

Sustainability Report

Lincolnshire Lakes,
Scunthorpe



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Executive Summary

Keepmoat's residential development off Burringham Road, Scunthorpe includes the construction of 599 no. properties.

Measures will be enacted throughout the construction phase to ensure a sustainable development is created.

Keepmoat operates a nationwide timber procurement policy.

Eco-sanitary ware and flow restriction devices will be included in the construction of every property.

A site waste management plan will operate at the construction site.

Energy efficiency measures will be included in the construction specification of every home.

Photovoltaic arrays will be included in the service designs to deliver compliance with the Building Regulations Part L, whilst a fabric first approach has been taken to ensure compliance with Part L whilst also maintaining low maintenance and running cost for the end user.

1 Introduction

This Sustainability Statement has been prepared to accompany the planning application for the proposed residential development of 599 dwellings at Burringham Road, Scunthorpe including associated highways infrastructure, landscaping and open space.

This Statement seeks to highlight those measures that have incorporated into the design of the development and will be incorporated into the build phase such that a sustainable community is delivered. The following topics are considered within this report;

- ▶ Material Selection
- ▶ Waste Management
- ▶ Health & Well-being
- ▶ Water Efficiency
- ▶ CO2 Emissions

A number of documents have been used to complete this report. These include; National Planning Policy Framework (NPPF) includes a presumption in favour of sustainable development. The Framework expands upon the guiding principles and objectives of a successful planning system. These include the building of a strong and competitive economy, delivering high quality housing, requiring good design and meeting the challenges of climate change.

Approved Document L – Conservation of Fuel & Power sets fabric efficiency standards and together with SAP, establishes a maximum CO2 emission rate and primary energy rate for new build residential properties. The Approved Document is the Government's sustainable design benchmark in England.

The Future Homes Standard: 2019 Consultation on changes to Part L and Part F of the Building Regulations for new dwellings (January 2021) provides a summary of the received responses to the 2019 consultation and the Government's intentions to revise Part L of the Building Regulations in 2022 and introduce a FHS in 2025.

North Lincolnshire Council have signed the Nottingham Declaration on Climate Change that required them to develop a Climate Change Action Plan. As a response, they then produced the Humber Vision 2030.

2 Sustainable Development & Response to Climate Emergency

In Autumn 2019 the Government consulted on proposed revisions to Part L1A and the proposed introduction of the Future Homes standard in 2025. Keepmoat responded to the consultation and established an internal working group to work through the implications of future Part L revisions to their house type designs, national specifications and supply chain networks. Notwithstanding this, Keepmoat supports the transition to the Future Homes Standard and a zero or low carbon housing stock within the context of a low carbon national grid network and indeed zero carbon economy.

The details that follow are intended to demonstrate the measures Keepmoat has taken in response to the climate emergency and the necessary transition to a zero-carbon economy;

The Group monitors and tracks CO₂ emissions arising from all site construction activities, including transportation to and from site. All sites are connected to the national grid at the earliest opportunity to limit diesel consumption and all plant used is fitted with diagnostic tools to monitor fuel efficiency;

In 2021 greenhouse gas emissions per home sold were 1.90 tonnes of CO₂. This was a 12% reduction over 2020's performance. The Group has introduced energy efficiency module training to all site managers;

In advance of the Environmental Act, Keepmoat will be proactive to ensure compliance with 10% Biodiversity Net Gain;

Keepmoat, like all in the house building industry, will install renewable technologies on new developments where there is a planning requirement to do so, or where the Building Regulations require it.

3 Material Selection

Keepmoat operates a nationwide timber procurement policy. At its core is a requirement that timber products are sourced from suppliers who can adequately demonstrate and provide appropriate evidence that the supplied material is responsibly and legally procured from a sustainable source. In all instances, suppliers must present Chain of Custody or FSC certificates demonstrating compliance prior to the purchase of materials.

Included within Keepmoat Environmental Policy is a commitment to minimise environmental impacts from all operations and activities, to be efficient with materials, avoid the creation of waste, and a requirement to use sustainable, re-usable or recyclable materials where possible. This policy is applicable to all Keepmoat suppliers. As part of the procurement process, Keepmoat reviews the environmental credential of suppliers, and requires compliance with its Supplier Principles, which includes requirements on environmental compliance, use of materials, use of toxic and hazardous materials, health and safety, working hours, age and benefits, discrimination and ethical behaviour.

4 Waste Management

In 2012 the Government repealed the Site Waste Management Plan Regulations, therefore there exists no legal obligation to operate such a plan at the application site. However, as an environmentally responsible developer Keepmoat operate a Plan on all of their developments.

Keepmoat conducts regular reviews of the Group's performance. At the present time the Group is engaged in a drive to reduce the volumes of waste generated on site and increase the percentage of waste diverted from landfill through reuse and recycling.

This level of performance is enforced through the adoption of a robust Site Waste Management Plan but also through effective and coordinated design and procurement. The following briefly summarises the policies contained within the Groups waste management policies.

Design to minimise wastage during the construction phase.

Landform design and mass balance exercises are undertaken to retain as much material on site and reduce disposable volumes. There should be careful sub and topsoil storage and accommodation within the predetermined landform.

Maximise the value of recycled aggregates through the separation of physical and chemical contaminates and through the careful matching of the materials generated with appropriate site use.

Regular inductions and toolkit talks to all contractors and sub-contractors are standard.

Careful site management of stockpiling and storage, segregation of waste groups and the prevention of cross contamination are implemented as standard.

Agreements are in place with suppliers to reduce the amount of packaging on goods delivered to site. Take back agreements and "*just in time delivery*" are in place with key suppliers.

Work with suppliers to specify the correct size of materials, thereby reducing cuttings and waste material.

All waste contractors are required to segregate demolition waste off site and provide records of such.

The regular monitoring and reporting of waste volumes with cross reference to previous performance and annual targets.

Landfill will be the last option when no economic solution can be found.

5 Health and Wellbeing

In achieving ever stricter levels of sustainability, it is important that one does not lose sight of the fact that the industry is building homes that people can live in and not just occupy. This is an integral part of sustainability. While it is quite difficult to measure health and wellbeing, the following are a sample of the measures that will be included in the detailed design to address this issue.

Each property will have a large living/dining space or family space;

Each of the principal living rooms will have sufficient glazing to allow natural light to penetrate the rooms, reducing the need for artificial lighting. Numerous studies have also shown this to be beneficial to the general health and happiness of occupants;

Sufficient glazing also allows for positive solar gain benefits which will naturally lessen the energy requirement of each home;

All houses will benefit from a garden or private space for recreation. Each property will also have a designated space for recycling facilities;

The development will include open landscaped spaces for recreation; The site layout will be designed to ease travel for cyclists and pedestrians;

The party wall specification will reduce sound transmission between properties providing comfort to future residents;

The scheme will comply with the current security standards included in Approved Document Q; and

A home user guide or handover pack will be placed in the home of each property.

6 Water Efficiency

Approved Document G of the Building Regulations requires each new home to achieve a water consumption rate of no more than 125 litres per person per day. Keepmoat proposes to incorporate low flow sanitary ware and eco-sanitary products into the design of each property to achieve a low water consumption rate. This strategy will permanently reduce water consumption. The average Keepmoat home has a water consumption rate of 83.73 litres per person per day.

7 Sustainability Strategy

7.1 Local Policy

The North Lincolnshire Core Strategy (2011) and Lincolnshire Lakes Area Action Plan [AAP] (2016) include policies relating to energy efficiency and sustainability.

Core Strategy Policy CS4 requires new development within the Lincolnshire Lakes development to be designed to the highest standards to meet energy efficiency and construction techniques.

Core Strategy Policy CS5 requires new development to incorporate the principles of sustainable design, including in terms of site layout, minimising energy consumption and maximising the use of on-site renewable forms of energy, whilst mitigating against impacts of climate change.

Objective 4 of the Lincolnshire Lakes AAP seeks a high standard of sustainable design in new developments within the AAP Area.

Policy SS2 of the AAP requires the design of new development to minimise the use of energy and maximise energy efficiency through the use of renewables and to maximise solar orientation through optimal use of east-west alignments and passive design within dwellings.

Policy SD1 of the AAP requires applications for new development to be accompanied by an assessment that considers the opportunities and measures considered for delivering resource energy efficient sustainable development. The policy advises that the Government's optional national technical standards should be the target for new residential development in the AAP Area and that justification should be provided where this is not achievable. The policy states that the Building Regulations will remain a baseline standard that must be achieved.

7.2 National Policy

The Government has legislated to achieve net zero carbon by 2050 at the latest and this necessarily will have considerable impacts on how new homes are constructed and heated.

In January 2021 the Government published its response to the Future Homes Standard (FHS) consultation. In the response document the Government confirmed it would proceed with the Standard in 2025, subject to a public consultation on the full technical specification. The Standard is expected to deliver a 75% reduction in CO2 emissions and require new homes to be heated from a low carbon heat source such that homes will be "zero carbon ready". It is expected that the Standard will represent the final step for the house building industry and further reductions in CO2 emissions will be delivered by the decarbonisation of the National Grid.

In anticipation of the 2025 Standard, the Government amended Part L of the Building Regulations on June 15th 2022 to deliver a saving of 31% in CO2 emissions. The revisions are expected to provide the industry and supply chains with the incentive, skills and time to prepare for the FHS in 2025. Transitional measures will operate such that all plots commenced on or after June 15th 2023 will be constructed to the updated Regulations.

The Part L 2021 Regulations include improved u-value backstops, the inclusion of a new Primary Energy target, updated CO2 emission factors to take account of the progressive decarbonisation of the national grid and the retention of the Fabric Energy Efficiency Standard. The formulation of the target recipe also makes it necessary to include renewable generation or low carbon heating to deliver compliance with the target metrics.

7.3 Proposed Strategy

In response to the recent revisions to Part L of the Building Regulations, Keepmoat will construct each home at the application site to a robust energy efficient specification capable of complying with the Fabric Energy Efficiency standard. Furthermore, all plots will be fitted Photovoltaic Panels.

7.4 Energy Efficiency Measures

Keepmoat's exposure to the marketplace has confirmed that purchasers demand energy efficient homes with low operating costs and familiar user-friendly technologies. As such the Group's current construction specification has been tailored to these demands and incorporates many of the lean and clean measures of the Energy Hierarchy. Listed below are some of the measures that will be incorporated into the detailed design of the scheme;

The construction specification of every home will include high levels of insulation in the ground floor, external walls and roof spaces;

The detailed house type designs will incorporate intelligent junction design to reduce heat loss caused by thermal bridges, including the specification of thermally broken lintels;

An efficient gas condensing boiler will be installed in each property. The heating designs of each house type will include dual zone controls with delayed start thermostats. The heating systems will be designed to operate with a flow temperature of 55 degrees;

Energy efficient lamps will be installed in every light fitting;

Each property will be naturally ventilated using efficient decentralised continuous extract fans to ensure the internal living environment will be healthy and comfortable;

Each home will benefit from cross ventilation and a sufficient air change rate to facilitate natural ventilation and lessen the risk of summer overheating. As part of the Building Regulations submission for the site, Keepmoat will submit SAP calculations and Part O calculations to the relevant building control body. These will demonstrate that no property will suffer from a high risk of summer overheating;

High performance glazing will be installed in each home; The homes will be built to an energy efficient masonry specification. The outer leaf will be an approved brick and the inner leaf will be a locally sourced thermal blocks with a 150mm insulated cavity. This will ensure there is sufficient thermal mass to retain heat, both as a result of solar gain and internal heating but also assist in cooling in summer months;

Each entrance will be illuminated with an energy efficient external light or provision will be made for a purchaser to install such a fixture; and

The white goods installed in each property or offered to purchasers will be energy efficient with an A+/A rating. The table below provides a summary of the energy efficiency standards to be achieved in the design and construction of each home;

Table 3: Specification Summary

Element	Part L Requirement	Keepmoat Specification
Walls	0.26W/m ² k	0.19W/m ² k
Party Walls	0.20W/m ² k	0.00W/m ² k
Roof	0.16W/m ² k	0.10W/m ² k
Floor	0.18W/m ² k	0.17W/m ² k
Glazing	1.60W/m ² k	1.3W/m ² k
Door	1.60W/m ² k	1.1W/m ² k
Air Permeability	10m ³ / (h.m ² @ 50 Pa)	4.5m ³ / (h.m ² @ 50 Pa)

7.5 Photovoltaic Panels

The Government's Part L 2021 Recipe includes a PV provision in proportion to a building's footprint. This calculation methodology makes it all but certain that new homes serviced by a gas boiler will have a PV array. PV arrays can be easily integrated into the roof designs of the house types proposed at the application site. The arrays are most efficient when orientated in a southerly position and installed on a 30-45 degree roof pitch. However, it is possible to install arrays on other orientations, though such installations require a larger quantity of panels to satisfy generation targets.

8 Evaluation

This Sustainability Report accompanies the planning application for the proposed residential development off Burringham Road, Scunthorpe. The Report details the measures that will guide the construction of the development and considers a number of categories including; materials, waste, water consumption and energy efficiency. These measures can be summarised as follows;

Keepmoat will operate a robust Sustainable Procurement Policy which emphasises the legal and sustainable sourcing of building materials;

A comprehensive, efficient and robust SWMP will be implemented. This plan will adhere to the waste hierarchy of reduce, re-use and diversion from landfill; Measures will be incorporated into the design of each property to achieve a water consumption lower than 110 litres per person per day;

Each home will be constructed to robust standards of energy efficiency such that each complies with the revised Fabric Energy Efficiency standard;

In conclusion, the measures above take account of current best practice guidance and are in line with the letter and spirit of the NPPF. As such a sustainable development is proposed and we recommend the approval of these measures by the local planning authority.