Matter 9: Energy, waste and water conservation

Issue 9.1: Whether CL7 k. is justified by the evidence, consistent with national policy, and effective.

1. Criterion k requires that subterranean development should “ensure that any new building which includes a basement, and any existing dwelling or commercial property related to a new basement, is adapted to a high level of performance in respect of energy, waste and water to be verified at pre-assessment stage and after construction has been completed”.

2. We address criterion k in section 8 of our Representations which is relied upon in full [paragraphs 180-215] together with the documents referred to in footnotes. Of most relevance is the Ashmount Consulting Reports of August 2013 and March 2014 [listed in the Council’s Index of Documents Submitted by Basement Force at 4 and 5].

3. In response the Council has recognised [BAS 06/02 under “section 8”] that the first Eight Associates report was flawed in several ways. They rely on the second Eight Associates report of February 2014 \(^1\) [BAS 38], and their third report of April 2014 which purports to answer the Ashmount Report of March 2014 [BAS 06/03].

4. The criterion explicitly envisages two situations: one where a basement is provided as part of a new building and the other where a building is extended. We have no objection to this criterion as it applies to a new building, although we note that it’s a matter for condition and is referred to elsewhere within the Core Strategy.

5. Similarly we have no objection to a requirement that the proposed development itself be designed and constructed to perform well in sustainability terms (as to matters such as energy efficiency, use of water).

6. However, (1) the use of BREEAM to assess extensions to existing dwellings (specifically referred to within the proposed supporting text) and (2) the requirement for extraneous benefits in the performance of the existing building which is to be extended by the proposed development are both unduly onerous requirements which will deter sustainable development, and they are not justified by the evidence. We will refer to these as the two flaws in the Council’s requirement.

7. Paragraph 47 asks what are the key reasons for criterion CL7 k. We recognise that it is for the Council to answer this question and therefore we may wish to add to this Hearing Statement in the light of anything they say. The main question will then be whether the two flaws in the Council’s requirement are justified by those reasons.

8. From their previous responses, it would seem the two flaws stem from one issue namely
   a. Whether basement development has a greater carbon footprint over the lifetime of the construction.

\(^1\) Even though this is confusingly entitled “Duplicate of one published in July 2013″.
9. The Council believe that basement development produces more carbon dioxide equivalent gas than above ground development. We would comment that this is a bold claim. Bearing in mind the implications for the development industry of the two flaws (which impose considerable additional costs on development) and the freedom of individuals to use and develop their own property as they choose, only the most robust evidence should be relied upon to justify them. However, the first Report on which the two flaws were originally based has been acknowledged to be flawed (see paragraph 3 above) and the Report now relied upon is a comparison of 16 widely different case studies. Like is not being compared with like.

10. We, on the other hand, make the point which common sense supports: whereas there is more embodied carbon in the construction of a basement, the greater potential for efficiency and sustainability over its lifetime make it a more sustainable form of development than above ground development after about 44 years. Ashmount Consulting will give expert evidence in support of this opinion.

11. Paragraph 49 asks whether the restriction is too limiting. We believe that the two flaws make the criterion too limiting.

12. The following addresses some points of greater detail relating to the BREEAM scheme by which the Council argues the sustainability of design may be judged.

   a. The BREEAM Domestic Refurbishment scheme is intended for use on self-contained dwellings which are undergoing a complete dwelling refurbishment. It is not designed to be used for an extension to an existing dwelling where the existing property is to be unaltered.

   b. There is no BRE scheme or any other nationally described standard for any type of dwelling extension - therefore no extension only scheme as a whole is applicable.

   c. In order to achieve “excellent” Energy credits for an un-listed property extensive improvements to the existing building would be expected to include insulating all external walls, insulation of the existing roof and the complete replacement of all windows. This in itself is a highly carbon intense process and requirement.

13. Thus there is at present no way of using BREEAM to assess only the extension (hence the first flaw referred to above is contributed to by the Council’s reference to BREEAM in the supporting text).

14. Paragraph 50 asks whether the Plan is consistent with the Government’s zero carbon buildings policy as required by paragraph 95 of the Framework. The three bullet points in paragraph 95 are

   - plan for new development in locations and ways which reduce greenhouse gas emissions;
   - actively support energy efficiency improvements to existing buildings; and
• when setting any local requirement for a building’s sustainability, do so in a way consistent with the Government’s zero carbon buildings policy and adopt nationally described standards

15. The first of these should be interpreted over the long term and therefore supports the principle of basement development. The second of these demonstrates that the NPPF takes a proportionate and lawful approach (unlike the second flaw of the policy) – while the Council can and should support energy efficiency improvements to existing buildings, they are not entitled to require them as an extraneous benefit when basement development is proposed.

16. We are not experts on the Government’s zero carbon buildings policy, but if the issue on the evidence is not determined in the Council’s favour there can be no justification for the two flaws.

17. Paragraph 51: There are several ways in which a high level of sustainability of design can be required in basement extensions. These include

   a. A condition requiring the replacement of any inefficient boilers;
   b. A condition requiring that the extension must have 100% low energy lighting (Current Building Regulations require 75%);
   c. A condition requiring that the extension must have insulation U-values better than Building Regulations PartL1B standards.

2. Alternatively a condition may require submission of a scheme for approval.

3. Our proposed criterion is that “the basement development should deliver a high level of performance in respect of energy, waste and water”. We recognise that “high” is open to interpretation but this can be clarified in supporting text and has the advantage of meaning that the detailed requirements will become more onerous as improvements in technology progressively raise the bar. Planning application documents will need to show how this is to be achieved.

4. Paragraph 52: The policy is unduly onerous and any relief from the requirements would be welcome.

5. To provide evidence on these issues I will be attending the Hearing Session together with

   a. Dan Watt MEng MIChemE LCC LCEA, Director, Ashmount Consulting Engineers Ltd. Ashmount Consulting Engineers delivers innovative and cost effective Low Carbon mechanical and electrical design packages across a broad range of public and private sectors. Dan is an expert in energy efficiency, sustainability, green building, energy conservation and renewable energy. He founded Ashmount Consulting Engineers in 2006. He gained his MEng from Imperial College, London, in 2001.

- END OF HEARING STATEMENT -