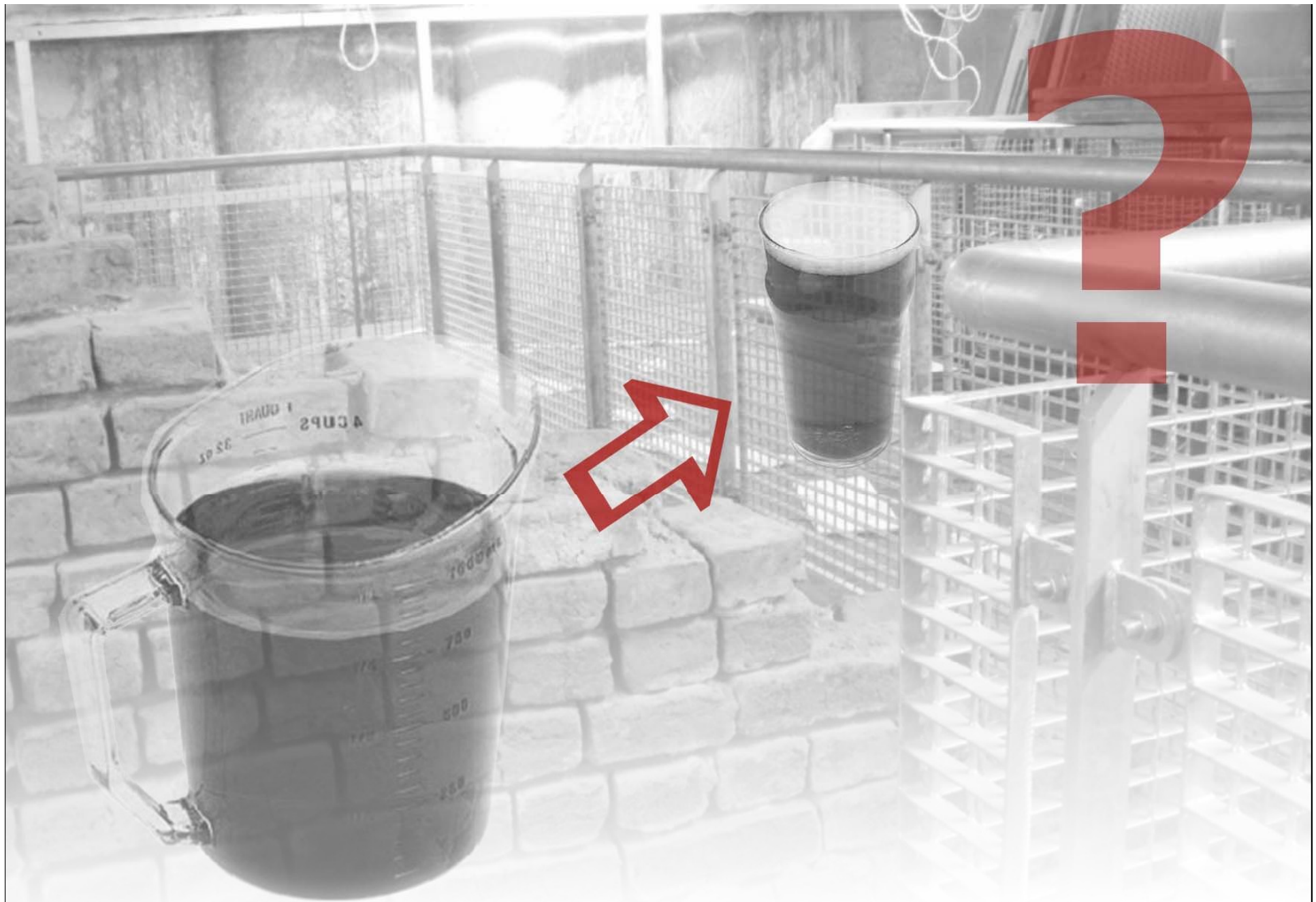
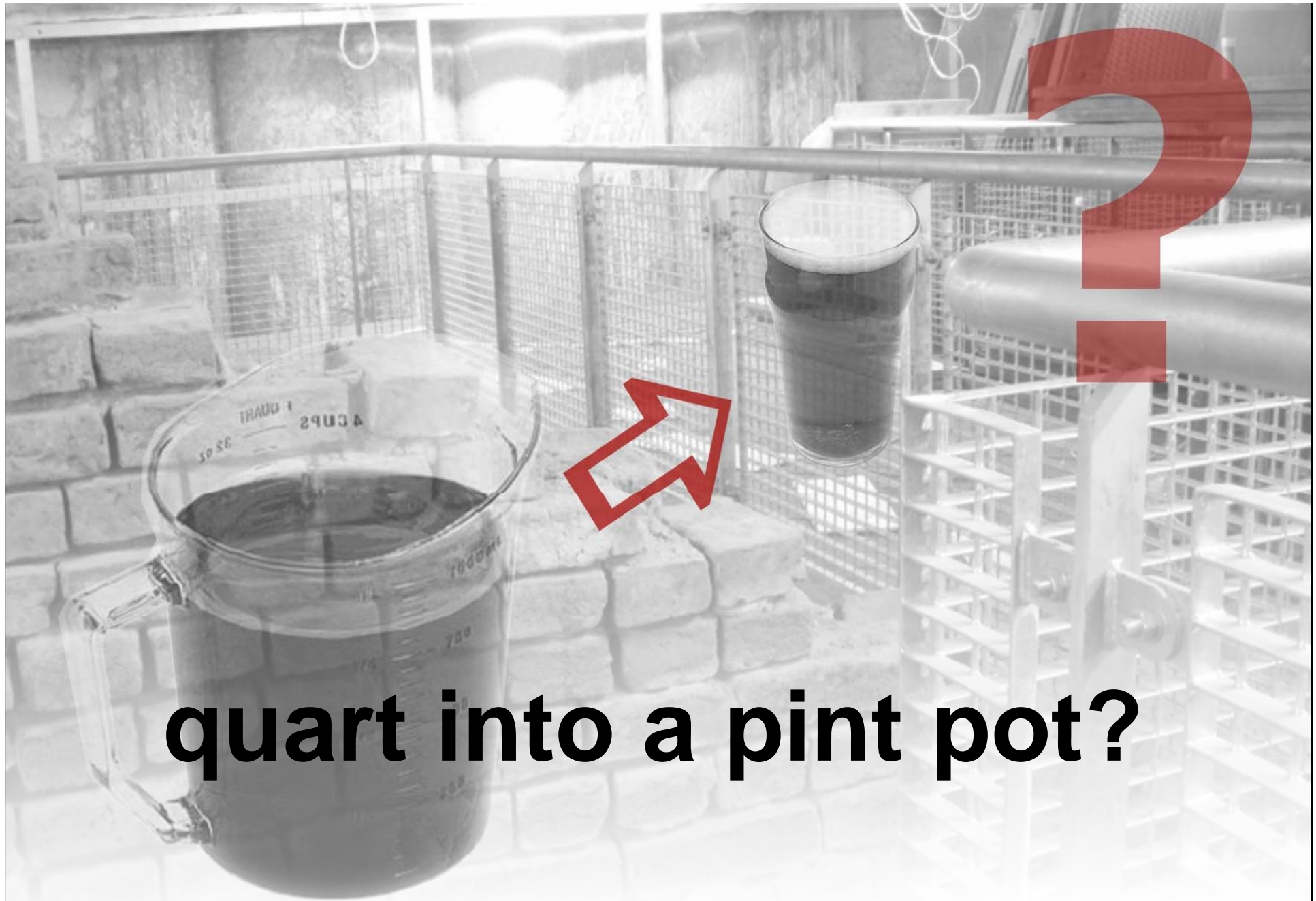


"When we build, let us think that we
build for ever."

John Ruskin — The Seven Lamps of Architecture 1849



PURCHASING MINERAL WATER



quart into a pint pot?

PURCHASING MINISTRATION

The Building Regulations

Recent changes to the Regulations are Part F for Ventilation (2006), Part L for Conservation of fuel and power (2006), Part P for Electrical safety in dwellings (2006).

Part L has been and will be under constant review in light of energy and sustainability issues.

Next Part L review due 2010 and 2013 and demand a 25% & 44% improvement respectively on 2006 Part L standards for Carbon Dioxide emissions, with the intention to achieve zero carbon buildings by 2016 in England.



Donovan Purcell – Pioneer in Stone Conservation

Integrated into our thinking and philosophy

- Conservation
- Restoration
- Preservation
- Regeneration
- Recycling
- Sustainability

Not New thinking !

- Holistic approach ISO 14001 – environmental certification
- not just what resources we use as a practice but also in our work.



Donovan Purcell

In our Workplace

ISO 14001

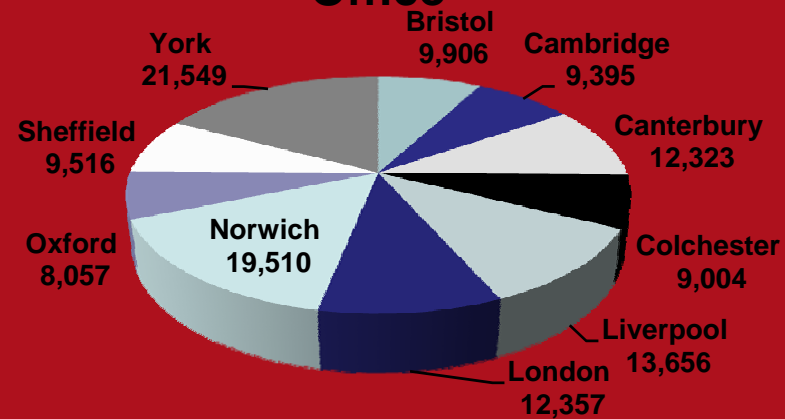
Environmental Certification

Office by Office – monitoring and benchmarking

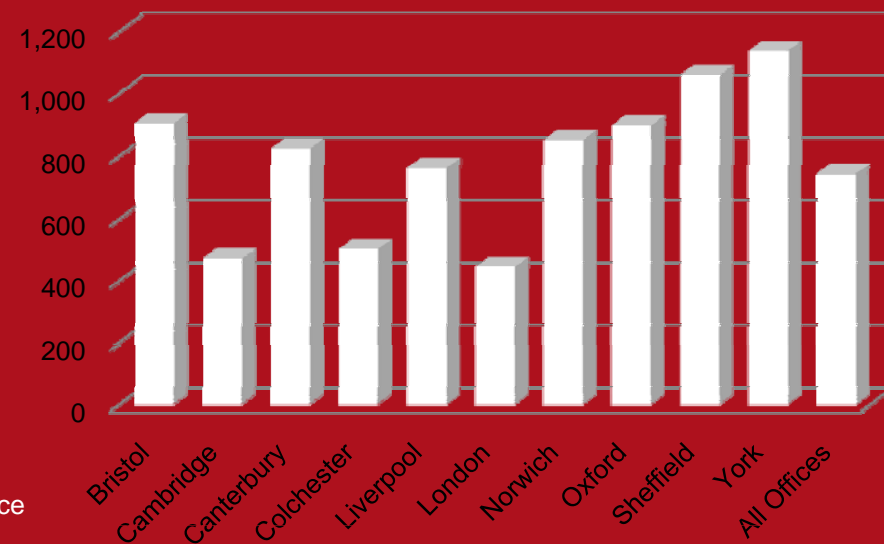
- Analysis of Business Travel
- Waste Management
- Energy Consumption

Analysis of Business Travel Office by Office

Business Travel - kgCO₂ per Office

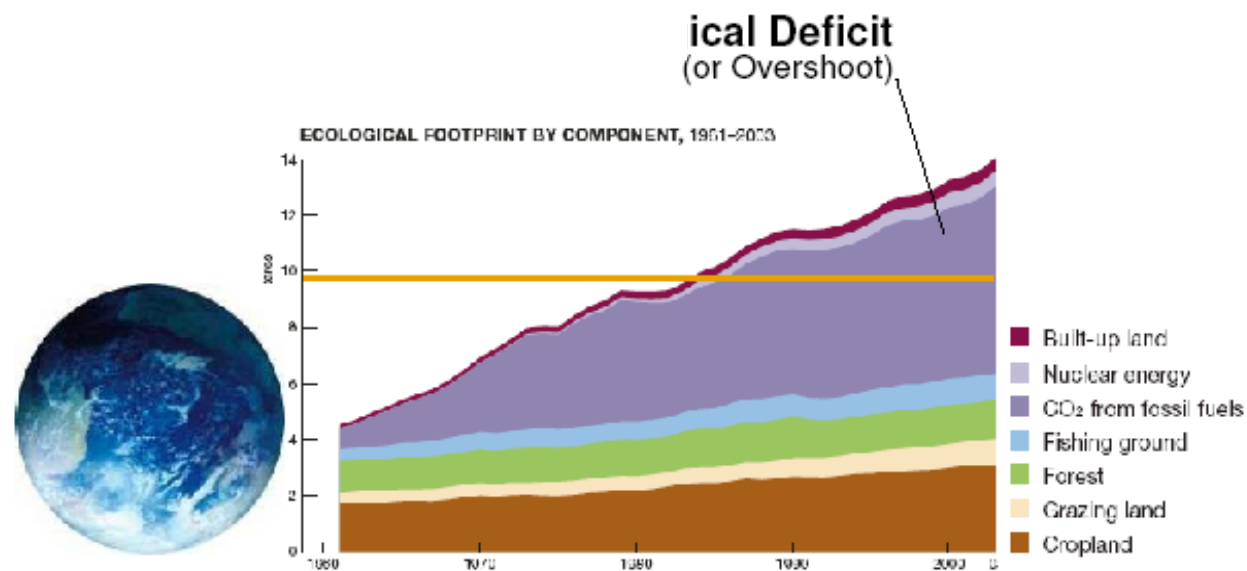


Business Travel - kgCO₂ per employee



One Planet Living

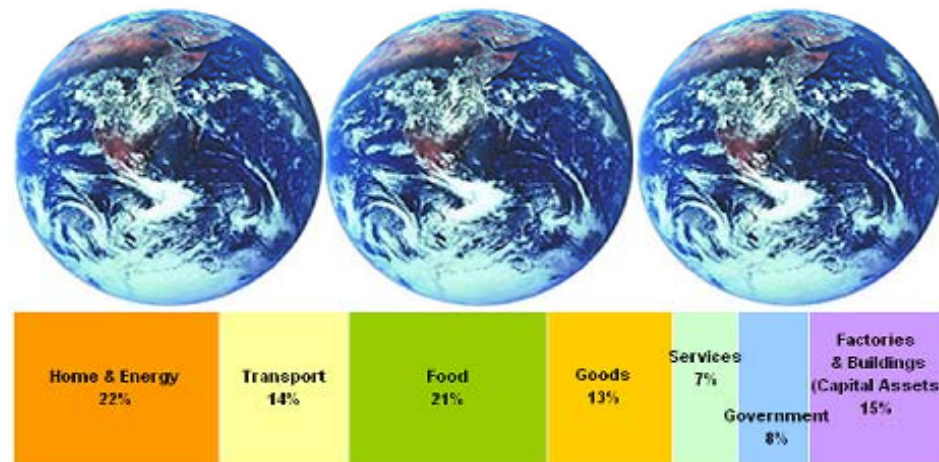
LIVING PLANET REPORT 2006



Globally, our Ecological Footprint is **30%** larger than what the planet can regenerate... and climbing steadily.

Why 'One Planet Living'?

- If everyone in the world lived like we do in the UK – we would need 3 planets to support our consumption.
- How many planets do we have to supply our needs?



BioRegional
www.bioregional.com

One Planet Living

Zero Carbon	Sustainable Water
Zero Waste	Natural Habitats and Wildlife
Sustainable Transport	Culture and Heritage
Local and Sustainable Materials	Equity and Fair Trade
Local and Sustainable Food	Health and Happiness

In our Work

Purcell Miller Tritton Index of Sustainability (PIOS).

Our commitment to running an environmentally responsible business is demonstrated by our ISO 14001 Environmental Management System, which provides a framework for independent auditing of our progress towards clear targets.

The practice is also a member of the Green Register of Construction Professionals. Each Office has its own member.



peoples park grimsby

In our Work

We aim to:

- Use renewable, sustainable and environmentally benign materials and technologies
- Reduce carbon dioxide emissions through energy conservation, ventilation control and the passive and active use of renewable energy;
- Use environmentally responsible suppliers, contractors and sub-consultants;
- Meet and, where possible, exceed environmental regulations;
- Deliver a healthy, comfortable and pleasurable internal environment for building occupants;
- Ensure that our buildings are properly managed so that they continue to function efficiently, minimising their environmental impact throughout their life



peoples park grimsby

First principles of sustainable design

- Form
- Orientation and Insolation
- Wind Protection
- Embedding
- Zoning
- Latent Thermal Storage
- Free Night Cooling
- Light directing elements

Formally BREEAM assessment didn't take into account these first principles in assessing buildings as they were tailored toward new build. There is now a new form of assessment BREEAM- IN –USE which can easily be applied to existing / historic buildings.

Some examples



Greatwater Boathouse – Hanworth Broad Norfolk - Artists Studio

- Constructed from three surviving brick vaults of a 19th C boathouse
- Green Oak Frame – locally sourced timber
- Thatched with Norfolk Reeds
- Composting Toilet draining to a reed bed
- Natural Wool Insulation
- Own borehole for fresh water
- Heated by a wood burning stove



132 Harley Street Grade II – BREEAM Excellent Rating reuse of listed building

- Georgian 1714 - 1830
- Dilapidated and redundant building – converted into a medical practice
- New drainage
- Efficient new central heating and central boiler plant
- Low energy lighting
- Power services
- Grey Water Recycling – rainwater harvesting



Blackburn Cathedral – Grade II*

- **Combined Heat and power unit**
- **Underfloor heating System**
- **Controls system**
- **Biomass Boiler (Later Phases)**

Overall, the CHP is designed to reduce energy consumption. It is anticipated that the Cathedral's energy use will be reduced by almost 30% - equating to a saving in the region of £15,000 per year.



Athenaeum Hotel , London

- Living Wall – Bio diversity – absorbing carbon dioxide and releasing oxygen, ‘ a living lung’
- Replaced windows and increased insulation



Wighenhall Manor – Grade II

- Bio diverse green roofing system using -
- Pre-grown Natural Mat plant layer to reduce internal cooling loads
- Sustainable Drainage by retaining rainfall and prolonging drainage run off
- Green Roof increases the membrane life and reduces maintenance costs
- Grey Water Recycling – rainwater harvesting



Broxbournebury – Grade II

- Natural air conditioning through the use of ground coupling
- Natural gradient of site exploited to bury extension below a living green roof
- Solar Hot Water Panels to meet 85% of the hot water requirements (on new build extension)
- Biomass Boiler
- Grey Water Recycling – rainwater harvesting
- Reed Bed Drainage



Bowood Estate, Hotel and Leisure – Grade I

- Georgian Country House set in Capability Brown Listed Landscape
- Biomass Boiler
- Reed Bed Drainage
- Sedum Roofs
- Eco Luxury – Marketable ideal



Coworth House Estate Surrey – New Spa

- Carbon negative timber structure and lime hemp wall construction
- Camomile, lavender and thyme living roof used for spa herbal treatments
- Minimal footprint – buries the building within the natural contours of the landscape



Shrubland Park Hotel Grade II*

- Carbon negative lime hemp wall construction
- Solar Hot Water
- Biomass Boiler
- Grey Water Recycling – rainwater harvesting
- Reed Bed Drainage
- 140 Code Level 6 affordable homes – enabling development
- Apprenticeship workshops with hostel accommodation
- Key worker housing



Parc Glynllifon – Gwynedd *Eco-luxury heritage hotel ?*

- Hydro electricity from river across front of hotel
- Biomass
- Solar Hot water heating
- Grey water recycling



established 1947

Bristol

Cambridge

Canterbury

Colchester

Edinburgh

Liverpool (*Best Office Obviously*)

London

Norwich

Oxford

Sheffield

York



PURCHASE MINISTRATION