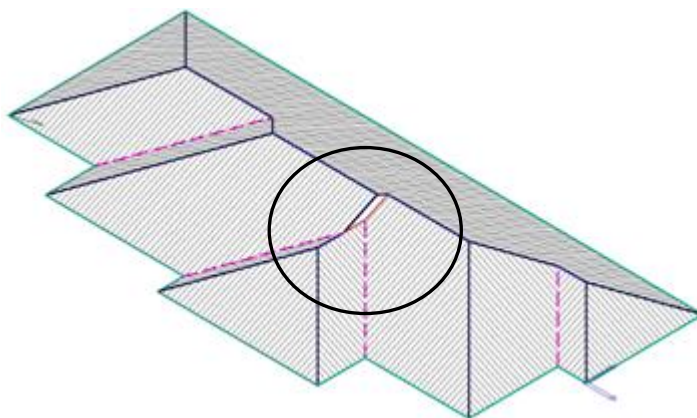




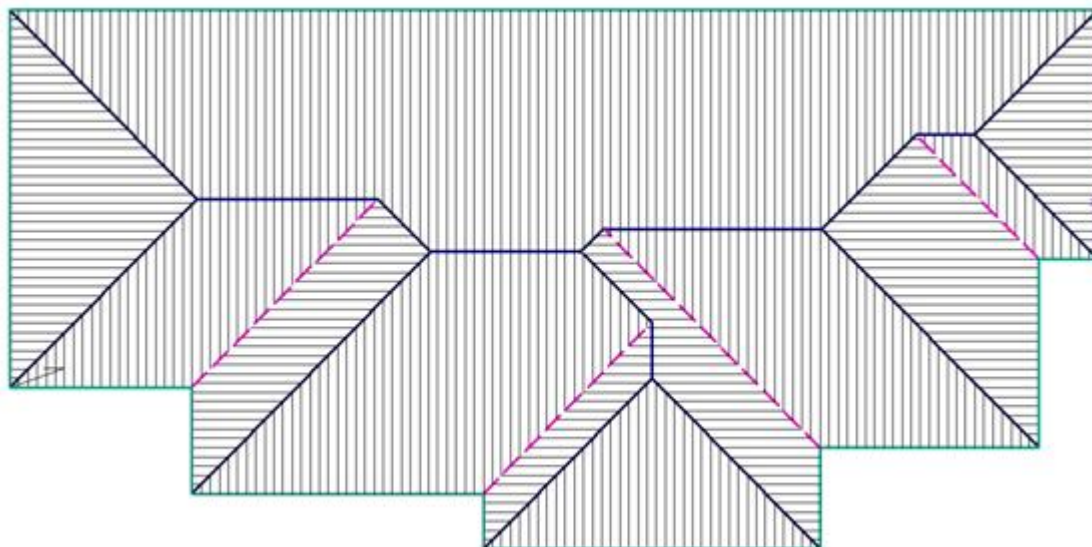
## Tips and Tricks # 35

### Mid Roof Gable

**Objective:** This exercise is to show how to use the **Construct Roof > Smartlines** tools to draw the required geometry for a dormer in the middle of the roof. Once complete, the model may be used as normal to check the roof geometry and apply materials to determine quantities. It is assumed that reasonable competence using the software has been attained already as we describe the process, not the specific detail.



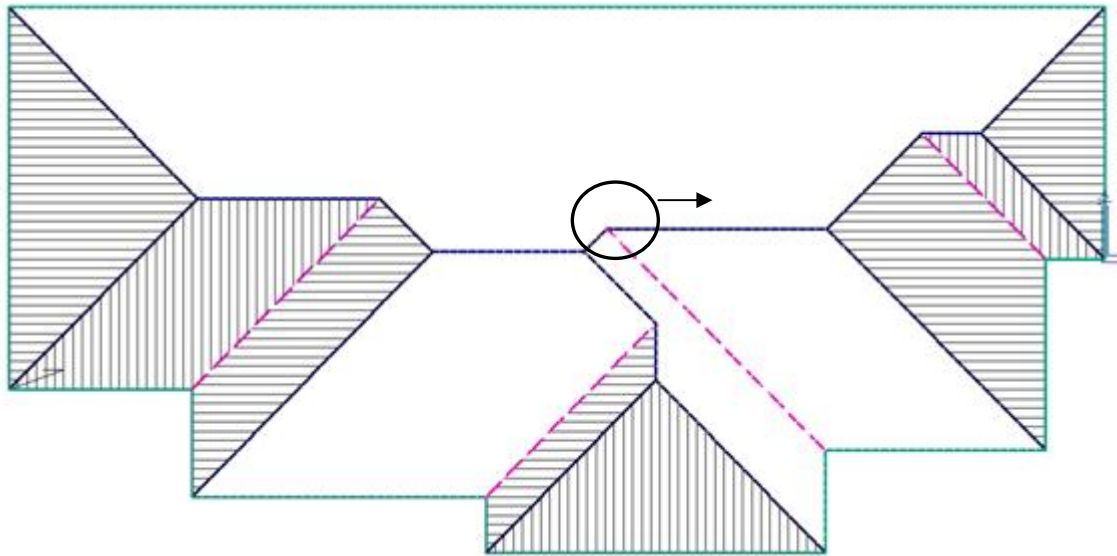
To do the roof, we firstly just draw around the eave perimeters as per normal. This gives us the following roof shape (select roof pitch and eave over hang as required):



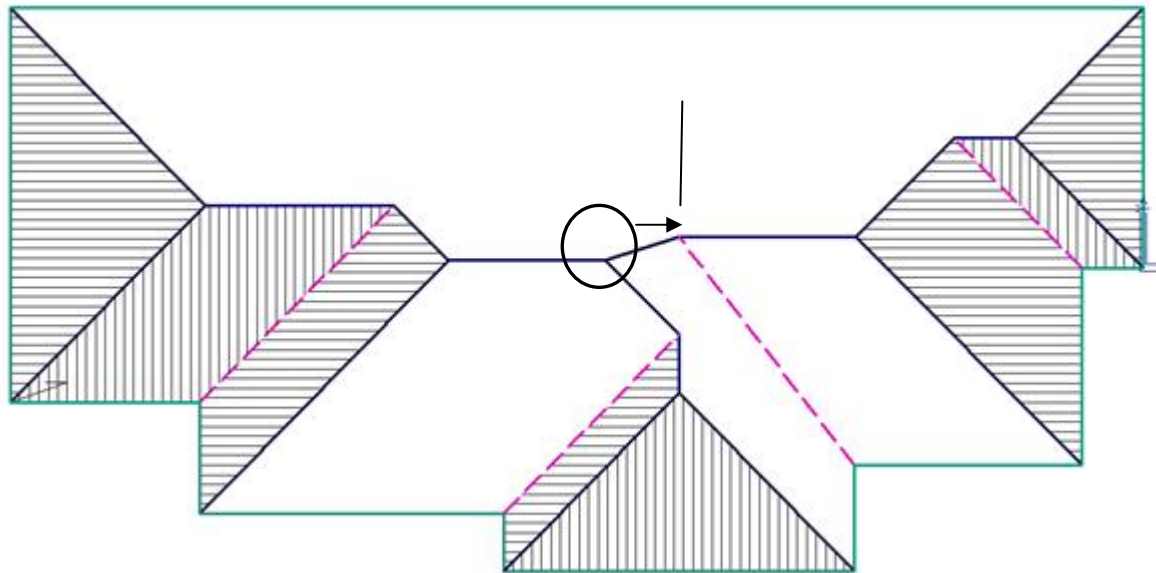
Then, we use **Construct Roof > SmartLines** to modify the internals. We firstly delete the 4 planes that are going to be affected by us modifying the internal line work structure:

# Tips and Tricks

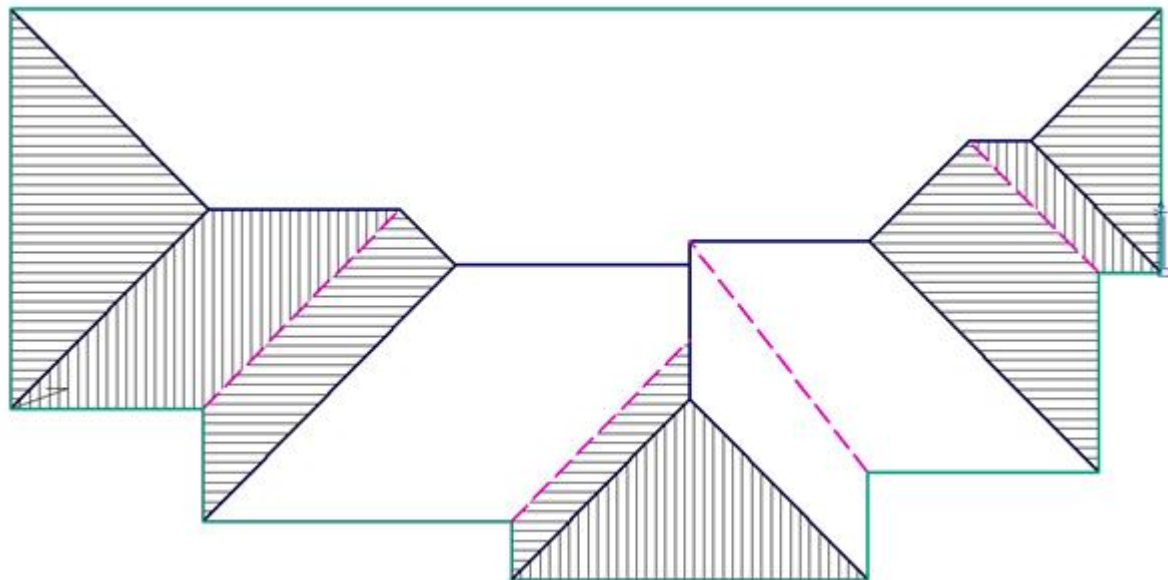
Items drawn from AppliCad's Customer Service file



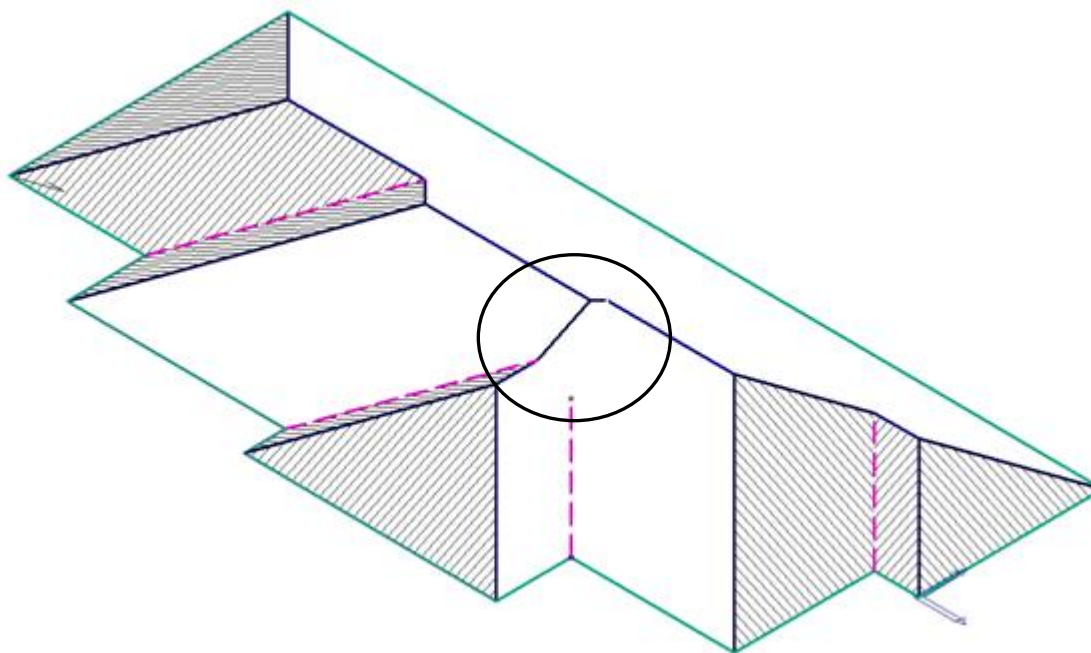
Then, we use the **SmartLines -> Trim-to-ZLine** to trim the line work back to the ridge of the dormer (remember to 'snap' to points with the middle mouse button to ensure that you have selected the exact point) :



...and again with the other ridge apex point:



We then delete the Valley, which is clearly incorrect now, and copy a valley from another part of the model, snapping it (using the middle button) to the eave corner. Change to ISO view here so you can see what you are doing with the lines:



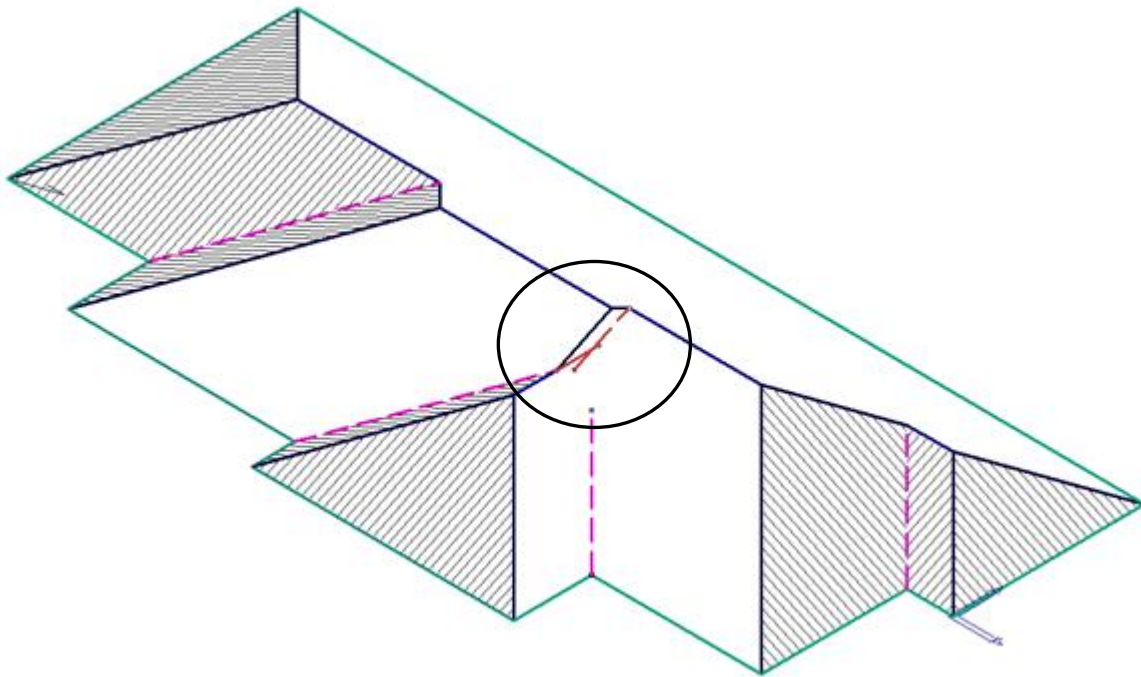
Then, do the same to create the remainder of the underside of the gable end. Now change the line types



to whatever is suitable – for example **Step** or **Apron (roof to wall)**:

# Tips and Tricks

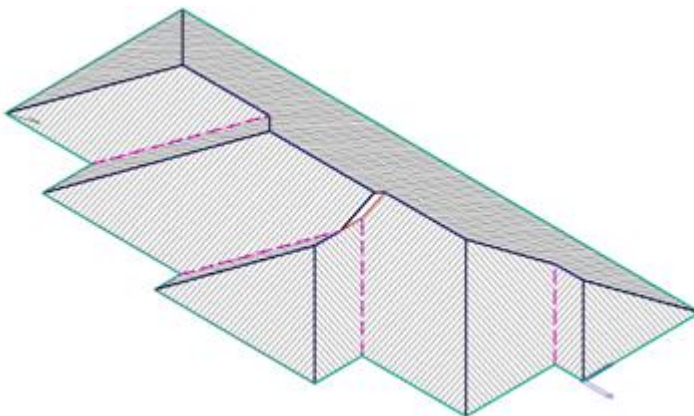
Items drawn from AppliCad's Customer Service file



Then, trim up the lines using the **Trim to Corner** tool

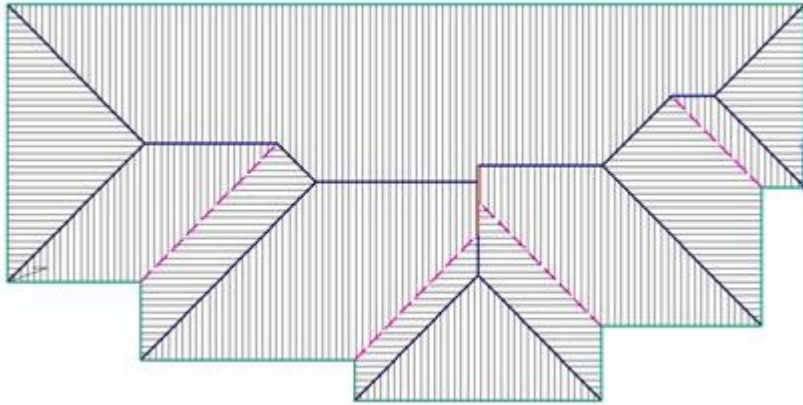


Lastly, re-insert the planes using the **Plane Insert** tool and it's all finished:



# Tips and Tricks

*Items drawn from AppliCad's Customer Service file*



END