

Sustainable Design & Construction Statement

Lynridge, Holme Lane, Sutton-in-Craven, Keighley BD20 7LL –

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 single-storey extension to the rear elevation as well as some internal alterations to the existing ground floor, the proposed works will improve the current layout by creating an open plan kitchen / living / dining area at ground floor level as well as new bedrooms at second floor level via a hip to gable loft conversion. 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:

The property to which this statement relates to is a two-storey semi-detached dwelling that is located via Holme Lane, Sutton-in-Craven. This existing dwelling has been constructed using a combination of brick and blockwork / render for the walls, the roof has been finished in natural blue slate.

The property is in an elevated position overlooking the road with a narrow driveway at the side which leads to a detached single garage in the rear garden. The driveway to the side provides off-street parking for 2/3 cars. At the front of the garden there is a small garden which falls away from the front of the house down towards the road.

The existing materials are: block/render elevations, natural blue slate pitched roof and white uPVC windows and doors.

3. Proposals:

Ground Floor Layout – A new single-storey extension on the rear elevation will be constructed to create additional floor area for the kitchen/living/dining area.

Second Floor Layout – A hip to gable loft conversion will create additional living accommodation at second floor level to consist two bedrooms and a bathroom.

Externally, new off street parking will be created for 3 cars at the front of the property.

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 (kitchen, dining, living & lounge) and the second floor rooms (bedrooms & bathroom) will have natural ventilation in accordance with AD Part F; trickle ventilators, opening glazing and localised intermittent extract fans. The new single-storey extension to the rear elevation will be constructed traditionally and have PIR insulation within the floor, walls and roof. The new hip to gable loft conversion and dormer windows will be constructed with a combination of traditional construction and timber frame and will have PIR insulation. It is assumed that the existing gas combi-boiler is of sufficient capacity to adequately heat the existing and extended areas and provide hot water to any additional appliances.

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 0.18 or better.
- (b) new roof structures will be insulated to a u-value of 0.15.
- (c) the ground floor to the extension will achieve a minimum u value of 0.18.
- (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.