London 198 Blackstock Road,
London.
N5 1EN

Tel +44(0)20 7354 1729
Fax +44(0)20 7354 1730
studio@souparchitects.com

www.souparchitects.com

SOUP

SUSTAINABLITY STATEMENT

No.4 THE HEXAGON, FITZROY PARK, LONDON, N6 6HR

JUNE 2016

PREPARED BY:

Jamie Le Gallez – Soup Architects

COMPILED FOR:

Lorraine Ashbourne + Andrew Serkis

REFERENCE:

Planning Application - Camden Council

No.4 THE HEXAGON, LONDON, N6 6HR

SUSTAINABILITY STATEMENT

June 2016

SUSTAINABLE DESIGN AND CONSTRUCTION APPROACH

This energy statement sets out how the development has been designed to follow the steps in the energy hierarchy. It aims to demonstrate how the proposed measures are appropriate and viable to the context of the development.

ENERGY EFFICIENT DESIGN TECHNIQUES:

1. Natural Systems & making the most of sunlight and daylight:

The proposals have been designed to make the most of the naturally occurring energy, such as heat and light from the sun. All principle rooms have been located on the South and West of the building to benefit from the warmth and light of the sun. Flat roofs have been incorporated into the design to allow for the inclusion of Photovoltaic's or Solar panels. The green flat roof areas also help to regulate temperatures.

The design incorporates a large area of floor to ceiling glazing to all habitable rooms to maximise the use of passive solar energy. Two lower ground floor courtyard areas also allow natural light into bedroom areas. These design principles minimise the requirements for artificial lighting through the day and allows daylight / sunlight to penetrate deep into the plan and enhances the overall feel of the space.

2. Preventing overheating & creating natural cooling:

The proposals have taken into consideration the balance between benefitting from solar gain and preventing overheating. Spaces that generate heat such as the bathrooms, kitchen and plantroom are generally located on the north and east sides of the proposals. The principal south and west elevations with the larger areas of floor to ceiling glazing will include shading measures such as internal blind systems and the balconies above the lower ground floor create deeper recesses to this level. The two large internal voids and the use of a large openable roof light to the first floor creates a passive cooling stack effect that can act as a rapid ventilation provider.

Natural vegetation & existing trees have been retained to create a natural shading technique to the principal south and west elevations. The existing mature planting to the boundary of no.10 Fitzroy park will also aid in the natural shading to the ground and lower ground floor. Extensive natural vegetation / planting is also incorporated into the ground floor evening terrace and planted green roof areas to naturally cool the environment and regulate temperatures. The section of floor to ceiling glazing to the main bedroom on the first floor incorporates an internal blind system and also an external brise soleil.

All glazing to the south and west elevations will be high performance and also include the incorporation of ultra clear solar control films to reduce the suns solar energy by approx 40 to 50%.

3. Thermal Performance & materials:

The building is designed to ensure a high thermal performance and incorporates a high level of insulation far beyond current regulations thus minimising heat loss through the winter. Materials such as concrete floors have been selected due to their high thermal mass allowing them to retain the natural heat from the sun.

4. Mechanical systems & Energy efficient technology:

The primary heat source for the dwelling will be gas, and through the use of wet underfloor heating systems.

Mechanical ventilation and heat recovery [MVHR] systems will be incorporated into the design. The utility spaces such as WC's, bathrooms, kitchen, laundry and plant rooms will have the warm air extracted and reclaimed by the ventilation units rather than exhausted to the outside and thus reducing energy losses.

All lighting in the dwelling will be LED. Measures for including controlled sensors and zoning systems are also being investigated.

5. Renewable energy:

The proposals include for the installation of approx 6 to 8 sq/m of solar / thermal hot water panels.

6. Water efficiency:

The design incorporates water saving methods such as; low flush toilets, low flow taps and shower heads and low water consuming washing machines and dishwashers.

7. Conclusion:

Many of the aforementioned design measures contribute to the well being and comfort of the end user whilst greatly reducing the required energy usage. The combined effect of all these measures is to provide a very efficient, sustainable dwelling that performs vastly superior to a standard building of this type and size.