

# Local Development Framework Briefing Paper Sustainable Development and Construction



## Devon County Council's advice to Local Planning Authorities.

This is one of a series of briefing papers prepared by Devon County Council to assist the preparation of Local Development Documents.

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**Local Planning Authorities are requested to take the following matters into account in preparing their Local Development Frameworks and other documents:**

### **1. Sustainable Development**

**a) Development should create an appropriate balance between economic, social and environmental objectives – particularly between meeting household growth, housing need and demand, climate change, ecological enhancement and an urban renaissance.**

**b) Local authorities should adopt a holistic stance towards sustainable development taking into account all five principles of the UK Government's advanced definition of sustainable development, incorporating the 'three pillars' of sustainable development and recognising that sustainable development is about steering societal change.**

**c) Sustainable development should be an overarching policy objective in LDF Core Strategies, part of the LDF Spatial Vision, and part of a dedicated 'sustainable development/ construction' Local Development Document**

**d) Delivering more sustainable development should be an overriding objective in the planning, design and delivery of all development proposals, recognising that it is a dynamic concept and thus it is better to speak of 'promoting' rather than 'achieving' sustainable development**

**e) LDFs should reflect Devon Structure Plan Policies on 'sustainable development', particularly Policies ST1, ST3, CO11, CO12, CO13 AND TR1-TR5 and draft RSS policies on sustainable development especially SD4 on sustainable construction and Policy G on sustainable construction.**

**f) LDFs should promote the delivery of a sustainable economy and the active involvement of local people and all levels of social organisation in promoting sustainable development.**

### **2. Flexibility and Sustainable Communities**

**a) Encouraging the development of mixed use, medium to high density 'sustainable communities' which embrace sustainable urbanism, meet people's changing needs and maximise the reuse of previously developed land in accessible locations.**

**b) New development must adapt to society's changing needs and priorities (e.g. flexible working) and legislative change (e.g. Code for Sustainable Homes)**

**c) Encouraging sustainable travel behaviour, a choice of sustainable transport modes and providing infrastructure in-step with new development.**

**d) Ensure new development improves accessibility for all to destinations that have the greatest impact on life chances**

### **3. Sustainability and Construction**

**a) Local authorities must require the highest standards of sustainable construction (preferably EcoHomes and BREEAM 'Excellent' Carbon neutrality and Level 5 of the Code for Sustainable Homes) and energy efficiency measures in all developments, including renewable energy and community recycling targets.**

**b) Developers of major development proposals should provide sustainability appraisals, checklists and a sustainability strategy/statement setting how all aspects of sustainability are to be addressed and how a wide range of sustainability objectives will be delivered.**

**c) Adopt the following hierarchies of priorities to achieving energy-efficient development**

- 1. Conserve energy and reduce demand,**
- 2. Provide renewable energy and maximise use of renewable resources,**
- 3. Use clean sources (i.e. low carbon)**

**d) LPAs should encourage energy conservation and renewable energy technologies to be embedded in new developments at the micro and macro scales.**

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**Partnership Working**

***Devon County Council wishes to work in partnership with District Councils, in further developing the above policy areas with colleagues and other organisations and would wish to be fully involved in any discussion relating to them.***

## 1. Introduction

The scope of this briefing paper is to bring to the attention of Local Planning Authorities the need to deliver sustainable development through the planning system, in a manner which demonstrates 'best practice' in sustainable construction, helps to 'make Devon greener', and takes account of all five elements of the 2005 UK Sustainable Development Strategy:

- **Living within environmental limits**
- **Ensuring a strong, healthy and just society**
- **Achieving a sustainable economy**
- **Promoting good governance**
- **Using sound science responsibly**

This briefing paper reflects the role of Devon County Council in promoting more sustainable development through the policies of the Devon Structure Plan (2001-16), the revised Devon Strategic Plan (2006-11) and the draft RSS for the South West (2006-26). It is now a statutory duty, under Section 39 of the 2004 Planning Act, for those working in plan-making in England and Wales to contribute to the achievement of sustainable development and PPS1 states that sustainable development is the 'core principle underpinning planning'. Our approach to sustainable development embraces the multiple dimensions of sustainability ('the triumvirate model'), from encouraging renewable energy to building communities, reducing the need to travel and facilitating community governance. In doing so it brings together a desire to achieve social equity and justice whilst living within the boundaries established by ecological limits. The growing emphasis being paid to more sustainable development is exemplified by the draft RSS policies on sustainable construction which expect all larger scale development to be carbon neutral (Policy G and para's 3.7.5 – 3.7.8). LDF's should seek a similar long-term ambition for buildings in their area.

## 2. Key Issues to Address

Key Issues to be addressed include:

- **Meeting the government's 'decent home for everyone'** objective in an area where housing supply has outstripped supply and the house price to income ratio is among the highest in the UK.
- **Achieving climate change and carbon dioxide emissions targets** whilst ensuring the sustainable economic development of Devon's towns and cities.
- **Balancing competing economic, social and environmental/ecological objectives**
- **Sustainable development's 'elasticity'** enables it to be used to meet contradictory objectives
- **Community governance** can leave the planning system open to manipulation by individuals
- **Commercial viability** of renewable energy technology at both macro and micro scales
- **Standards by which to measure sustainability** are diverse (e.g. EcoHomes, BREEAM, Millennium Communities Standard, Lifetime Homes Standard, Code for Sustainable Homes)
- **The voluntary nature of the Code for Sustainable Homes** provides minimal certainty for the local authority that the highest standards of sustainable construction can be achieved
- **Lack of financial incentives to build to higher environmental standards**
- **Stability and security of energy supplies and rising energy prices**
- **Having a functional yet aspirational approach to sustainability and urban design**
- **Delivering developments that are sustainable both now and in the future** and can adapt to society's changing needs and demands
- **Changing negative mindsets towards development to see development as a positive force**
- **Persuading a conservatist housebuilding industry** to adopt construction standards which significantly exceed building regulations to embed sustainable design in new buildings (e.g. high insulation levels, passive cooling techniques, to comply with the highest level of the Code for Sustainable Homes, and to commit to building 'communities' and providing social and community infrastructure.
- **Encouraging a partnership**, interactive approach between all the key stakeholders when producing a sustainability strategy for developments

- **Reducing energy demand in parallel with increasing the percentage of energy generated from onsite renewables.**

### **3. The Content of LDFs**

As sustainable development should be the underlying principle on which LDFs are based, it is often difficult to establish a clear demarcation between where the different aspects of promoting sustainable development should lie (i.e. in Core Strategies, LDDS or SPDs). We would suggest the following:

#### **Core Strategy**

The core strategy should set out the integrated approach to sustainable development including:

- A desire in its 'Spatial Vision' for high quality, locally distinctive sustainable development that is planned, designed and delivered in a comprehensive manner making the most efficient use of the land available.
- Overarching strategic policy objectives which seek to secure more sustainable, socially inclusive development throughout the district
- How the LPA defines 'sustainable development' in planning terms and how its delivery will be monitored, when and by whom.
- An objective of delivering 'sustainable communities' that are focused around meeting the needs of people, that encourage the adoption of sustainable lifestyles and deliver the intangible aspects which help create 'community'.
- A policy objective that requires sustainable construction to become the 'norm' and for there to be a step-change in the energy and environmental performance of buildings
- A policy objective that aims to ensure developments have a positive impact on climate change
- A policy objective that requires developments to promote sustainable waste and travel behaviour (e.g. car clubs) and use of locally sourced, recycled or sustainable managed resources
- A policy objective that requires community development and participation, increasing local people's understanding and influence over issues which affect their lives
- A policy objective which sets out the appropriate density range within the district.

#### **Other Local Development Documents**

Other local development documents should develop the core strategy and:

- Explain how 'sustainable development' will be delivered at a local level
- Identify a standard which the LPA expects developers to achieve in terms of compliance with the Code for Sustainable Homes (e.g. Level 5) and EcoHomes/BREEAM (e.g. Excellent)
- State how developers can achieve a step-change in the energy and environmental performance of buildings
- Explain the approach to social sustainability (e.g. community governance), articulating how the LPA will actively engage local residents and key stakeholders in the delivery of LDF spatial objectives.
- State what the LPA stance is towards renewable energy and preferably set out a target for new developments to meet (e.g. 10% of electricity generated from on-site renewable sources)<sup>1</sup> and explain how developers could meet it (e.g. CHP, photovoltaic panels)
- Set out specific design and construction policies that will seek to reduce development's carbon footprint and raise the environmental standards for new buildings
- Require a sustainability strategy and sustainability checklist to be submitted alongside major planning applications showing how sustainability principles will be met, clearly articulating what would be expected to be included within those strategies and checklists
- Include 'sustainable development' as one of the key development principles within the development control policies DPD.
- Explain how sustainable waste behaviour can be achieved in new and existing developments, according to the waste hierarchy (Reduce-Reuse-Recycle-Recover-Dispose)
- Include a separate SPD on Sustainable Development, including a series of targets and indicators by which achieving sustainable development will be assessed and providing further detail on complex issues such as built form, employment, leisure, democracy, pollution, governance, energy, water, movement, waste, recycling, biodiversity, heritage, landscape and sense of place.

<sup>1</sup> PPS22 allows local authorities to develop policies requiring a proportion of a development's predicted energy requirements to be provided by on-site renewables

## **1. Building Regulations**

The Government's Building Regulations were revised in April 2006 and require new buildings to be 40% more energy efficient than one built 5 years ago, with carbon dioxide emissions of 25% less than buildings built 1 year ago. The cornerstone of the new regulations are that it has to be demonstrated that the CO<sub>2</sub> emissions rate for each new building is no greater than a notional building of the same size and shape together with an improvement factor. The actual design must predict CO<sub>2</sub> emissions and improve on those of the notional building by the factors shown in Table 1.

*Table 1: Whole building carbon improvement relative to notional building performance*

| <b>Servicing Strategy</b>          | <b>Emissions target</b> | <b>Improvement in energy efficiency</b> | <b>Renewables provision</b> |
|------------------------------------|-------------------------|---|-----------------------------|
| Heated and naturally ventilated    | 76.5%                   | 15%                                     | 10%                         |
| Heated and mechanically ventilated | 72%                     | 20%                                     | 10%                         |
| Air conditioned                    | 72%                     | 20%                                     | 10%                         |

## **2. Code for Sustainable Homes**

The Government produced its consultation paper on a draft Code for Sustainable Homes in December 2005, as a way to incorporate sustainability into new homes. The Code as currently proposed will have six essential elements. These are:

- Energy efficiency;
- Water efficiency;
- Surface water management;
- Site waste management,
- Household waste management and
- Use of sustainable materials.

Minimum standards will be set for each essential element and all of these must be achieved if a home is to meet Code standards.

To achieve the highest levels of the Code, homes must contain a series of 'optional' features:

- Lifetime Homes - internal adaptability so that a home can be adapted for use of an elderly or disabled person;
- Additional sound insulation;
- Private external space;
- Higher daylighting standards;
- Improved security; and
- A home user guide.

### **3. BREEAM and EcoHomes Standards**

It is important that any development adopts a sustainability assessment method that provides assurances on the overall sustainability credentials of the development and its buildings. One of the most widely used is BREEAM (Building Research Establishment Environmental Assessment Method).

BREEAM assesses the performance of buildings in the following areas:

- **Management:** overall management policy, commissioning site management and procedural issues
- **Energy use:** operational energy and carbon dioxide (CO<sub>2</sub>) issues
- **Health and well-being:** indoor and external issues affecting health and well-being
- **Pollution:** air and water pollution issues
- **Transport:** transport-related CO<sub>2</sub> and location-related factors
- **Land use:** greenfield and brownfield sites
- **Ecology:** ecological value conservation and enhancement of the site
- **Materials:** environmental implication of building materials, including life-cycle impacts
- **Water:** consumption and water efficiency

Developers and designers are encouraged to consider these issues at the earliest opportunity to maximise their chances of achieving a high BREEAM rating. Credits are awarded in each area according to performance. A set of environmental weightings then enables the credits to be added together to produce a single overall score. The building is then rated on a scale of PASS, GOOD, VERY GOOD or EXCELLENT, and a certificate awarded.

EcoHomes is the homes version of BREEAM. EcoHomes covers houses as well as apartment buildings and can be applied to both new and renovated homes. EcoHomes balances environmental performance with the need for a high quality of life and a safe and healthy internal environment. EcoHomes assessments are carried out by independent assessors who are trained and licensed by BRE. The assessment is based on a series of sheets to be completed by the developer/designer. The cost of assessment will depend upon the level of advice and assistance required from the assessor, and the complexity of the scheme. For example, each different house type on a development requires a degree of separate assessment.

### **4. Key Structure Plan Policies**

ST1: Sustainable Development

CO12: Renewable Energy Developments

CO11: Conserving Energy Resources

### **5. References**

ODPM (2005) *Proposals for introducing a Code for Sustainable Homes*, ODPM, London.

TCPA (2006) *Advice for planning at Regional Level*, [www.tcpa.org.uk/shf/regional.htm](http://www.tcpa.org.uk/shf/regional.htm)

Baker, S. (2006) *Sustainable Development*, Routledge, London.

JSPAs (2004) Devon Structure Plan (2001-16), Adopted October 2004.

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