

339 Euston Road

Sustainability Statement

Introduction

339 Euston Road comprises of basement and ground floor in restaurant use and 4 upper floors of residential accommodation.

This sustainability statement forms part of a retrospective planning application for the development.

CO2 Reduction over Part L Compliant Design

As built the building provides improved efficiency over building regulation requirements by incorporating compact plans with minimal external building envelope, improved wall insulation to achieve a U-Value of 0.3W/m²K. Energy efficiency savings are achieved through high quality building fabric and efficient lighting. Energy use will be further reduced through the provision of low energy lighting and high efficiency boilers.

The build up of the elements of the building is as follows:

Walls – Brick work outer skin with insulated cavity and blockwork inner. Additional rigid foam over inside face of blockwork. As built U-value 0.3W/m²K, part L requirement 0.35W/m²K. It should be noted that an additional layer of cladding will be provided in accordance with the proposals agreed with the design officer which will further enhance the insulation values.

Roof-Timber frame with rigid insulation boards between. As built U-value 0.25W/m²K, part L requirement 0.25W/m²K.

Windows-High performance double glazed units. As built U-value 2.2W/m²K, part L requirement 2.2W/m²K

Basement floor-Floor finish over insulation on polythene dpm laid on in situ concrete slab on blinded aggregate sub-base and tanking. As built U-value 0.25W/m²K, part L requirement 0.25W/m²K

Lighting

All installed light fittings include dedicated fittings to hold only compact fluorescent or fluorescent lamps giving 100% low energy fittings throughout the building. The fitting of low energy lighting goes beyond the part L requirements of 30% dedicated low energy luminaries and will help to significantly reduce the energy demand for the building.

Building Fabric

The preliminary SAP calculation gives an average expected heat loss parameter of less than 1.12 W/m²K. This low value demonstrates the efficient performance of the building fabric.

Drying Space

Although not currently provided the landlord intends to fit retractable clothes driers within bathrooms or other well ventilated spaces where possible. This will reduce the need for tumble dryers, which consume significant amounts of electricity.

Eco-labelled Goods

All white appliances provided with the dwellings are A and A+ rated. The landlord will encourage residents to purchase further efficient appliances by providing information on the benefits of efficient white goods and the EU energy efficiency labelling scheme.

Home Office

Each unit currently features sufficient space and power sockets for a home office to be set up. Each unit has its own phone line allowing for broadband connection and future telecom upgrades.

Internal Potable Water

As built the building currently uses standard fixtures for baths, basins, showers and sinks with standard flow rates and water use. The installed washing machines are water efficient using approximately 10% less water than standard.

As currently built the expected water consumption of a single bed unit is 169 litres per person per day. To help the current level of water consumption the landlord intends to fit flow regulators to all showers basins and sinks. This will help reduce water consumption to below 105 litres per day for units without baths.

In order to achieve this target the following installations are required

Dual flush WC's.

Shower flow regulators 7 litres/minute

Tap flow regulators less than 4.5 litres per minute

Water efficient washing machines 45 litre cycle.

External Potable Water

There is no external irrigation requirement for the building.

Materials

As built the development includes at least 3 A+ to D rated building elements as per the Green Guide to Housing Specification as required for the mandatory credit

The development also achieves A to A+ ratings for upper floors, internal walls, external walls and windows.

All of the timber used for the major structural elements and finishes in the development was supplied through UK builders merchants with FSC or PEFC certification.

Runoff

The site was previously fully developed with hard surfacing and as such the current development does not increase the peak surface water run off rates from the site.

Waste

The development includes refuse storage areas suitable for mixed waste and recycling collection that complies with BS 5906

Pollution

Where rigid insulation boards have been used they have been Celotex products with Global Warming Potential of 3 or less.

The gas boilers installed have NOx emissions of 144 gm/kWh. As boilers are replaced new boilers will be specified below the 100 gm/kWh threshold.

Radiators are fitted with thermostatic valves and reflective panels.

Common parts lighting is controlled by movement sensors thus reducing unnecessary energy use.

Daylighting

The provision of good daylighting reduces the amount of artificial light used within the development and has been proved to improve the health of the occupants.

The development includes large glazed areas to the front and rear with open plan living, dining and kitchen areas achieving a minimum daylight factor of 1.5% and all rooms have a view of the sky.

Sound Insulation

A high level of sound insulation has been provided in the completed building. This is expected to offer the following levels

Airborne: 5db HIGHER

Impact: 5dB lower.

Lifetime Homes Compliance

1 & 2. No car park within the site

3 & 4. Entrance level to building with step up to hall. Level access to all flats from stair landing

5. Minimum dimensions for communal stairs – Handrails extend 300mm beyond top and bottom step. Handrail height 900mm from each nosing.

6. The clear opening width of the front door minimum 800mm with 300mm nib to the side of the leading edge of the door at entrance level.

7. There is no lift within the development. The building only accommodates 4 number residential units. It is not viable to install a lift to this scale of development.

8 & 9. None

10. The baths installed can be changed to a shower within the guidelines.

12. Lift installation not viable.

14. Bathrooms and WCs meet ease of access as set out in the guidelines.

15. Window cills maximum 800mm from floor level.
16. All switches and controls within 450mm – 1200mm zone.

Management

The landlord intends to provide `Home User Guides` to all residents ensuring that residents are aware of how to achieve the energy consumption levels of the dwelling. The guide will include operational instructions for the building as well as maintenance information.

Ecology

The site was previously fully developed and likely to have been of low ecological value. The current development has neither reduced nor enhanced the ecological value of the site.

Alternative Energy Sources

The site is extremely limited in potential for the provision of alternative energy sources. Biomass, and ground source heat pumps have been discounted due to lack of available space. Wind turbines are considered inappropriate in this dense urban environment due to likely nuisance to neighbours and unreliable wind flows in built up areas.

PV and solar thermal panels both work best if south facing and mounted at approximately 35 degrees. With the limited roof space available and increased height that would be required by the inclination of the panels the return in energy terms would be offset by other planning constraints rendering them ineffective.