

Sustainable Building Design

Achieving sustainability requires us to live within the limits of the earth's capacity to provide the materials for our activities and to absorb the waste and pollution that our activities generate.

The construction, fit out, operation and ultimate demolition of buildings is a huge factor in human impact on the environment both directly; through material and energy consumption and the consequent pollution and waste, and indirectly, through the pressures on often inefficient infrastructure.

There is already a significant amount of information available to all professions on how to design buildings that are attentive to the needs of sustainable construction. But, most practice still falls radically short of applying even the most easily applicable principles in most projects. Opportunities that could bring real advantage are being missed every day. The result is that buildings and the industries which supply building designers with products, materials and services are less efficient, less economical and more polluting than they might otherwise be.



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In this small-scale redevelopment project in Surrey, extra time and resources have been allowed to recover the bricks from a demolished public house. Two men spent two days cleaning the bricks and stacking them for re-sale. Reclaimed yellow stock bricks sell at 90 pence per brick at London builders' merchants.

This module aims to highlight the key policy drivers for the creation of more-sustainable construction and the legislative requirements that the promoters, designers and constructors of built development need to meet in order to assert that they are adopting a sustainable construction approach to their work. The information provided is not exhaustive, but is intended to provide readers with a useful overview of the key policies that are driving the sustainable construction agenda and an introduction to the legal provisions and their importance.

'The construction industry has a huge contribution to make to our quality of life'. It 'provides the delivery mechanism for many aspects of government policy aimed at the provision and modernisation of the nation's built environment...'. The economic, social and environmental benefits which can flow from more efficient and sustainable construction are potentially immense.'

Building a better quality of life: A strategy for more sustainable construction the UK April 2000.

Continuous Professional Development

This CPD module is the fifth in a series which will summarise the existing sources of best practice guidance on sustainable building design. These modules do not seek to repeat what other documents contain, except to summarise the most important environmental issues.

Each module provides information on critical aspects of a particular topic and sources of further guidance by way of an annotated bibliography. Case studies highlight best practice solutions to improve understanding and encourage implementation. Each is supplemented by seminars which will provide opportunity to discuss design projects in interdisciplinary groups with peers and specialists.

It is hoped that the modules will act as a catalyst in the creation of distance learning opportunities and allow participants to share information on live design projects with their own and other professions.

Objectives

By the end of this module, readers should be able to:

- understand the drivers for improved environmental, social and financial performance on construction projects;
- understand the policy frameworks that are driving the sustainable construction agenda and that help practitioners to deliver improved built environment:
 - in government
 - in industry
 - in the professional institutions, and
 - in individual companies
 - on individual projects;
- understand that there is much legislation that must be complied with in order to deliver a sustainable construction approach but that there is no legislation that requires that a sustainable approach is adopted;
- understand the fundamentals of the legislative requirements for:
 - permission for a development to take place
 - environmental impact assessment
 - preventing water pollution
 - preventing air pollution
 - preventing pollution of land
 - effective waste management
 - protection of wildlife
 - indoor environments

Sustainability Ladder
from the report of
Sustainable
Construction Focus
Group.

