

# Sustainability



Images:

1. Heron Tower - City of London

2. Cherry Orchard - Croydon

## Sustainability Team

Our Team is a specialist international group developed in response to increasing demands for sustainable solutions in the built environment.

Our strategy has been to provide support for our clients growing demands to reduce the carbon footprint of buildings.

This we achieve by bridging the gap between the architect and the traditional role of building services consultants by designing with a holistic approach.

Members of our team are at the forefront of technical advancements and assist international office councils.

**“We pride ourselves in producing practical and deliverable sustainable solutions which fit the budget”**

## The Drivers:

### Saving Energy

Whatever your opinions on global warming, we are consuming earths valuable resources at a significant rate, which could lead to future shortages and price rises. In addition, reduced energy use translates directly to reduced running costs.

### Part L

The 2010 changes to Part L significantly reduced acceptable carbon emissions for buildings and imposes particular design challenges and cost implications for new developments.

## LEED/BREEAM/Code for Sustainable Homes/Estidama

Nationally recognised sustainability benchmarking

## Corporate Social Responsibility Policy

Greater public awareness is expecting corporations to conduct their business responsibly – Client’s/tenant’s therefore demand more sustainable buildings as part of their Environmental Management System.

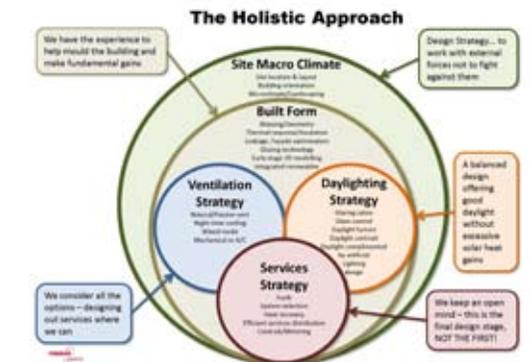
## Market differentiation

Two identical buildings offering the same facilities – one has sustainability credentials – one doesn’t – which will be occupied first?

## Beyond the traditional role

The team is made up of a blend of skills, which brings new views and creative thinking to the development of sustainable design concepts.

We practice the ‘Holistic Design Approach’ wherever we can – this is only truly possible if we are involved at the earliest stages of a design.



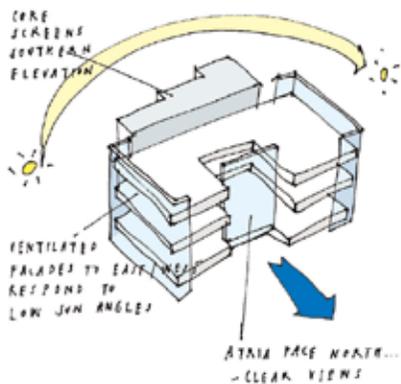
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With a thorough understanding of façade optimisation, built form and services design, the team has the ability to truly integrate solutions which can offer the lowest practical environmental impact, which matches the operation of a building and which represents the best value for money.

## We Offer

- We can offer a fresh and innovation approach, which considers the bigger picture.
- We strive to look beyond the obvious first cost, considering savings achieved in operation of alternative solutions. We have experience in many aspects of environmentally aware design, which can and have been applied to projects.
- We spend considerable effort and time keeping up to date on new developments in the industry, and have links to educational establishments to help us develop new solutions.
- We can advise other key professionals in the design and construction process on how to produce a more environmentally responsive building – we reach into the other disciplines to do this.

- We enjoy the creative process and endeavor to involve ourselves with the key designers as early as possible in order to guarantee the greatest impact.
- Good communication skills are key – we use sketches and diagrams to help make concepts understandable.
- On-Site Renewables Studies – we produce concept sheets to explain the practical implications, the options for integration, the costs and carbon savings.
- We undertake negotiations with the local Planning Authorities to satisfy their requirements; providing the documentation as required.
- We carry out daylight assessments to further drive down carbon savings, by maximising the periods when artificial lighting can be turned off.
- We can demonstrate the benefits from alternative M&E systems, such as chilled beams, chilled ceilings etc, in terms of carbon savings with improved life cycle costs.
- We fully consider the use of combined heat and power systems (CHP) complete the studies and testing viability with loads assessments.
- Water conservation is often overlooked – we can study the use of rainwater or grey water recycling – often cost effective as well as protecting a valuable commodity.
- We use the latest dynamic 3D simulation software to assess buildings requirements and as a basis of total building carbon emissions.



## Sample Projects – A track record of results

### Iconic Tall Tower in The City of London

World class office space completed in 2011. Working closely with the architect to provide a host of low energy systems and passive design features, including south-facing offset core, triple glazed facade, free-cooling systems, ice-storage and low energy lighting solutions.



The tower incorporates an integrated photovoltaic (PV) wall which is the second largest array in the UK. The excellent sustainability features has resulted in the building achieving a BREEAM “Excellent” rating.

### Accordia Cambridge

Early stage masterplanning work for this 2008 Stirling Prize award winning housing scheme. Strong sustainability principles, with massing, understanding of materials, daylight factors, and sedum-planted roofs all incorporated. Energy concept driven by passive house concepts, and excellent standards of air tightness. Computer modelling, considering orientation and facade design, optimised solar access, with wind studies also highlighting the benefits of tree planting to smooth out wind patterns and improve outdoor spaces.



### St David’s Library Cardiff

Purely sustainable engineering solutions were studied to ensure that the building was to be carbon efficient, and the building therefore includes the latest characteristics in environmental architecture. Incorporating numerous low energy features, the building has achieved the highest Bespoke BREEAM Post Construction score and has been certified “Excellent”.

### Cherry Orchard Road Croydon

Consisting of 1000 apartments and 30,000m<sup>2</sup> of commercial space over four towers. A high standard of sustainability was targeted in all aspects of the development as part of the clients brief and to meet the local planning requirements. The resulting design substantially improves on low carbon targets, exceeding the 20% LZC requirement with the extensive use of CHP, and is on target to achieve Code for Sustainable Homes Level 4.

# Contact



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