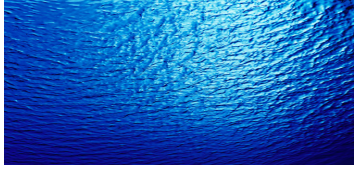
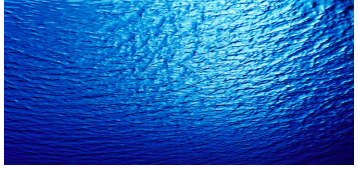

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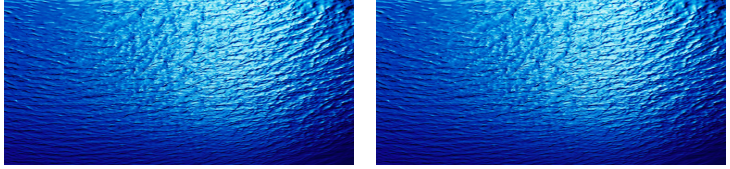


1 Purpose of the Supplementary Planning Document

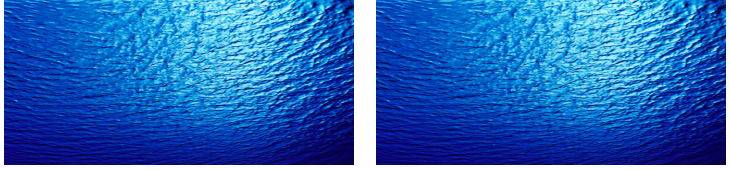
1.1 This Supplementary Planning Document (SPD) sets out the standards which the City Council will apply to new developments in terms of sustainable construction techniques. The approach is in line with national and international recognition of the need for sustainable development as one of a range of measures to address the issues of carbon emissions and climate change.

1.2 In December 2006 the Department for Communities and Local Government published "Code for Sustainable Homes: A step-change in sustainable home building practice". The Code is "intended as a single national standard to guide industry in the design and construction of sustainable homes". The Code will take effect from April 2007 on a voluntary basis with a view to becoming mandatory in April 2008. A further consultation titled *'The future of the Code for Sustainable Homes: making a rating mandatory'* was published in July 2007 by the Department for Communities and Local Government. Additionally, detailed technical guidance ~~is due to be~~ was published ~~by April~~ in March 2007.

1.2a This Supplementary Planning Document applies only to new build development. While sustainable construction measures are also important for refurbishments, alterations and extensions to existing buildings, the Council believes that the process will benefit from simplicity at this early stage of more firmly setting sustainable construction into the planning process. Further, the Code for Sustainable Homes has not been designed to apply to existing homes due to the construction elements of the process.

1.3 Also in December 2006 the Department for Communities and Local Government published a consultation draft supplement to Planning Policy Statement 1 (PPS1) "Planning and Climate Change". Whereas the Code is concerned exclusively with new housing development, the consultation document embraces all forms of new development. As currently drafted the consultation document proposes that the objectives of sustainable construction should be achieved through the Building Regulations system which would thereby apply common standards applicable across England and Wales.

1.4 This SPD sets out a "Canterbury Standard" which takes a positive approach to sustainable design and construction and to set high expectations in this area. Therefore this SPD seeks to advance the agenda for sustainable construction locally on a faster timetable than that likely to be achieved nationally.



2 Policy Context

International

2.1 As early as 1992 international governments committed to the concept of sustainable development at the Rio Earth Summit. In 1997 Kyoto Protocol set targets to limit the production of greenhouse gas emissions by the developed nations. The Protocol came into effect in February 2005.

2.2 In January 2006 the EU directive "Energy Performance in Buildings", came into force in 25 countries across the EU including the UK. The Directive states that when a building is constructed, sold or rented an energy performance certificate should be made available to prospective buyers or tenants.

National

2.2 In February 2003 the UK Government published the Energy White Paper in which it made a commitment to a 60% reduction of carbon dioxide emissions by 2050 compared with the emission levels of 1997/98.

2.3 The commitment to sustainable development has been reinforced by numerous publications and statements from various government departments which can perhaps be summarised in the statement by the Housing and Planning Minister in June 2006:

> *"We need to seize on new development as an opportunity not a threat. It is time to rethink the way we build. It is time to rethink the way we design our homes and communities, if we are to build communities for the future that are truly sustainable.*
>
> *"Our long term ambition should be zero carbon development".....We do not know yet how fast we can get there, but the development industry should be clear about our aims and should start planning now for new investment and innovation to meet our goals.…*

2.4 In the context of this SPD the most relevant expression of national policy on sustainable development comes through Planning Policy Guidance (PPGs) and their replacement Planning Policy Statements (PPSs). **Particularly PPS22 Renewable Energy** (August 2004) which states:

> *Small Scale Renewable Energy Developments (Para. 18)*
>
> *Local planning authorities and developers should consider the opportunity for incorporating renewable energy projects in all new developments. Small scale renewable energy schemes utilising technologies such as solar panels, Biomass heating, small scale wind turbines, photovoltaic cells and combined heat and power schemes can be*

incorporated both into new developments and some existing buildings. Local planning authorities should specifically encourage such schemes through positively expressed policies in local development documents.

2.4a A strategy for reduction in carbon emissions and sustainable development is further supported by **PPS1**: **Delivering Sustainable Development**, which places sustainable development as the core principle underpinning planning. The guidance requires planning authorities to "ensure that development plans contribute to global sustainability by addressing the causes and potential impacts of climate change through policies which reduce energy use, reduce emissions,…promote the development of renewable energy resources and take climate change impacts into account in the location and design of development". Furthermore, the Government's **draft supplement to PPS1: Planning and Climate change,** sets a key objective that planning authorities "prepare and deliver spatial strategies that secure the highest viable standards of resource and energy efficiency and reduction in carbon emissions".

2.4b This approach is further supported by **PPS3: Housing** (Para. 15) which states: '

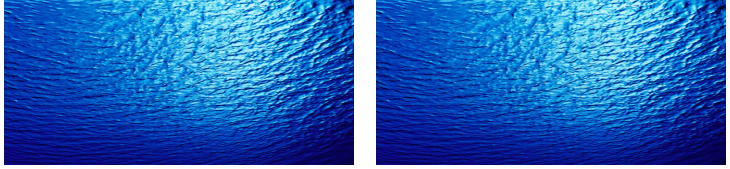
'Local Planning Authorities should encourage applicants to bring forward sustainable and environmentally friendly new housing developments, including affordable housing developments, and in doing so should reflect the approach set out in the forthcoming PPS on climate change, including on the Code for Sustainable Homes'.

Regional

2.5 The November 2004 revision of Regional Planning Guidance for the South East (RPG9) gave increased emphasis to energy efficiency and renewable energy including regional targets for renewable energy production. The objectives of RPG9 are reflected in the emerging South East Plan.

2.6 The Draft South East Plan states: (Para. 1.9)

Sustainable construction implies that minimum standards, such as those set by current Building Regulations, are exceeded in order to deliver the step-change we need in energy and water efficiency, reduction in waste generation and increased recycling. The use of sustainably produced and local products can also reduce the impact of our consumption of resources. Best practice standards such as the Building Research Establishment Environmental Assessment Method (BREEAM) are well established and should be used throughout the region.



2.6a A number of draft South east Plan policies strongly support sustainable development and the reduction of the environmental impacts of development throughsustainable construction. Such policies include Policy CC4 and M1 on 'Sustainable Construction', Policy H5 on 'Housing Density and Design' and Policy EN1 on 'Development Design for Energy Efficiency and Renewable Energy'.

Policy CC4:

Sustainable Construction

The construction of all new buildings, and the redevelopment and refurbishment of existing building stock, will be expected to adopt and incorporate sustainable construction standards and techniques. This will include:

i High standards of energy and water efficiency that exceed current standards required by the Building Regulations and reflect best practice

ii Designing to increase the use of natural lighting, heat and ventilation, and the provision of a proportion of energy demand from renewable sources

iii Reduction and increased recycling of construction and demolition waste and procurement of low-impact materials

iv Designing for flexible use and adaptation to reflect changing lifestyles and needs and the principle of 'whole life costing'.

Policy H5:

Housing Density and Design

In conjunction with the delivery of high quality design and in order to make good use of available land and encourage more sustainable patterns of development and services, higher housing densities will be encouraged, with an overall regional target of 40 dwellings per hectare over the Plan period. Local authorities will reflect this target with appropriate local variations in their Local Development Documents. Positive measures to raise the quality of new housing, reduce its environmental impact and facilitate future adaptation to meet changes in accommodation needs will also be encouraged. Local authorities will prepare guidelines for the design of new housing in their areas that encourage the use of sustainable construction methods and address the implications of changing lifestyles for new housing design.

Policy M1:

Sustainable Construction

The Regional Assembly, SEEDA, the construction industry, and other stakeholders will work to encourage the development of sustainable construction practices, and to promote good practice, reduce wastage and overcome technical and financial constraints, including identifying sustainable supply routes and seeking to reduce delivery distances. The long-term aspiration is that annual consumption of primary aggregates will not grow from the 2016 level in subsequent years. Local Development Documents should promote the use of construction materials that reduce the demand for primary minerals, by requiring new projects to include a proportion of recycled and secondary aggregates wherever practicable.

Policy EN1:

Development Design for Energy Efficiency and Renewable Energy

Local Development Documents should encourage the incorporation of high standards of energy efficiency in all development, subject to economic viability considerations. This will be achieved through design, layout and orientation. Local authorities should use design briefs and/or Supplementary Planning Documents to promote development design for energy efficiency and renewable energy.

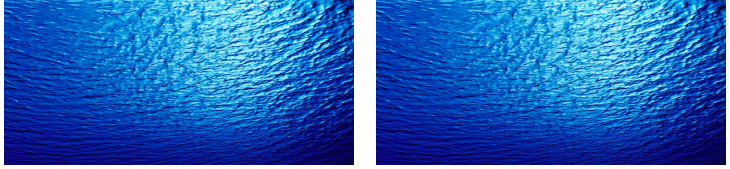
Local authorities should also encourage the use of energy efficient materials and technologies, by using all the tools at their disposal.

A proactive approach towards the implementation of this policy may involve:

i Encouraging developers to submit an assessment of a development's energy demand and provide at least 10% of the development's energy demand from renewable sources for housing schemes of over 10 dwellings and commercial schemes of over 1,000m2.

ii Attainment of high energy efficiency ratings in all new development, where appropriate, through the use of best practice guidance such as the Building Research Establishment Environmental Assessment Method (BREEAM) and the National Home Energy Rating (NHER).

iii Incorporation of renewable energy sources including, in particular, passive solar design, solar water heating, photovoltaics, ground source heat pumps and in larger scale development, wind and biomass generated energy.



iv Active promotion of energy efficiency and use of renewable energy sources where opportunities arise by virtue of the scale of new development, including the regional Growth Areas.

Local authorities and other public bodies, as property owners and managers, should seek to achieve high levels of energy efficiency when refurbishing their existing stock.

Kent and Medway Structure Plan

2.7 One of the underlying principal objectives of the Structure Plan is to promote sustainable forms of development.

2.8 KMSP (2006) (Para. 9.6)

" Encouraging greater energy and water efficiency through the design and layout of new development is an effective means of reducing our use of natural resources, cuts down on emissions of carbon dioxide (C02) and helps in achieving a wide range of other sustainable development objectives. Planning can make a significant contribution by influencing the location and land use mix within development and its layout, access arrangements, building orientation and form, spacing and landscaping. Optimising the use of natural heat and light and reducing the need to travel can replace energy that would otherwise have been required from fossil fuel sources. Policy NR1 and other policies within this Chapter and elsewhere within the Plan (e.g. QL1, TP3) provide the framework for this. New development needs to adopt rigorous standards for sustainable construction that provide for wider use of recycled materials, less consumption of energy and water per unit and reduced generation of waste. In applying Policy NR1 best practice standards such as the BRE's Environmental Assessment Method (BREEAM) ('very good' standard) should be used as a benchmark in assessing development proposals and as a basis for policy in Local Development Documents. Local authorities should also consider whether other standards directed at specific resource use issues e.g. water conservation, should be identified in Local Development Documents. In line with Policies SP1 and QL1 of this Plan, Local Development Documents also have a key role in providing detailed guidance on the location, form, design and mix of development that will minimise energy and water demands."

Eco-Homes and BREEAM standards [BRE]

Eco-Homes and BREEAM is a quality assured scheme that independently assesses the environmental performance of buildings. The Eco-homes standard is designed to cover residential development whilst the BREAM standards cover other types of buildings including office and industrial development and public buildings. The scale of the

assessment extends from 'Pass', 'Good' and 'Very Good' to 'Excellent'. This assessment allows developers flexibility to achieve better environmental performance within their developments across seven categories:

- Energy
- Pollution
- Transport
- Health and Well- Being
- Water
- Materials
- Ecology and Land Use

Policy NR1:

Development and the Prudent Use of Natural Resources Proposals for development should incorporate sustainable construction techniques and demonstrate that their design and layout contributes to:

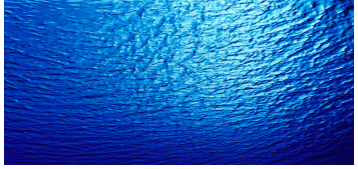
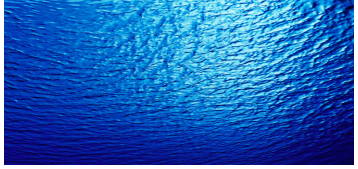
(a) the conservation and prudent use of energy, water and other natural resources, including provision for recycling facilities, water conservation and energy efficiency; and

(b) a reduction in greenhouse gas emissions through re-use, or the more efficient use, of resources.

2.8a The Kent Design Guide and its associated technical appendix on water efficiency, prepared by the Kent Design Initiative, also provides useful guidance on environmentally sustainable design. The document states that 'the Local Planning Authority will require developers to demonstrate how sustainability has been addressed in the design'.

Canterbury District Local Plan First Review 2006

2.9 ~~The concept of sustainable development is fundamental to the objectives of the Local Plan.~~

2.9a The Canterbury District Local Plan First Review (2006) sets out the Council's desire to secure high quality development , reflecting the Government's commitments in PPS1 and securing the concept of sustainable development as fundamental to its objectives. It seeks an '*innovative approach*' to design and development, which *'involves conserving land and material resources, integrating energy-efficient technologies, designing for ecological diversity, for less car travel and greater use of public transport*' (Para. 6.8). The importance of sustainable development to 'good design' is clearly reflected in Policy BE1.

2.9b Policy BE3 sets out the Council's expectation that Sustainability Statements should be submitted with planning applications and establishes the the Council's intention to prepare a Supplementary Planning Document to give additional guidance on this subject, towards ensuring that sustainability issues have been addressed in the design process.

29c The Guidance set out in this SPD refers only to sustainable Construction and does not remove the need for preparation of a Sustainability Statement which should demonstrate how the applicant has responded to the objectives of sustainable development. The Sustainability Statement should, where appropriate and in addition to any other relevant issues, make reference to the remaining issues set out in the checklist in paragraph 6.7, including the following:

(c) Site selection and layout design (efficient use of land);

(d) The presence of building of mixed use, tenure and type;

(e) The presence of grouped community facilities, where appropriate;

(h) The presence of a locally distinctive identity;

(i) The presence of an integrated landscape structure and open space system including shelter belts linked where possible to the surrounding landscape;

(j) The presence of a safe circulation system for vehicles, pedestrians and cyclists with priority clearly given to pedestrian and cycling safety and links to public transport nodes;

(k) The accessibility of the site to a choice of travel alternatives and the design of public transport into development proposals;

(l) The presence of a low-energy input landscape management regime for all public open space;

(m) The retention of high quality natural features (trees, hedgerows, watercourses, water bodies etc.) and the contribution made to increasing and enhancing biodiversity.

Policy BE1

The City Council will expect proposals of high quality design which respond to the objectives of sustainable development. When considering any application for development the Council will have regard to the following considerations:

(a) The need for the development;

(b) Accessibility and safe movement within the proposed development;

(c) The landscape character of the locality and the way the development is integrated into the landscape;

(d) The conservation and integration of natural features including trees and hedgerows to strengthen local distinctiveness, character and biodiversity;

(e) The visual impact and impact on local townscape character;

(f) The form of the development: the efficient use of land, layout, landscape, density and mix, scale, massing, materials, finish and architectural details;

(g) The reduction in energy consumption by means of layout, design, construction and alternative technology;

(h) Safety and security;

(i) The privacy and amenity of the existing environment;

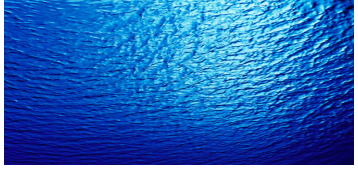
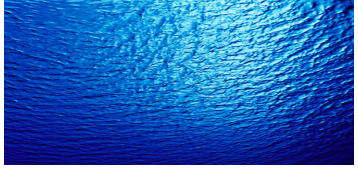
(j) The compatibility of the use with adjacent uses;

(k) The need to keep the building in use and fit for purpose; and

(l) Appropriate Supplementary Planning Guidance adopted by the Council

Policy BE3

Design statements and/or Development Briefs shall be submitted with planning applications setting out the principles used in the scheme to relate the development within and to its context.This will apply to all planning applications, where the development is visually significant or is significant to its neighbours. Sustainability statements will also be required in appropriate circumstances, particularly with applications for major development, and should demonstrate how the proposal has responded to the objectives of sustainable development. A Supplementary Planning Document will give guidance on sustainability measures for the layout, design and construction of buildings and the level of detail required from development of different scales.

3 Practical Measures

Practical Measures

3.0a The aim of this Supplementary Planning document is to reduce the environmental impact of new development. By using the nationally recognised 'Code for Sustainable Homes' and the BRE Environmental Assessment Method for other types development, it is expected that implementation of the Code will benefit from an established system. The Council will expect all new development to meet the requirements set out below.

3.0b These requirements will apply to proposals for the construction of one or more dwellings. It also applies to the construction of new buildings for non-residential purposes, including office, retail, education, leisure and others. At this stage, the requirements apply only to new build and not proposals for refurbishments, alterations and extensions to existing buildings.

~~Comments are invited on any aspect of this consultation document.Section 3, below, however, represents the Councils proposed requirements for Sustainable Construction as part of the new development. We therefore draw your attention to this section in particular.~~

Requirements

1

3.1 Requirements for Residential Proposals

- From the formal adoption of this SPD all proposals for residential development will be required, as a minimum, to meet Level 3 of the Code for Sustainable Homes. (See Appendix 1 for details)
- From 1 April 2010 all proposals for residential development will be required, as a minimum, to meet Level 4 of the Code for Sustainable Homes.
- From 1 April 2013 all proposals for residential development will be required, as a minimum, to meet Level 5 of the Code for Sustainable Homes.

3.2 Non Residential Proposals

3.3 BREEAM (Building Research Establishment Environmental Assessment Method) provides for assessments of development of schools, offices, industrial and retail units. Environmental performance is assessed by trained assessors against a range of categories including: Energy,

Transport, Pollution, Materials and Water. Points are scored against each of the categories and the result is an environmental rating of the proposal in the range of "Pass", "Good", Very Good" or "Excellent"

2

3.a Requirements for Non-Residential Proposals

All proposals for non residential development will be required to meet the "very good" BREEAM standard. (See Appendix 2 for details)

3.3b Canterbury City Council wishes to continually improve the performance of non-residential buildings. The Council will consider a timetable for continual improvement towards BREEAM 'Excellent' at a review of this SPD in 2009, as outlined below.

Implementation

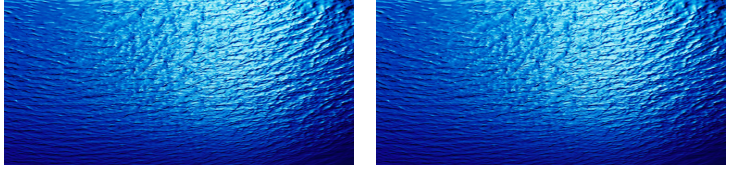
3.4 The Council expects these requirements for residential and non-residential developments to be supported by a commitment to achieve certification under the appropriate scheme at the detailed design stage and to be submitted with the planning application together with the sustainability or design statement. The onus will be on the applicants/developers, at their own expense, to submit a pre-assessement (or Interim Code Certification) with the proposals, certified by the BRE or other appropriately qualified organisation. This should be attached to the Sustainability Statement, or for minor proposals, the design statement, and submitted with the planning application (see section 2.5 of this document and paragraph 6.64 - 6.65 of the Local Plan for further advice).

3.4a When the Council is satisfied that the development will meet the requirements of the SPD, a condition will be attached to the decision which will require the submission of a post-construction certificate (or Final Code Certification) on the substantial completion of the development. Again, this should be certified by the BRE or other appropriately qualified organisation.

Viability Issues

3.4b The costs associated with the implementation of this SPD can be minimised by incorporating its requirements at the earliest stages of development design.

3.4c The Council recognises the possibility that additional costs on construction could potentially render a development unviable. When considering viability issues on individual sites, the Council will expect the developer / applicant to submit a development appraisal in support of their proposals, clearly showing their assumptions in regard to:



- land acquisition costs
- infrastructure costs (including highways infrastructure costs)
- site preparation costs
- construction costs
- professional fees
- contingencies
- finance
- promotion and marketing
- estimated rental / capital value for each of the various uses
- estimated capital value of the scheme shown as a total
- developer's profit
- different density levels/mix of uses
- other costs – eg s278 (Highway) agreements
- development cash flow identifying construction and sales programme

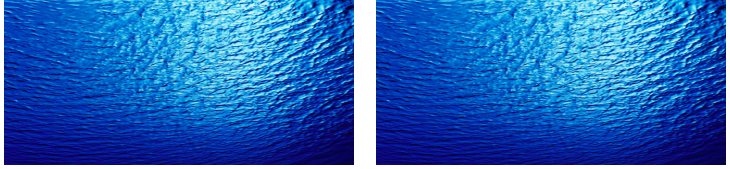
3.4d The appraisal should clearly set out full details of how the gross development value and gross development cost has been assessed together with how that has affected the viability of the development scheme. The Council will wish to satisfy itself as to the adequacy of the development appraisal in regard to local market conditions and reserves the right to submit the appraisal to an independent development valuation specialist of the Council's choice, at the developer's own expense. In that regard the developer/applicant will be required to indemnify the council in respect of all proper and reasonable professional costs irrespective of the outcome. Independent assessors will need to be a suitably qualified (eg RTPI, RICS etc) person and for whom no conflict of interest exists.

3.4e Where the development appraisal demonstrates a viability issue, the Council will expect the developer / applicant to seek to achieve a lower level of the Code for Sustainable Homes (or lower BREEAM standard), rather than abandoning the assessment process in entirety.

Review

3.4f The Council will review this Supplementary Planning Document in early 2009 and will report on the success of implementation, any issues that have arisen and if necessary recommend amendments to the document.

3.4g National and European policy and legislation, on subjects such as energy efficiency, sustainable construction and renewable energy, are undergoing a period of significant change. Should national policy evolve so that this SPD no longer accords with the direction of the national approach to sustainable construction, or targets fall behind a nationally set standard, then this will also trigger a review of this SPD.



4 Appendix 1 - Requirements to meet Level 3 of the Code for Sustainable Homes

~~*It is likely that this section will need to be replaced when the detailed guidance is published which should also specify the technical requirements for code levels 4 & 5 which are currently not available).*~~

The home will have to be 25% more energy efficient than one built to the 2006 Building Regulations standards.

This could be achieved by:

- Improving the thermal efficiency of the walls, windows and roof as far is practically possible (by using more insulation or better glass for example).
- Reducing air permeability to the minimum consistent with health requirements (a certain amount of air ventilation is needed in a home for health reasons).
- Installing a high efficiency condensing boiler.
- Carefully designing the fabric of the home to reduce thermal bridging (thermal bridging allows heat to easily escape between the inner walls and outer walls of a home).
- Possibly using district heating systems or low and zero carbon technologies such as solar thermal panels or biomass boilers to help heat the hot water.

The home will have to be designed to use no more than about 105 litres of water per person per day.

This could be achieved by fitting a number of items such as:

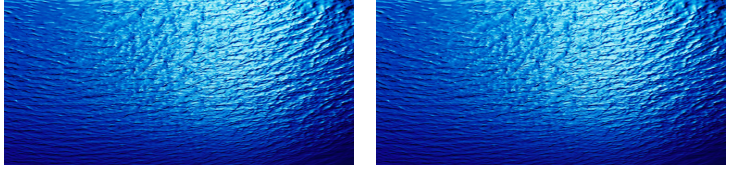
- 6/4 Dual Flush WC
- Flow Reducing/Aerating taps throughout
- 6-9 litres per minute shower (note that an average electric shower is about 6/7 litres per minute)
- A smaller, shaped bath – still long enough to lie down in, but less water required to fill it to a level consistent with personal comfort.
- 18ltr maximum volume dishwasher.
- 60ltr maximum volume washing machine.

Other minimum requirements are required for:

- Surface water management – this may mean the provision of soakaways and areas of porous paving.
- Materials – this means a minimum number of materials meeting at least 'D' grade in the Building Research Establishment's Green Guide (the scale goes from A+ to E).
- Waste management – this means having a site waste management plan in place during the home's construction and adequate space for waste storage during its use.

In order to achieve Level 3 a further 46.7 points are required, so the builder/developer must do other things to obtain the additional points such as:

- Providing drying space (so that tumble driers need not be used)
- Providing more energy efficient lighting (both internally and externally).
- Providing cycle storage.
- Providing a room that can be easily set up as a home office.
- Reducing the amount of water that runs off the site into the storm drains.
- Using much more environmentally friendly materials.
- Providing recycling capacity either inside or outside the home.
- Enhancing the security of the home.
- Enhancing the sound insulation used in the home.



5 Appendix 2 - 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_2) issues
- health and well-being: indoor and external issues affecting health and well-being
- pollution: air and water pollution issues
- transport: transport-related CO_2 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 that can be used for promotional purposes.The current BREEAM version for non domestic methods is BREEAM 2006. Non domestic schemes include;

- BREEAM Industrial
- BREEAM Offices
- BREEAM Prisons
- BREEAM Retail
- BREEAM Schools

For any building which falls outside the standard BREEAM schemes, or alternatively is a combination of them e.g. mixed use developments, BRE can carry out a Bespoke BREEAM assessment.