



Upton, an exemplar development with houses built to high levels of sustainability. The buildings pictured were designed by Gale & Snowden Architects Ltd, who also acted as ecological design consultants for the site. <http://www.ecodesign.co.uk>

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

August 2012

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Images from top:

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 a showcase for innovative and sustainable products <http://www.bre.co.uk/innovationpark>



Good Practice Guidance: Sustainable Design and Construction

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.
- 3 While the guidance is not a statutory document, it nevertheless has considerable support and can be expected to be accorded appropriate weight in both plan-making 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 biodiversity**¹ 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.

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

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>

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.
- 11 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.
- 15 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.
- 16 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.gov.uk/en/content/cms/tackling/green_deal/green_deal.aspx

Housing Strategy <http://www.communities.gov.uk/documents/housing/pdf/2033676.pdf>

Code for Sustainable Homes <http://www.communities.gov.uk/planningandbuilding/sustainability/codesustainablehomes/>

The role of planning, and its relation to Building Regulations

- 18** Local and neighbourhood plans set the context for new development. They contain policies which outline the local planning authority's objectives for its area, the main locations for development and the key criteria against which development proposals will be considered.
- 19** Planning has an important role in encouraging and facilitating buildings that meet high standards of sustainability, in support of its statutory objective to contribute to the achievement of sustainable development. The NPPF states that local planning authorities should plan for new development in locations and ways which reduce greenhouse gas emissions and actively support energy efficiency improvements to existing buildings.
- 20** The Building Regulations set minimum standards in relation to a number of sustainability issues, such as energy efficiency and water consumption, as well as matters such as structural soundness. For housing, the Government has adopted the Code for Sustainable Homes as a way of signposting the long-term direction of travel on sustainable design and construction. The Government-owned Code encourages a voluntary progression beyond minimum standards and drives innovation and change in the construction industry. There are similar widely used private sector assessment methods for non-domestic buildings⁴. It is worth noting that some standards provide fixed ratings that do not change significantly over time, while others are routinely updated. This can be important when deciding what level to specify in planning policy. See annex 3 for more details.
- 21** Technology, materials and the Building Regulations regime will continue to evolve in the future. There will be situations where it could be appropriate for local planning authorities to anticipate levels of building sustainability in advance of those set out nationally. These could include, for example, where:
- there are clear opportunities for significant use of decentralised and renewable or low-carbon energy or a need to safeguard their potential future use; or
 - local circumstances, such as high water stress, mean that development without high standards would be unacceptable for its proposed location; or
 - local evidence shows that the impacts of climate change will require adaptive measures in some buildings and homes.
- 22** It is important to recognise that standards such as the Code for Sustainable Homes, while taking account of the Building Regulations, cover a significantly wider range of sustainability issues than is covered by regulation. Parts G and L of the Building Regulations address water efficiency and energy use respectively. The Code for Sustainable Homes incorporates these, and in addition addresses other important sustainability issues such as materials, waste, health and well-being, ecology, and management of both the construction process and the completed building.

⁴ BREEAM is the most frequently used assessment and certification scheme for non-residential new buildings in England, and is also widely used internationally. Other assessment schemes for buildings include SKA, the US-based LEED and Australian GreenStar. CEEQUAL is an assessment methodology for civil engineering projects. Further details of these schemes are given in annex 3.

Formulating planning policies on sustainable design and construction

- 23 When proposing any local requirements for sustainable buildings planning authorities must be able to demonstrate with clear robust evidence the circumstances that warrant this, focussing on local or site-specific opportunities and constraints. They should specify the requirement in a way consistent with the Government's zero carbon buildings policy and adopt nationally described standards.
- 24 Schemes such as the Code are designed so that they can be applied as appropriate to local circumstances, while at the same time providing a consistent and widely understood national framework.
- 25 A significant advantage of using the Code and similar schemes is that they involve independent assessment and accreditation, overseen by the UK Accreditation Service. For local planning authorities this means that they do not need to employ expert staff to assess a development's credentials, but are able to rely on a trained and licensed independent assessor. At the same time, developers and local communities can have confidence that a development is fairly assessed against objective criteria.
- 26 Policies on sustainable design and construction should be set out in a development plan document to ensure full consultation with the local community and other stakeholders and examination by the Planning Inspectorate. Such policies should focus on local opportunities and constraints whilst avoiding the repetition of nationally available information.
- 27 Sustainable design and construction have an important role to play in helping to avoid increased vulnerability to the range of impacts arising from climate change and to manage risks through adaptation. The Environment Agency's 'Climate Ready' programme will be developing tools and resources for the built environment.

Justifying local requirements: evidence and viability

- 28 To justify local requirements local planning authorities should base them on evidence that is specific to the area to which they apply. Planning authorities should also be able to demonstrate that the requirements would not have an unreasonable adverse impact on development viability when considered alongside all other requirements and that the issue is not already satisfactorily dealt with by existing standards. For example, future changes to Part L of the Building Regulations may make it unnecessary to apply a "Merton Rule" requirement for a percentage of energy demand to be met from on-site renewables.
- 29 Local planning authorities wishing to incorporate sustainable construction policies within their local plans should provide evidence for the approach which they propose. For example, large urban areas, particularly in southern England, may wish to place more emphasis on ensuring that development is well-adapted to cope with the "heat island" effect than predominantly rural authorities. Similarly, authorities in areas of water stress may wish to stipulate more exacting standards for water use than those where supply is relatively plentiful.
- 30 In cases such as this, local planning authorities should provide evidence to support their policy approach, in line with paragraph 158 of the NPPF. Such evidence need not be complex, and should wherever possible draw on readily available sources.

- 31** Policy requirements on sustainable construction should be proportionate to the type of development and should not unreasonably threaten the viability of development which otherwise accords with local plan policy. In particular, flexibility may be necessary on refurbishment projects where it may not be possible to meet the same performance levels as new build policy requirements.
- 32** Planning authorities should ensure that what is proposed is viable, having regard to the need to continue to improve standards, the overall costs of bringing sites to the market (including the costs of any necessary supporting infrastructure) and the need to avoid any adverse impact on the development needs of communities. Development proposals should provide competitive returns to developers and landowners. Proposals should not result in requirements for public services or infrastructure which are unaffordable, or are otherwise unsustainable in the long term, for example because they are not resilient to climate change.
- 33** At the same time, authorities should recognise that development viability can vary substantially both over time and from one scheme to another. One of the important aims of schemes such as the Code for Sustainable Homes is to drive change in the supply chain and thereby to reduce costs. For example, **CLG research** indicates that in the three years to August 2011 the extra costs of building to Code level 3 fell by approximately three quarters.
- 34** Local plans should highlight the advantages of considering sustainability issues as early as possible in the development process. This can help to achieve more sustainable outcomes and to reduce overall costs.
- 35** In considering the carbon compliance (on-site carbon target for buildings), local planning authorities should take account of current Government policy on achieving zero carbon performance. For new housing the developing policy seeks to establish realistic limits for carbon compliance, and allows for the full zero carbon standard to be achieved through the use of “allowable solutions” - envisaged as mainly near-site or off-site carbon-saving projects which compensate for carbon emissions reductions that are difficult to achieve on site. The **Zero Carbon Hub** has proposed a delivery framework for allowable solutions. The Government has yet to make a detailed policy announcement on the delivery structure and scope of allowable solutions. Some local authorities are already exploring the use of carbon off-set funds and community energy funds as a way of delivering the concept of allowable solutions in their areas. For housing, zero carbon requirements (carbon compliance coupled with allowable solutions) will be driven into mainstream new homes by Building Regulations (Approved Document L1A, 2016). A similar mechanism is expected to be developed for non-domestic buildings and introduced in 2019.
- 36** Some advice on testing the viability of local plans is contained in the June 2012 **report of the Local Housing Delivery Group** and the August 2012 **guidance from the Royal Institution of Chartered Surveyors**.

Examples of local plan policies

- 37** This guidance emphasises the importance of specific local evidence and assessment in developing local plan policies. For this reason, it does not seek to promote model policies, as what is applicable in one part of the country may be inappropriate in another.
- 38** However, local planning authorities may find it helpful to consider experience elsewhere when developing their own policies, provided they recognise that this is not a substitute for local evidence. Annex 1 contains examples of such policies.
- 39** There are further details, including examples of adopted local plan policies on sustainable design and construction, the type of evidence required to substantiate requiring particular levels of conformity, and experience of testing these at examination, on the **BREEAM website**.
- 40** Further details of the Code for Sustainable Homes can be found in the **Technical Guide 2010**.

CLG research <http://www.communities.gov.uk/documents/planningandbuilding/pdf/1972728.pdf>

Zero Carbon Hub <http://www.zerocarbonhub.org>

Report of the Local Housing Delivery Group <http://www.nhbc.co.uk/NewsandComment/Documents/filedownload,47339,en.pdf>

Guidance from the Royal Institution of Chartered Surveyors http://www.rics.org/site/download_feed.aspx?fileID=12271&fileExtension=PDF

BREEAM website <http://www.breeam.org/page.jsp?id=268>

Technical Guide 2010 http://www.planningportal.gov.uk/uploads/code_for_sustainable_homes_techguide.pdf

Development management

- 41** Once policies on issues such as sustainable building standards or decentralised energy supply have been adopted within a local plan or neighbourhood plan, development will be expected to comply with the policies, in accordance with the principle of the plan-led system. If a developer considers that there are reasons why on a particular site such policies should not be complied with, for example due to exceptional costs of site reclamation, it would be for the developer to make the case.
- 42** Discussion and consideration of sustainable design and construction issues should take place at the earliest possible stage in the development process. This will provide the greatest opportunities for a well-designed and constructed development and at the same time enable costs to be minimised. There is evidence that highly sustainable buildings can be produced at little or no additional cost⁵, provided sustainability is designed in from the outset.
- 43** Local planning authorities and developers should therefore consider sustainable construction issues in pre-application discussions. Where a sustainable construction assessment of a proposed development will be required, developers are advised to engage an assessor at the earliest possible stage as this is likely to provide the best balance between maximising the sustainability potential of the development and minimising costs. The achievement of meeting the necessary policy requirements should be captured within a sustainability statement, which can form part of the design and access statement. The need for such a statement should be discussed at the pre-application stage.
- 44** Planning conditions should normally be related to identifiable stages in the assessment process. For example, the Planning Inspectorate recommend a condition which prevents occupation of dwellings built to a specified level of the Code for Sustainable Homes until a post-construction certificate has been provided to the local planning authority (see Annex 2). In all cases local planning authorities should satisfy themselves that any condition is appropriate to the particular circumstances of the proposed development and local area, and may choose to apply development management principles flexibly to facilitate rather than frustrate desirable development. Conditions should also comply with the long-established tests that they should be necessary; relevant to planning; relevant to the development to be permitted; enforceable; precise; and reasonable in all other respects. The **BREEAM website** contains examples both of conditions and of appeal decisions relating to sustainable design and construction.

⁵ <http://www.bre.co.uk/page.jsp?id=1809>

BREEAM website <http://www.breeam.org/page.jsp?id=268>

Annex 1

Example Policies on Sustainable Design and Construction (including relevant extracts from Inspectors' reports)

The examples in this annex are of local plan policies that have been adopted, together with relevant extracts from the inspector's/examiner's report. They should not be viewed as model policies, as what is appropriate in any given area will depend on local circumstances and evidence. However, they may be useful as examples of policy approaches that have been judged sound.

The following example from West Berkshire Council illustrates a policy on sustainable design and construction which has been examined and adopted following the publication of the NPPF (Core Strategy adopted 16 July 2012)

Policy CS 15 - Sustainable Construction and Energy Efficiency

Residential Development

New residential development will meet the following minimum standards of construction:

- Minor development -
Code for Sustainable Homes Level 3
- Major development -
Code for Sustainable Homes Level 4
- From 2013: All development -
Code for Sustainable Homes Level 4
- From 2016: All development -
Code for Sustainable Homes Level 6

Non-Residential Development

New non-residential development will meet the following minimum standards of construction:

- Minor development - BREEAM Very Good
- Major development - BREEAM Excellent
- From 2013: All development - BREEAM Excellent

Renewable energy

Major development shall achieve the following minimum reductions in total CO₂ emissions (regulated and unregulated energy use) from renewable energy or low/zero carbon energy generation on site or in the locality of the development as long as a direct physical connection is used, unless it can be demonstrated that such provision is not technically or economically viable.

The percentage reductions in CO₂ emissions should be based on the estimated CO₂ emissions of the development after the installation of energy efficiency measures related to either the Code for Sustainable Homes, BREEAM or equivalent method has been applied.

Residential Development:

- A 10% reduction in CO₂ emissions;
- from 2014: A 20% reduction in CO₂ emissions;
- from 2016: Zero Carbon

Non-Residential Development:

- A 10% reduction in CO₂ emissions;
- from 2014: A 20% reduction in CO₂ emissions;
- from 2019: Zero Carbon

Inspector's report to West Berkshire Council on Core Strategy 3 July 2012 - extract

- 131** *Policy CS16 Sustainable Construction and Energy Efficiency.* Following the hearings in November 2010, I requested that the Council consult on a change to this policy to delete the requirements relating to the Code for Sustainable Homes (CfSH) and BREEAM. This was because I was not satisfied that these requirements were justified in relation to then national policy in the Supplement to PPS1 (December 2007) particularly paragraphs 30-32. That Supplement has been replaced by the NPPF.
- 132** The NPPF requires (paragraphs 94 - 95) local authorities to adopt proactive strategies to mitigate and adapt to climate change. When setting any local requirements for a building's sustainability they should do so in a way consistent with the Government's zero carbon policy and to adopt national standards. The particular tests for the justification of such local standards previously in the Supplement have been dropped. The NPPF does however require (paragraph 21) investment not to be overburdened by the combined requirements of planning policy expectations.
- 133** The requirements in CS16 refer to nationally described standards consistent with the Government's zero carbon policy. There is an additional administrative cost burden in providing the supporting evidence at application stage and subsequently demonstrating compliance with such a policy. The energy efficiency levels required by the Code are currently planned to be achieved by further tightening of the Building Regulations to 2016. Meeting these energy levels represents the most significant aspects of meeting the Code in construction terms. As the Council is not proposing any acceleration of this element compared with what is likely to be required under the Building Regulations, the additional cost burden of the Council's policy is unlikely to be substantial.
- 134** The Environment Agency expressed strong support for the policy because of the need to limit domestic water use in this area of water stress. Code levels 3-4 introduce tighter water restrictions than currently required by the Building Regulations. On balance, in the light of the changed national guidance, CS16 is sound as submitted.

The following example from Rushmoor Borough Council shows how evidence was used to justify a borough-wide policy for sustainable construction using the Code for Sustainable Homes and BREEAM.

Rushmoor Borough Council Core Strategy – Adopted October 2011

Policy CS - CP3 - Renewable Energy and Sustainable Construction

All development proposals will demonstrate how they will incorporate sustainable construction standards and techniques.

Unless it can be demonstrated that it would not be technically feasible or financially viable, applications will demonstrate that they will be completed in accordance with:

For new dwellings, full Code for Sustainable Homes standards or the equivalent of::

- At least Code Level 3 from the adoption of the Plan; and
- At least Code Level 4 once further updates to Part L of Building Regulations have come into effect (currently scheduled for 2013).

For other major developments, BREEAM 'Very Good' standard (or any future national equivalent).

Evidence Base

North Hants Renewable Energy and Low Carbon Development Study 2010

Blackwater Valley Water Cycle Scoping Report (2011)

Inspector’s report (extract) 20 September 2011

Pursuing sustainable construction methods and low carbon energy sources

59 The borough is prone to water stress which is likely to be adversely affected by climate change. The borough’s industrial and commercial uses generate high emissions of CO₂ relative to the rest of Hampshire and the South East. This sector also produces a relatively high proportion of the borough’s CO₂ emissions as a whole, albeit this factor may reflect the relatively high concentration of the borough’s employment base. The renewable energy and low carbon development study identifies the merit of promoting energy efficiency, especially relative to neighbouring Hampshire local authorities. The development of a policy that promotes sustainable construction methods and a district CHP network to address the foregoing challenges is therefore consistent with national policy, including the supplement to PPS1 on climate change, and RS policies too (CC3, CC4 and NRM13).

60 Some submissions seek to dilute the requirement for CSH compliance and/or proposing alternatives to a BREEAM rating, including reliance on Energy Performance Certificates only, or seek a stricter prescription than BREEAM especially in the area of water management. As a starting point, the BREEAM rating approach is more appropriate as it addresses a number of climate change indicators identified in the Council’s evidence base.

61 At the same time, the policy appropriately indicates that the various CSH and BREEAM ratings sought are not necessary if this requirement is not technically feasible or would make a project financially unviable. The Council’s approach is suitably pragmatic so it is not necessary to amend it. PC PE 18o identifies a range of allowable solutions to achieve zero carbon development and, on this basis, the policy is not unreasonably prescriptive.

Sedgemoor’s policy for sustainable construction shows how higher levels of the Code for Sustainable Homes can be expected as national policy draws nearer to implementing Zero Carbon Homes.

Sedgemoor District Council - Adopted October 2011

Sustainable Construction and Reducing Carbon Emissions in New Development

The Council will encourage the use of sustainable construction techniques that promote the reuse and recycling of building materials, maximise opportunities for the recycling and composting of waste on all new development proposals (residential and non-residential) and reduce CO₂ emissions.

Residential development will be expected to meet the Code for Sustainable Homes Level 3 from 2010, Level 4 from 2013 and Level 6 from 2016 (or successor) as set out in **Table 5.1** below, unless it can be demonstrated that this is not viable.

Non-domestic development will be expected to achieve a BREEAM rating of ‘Very Good’ and the zero carbon for non domestic buildings (ZCNDB) targets (or successor) as set out in Table 5.1 below, unless it can be demonstrated that this is not viable.

Table 5.1: Domestic and Non-Domestic CO₂ Reduction Targets

Year	Domestic Buildings		Non Domestic Buildings	
	Code Level	CO ₂ reduction	Code Level	CO ₂ reduction
2006	Building regs. 2006	0%	Building regs. 2006	0%
2010	CfSH Level 3	15%	ZCNDB	15%
2013	CfSH Level 4	26%	ZCNDB	26%
2016	CfSH Level 6	100%	ZCNDB	50%
2019			ZCNDB	100%

The London Borough of Sutton used a range of evidence, including on the viability of requiring higher levels of sustainable construction, to support their policy. Residential conversions and changes of use are also required to achieve high standards, reflecting the impact of existing buildings on the UK's carbon footprint.

London Borough of Sutton – Development Management Development Plan Document (DPD) (adopted March 2012)

Site Development DPD

Policy DM5 - Sustainable Design and Construction

The Council will promote the highest standards of sustainable design and construction throughout the borough by:

- Requiring all new residential developments to achieve Code for Sustainable Homes level 4 from 2011
- Requiring all residential conversions and changes of use, where appropriate, to achieve BREEAM Eco-Homes (or equivalent) 'very good' from 2011 and 'excellent' from 2014
- Requiring all major nonresidential developments to achieve a sustainability rating under the appropriate BREEAM scheme (or equivalent) of 'excellent' from 2011 and 'outstanding' from 2017;

Inspector's report (extract) 3 November 2011

Issue 3 - Whether policies are effective in addressing climate change and resource management.

- 36** These issues are covered by 4 policies dealing with Sustainable Design & Construction (DM5), Climate Change Mitigation (DM6), Climate Change Adaptation (DM8) and Water Supply and Water Quality (DM9). The policies are comprehensive and focused on securing a key objective of the CS to create a sustainable suburb by 2024. Policy DM5 seeks to promote the highest standards of sustainable design requiring new residential development to achieve Level 4 of the Code for Sustainable Homes and for all major nonresidential developments to achieve a BREEAM sustainability rating of "excellent" by 2011. This is in line with the targets for minimum improvements set out in Policy 5.2 of the replacement LP and the CS's objective to create a sustainable suburb by 2024. The Council's evidence base shows these standards are deliverable and would not impose excessive building costs on developers that would impact on the viability of schemes coming forward over the period of the plan. Where viability would be an issue there is provision for the Council to take this into account in considering applications.
- 37** The policy dealing with climate change mitigation (DM6) sets standards aiming at a 25% reduction in carbon emissions from 2011-2013 and 40% from 2013- 2016 and zero emissions thereafter. This is in line with the Replacement LP. In seeking to secure these targets developments are expected to apply the Mayor's energy hierarchy. Applications for residential development and major non-residential developments will be accompanied by energy assessments. Again there is flexibility in applying the policy where technical difficulties are apparent or economic viability is an issue.
- 38** The Council proposes changes to Policy DM10 (Air Quality) and its supporting text to bring it into line with PPS23 (Planning & Pollution Control), the Replacement LP and other recent advice on pollution control⁵. The changes are set out in **CC PMC3, CC PMC4 and CC PMC5**, which I endorse.
- 39** The plan's climate change measures are in line with the Council's Climate Change Adaptation Strategy (CCAS) and the Mayor's draft CCAS and the Replacement LP. The measures are comprehensive and focused. The targets set out in the policies are in line with the CS's objectives to secure the highest standards of sustainable design and carbon reduction. The policies as proposed for change are sound.

Waveney District Council's AAP for Lowestoft Lake Lothing and Outer Harbour shows how higher requirements for the specific sections of BREEAM and the Code can be used where supported by the local evidence base.

Waveney District Council Lowestoft Lake Lothing and Outer Harbour AAP – Adopted January 2012

Policy WEW1 – Energy Requirements within the AAP Area (extract)

Within the main strategic sites (Kirkley Waterfront / Sustainable Urban Neighbourhood /Peto Square/ PowerPark) developers must deliver the equivalent of the energy requirements of Code for Sustainable Homes Level 5 (in residential buildings) and BREEAM Excellent (in other buildings) unless these technologies can be proven technically unsuitable or commercially unviable. Investigations should be based on opportunities identified in the Renewable Energy and Sustainable Construction Study.

Evidence Base

Renewable Energy and Sustainable Construction Study (AECOM, 2009)

Policy WEW2 - Water efficiency and quality (extract)

Developers must explore the potential to implement water recycling measures on a building or site-wide scale to significantly reduce mains water demand as part of all new development within the AAP.

Within the main strategic sites (Kirkley Waterfront/ Sustainable Urban Neighbourhood/Peto Square/ PowerPark) developers must deliver infrastructure to reduce mains water consumption to the equivalent requirement of Code for Sustainable Homes Level 5 (in residential buildings) and BREEAM excellent (in other buildings) unless these strategies can be proven technically unsuitable or commercially unviable. Investigations should be based on opportunities identified in the area-wide Water Strategy for the AAP.

Evidence Base

Water Cycle Strategy - Scoping Study (March 2009)

Examiner's report (extract) 1 November 2011

Justification of and Effectiveness of Enhanced Building and Development Standards

75 The Plan's provisions in relation to enhanced building and development standards relating to energy water and waste are set out in:

- Policy WEW1 – '*Energy Requirements within the AAP Area*' – which requires developers of the main strategic sites to deliver the energy requirements of residential buildings to the equivalent of Code for Sustainable Homes (CfSH) Level 5 and those of other (non-residential) buildings to the BREEAM Excellent standard. This policy also encourages district heating networks to serve development sites within the AAP area and submission of an energy strategy and delivery plan alongside any planning application for development in the AAP area.

- Policy WEW2 – '*Water Efficiency and Quality*' – which requires developers to explore the potential for water recycling and mains water demand reduction measures on a building and site-wide scale, and within the main strategic sites to deliver infrastructure to reduce mains

water consumption to the equivalent of CfSH Level 5 (in residential buildings) and BREEAM Excellent (in other buildings)...

The justification for these policies is set out in a specific section of the submitted draft plan (s3.7, p65). This section draws on the results of specific studies including the detailed Renewable Energy and Sustainable Construction Study (RESCS) and the Waveney DC and Great Yarmouth BC Joint Water Cycle Strategy report. During the examination the needs for water demand management and recycling measures was supported by the Environment Agency. The Plan's provisions in relation to waste are consistent with Government policy PPS10 and with best practice principles in the management of construction. The application of enhanced standards to area- and site-specific opportunities is consistent with Government guidance set out in the PPS1 Supplement: *Planning and Climate Change*.

Annex 2

Example conditions on Sustainable Design and Construction

The Planning Inspectorate suggests the following model condition in relation to the Code for Sustainable Homes

The dwelling(s) shall achieve a Code Level [state level] in accordance with the requirements of the Code for Sustainable Homes: Technical Guide (or such national measure of sustainability for house design that replaces that scheme). No dwelling shall be occupied until a Final Code Certificate has been issued for it certifying that Code Level X has been achieved.

Government guidance on conditions is to be found in Circular 11/95 and at paragraph 206 of the NPPF.

Annex 3

Comparison of sustainable construction standards

It is worth noting that some standards provide fixed ratings that do not change significantly over time, while others are routinely updated. This can be important when deciding what level to specify in planning policy.

Standard	Fixed rating	Updated rating	Reference	Description
Code for Sustainable Homes	●		www.communities.gov.uk/planningandbuilding/sustainability/codesustainablehomes/	The Government's environmental assessment method for rating and certifying the performance of new homes.
HCA Design Quality Standards and Housing Quality Indicators	●		www.homesandcommunities.co.uk/hqi	The HQI system is a measurement and assessment tool to evaluate housing schemes on the basis of quality rather than just cost.
Lifetime Homes	●		www.lifetimehomes.org.uk/	Seeks to provide design solutions in general needs housing that can meet the changing needs of a wide range of households.
Building for Life	●		www.designcouncil.org.uk/our-work/cabe/sectors/housing/building-for-life/	Standard for well-designed homes and neighbourhoods.
Secured by Design	●		http://www.securedbydesign.com	Police initiative to guide and encourage those engaged within the specification, design and build of new homes to adopt crime prevention measures in new development.
Energy/CO ₂ /renewables target ('Merton Rule', etc)	●		www.merton.gov.uk/environment/planning/planningpolicy/mertonrule/what_is_the_merton_rule.htm	The Merton Rule was the first local planning policy to set a requirement on renewable energy for certain types of new development. It was named after the London borough that established it in 2003.
Building Regulations		●	www.planningportal.gov.uk/buildingregulations/	Building Regulations apply in England & Wales and promote standards for most aspects of a building's construction, energy efficiency in buildings, the needs of all people, including those with disabilities, in accessing and moving around buildings.

BREEAM		●	www.breeam.org	Environmental assessment method and rating system for buildings. It is the most widely used such standard in the UK
CEEQUAL	●		www.ceequal.com	Sustainability assessment and awards scheme for civil engineering, infrastructure, landscaping and the public realm,
LEED		●	www.usgbc.org	Environmental assessment method and rating system for buildings. It is the most widely used standard in the US
SKA	●		www.rics.org/ska	Environmental assessment method, benchmark and standard for non-domestic fit-outs.

- Fixed ratings provide long term levels and categories that do not change over time. Amendments to the technical criteria within these levels and categories may occur to ensure they are up to date. For example, the Code for Sustainable Homes has ratings from 1 to 6, with associated scoring and mandatory levels to meet each level criteria. These levels do not change over time even when the technical criteria are updated.
- Variable ratings are updated systematically on a regular basis to align the standard with current requirements. As such, the rating levels and categories may also change. For example BREEAM is updated every 2 to 3 years with an increase in the scoring criteria to make it more difficult to maintain the status quo from the previous version.

Annex 4

Organisations contributing to and supporting this guidance





*CSH Level 6 Tindal Street by Speller Metcalfe architects
<http://www.spellermetcalfe.com/eco-build/services-experience/breem-csh>*

