## Development Sustainability Assessment 2245-D002

2245 Proposed Residential Development,

Land at Coach Road, Whitehaven, Cumbria.

**Client: Prima Homes Group Limited.** 

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#### 1. Introduction

This assessment is submitted in support of a full planning application for the residential development of a 0.96 Hectare (2.36 Acre) site, located at Coach Road in Whitehaven, Cumbria,

The development proposal as shown is for 41no residential properties, and of these units 10% of the properties (4no) are target allocated as affordable or low-cost housing with support and commitment being provided for the delivery of these units by an established leading Registered Social Landlord.

#### 2. The Requirement

As part of the Local Planning Authority's validation requirements for major applications, a Development Sustainability Assessment is required, which should consider and address the following key areas:

- a. Measures to minimise energy and water usage;
- b. Reduction of CO2 emissions;
- c. Sustainable drainage;
- d. Pollution;
- e. Waste minimisation;
- f. Use of materials and Generic Unit Design;
- g. Use of Micro-renewables;
- h. Ecology;
- i. Transport;

This assessment is produced to demonstrate how the proposed development seeks to positively address the impact of the scheme in relation to these relevant sustainability issues.



#### 3. The Assessment

#### a. Energy / CO2 Emissions

A combination of the following measures will be incorporated in the scheme in order to reduce emission rates;

- A well-considered palette of quality materials, responsibly sourced in respect of both environmentally considerate manufacturing and mode of delivery, but also comprising very high properties and qualities in respect of thermal performance, thus enabling the maximisation of air tightness in the construction phase, minimal site wastage and thus delivering a better, greener design solution.
- High performance windows and doors, to maximise air tightness and thermal efficiency to reduce heat loss.
- Demonstrating the incorporation of sound and established techniques and high technical standards into the selection of the building fabric to further reduce the likelihood of thermal bridging through the structures. These have been developed by our Architects and are recognise as featuring enhanced and accredited detailing.
- The selection and installation of super high efficiency condensing gas boilers in the design of the domestic hot water and domestic heating systems, complete with a high standard of insulated pipe work.
- The design and Installation of efficient internal domestic lighting, 100% of such lighting being installed with dedicated low energy or LED fittings.
- Supplying energy efficient white goods with a minimum A rating as defined under the established EU Energy Efficiency Labelling Scheme.
- The design and Installation of efficient low voltage or LED exterior lighting and security lighting, which will be provided with dedicated energy efficient fittings and/or PIR activation or timer control.
- Locations for individual rotary drying units will be provided in garden areas.

#### b. Water Usage

A combination of the following measures will be incorporated into the scheme in order to reduce on site water demand;

• Water consumption will be designed to be kept to a minimum through the installation of dual flush WC's, flow reducing taps, controlled flow shower units, pipe work and fittings.



• Externally there can be provision for water butts to collect rainwater in enclosed/screened rear garden areas.

#### c. Sustainable Drainage

In compliance with statutory requirements and the recommendations of the NPPF, a Flood Risk Assessment and Surface Water Management Plan have been comprehensively undertaken, and which accompanies the planning application. The core design methodology employed within the mains site drainage scheme has been carried out to provide adequate attenuation and storage of surface water run-off, and which limits and minimises only foul drainage flows taken into public sewerage infrastructure.

#### d. Pollution

Through consideration and refinement of the technical material specifications for primarily glazing, insulation products incorporated into roofs, external and internal walls and separating walls, ground floors, hot water storage and associated pipe work, a target standard for low Global Warming Potential (GWP) and low Ozone Depletion Potential (ODP) will be delivered. These materials will incorporate and deliver a low level emissivity standard to the environment from the property. The specification for space heating and associated hot water appliances will help to ensure that nitrous oxide emissions from space heating and hot water is duly minimised.

#### e. Waste Minimisation

It is proposed that prior to commencement of the construction phase of the development, a Site Management Plan will be produced and fully implemented to reduce and monitor the levels of waste generated and disposed of through the delivery of the development and to ensure that any such disposals are executed efficiently and responsibly from an environmental perspective. Procedures will be included to seek to minimise any waste generated from the site and to sort, re-use and recycle where possible construction waste.

#### f. Use of Materials and Generic Unit Design

As responsible Architects and Developers, we will seek to employ a combination of the following measures which will be incorporated into the scheme to ensure the use of suitable high quality and responsibly sourced materials:

- A well-considered palette of quality materials, responsibly sourced in respect of both environmentally considerate manufacture and mode of transportation and delivery, but also comprising good properties in respect of thermal performance, thus enabling the maximisation of air tightness in the construction phase, minimal wastage and better, greener solution.
- Demonstrating the incorporation of sound and established techniques and high technical standards into the selection of the building fabric to further reduce the likelihood of thermal bridging through the structures.
- In terms of the selection and use of materials it is intended that a BRE Green Guide elemental rating of A to D will be achieved for core materials employed for constructing roof, external and internal walls, structural floors and windows and doors.
- All timber products used will be responsibly procured from sustainable sources, and only be treated with approved and environmentally certified non-toxic solutions with appropriate Chain of Custody provision in compliance with FSC and BS 5268 and BS EN 14250 standards.
- By employing high standards in respect of material selections and usage, the constructed properties
  will be designed and built to deliver SAP/EPC standards that exceed the standards defined by current
  Building Regulations.

#### g. Use of Micro-renewable

Consideration will be given to the possible additional provision of on-site renewable energy generation. Potential renewable energy features may include the installation of solar water heating, solar photo voltaic roof panels for electricity generation, air source heat extraction and provision for independent solid fuel heat recycling.

#### h. Ecology

In compliance with stated requirements and the recommendations of the NPPF, an Ecological and Habitat Assessment has been comprehensively undertaken, and which accompanies the planning application. In addition, a Landscaping Assessment and Report has also been included with the application. All tress and hedges that border the site will be retained.

#### i. Transport

In compliance with stated requirements and the recommendations of the NPPF, the Developers have considered solutions which detail the ways in which occupants of the development can be given the choice to make use of and promote the daily use of more sustainable transportation methods, such as travel share, and/or public transport as well as environmentally friendly modes of travel.

#### N Bailey Director Manning Elliott Chartered Architects