		9 1/4"	Edit						
	Ceiling:		N/A	Edit 🛛 🕑 Use Room Ceiling Finish						
-			3/8"	□ Flat Under Eave Sub Fascia						
+	D (C)		-							
	Roof Size									
		Width	Depth	Туре						
	Rafter/Truss:	1 1/2"	Determine	d by Roof Structure						
	🕗 Ridge:	1 1/2"	11 1/4"	Lumber						
	Lookout:	3 1/2"	1 1/2"	Lumber						
	Gable Sub Fascia:		3" 🔶 Lumber							
	Eave Sub	1 1/2"	2" 🔸	Lumber						
	Gable Fascia:		7 1/4"							
	Eave Fascia:	3/4"	2 1/2" 🔫							
	Blocking:	1 1/2"	5 1/2"	Lumber						
	Shoe Plate:	1 1/2"	5 1/2"	Lumber						

The Soffit height, along with its elevation, 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.

Build Roof					×
Roof	Molding Profile	s			
Options					Add New
Structure	Name	Width	Height	Extend	1 and 1
Rafter Tails					Replace
Ridge Caps					
Gutter					Delete
Frieze					Add to Library
Shadow Boards					Add to Library
Arrow	Retain Aspe	ct Ratio			

• Click **OK** to confirm the changes and close the dialog.

Note: 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.

- Select **3D> Create Perspective View> Perspective Full Overview** to create a 3D view of the structure.
- 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-abeam-or-joist-with-a-decorative-end.html)
- Creating Roof Trusses (/support/article/KB-00981/creating-roof-trusses.html)

- General Framing Guidelines (/support/article/KB-00465/general-framingguidelines.html)
- Generating Automatic Hip and Gable Roofs (/support/article/KB-00758/generatingautomatic-hip-and-gable-roofs.html)
- d Group Selecting Objects (/support/article/KB-00623/group-selecting-objects.html)
- Manually Drawing Framing Members (/support/article/KB-00727/manually-drawingframing-members.html)

