

Draft IT Architectural Tutorial

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The logo features the word "DRAFT" in a large, bold, black, italicized sans-serif font. A red, wedge-shaped graphic element is positioned behind the letters "RAFT", tapering from the top right towards the bottom left. To the right of "DRAFT" are the letters "IT" in a bold, red, sans-serif font. Below the "DRAFT IT" text, the word "ARCHITECTURAL" is written in a red, italicized, sans-serif font.

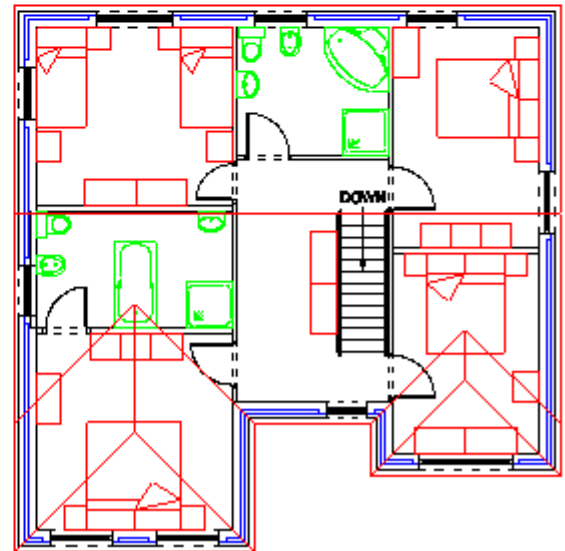
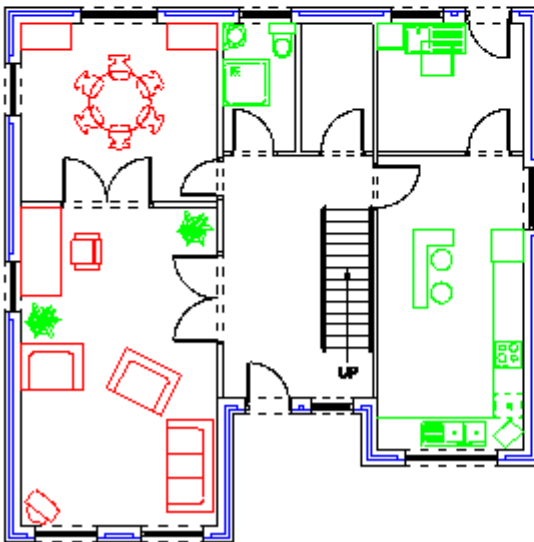
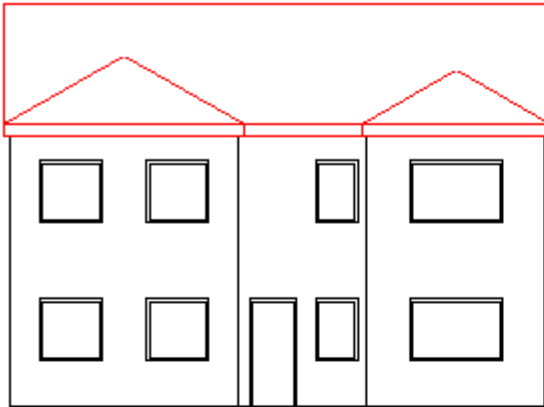
DRAFT **IT**
ARCHITECTURAL

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1 Overview

This tutorial guides you through the construction of the following drawing.



The tutorial is broken down into small sections listed in the table of contents.

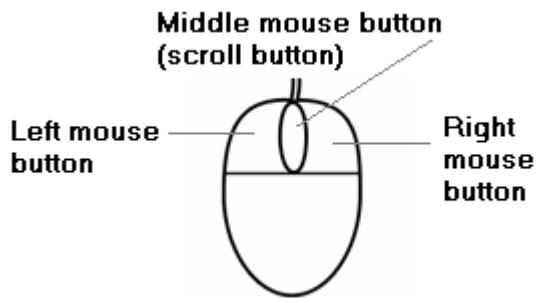
The method used to construct this drawing is designed to demonstrate a range of Draft IT commands with minimal co-ordinate entry from the keyboard.

As you are new to Draft IT we recommend that you spend two minutes reading the next section 'The Basics'.

2 The Basics

This section will teach you some important things you need to know about how to use Draft IT. It's a good idea to read through this section whilst referring to the software, before embarking on your first drawing.

USING YOUR MOUSE



What can I do with the Left Mouse Button ?

DRAWING

Unlike other drawing packages you may have used, when drawing anything in Draft IT, you must click and release the left mouse button to place the start and subsequent points of whatever you are drawing. Do not hold down the left mouse button and drag because this will not work.

SELECTING INDIVIDUAL ITEMS

You can select an individual item by clicking on it with the left mouse button.

SELECTING MULTIPLE ITEMS

You can select multiple items by holding down the Ctrl key on your keyboard and clicking with the left mouse button on every item you wish to select. Alternatively, you can select multiple items by holding down the left mouse button and dragging the cursor so that all the items you wish to select are captured inside the rectangle which appears.

What can I do with the Middle Mouse Button (Scroll Button/Wheel)?

ACCESSING MIDDLE CLICK OPTIONS

A number of options can be accessed by clicking the middle mouse button when you have an item (or multiple items) selected. The options which appear on the popup menu are dependent on the item you have selected.

PANNING

If you click and hold down the middle mouse button at any time, you can grab and move the page in order to get a better view. Release the middle mouse button once you're happy with the position of the page.

ZOOMING

Unlike other software packages, the scroll wheel does not scroll up and down the page but can be used to zoom in and out. Scrolling the scroll wheel upwards zooms in and scrolling the scroll wheel downwards zooms out.

What can I do with the Right Mouse Button?



CANCEL A COMMAND

When you want to stop or abort the current command you can click the right mouse button.

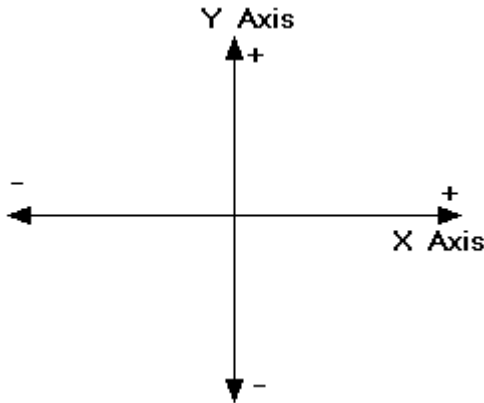
REPEATING THE LAST ACTION

You can also click the right mouse button to repeat your last action. For example, if you have just drawn a circle, you can draw another circle by clicking the right mouse button.

USING X AND Y COORDINATE MODES

In order to accurately place items on the page, X-Y Coordinate mode can be switched on by pressing the XY Coordinate button  or pressing  on your keyboard.

When in X-Y Coordinate mode, Draft IT is set up like a graph with X and Y coordinates (see diagram below). The origin is located at the bottom left corner of the page. When placing an item on a page, the X coordinate defines its position along the horizontal plane/axis. The Y coordinate defines its position along the vertical plane/axis.




You can use X and Y coordinates to accurately place the start point of an item, such as a line. You may also use X and Y coordinates to place subsequent points of an item, relative to the previously defined point.



USING SNAP AND NEAREST SNAP MODES

SNAP POINTS

You can draw items without using X and Y coordinates. Instead you can snap items you are drawing onto existing items.



You must first ensure you are in Snap mode by pressing the Snap button or pressing the  on your keyboard.

The different snap point options are indicated by different symbols. For example  means End point,  means Centre point.

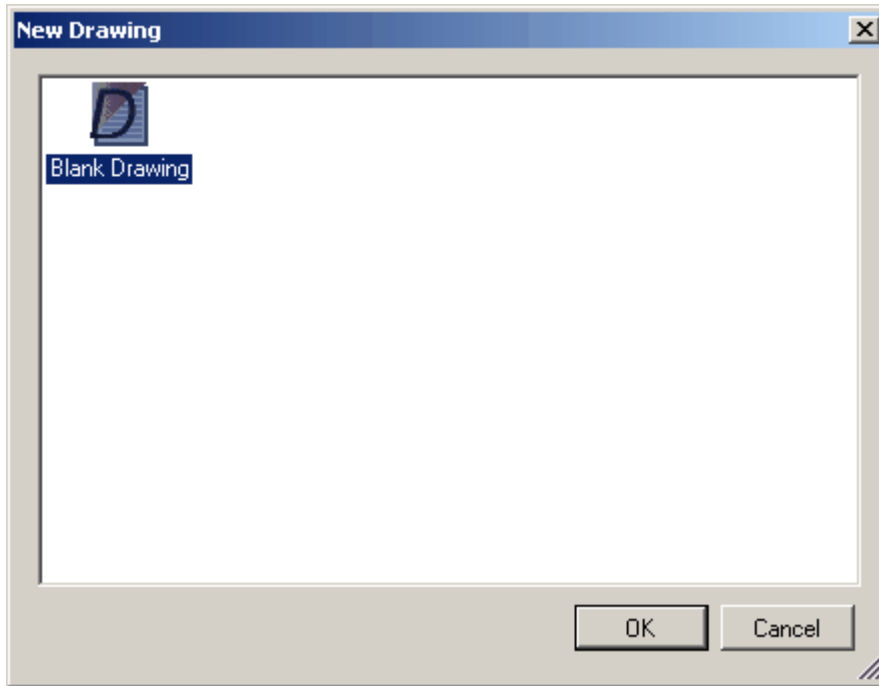
USING THE KEYBOARD ARROW KEYS

The keyboard arrow keys offer a simple way of specifying distance and direction. When drawing an entity or using one of the modify commands and the system requires a second or subsequent point to

be input, simply press one of the arrow keys     to specify the direction required and then type in the distance.

3 Getting Started

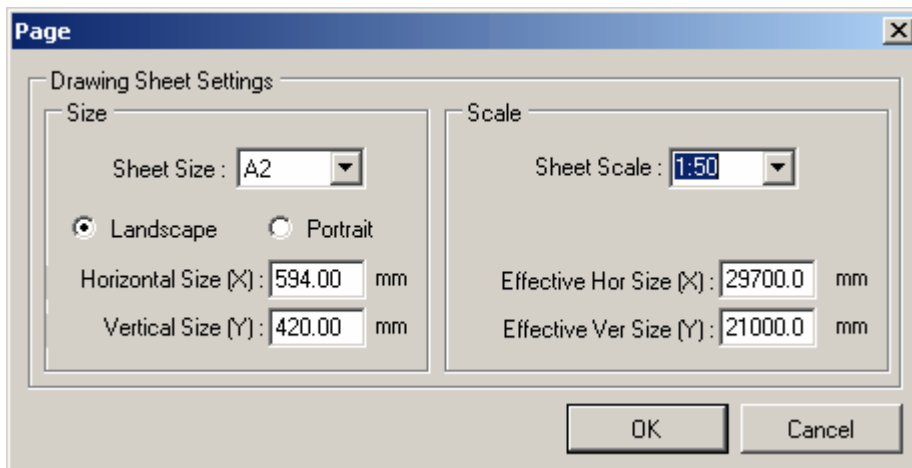
To start Draft IT Architectural select the icon on the Windows 'Start' Menu. The program will load and the New Drawing dialog box will be displayed.



Click OK to start a new drawing.

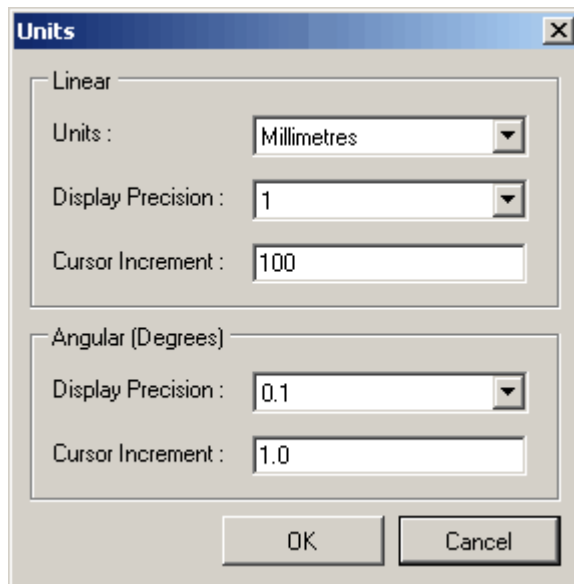
4 Drawing Setup

You will now have a blank drawing sheet displayed. We are almost ready to draw our building but first we will set the sheet size, scale and units. From the 'Settings' drop down menu, select 'Page' and make sure the settings match those shown below.




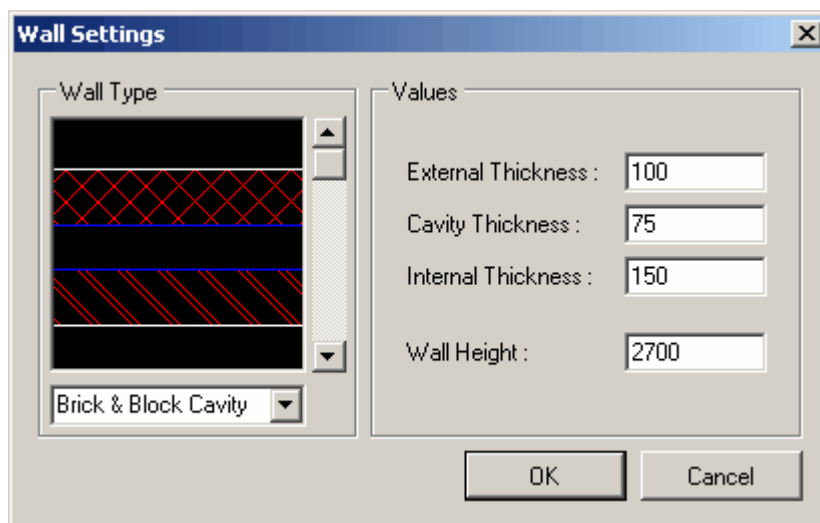
Click OK and answer 'Yes' to the prompt to update the text and dimension sizes.

Now from the 'Settings' drop down menu, select 'Units' and make sure the settings match those shown below.



5 Drawing the Ground Floor External Walls

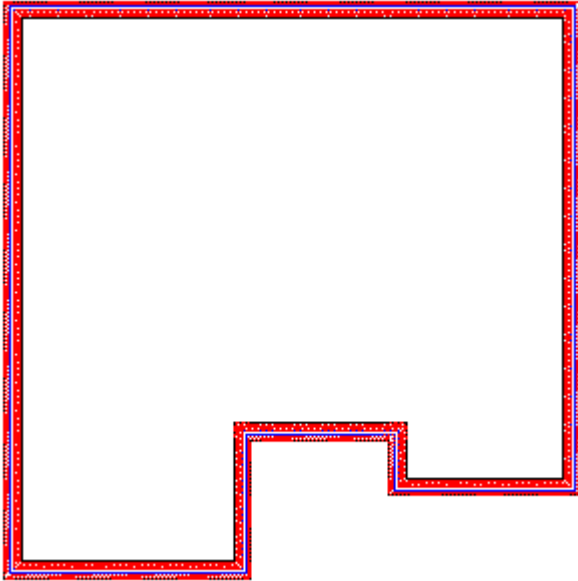
The next stage is to draw our building profile. Select the 'Walls' button  and the 'Wall Settings' dialog box is displayed. Here you can set/change the current wall type. Change the settings to those shown below.



Click OK to exit the dialog box and the command prompt reads:

Give Start Point:

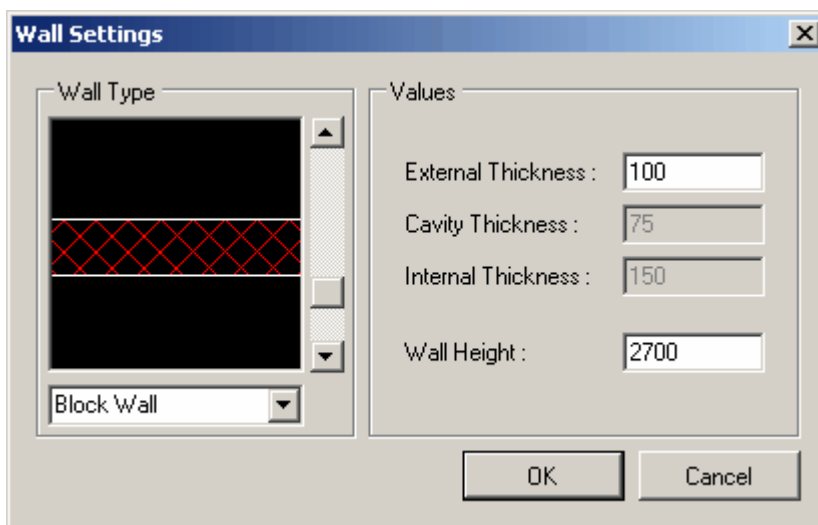
We will now create the outer wall profile to the dimensions shown below.




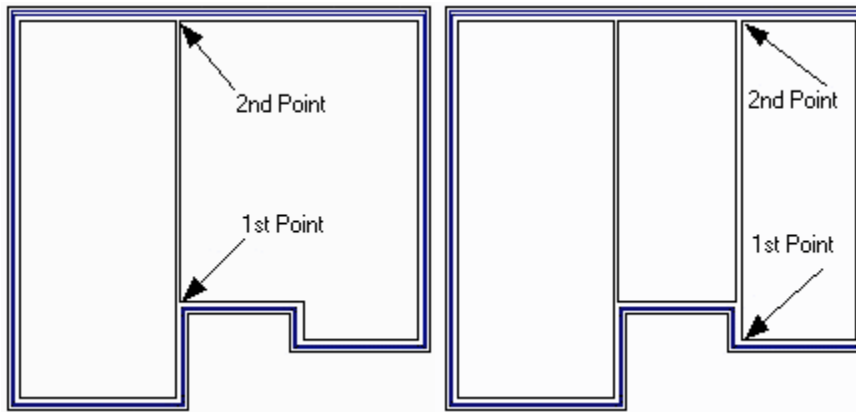
6 Drawing the Ground Floor Internal Walls



Before we draw the internal walls we will switch off the hatching for clarity. To do this select 'Hatching' from the 'View' pull down menu.

Select Walls button  again and set the dialog box and match the settings here and click 'OK'.





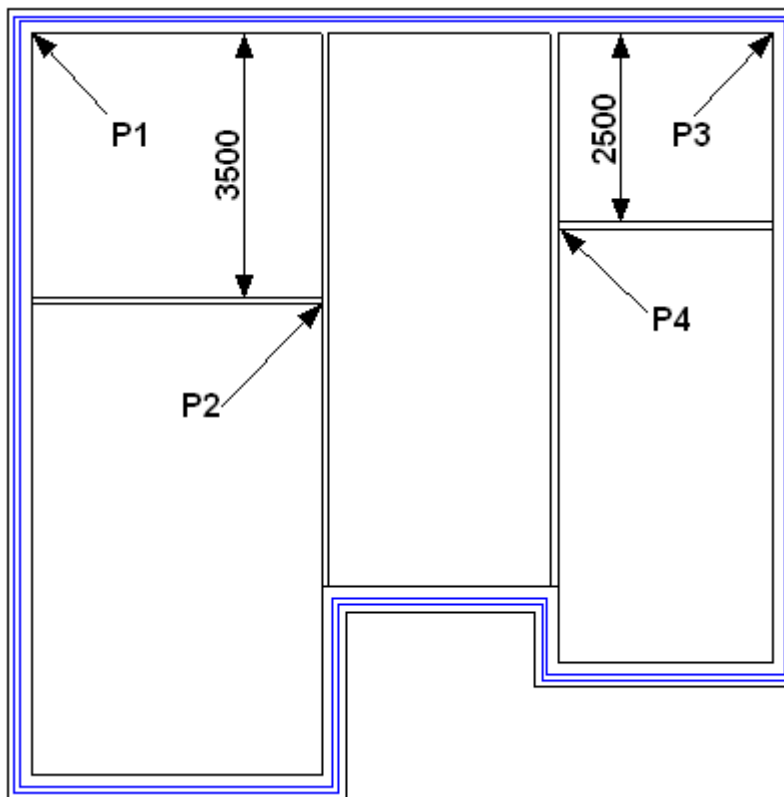
Make sure the 'Justification' is set to 'Left' and move the cursor to the 1st point which is the internal corner point in the left hand picture below. Click on the corner when the End Snap symbol  is displayed. Move the cursor directly up and snap to the Perpendicular on the wall above.








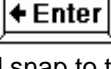

Press the  key to stop drawing walls and then click the right mouse button (or press 'Return') to 'Repeat Wall' command. Click 'OK' to accept the dialog box settings. The 2nd wall shown in the right-hand picture above is 'Right' Justified. Snap to the End point  at 'Point 1' and set the 'Justification' to 'Right'. Move the cursor directly up and snap to the Perpendicular point on the wall above.

Re-select the 'Walls' button. Change the wall type to 'Stud wall' and click OK. As you can see in the picture below the 1st wall point is 3500 down from the internal corner. To select this point correctly we will use 'Relative co-ordinate Input'.





Move the cursor over the internal corner point (P1) and when the 'End' snap symbol  is displayed hit the  key. You will now see dynamic dimensions drawn from the corner to the cursor. Move down the internal face of the wall and click to accept when the Y value is '-3500' and the X is '0', set the 'justification' to 'Left', now move across to 'P2' and snap to the Perpendicular point on the wall.





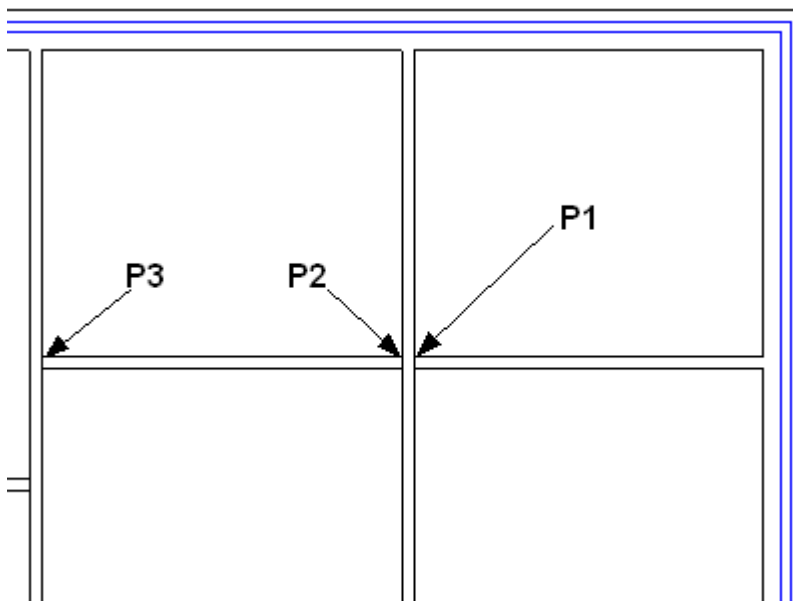
Press the  key to stop drawing walls and then click the right mouse button (or press ) to 'Repeat Wall' command. Click 'OK' to accept the dialog box settings. Move the cursor over the internal


corner point (P3) and when the 'End' snap symbol  is displayed hit the  key. Now press the  key, type in 2500 and press , set the 'justification' to 'right', press  to select 'Snap' mode and move across to 'P4' and snap to the Perpendicular point on the wall.

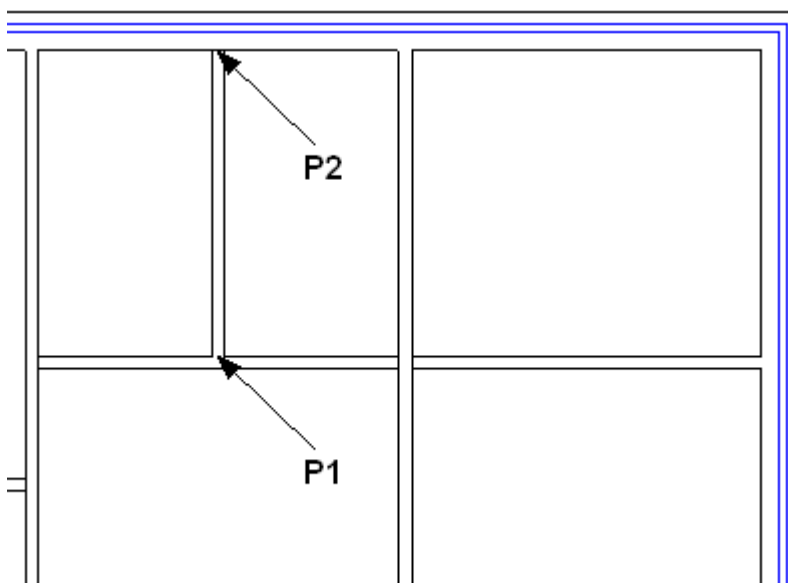
Re-select the Walls button and click OK to confirm the settings. As you can see in the picture below P1 is the end of our last wall. The next wall is in line with this but its start point is on the other side of the vertical wall at P2. To select this point correctly we will use the X Snap and Y Snap feature. Move the

cursor over the 'End' point at P1. When the 'End' snap symbol  is displayed hit the  key to grab the 'Y' value of the point, the cursor is now locked vertically. Make sure that nearest snap  is turned on and move across to P2 and click when 'Near' snap symbol  is displayed.

Now turn off nearest snap  and make sure the 'justification' is set to 'Right'. Press  to select 'Snap' mode and move across to 'P3' and snap to the Perpendicular point on the wall.



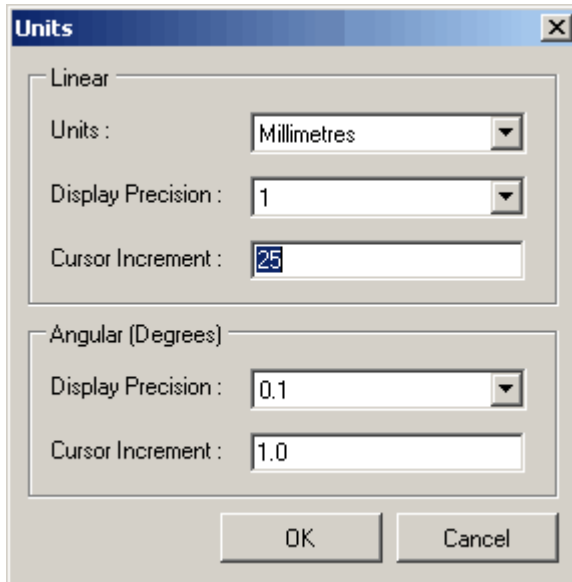
Repeat the Walls command and snap to the 'Mid'  of the new wall at indicated at P1 in the picture below. Set the justification to 'Centre' and snap to the Perpendicular point on the wall above at P2.




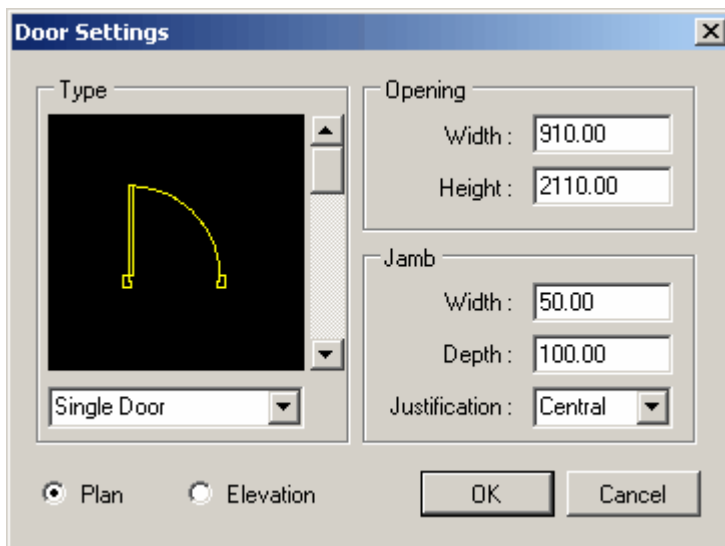
The internal walls on the ground floor are now complete.

7 Inserting the Ground Floor Doors

Currently the cursor increment is set to 100mm which was useful for drawing the walls. Before we insert a door we need to adjust this to 25mm which will help us insert the doors to the accuracy required. Select 'Units' from the 'Settings' pull down menu. And set the Linear cursor increment to 25 as shown below.



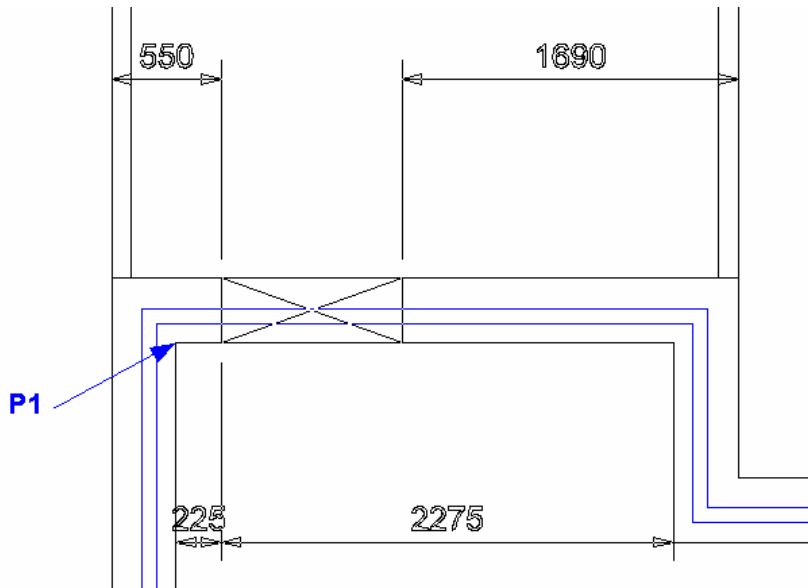
Select the 'Doors' button  and the following dialog box is displayed.



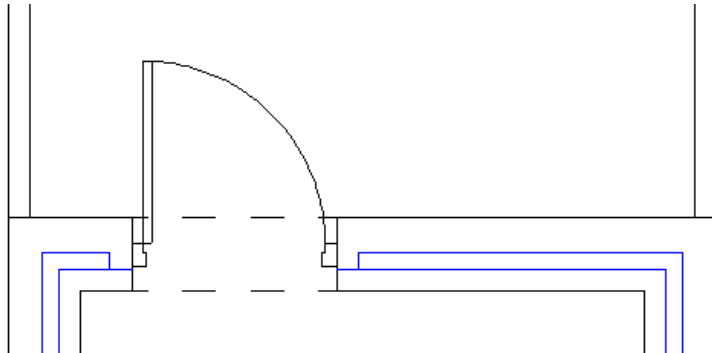
Match the settings shown here and click on OK .

In the Properties Toolbar set the 'Justification' to 'Left'.


For the front door into the hallway move the cursor over the left hand end of the horizontal wall below, use the dynamic dimensions to locate a position one brick length (225mm) from P1. Move the cursor to position the swing also as shown here.



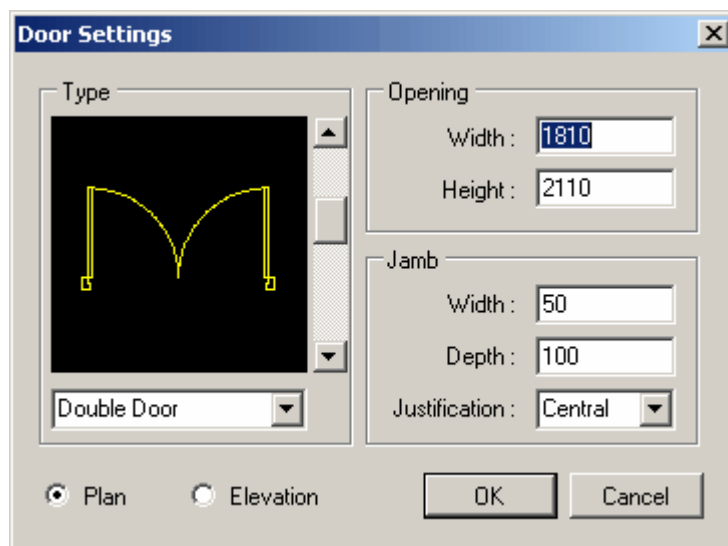
Move the cursor around and click to accept swing position shown below



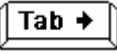
Next, we will insert a double door between the Dining and Living Room.

Cancel the door insertion with 'right-mouse click' or . Then 'right-mouse click' to repeat the door command and return to the dialog box.

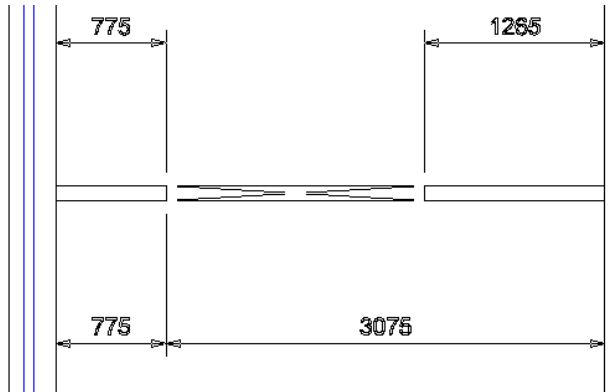
Select the 'Doors' button again and change the settings to match those below.



Select 'OK' and change the justification to 'Left'. This time instead of using the dynamic dimensions to position the door we will type the dimension into the Distance Input box. However we must define which is the reference point for the dimension. The controlling dimension helps us do this. Move the mouse over the internal wall shown below and you will see the four dynamic dimensions. The text on

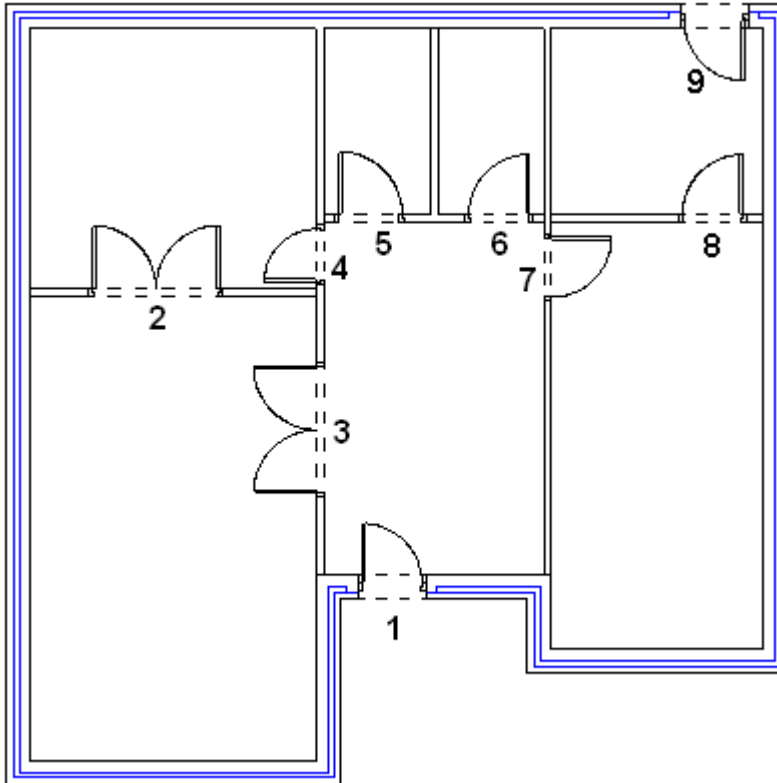
one of these is shown in brackets, this is the controlling dimension. To change this use the  key to switch between the dimensions at each end and move the mouse across the wall to switch the side of this key dimension.

With the controlling dimension as either of the left hand side dimensions type '775' into the Distance Input box to position the door as shown below..




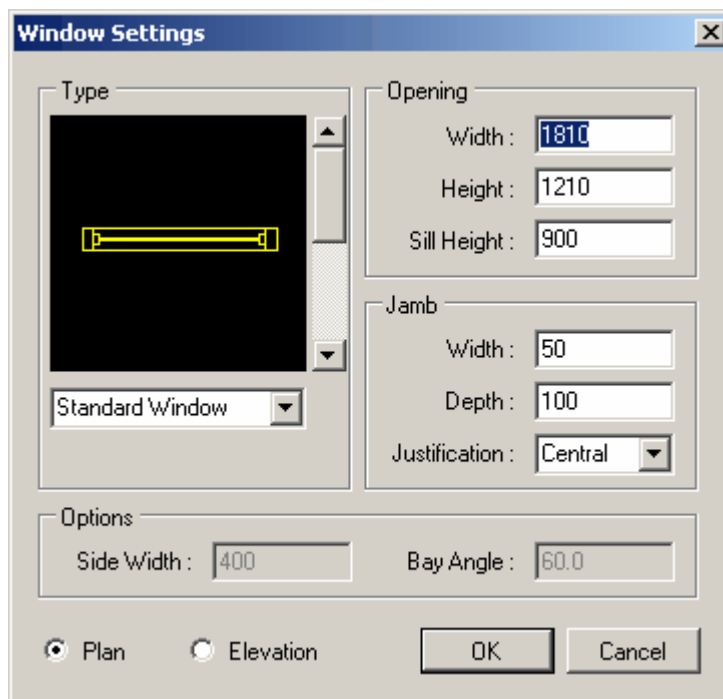
Use the table and picture below as your reference for the settings of the remaining seven doors shown below. Note that door number 4 is only 810 wide and is positioned right on the intersection between the left vertical block wall and the horizontal stud wall containing door number 2.

Door Num	Distance to nearest intersection	Door Type	Width	Justification
3	1050	Double	1810	Left
4	0	Single	810	Right
5	150	Single	910	Right
6	150	Single	910	Left
7	150	Single	910	Right
8	225	Single	910	Left
9	225	Single	910	Right



8 Inserting the Ground Floor Windows

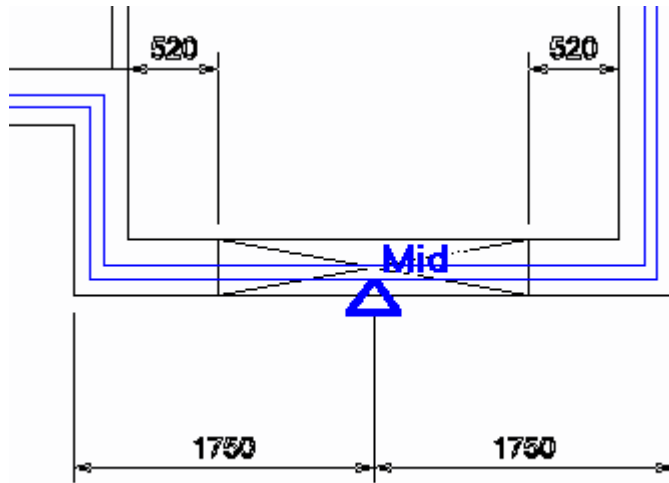
Inserting Windows with Draft IT Architectural is similar to Door insertion. First we are going to insert a standard window in Bedroom 2. This will be positioned centrally on the front wall. Select the 'Window' button , this will open the dialog box shown below (make sure you change the width to 1810).



Note: All of the windows we will insert match the settings above, the only variation is the width.

You are now prompted to insert the window. Check that the 'Justification' is set to 'Centre' in the

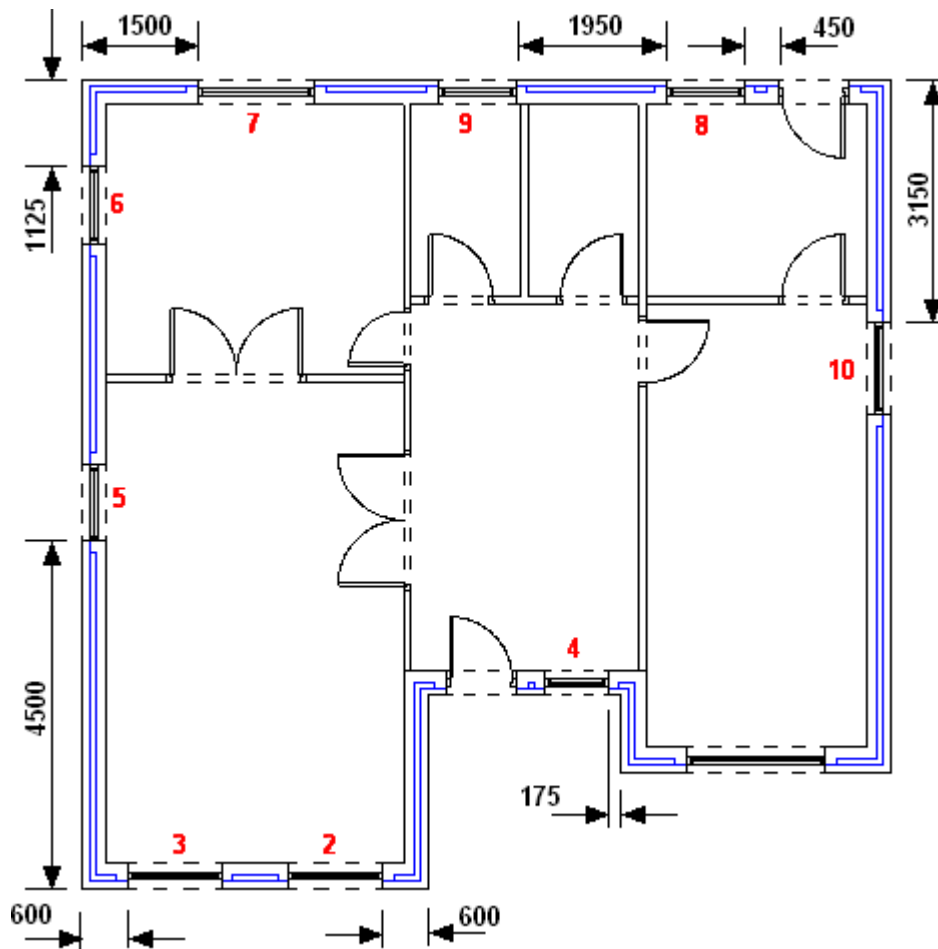
Properties Toolbar and move the cursor over the lower right wall. As you come into contact with the wall the dynamic dimensions are displayed. Ignore these, hit **F7** and move the cursor along the front face to the middle of the wall until the 'Mid' snap symbol is displayed (see below). Simply click to confirm this position.



Number	Justification	Width
2	Right	1210
3	Left	1210
4	Right	810
5	Right	1010
6	Left	1010
7	Right	1510
8	Left	1010
9	Left	1010
10	Right	1210

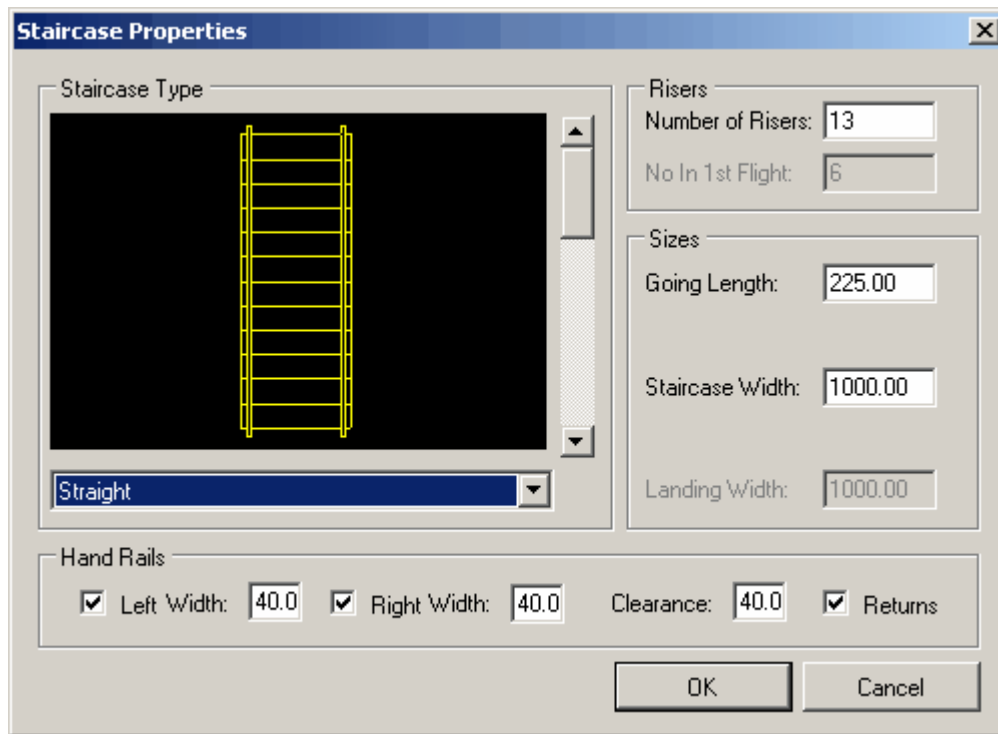
Once this has been done insert the remainder of the windows so that they appear as shown in the picture below, using the information in following table. The 'Justification' refers to the window justification set in the Properties Toolbar not the 'Jamb' 'Justification' in the window dialog box.

The picture below shows the dimensions to place the windows, remember to use the controlling dimension feature as demonstrated in the previous section 'Inserting the Ground Floor Doors' .

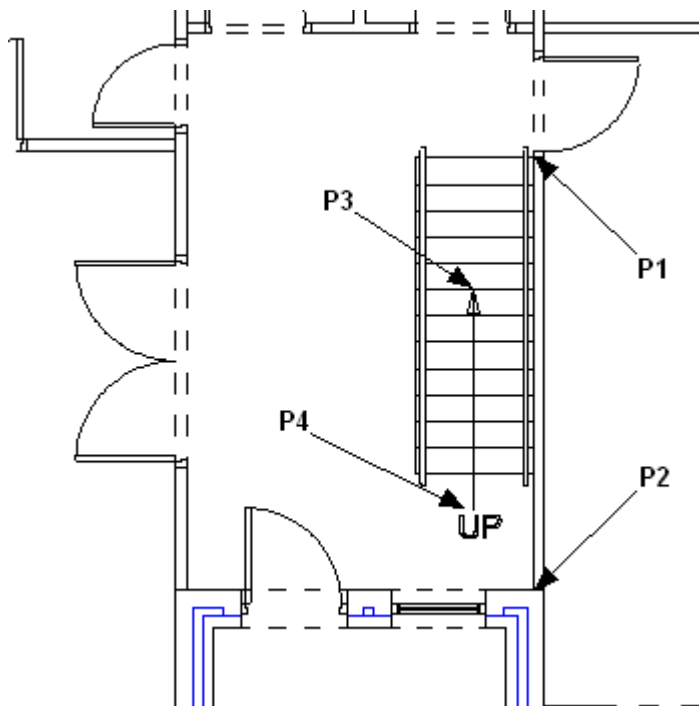


9 Add the Staircase


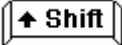
To add a staircase click on the Staircase button  this will open the dialog box shown below. Check the setting match those shown and click on 'OK'.



The staircase will be placed in the Hallway. The following picture shows the points used to place the staircase.



Change the justification the 'Right' then click to the end point P1, this is the top point for the landing. Move the cursor down and snap to the 'End' point at P2. The staircase is complete.


To add the direction arrow select the Leader Arrow button . Click on the 'Mid' point at P3 then hold down the  key and move the cursor down and click at approximately the position of P4.

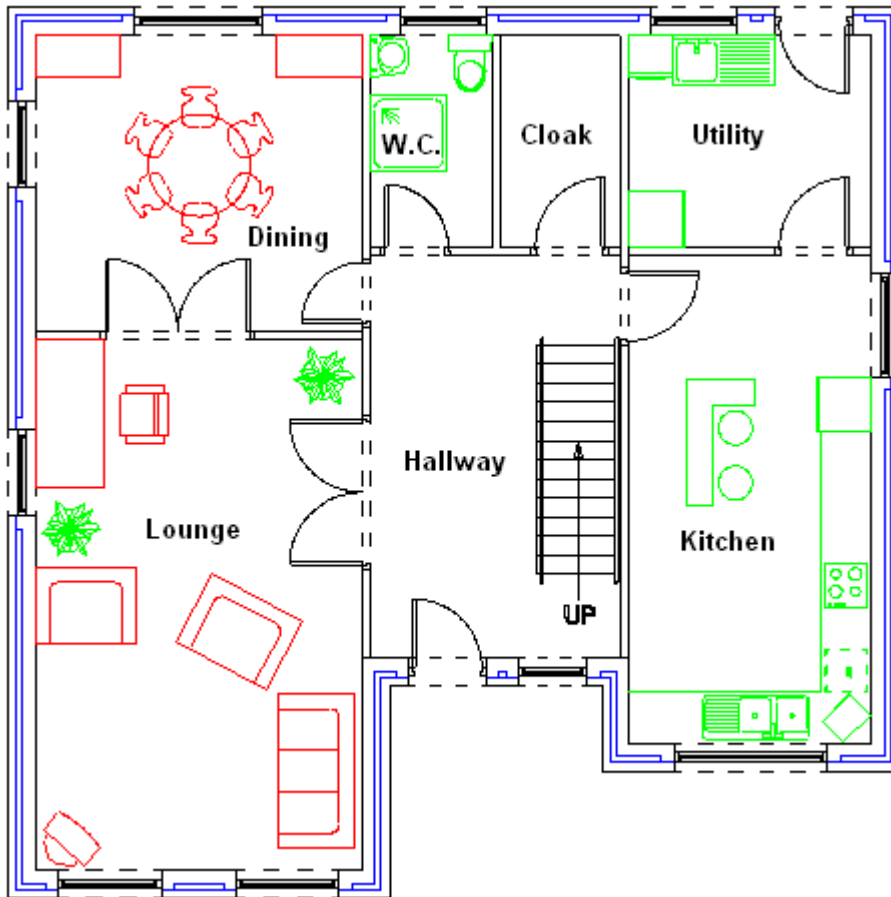
Now select the Text button .

In the Text dialog box enter 'UP' as the text string, then click 'OK'. Now click the text into place just below the end of the arrow.


10 Add the Ground Floor Furniture

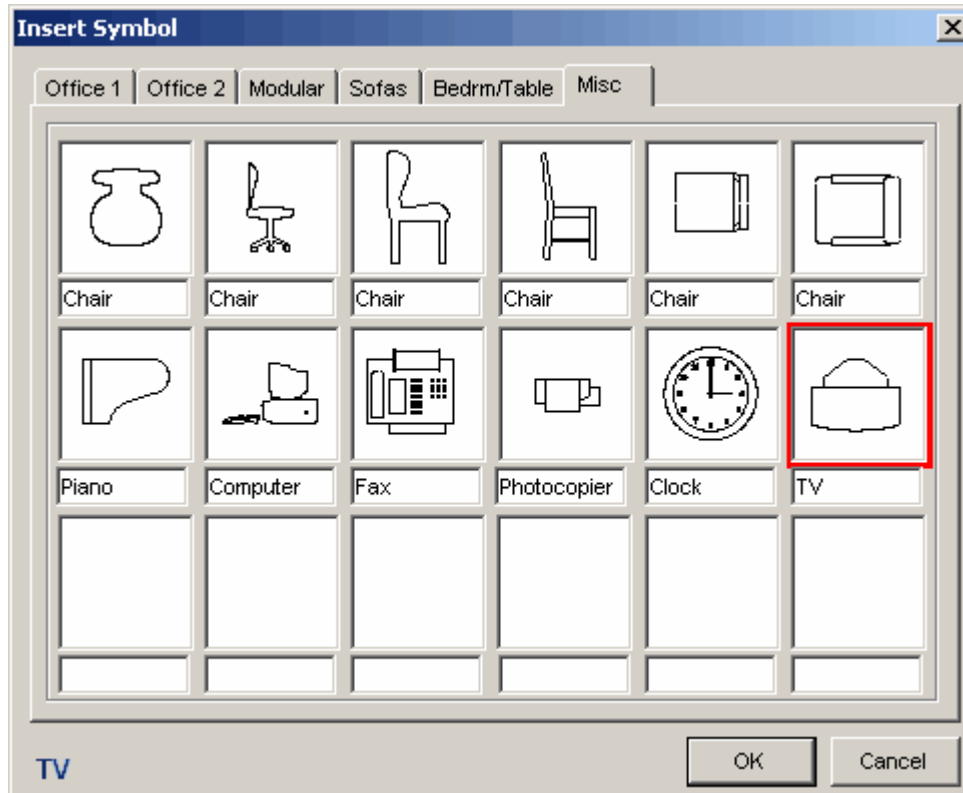
The symbols added to the plan have been selected from the Draft IT Architectural symbols libraries.

Only symbols from the following categories have been used on this floor 




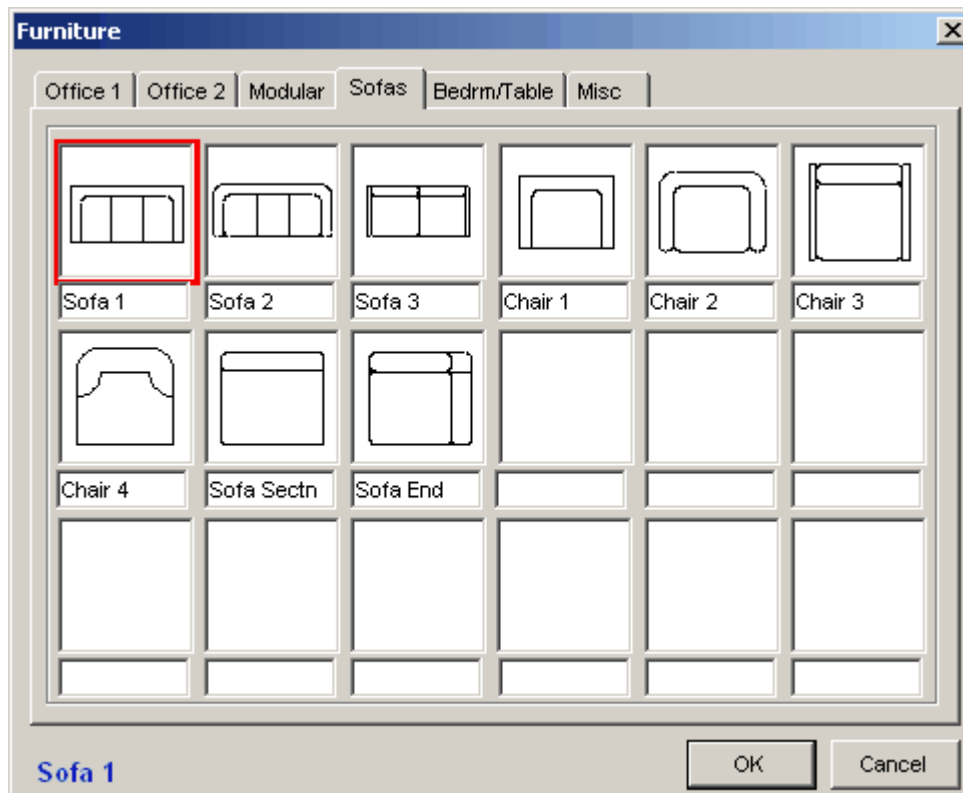
Room names have been added to the picture above to assist in placing the ground floor furniture.

Lets start with the lounge. Click on the 'Furniture' button 
In the following dialog click in the 'Misc' tab.

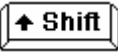


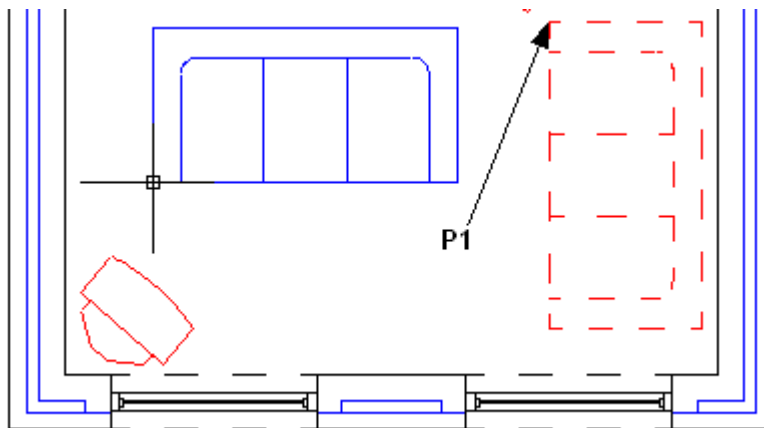
Click on the TV symbol and then 'OK'. The TV symbol is now attached to the cursor for placement. Make sure that the 'X Scale' & 'Y Scale' in the properties toolbar are both set to '1'. Move to the corner of the lounge and click into place, then move the cursor around to achieve the desired rotation.




Now select the 'Furniture' button  again. You will notice the last symbol used is still highlighted. Now click on the 'Sofas' tab and click on 'Sofa 1' as shown below and then 'OK'.



The picture below shows the required sofa position in dotted red outline and the sofa (before

placement) in blue attached to the cursor. You can see the insertion point is on the front left corner of the sofa. So to achieve the position required move the approximate point P1 and click. Now swing the cursor down and hold down the  key, when the sofa is orientated correctly click into place.



Continue to insert the various furniture items as shown in the ground floor layout. All of the 'Lounge' and 'Dining' items used are found in the Furniture library . All of the 'W.C.' items used are found in the Plumbing library . All of the 'Kitchen' and 'Utility' items used are found in the Kitchen library .


NOTE


Sometimes depending upon the insertion point it is not possible to achieve the desired position first time. You may have to place the symbol approximately and use the Move command to position the symbol.

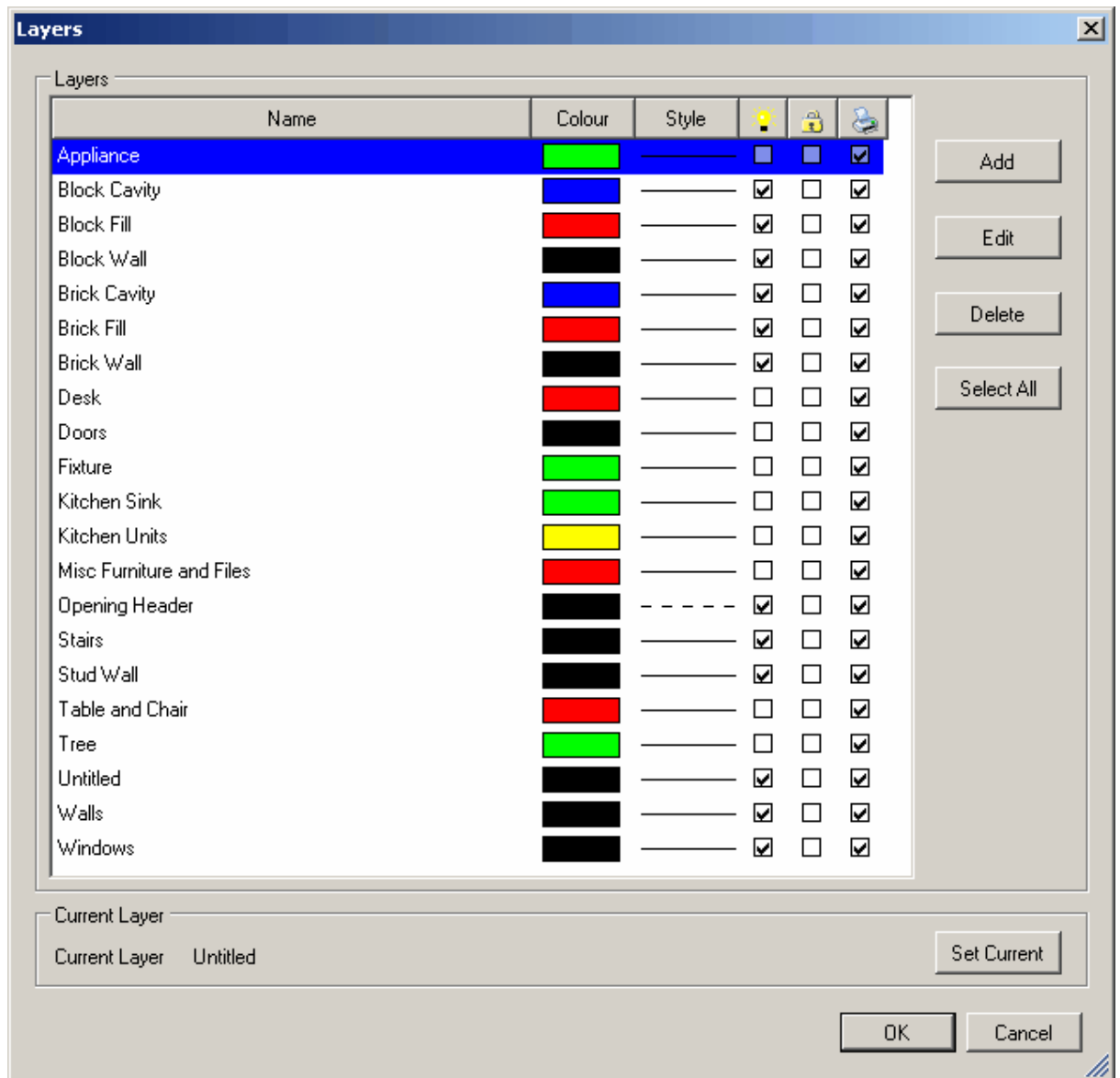
The Kitchen work surfaces were added simply using the Line command.

11 Copy the Ground Floor Details

The easiest way to start the first floor layout is the copy items from the ground floor. One method is to manually pick the items to copy one by one. Another way is to copy the entire ground floor and then delete the items that are not required. A third way and the one we will use is to turn off layers containing items that are not required.

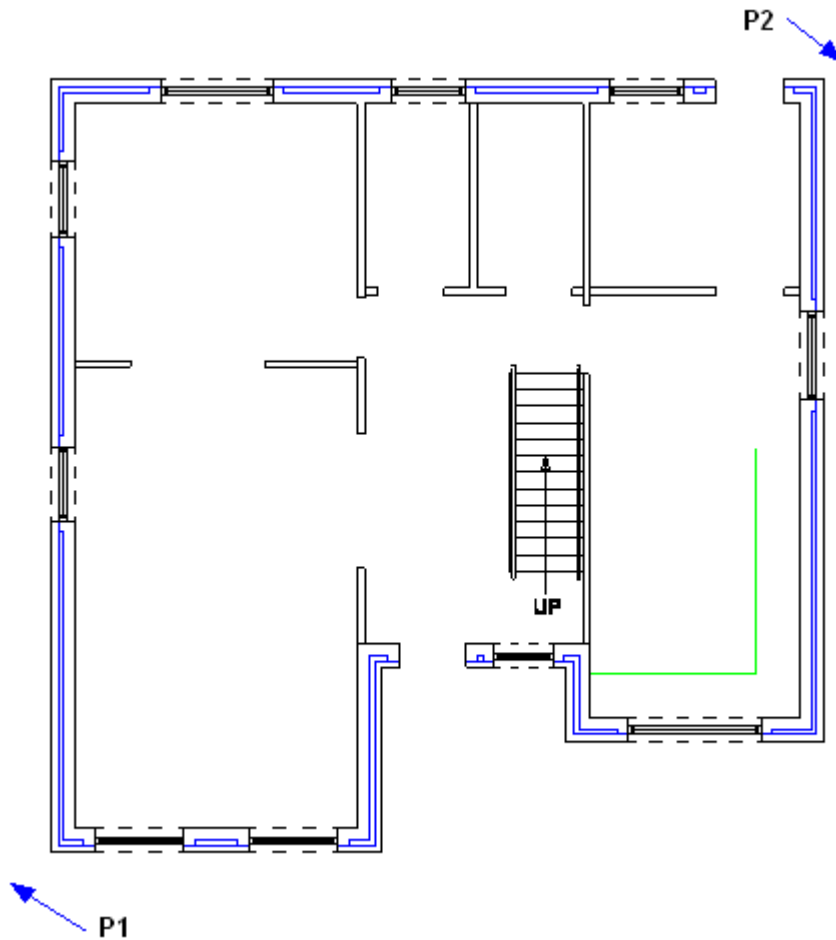
Select the Layers button  to display the layers dialog box below. Note the colours for each of the layers maybe different to your settings.

Here we need to turn off the layers that contain information not required on the first floor. You will see these layers have been 'un-ticked' in the column headed by the  icon.

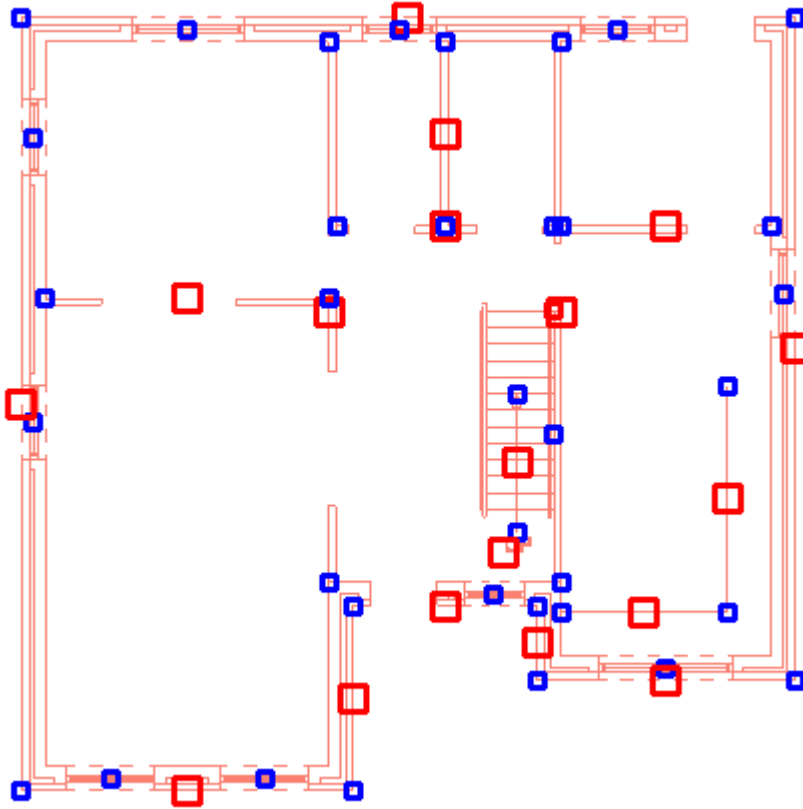




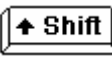
Make sure that you match these layer settings and click OK. The floor plan will be updated and should as shown below.

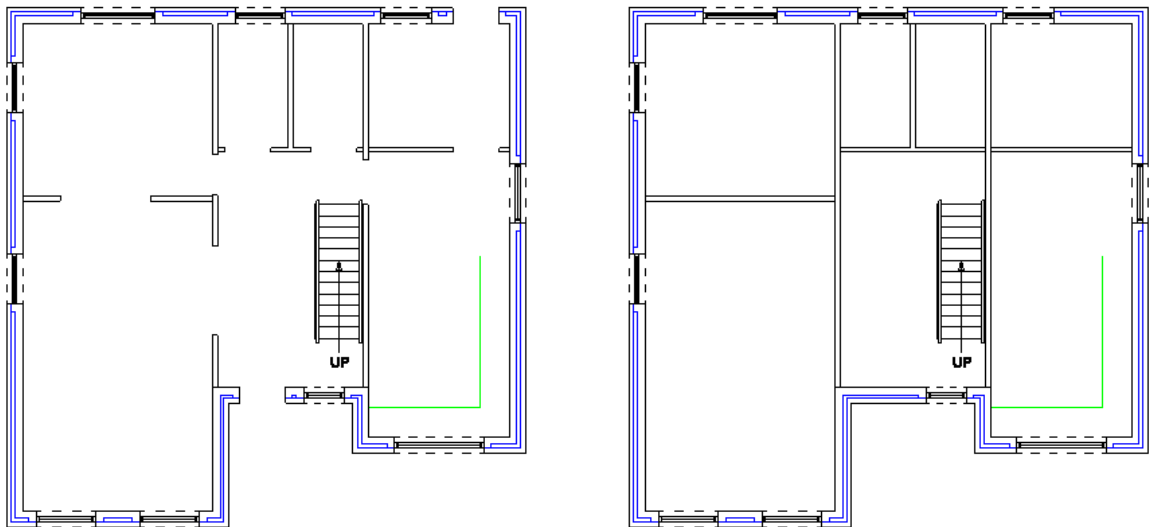
Note: If you used the Line command to draw the kitchen work surfaces, these will probably still be displayed (depending on the layer they were drawn on). Don't worry about these for now.



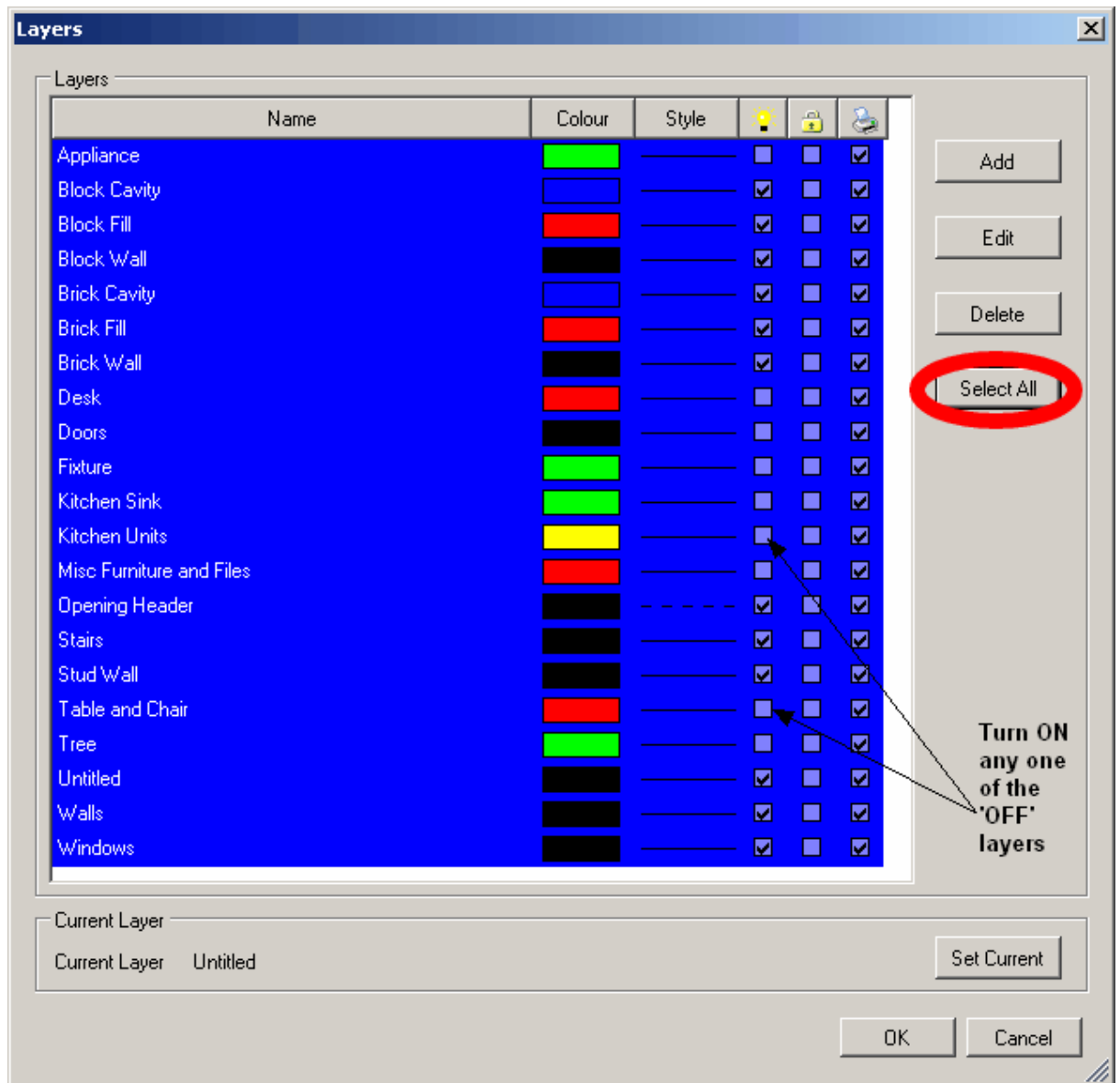
We will now copy the entities displayed and use them as the basis for the first floor. Left-click and hold down the mouse button when the cursor is approximately over 'P1' above, then drag the cursor to 'P2' and release the mouse button. This should select all of the entities displayed as shown below.




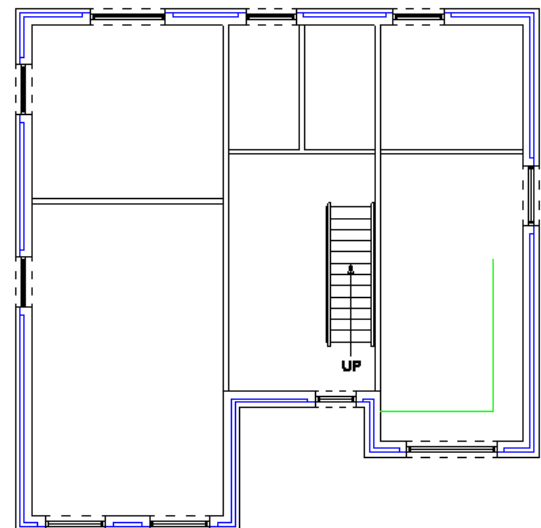
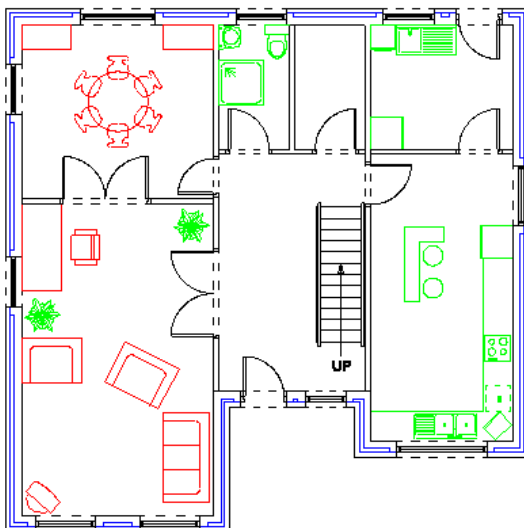
Now select the Copy button  and click on the 'End' point  at the lower left corner of the layout, this is the reference point for the copy. Now hold down the  key and drag the cursor to the right. Click to position the first floor layout as shown below. You will notice that as we did not copy the walls have automatically been repaired.





Return to the Layers dialog box and click on the 'Select All' button.



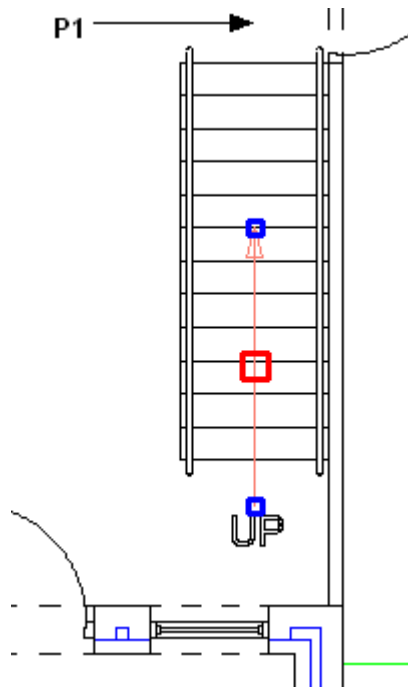
All of the layers in the list are now selected (blue). Click on any one of the empty boxes in the  column to turn all of the layers on, then click OK.

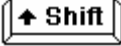


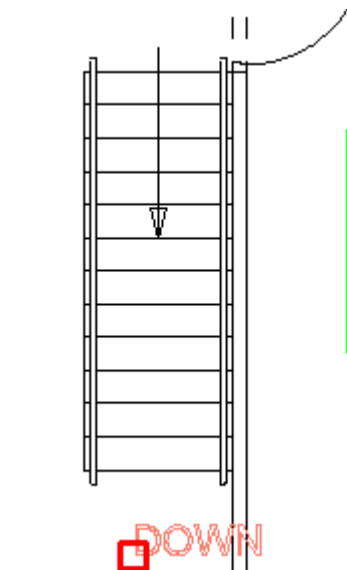
Hold down the  key and click on each of the 'Kitchen work surface lines'. Once they are all selected press  .

12 Modify the Staircase detail

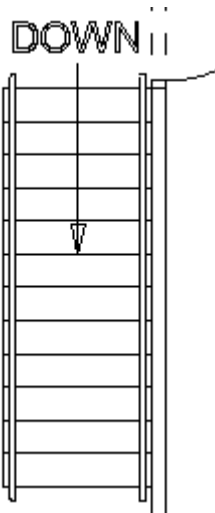
We need to update the staircase arrow and text. We could delete and replace them, however sometimes it is just as quick to modify. Click on the staircase arrow to select it as shown below.



Move the cursor over the lower blue entity handle, it will turn yellow, click to select it. Hold down the  key and move the cursor upwards to 'P1' and click. You will see the arrow is now pointing down the staircase. Double-click on the 'UP' text to edit it. In the Edit text box replace 'UP' with 'DOWN' and click OK.



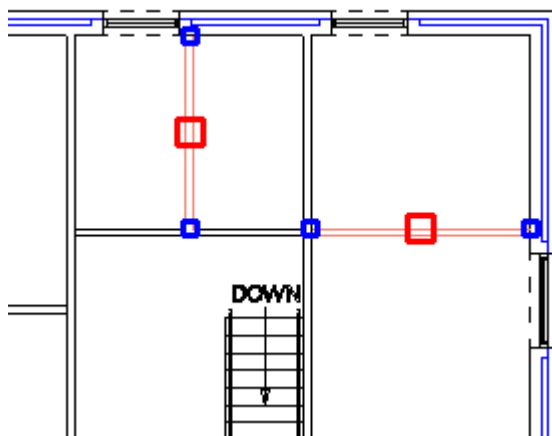
The staircase details should appear as shown here. Now simply click on the text entity handle. Move the text to the other end of the staircase and click into position.



The updated staircase details should now appear as shown here.


13 Modify the First Floor Walls


Firstly lets delete two of the stud walls.




Hold down the **Shift** key and click on each of the stud walls highlighted in the picture below.

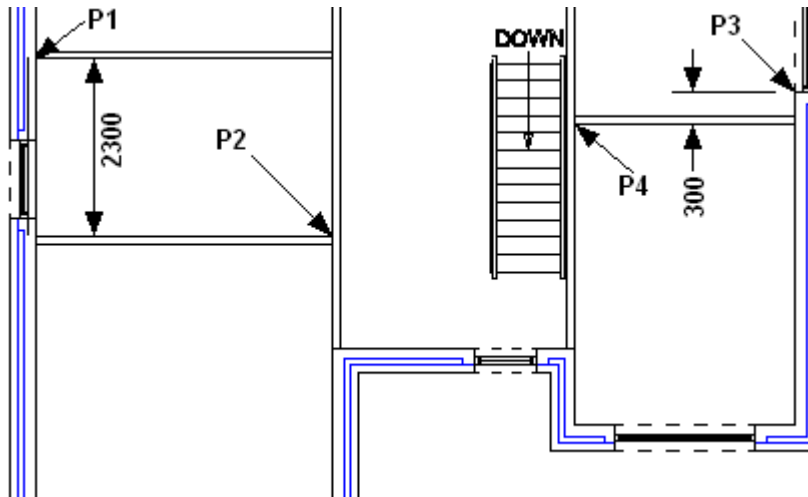
Once they are selected press **Del**

Now lets adds some new stud walls. click on the Walls button . Check that the wall type is set to 'Stud Wall' and click OK. Check 'Left' Justified is set in the Properties Toolbar. As you can see in the picture below the 1st wall point is 2300 down from the internal corner.

To select this point correctly we will use Relative co-ordinate Input. Move over the End point at 'P1' and when the 'End' snap symbol  is displayed hit the **R** key.

Now press the **↓** key, type in 2300 and press **Enter**, press **F7** to select 'Snap' mode and move across to 'P2' and snap to the Perpendicular point on the wall.


Press the **Esc** key to stop drawing walls and then click the right mouse button (or press **Enter**) to 'Repeat Wall' command. Click 'OK' to accept the dialog box settings. Move the cursor over the End point of the window 'P3' and when the 'End' snap symbol  is displayed hit the **R** key. Now press the **↓** key, type in 300 press **Enter**, set the 'justification' to 'right', press **F7** to select 'Snap' mode and move across to 'P4' and snap to the Perpendicular point on the wall.





14 Adding the First Floor Doors

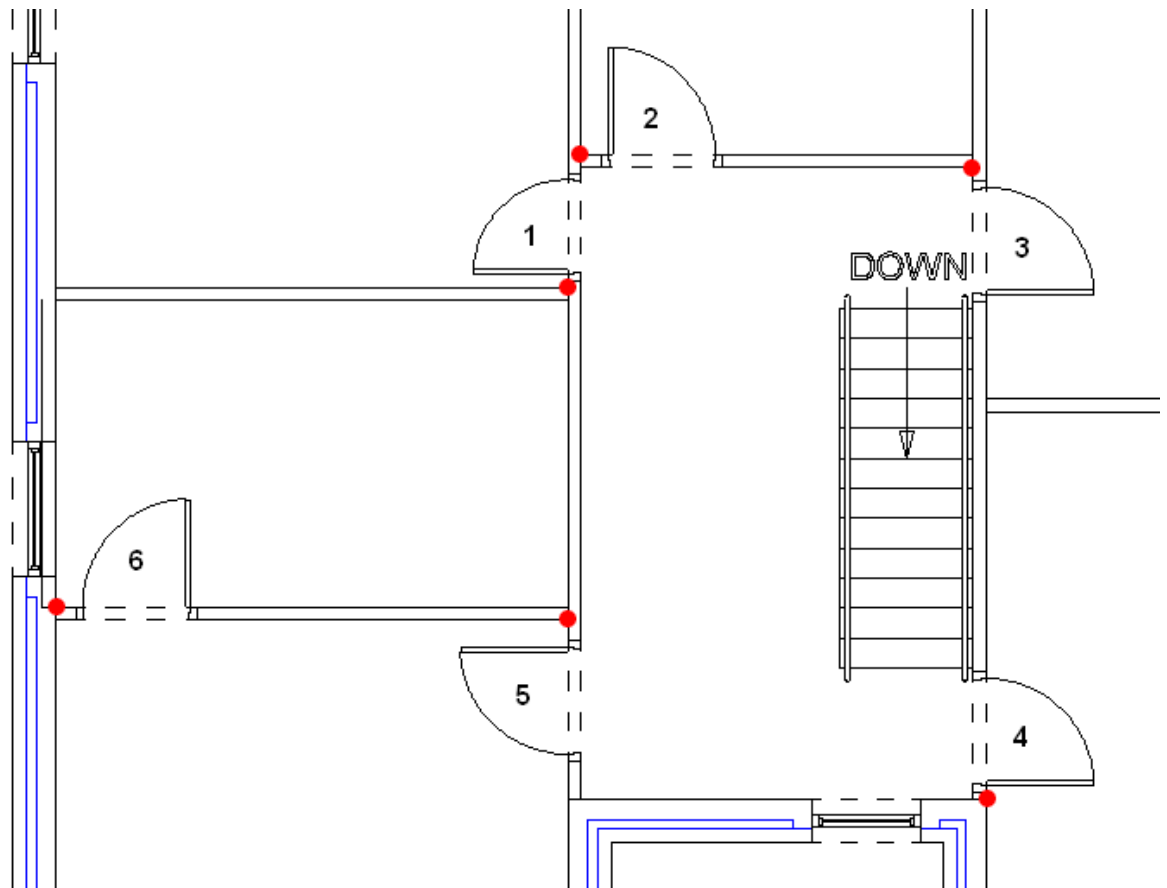
All of the first floor doors are single doors.

The table below shows the width, justification and the distance to the nearest intersection. You will see on the picture below that the 'nearest intersection' has been highlighted with a red dot.

Select the Doors button  and set the door width for 'door 1' to 810. Click OK and in the Properties Toolbar set the 'Justification' to 'Right'. Move over the vertical wall and snap the door right on the intersection between the left vertical block wall and the horizontal stud wall (where the red dot is). Move the cursor to set the swing as shown and click into place.


Press the  key and then click the right mouse button (or press ) to return to the Door dialog box. Change the width to 910 and click 'OK'. Change the 'Justification' to 'Right' and position the door as 150 from the nearest corner. The rest of the doors are the same width so there is no need to return to the dialog box. Simply set the justification as required and insert the remaining doors.

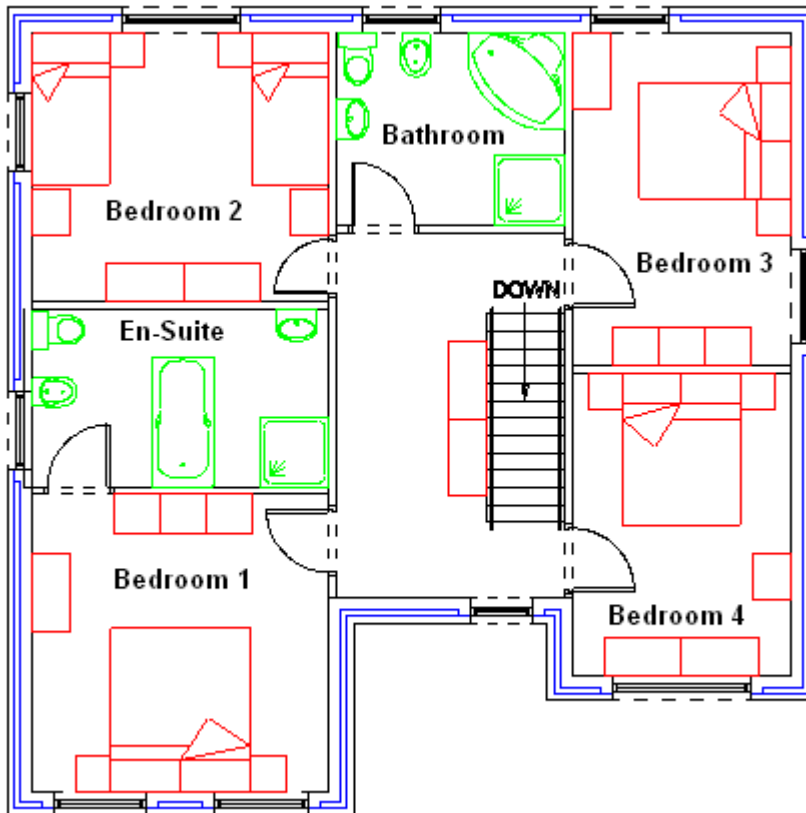
Door Num	Distance to nearest intersection	Width	Justification
1	0	810	Right
2	150	910	Right
3	100	910	Right
4	50	910	Left
5	150	910	Right
6	150	910	Left




15 Adding the First Floor Furniture

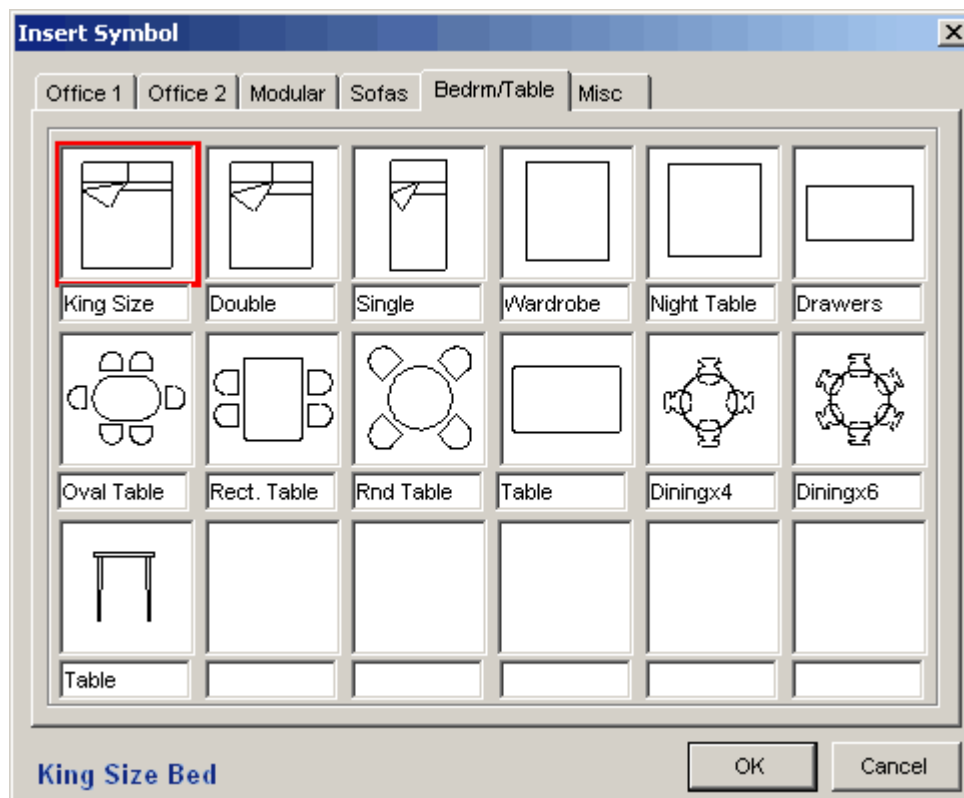
The symbols added to the first floor plan have been selected from the Draft IT Architectural symbols libraries.

Only symbols from the following categories have been used on this floor .
The picture below shows the furniture layout.

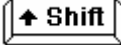


Room names have been added to the picture above to assist in placing the first floor furniture.



Lets start with 'Bedroom 1'. Click on the 'Furniture' button .
In the following dialog click in the 'Bedrm/Table' tab.



Click on the King Size Bed symbol and then 'OK'. The King Size Bed symbol is now attached to the cursor for placement. Move over the inside face of the front wall and click into place at the Mid point of

the wall section between the two windows. Hold down the  key and swing the bed around 180 degrees and click into place.


Select from the same page in the 'Furniture' symbols dialog box insert a 'night table' on either side of the bed. A set of 'Drawers' has been placed along the left wall and three 'Wardrobes' along the back wall of the bedroom.

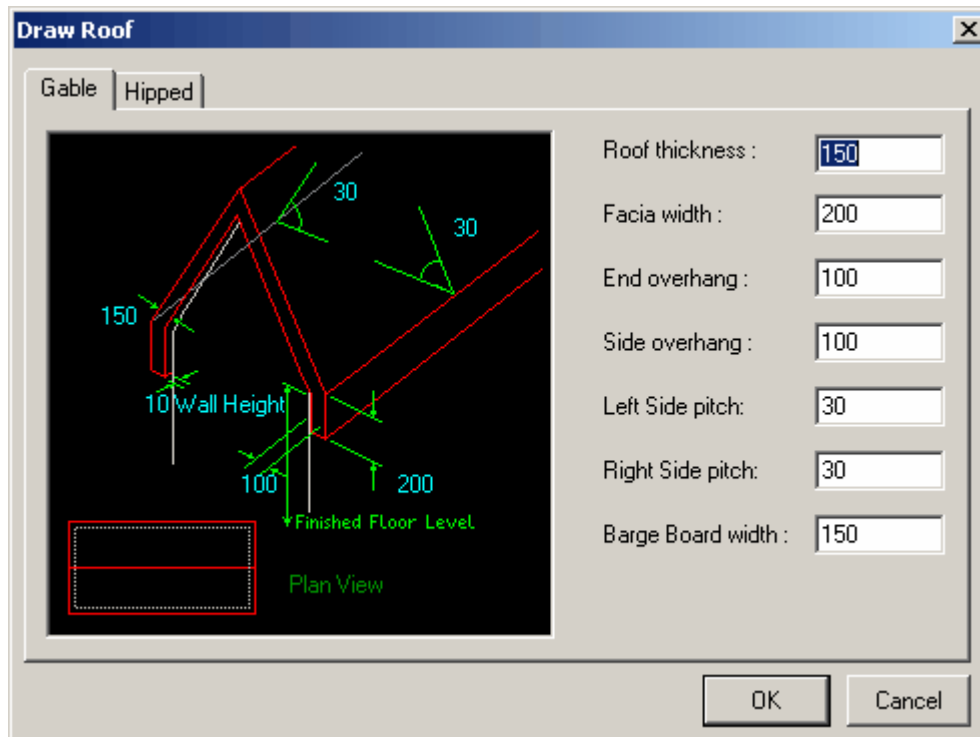
Continue to insert the various furniture items as shown in the first floor layout. All of the 'Bedroom' items used are found on the 'Bedrm/Table' page of the Furniture library . All of the 'Bathroom' and 'En-suite' items used are found in the Plumbing library .

NOTE

Sometimes depending upon the insertion point it is not possible to achieve the desired position first time. You may have to place the symbol approximately and use the Move command to position the symbol. Sometimes when multiple insertions of the same symbol are required it maybe easier to place the first one and then use the Copy command.

16 Drawing Roofs

First of all we will draw a gable roof over the first floor plan. Select the 'Roof' button , and make sure that the 'Gable' tab is selected. Click 'OK' when the settings match those below.



The prompt now reads:

Indicate wall line that roof is on:

Select the topmost horizontal wall at the position (1) in the picture below.

The prompt now reads:


Indicate first corner for width of building:

Select the End point snap at the top left corner as shown (2). The prompt now reads:

Indicate second corner for width of building:

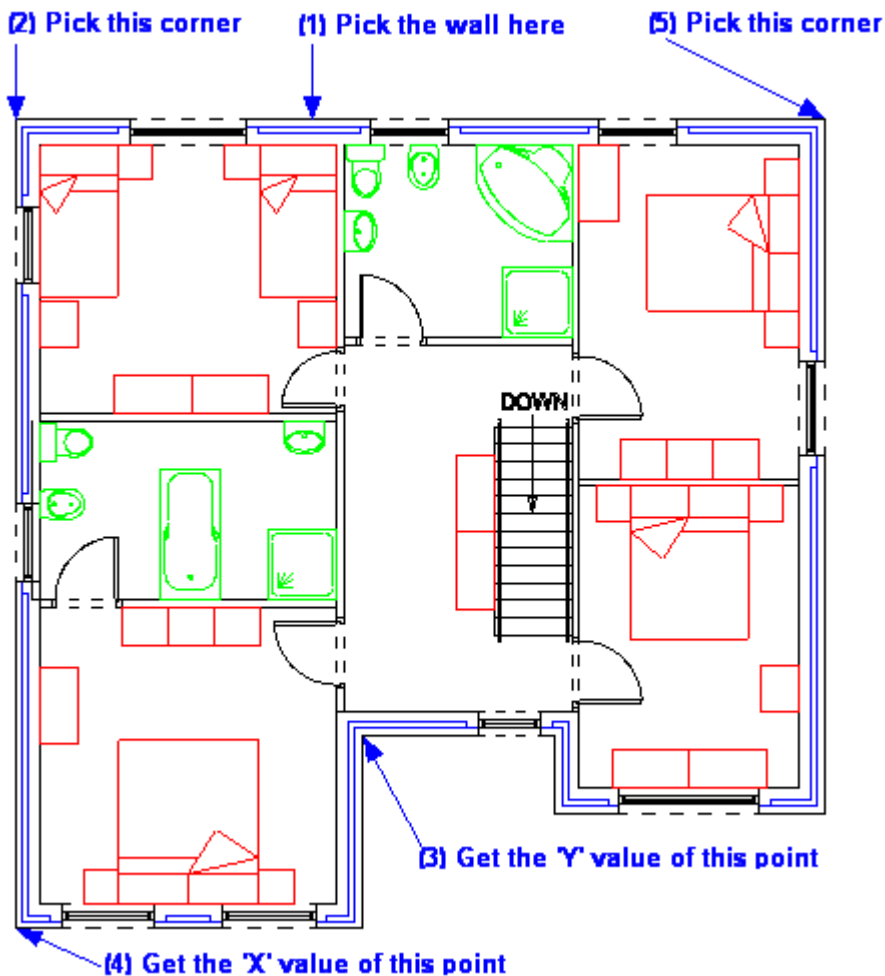
This next point defines the other end of the gable, however it can't be picked directly as it is a point

along the left vertical wall which is in line with the external face of the front door wall. To pick this point we will use X Snap and Y Snap feature. Move the cursor over the End point at position (3), DON'T

CLICK, hit the  key and move the cursor toward position (4). You should see a dynamic dotted line drawn horizontally from position (3) to the cursor. Now simply move to the End point at position (4) and click. The prompt reads:

Indicate corner for length of building, or [T]ee to join existing roof:

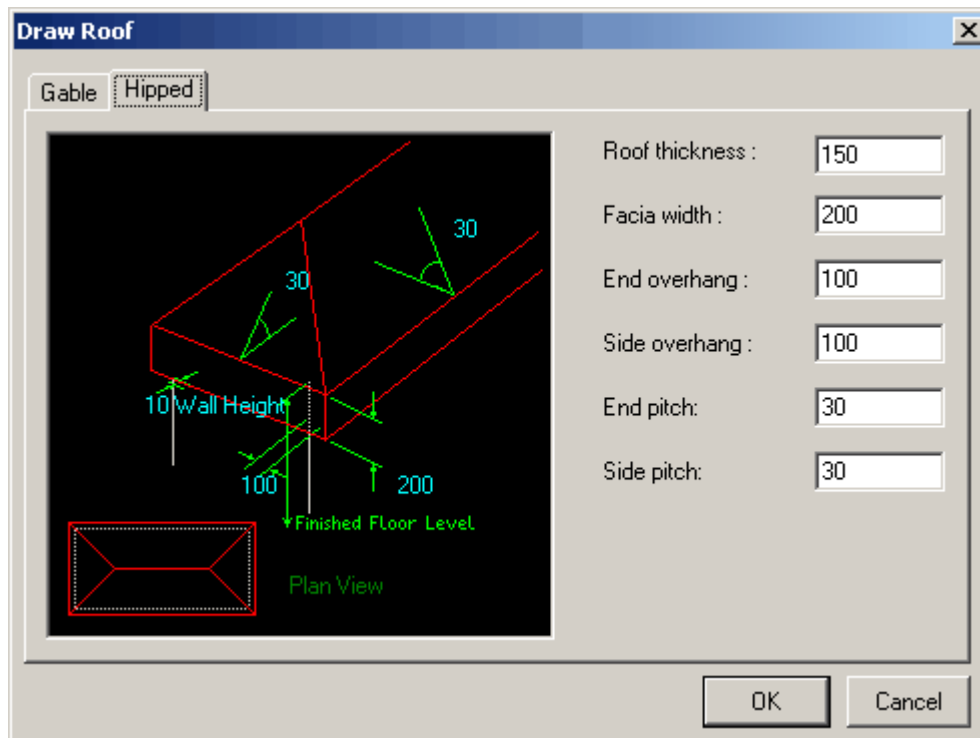
We are now going to indicate the length of the roof. Pick the End point at position (5).




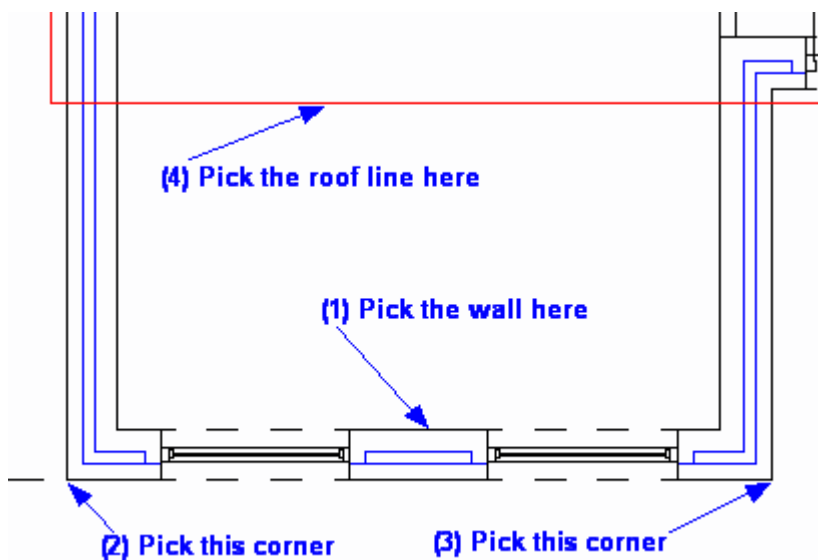
The roof over the main body of the house should now appear with the ridge running horizontally across the plan.

To make the selection of the correct points easier zoom into the area shown in the picture below the dialog box (the furniture has been switched off for clarity).

Re-select the Roof command and in the dialog box make sure that the 'Hipped' tab is selected and adjust the settings to match those below. Select 'OK' to continue.




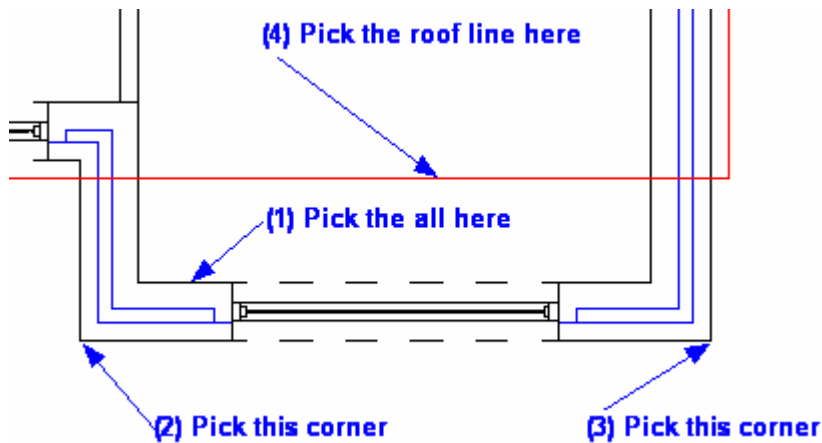
Pick the wall to place the roof on position (1). (Again take care not to select any of the windows when selecting the wall). Now using the End point snap select two corner points (2) & (3). The roof will be teed in so press the  key and click on the existing roof line at position (4) and the first hipped roof section is drawn.



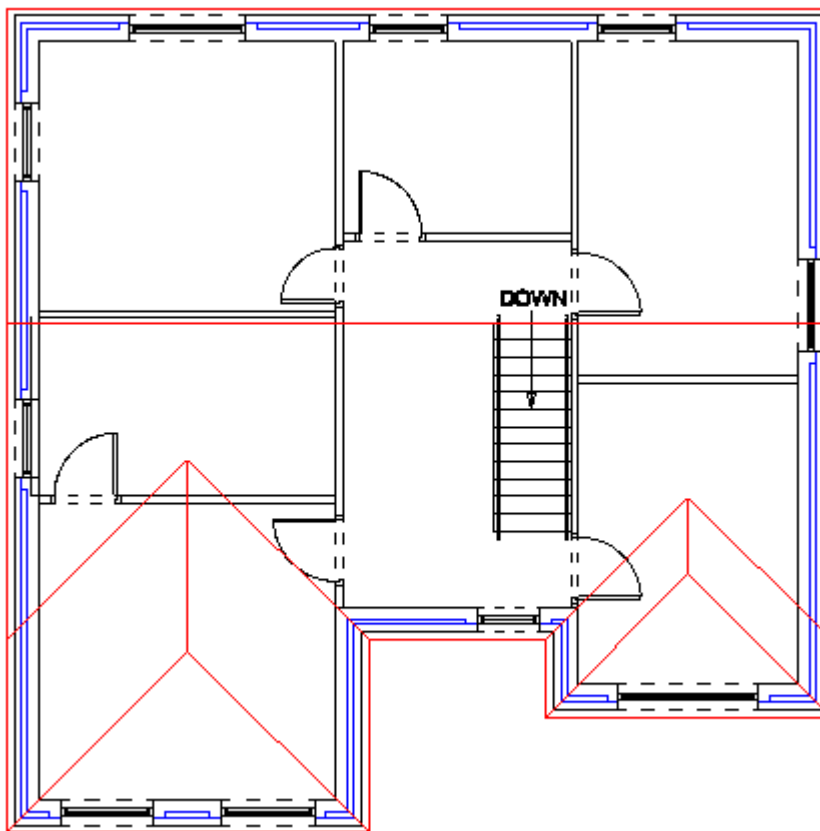
The last section of the roof to draw is that over Bedroom 4 below (again the furniture has been switched off for clarity). Zoom into this area and once more select the 'Roof' button again.

The process is the same as that we have followed on the previous roof section. Make sure the 'Hipped' tab is selected, there should be no need to adjust any other settings, before you select OK'.

Select the wall at position (1) and using the End point snap select two corner points (2) & (3). Again we must indicate the roof to tee into, so press the  key and click on the existing roof line at position (4).




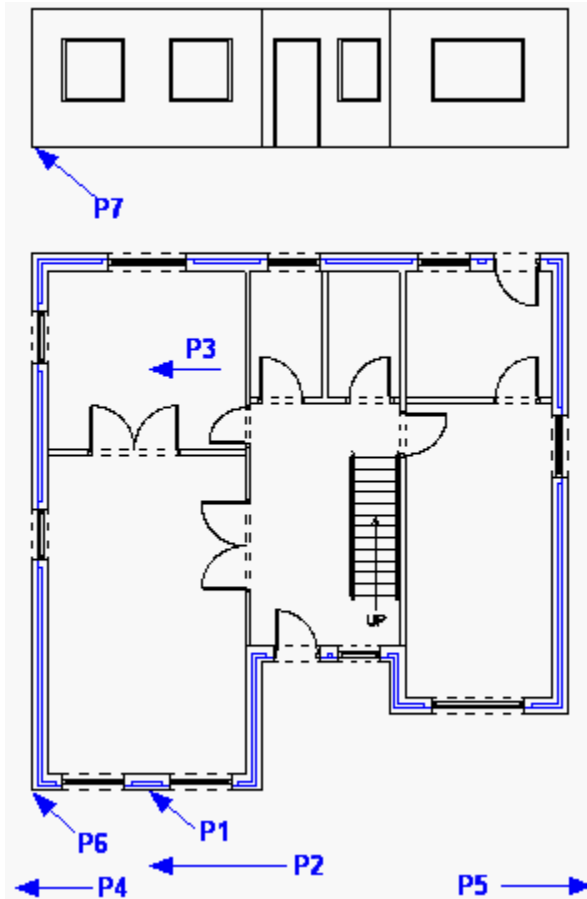
With the furniture layers switched off the first floor plan is shown below.



17 Creating the Elevation

We will now create a front elevation view of the house. As this is a two story building each elevation will be created separately. First we will create the elevation of the ground floor. Select the 'Elevation'

button  and the command prompt reads:



Give wall on which elevations will be based:
Simply click on the wall the elevation is to be based, in this case P1 on the ground floor. The command prompt reads:

Give observation point for elevation:
This point defines the viewing position, imagine you are standing at this point (P2) and looking at P1, so move the cursor down from P1 to P2 and click. The command prompt reads:

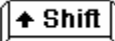
Give Depth of field:
This point determines how far through the building the command looks for relevant entities. We need to indicate P3, this is past the roof ridge line so the whole roof will be included but not past the rear wall so that the doors and windows in that wall are not included. The command prompt reads:


Give left extent of elevation:
We require our elevation to show the complete extents of the front aspect so click on P4 past the left hand wall. The command prompt reads:

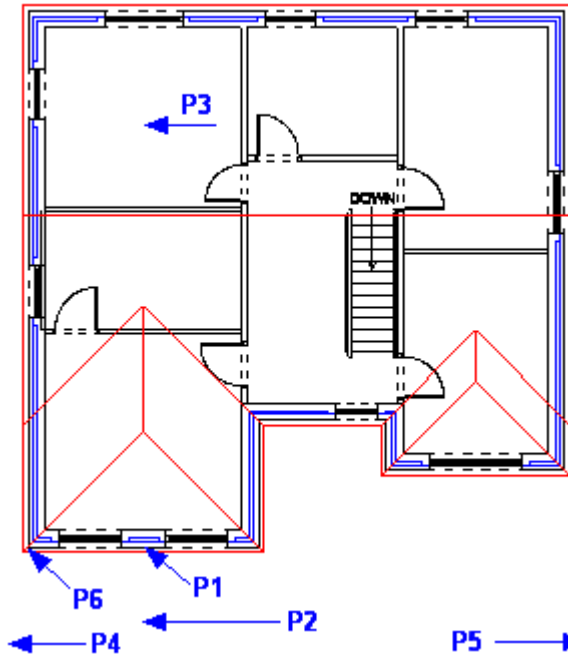
Give right extent of elevation:
Click at P5 past the right hand wall. The command prompt reads:

Give reference point on plan:
This point is the reference point for positioning the elevation on the drawing, click at P6 (Zoom in to ensure the correct point is selected if required). The command prompt reads:

Give position of reference in elevation:
Now click at P7 to position the elevation (you can

hold down the  key here to assist lining up the this point with the last point P6).

Select the 'Elevation' button  again to create the first floor elevation. The points required to create the elevation of this floor are virtually the same as the ground floor except they are selected on the first floor plan.

**Give wall on which elevations will be based:**

Simply click on the wall the elevation is to be based, in this case P1 on the first floor. The command prompt reads:

Give observation point for elevation:

This point defines the viewing position, so move the cursor down from P1 to P2 and click. The command prompt reads:

Give Depth of field:

This point determines how far through the building the command looks for relevant entities. Indicate P3. The command prompt reads:

Give left extent of elevation:

We require our elevation to show the complete extents of the front aspect so click on P4 past the left hand wall. The command prompt reads:

Give right extent of elevation:

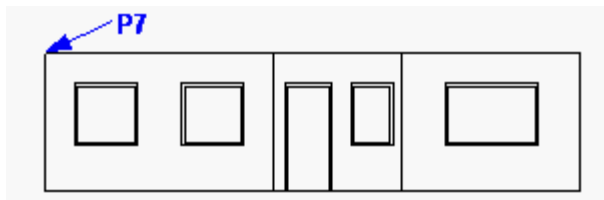
Click at P5 past the right hand wall. The command prompt reads:

Give reference point on plan:

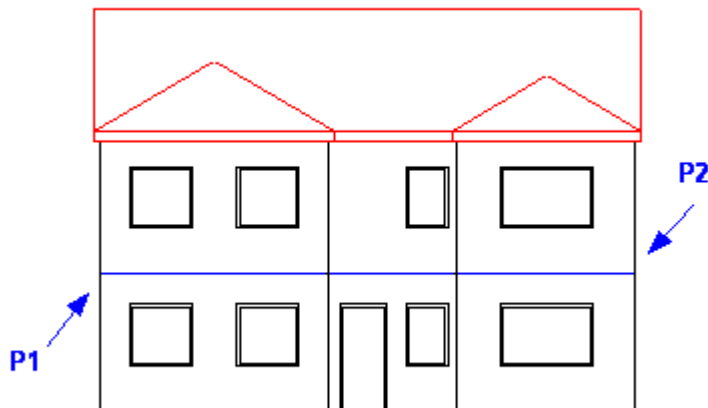
This point is the reference point for positioning the elevation on the drawing, click at P6 (Zoom in to ensure the correct point is selected if required, especially on this floor to make sure a point on one of the roof lines is not selected). The command prompt reads:

Give position of reference in elevation:


Now to position the elevation simply click on the 'End' point at P7.



All that remains to do is to delete the floor/ceiling lines between the ground and first floor as shown below (highlighted as blue lines).



You can delete the six lines (remember there are co-incident ceiling and a floor lines) one by one. The quicker way is to click and hold at approximately P1 and then drag a box to P2, then release the mouse button. In doing this a 'Window selection box' has picked all of the entities completely within the

box. Now press  key.

The house drawing is now complete and should look like the picture below.

