

Appendix E – Overhang Framing Installation

Last updated 2/21/2013

1. Prepare columns, rafters, and sidewall overhang outriggers for installation

If installing sidewall overhangs, at each sidewall column where the outrigger exists, you will need to modify your sidewall columns and rafters so that your sidewall overhang outrigger will be able to be installed. All modifications must conform to the engineering plans.

First, you will need to cut the top of the column so that the top of the column matches the slope of the top of the rafter. Take care that you do not cut the haunch bracket.

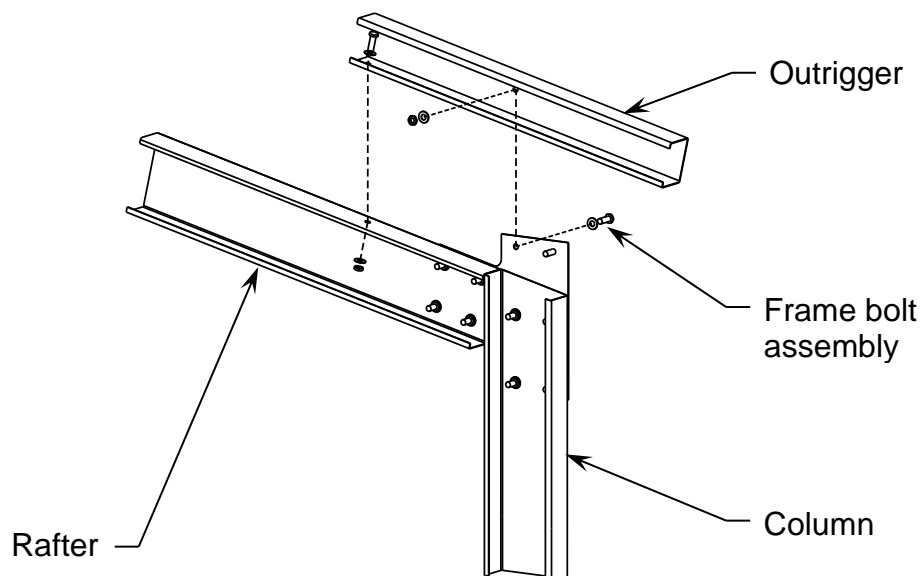
Then, you will need to make sure that the outriggers and the rafters have all required bolt holes. If the pieces did not come pre-punched, they will need to be drilled on site. The outriggers will require holes to match where it will connect to the haunch bracket. They will also require a hole at the upper end of the outrigger in the bottom flange where it will connect to the rafter. The rafter will require a hole on the top flange, where it will connect to the outrigger. All holes must conform to the details shown on the engineering plans.

It is recommended that all coping and drilling is done while the pieces are still on the ground, and not after the columns and rafters have been installed.

2. Install the outrigger

The outrigger can now be installed to the column and rafter. It will need to attach on one end to the haunch bracket with frame bolts. On the top end, it will attach to the top of the rafter. Please see the engineering plans for exact attachment requirements.

The below illustration shows the outrigger installation for a single rafter. On a double-rafter, two outriggers will be installed, one on each rafter.



3. Install eave purlins between outriggers

After installing the outriggers on each side of a bay, you can install the eave purlins between the outriggers. Each sidewall with an overhang will have two eave purlins per bay, a typical eave purlin that is at the top of the wall sheeting, and an overhang eave purlin, that is installed at the end of the outrigger.

Note that the eave purlins can either be CEE sections or eave struts. In the below illustration, a CEE section is shown, but an eave strut is installed the same way. The main difference is that when eave struts are used, the front of the overhang will be vertical, while the front of an overhang with CEE section eave purlins will be at an angle that is perpendicular to the roof pitch.

Eave purlins are installed between the outriggers, from the web of one outrigger to the other. The eave purlins are attached to the outriggers using purlin clips and framing tek screws as shown in the illustration below. For exact details on installation requirements, please refer to your engineering plans.

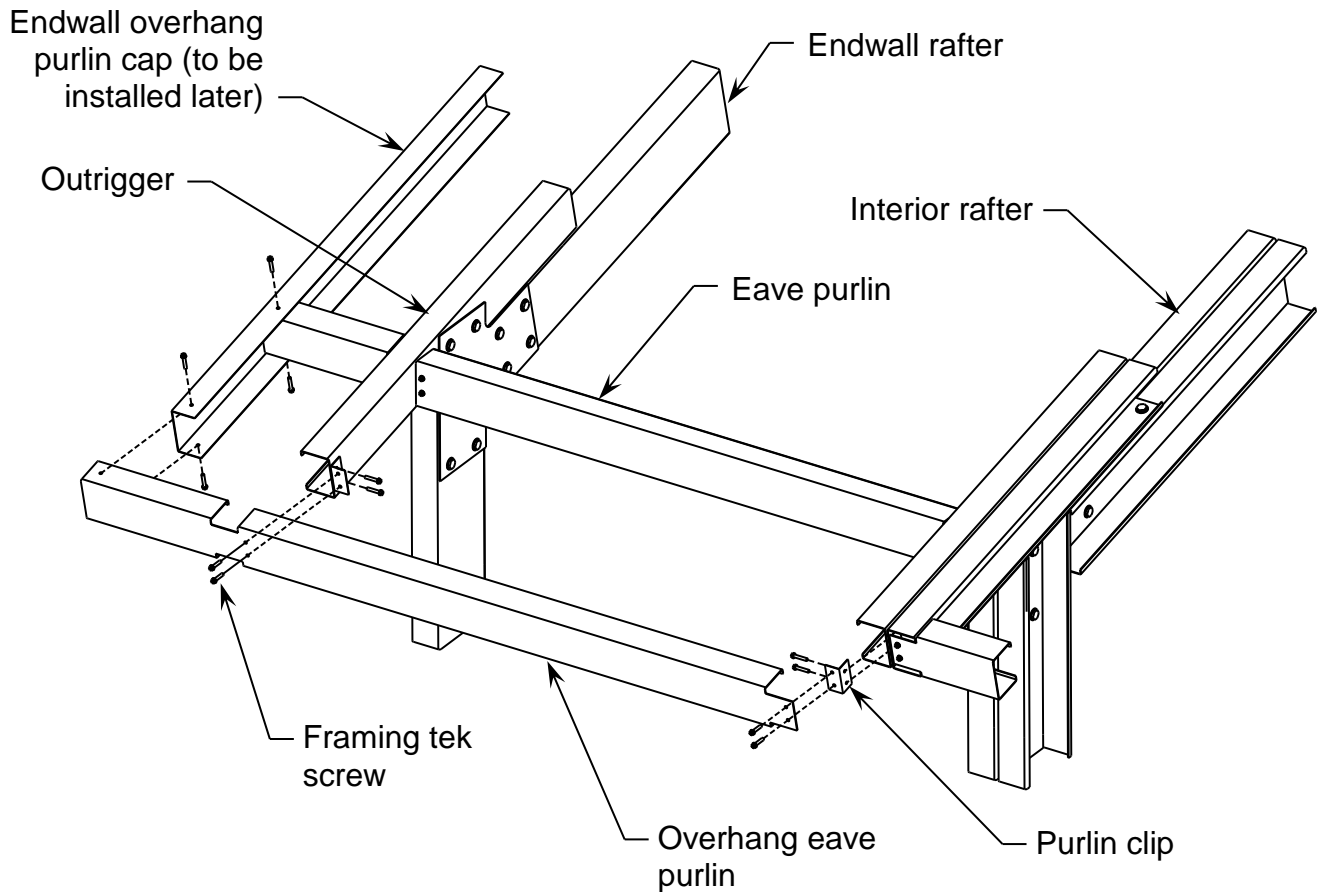
Note that the eave purlin must always attach to the web of the outrigger. Thus, in some cases you will need to cope the flanges of the eave strut so that it can correctly attach to the web of the outrigger. This will occur when an eave purlin attaches to any open CEE on a single frame, or at any double frame.

The illustration below displays not only the typical eave purlin installation, but the installation of an eave purlin when an endwall overhang is also present. Notice how the typical eave purlin is cut at the outrigger, but the overhang eave purlin runs all the way to the endwall overhang purlin cap, with coping so that it can be installed to the end of the outrigger on the endwall rafter.

In the illustration below, the endwall overhang purlin cap is shown as already installed. However, based on the order that you decide to install your building, you may do this later. Whenever both the eave purlins and the endwall overhang purlin cap are installed, the eave purlins will need to be secured with screws into the top and bottom flanges, as shown below.

Finally, on some buildings with large sidewall overhangs, a purlin may fall in the outrigger area. This is not shown in the illustration below. If this is required on your building, it will be indicated on your order, with a usage of "Purlin in Outrigger." Those purlins will need to be installed to the outrigger in the same manner as the typical eave purlins, with clips and framing tek screws. Coping of the purlins will be required.

Please see the following page for an illustration of the eave purlins.



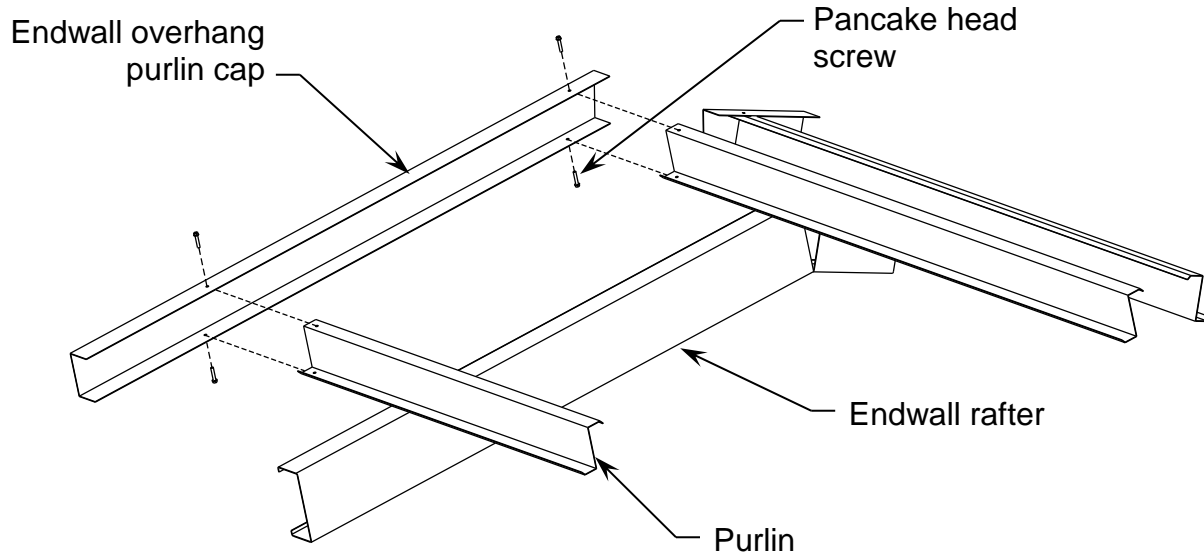
4. Install Endwall Overhang Purlin Cap

At this point, you should have your eave purlins and typical purlins installed. If installing an endwall overhang, the purlins will extend past the edge of the building by the size of the overhang.

After the purlins are installed, the endwall overhang eave purlin cap (which is also shown above) will need to be installed. Simply slide the cap over the ends of the purlins, and secure with one pancake head screw into the top and bottom flanges.

Note that you will need to plumb cut the endwall overhang purlin cap at the peak of the building to ensure a tight connection

Please see the illustration on the following page for an example of the purlins extending past the edge of the endwall, and the cap installed over the ends of the purlins.



Once the eave purlins, purlins, and endwall overhang purlin cap are installed, the framing portion of overhang will be complete.

Below is an illustration of the completed overhang framing when both a sidewall and endwall overhang exist on the building.

