



# Bespoke beams for LOW-ENERGY HOMES

Fabric is at the centre of the Passivhaus standard, a world-leading standard in energy efficient construction. By creating airtight homes with superior insulation and mechanical ventilation, Passivhaus increases energy performance and reduces the need for heating and cooling systems.

Beattie Passive, the only company in the UK to be certified by the Passivhaus Institute in Germany, has recently undertaken the construction of a new house in Coventry for Orbit Homes. Bespoke concrete beams have been supplied by Carter Concrete

for the project, which will be built to Passivhaus standards and certified by BRE.

Speaking of the Beattie Passive methodology, which exceeds Passivhaus standards, Ron Beattie said: "What's

**"What's critical about our build method is an exceptionally high standard of fabric efficiency"**

critical about our build method is an exceptionally high standard of fabric efficiency". Each material used in the construction process contributes towards achieving an airtightness standard of  $0.6\text{m}^3/\text{hm}^2$ .

Carter Concrete's foundation beams span three metres and form the base for the ground floor,

providing support for both the ground floor and brick façade. The beams also act as a rigid framework within which Ecoslabs, expanded polystyrene foam slabs, are laid to form a barrier between the insulation material and the ventilated void underneath the structure.

Each beam is produced in Carter Concrete's controlled factory environment which reduces time spent on site. Lifting eyes are preinstalled to facilitate both lifting and positioning of the beams.

Carter Concrete has also supplied beams for bespoke projects throughout the UK, including in Suffolk for a Blackburn's project utilising the Beattie Passive system and for a housing scheme in Fife, Scotland.