

A New House in Edinburgh



A purpose-built eco-house for a retired client, in the grounds of their existing large Victorian villa. The topography of the local area means that there is a deficiency of accessible housing, and there is a very real demand for accessible retirement housing to meet the needs of the ageing population. The situation is particularly suited to retirement housing in view of its level access to many services such as shops, doctor's surgery, library, post office and bus stop. Given the topography, the house has been designed to step down the site, however the dwelling provides level access from street level to approx. 40% of the house. Lower levels of the house are reached by steps, which can accommodate a stair lift if required in the future. The house is designed to be open plan, and although small in plan, the spaces feel larger and connected to the house as a whole.

The existing house has an established garden with substantial planting and crops. The development recognises this and aims to retain as much of the existing vegetation as possible, and will provide for new planting and vegetable plots within the newly created garden.

The house has been designed as an 'eco-house' and achieves this on many levels. It sits lightly on the site, which minimised any excavation and the need for any earth or fill materials to be brought to the site. In construction it utilised natural building materials with low embodied energy, sourced as local to the site as possible. The house is heavily insulated to minimise heat loss and is designed to benefit from passive solar gain. The minimum heat input required is provided via a Mechanical Ventilation Heat Recovery (MVHR) system. Fenestration is minimised to the north and exploited to the south with large amounts of glazing. The building achieves good daylighting levels to minimise the requirement for artificial lighting during the day. The roof is a sedum roof, replacing the lost footprint of vegetation on to the roof. This will attenuate the rainwater collected on the roof and excess will be collected for use in the garden.

