

New Facility
for Herman Miller Limited
Locksbrook Road, Bath

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Judges Comments

This factory on an existing industrial estate on the banks of the River Avon raises the whole standard of the neighbourhood. About a mile away on a residential area we asked the way and got an unsolicited testimonial from an elderly housewife – 'that beautiful building'. Everything about it confirms this lay view. Pavings and landscaping are first class and the shiny orange GRP panels interspersed with tinted glass panels with recessed entrance bays give an exhilarating effect. Although the bay sizes are fixed the planning of space for the machine processes and storing of unfinished and finished materials is very flexible. As explained in the submission the technical thinking is clear and the structure is ingenious, especially the use of the deflection of the main beams to locate the rainwater outlets. Service runs are very carefully considered, are logically located and extremely accessible, and the possible re-location of lavatory units particularly ingenious. The use of the excavated site to lower the road to the loading and unloading bays is effortlessly achieved and very effective. The site is unfenced and all the better for it. The whole makes a fine contribution to an area which is not usually associated with the splendours of Bath. Would there were more such fine new buildings in our towns.

The client, an internationally famous manufacturer of office furniture and equipment who sets high standards of design and manufacture in his own field, provided a very clear brief for the design of this building.

In his statement of direction he stated . . .

'In our planning we should know that:
our need will change, the scale of operation will change,
things about us will change, we will change.'

In his criteria and considerations he stated . . .

'There are no preconceived notions concerning materials, building techniques, etc, to be used. We will solve our facilities problem through the use of materials, construction techniques and finish surfaces that are consistent with Herman Miller's own product development philosophy, which minimises maintenance, recognises that long-term efficiency stems from materials that can become an inherent part of the working environment, and reduces necessity for future resurfacing, repainting, etc . . .

'We will provide a maximum flexibility to accommodate change in manufacturing procedures and processes, and in the nature and types of products.'

A considerable proportion of the output from the building is exported to Europe and depending on expansion there, the current balance of office/manufacturing/storage/amenity uses is likely to vary widely.

The site, on the banks of the Avon, was covered by up to 3 metres of rubble and rubbish and overlaid soft clay and shattered rock. The building covered virtually the whole site after provision had been made for the necessary parking and access.

Steel has played a major part in the realisation of the client's brief, and worked successfully to provide key solutions in all critical areas of design.

The choice of steel for the structural frame was determined by the equation of cost, elegance, low maintenance, availability, speed of erection, and simplicity of detail. The roof structure was plastically designed and arranged to give great repetition of two basic beam sizes for primary and secondary members that were bolted for erection but site butt welded for continuity and control of deflection. The use of stock sizes and standard 20m lengths allowed the steel to be shot blasted and zinc sprayed at the mills, with minimal fabrication. Plastic design theory produced sufficient deflection at mid-span points for the whole roof to be constructed flat, the rainwater outlets being located at points of maximum deflection. The total erected cost of the steel structure, including all testing and quality control, was £1.14 per sq.ft of building (£12.30 per sq.m).

The choice of galvanised metal decking incorporated in a highly insulated roof construction was determined by factors of cost and the need for a material which would contribute to the stability of the structural steel frame.

Steel again was chosen for the support frame of the GRP external wall cladding system, especially developed to enable total or partial dismantling and rearrangement by unskilled labour at any time. The cladding frame was developed and tested full size to ensure that it could be removed even though the main structure may be in a deflected form. Steel was chosen on the grounds of cost, elegance, availability of chosen sections and low fabrication costs of special connectors.

To give the client his required flexibility, the services were specially laid out and two steel gantries were provided to take the main services and to provide access without interference to production.

A further special feature is the mobile toilet unit. This services all the work people in the building and has been equipped to a high standard. It can be moved to any one of sixteen positions in the building if the changing nature of the processes demands this.

