



BODY HEAT

Channelling body heat is just one of the concepts Midlands Electricity plc formulated to help keep energy costs down at a new office development

A new, high quality office development by William Weaver Group Plc at Roman Way Business Centre, Droitwich, uses the latest ideas in energy efficiency to provide comfortable working conditions at minimum cost. This 3,667 sq m development comprises 13 two-storey units with individual units varying in size between 186 and 293 sq m. Three of these units will be occupied by the National House Building Council. The whole office complex uses energy efficient design

(EED) which Midlands Electricity plc helped to formulate. This concept allows energy costs to be kept at a very low level by using heat from the occupants and office equipment to help maintain comfortable working temperatures. This is made possible by a combination of high insulation and responsive, closely controlled electric heating.

William Weaver's building design includes attractive elevations of two-colour brick with double glazed, low emissivity glass in the windows, internal cavity insulation and concrete block internal load bearing walls. This structure has three advantages, explain Midlands Electricity plc - high insulation values (far higher than existing building regulations), the ability to support beam floors which provide uninterrupted spans for each office unit, and an attractive exterior finish.

Direct acting panel heaters, operating on cheaper, night-time electricity, are used to pre-heat the building to design

temperatures, reducing additional energy input to very low levels, giving low total energy costs. In addition, the high insulation levels help to maintain comfortable temperatures during summer.

Electric panel heaters, rated at either 1 or 1.5 kW will maintain a controlled temperature of 19.5°C during winter when external temperatures are below freezing. A natural ventilation system maintains 1.2 changes of air each hour in the occupied areas. Accurate control is provided by 4-channel controllers for each office unit with individual thermostats on each heater which maintain temperatures to within -3°C of the set temperature. The whole complex is efficiently heated with a total of 163 kW of heating - less than 5 watts per square foot, claim MEB.

The combination of full span floors and electric panel heating enables tenants maximum flexibility in office design. Later alterations can be accommodated easily. The

open design enabled William Weaver to install a full access raised flooring system with access points for computer, telephone and power cabling.

Roger Weaver of William Weaver Group Plc feels the EED design has been an attractive feature for potential occupiers. "The design concept, with large single span construction, high energy efficiency and maximum flexibility, has won an enthusiastic response from potential tenants and purchasers. Already more than two thirds of this development are spoken for, following completion in July," he said. "The high quality specification was, I am sure, a major factor. Three units will be occupied by the National House Building Council - a real endorsement of our energy efficient office concept."

Above and right: New office development at Roman Way Business Centre, uses the latest ideas in energy efficiency.

