

# mechanical & electrical

profile

## A Unique Approach

**Edmond Shipway's Mechanical & Electrical Engineering (M&E) Department are able to offer a unique approach in delivering cost effective, practical and compliant schemes across all market sectors.**

Established in 2000 the M&E Department has expanded rapidly and is providing significant benefits to a range of Clients in Commercial, Retail, Sport and Leisure, Industrial, Food, Law and Order, Healthcare, Residential and Education.

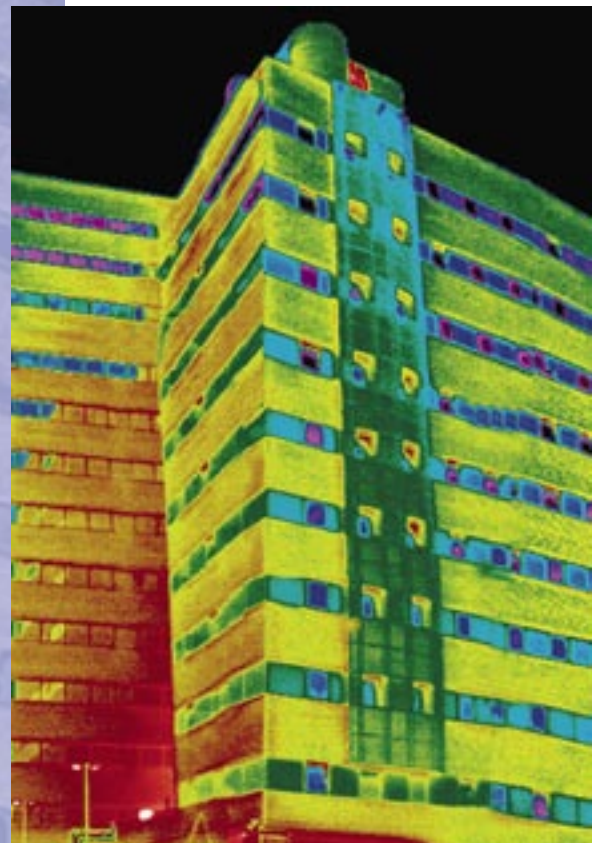
Our team of Engineers have been drawn from Design and Build contracting organisations, ensuring a unique approach and understanding of not only the design phase but also the practicalities of installation, cost, programme and project delivery.

In addition, the team are fully conversant in the use of Low Zero Carbon (LZC) Technologies, increasingly important in today's environmentally focused marketplace.

#### **Our services include:**

- Statutory utility investigations, load calculations, application preparation and negotiations

- Feasibility design for associated plant, equipment, metering and distribution requirements
- Production of sustainability reports and Sun Path Analysis for use in planning applications
- Site dilapidation, condition and equipment energy efficiency surveys
- Part L expertise - SAP & Part L2 Assessors with EPC Production to Level 5
- BREEAM and "Code for Sustainable Homes" accredited assessors
- Performance specification duties through to fully co-ordinated and traditional detailed designs
- Thermal Model software driven natural ventilation and passive designs
- Delivery of renewable technologies and Low Zero Carbon (LZC) systems - we employ Low Carbon Consultants
- Design and site installation audits
- Cost advice and Project Monitoring
- Negotiation and management of M&E subcontractors
- Part L air tightness testing using thermal imaging
- Commissioning management and witnessing
- Planned, preventative and reactionary maintenance strategy documents.



breeam:ecohomes

breeam



WE EMPLOY LOW CARBON CONSULTANTS



[www.edmondshipway.com](http://www.edmondshipway.com)

**edmondshipway**  
CONSTRUCTION CONSULTANTS

Our expertise enables us to provide consultancy services, from project inception through to operation utilising the following:



## Design

### Building Services Design

Incorporated within Building Services Design are a number of services offered by our M&E Consultancy which include:

- Feasibility design/reporting
- Utility infrastructure investigations, design and negotiations
- Performance & abridged related design duties
- Fully co-ordinated and integrated design services
- Natural ventilation and passive design

We are able to offer compliant design services due to our ongoing investment in software systems and rigorous continual professional development.

Our environmental design philosophy is to exceed best practice through passive design, to minimise the use of energy, select high efficient plant/equipment and controls, and finally incorporate renewable technologies.

Careful early design allows us to take this approach which results in less potential operating cost and capital investment when compared to the traditional design approach.

### Natural Ventilation and Passive Design Solutions

The emphasis of energy conservation placed on schemes by building regulations, and in particular Part L, has led to an increase in demand for specific design calculations to demonstrate compliance with matters such as over heating and carbon emissions.

We address these statutory requirements by offering a building thermal modelling service. The modelling software has a variety of functions which include:

- Prediction of overheating
- Daylight calculations
- Building solar shading and Shadow Path Analysis
- 3D walk-through

The emphasis on low energy and passive designed buildings is fundamental to our design philosophy, which is aligned to the government's Carbon Reduction Programme.

### Design and Installation Audits

Our engineering staff are experienced in the field of site installation techniques and legislation pertaining to engineering services. They are able to audit both qualitative and legislative building services designs and installations.

Our flexible approach enables us to integrate into the building process at any stage, allowing our Clients to gain access to our skilled engineering staff when required.

Services frequently used include:

- Site auditing and legislative audits
- Condition reports
- Utility services capacity checks
- Electrical wiring installation audits
- Electricity supply harmonic
- Distortion and overloaded circuits assessments
- Access to plant audits
- Energy and sustainability reviews
- Part L Building Regulations audits
- Witness testing and fault analysis
- British Standard audits
- Water purity tests
- HVCA audits and legionella review
- Air conditioning system reports to comply with EPBD 2008

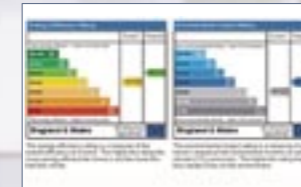
## Energy & Legislation

### Part L Compliance and Energy Performance Certificates

The Revisions to Parts L and F of the Building Regulations came into force on 6 April 2006 with the further stringent requirements of the European Energy Performance of Buildings Directive (EPBD) being implemented from April 2008. These regulations constitute one of the most significant challenges for the UK construction and property market.



Part L aims to minimise the emission of CO2 from domestic and non domestic properties in order to meet the EPBD.



The emphasis on energy conservation is a constant challenge for M&E Services Designers as they have to meet not only the Client's brief but also the architectural aspirations, while considering the comfort of the occupants.

Our Engineers are fully conversant with the key drivers affecting energy efficiency issues not only in M&E design but also with other construction related matters. For this reason we have anticipated and addressed the statutory requirements by offering our accredited design services utilising SAP / NHER (Part L1A) and (SBEM) / building thermal modelling (Part L2) software system to produce Part L carbon compliance calculations and energy performance certificates to Level 5.

We are able to offer tailored advice and guidance on the requirements and implications of Part L. Our service provision will fully assess your projects for compliance.

### BREEAM Assessment and Energy Efficient Designs

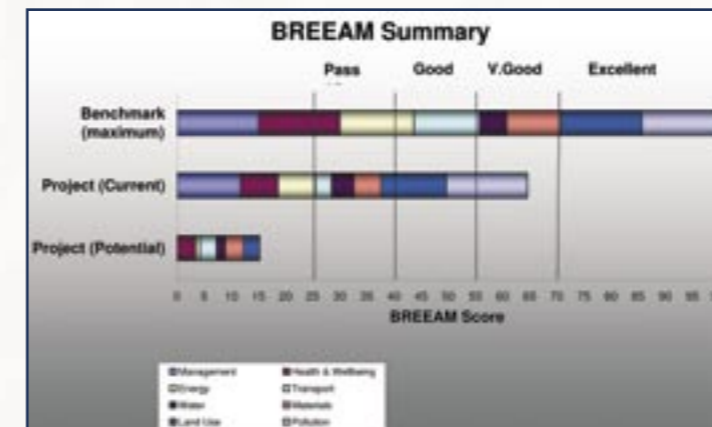
Edmond Shipway is an accredited and registered BREEAM organisation for offices, retail, schools and Code for Sustainable Homes.

BREEAM (BRE Environmental Assessment Method) and EcoHomes are the world's most widely used means of reviewing and certifying the environmental performance of buildings.

Each building is assessed and rated on a scale of Pass, Good, Very Good or Excellent and a certificate awarded.

Clients, planners, development agencies and developers are using BREEAM to specify the sustainability performance of their buildings in a way that is viable in the marketplace.

We can assist in reducing costs using the criteria established by the BREEAM analysis to incorporate more efficient use of energy and building materials. We do not believe that large capital investment is necessary to achieve these certificates.



## Environmental & Sustainability

### Integrated Renewable and Low Carbon Viability Assessments

We have expertise in providing appropriate reports detailing the carbon saving benefits of Renewable and Low Zero Carbon (LZC) Technology Integration. This service can range from schemes/systems, through to multi-integrated/mixed use sites. We use a number of methods from initial Benchmark calculations through to software competition analysis using BRE's Carbon mixer package and other similar packages.

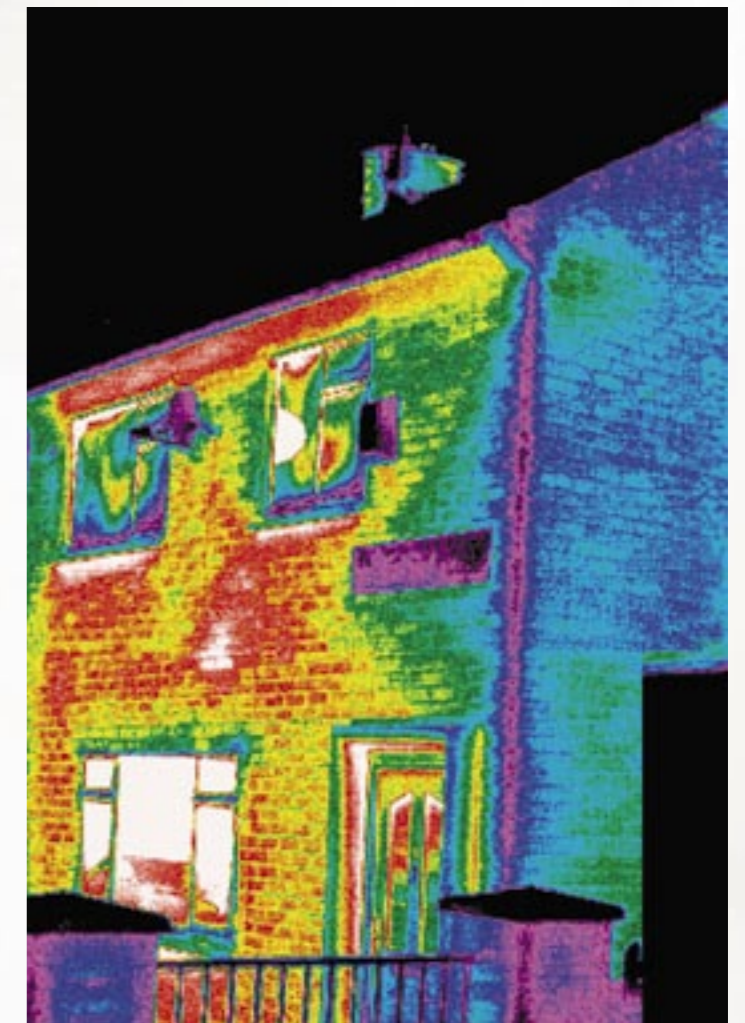


Through our experience, we have developed methods to oppose the energy usage and consequently the viability of integration the various Renewable and LZC systems.

## Bespoke

We are able to provide supplementary and complimentary consultancy services in the following areas:

- M&E Cost Consultancy
- Advanced material usage
- Planned maintenance tender production
- Infrared Thermography – Part L Energy Compliance Building Surveys and Equipment Efficiency Studies
- Sustainability Reports, Sun Path Analysis to support planning



“Edmond Shipway demonstrate a high standard of professionalism, commitment and capability.

Their ability to recognise problems early and offer innovative solutions make them my consultant of choice.”

**Don Camilleri**  
Director of Development  
Center Parcs

# clients include



## Civic, Heritage and Central Government

Avon and Somerset Constabulary  
 Cambridgeshire County Council  
 Foreign & Commonwealth Office  
 Her Majesty's Prison Service  
 Nottingham Christian Centre  
 St. Johns Hospice, Bath



## Commercial & Industrial

Abbeyfield Estates  
 BAE Systems  
 Carter & Carter  
 Center Parcs  
 Clegg Developments  
 Geest Foods

Greggs the Bakers  
 Merryman Ltd  
 One Ash  
 QPG  
 Rolls Royce  
 Tomlinson Building  
 Westleigh Developments Ltd



## Education

Burton College  
 Carter & Carter  
 EMTEC  
 Oldfield School, Bath  
 Roehampton University  
 Sheldon School, Bath

University of Cambridge  
 Working Men's College,  
 Camden



## Leisure

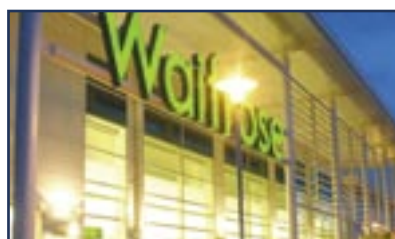
Center Parcs  
 Express by Holiday Inn  
 East Staffordshire County Council  
 Forest Holidays  
 LA Fitness  
 Orchid Spa

Stonen  
 Travel Lodge



## Residential & Mixed Use

Clegg Developments  
 DW Homes  
 Morris Homes  
 St James' Group  
 Stonen



## Retail

Co-operative Group  
 HSBC  
 ILVA  
 MOTO  
 National Geographic  
 Nat West

Waitrose Ltd

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