MARTIN BENCE-WILKINS
ARCHITECT

HILLTOP BARN
SISTON
BRISTOL
BS16 9LT

T: 07966 483 117
E: mbwarchitect1@gmail.com

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SUSTAINABILITY STATEMENT

This Sustainability Statement has been compiled to demonstrate compliance with the following Bristol City Council Policies from the Development Framework Core Strategy:

• BCS13 – Climate Change

• BCS14 – Sustainable Energy

• BCS15 –Sustainable Design and Construction

• BCS16 – Flood Risk and Water Management.

The proposal is for the erection of a two-storey dwelling house on land adjacent to 3, Trevelyan Walk, Henbury, Bristol.

Climate Change and Sustainable Energy

Energy Efficiency

The thermal elements and fenestration have been designed to meet and exceed the standards set out in Approved Document L1A. Well specified thermal elements with low U-values help to reduce energy demand and improve comfort

levels within the property, while new, highly efficient systems will be installed to provide heating, hot water and ventilation to the building.

Decentralized, Renewable and Low-carbon Energy Supply Systems

The proposal for this site is to install an air source heat pump. This will provide the heating and hot water to the dwelling.

Site Layout and Design - Resilience to Climate Change

A ‘Proposed Block Plan’ has been produced for illustrative purposes only.
It shows how the orientation of the new house can be designed to maximise exposure to solar radiation by the inclusion of Photo Voltaics; and take full advantage of solar gain on the southerly elevations particularly.

The building will be designed to enable cross ventilation where possible. This will help to reduce the need for mechanical ventilation now and in the case of a potentially warmer future climate. Furthermore, overheating can be avoided by using appropriate internal and external shading.

Encouraging Greener Transport Use

Trevelyan Walk is central to Henbury and in walking distance of local amenities, shops, schools, and bus stops. The north Bristol cycle route is close by giving access to the extensive network of cycle and foot paths.
The new dwelling will be provided with cycle storage to encourage this green mode of transport.

Sustainable Design and Construction

Green Infrastructure and Biodiversity Enhancement

This development is a small-scale development on an existing residential site. The concern of contributing to heating the urban environment therefore, is not significant.

There is scope to enhance biodiversity on this project. While some of the existing garden will be lost to the new development, some will be retained, allowing opportunities for infill planting.

Avoiding Responses to Climate Impacts that Lead to Increases in Energy Use and CO2 Emissions

There are no proposals to include artificial cooling as part of these works. Cross ventilation and appropriate internal and external shading will be used to mitigate against the effects of overheating from the sun. Although well specified, the thermal envelope is not designed so as to require mechanical ventilation and cooling.

Waste and Recycling - During Construction

A Site Waste Management Plan (SWMP) will be developed for this project. Waste groups to be monitored will be identified and targets set in order to identify how waste will be reduced, diverted from landfill, reused or recycled wherever possible. If waste is unavoidable, it will be disposed of responsibly.

Waste and Recycling - In Operation

Adequate waste and recycling storage is proposed for this development. Both the

internal and external provision will comply with the Bristol City Council recycling and waste collection requirements, ensuring that recyclables and waste can be separated before collection.

Building Materials - Type, Life Cycle and Source

All materials specified for the new construction will be at least ‘B’ rated or higher under the BRE’s Green Guide to Specification, in-line with guidance in the Climate Change and Sustainability Practice Note. This will ensure that construction is more sustainable and environmentally friendly. Where feasible, the most local suppliers of materials will be selected to minimise the environmental impact of transportation. Only suppliers with a certified chain of custody showing responsible sourcing will be used to source materials, including ensuring that 100% of timber is legally sourced.

High Speed Internet Connectivity

High speed Broadband internet will be provided to the dwelling, as extended from the existing provision to the surrounding area. This will have to be confirmed by a survey prior to installation.

Flood Risk and Water Management

Water Conservation Measures

Internal potable water will be conserved by installing flow restrictors to taps and showers, installing dual flush toilets and a low-capacity bath.

All in accordance with the current Building Regulations requirements for water conservation – Regulation 36: Compliance.

Flood Risk

The site lies in Zone 1 – Government Flood Map

Summary

The proposed dwelling will be designed to cope with and mitigate against the effects of climate change. The energy strategy proposes the installation of an air source heat pump and photo voltaic panels, to help offset some of the carbon dioxide emissions associated with the property, whilst the proximity of local amenities and public transport links should help to reduce car journeys associated with the development. Additionally, as the proposed dwelling is within an existing residential area, flood risk at the site will not be affected. The likely impact on the local environment because of this proposed conversion works will be minimal.

References

Building Regulations - Approved Document L1A

Bristol City Strategic Flood Risk Assessment

SWMP – WRAP

Green Guide to Specification

Climate Change and Sustainability Practice Note

Bristol City Council Recycling and Waste Collection Requirements

M Bence-Wilkins BA Hons Dip Arch ARB