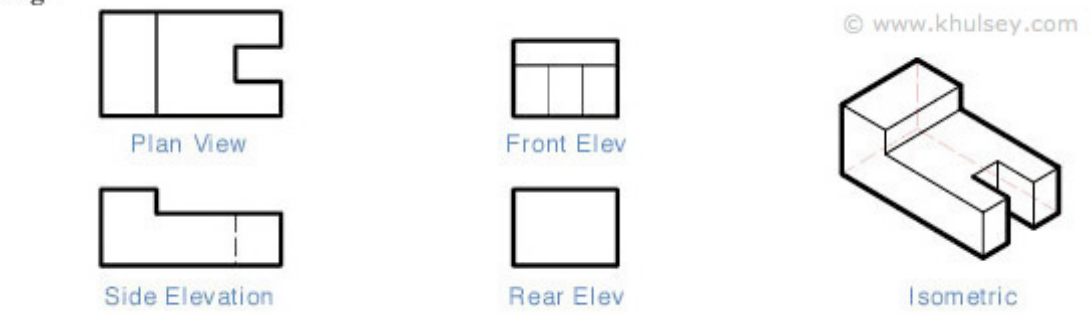
http://www.khulsey.com/perspective_2pt.html

2 Point Perspective Tutorial
Mechanical Drawing Perspective Grid
Lesson in how to map out a 2 pt perspective drawing from plan and elevation views

In this lesson we are going to create a 2 Point Perspective view drawing of our subject working from plan and elevation view reference Fig 1. This type of angle is referred to as a "3/4 Perspective" or "Angular Perspective" view. The green dots in all of the following Perspective Grid diagrams identify the lines to be drawn in the visual example.

Plan And Elevation Views

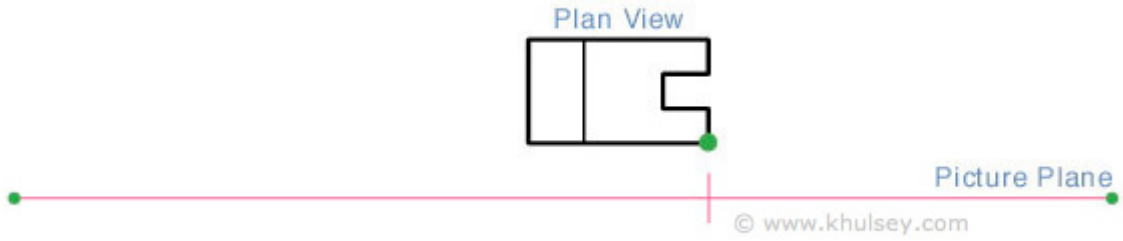
Fig 1



The first line to draw will be the Picture Plane Fig. 2. We will place the lower right corner of our Plan View on the Picture Plane and rotate it clockwise Fig. 3. The choice of 30 degrees is arbitrary, but this positioning provides a good angle for a 3/4 view drawing. The angle chosen should balance factors such as aesthetics and information to be conveyed.

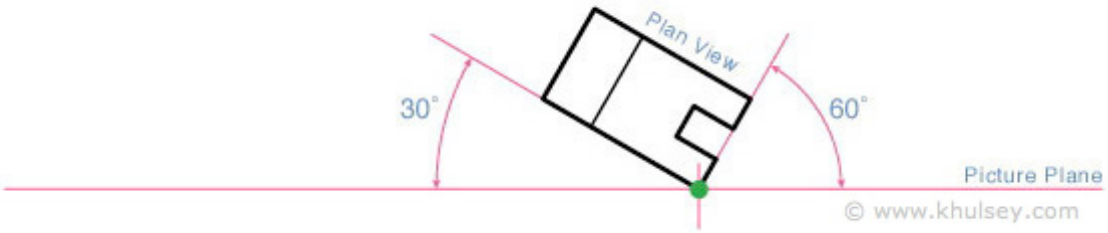
Initial Perspective Grid

Fig 2



Initial Perspective Grid

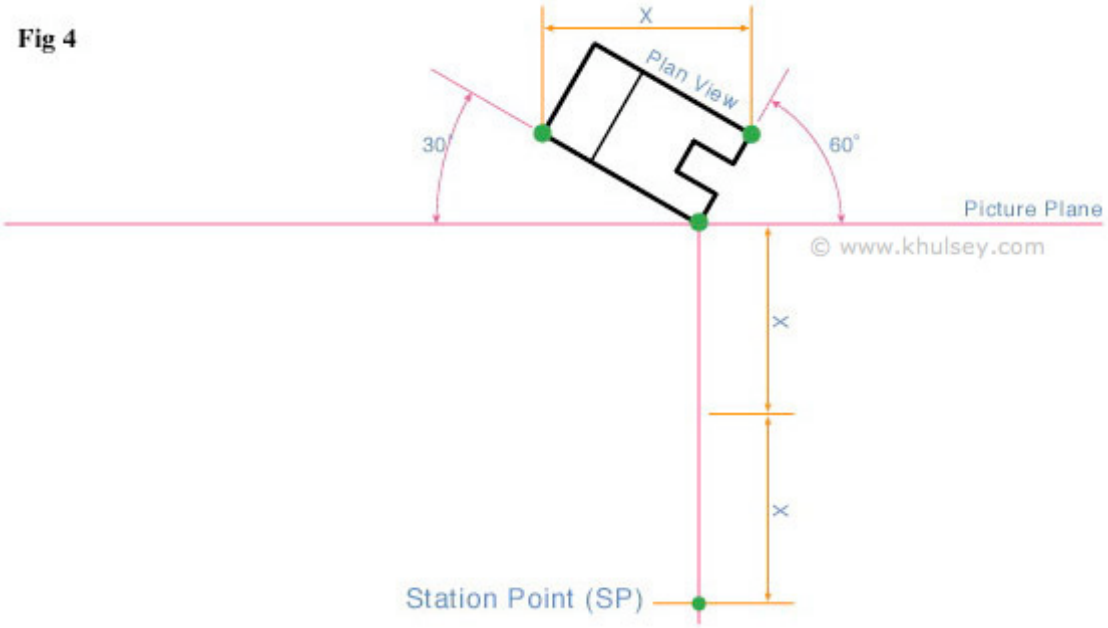
Fig 3



In Fig. 4 we will locate the Station Point. Measure the horizontal width of our Plan View (X) and double it. Extend a vertical line from the corner that touches the Picture Plane downward. At two times X we will locate the Station Point.

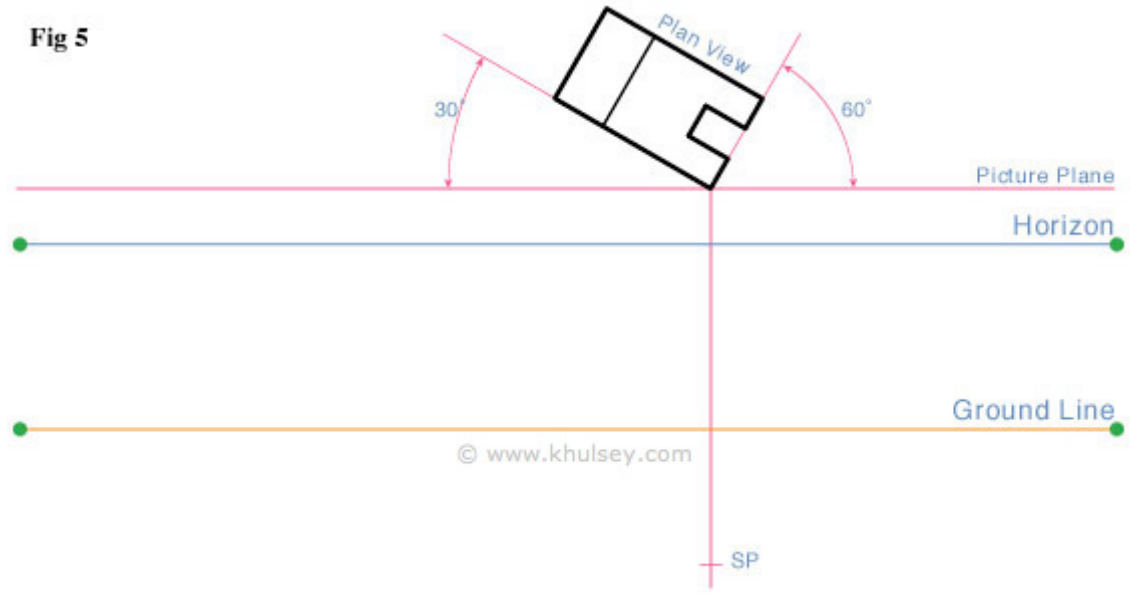
Initial Perspective Grid

Fig 4



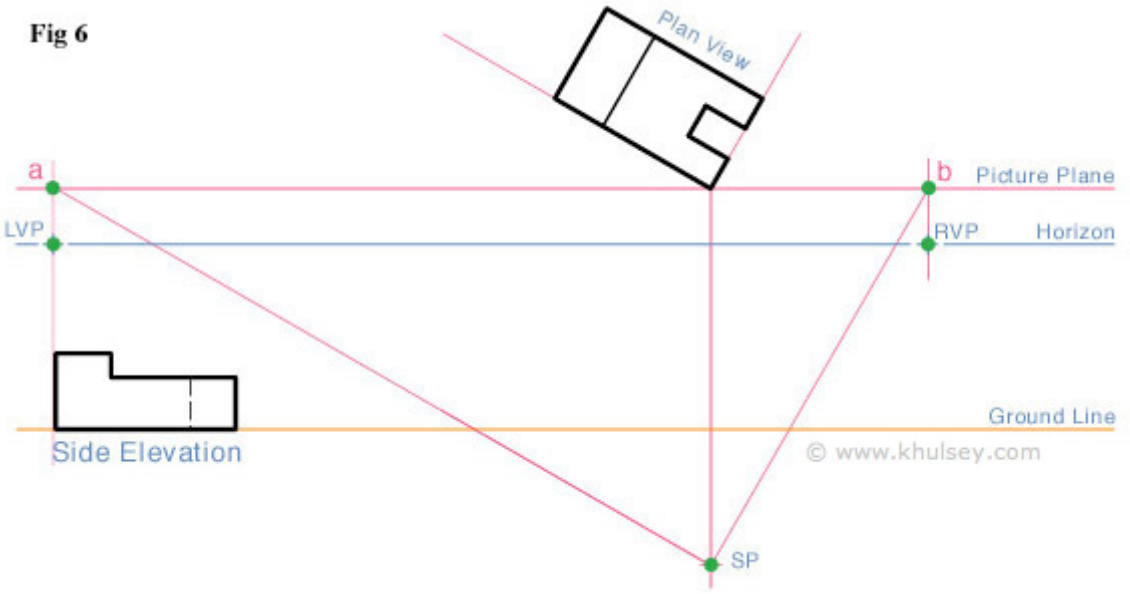
Draw lines for the Horizon and Ground Line Fig. 5. The location of these lines are infinitely variable. The location of the Horizon Line will depend on whether you want to view the object from above eye level or below eye level. The location of the Ground Line in relation to the Horizon Line will determine how far above or below eye level the object will be viewed.

Initial Perspective Grid



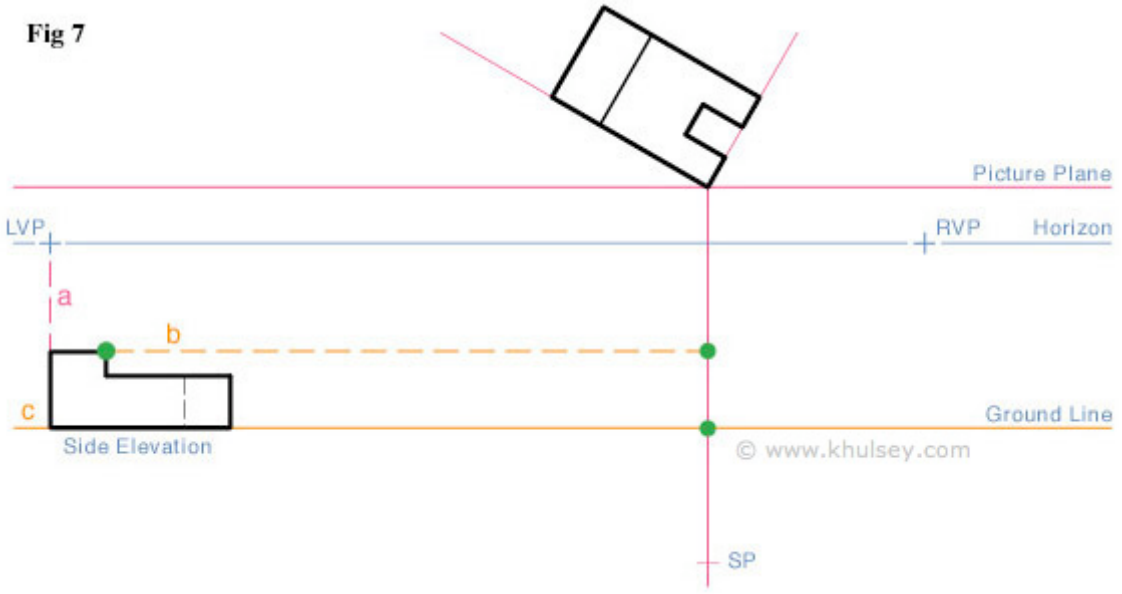
Draw 2 lines from the Station Point (SP) that are parallel to the bottom edges of the Plan View Fig 6. The lines should intersect with the Picture Plane (points a & b). Next draw vertical lines from points a & b to the Horizon Line. The point where these vertical lines intersect the Horizon Line is where the left and right vanishing points (LVP & RVP) will be located.

Initial Perspective Grid



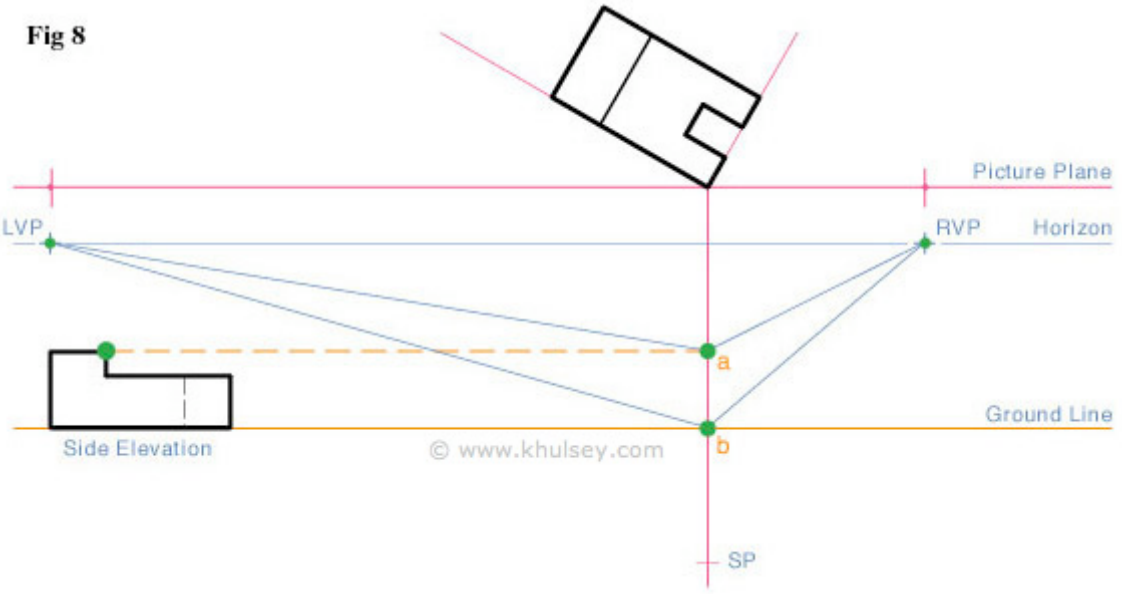
The last part of our preliminary layout will be to place the Side Elevation view from Fig. 1 onto the Ground Line. Project a line (orange dashed line b) from the top of the Elevation View to the vertical Line Of Sight (LS) Fig. 7.

Initial Perspective Grid



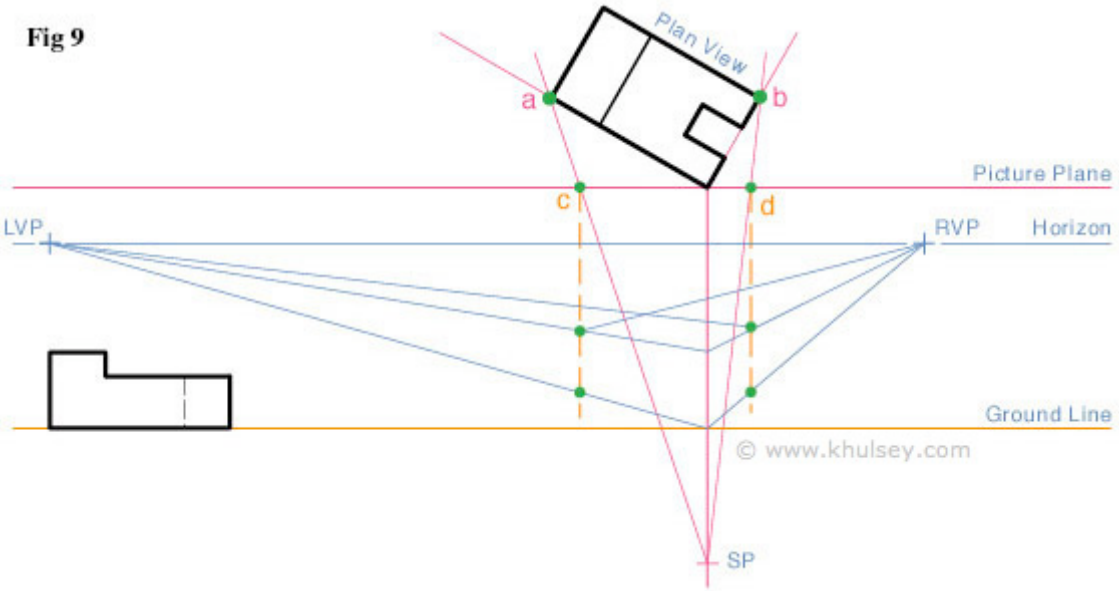
We are now ready to start projecting lines to the vanishing points. Referring to Fig. 8, draw lines from both vanishing points (LVP & RVP) to the top and bottom reference points of our subject (points a & b).

Vanishing Points



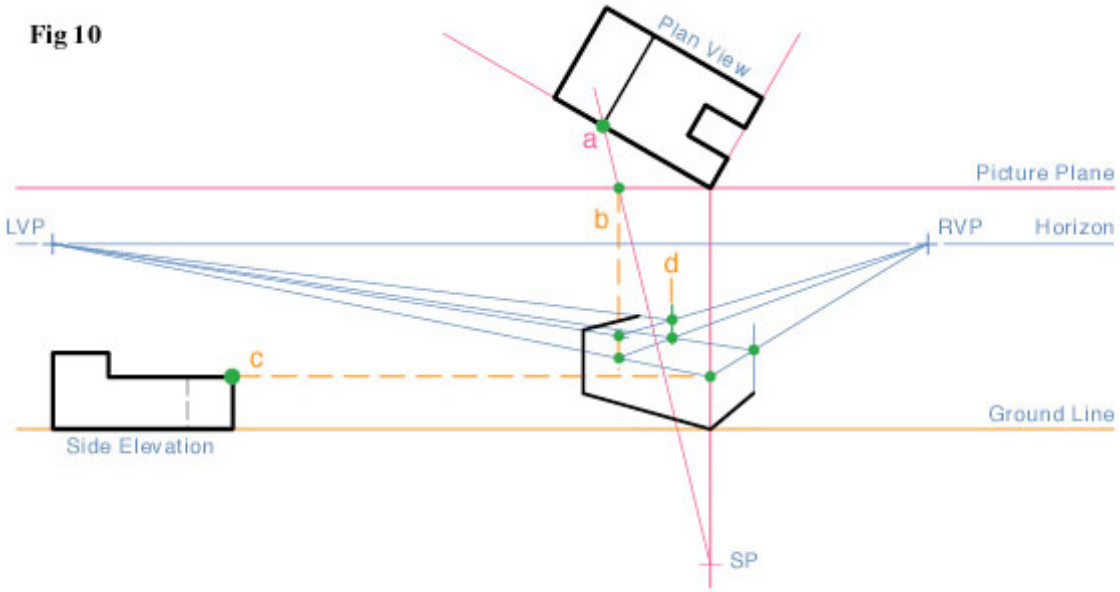
To locate the vertical lines on our subject, draw lines from the Station Point to corners a & b on the Plan View Fig. 9. At the point where these lines intersect the Picture Plane, draw vertical lines (orange dashed lines) downward to intersect the vanishing point projection lines.

Construction

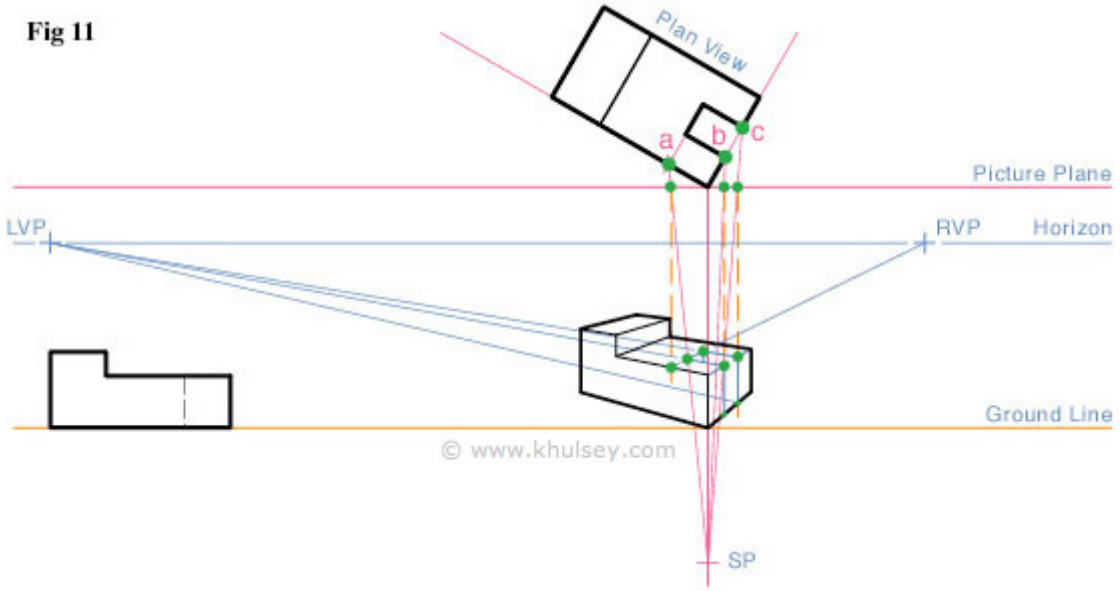


Using the same procedure as shown in Fig. 9, find the smaller features on the subject in both the Plan View and the Elevation View (a & c) in Fig. 10 and project them towards the vanishing point projection lines.

Construction



Construction



The last step is to darken the object's construction lines, and add weight to all of the exterior and outside edge lines, to increase readability Fig. 12.

Final Step