

Good Practice Guidance:

Sustainable Design and Construction

The purpose of the planning system is to contribute to the achievement of sustainable development ...

... To achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system ...

... Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people ...

... Local planning authorities should adopt proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations ...

National Planning Policy Framework, **Department for Communities and Local Government**, March 2012

Cross Sector Group on Sustainable Design and Construction

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The Green, the University of Bradford's BREEAM Outstanding sustainable student village http://www.breeam.org/page.jsp?id=465

BREEAM Outstanding Houghton Primary Care Centre http://www.breeam.org/page.jsp?id=437

BRE's Innovation Park provides a series of exemplar sustainable housing developments and showcase for innovative and sustainable products http://www.bre.co.uk/innovationpark



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Introduction

- 1 This guidance has been produced for use by local planning authorities in England, together with landowners, developers, businesses, town and parish councils, community groups and others.
- 2 Its aim is to assist plan-making and development management in support of local planning authorities' statutory duty to contribute to the achievement of sustainable development, of which sustainable design and construction is an integral part.
- While the guidance is not a statutory document, it nevertheless has considerable support and can be expected to be accorded appropriate weight in both planmaking and development management. The approaches set out in the guidance have been designed to support the policy in the National Planning Policy Framework (NPPF) and other relevant government statutes and guidance.
- 4 The guidance cannot cover all planning policy issues that have a bearing on sustainable design and construction. Some of this material, including flood risk, is dealt with in the Technical Guidance to the National Planning Policy Framework. The related cross-sector guides on climate change and green infrastructure and biodiversity¹ provide more detail on planning policies and implementation in relation to those issues.

- 5 The guidance has been developed following an independently chaired event held at BRE Watford in December 2011 attended by representatives of a range of developer, environmental, government, community and professional interests. There was a consensus that there was a need for good practice guidance on sustainable design and construction to underpin the NPPF, not least to avoid a proliferation of local sustainability standards and assessment methods that could confuse users of the planning system.
- 6 The guidance has been produced by collaborative working between the parties involved, and is supported by the organisations listed at the end.

climate change http://www.tcpa.org.uk/data/files/PCC_Guide_April_2012.pdf
green infrastructure and biodiversity http://www.tcpa.org.uk/data/files/TCPA_TWT_GI-Biodiversity-Guide.pdf
recent guidance http://www.landscapeinstitute.org/policy/GreenInfrastructure.php

¹ The Landscape Institute has also published recent guidance on green infrastructure.

Background

- 7 The NPPF states that "The purpose of the planning system is to contribute to sustainable development". Sustainable development is key to tackling the linked challenges of climate change, resource use, economic prosperity and social well-being, and cannot be achieved without sustainable buildings. This note provides guidance on how the planning system can encourage sustainable design and construction as part of this.
- 8 The note complements "Planning for climate change" published by the Planning and Climate Change Coalition in April 2012. The Climate Change Act 2008 contains a statutory target of securing a reduction in carbon dioxide levels of 80% below 1990 levels by 2050, with an interim target of 34% reduction by 2020. In 2011 the Department of Energy and Climate Change and Local Government Association signed a memorandum of understanding, outlining their shared commitment to helping to secure this reduction.
- 9 Half of all of the country's carbon emissions come from the energy used in constructing, occupying and operating buildings. A high standard of construction is therefore vital to achieving these statutory targets.
- 10 Sustainable design and construction is concerned with implementing sustainable development at the scale of individual sites and buildings. It takes account of the resources used in construction, and of the environmental, social and economic impacts of the construction process itself and of how buildings are designed and used. Thus, while consideration of energy and carbon impacts is an important element, sustainable design and construction goes wider than this. In summary, it seeks to: minimise the use of resources (including energy and water); ensure that the built environment mitigates and is resilient to the impact of climate change; protect and enhance biodiversity and green infrastructure; provide buildings and spaces that are pleasant and healthy for occupiers and users; ensure the sustainable sourcing of materials; and minimise waste.
- Sustainable design and construction is of major importance to the UK economy. The Government has stated that the Green Deal will trigger £14billion of investment to 2022 and support at least 65,000 insulation and construction jobs by 2015². The export potential of the sector is demonstrated by the fact that UK companies are heavily involved in helping rapidly growing economies such as China and Brazil with the development of innovation parks and sustainable construction technologies.

- 12 Studies commissioned by CLG³ indicate that as sustainable construction becomes more widely adopted the supply chain responds and costs are driven down.
- 13 The National Planning Policy Framework seeks to promote the role of the planning system in achieving sustainable development. A key element of this is the preparation of local plans which ensure that development is located in the most sustainable locations, taking account of issues such as minimising the need to travel and access to public transport, water supply, and flood risk. Once the location has been chosen, achieving sustainable development requires masterplanning to be carried out in such a way as to make best use of a site's characteristics and topography.
- 14 Masterplanning should also be undertaken in such a way as to optimise the sustainability of a development as a whole, taking account of wider infrastructure and other issues.
- Developers and planners should be aware of the differences in the embodied impacts and the whole life cost of building materials. This should be one of the factors taken into account by developers when deciding between different approaches to development, and indeed between refurbishment and redevelopment.
- While sustainable design and construction of new buildings cannot make development acceptable on land in an unsustainable location, they represent one element of making settlements more sustainable. The contents of this guidance cover the encouragement of high standards of site and building design and sustainable construction practice, after development land has been allocated through the local plan process. As the NPPF notes, "securing high quality and inclusive design goes beyond aesthetic considerations". Subject to certain provisos, it states that local planning authorities "should not refuse planning permission for buildings or infrastructure which promote high levels of sustainability".
- 17 The Government is seeking to encourage owners of existing buildings to make them more energy efficient through programmes such as the Green Deal. It also recognises the importance of sustainable construction in its Housing Strategy, which acknowledges the role that the Code for Sustainable Homes can play. The strategy emphasises the Government's commitment to improving the design and sustainability of housing in ways which give communities a say. This guidance aims to help implement this commitment
- 2 (http://www.decc.gov.uk/en/content/cms/news/aes_2011/aes_2011.aspx)
- 3 (http://www.communities.gov.uk/documents/planningandbuilding/pdf/1972728.pdf)

Planning for climate change http://www.tcpa.org.uk/data/files/PCC_Guide_April_2012.pdf
Green Deal http://www.decc.go.uk/en/content/cms/tackling/green_deal/green_deal.aspx
Housing Strategy http://www.communities.go.uk/documents/housing/pdf/2033676.pdf
Code for Sustainable Homes http://www.communities.go.uk/planningandbuilding/sustainablity/codesustainablehomes/