

2022

ENERGY AND SUSTAINABILITY STATEMENT

Land rear of 25-31 Warren Road (with
access from Heythrop Drive),
Ickenham, Uxbridge, Middlesex
UB10 8AA

W J Macleod Ltd



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(with access from Heythrop Drive)**

**Ickenham
Middlesex
UB10 8AA**

ENERGY AND SUSTAINABILITY STATEMENT

In support of full planning application
for a residential development by

W E Black Ltd

Prepared by

**W J Macleod Ltd
70b High Street
Northwood
Middx HA6 1BL**

August 2022

1.0 LAND USE

- 1.1** The site is within an established residential area, and is well served by local shops, schools, and places of sport and leisure.
It is also well served by public transport.
- 1.2** There is a well recognised need for good quality houses constructed with durable materials in this area.

2.0 MINERAL AND SOILS

- 2.1** There is no need for any demolition.
- 2.2** A full site investigation will be carried out to determine if there is any contamination on the site, although this is unlikely given the previous use on the site.

3.0 WASTE

- 3.1** During construction, many of the elements such as floors, windows, roof trusses and kitchens, will be manufactured off site in order to reduce waste.
- 3.2** Upon completion, the building will be supplied with recycling boxes in accordance with the Council's kerbside collection policy.

4.0 ENERGY

- 4.1** **Solar Gain** – The buildings has been orientated with living rooms to the south, with larger windows in order to maximise solar gain and natural light.
- 4.2** **Shelter and Shading** – The location and surrounding buildings will shelter the development from exposure to prevailing winds, and the layout of the buildings will avoid overshadowing.
- 4.3** **Built Form** – The building has been designed to give a good ratio of external wall/roof to volume in order to maximise the energy efficiency.
- 4.4** **Thermal Mass** – The proposed traditional brick and block cavity construction with concrete ground floors and tiled roofs, has been chosen as it will provide a particularly good thermal mass.

- 4.5 Insulation and Airtightness** – The building has been designed to be insulated to the current Building Regulations standards, but will also achieve the highest standards of airtightness. It will be tested for airtightness upon completion. SAP Calculations are predicted to exceed the Building Regulations minimum.
- 4.6 Glazing** – High quality double glazed units with Argon filled cavities will be used throughout the development.
- 4.7 Heating** – Air sourced heat pumps will be used. The system will be fitted with zone controls and individual thermostatic radiator valves and insulated pipework to achieve maximum efficiency.
- 4.8 Ventilation** – The houses are designed to have good levels of natural ventilation, with them benefitting from natural cross-ventilation. Openable windows with factory fitted trickle vents means that no mechanical ventilation will be required.
- 4.9 Lighting** – The houses have been designed and orientated to allow for maximum natural daylight and there are no internal bathrooms or landings. Artificial lighting will meet current standards for low energy fittings, and approaches to building will have low energy lighting on a time delay principle with PIR Sensors. Low level bollard lighting to the driveway will avoid any “light pollution” to neighbouring properties.
- 4.10 Appliances** – If white goods are supplied as part of the marketing package, these will be energy efficient appliances.
- 4.11 Renewable Energy** – The building will be constructed to the current Building Regulations standards. The aim will be to make significant improvements to the fabric of the building in order to avoid solar panels or photovoltaic cells, which have a limited lifespan with limited environmental benefit.
- 4.12 Transport** – Wherever possible all materials will be sourced from a local manufacturer, not only to reduce transportation, but also to help reinforce the local character and context of the proposed buildings.

5.0 POLLUTION

- 5.1 Air** – With the prefabrication of many of the building elements off site, this will reduce the amount of dust produced during construction.
- 5.2 Waste** – Again, with the prefabrication of many elements off site, together with good management, the waste on site will be greatly reduced.

- 5.3 Noise** – Dense traditional building materials and double glazed units will protect the building from external noise sources.
- 5.4 Light** – The existing street lighting will be supplemented by low level bollard lighting and security lights, all designed to limit light pollution.

6.0 NATURE

- 6.1** The proposals will retain the mature trees on the boundaries, with the opportunity for renewed tree and hedge planting of native species.
- 6.2** No tropical hardwoods will be specified for this project.
- 6.3** Water – Low flush toilets, aerated taps and low-flow shower heads, and water efficient appliances, will be supplied to units as standard. All units will have individual water meters. The detailed specification of landscaping will avoid trees and plants with a high water demand, and wood-chip ground cover will be used throughout. Permeable block pavers will be used throughout the car parking areas.

7.0 LOCAL NEEDS

- 7.1** The development will support local businesses and shops together with established bus routes.
- 7.2** The retention of existing trees will maintain the visual amenity of the area.
- 7.3** There is an identified need for good quality houses in this area.

8.0 BASIC NEEDS

- 8.1** The proposed houses will be of a good quality construction and, through high levels of thermal efficiency, will be economical to run.

9.0 SATISFYING WORK

- 9.1** The construction project will allow local companies to compete for works associated with the construction, landscaping and future maintenance of the houses.

10.0 HEALTH

- 10.1** Good working practices, together with a high level of supervision, will provide a safe environment for workers during the construction phase.

- 10.2** With the prefabrication of many elements of the buildings, potential dust will be minimised.

11.0 MOVEMENT

- 11.1** With the availability of public transport, and local amenities within walking and cycling distances, there is a realistic alternative to the use of the private motor car.
- 11.2** The detailed design of the scheme allows for access to people of all levels of mobility.

12.0 COMMUNITY SAFETY

- 12.1** The buildings has been designed to incorporate a full range of measures to reduce crime.

13.0 LEISURE, CULTURAL AND SOCIAL ACTIVITES

- 15.1** The provision of these houses will support local leisure, sports, cultural, religious and social activities.

CONCLUSION

The proposed development is a highly sustainable scheme and will provide for much needed housing through a well designed, well thought-out and well laid out scheme.