



C G F R Y & S O N
BUILDING A BETTER PLACE TO LIVE

Phase 3b Energy Statement

June 2026



WELBORNE



Energy Statement

Our housing developments are developed with sound environmental principles and sustainability in mind from the very start. High quality design is an integral part of sustainable development. Sustainability is about creating a place which not only has low carbon emissions, but one where people will want to live, and which is healthy, attractive, safe, encourages walkability and is secure.

All our projects undertake a scheme/site specific Aspects and Impacts Register from which an environmental plan is developed. All sites follow our environmental policy and management system. An external consultant will also inspect our sites on a three weekly basis to audit our environmental practices. We are currently working with the Supply Chain School (CITB) in creating further awareness and specific training in climate change and sustainability practices amongst our employees.

CG Fry & Son has regard to the energy hierarchy when designing any development, believing that building a home with a low energy demand is the best long-term way to deal with high CO2 emissions and fuel bills. The efficiency of the “building envelope” is key to this.

FABRIC FOUNDATION APPROACH

Our increasingly energy efficient new homes not only provide comfortable and healthy living for our purchasers but they also help to reduce energy bills. We believe that building a home with a low energy demand is the best long-term way to deal with high CO2 emissions and fuel bills. The efficiency of the “building envelope” is key to this.

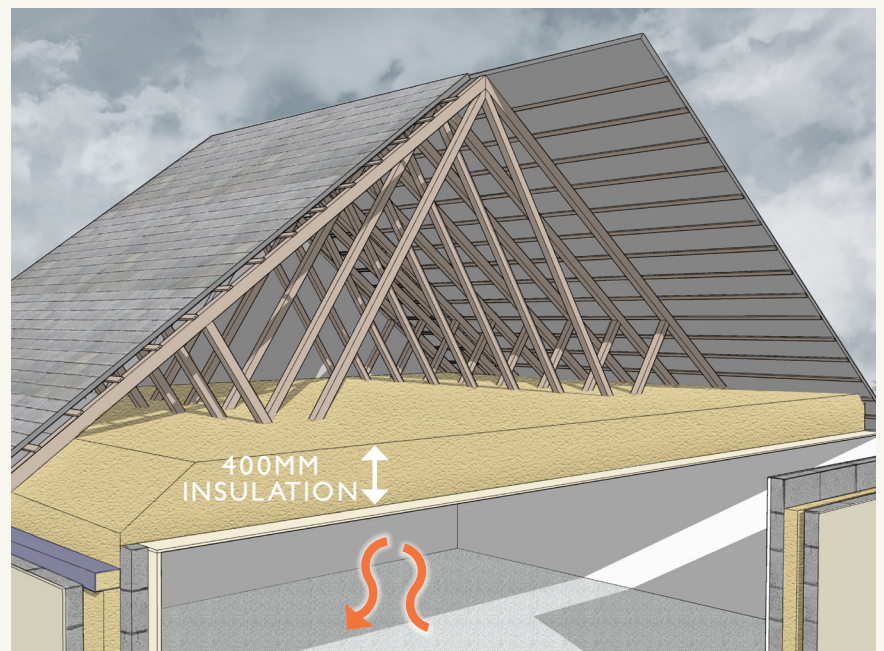
Our homes are designed to use energy efficiently and are built with quality and durability in mind from the outset. Good levels of insulation and airtightness ensure that energy use is kept to a minimum, while an efficient ventilation system ensures that our homes provide a healthy living environment with good indoor air quality.

Our new homes are built using a traditional masonry cavity wall construction, which has been future proofed to include the highest levels of insulation. Our early adoption of a fabric first approach

has allowed us to develop skills in constructing thermally efficient traditional buildings in this which will assist us to manage the change to this new standard, and which will allow us to continue to use local materials and labour.

WELL INSULATED

Each CG Fry & Son home has 100mm of insulation in the 150mm wide cavity, 200mm insulation in the ground floor and a minimum 400mm of mineral fibre insulation in the loft, which significantly reduces heat loss.



THERMAL BRIDGE

High levels of workmanship and attention to detailing ensure that heat loss through the fabric is kept to a minimum - according to the building research establishment (BRE) thermal bridging caused by poor construction detailing can cause up to 30% of heat loss.

To reduce and eliminate thermal bridging C G Fry and Son have developed bespoke construction details which have been thermally modelled and checked by independent SAP assessors.

ACOUSTICS

In addition to other energy saving measures such as low energy lighting, low water use, low-e double glazing, better heating controls, our houses are designed to reduce noise transfer through party walls. Noise transfer between houses is reduced

by providing sound insulated separating walls. All party walls and floors are sound insulated to ensure they meet the required values for airborne sound insulation to walls, floors & stairs.

MATERIALS

In terms of materials, products will be used which are made from recycled materials or which make the best use of raw materials. For example, an engineered joist system for first floor construction allows the manufacturers to convert much more of each tree log into structural timber than with traditional sawing. All timber is procured from a FSC or PEFC certified timber source and is sourced from certified suppliers and, where possible, local materials are used to reduce transportation.

Reclaimed demolition materials will be used where possible, including crushing existing concrete on site for use as hardcore for paths,

roads and sub floor bases. Similarly, engineered prefabricated roof trusses will be used, which are much more efficient in their use of raw materials than conventional cut roofs.

C G Fry and Son operate a sustainable procurement policy which considers issues such as efficient use of resources, packaging, waste reduction, product traceability, carbon footprint and environmental impact of products, human rights, ethics, labour issues, use of recycled products and recycled content of products, pollution reduction.

PASIVE SOLAR GAIN

Passive solar design principles advocate arranging the orientation and layout of dwellings so that daytime living rooms will benefit from free solar heating. In today's very well insulated and airtight houses, the use of these principles must be carefully balanced with the avoidance overheating. Free solar heating, which was once a bonus for poorly insulated and draughty houses, is rarely desirable in today's houses.

The unpredictable and uncontrollable heat gains have been considered during design to ensure that acceptable internal temperatures can be maintained without the need for mechanical cooling. Overheating calculations will be carried out which assess

this risk. Larger glazed areas are provided on some elevations to provide higher levels of daylighting, where our overheating assessment indicates an acceptably low risk of overheating.

WATER SAVINGS

The water usage will comply with the current requirements of Part G of the Building Regulations. The water usage will be calculated at construction stage in accordance with the Water Efficiency Calculator for New Dwellings once specific fittings have been agreed for example energy efficient shower heads, flow regulated taps etc..

LOW ENERGY LIGHTING

100% Low energy internal and external lighting will be provided throughout.

AIRTIGHTNESS

Airtightness also plays a crucial role in improving energy efficiency in buildings - airtightness will be tested during construction to ensure that heat will not be lost through unwanted draughts. According to the Building Research Establishment, reducing air leakage from 10 m³/hour/m² to 5 m³/hour/m² can result in energy savings of up to 40%.

To reduce any risk of overheating it is proposed that natural ventilation via openable windows is the optimal solution which

complies with Part O of the Building Regulations. A Part O assessment will be carried out at construction stage and continuously running mechanical ventilation system will be proposed if necessary to ensure the correct level of ventilation for each home, avoiding heat loss through over ventilation, while achieving good indoor air quality.

HEATING SYSTEM

Home heating will be delivered by highly efficient water source heat pumps. The water will be supplied by a closed loop of water running under the streets at a supply temperature of 8-10 degrees centigrade. This heat is replenished via a central heat exchanger connected to the existing Portsmouth Water Reservoir at Hoads Hill.

The supply network is termed an ambient loop or 5th generation heat network. The individual heat pumps in each dwelling boost

temperatures for heating and hot water, with an efficiency in excess of 400%. The additional benefit of the ambient loop is the capability to use the supply water directly to provide background cooling.

Water source heat pumps operate more effectively in well-insulated homes with high standards of air-tightness.

ECOLOGY

The strategy for the site focuses on maintaining and enhancing the existing ecology through careful planting, landscaping and the provision of wildlife boxes. Ecological reports have been carried out to assess the environmental impact of the development and suggested enhancement and mitigation will be carried out.

Bat/bird boxes and bee bricks have been provided across the development including tree mounted and bricks incorporated into

the fabric of the dwellings.

Ecology friendly landscaping species will enhance biodiversity and hedgehog runs are proposed throughout the site.

SUSTAINABLE TRAVEL

To encourage walkability key buildings are positioned at vistas to add local interest, enhance the kinetic experience and legibility. Streets and landscaping have been strategically designed to slow traffic near junctions with narrowings etc. proven to slow traffic and prioritise the safety of pedestrians further encouraging walkability.

The permeable network, cycling routes and access to public transport further reduces the need to travel by car.

WHOLE LIFE CARBON AND SUSTAINABLE CONSTRUCTION

CGFry&Son operate a sustainable procurement policy which considers issues such as efficient use of resources, packaging, waste reduction, product traceability, carbon footprint and environmental impact of products, human rights, ethics, labour issues, use of recycled products and recycled content of products, and pollution reduction. Within our ISO14001 procedures we request key information and policies from our suppliers and subcontractor teams. Our Environmental Technical Co-ordinator collates key data from our supply chain including waste, timber certification documents and environmental policies.

A site waste management plan is produced at construction stage, outlining the sustainable procurement measures used to minimise the generation of waste during construction. For example, an engineered joist system for first floor construction allows the manufacturers to convert much more of each tree log into structural timber than with traditional sawing. All timber is procured from a FSC or PEFC certified timber source and is sourced from certified suppliers and, where possible, local materials are used to reduce transportation.

MINIMISING WASTE AND INCREASED RECYCLING

C G Fry and Son are registered with the Considerate Constructors Scheme and are an accredited contractor, with the Contractors Health and Safety Assessment Scheme (CHAS), actively trying to improve how the company works through raising standards in being more considerate to communities, the environment and their own workforce.

Space has been allocated for the bin storage area. Each property has sufficient space for these containers in their rear gardens. There are also bin storage areas provided in gardens. Garden gates are provided for bins to be easily wheeled next to the highway for refuse truck collection. All storage locations are within the 30 meter distance requirement for householders carrying waste from their property.

A SWMP will be produced at construction stage and will outline the sustainable procurement measures used to minimise the generation of waste during construction. For example, an engineered joist system for first floor construction allows the manufacturers to convert much more of each tree log into structural timber than with traditional sawing. All timber is procured from a FSC or PEFC certified timber source and is sourced from certified suppliers and,

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