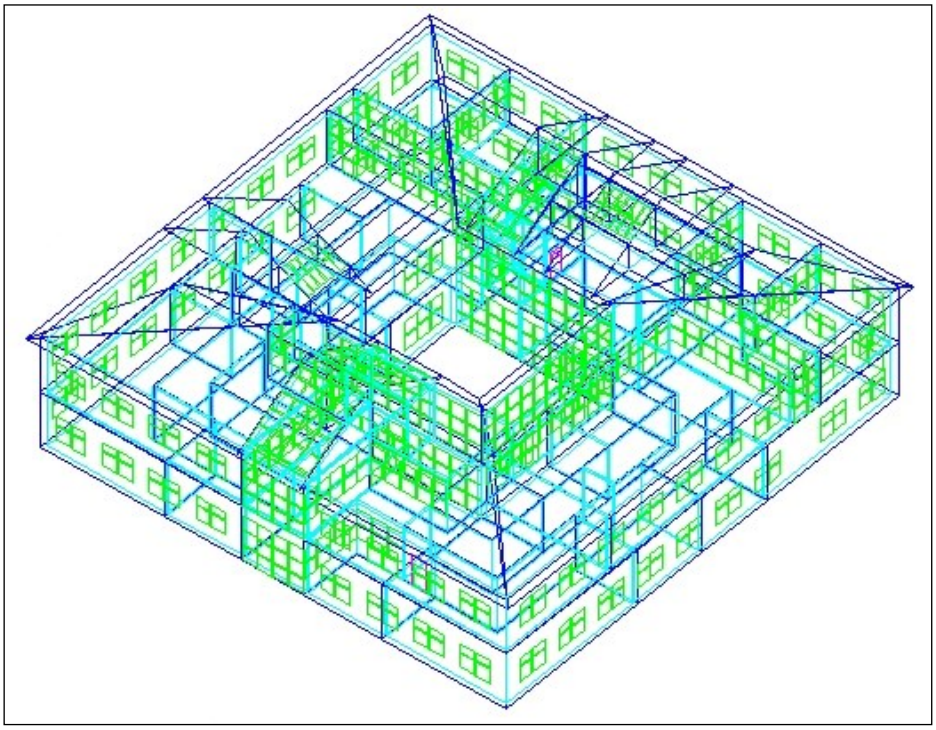
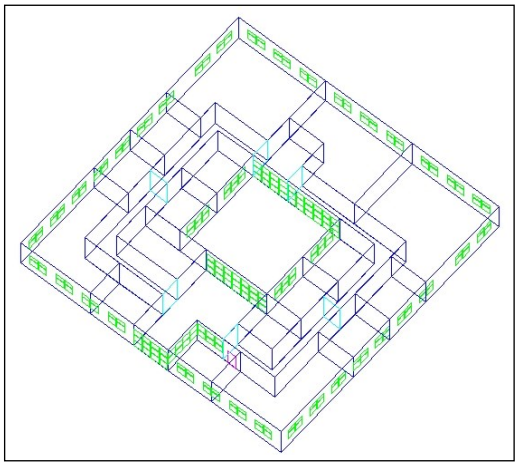
ModelIT: Tutorial 3

This is a square office building (2 storey) with a central courtyard. It is made up of offices, corridors and miscellaneous other spaces created mostly as extrusions. The roof is probably the most complex thing about this model.

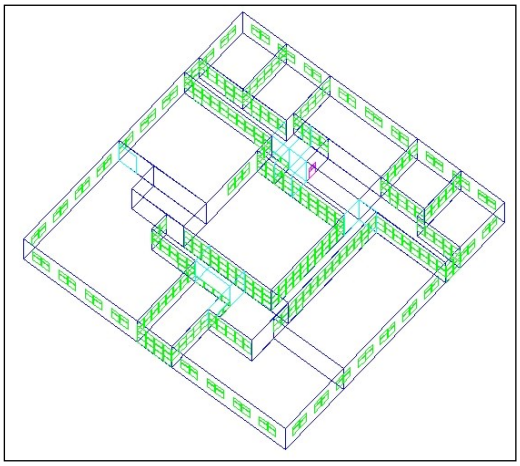


One thing that helps with this building is the use of the “Depth of View” option. Because the two floors have different room layouts, this command really helps keep track of what is going on (also when the roof is added). Only zones that are completely within the range of values are shown.

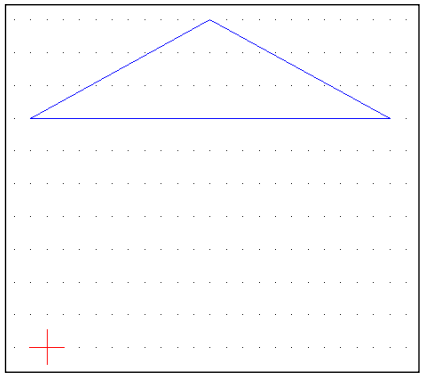
Ground 0.0 to 3.6



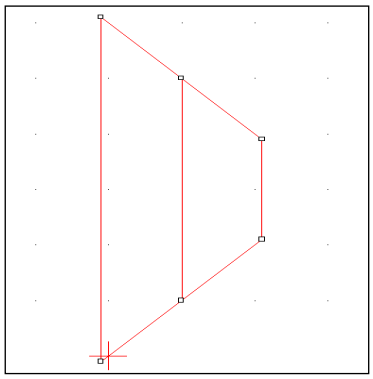
First 3.2 to 7.2



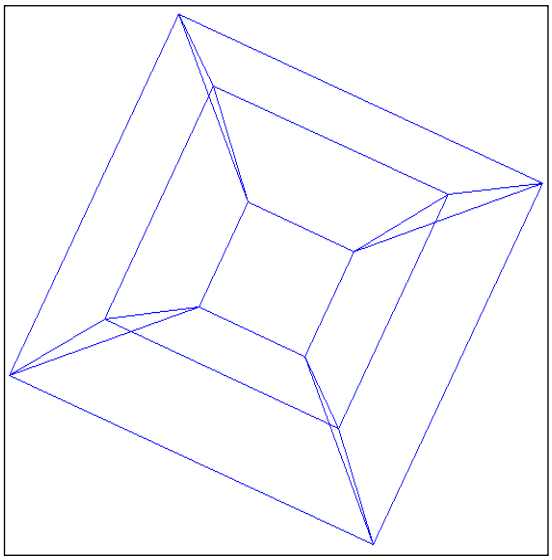
The roof starts of as a simple extrusion in YZ that bounds the overall size (0.5m overlap = 31m) (we have changed the X grid size to 0.5), the extrusion is created at a height of 7.0 rising to 10.0:



It is now possible to edit/move the height up by 0.2m to the required height of 7.2 (the ground and first floor are 3.6m high), and also edit the extrusion to the required angle:

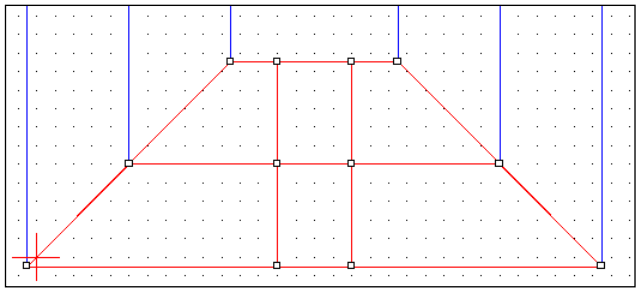


It is now possible to copy and rotate this object to form the additional roof components:

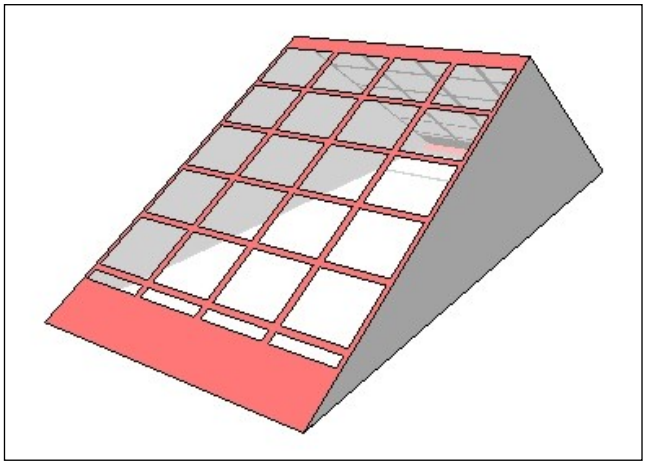
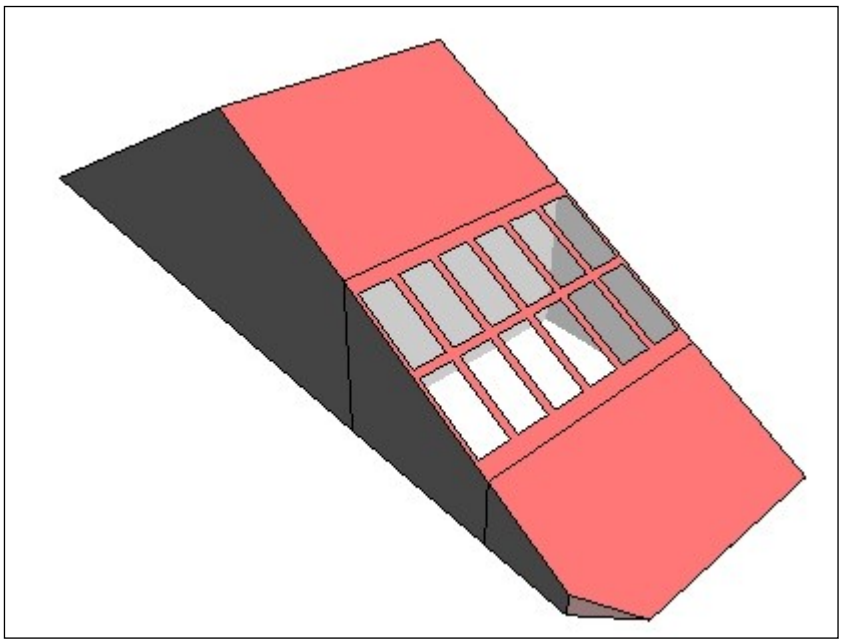


The roof we have created now has to be cut on the North, South and West sections, where we have the atria with the roof glazing.

Looking at the South roof, we have cuts along the X-axis at the 13.0m and 17.0m positions. We split the cut segments into separate zones.



We take this segment of the roof and apply glazing and holes in the floor to give us the required zone:



For the West section we do similar cuts, Y-axis first, then X-axis to generate the required effect (after the second cut we have not separated the zone):