

Sustainable Design and Construction Statement

The purpose of this document is to outline the design and construction approach to sustainability proposed for the construction of a new home in the grounds of Whinburn, Bradley.

Blaithwaite Developments approach to Sustainability at Whinburn:

The development proposal at Whinburn is based on the removal of some old and decaying structures and the recycling of the redundant land on which they sit, to provide a building plot for the new homes proposed.

The design of this proposed development was optimised for the intended occupancy of the existing [REDACTED] resident of Whinburn, but with sufficient accommodation for visiting family members. To best suit the intended resident, two of the key design principles for this development were 'simplicity' and 'operating efficiency'.

Consequently, the house has been designed with high performance insulation, windows and doors to minimise the amount of heating energy required to heat the house. An air source heat pump has been specified to minimise the amount of electrical energy required to create that heat. Solar PV panels have been specified to minimise the amount of electricity that is required to be drawn from the National Grid to power that heat pump. And a small woodburner has been specified to provide a simple source of heat during any potential power cuts.

The fabric of the proposed building incorporates sufficient natural stone to blend in with the local vernacular, but keeps its use to a minimum due to its high energy intensity of production and transport. Most of the walls will be built from lightweight aerated concrete blockwork which is far superior to bricks or stone in their environmental performance. The proposed rendering of the walls is supportive of airtight construction methods.

The electrical lighting scheme for the house is exclusively LED technology to further drive down electrical consumption and to maximise the service life of the light elements.

To support cleaner groundwater, the existing septic tank will be replaced with a new sewage treatment plant to the latest standards which will serve both properties.

End.