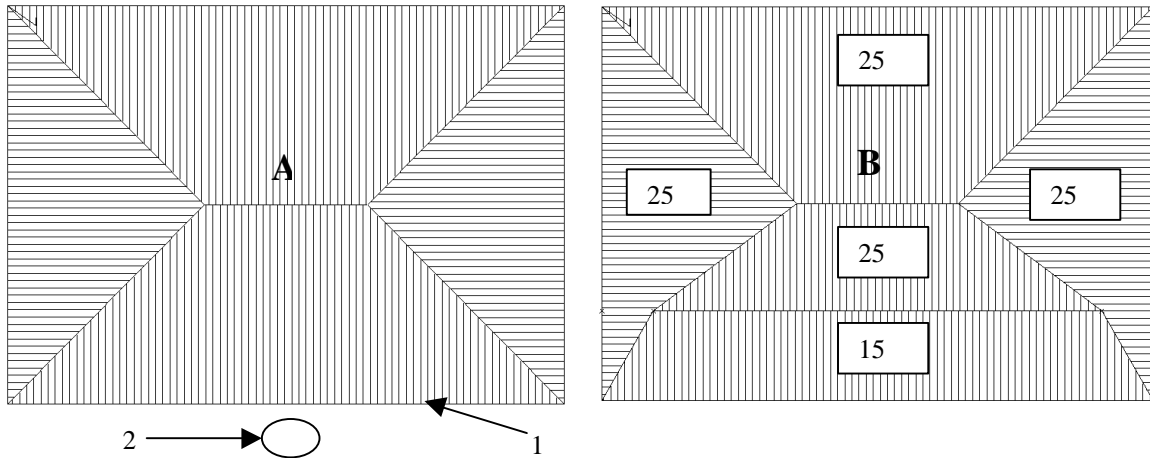1. The first step in obtaining roof B from roof A is to first draw in a Bellcast verandah. This is done by selecting **Gen-Roof | Bellcast**.


2. You will then be asked to select which line you want the verandah to be attached to. Select the line 1 at the front/bottom of the house.
3. You will then be asked to select the next line for the verandah to be placed on. As we only want the verandah on one side of the house right click the mouse.
4. Then click on the screen on the outside of the house in relation to the line you selected as to where you want the verandah to go (**2**).
5. This will then bring up the following dialog box.
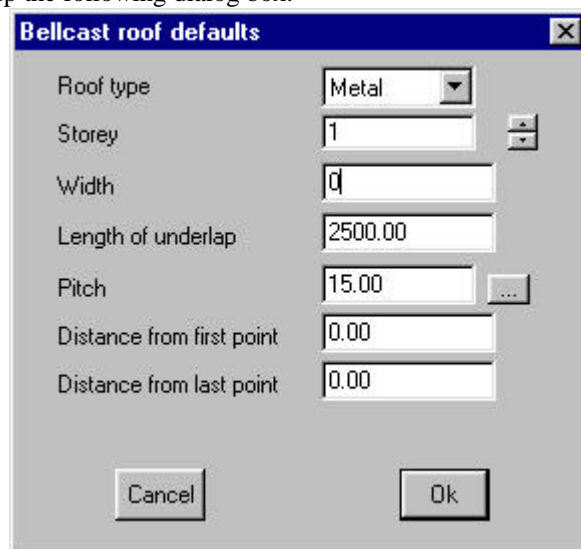
6. Type in the details to match the previous dialog box and then click **Ok**.
7. Your roof should now look similar to the following.
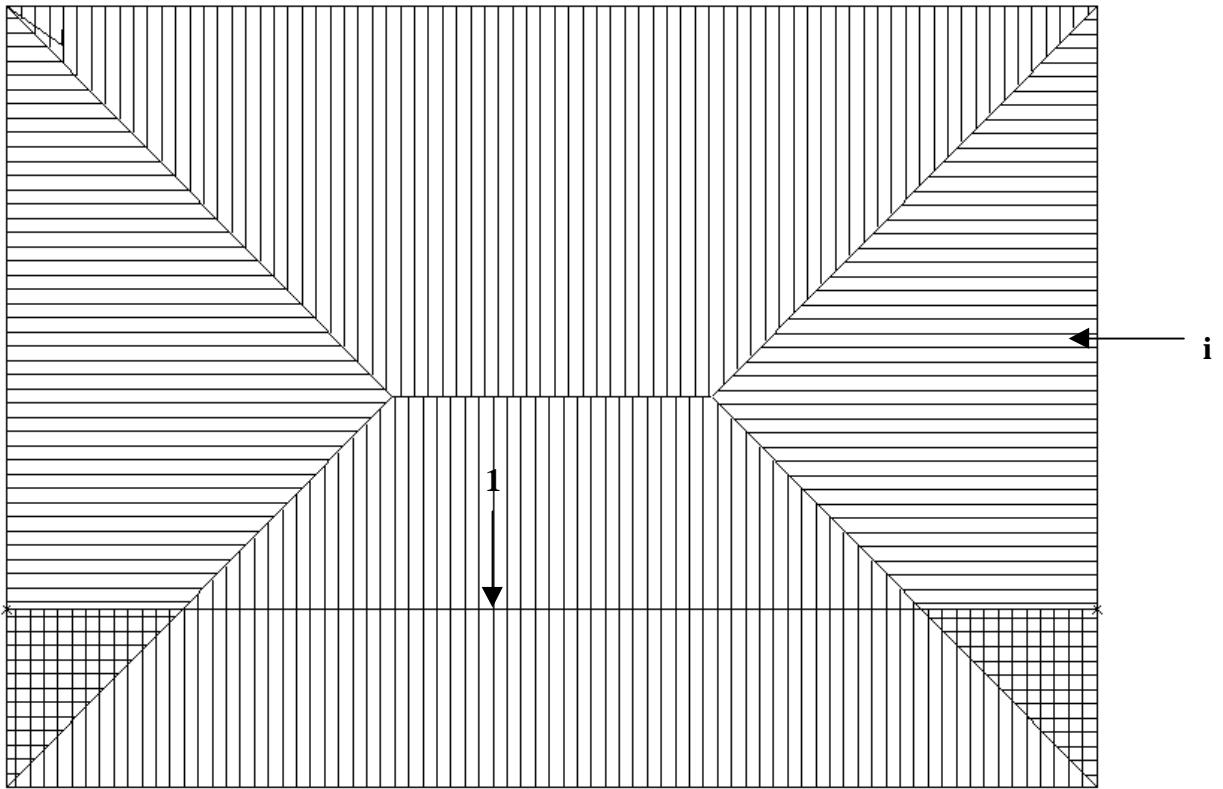
8. The next step is to find out where the bellcast intersects the roof plane.
9. To do this you must select **Mod-Roof | Advanced | Cut-Line | Plane**. Crosshairs will now appear and you will be asked to select the plane that the line intersects. Select the right hand side plane (**i**).
10. You will then be asked to select the line that intersects this plane. Select the top on the verandah (**1**).
11. A point will now be inserted where the line intersects the plane (**A**).
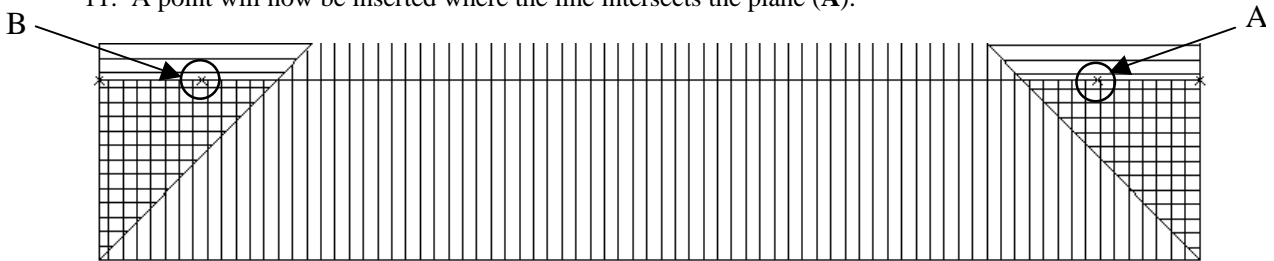
12. Repeat steps 9 – 11 for the left hand side of the roof (**B**). Your drawing should now look like the one above.
13. From here you must delete the four planes that are interwoven. Your drawing should look like this.
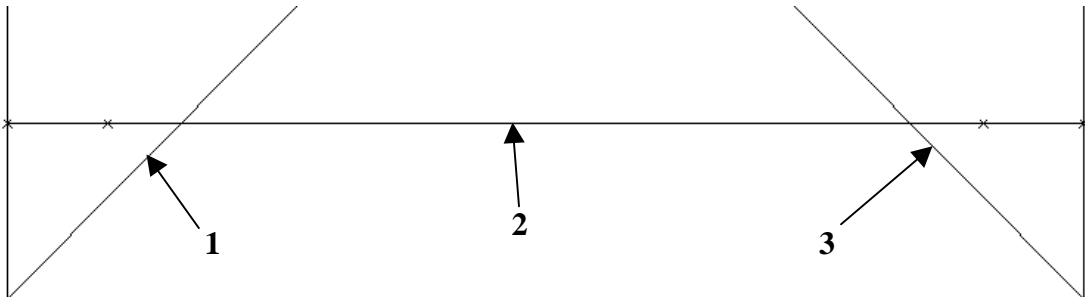
14. Now you should delete lines 1, 2 and 3, on the previous page.
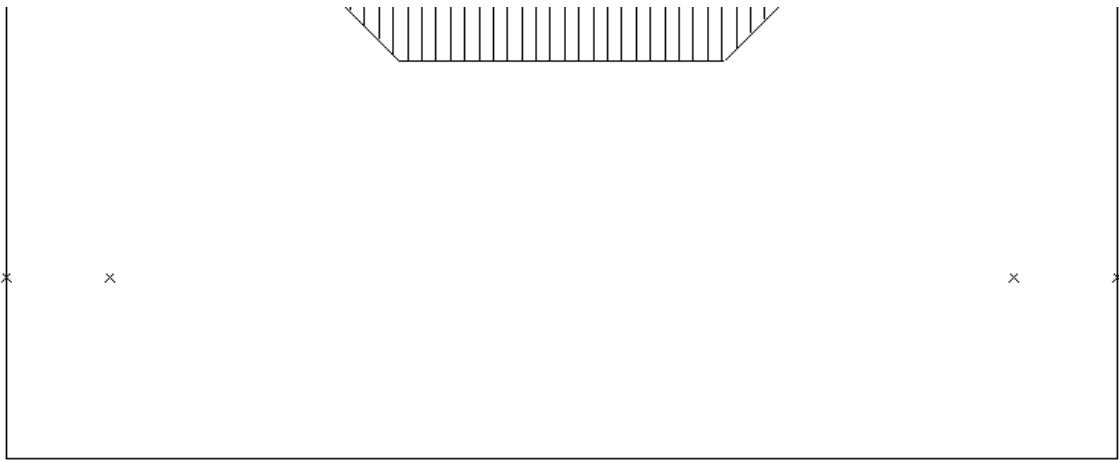
15. Your roof should now look like the one above.
16. From here select **Mod-Roof | Advanced | Ins-Line | Free** and crosshairs will appear.
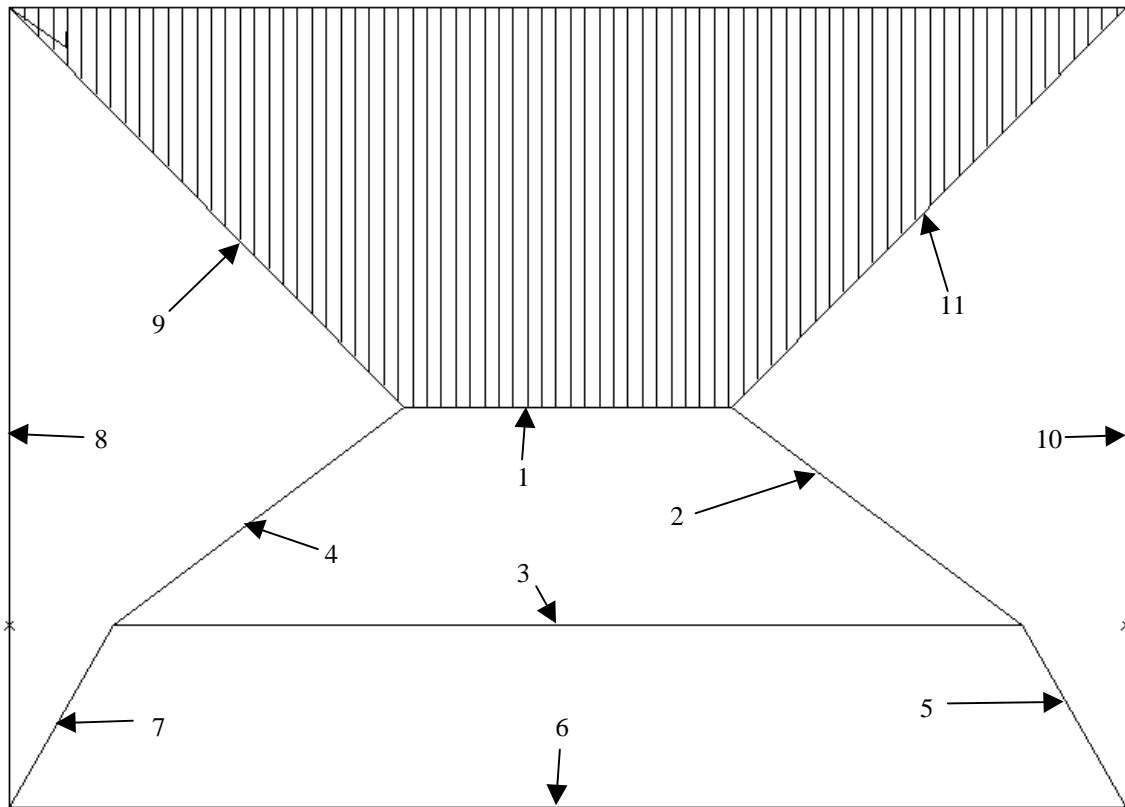17. From here "snap" (middle button or shift, left click) to point A, followed by point B and finally point C.
18. Repeat the same for the other side "snapping to points D, E, and F, and your drawing should look like the following.
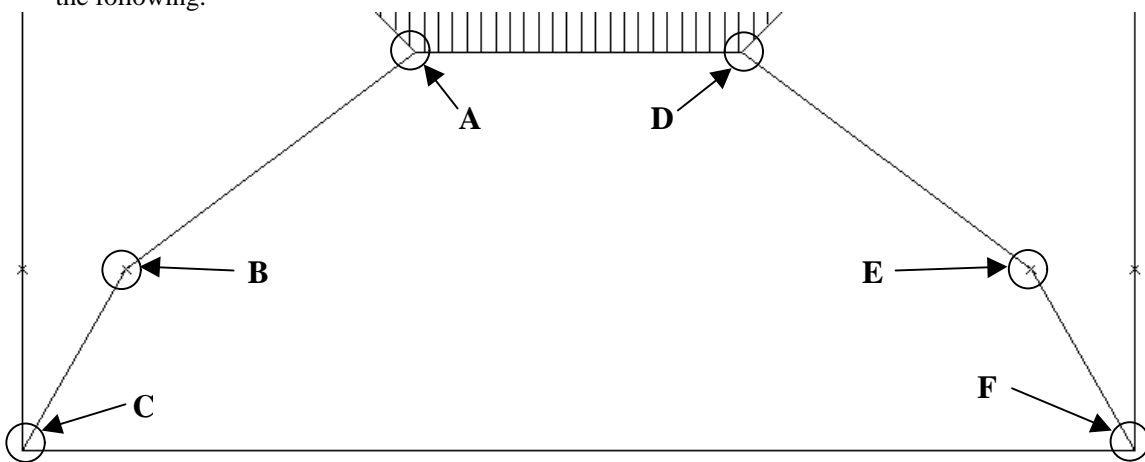
19. Still using the **Mod-Roof | Advanced | Ins-Line | Free** command "snap to point A and then to point B.
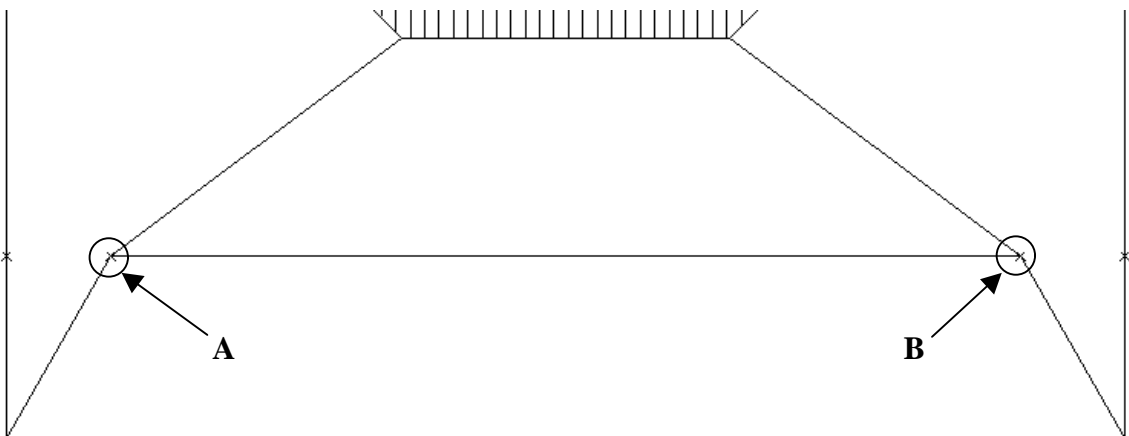
20. With all of the lines now inserted we now have to re-insert the roof planes.
21. To do this select **Mod-Roof | Advanced | Ins-Plane** and yet again crosshairs will appear.
22. From here select the lines bounding each plane. 1, 2, 3 and 4.
23. Lines 3, 5, 6 and 7.
24. Lines 4, 7, 8 and 9
25. And finally lines 2, 5, 10 and 11.
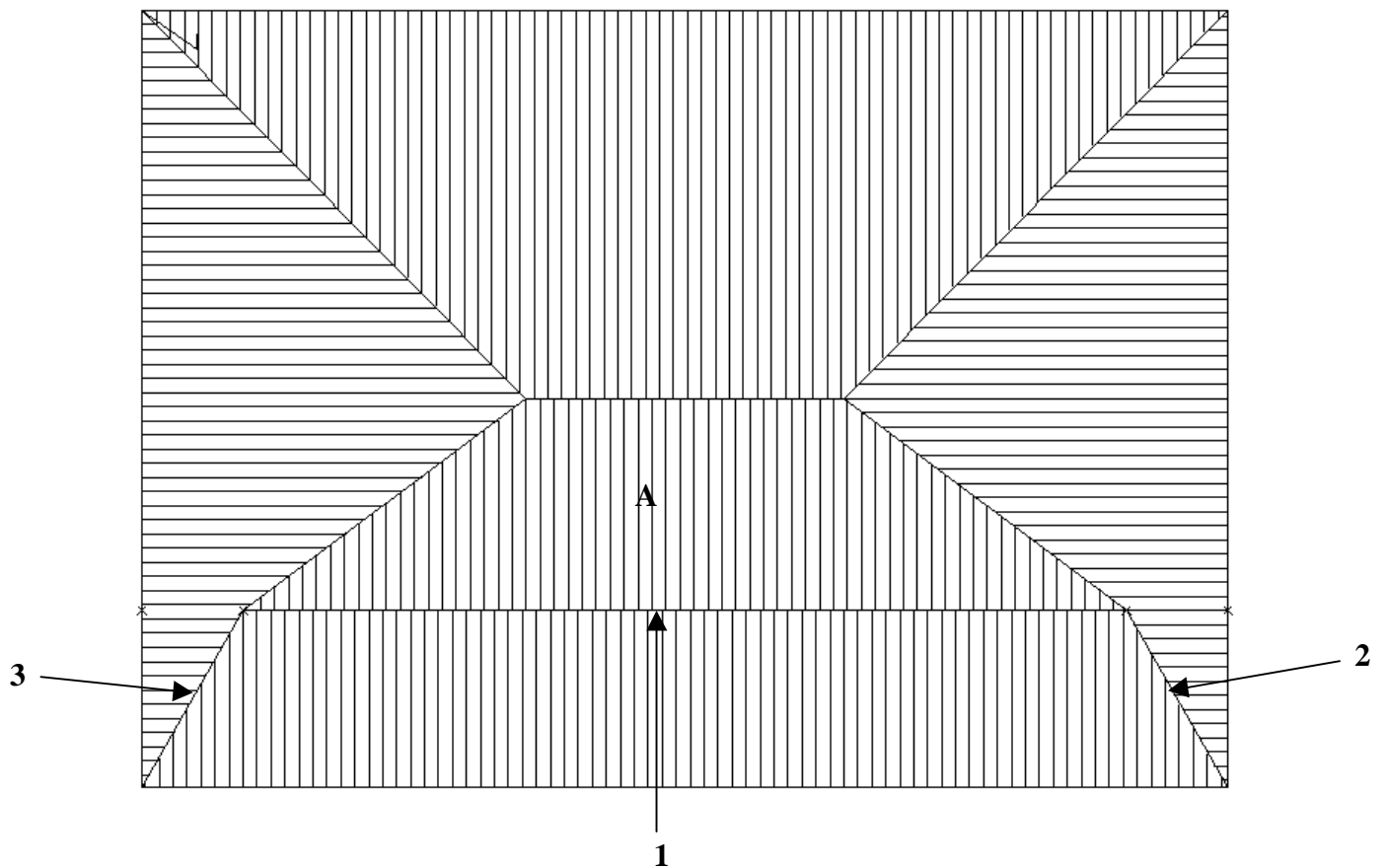
26. The next step is to now change the pitch of plane A to 25.
27. To do this select **Mod-Roof | Change-Pitch**. You will then be asked to select the plane you want to change the pitch of. Select plane A. The dialog box similar to the following will then appear.

28. From here change the pitch to 25 and click   **Ok**.
29. You will then be asked to locate the pitching line from the flashing boundary.
30. Select line 1 and the pitch will be changed to 25.
31. Finally select **Utilities | Cha-LineType | Hip** and select lines 2 and 3, on the previous drawing. Right click and they will be changed to hip lines.

This now completes this roof