



PROJECT:

Loampit Lewisham Leisure Centre

CLIENT:

Barratt East London

ARCHITECTS:

Classified

BM SERVICES:

Building massing, sustainability, energy advice and MEP

VALUE:

Classified

DESIGN BRIEF

This ambitious project will be a zero CO₂ emission development primarily fuelled by bio diesel from seawater farming in the desert of Eritrea.

Loampit's energy strategy does not only fulfil the Government's obligation to reduce CO₂ by 2020 but also its obligation to assist Developing Countries in achieving the UN's Millennium Development goals by 2020.

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DESIGN INITIATIVES/ACTIONS UNDERTAKEN

The site design seeks to enhance any existing habitats and features by reintroducing hybrid plants that produce pollen or nectar as source of food for insects.

Where possible, green roofs, walls, garden terraces, balconies, fences and window boxes will be provided to achieve a rich biodiversity.

A green corridor along railway routes and waterways connects the development to an ecological network. This allows some animals and plants to move between different habitats, which helps sustain populations and biodiversity.

The planting will be low water use with a selection of drought resistant plants e.g. lavender, rosemary, foxtail, lily, thyme and daisy bush using water-retaining mulches.

Rainwater will be collected in a central storage to irrigate planting in public spaces using automotive irrigation systems.

The project's overall strategy is to reduce energy consumption by:

- Developing the appropriate building massing
- High performance facades
- High performance systems
- Reliable (remote control systems)

The buildings have been orientated in accordance with BRE solar/daylight guidelines to optimize solar gain in the winter and provide adequate daylight in offices and living rooms.

In brief, the design consists of centralised combined heat and power plant providing:

- Heating for swimming pool
- Cooling for dehumidifying of swimming pool
- Heating for housing
- Electricity for whole development

Grey water will be treated on site for flushing toilets, which will save money and resources.

During the life of the development the amount of waste produced by the development should reduce.