

From a structural point of view there are certain important factors to be considered when designing a conservatory, these are obviously the size and shape, type of glazing and the topography of the site. Often the size of the conservatory as a whole means that it will be subject to Part A of the building regulations, relating to structure. In this instance a structural or civil engineer will be required to assess all aspects of the structure from the foundations upwards, and provide calculations to prove the overall suitability of the conservatory.

It is no secret in the industry that conservatories will be subject to building regulations in the near future, with many designs requiring more than just any old frames with a roof on top to satisfy the building inspector.

Often it is the design of the proposed conservatory, which does not allow for a suitable tie-bar layout, or, that the client simply does not want tie-bars which poses a structural problem. In these, and many other cases a 'Portal frame' will probably be the best solution. From a relatively straightforward lean-to, through to more complicated designs such as valleys or lanterns, a portal frame can be designed to suit. Indeed the cost of a portal frame can often be very competitive, compared to a large tie bar layout with such things as bolsters or reinforcing in the glazing bars. Not to mention a far more aesthetically pleasing result.

With a large conservatory the consequences of 'under designing' are not only serious, ranging from bowing frames to complete collapse, but the cost of remedying such situations will far outweigh the cost of a proper structure. The reputation of the installation company will also suffer considerable damage.

What is a Portal?

A portal frame is a skeletal framework comprising of rafters, stanchions, eaves beams and purlins, which support the roof. This rigid frame provides overall stability to the structure allowing the windows and roof to merely act as a cladding. The lightweight aluminium, high tensile extrusions used, give a much cleaner appearance than steel 'I' beams due to their low profile and use of 'hidden' fixings.

Portals are widely used in commercial construction and for such things as swimming pool enclosures.

Survey

The surveying of a portal must provide sufficient information to allow precise fabrication, although only an initial survey is usually required for an accurate quote. Throughout the project, Ultraframe, offers a high level of support from a full site survey, to installation assistance.

For more information, the Portals department can be contacted on 01200 452340 or email portals@ultraframe.co.uk

