

SUSTAINABILITY STATEMENT

Project: Moorland Avenue, Dodworth, Barnsley

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Produced by: Gleeson Homes and Regeneration

homes by
gleeson

builders for generations

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Introduction

The Sustainability Statement has been produced by Gleeson to support the planning application for development at Moorland Avenue. This redevelopment of a brownfield site will result in the provision of 33 new dwellings:

The format for this statement is based loosely on the Code for Sustainable Homes framework that goes beyond just energy use to cover a wide range of issues that assist to create a holistic approach to sustainable development.

The aim of the scheme is to provide good quality, but primarily affordable private housing for sale to the local population. We can confirm all plots will achieve Code Level 3 full compliance. For the avoidance of doubt this includes meeting the current Part L of Building Regulations, which reduce carbon emissions from the previous approved Regs by 25%, thus energy costs are greatly reduced. We are unable, however, to offer any form of renewable energy on this scheme due to viability constraints.

Working towards Code for Sustainable Homes & CO2 Emission Reduction

The Code for Sustainable Homes aims to protect the environment by providing guidance on the construction of high performance homes built with sustainability in mind.

With reference to Category 1, section Ene1 of the code for sustainable homes Gleeson are currently achieving an improvement in the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) from the current building regulation standards, by implementing the specification below on all new developments. In addition to this Gleeson will install energy efficient internal light fittings, a dual zone control will be specified on the heating system and a maximum air pressure test result of 5.5 cu.m/(h.sq.m) will be achieved. This information will be passed onto an independent SAP Assessor for confirmation of the results. To follow is the proposed insulation specification and construction method highlighting U-Values (based on a typical 3 bed semi)

		O/A U-Value
Ground Floor Construction	As an example;100mm Gen 1 concrete with power float finish on 1200 gauge polythene DPM, 110mm polyurethane insulation with 25mm vertical edge insulation on minimum 150mm consolidated and blinded hardcore, or similar to achieve the same u value.	0.14 W/m2K
External Cavity Walls	100mm facing brickwork, 100mm cavity with bonded bead insulation and 100mm lightweight blockwork with 12.5mm plasterboard on dabs with skim finish.	0.25 W/m2K

Roof Space	400mm fibreglass insulation over whole roof area.	0.10 W/m ² K
Windows & Doors	UPVC	1.4 W/m ² K

Analysing the specification above and taking into consideration the overall specification, Gleeson Homes can confirm at least two of the key building envelope elements will achieve a relevant Green Guide rating of A+ to D. The UPVC windows will provide a Green Guide rating of minimum C, and the external cavity walls will provide a rating of A, relating to section Mat 1 of the Code For Sustainable Homes.

To assist in reducing the future heat loss of a dwelling, Gleeson Homes are currently achieving air permeability test results which are of a greater standard than the building regulation standard minimum of 10m³ at 50 Pa. The companies average test result is currently 5m³.

With reference to Category 6 section Hea 2 of the code for sustainable homes, Gleeson Homes are currently achieving higher standards of sound insulation than those outlined in Approved Document E of the current Building Regulations. By complying with Robust Details Gleeson go over and above Building Regulations, committing to providing a minimum 5 dB improvement.

It is also widely recognised that user behaviour has a very significant role to play in reducing energy use. Gleeson aim to provide homebuyers with good quality, concise information about their home, its appliances and also impacts on future purchasing decisions. Information about Energy labels and energy-saving tips will be included as part of every home's handover pack.

Water Use

Large amounts of energy are used in the purification and transport of potable water. Again education plays a key role here and Gleeson will include leaflets to educate users on simple and efficient ways to save water as part of the handover pack.

Under Part L, design must be geared to cap water usage at 120 litres per person per day. On this site where we will be building to Code Level 3, we again go over and above Building Regulations and design to a maximum usage at 105 litres per person per day.

Materials

The typical construction that Gleeson use for their developments would often achieve A or A+ ratings under the Green Guide to Specification. Code for Sustainable Homes also requires key building elements to be assessed, the requirements of which will be met or exceeded for Code Level 3 compliance.

Surface Water Runoff

The aim of this theme is to establish/mitigate the level of risk associated with water run off from the new developments. In this case, this site is brownfield and previously occupied by council premises and associated hard standing. Please see the drainage strategy for further detail.

Waste

Gleeson take their construction responsibilities seriously and actively target the amount of construction waste sent to landfill. They regularly use a construction waste company called Reconomy that is able to recycle a very high percentage of construction waste. This combined with best-practice site management means that waste sent to landfill on this site will be greatly reduced when benchmarked against similar, conventional schemes.

Health and Wellbeing

One of the criticisms levelled at much new housing is the poor quality provision of outdoor space. This is certainly not the case on this development. Every new home has a private garden and the vast majority of these are generous in size, in excess of typical house builder provision. These provide ample opportunity for secure children's play and sitting out space.

The houses are typically arranged as semis or detached units which as a consequence limit sound transmission routes. In addition all houses will make use of Robust Details for shared walls where flanking sound transmission could occur. This ensures a high quality internal environment for all residents.

Each housetype has also been assessed for natural daylighting, and all pass the requirements of Code for Sustainable Homes.

Ecology

Sustainable development understandably aims to minimise the impact on the local ecology whilst taking opportunities to enhance the existing. The first step in the hierarchy of responses is to use brownfield land wherever possible. This prevents encroachment onto land that is not previously developed and generally has higher biodiversity value. This site largely comprises brownfield land, previously the site of a council facility. A small portion of the site was classed as green space, comprising simply a grassed area, for which a fee will be paid to the council by way of compensation (please see proposed s106 HOTs for further details).

Social and Economic Sustainability

This scheme has an important role to play to achieve wider social and economic sustainability benefits. The site currently stands empty, with the council building now unused. By proceeding with this development the *regeneration process can bring the site back into use and over time the new residents will create a revitalised and expanded community.*

The process of construction also offers opportunities for economic development and training in the area. Gleeson would typically employ a proportion of their workforce from the local area and here this development could have significant impact.

Conclusion

As evidenced from the above, this scheme has the potential to make a significant sustainability contribution. Despite the constraints of affordability, the scheme will meet Code Level 3 compliance along with numerous other small interventions that will be made to elevate the approach beyond the

expected lowest common denominator response. Capitalising on these opportunities Gleeson are able to deliver a scheme that makes efficient use of resources, reduces waste and uses education to embed the sustainability message and makes a long-term difference.