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**PROJECT NAME**

423 Whitehall Rd

**DATE**

12<sup>th</sup> October 2023

**ASSESSOR**

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# SUSTAINABILITY STATEMENT



# Sustainability Statement

**Project:** 5231KJ - 2023.09 SBEM (Whitehall Road - Crossman Acquisitions)

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### Executive Summary

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 addition of three extensions to the existing building at 423 Whitehall Road, Bristol, BS5 7BP along with its conversion to form a 20-bedroom House of Multiple Occupation (HMO). A two-storey extension is proposed to the rear (replacing part of the existing building) along with an additional floor to the existing single storey side extension of the main building and a loft conversion with a rear dormer.



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### 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 L2 2021. 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.

For more information, including details on the specification of the thermal elements and services, please refer to the Energy Strategy.

#### Decentralized, Renewable and Low-carbon Energy Supply Systems

The proposal for this site is to install an air source heat pump (perhaps to the bin store area so as to be discrete while still effective) along with photovoltaic panels to the south-east facing main roof of the existing roof. This will ensure that the placement of the panels does not negatively impact the appearance of the property yet maximise exposure to the sun.

For more information, please refer to the Energy Strategy.

#### Site Layout and Design - Resilience to Climate Change

The building has been designed such that cross ventilation is possible from the north-west side to the south-east side through openable windows. This will help to reduce the need for mechanical ventilation now and in the case of a potentially warmer future climate. However, this would require co-operation between residents so may not occur in practice. For this reason, all bedroom windows will have significant openable sections to ensure adequate fresh air supply.

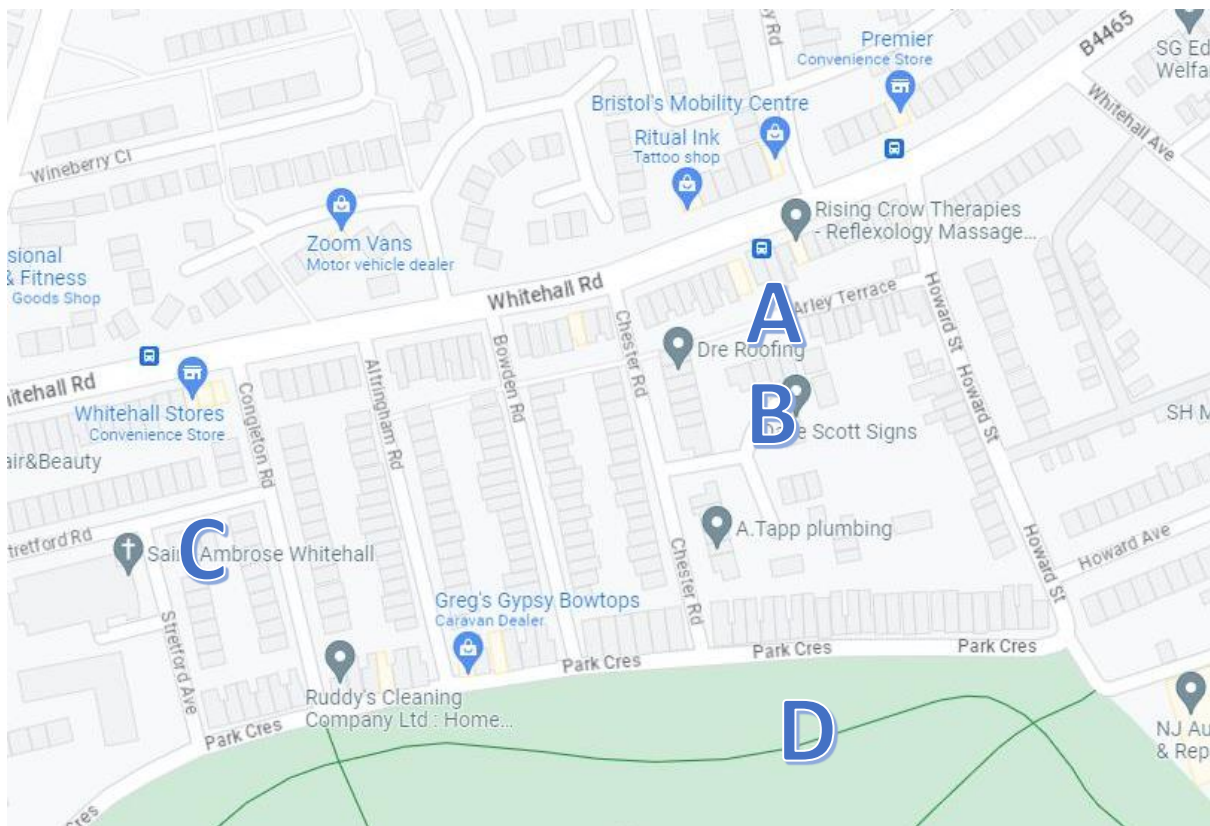
Furthermore, overheating can be avoided by using appropriate internal shading such as blinds and curtains.

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### Encouraging Greener Transport Use

423 Whitehall Road ('A' on the map below) is situated across the road from the nearest bus stops on Whitehall Road (B). These stops are well served with buses travelling towards Bristol City Centre and other nearby centres, including Kingswood and Staple Hill.



Other amenities also within a convenient walking distance include shops (C), restaurants, and public parks (D).

As shown on the plans, secure cycle storage is proposed for this HMO, with sufficient space for one cycle per bedroom space. This storage will allow bicycles to be accessed and taken directly to the nearest highway without the need to carry the bikes through the dwellings.

The proximity of these amenities and the proposed facilities should discourage car journeys for potential future residents. This should help to reduce emissions and congestion associated with motorised transport.



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### Sustainable Design and Construction

#### Green Infrastructure and Biodiversity Enhancement

This development is a conversion of a small-scale commercial site to an HMO so the concern of contributing to heating the urban environment is not significant.

There is little scope to enhance biodiversity on this project. All development will take place on the footprint of the existing building (after demolition of the rear extension) but due to the constraints of the existing site there is no suitable space for gardens or other green spaces.

#### Avoiding Responses to Climate Impacts that Lead to Increases in Energy Use and CO<sub>2</sub> Emissions

There are no proposals to include artificial cooling as part of these works. Cross ventilation and appropriate internal shading such as blinds and curtains 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 will be developed from the existing provision to cater for this change in use for the building.

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.



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### 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.

### Site Layout and Design - Flexibility and Adaptability

423 Whitehall Road was originally built as a small commercial unit with flats above the shop. Depending on the future needs of the local area, the building could be converted into a small number of self-contained flats, into one or two single dwellings or partially or entirely back into commercial use.



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### High Speed Internet Connectivity

High speed Broadband internet will be provided throughout the HMO, as extended from the existing provision to the surrounding area. This will have to be confirmed by a survey prior to installation but the broadband checker from Ofcom indicates the following:

BS57BP

[Change Location](#)

423, WHITEHALL ROAD

The speeds indicated on the checker are the fastest estimated speeds predicted by the network operator(s) providing services in this area. Actual service availability at a property or speeds received may be different. [More information](#).

The table shows the predicted broadband services in your area.

| Broadband type | Highest available download speed | Highest available upload speed | Availability |
|----------------|----------------------------------|--------------------------------|--------------|
| Standard       | 6 Mbps                           | 0.7 Mbps                       |              |
| Superfast      | 80 Mbps                          | 20 Mbps                        |              |
| Ultrafast      | 1000 Mbps                        | 220 Mbps                       |              |

**Networks in your area** - [Virgin Media](#), [Openreach](#)  
Click on a network's name to be directed to a website where you can find out about service availability and how to request a service from them or one of their partners.





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### 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.

The following schedule provides a suggested specification which has been proven to exceed building regulations requirements for water conservation (Regulation 36 Compliance).

Table 1 - Water Consumption

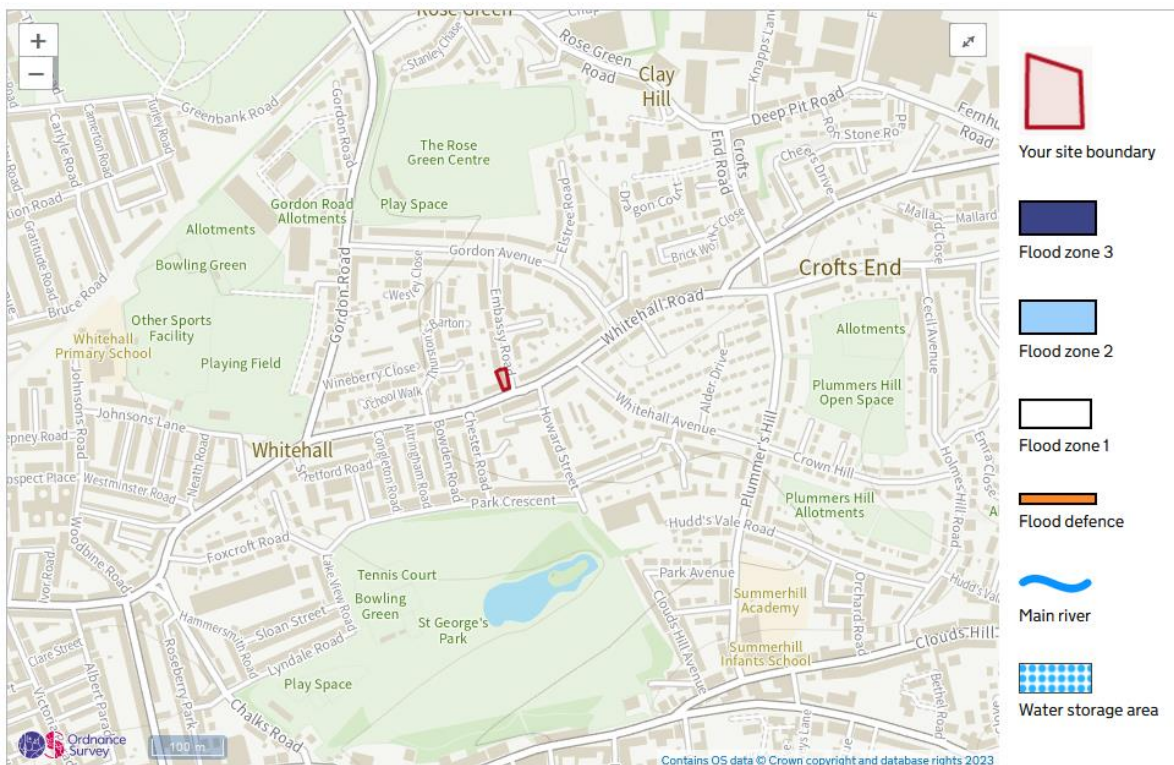
| Internal Potable Water Fixing | Flow Rate / Capacity              |
|-------------------------------|-----------------------------------|
| Toilet                        | Dual Flush 6 and 4 litres         |
| Basin Taps                    | 6 litres / minute                 |
| Bath                          | 180 litres (capacity to overflow) |
| Shower                        | 10 litres / minute                |
| Kitchen Taps                  | 8 litres / minute                 |

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### Minimising Flood Risk

The site lies within Flood Zone 1, according to the Government’s Flood Map for Planning, as shown below (Flood Zones 2 and 3 would be marked in blue).



As the works will build on existing structures and hardstanding, there is unlikely to be any impact on the flood risk of this site. There will be no increase in hardstanding as a result of these works.



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### Summary

This proposed dwelling has been well designed to cope with and mitigate against the effects of climate change. The energy strategy proposes the installation of photovoltaic panels to help offset some of the carbon dioxide emissions associated with the property along with an air source heat pump to provide renewable heating, whilst the proximity of local amenities and public transport links should help to reduce car journeys associated with the development. Additionally, as the works are an extension to and conversion of an existing building, flood risk and biodiversity at the site will not be affected.

The likely impact on the local environment as a result of this proposed conversion works will be minimal.

### References

[Approved Document L2](#)

[Government Flood Risk Map for Planning](#)

[SWMP – WRAP](#)

[Green Guide to Specification](#)

[Climate Change and Sustainability Practice Note](#)

[Bristol City Council Recycling and Waste Collection Requirements](#)