

Sustainable Design & Construction Statement

Old Vicarage, Conistion Cold, Skipton, BD23 4EA –

1. Introduction:

The proposed development has been designed to exceed the current environmental performance standards outlined in Part L1B of the Building Regulations 2010.

This project involves building a double storey extension to the side of the property to provide a utility, downstairs W/C open plan kitchen/ living dining room with access to the garden. The proposal aims to achieve an overall improvement in regulated emissions, (Building Regulations Part L, through the introduction of insulation, increased performance in the new construction, more efficient heating system (if existing found to be below capacity) and low-energy natural ventilation.

2. Existing building:

Old Vicarage is a two-storey semidetached dwelling which is located in Conistion Cold. The house is a semidetached and constructed using natural stone for the walls, the roof has been finished in natural stone slate flags.

The property has a good size driveway at the side of the property with parking for circa 6 + cars, at the front of the property there is a small patio area which leads onto a large garden.

The existing materials are natural stone walls, natural stone slate pitched roof and white UPVC windows and doors.

3. Proposals:

Ground Floor Layout – Proposed utility to the side and sunroom to the front elevation.

4. Planning Policy:

The site sits within Craven District Council.

Policies applicable:

Craven Local Plan Policies ENV3: Good Design, ENV8: Water Resources, Water Quality and Groundwater.

National Planning Policy Framework (NPPF)

5. Design Considerations

Development proposals should minimise carbon dioxide emission by using less energy, and supply energy efficiently. Water consumption to achieve a water efficiency target of 95 litres/person/day or less. Incorporate user friendly heating controls to ensure they are easy to understand and use and work effectively.

Use of energy efficient white goods, appliances and equipment - e.g. A-rated boiler. Buildings should be designed to use improved energy efficiency measures. This will reduce demand for heating, cooling, and lighting, and therefore reduce operational costs while also minimising associated carbon dioxide emissions.

6. Energy Saving Measures

The ground floor rooms will have natural ventilation in accordance with AD Part F; trickle ventilators, opening glazing and localised intermittent extract fans. The new single storey front and side extension will be construction traditionally and have PIR insulation within the floor, walls and roof. It is assumed that the existing gas central heating boiler will not be of sufficient capacity to adequately heat the existing and extended areas and provide hot water to additional appliances. If a new boiler is required in-line with current Building Regulations and Gas Safe standards and the system will be designed by a qualified Engineer.

The proposed extension fabric has been designed to incorporate insulation measures to exceed the u-values required by the Building Regulations:

- (a) new wall construction to achieve U values of 0.20 or better.
- (b) new roof structures will be insulated to a u-value of 0.12.
- (c) the ground floor to the extension will achieve a minimum u value of 0.15.
- (d) glazing for windows and doors will average U-Values of 1.4w/m²K or better.
- (e) construction details will minimise heat loss via non-repeating thermal bridging by use of Accredited Construction Details.
- (f) lighting and appliances will incorporate high efficiency light fittings utilising LED lamps with an efficacy at 85lm/w. The use of LED lighting will also minimise the internal gains associated with tungsten and fluorescent lighting systems. The residential spaces will have a 100% LED lighting installation.