

ATLAS

PLANNING GROUP

SUSTAINABILITY STATEMENT

Mulberry House, 1A Eldon Road, Reading, RG1 4DJ

FEBRUARY 2018

INTRODUCTION

- 1.1 This statement is provided in support of the full planning application for residential development at Mulberry House, 1A Eldon Road, Reading.
- 1.2 This statement seeks to demonstrate how the proposed development meets national and local sustainability objectives.

ACHIEVING SUSTAINABLE DEVELOPMENT

ENERGY EFFICIENCY, LAYOUT AND DESIGN

- 1.3 The proposed development aims to provide a sustainable, high quality building which is energy efficient and incorporates measures to minimise the impacts of Climate Change.
- 1.4 Building Regulations, specifically Approved Document Part L, Conservation of Fuel and Power is the primary tool for reducing carbon emissions in new buildings. As such, these national regulations will inform and drive the energy efficiency and carbon reductions in the new building.
- 1.5 The building fabric will be designed to achieve at least the minimum requirements as established by Reading Borough Council Policy CS1: Sustainable Construction and Design and current building regulations to limit heat loss. Window sizes have been kept to a suitable domestic scale to limit heat loss through these elements. Larger expanses of glazing are set back within the building envelope to mitigate direct sunlight leading to excessive heat gain providing useable amenity to the occupants.
- 1.6 Plug in sustainable technologies such as photovoltaic panels have not been considered for this development but may be required to achieve the policy requirements once assessments are undertaken at a later stage.
- 1.7 It is envisaged that the superstructure will be formed of a structural steel frame with cast-in-situ composite concrete decks; the decks of the building will act as thermal massing as well as providing a good quality acoustic construction when combined with other technologies.
- 1.8 The materiality of the external façade is proposed as stone, although to limit structural loading, extensive deliveries to site and amount of material, a veneered solution is proposed that acts as a rain screen but has much improved sustainable characteristics over a standard solid stone / stone rain screen façade.

NATURAL DAYLIGHTING

- 1.9 The proposed building has been developed from the principles of the London Design Guide. This guidance makes it clear that for a comfortable and efficient apartment that is not benefitted from mechanical ventilation that suitable cross-ventilation is provided. The plans have been designed as dual-aspect to facilitate the use of natural ventilation.
- 1.10 Air quality and noise assessments have been provided as supplements to this application.

MATERIALS

- 1.11 There is a rich and celebrated use of Bath stone in the locality with the application site being surrounded by Grade II listed dwellings of bath stone forming part or all of the elevation treatment.
- 1.12 There has been a considerable amount of research and consideration into the materiality of the proposal with stone façade suppliers / manufacturers. It is currently proposed to use a stone veneer rainscreen. This system uses a 10mm natural stone veneer applied to a backing quartz / granite stone for robustness which is supported on a secret fix helping hands bracket system. This is then supported from a lightweight steel frame within a steel super-structure.
- 1.13 The whole system provides for a materiality and texture synonymous with the local context which has a rich character. The system amounts to a vast reduction in embodied carbon, environmental impact, superstructure scale and strength and an improvement in recycling of materiality over a traditional and typically modern approach to construction that would achieve similar results.

SUSTAINABLE TRANSPORTATION

CYCLE STORAGE

- 1.14 The proposal is located in a highly sustainable location, on the boundary of Reading Central Area Action Plan. Whilst the site is within easy walking distance to a range of services, facilities and public transport modes, in respect to cycling, there are also various National Cycle Routes in close proximity of the site. As such, cycle storage is integral to the scheme.
- 1.15 A total of 10 spaces have been provided and are accessible from the apartment access or external. They are contained within the footprint of the building in a secure enclosure that is covered to promote use. The development is on the boundary of the Reading Central Area and benefits from local transport infrastructure where connections via cycle encourage a reduction in car use.

WATER EFFICIENCY

- 1.16 The development will aim to reduce water use and increase water efficiency through an energy assessment, which will be undertaken prior to starting design development of the proposals. The building will incorporate the use of water efficient fittings and equipment. The applicant will determine sanitary fixtures and maximum flow/rates of each fixture to determine water use per apartment and ensure it meets the requirement of 105 liters pp/pd.
- 1.17 It is not currently proposed to retain surface water for recycling as part of the building. This would be considered a management issue serving the flats. A soakaway on site would be constructed outside of any Tree RPA's to ensure any additional surface water run-off is dealt with on-site.
- 1.18 The collection, treatment and re-use of grey water has not yet been considered.

FLOODING AND THE ENVIRONMENT

1.19 The proposal is located in an area of low flood risk. The proposal retains a large amount of green landscape, and additional pathways are to be permeable due to the overlapping in areas of tree RPA's and to limit surface run-off. The footprint of the existing building on site has been increased by the proposal but a soakaway will be provided on site to deal with excess surface water run-off on site

1.20 As previously noted:

- cycle provision has been an integral and considered part of the design from the beginning - encouraging cycle and public transport use in place of car use;
- The development site is located on the boundary of the Reading central zone and benefits from good access to public transport;
- The façade has been proposed as a more sustainable approach to meeting the local characteristics of the surrounding area.

SUSTAINABLE CONSTRUCTION

WASTE

1.21 The development will aim to reduce waste during the demolition of the existing building and the construction of new building. Recycling will also be encouraged.

1.22 The existing building on site will be demolished and recycled where possible (wiring, copper pipe etc) but generally it's construction is of little to no value.

1.23 Construction waste will be disposed of in accordance with statutory regulations and in a way required by the manufacturers. Any material waste or surplus will be subject to recycling.

1.24 As part of the development, the main superstructure of the building is envisaged to be a steel frame which will be fabricated off site and brought to site for assembly.

1.25 The external facade treatment will be set-out as part of the developed design and pre-fabricated off-site reducing any on site-cutting.

1.26 The floors will either be pre-cast concrete or on site poured concrete slabs reducing any potential for onsite waste generation other than constructing the formwork.

1.27 Through use, communal recycle bins will be provided in accordance with Reading Borough Council's requirements. Separate intermediate stores will be located in the kitchen of each apartment with split recyclable and waste in accordance with Reading Borough Council's policy guidelines.

POLLUTION

AIR AND NOISE

1.28 The application is supported and informed by an Air Quality Assessment and Noise Impact Assessment to ensure pollution is reduced to a minimum.

HEALTH AND WELL BEING

1.29 The proposed building aims to provide high quality accommodation, which is comfortable, healthy and functional. To reduce the likelihood of noise complaints and to provide private outdoor space, terrace sizes are typically integral to the apartments limiting overlooking and keeping noise well contained.

1.30 The terraces are set back within the building fabric to create privacy for the occupants and provide a screening function to adjacent apartments and dwellings. Any perceived overlooking is further mitigated by the inclusion of protruding bronzed fins defining the openings and reducing the visible splay from an occupant of the terrace and vice versa

1.31 Any terraces are otherwise set back from the edge of the building removing perceived overlooking to the neighbouring properties.

1.32 Large expanses of glazing are proposed but are set back to allow for daylight deep into the plan in place of direct sunlight. Otherwise window provision allows for a good quality of day lighting to the plan limiting artificial light uses.

1.33 The apartments have been designed as dual aspect to provide for near day round exposure to natural daylighting.

1.34 Party walls / floors will be designed to a minimum standard expected from the Building Regulations and incorporate suitable measures to prevent flanking noise. It is not proposed to adopt Robust Details at this stage.

SAFETY AND SECURITY

1.35 The proposal benefits from being heavily constrained by trees, adjacent buildings and the dimensions of the site. This has led to a development with clear site lines to and from the main entry points of the development, in both occasions leading to a highway to the west and south.

1.36 The cycle and bin storage are self-contained and will be lit.

ECOLOGY

1.37 The site comprises a large area of green space, with several trees either within the site or on adjoining boundaries. It is proposed to retain all trees on site, which will be of benefit to the local environment and wider urban strategy of the local area. The trees support natural wildlife and have an ecological benefit.

- 1.38 Due to the scale of root protection area of the trees, the landscape strategy has been kept at a minimal, but it is proposed to plant 4 new trees. These not only provide some screening for the occupants of the low-level flats to Hanover House's house but also act as a feature in the landscape guiding path users to the main entrance.
- 1.39 Ground level planting beds are proposed as part of the soft-touch landscape strategy that will improve the biodiversity of the site from its current state.
- 1.40 A new hedgerow is also proposed, mimicking the typical Georgian style of threshold in the area, to the front of the plot along Eldon Road. It is hoped over time this will play host to birds and other wildlife.
- 1.41 A full arboricultural method statement and constraints plan has been provided as part of this application setting out the protection to the on-site trees.