

NON-MAINSTREAM HOUSING DESIGN GUIDANCE

Literature review

January 2012



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Non-mainstream housing design guidance: Literature review

HCA FOREWORD

Improving the quality of HCA funded housing, which not only includes mainstream housing but also a range of other client groups, is something we are passionate about. It is one of the statutory objectives of the Homes and Communities Agency.

From housing for older people and supported housing for vulnerable groups to refurbishment of existing homes - a wealth of design guidance already exists. The HCA therefore commissioned a review to help investment partners, project commissioners, local authorities and designers decide which advice would be most useful for their project.

The results of the review are contained in this document. Carried out by Levitt Bernstein and PRP architects, the purpose of the exercise was to bring together the range of existing guidance and to direct partners to the most relevant design guidance for a specific development type or user group.

Levitt Bernstein / PRP also provide some general observations and recommendations for future improvements to guidance. The recommendations are written from their perspective as design practitioners and are not necessarily the views of the HCA.

We hope you find this useful and we hope that some of the new approaches suggested promote debate in the sector that will ultimately improve the quality of all new homes.

We see this as a key part of the design element of the HCA's enabling role, providing support and guidance to partners. We are aiming to maintain this as a 'live' resource, and welcome suggestions of any new or revised guidance to be considered for review in our annual update. Please let us know at mail@homesandcommunities.co.uk.

1.0 The purpose and scope of this work

1.1 Purpose

This report summarises recent work carried out by Levitt Bernstein and PRP Architects on behalf of the Homes and Communities Agency. It provides an overview and synopsis of the extensive published guidance which already exists relating to the design of non-mainstream housing and the refurbishment of existing stock.

It is envisaged that this work will provide a useful, navigational resource for designers and developers embarking on new-build specialised projects or rehabilitation and/or conversion of existing stock.

1.2 Aims of the review

A huge amount of expertise and guidance in relation to non-mainstream housing already exists and the task has therefore been to:

- sift out the most useful material from the wealth of current good practice guidance, including some guidance that is no longer current but which remains useful
- provide a structure to the many housing types, client groups and additional design considerations
- identify gaps, overlaps and common ground between the types of housing under consideration
- suggest how the most useful information might be consolidated to provide a more relevant and manageable resource

1.3 Range of non-mainstream housing types

This research has considered the full range of housing types which have been eligible for HCA grant funding but which fall outside of the new-build, mainstream majority. The two largest categories are housing for older people and housing for disabled people (notably, but not exclusively, housing for wheelchair users). Other categories such as larger family housing (3 bedrooms and above) and higher density housing (70 dwellings per hectare and above), while making up a considerable proportion of general needs new-build housing, have also been included in this work to highlight additional design criteria to consider in order to ensure these homes are fit for purpose.

The full list of categories covered in this review is as follows¹:

- supported housing for vulnerable people including foyers, hostels and refuges
- housing for older people including sheltered housing, retirement housing, very sheltered, extra care and retirement villages
- housing for disabled people including wheelchair users, and people with autism, visual impairment or hearing impairment
- faith housing including Orthodox Jewish, Muslim and Somali
- higher density housing
- larger family housing

¹ Definitions of HCA stock classifications, such as housing for older people and supported housing, are covered in the procurement chapter of the Capital Funding Guide ([see section 3 – Scheme types and requirements](#)).

- rural housing
- gypsies and travellers
- existing stock including rehabilitation, refurbishment, conversion, purchase and repair and temporary housing

1.4 Methodology

Work began by sifting through the wealth of existing best practice guidance to establish a long list of the publications which relate to each non-mainstream category identified in section 1.3. Those which were felt to be most relevant were short-listed for individual, structured review and the remainder are recommended as further reading. Where more recent documents had clearly superseded or encompassed earlier ones, only the most current were considered in further detail. Most guidance included for review deals with design issues; however a number of more strategic policy and research documents have also been included as these may prove useful in understanding the needs of particular user groups and therefore in informing project briefs and scheme designs.

Reviews were carried out as consistently and objectively as possible and colour-coded to relate to subject area, as shown in the Index. A full list of documents reviewed is included in section 3.

Each review provides details about the status of the document, the author and commissioning body, where to find it and who to contact for further details. A brief overview includes simple ratings for the quality of design guidance and background information which it provides. It should be noted that the ratings reflect how useful the document is felt to be *in relation to this specific piece of work, and not the quality of the publication per se*. Key recommendations are then summarised with specific design requirements tabulated under sub-headings where possible; noting that not all documents provide design guidance and in some others, the requirements are too numerous to record in this way.

For each non-mainstream category, findings have been summarised and some overall observations and pointers for future guidance offered (see section 4). We have used our experience in practice to inform the summaries, as well as the overall findings and recommendations set out in section 2.

We also suggest an approach to organising both the guidance and the subject areas, with a view to simplifying a complex set of conditions which often straddle boundaries between health and housing needs.

1.5 How to use this document

The document consists of five main parts, beginning with the introduction (section 1) and overall findings and recommendations (sections 2).

This is followed by the list all of documents reviewed and suggested additional reading (section 3) and summaries of the information reviewed for each non-mainstream category (section 4).

The final section (5) contains all the individual literature reviews for each category.

The bookmarks on the left can be used to navigate the document, so if readers are only interested in specific non-mainstream housing categories they can navigate directly to them.

This is an evolving piece of work and will be a live document updated annually.

External partners and other interested parties, including clients and carers, are invited to suggest additional publications for review as well as comment on the observations made.

Please respond using this email address: mail@homesandcommunities.co.uk

2.0 Summary of findings and recommendations

2.1 Overview of existing documents

The review exercise has revealed an extensive amount of design guidance and best practice advice relating to non-mainstream housing and this, in turn, embodies a huge amount of good will and expertise. Publications relating to new-build housing for older people and housing for people with disabilities (notably wheelchair users) are particularly extensive, and energy aspects of the rehabilitation of existing stock are also well covered.

Despite the fact that many publications are excellent in themselves, a number of inter-related factors combine to create a confusing overall picture. The following issues have been highlighted by this work:

1. Diversity of subject

Non-mainstream housing is extremely wide-ranging, covering everything which could be regarded as atypical housing from an HCA funding perspective. This results in a diverse selection of 'other types'. Some, such as housing for wheelchair users and housing for older people share common themes but others, such as gypsies and travellers, are unlike any other group in terms of the design guidance which is relevant to the needs of the client group.

2. Quantity of information

The size and scope of available information makes it very difficult to manage. Some documents such as the Wheelchair Housing Design Guide are very long in themselves and for some topics, notably older people, an internet search brings up an enormous quantity of documents. For other areas, such as faith housing and women's refuges, design-related information is quite difficult to find.

In the field of housing for older people, the 'Housing Learning and Improvement Network' (Housing LIN) is a valuable resource, keeping service providers and other interested parties abreast of publications and developments in the sector.

3. Content

With a couple of exceptions, each document is structured differently. Most concentrate on requirements within the home, but information is not consistently presented and much is fairly general.

This is partly due to the absence of any national standards or benchmarks for general needs housing design, meaning there is a lack of any fixed point of reference from which to define additional requirements, draw relative conclusions, identify common ground or establish the extra cost.

4. Terminology

This varies widely, particularly in relation to older people. Even in terms of broad categorisation, very few documents define or even refer to the HCA classifications of *supported*, *designated* or *purpose-designed housing*. Many are unclear about the context of the housing under discussion – whether it refers to an individual home with special features within the community, a purpose-designed flat within a specialised development, or both. This often makes it difficult to visualise either the building type which is being advocated, or the setting which would be appropriate.

5. Status and hierarchy

Most of the documents fall under the heading of 'best practice guidance'. As a result, there is an understandable tendency to include everything that may be useful or relevant to the user group in question. In a number of cases, this comprehensive and conscientious approach results in a long document detailing a very onerous set of requirements or rapidly-dating information in the case of commentaries on climate change, government targets or subsidies in relation to existing buildings. Despite this, apart from the retrofit case studies, none of the documents include any cost estimates for the measures suggested.

Very few either prioritise or differentiate between 'essential' and 'preferred' features. Equally, few distinguish between requirements which need to be designed in from the start from those which could be dealt with in a more targeted way, by adaptation at a later stage.

6. Compliance and enforcement

In our own experience, full compliance is often difficult to achieve. It is very rarely enforced, and when it is, this is invariably by planning or access officers, rather than the authors or commissioners. Expertise is either lacking or over-zealous. Many providers and many designers are experts in the field but where they are not, clients and designers are often left wondering what is reasonable, what they can afford and what the consequences of not meeting all the standards are likely to be. Anecdotal evidence suggests that the quality of built results is very variable; usually acceptable, sometimes inadequate and sometimes exemplary - possibly even exceeding what was required and disproportionately costly as a result.

7. Relationship to other documents

In general, we found a fairly compartmentalised approach. Most documents concentrate on a single topic or user group and, unless written by the same people, for the same client - specifically for updating purposes, most 'start again' rather than building on previous documents. Comparatively few make any specific reference to other well-known published guidance or standards.

Lifetime Homes is probably referred to most frequently, and *Building for Life* and the *Code for Sustainable Homes* least often, except in the case of existing stock.

8. Problems with 'labelling'

Although many documents explicitly reject the idea of labelling or differentiation, some then appear to contradict this objective by asking for a large number of special features. Many also struggle with the dilemma that design guidance can only ever be generic, and yet no two individuals or households are alike.

The common ground between older people and wheelchair users is unsurprising in view of the demographic links between ageing and reduced mobility. Even so, the fine detail often varies and people in these groups may have little else in common. As one publication reminds us, a great many older people are not disabled and a large number of disabled people are not old. Disability itself is infinitely variable and the type of housing needed by wheelchair users will not be suitable for those with sight loss. Even within a specific disability subgroup like autism, generalisations are difficult.

This makes it very difficult for design guidance to strike the right balance – making it precise enough to be useful and yet loose enough to reflect the

complexity of reality. In practice, the right housing solution depends on many variables including personal choice. Age, need, prognosis, financial means, location, support available and many other factors apart from the design of the home are all relevant considerations which affect the type of housing most suitable for an individual or household. While a number of documents mention this, few set out the options or parameters for choice clearly.

9. Applicability to different tenures

Although it very often falls to the public sector to provide non-mainstream housing, particularly where disability is involved, very few of the documents are specific to affordable housing; the guidance and requirements are usually written without reference to tenure. The key difference is that the allocation of social housing makes it more likely that homes designed with a particular user group in mind will be occupied by those who most need them. In contrast, most homes built for market sale are sold speculatively on the open market without any requirement to demonstrate need. However, this raises issues about flexibility and adaptability and how we can ensure that provision addresses need at the local level, and that individual homes work well over time for a range of people who may be renting, buying or a combination of each.

2.2 Providing a structure for organising and using existing and future guidance

The categories outlined in section 1.3 contain a mixture of housing options, building types, client groups, user characteristics and special development scenarios. The structuring process began by applying a system of colour coding to these categories. Literature was re-organised into client groups and additional development criteria and various subgroups set up to relate to the way in which development decisions are made and the guidance is likely to be used in practice.

Looking at application in practice, we were mindful that the aim is to meet the individual housing needs of a wide range of people, often in complex circumstances. This involves matching a client, or client group, to an appropriate building type. Initial steps are usually straightforward; for example, the basic distinction between new-build and existing stock is clear, and the travelling community have very different design requirements from the settled community.

Beyond that, the process becomes more complex because there is often a wide range of need within a broad client group, and more than one possible building solution in each case. In addition, one or more other design considerations may be relevant to an individual or to a group, and personal circumstances, outside of the realm of design, also come into play.

We have therefore developed a matrix, shown at Figure 1 (page 12), designed to allow for **building types** to be considered in relation to **client groups** and to allow **additional design considerations** to be factored in. The aim is to help project commissioners, designers and developers to target the most appropriate guidance for their particular development and to point towards guidance for other user groups or building types that may be useful to consider.

Building types are divided into two main groups, each of which is further subdivided and related to the current HCA system of classification:

- **new-build**
 - mainstream housing
 - housing for older people
 - supported housing
- **existing stock**
 - rehabilitation
 - conversion

Client groups are divided into four main groups, some of which are subdivided:

- **general needs**
- **older people**
- **vulnerable people requiring support**
- **gypsies and travellers**

Additional design considerations are divided into five main groups, some of which are also subdivided:

- **disability**
 - **ethnic, religious and cultural requirements**
 - **larger families** (3bed/5person or above)
 - **higher density settings** (70 dwellings/hectare and above)
 - **rural settings** (communities with a population of less than 3,000)
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2.3 General recommendations for the content of future guidance

The summaries for each non-mainstream category in section 4 include pointers for future practice. Although these differ for each category and should be read individually, it is possible to make some general observations and recommendations for new build, specialised housing.

- 1. The importance of inclusive mainstream design.** Coupled with flexible care options, raising the standard of general needs mainstream housing in line with inclusive design principles will reduce the overall need for specialised housing and the number of additional considerations which need to be identified.

For many client groups, internal space and accessibility are the key issues; often defining the difference between a workable and an unworkable living environment. In our view, although the Lifetime Homes standard is not strictly 'needed' by everyone, there are few people for whom they would not be an advantage. For all older people, many vulnerable people and some ethnic minorities, they would seem to be an appropriate starting point onto which additional design standards could be overlaid.

Despite the general trend towards more inclusive design and increased adoption of Lifetime Homes, it is still widely accepted that mainstream housing will be unable to meet the needs of a significant minority of people whose needs and circumstances are such that they would be better served by 'other types' of housing. The need for non-mainstream housing will therefore remain pressing.

- 2. The need for sustainable approaches.** Non-mainstream housing must be at least as durable and sustainable as general needs housing; arguably more so. It must be designed and built for a long life and for a range of people, and should be easy and affordable to run and maintain and as energy and water efficient as possible. Disabled and older people tend to spend more time indoors and have less ability to regulate body temperature so year round thermal comfort is vital. Many are also on low incomes so reducing fuel consumption is particularly important.

Some of these characteristics are shared by some black and ethnic minorities. For example, many use more than average amounts of water because of ritual washing associated with prayer, or special culinary or eating requirements.

Apart from recent design guidance for housing for older people, few of the documents which have been written for particular client groups mention sustainability, even in a broad context. Fewer still pick up on the need to conserve resources, use renewable technology or build-in future adaptability and this would seem to be an area which needs particular attention in any new consolidated guidance framework. However, in supported housing, it is important that sustainable design features do not require a lot of user input to make them work.

- 3. Designing for changing need and successive occupants.** Despite the importance of responding to individual needs and circumstances, bespoke design will not be an affordable option except for a very small minority – so generic approaches are inevitable. Added to this, individual needs change over time and we have already suggested that all housing must be designed for successive, not just first-time users. For individual homes this may imply a 'looser-fit' approach than much current guidance suggests with less of the specialised provision
-

included at the outset and more carried out as a secondary stage which can easily be reversed or adapted further.

Such an approach should have the added advantage that non-mainstream housing becomes less disability focused and more transferable - making it more attractive to a wider range of people and therefore more viable.

4. The role of allocations, personalised care and assistive technology.

Through careful lettings, mainstream housing may prove adequate for many people with special needs. A slightly larger than average home, particularly if designed to the Lifetime Homes standard and in a convenient location, may be suitable for people with autism or sight loss, some older people or others with religious or cultural requirements. People are often very resourceful within their homes and even a smaller home may be adequate if the design is flexible and they are permitted to under-occupy.

In general terms, design approaches and lettings policies which make mainstream housing a potentially workable option should be encouraged as the first choice. Assistive technology is also highly relevant and can effectively reduce the need for specialised or very specialised accommodation. Many systems are now wireless and very easily installed. It will normally be appropriate to install a comprehensive range of 'property-based' sensor/alarm equipment to new homes designed for special client groups and to make provision for the installation of 'lifestyle' monitoring technology (i.e. telecare or full SMART home technology) routine in housing for older and disabled people.

5. The relationship between location and the provision of communal space.

Good access to local services and amenities is very important to many older and vulnerable people. Integration, rather than segregation, helps psychologically as well as practically. It is helpful if some shops, banks, health and leisure facilities are within a manageable walking distance and developments are also served by public transport. The HAPPI report makes the point that, for older people particularly, the location of a proposed development is a very important factor. It will also determine the scope of communal facilities which will be appropriate. The aims should be to complement, rather than duplicate, what already exists nearby, and to consider the possibility of opening at least some of any new facilities which are provided as part of the development to the wider community where appropriate. (This requirement does not apply in the case of refuges, for example, but refuges do need to be well-located, and will benefit from being on good transport routes). This approach should help make future developments more affordable and more viable.

6. Amenity and private open space. Older and disabled people tend to spend more time at home than the general population, so adequate internal space, good amounts of storage, attractive views out from the main living area and direct access to private open space are all important attributes. Equally, in supported housing, where private space such as balconies are not usually provided, the provision of good quality and spacious internal and external amenity spaces becomes even more significant. These issues are well documented in existing publications and should remain central themes in any future guidance.

7. Healthy, active lifestyles. In low and medium care environments, the emphasis has begun to shift slightly away from passive notions about being 'cared for' and moving towards the active steps that can be taken to promote well-being. This feels a very healthy direction and one which should be strengthened in future

guidance. The HAPPI report encourages new forms of 'retirement housing' which will encourage us to think about down-sizing and moving to more practical homes as a matter of choice in our sixties and seventies – rather than as a matter of necessity in our eighties and nineties.

- 8. Less institutional approaches.** Many publications and reports for supported and older person's housing describe and promote smaller scale domestic environments in preference to larger, more institutional approaches. This sits well with the moves towards greater choice and flexibility, more personalised care, a more tailored approach to the provision of communal space and the general emphasis on well-being.

Future provision of non-mainstream housing should therefore be more site-specific and less formulaic and take a more aspirational approach without sacrificing safety and practicality in its design.

2.4 Suggestions for the approach to future guidance

Any future guidance should aim to address the issues raised in this section and adopt a consolidated and streamlined approach; building on the benchmarks established for mainstream housing, rather than continually inventing new formats and new headings. In most cases, it should be possible to describe how requirements are an 'extra' or 'variation' to a mainstream requirement, rather than present them as completely new or different. This would not only make it easier for everyone to deal with, but also allow these higher standards to become the pointers for continual improvement to mainstream provision – helping, over time, to remove unhelpful boundaries between mainstream and non-mainstream housing and reduce stigma as a result.

As discussed, terminology should be tackled as part of this process. While a broad range of typologies is encouraged to meet a broad range of needs, this can also cause confusion particularly when numerous different names seem to describe essentially the same product. This is a key policy challenge to address in the future.

Finally, it is worth considering how much is reasonable to expect, particularly in straitened times. While there is a place for 'best practice' guidance, few projects can meet the very high standards that such documents, by definition, promote. In practice, the most useful guidance is based on evidence and is clear, sensible, proportionate and achievable. It should be aimed at best value and recognise that this is not necessarily the same as best practice.

Levitt Bernstein and PRP Architects

3.0 Scope of Literature reviewed and additional reading

Links are provided for accessing the documents which have not been reviewed at this stage of the project, but which are identified as additional reading.

Links are not provided here for the documents reviewed, as these can be found in the header of the individual reviews in Section 5.

Housing for Older People

Documents Reviewed:

000 Extra Care / Very Sheltered / Retirement Housing / Sheltered Housing / Retirement Villages

- 001 HAPPI Report, HCA, 2009
- 002 Design Principles for Extra Care - Factsheet No.6, 2008
- 003 Homes for Our Old Age - Independent Living by Design, CABE, 2009
- 004 Older Persons' Housing Design - A European Good Practice Guide, 2007
- 005 Very Sheltered Housing in Suffolk: A Design and Management Guide, 2008
- 006 The Suffolk Extra Care/Dementia Design and Management Guide, 2009 update
- 007 Homes for the Third Age, 1997
- 008 Design Guide for the Development of New Build Accommodation for Older People, The Abbeyfield Society, 2001
- 009 Private Rented Extra Care: a new market? - Factsheet No.32, 2010
- 010 Selected Readings Extra Care Housing

Additional reading:

Strategic Housing for Older People (SHOP) Resource Pack, Housing LIN, December 2011

<http://www.housinglin.org.uk/Topics/browse/HousingExtraCare/ExtraCareStrategy/SHOPv2/>

The Extra Care Housing Toolkit, 2006 (*replaced by the SHOP Resource Pack; however it may provide useful background information*)

<http://www.housinglin.org.uk/Topics/browse/HousingExtraCare/ExtraCareStrategy/Toolkit/?parent=1001&child=1508>

Ashford Extra Care Sheltered Housing - Design Specification, March 2008

http://www.ashford.gov.uk/ashford_borough_council/document_library/policies/housing_design_specifications.aspx

Sunderland City Council Accommodation with Support Design Guide, 2010

<http://www.sunderland.gov.uk/CHttpHandler.ashx?id=7777&p=0>

Department of Health Extra Care Bidding Guidance 2008-10

http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_083287.pdf

Best Practice in Promoting Social Well-being in Extra Care Housing, JRF, 2007

<http://housinglin.org.uk/Topics/type/resource/?cid=2313>

Sovereign Development Consortium - Extra Care Brief, 2009

Refurbishing or Remodelling Sheltered Housing - a Checklist for Developing Extra Care, Factsheet No.10 - Housing LIN, January 2005

<http://www.housingcare.org/information/detail-2548-refurbishing-or-remodelling-sheltered-housing-a-checklist.aspx>

100 Dementia & High Care

101 Opening Doors to Independence, April 2006

Additional reading:

Designing Homes for People with Dementia, Hawker Publications, Damian Utton, 2007

ISBN-10: 1874790280 and ISBN-13: 978-1874790280

Design for Dementia, Stephen Judd, Mary Marshall & Peter Phippen, 1998

ISBN-10: 1874790353 and ISBN-13: 978-1874790358

Put Yourself in My Place - Designing and Managing Care Homes for People with Dementia, The Policy Press, Caroline Cantley and Robert C Wilson, 2002

<http://www.jrf.org.uk/sites/files/jrf/1861348118.pdf>

Dementia: Walking not Wandering, Journal of Dementia Care, Mary Marshall and Kate Allen, 2006 ISBN 1 874 790 68 X

Best Practice in Design for People with Dementia, University of Stirling, 2007

Available from <http://www.dementiashop.co.uk>

Neighbourhoods for Life: Designing Dementia Friendly Outdoor Environments

<http://housinglin.org.uk/Topics/type/resource/?cid=6988>

The Design of Housing for People with Dementia, Journal of Care Services Management, 2009

<http://housinglin.org.uk/Topics/type/resource/?cid=6539>

How Can Funding of Long-term Care Adapt for an Ageing Population? Practical examples and costed solutions, JRF, June 2007

<http://www.jrf.org.uk/sites/files/jrf/2093.pdf>

Older People with High Support Needs: how can we empower them to enjoy a better life, JRF, October 2010

<http://www.jrf.org.uk/sites/files/jrf/supporting-older-people-summary.pdf>

Older People's Vision for Long Term Care, JRF, November 2009

<http://www.jrf.org.uk/sites/files/jrf/older-people-vision-for-care-full.pdf>

200 Planning

201 RTPI Good Practice Note 8: Extra Care Housing - Development Planning, Control and Management, 2007

202 Continuing Care Retirement Communities: A guide to planning. JRF, 2006

203 Planning for Retirement Housing, Planning Officers Society and RHG, 2003

Additional reading:

None

300 Technical Guidance

- 301 Fire Safety in Extra Care Housing in the UK, Technical Brief no. 5, 2010
- 302 Eco Housing: Taking Extra Care with Environmentally Friendly Design - Factsheet no. 13, 2005
- 303 Extra Care Housing: Designing, assessing and delivering sustainable homes - Technical Brief No.4, 2010

Additional reading:

None

400 BME

- 401 Beyond Sheltered Accommodation - a review of Extra Care housing and Care Home Provision for BME Elders, Age Concern, 2006
- 402 Developing Extra Care Housing for Black and Minority Ethnic Elders: an overview of the issues, examples and challenges, Housing LIN, March 2006
- 403 Minority Groups in Extra Care Housing, Housing LIN Report, 2010

Additional reading:

None

Remodelling

None reviewed

Additional reading:

Upgrading Buildings for Older People, RIBA, 2004

ISBN: 1 859461344

Abbeyfield Remodelling Guide, PRP Architects, 1999

<http://www.housinglin.org.uk/Topics/type/resource/?cid=1567&>

Remodelling Sheltered Housing and Residential Care Homes to Extra Care Housing - Advice to Housing and Care Providers, King's College London, 2007

<http://www.kcl.ac.uk/content/1/c6/02/96/45/remodellingadviceversion151007.pdf>

Policy Documents and National Strategies

None reviewed

Additional reading:

EVOLVE toolkit – evaluation of older people's environments, 2010

Available from <http://pierprofessional.metapress.com/content/m755hqw55q332m46/>

Lifetime Homes, Lifetime Neighbourhoods: a National Strategy for Housing in an Ageing Society, CLG, 2008

<http://www.communities.gov.uk/documents/housing/pdf/lifetimehomes.pdf>

Towards Lifetime Neighbourhoods: designing sustainable communities for all, CLG, 2007
<http://www.communities.gov.uk/documents/communities/pdf/550658.pdf>

Almshouses

None reviewed

Additional reading:

The Almshouse Association
<http://www.almshouses.org/>

Older People's Shared Ownership (OPSO)

Nothing found

Supported Housing

Documents reviewed:

Supported housing (general)

- 001 Accommodation with Support Design Guide, Sunderland City Council, 2010
- 002 Shared Living - What Works in Supported Housing, CarrGomm/Housing Corporation, 2008
- 003 Housing in Multiple Occupation – Standards, Northern Ireland Department for Social Development, 2002

Additional reading:

Home improvement for vulnerable people - Anchor Staying Put
Housing Vulnerable Single Homeless People, Nicholas Pleace, University of York
<http://www.york.ac.uk/inst/chp/publications/PDF/pleace.pdf>

Shared Housing/Hostels

- 001 Guidance on Standards for Houses in Multiple Occupation, Southampton City Council

Additional reading:

HMO Licensing standards, Newcastle City Council, 2010
<http://www.newcastle.gov.uk/housing/houses-multiple-occupation/houses-multiple-occupancy>

Foyers

- 001 East Thames Foyer Brief, East Thames Group Project Design Quality Plan - Section 9 and appendix
- 002 Launch Pad for Life – assessment of foyer provision, HCA and University of Cambridge, 2006
- 003 Feeling good - Supporting resilience in young people in foyers in England

Additional reading:

Youth homelessness in the UK - A decade of progress? JRF, 2008
<http://www.jrf.org.uk/sites/files/jrf/2220-homelessness-young-people.pdf>
Access all areas, The Foyer Federation, 2010
http://www.foyer.net/pdf/Foyer_access_all_areas_v6.pdf
Dispersed Foyers: A New Approach? An Evaluation of the Shortlife Plus Project
Available from <http://www.york.ac.uk/inst/chp/publications/dispersedfoyers.htm>

Women's Refuges

- 001 Kyle Smart refuge briefs
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- 002 East Thames PDQP Section 6
 - 003 Eaves Refuge Scheme Brief
 - 004 Refuges for Women, Children and Young People in Scotland
 - 005 Refuge (website)

Additional reading:

Women's Aid - what is a refuge?

<http://www.womensaid.org.uk/domestic-violence-survivors-handbook.asp?section=000100010008000100320003>

Women's Aid - The Survivor's Handbook

<http://www.womensaid.org.uk/domestic-violence-survivors-handbook.asp?section=0001000100080001>

Home Ownership for People with Long-term Disabilities

Nothing reviewed

Additional reading:

Shared ownership, Homebuy and HOLD factsheet

www.housingoptions.org.uk/general_information/gi_factsheets/fs_07.pdf

Housing for Disabled People

Documents reviewed:

Wheelchair Users

- 001 Wheelchair Housing Design Guide, Habinteg and Stephen Thorpe, 2006
- 002 The Greenwich Wheelchair Site Brief, Greenwich Council, 2010
- 003 Best Practice Guidance - wheelchair accessible housing, GLA, 2007
- 004 Mind the Step: an estimation of housing need among wheelchair users in England, Habinteg, 2010
- 005 Specific Wheelchair Housing Design Standards (Department for Social Development, Northern Ireland)
- 006 Wheelchair User Housing Study: An evaluation of users experience and the evolution of design standards, Northern Ireland Housing Executive, 2006

Disabled young people

- 001 Freedom to Live: transition for disabled young people, Livability, 2008

People with Autism

- 001 A Practical Guide for Registered Social Landlords: Housing and Autism Spectrum Disorder, Glasgow City Council, 2010
- 002 Living in the Community: Housing Design for Adults with Autism, The Kingwood Trust and Helen Hamlyn Centre, RCA, 2010
- 003 NAS architects briefing notes general design points, National Autistic Society
- 004 Evaluation of features specific to an ASD designed living accommodation, 2007
- 005 A Life in the community: Supporting adults with autism and other developmental disorders whose needs are challenging, The Kingwood Trust, 2001
- 006 Fulfilling and Rewarding Lives: the strategy for adults with autism in England, Department of Health, 2010

People with Visual Impairment

- 001 Housing for people with sight loss, Thomas Pocklington Trust, 2008
- 002 The housing and support needs of adults aged 18-55 with impaired vision: A good practice guide (what architects need to know), 2005
- 003 Occasional Paper 7: The housing and support needs of people aged 18-55 with sight loss, February 2006
- 004 Housing for People with Sight Loss: A practical guide to improving existing homes (Good Practice Guide 4), June 2009

People with Hearing Impairment

No guidance found

Additional reading:

Access Design Guide SPG, Royal Borough of Kensington & Chelsea, December 2010

<http://www.rbkc.gov.uk/planningandconservation/planningpolicy/supplementaryplanning/accessdesignguide.aspx>

John Grooms Housing Association Design Brief, 1999

Only library hard copies available - out of print

Design for Access 2, Manchester City Council, December 2003

http://www.manchester.gov.uk/downloads/download/58/design_for_access_2

Standards and Quality in Development: A good practice guide, 2nd edition, Andrew Drury for National Housing Federation, 2008

Hard copy only: RIBA bookshop reference - 66921

Housing for People with Sight Loss, Care Services Improvement Partnership, 2008

<http://housinglin.org.uk/Topics/type/resource/?cid=3431>

Improve the Lighting in your Home, 2nd edition, RNIB and Thomas Pocklington Trust, 2010

<http://www.pocklington-trust.org.uk/research/publications/jointrnib>

A Design Guide for the Use of Colour and Contrast to Improve the Built Environment for Visually Impaired People, Dulux Technical Group, ICI Paints, 1997

Colour and Contrast CD-rom (ref T21027) available from ICI paints

Building Sight, Royal National Institute of Blind People (RNIB)

Available from the Stationery Office and RNIB, ref PR10683

Faith Based Housing and BME requirements**Documents reviewed:****General**

- 001 Accommodating Diversity: housing design in a multi-cultural society, 2nd edition, National Housing Federation, 1998

Muslim (including Bengali and Somali)

- 001 Network Housing Group Design Guide (BME addendum), 2008
002 Accommodating Diversity for Karin Housing Association

Jewish

- 001 Summary of AIHA brief, Agudas Israel Housing Association, 2010
002 The Orthodox Jewish Community Housing Needs Study 2008, Salford City Council

Additional Reading:

Making Housing Happen - Faith Based Affordable Housing Models, Jill Suzanne Shook, Chalice Press, 2006

Hard Copy only - ISBN-10: 0827223323 ISBN-13: 978-0827223325

www.makinghousinghappen.com

Housing Design And Management For Ethnic Minorities: Do Housing Associations Meet Their Needs?, ESRC

<http://www.esrc.ac.uk/my-esrc/grants/R000233879/read>

Understanding the Housing Needs and Aspirations of the Muslim Communities, North London Muslim Housing Association and Housing Corporation, 2004

http://www.nlmha.com/documents/Housing_Needs_of_muslim_communities.pdf

Housing Plus needs of the Young Muslims in Hackney, North London Muslim Housing Association and Housing Corporation, 2001

http://www.nlmha.com/documents/Housing_Plus_Needs.pdf

Additional Development Criteria

Larger Family Housing

Documents reviewed:

- 001 London Housing Design Guide (interim version), Mayor of London, 2010
- 002 Higher Density Housing for Families - a design and specification guide, London Housing Federation, 2004

Higher density housing

Documents reviewed:

- 001 Higher Density Design for Quality and Low Maintenance: a good practice guide, Northern Ireland Housing Executive, 2008
- 002 London Housing Design Guide (interim version), Mayor of London, 2010
- 003 Recommendations for Living at Superdensity, July 2007
- 004 Delivering Successful Higher Density Housing: a toolkit, 2nd edition, East Thames, 2008
- 005 Higher Density Housing for Families – a design and specification guide, London Housing Federation, 2004
- 006 Better Neighbourhoods: making higher densities work, CABE, 2005
- 007 Capital Gains: making high density housing work in London, London Housing Federation, 2002
- 008 Perceptions of Privacy and Density in Housing, Design for Homes, 2003

Rural Housing

Documents reviewed:

- 001 Rural Housing Economic Viability Toolkit and Stage 1 Report, July 2010

Additional Reading:

- Financial Inclusion and Rural Social Housing, Commission for Rural Communities, 2010
http://search.cih.org/publication-free/display/vpathDCR/templatedata/cih/publication-free/data/Financial_inclusion_and_rural_social_housing
- Rural Housing Advisory Group documents, HCA
<http://www.homesandcommunities.co.uk/ourwork/rural-housing>
- Living in Rural Communities, DEFRA
<http://www.defra.gov.uk/rural/communities/>
- Rural Housing in Wales, Joseph Rowntree Foundation, 2008
<http://www.jrf.org.uk/publications/rural-housing-wales>
- Social Housing in Rural Areas, Joseph Rowntree Foundation, 2001
<http://www.jrf.org.uk/publications/social-housing-rural-areas>
- Support and Housing in the Countryside: Innovation and Choice, The Countryside Agency, 2002
<http://crc.staging.headshift.com/files/CA%2050.pdf>
- The Rural Housing Enabler Programme, The Countryside Agency
http://www.suffolkacre.org.uk/main.php/community_support_and_consultation/rural_housing_enabler

What Are Sustainable Rural Communities?, David Banister, Bartlett School of Planning, University College London, 2005

<http://crc.staging.headshift.com/files/Sustainable%20Communities%20Thinkpieces.pdf>

Evaluating Rural Housing Enablers, JRF, 1995

<http://www.jrf.org.uk/publications/evaluating-rural-housing-enablers>

Living Working Countryside: The Taylor Review of Rural Economy and Affordable Housing, DCLG, 2008

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/livingworkingcountryside.pdf>

Travellers

Documents reviewed:

- 001 Designing Gypsy and Traveller Sites, DCLG, 2008
- 002 Providing Gypsy and Traveller Sites: Contentious Spaces, JRF, 2007
- 003 Out in the Open, Building and Social Housing Foundation, 2007
- 004 Circular 01/06: Planning for Gypsy and Traveller Caravan Sites/Travelling Showpeople, ODPM, 2006

Additional Reading:

Gypsy and Traveller Site Management, DCLG, 2009

<http://www.communities.gov.uk/publications/housing/sitemanagementguide>

Traveller pitch funding, HCA

<http://www.homesandcommunities.co.uk/ourwork/traveller-pitch-funding>

Making a Living - Social Security, Social Exclusion and New Travellers, Joseph Rowntree Foundation, 2001

<http://www.jrf.org.uk/publications/nature-employment-new-travellers>

The provision and condition of local authority gypsy/traveller sites in England, ODPM, 2002

<http://www.communities.gov.uk/archived/publications/housing/203540>

Guidance on sites and homelessness

www.gypsy-traveller.org

Existing Buildings**Documents reviewed:****000 Standards**

- 001 Decent Homes, DCLG, 2006
- 002 Towards a Successor Standard to Decent Homes, GLA , 2009
- 003 Beyond Decent Homes, SHAP, 2009
- 004 Community Green Deal, SHAP, 2010

100 Policy and strategy

- 101 Home Truths, Environmental Change Institute, University of Oxford, 2007
- 102 40% House, Environmental Change Institute, University of Oxford, 2005
- 103 Stock Take, Sustainable Development Commission, 2006
- 104 The Future is Local, Sustainable Development Commission, 2010

200 Assessment methodology and measurement

- 201 EcoHomesXB, BRE, 2006

300 Advice and Guidance

- 301 Fit for the Future - the Green Homes Retrofit Manual, HCA, 2008
- 302 Fit for the Future - the Green Homes Retrofit Technical Supplement, HCA, 2008
- 303 An Introduction to Low Carbon Domestic Refurbishment, CPA, 2010
- 304 Sustainable Refurbishment, Energy Saving Trust, 2010
- 305 Your Home in a Changing Climate, Three Regions Climate Change Group, 2008

400 Exemplars and Good Practice

- 401 Sustainability briefs for refurbishments, British Land, 2008
- 402 RELISH - Residents for Low Impact Sustainable Homes, Worthing Homes, 2009
- 403 Greening the box, Wherry Housing Association, 2009
- 404 Retrofit Reality, Gentoo Green, 2009
- 405 FutureFit, Affinity Sutton, 2010
- 406 Retrofit South East, Radian, 2010

500 Purchase and repair

Nothing reviewed

600 Temporary housing

Nothing reviewed

Additional reading:

BREEAM

<http://www.breeam.org/>

Climate change and the historic environment, English Heritage, 2006

http://www.climatechangeandyourhome.org.uk/live/content_pdfs/29.pdf

Energy conservation in traditional buildings, English Heritage, 2008

http://www.climatechangeandyourhome.org.uk/live/content_pdfs/94.pdf

EnerPHit - Quality-Approved Energy Retrofit with Passive House Components

http://www.passiv.de/01_dph/Bestand/EnerPHit/EnerPHit_Criteria_Residential_EN.pdf

Greener Homes for Redbridge, East Thames

<http://www.east-thames.co.uk/greenerhomes>

Lifetime Costs of Installing Renewable Energy Technologies, NHF London, 2010

http://www.housing.org.uk/our_regions/london_region/london_publications/lifetime_costs.aspx

Renewable Technology Toolkit

http://www.housing.org.uk/our_regions/london_region/london_publications/renewable_technology_toolkit.aspx

Retrofit for the Future (website)

<http://www.retrofitforthefuture.org/>

Purchase and repair

Affordable Housing – Capital Funding Guide, HCA

<http://cfg.homesandcommunities.co.uk/>

Existing Satisfactory Purchases (ESP) Design Issues, Northern Ireland Department for Social Development

http://www.dsdni.gov.uk/index/hsdiv-housing/ha_guide/hag-index/hagds-design-standards-contents/hagds-background-esp-design-issues.htm

Temporary Housing

Temporary Social Housing – Capital Funding Guide, HCA

<http://cfg.homesandcommunities.co.uk/>

General good practice documents which may be relevant

Lifetime Homes Standard, Habinteg Housing Association

<http://www.lifetimehomes.org.uk/pages/revised-design-criteria.html>

Code for Sustainable Homes, DCLG

<http://www.communities.gov.uk/planningandbuilding/sustainability/codesustainablehomes/>

Standards and Quality in Development: A good practice guide, 2nd edition, Andrew Drury for National Housing Federation, 2008

Hard copy only: RIBA bookshop reference - 66921

London Housing Design Guide (interim edition), Mayor of London, 2010

<http://www.london.gov.uk/who-runs-london/mayor/publications/housing/london-housing-design-guide>

Secured by Design - New Homes, ACPO, 2010

http://www.securedbydesign.com/pdfs/SBD_New_Homes_2010.pdf

Building for Life, CABI

<http://www.buildingforlife.org/criteria>

Design and Quality Strategy, Housing Corporation (now HCA), 2007

http://collections.europarchive.org/tna/20100710184205/http://www.housingcorp.gov.uk/upload/pdf/design_and_quality_strategy_20070501111140.pdf

Design and Quality Standards, Housing Corporation (now HCA), 2007

http://www.homesandcommunities.co.uk/sites/default/files/our-work/design_quality_standards.pdf

Housing Quality Indicators, Housing Corporation (now HCA), 2008

http://www.homesandcommunities.co.uk/sites/default/files/our-work/721_hqi_form_4_apr_08_update_20080820153028.pdf

Universal Design, Selwyn Goldsmith

Hard copy only: ISBN-10: 075064785X and ISBN-13: 978-0750647854

Designing for Special Needs: An Architect's Guide to Briefing and Designing Options for Living for People with Learning Disabilities

Hard copy: ISBN: 9781859461211

BS 8300 - Design of buildings and their approaches to meet the needs of disabled people: code of practice, 2009

<http://shop.bsigroup.com/en/ProductDetail/?pid=000000000030217421>

4.0 Summaries of literature reviews, by topic

4.1 Housing for older people - summary and recommendations

1.0 Outcome of literature review

This sector is vast and the literature that supports it is of equal magnitude. In order to assist navigation around the documents we have grouped them under a number of headings, as described below. This grouping is also a useful signal to those looking for guidance on how to interpret generic standards and policy within the specialist older persons housing sector.

The groups are as follows:

Extra Care / Very Sheltered / Retirement Housing / Sheltered Housing / Retirement Villages - this captures the documents that relate to the various housing models and disregards some terminology that may be confusing. There was either no relevant literature or not enough distinction within the documents to warrant separate headings for the various housing models.

Dementia & High Care - the guides we have referred to tend to cover design guidance with relation to high dependency and therefore a care home setting, but there is some guidance that looks at housing models. The basic principles used in designing environments for those suffering from dementia are appropriate for all settings because they aim to create a more legible and comfortable environment.

Planning - despite the changing planning scene the guides that we reviewed are still very relevant and worth referencing when working in this sector.

Technical Guidance - this section covers aspects such as fire safety and environmental issues. The guides reviewed are an invaluable source of information that deals specifically with housing for older people, helping to interpret and apply the often generic guidance for mainstream housing.

BME - there are three useful documents in this section that should also be read in conjunction with the literature reviewed in other parts of this report which are not specific to older people.

Remodelling - as with the BME section, there are three useful documents that should be read in conjunction with the literature reviewed in other sections of this report, which are not specific to older people.

Policy Documents and National Strategies - we have not reviewed these documents but have highlighted them to show their importance in terms of impact on this sector.

Almshouses - there was no specific guidance found for this group, which could have been included within the first category.

Shared Ownership for the Elderly - there was no specific guidance found for this subject.

The Housing LIN is continually commissioning documents that relate to current issues and revising older documents. The value of this resource cannot be over emphasised

as it appears to be the only online resource where documents can be centrally sourced along with news of updates to be produced.

Findings

There is a plethora of information about Housing for Older People available, most of which can be found and downloaded from the Housing LIN website (www.housinglin.org.uk). Specific design guidance is available for designing Extra Care and for those with dementia which is excellent. The *HAPPI* report, which is one of the most recently published documents, has been a powerful driver towards achieving design excellence, insisting that any housing for older people be attractive, less formulaic and provided in the best locations. The influential panel of experts, along with the backing of DCLG and HCA, have made understanding the messages in this document essential. The report promotes flexible, adaptable and contemporary housing that will provide an attractive alternative to young-older people under-occupying family housing. The *Design Principles for Extra Care* document, commissioned by the Department of Health, has also been very influential. Simply by stating minimum flat sizes it has pushed up standards, ensuring that all extra care schemes that received funding from the Department of Health would be more future proof. The quality of these two documents and the high level backing from government departments means they have been used in a wider context than just schemes funded by central government. The Suffolk Design and Management Guide is also a much referred-to guide. Suffolk's strength is taken from over 25 years of developing extra care and continually updating their standards with lessons learnt. They have a very detailed understanding of how to house and care for their older people and have always been willing to share this learning with other local authorities. This local focus on provision and detailed design issues is commended.

Many of the more recent documents refer to the need to build sustainable developments and consider the environmental impact of decisions that are made at the early stages of projects along with guidance on specific energy generation and saving issues.

We selected what we felt were the best publications and reports from the huge number available and mainly those that deal with design issues directly. There are many reports that we have not reviewed in detail that deal with peripheral but nevertheless important issues about housing, care and wellbeing of older people. Where relevant we have listed these as additional reading (see section 3).

2.0 Issues in practice

It is well known that there is never going to be, and should never be, a single model of housing for older people. Design guidance relies on factors that are specific to each scheme and geographical location.

There is often a query about how 'wheelchair accessible' a housing development for older people should be. Experienced designers and providers take the view that an interpretation of wheelchair standards along with the fact that the housing is for frail older people is a sensible approach. All areas of the building need to allow access and use by wheelchair users but the application of features such as fully adjusted kitchens and bathrooms should be taken on a site specific basis.

It is our view that design standards and best practice guidance are essential for housing for older people. This is particularly important when it comes to applying all principles that are taken for granted in the mainstream housing sector, e.g. Secured by Design,

environmental and sustainability requirements, external areas/public realm, disability design guidance, designing for cognitive impairment etc. Each one of these is a specialist area in itself but the application and interpretation of this guidance into housing for older people needs to relate to the end user who will not have a growing/expanding family, will have the need for overnight visitors/carers, will be more likely to get more frail as time passes, may not understand or be able to embrace new technologies, will be at risk or impaired when using facilities such as baths or complicated locking systems, will more than likely be living communally in a managed building and will want to live in an attractive and independent environment etc.

A relatively small number of local authorities have developed their own older persons design guidance which is in addition to their strategies for housing and caring for older people. These documents are an excellent model for others to follow as they deal so specifically with local need, demographic profiles, specific geographical characteristics and with service models that are understood locally. This is such an important factor to get right, as it is hard to compare the needs of a rural, low density community with those of an inner-city, high density, culturally diverse community. It is in this context that a number of the more rural authorities insist on only developing 2 bedroom properties, but this requirement often sits uncomfortably in high density urban contexts with higher land costs and different housing needs and expectations.

3.0 Pointers for Future Guidance

We feel that the guidance available is generally of high quality but is in need of an update, particularly in relation to space standards, in order to bring more clarity to the number of contradictions that appear between documents. It is also very clear that only guidance that is supported and promoted by national government or embedded in local authority documentation is ever truly adopted.

The effect of so much available guidance, whilst potentially overwhelming at first, is a factor in why there is such a rich diversity of housing options available to older people...there is just not enough of it and certainly not enough of good quality. There will still be a market for a range of models in terms of their scale, tenure and their lifestyle offer. It is essential that any future guidance challenges such traditional features as central corridors and single aspect flats and encourages alternative design solutions such as vertical cores, secure and delightful deck access and dual aspect flats.

At the cutting edge, the older persons housing sector continually adapts to changes in aspirations, demographics, need and more immediately, the market and funding options. The future trends that we have observed include the following:

- Larger purpose built extra care, from 80 to village scale, that integrate with the wider community
 - Co-housing initiatives that are funded, commissioned and managed by the residents
 - Smaller schemes designed to high space and mobility standards with limited communal and support facilities
 - Mixed tenure as the norm
 - Specialist developments that cater for higher levels of dependency and dementia
 - Developments that cater for active lifestyles and young-older people
 - Developments combined with other housing and care to create community hubs
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- Communal facilities open to the wider community

Whatever is built, it will be increasingly reliant on public and private sector partnerships and creative financial models around 'equity release' for owner occupiers and development that is placed in the best locations. The physical building model will need to be cost effective, attractive to the private sale and rental market, robust, sustainable and attentive to the needs of the vulnerable and potentially vulnerable residents for whom they are ultimately designed.

4.2 Supported housing - summary and recommendations

4.2.1 Supported and shared housing

1.0 Outcome of literature review

Documents reviewed

Supported housing (general)

- 001 Accommodation with Support - Design Guide, Sunderland City Council
- 002 Shared Living - What Works in Supported Housing, CarrGomm/Housing Corporation
- 003 Houses in Multiple Occupation – Standards, NIDSD

Shared housing/hostels

- 001 Guidance on Standards for Houses in Multiple Occupation (Southampton City Council)

Findings

The basis for most of the literature about the standards for supported and shared accommodation is Houses in Multiple Occupation (HMO) standards defined under section 352 of the Housing Act 1985, updated in 2004. These requirements appear to be reproduced by most local authorities, but vary in their thoroughness and format. Some also include licensing requirements among the data provided.

The provision of support to the occupants of HMOs results in a wide-ranging variety of requirements, clearly related to the needs of the individuals housed in the building. These range from hostels for individuals such as young, single women, up to extra care facilities. It may also include foyers, those with physical disabilities and other specialist housing. For this reason the Supported Housing review 001 (Accommodation with Support) is also included as additional reading in the older people's housing section.

The majority of documents deal with the physical requirements of the buildings in terms of space, but the Sunderland City Council document additionally addresses the quality of life issues, with illustrations and checklists. So, despite leaning towards a description of the requirements for extra care homes, the text is well worth reading for an understanding of the broader issues.

2.0 Issues in practice

The presentation of design standards guidance could be improved upon with a tabular format. Only a few documents adopt this approach, and even these may require simplification or extension to make the standard fully accessible to designers.

More confusing is the fact that each local authority has a separate statement of the basic HMO standard, when a national statement could easily suffice.

3.0 Pointers for future guidance

External amenity space is not often addressed in the documentation, nor is the requirement for good sound separation, which can become a major source of irritation and stress in shared accommodation.

The majority of documents do not address or even mention sustainable design issues. However, a mention of minimum carbon emission targets and the need to address dwindling energy resources would not go amiss, particularly in the re-use and conversion of existing buildings.

Design considerations

1. Good general space standards will benefit all occupants directly.
 2. Lifetime Homes standard will provide adequate space for manoeuvring a wheelchair, addressing permanent or temporary infirmities, housing older women, etc.
 3. Small blocks of around 3-8 people are preferable to larger HMOs.
 4. One or more ground floor rooms designed to be fully accessible
 5. Accessible shared facilities
 6. Good noise separation between occupancies and between private and shared spaces
 7. Bedrooms of 10m² minimum are preferable with en-suite washing facilities
 8. Wet rooms with showers (preferred by most older people, who may find it difficult to get into and out of a bath) instead of a bathroom.
 9. Shared outside space, ideally with a covered area for some wet-weather use.
 10. Good drying facilities that don't rely on tumble dryers or hanging clothes in rooms.
 11. Include sustainable design features such as:
 - a. Aim to exceed Building Regulations for fabric performance
 - b. Passive stack ventilation and heat recovery
 - c. Medium flow showers and spray taps
 - d. Dual flush WCs
 - e. Low energy domestic equipment
 - f. Covered, secure bicycle stores
 - g. Low energy light bulbs
 12. Provision of self-contained accommodation and/or separate kitchens for people of different faiths should be considered
 13. Robust fixtures, fittings and finishes (to withstand above average wear and tear)
 14. Plenty of storage within rooms and in shared spaces to maintain an uncluttered environment
 15. Good provision of data connection points and sockets for home working / learning where possible.
 16. Stable and controllable internal environmental conditions.
-

4.2.2 Supported Housing: Foyers

1.0 Outcome of literature review

Documents reviewed

| | |
|-----|---|
| 001 | Project Design Quality Plan - Section 9 and Appendix, East Thames Housing Group |
| 002 | Launch pad for life - an assessment of the role of foyers in HA provision |
| 003 | Feeling Good - Supporting resilience in young people in foyers in England |

Findings

Few documents have been found which describe in detail the design requirements for a foyer, so this overview concentrates on the first, which relates to the sections pertaining to foyers in East Thames Group's Project Design Quality Plan (PDQP).

The document clearly lays out the physical requirements for a foyer, with all its complexities and different layers of provision. However, it is important to read the other texts reviewed under this section, in order to appreciate the background and realities for young people needing support.

2.0 Issues in practice

The advantage of a large building, with capacity for a hundred or more young people, is that there is sufficient scope for the provision of a range of support services and training (including life skills and independence, everyday support, opportunities to grow, etc). The conclusion of other documentation is the dubious benefit to young people of large foyers as the sheer size militates against the sharing of experience and development of relationships which will help young people become independent.

The more descriptive reports highlight the fact that most clients have needs over and above basic training, accommodation and life-skills support, which reflects a continuing trend towards higher support requirements, and therefore less emphasis on traditional training as a means of accessing employment.

The form of super-foyer developed in the past has therefore become a white elephant, to a certain extent, due to the excessive level of management and maintenance required, on top of different and more demanding needs of the client group.

Currently, it is likely that an exit strategy is required for the re-use or subdivision of existing buildings in order to make them more appropriate to meet the individual needs of residents.

3.0 Pointers for future guidance

The East Thames briefing format is very useful and thorough and could easily be adapted to address smaller-scale operations, if desired. It would need to be updated to address current standards and expectations, and to take on board some of the management and maintenance issues which have arisen through their experience.

Design considerations

1. Good room sizes will benefit all occupants directly.
2. Lifetime Homes criteria will help address general accessibility.
3. Dedicated wheelchair-accessible flats provide flexibility in letting.
4. Aim to limit the number of flats (suggest no more than 40), in order to provide realistic opportunities for residents to socialise and get to know their neighbours, as well as to ensure that the building can be managed well.
5. High levels of noise insulation between occupancies and externally (both to communal spaces and outside the building).
6. Robust fixtures, finishes and fittings to withstand heavy wear and tear.
7. Building for Life (BfL) criteria considered and carry out a BfL assessment.
8. Establish sustainability criteria for the design, such as:
 - a. Communal heating system (except in 2nd stage flats) with thermostatic radiator valves (TRVs) on each radiator
 - b. Passive stack ventilation system with heat exchange
 - c. Low energy light bulbs
 - d. Low energy white goods
 - e. Smart meters
 - f. Covered, secure bicycle storage
 - g. Green or brown roofs
 - h. Data connection points and sockets for "home" working
 - i. Medium flow showers, dual flush WCs, spray taps.

Additional best practice suggestions

9. Develop an exit strategy for the building's efficient re-use, if required at a later date.
-

4.2.3 Women's refuges

1.0 Outcome of literature review

Documents reviewed

| | |
|-----|--|
| 001 | Kyle Smart Associates Brief |
| 002 | East Thames Project Design Quality Plan - Section 6 |
| 003 | Eaves Refuge Scheme Initial Brief, Family Mosaic Housing Group |
| 004 | Refuges for Women, Children and Young People in Scotland |
| 005 | Refuge - for women and children against domestic violence |

Findings

It was surprising to find that there were very few documents available which describe the design requirements for women's refuges. This could not be explained by the requirement for confidentiality around the location of refuges, as a generic brief would be adapted and made site-specific.

A meeting with the Women's Aid organisation confirmed that there is no general guidance or briefing document. Individual refuges are developed with an RP partner on the basis of a local brief, which has evolved as a result of experiences of the commissioning group, but which does not benefit from any overarching standard or guidance from the parent organisation. It is therefore entirely possible that standards and features may vary significantly across the country.

The requirements of HMOs (see separate reviews) in relation to bedroom size, sanitary accommodation, and shared kitchens/living spaces are not directly applicable, due to the likelihood of there being a number of children staying at any time. However, the need for an HMO licence was identified, though the Women's Aid group would not necessarily apply for the licence themselves.

2.0 Issues in practice

The ideal size of refuge, from the experience of the Women's Aid meeting attended, comprised between three and seven bedrooms; larger than that resulted in friction between residents, and could not be made to feel homely.

Some important issues were highlighted in the literature review, such as:

- The size of the home for ease of management and the shared experience of women while they are there
 - The need for specialist refuges for different cultural groups, with separate cooking facilities
 - The need to provide some refuge and support for women with ongoing drug and alcohol problems, who could not be housed in mainstream refuges
 - Wheelchair-accessible rooms, which have to be on the same level as amenity spaces and kitchen/dining rooms
 - Separate accommodation for women with and without children
 - Accommodating mothers with teenage boys
 - The desirability of self-contained accommodation compared with the advantages of having to socialise, but particularly relevant for transgender women.
 - Accessibility to public transport
-

- The need to bring older refuges up to the standards of new ones being built today
- The need for appropriate move-on accommodation.

3.0 Pointers for future guidance

Despite the prevalence of shared bathrooms and WCs, the majority of the guidance suggests that en-suite washing facilities are preferred, easier to manage, and acceptable to all. However, few advocate fully-self-contained accommodation due to the acknowledged benefit of socialising in a shared kitchen.

Some separate specialist accommodation should be considered, particularly in an inner-city location, where there may be more refuges provided generally. This means that there is a greater likelihood of the specialist accommodation being fully occupied, and no need for compromise with mainstream refuges.

Storage is always under-provided, both for women bringing furniture and possessions with them, as well as those who have left home with nothing.

Office accommodation within the refuge is recommended, even if staff are not on site at all times during the day.

Good practice suggests that refuges should be indistinguishable from the surrounding housing as possible, for security and privacy. In reality, this is difficult because of the need for ramps and rails for wheelchair-users and buggies, intruder lighting and obscured glass in ground floor windows, which have the impact of making a refuge stand out from its surroundings. Particular design skills are needed to overcome this problem.

The issues of sustainable design are not touched on by the documents reviewed, but are inevitably important in any new-build development, whatever the user-group. It is therefore a recommendation that sustainable design be considered. This type of accommodation addresses women's short-term needs, so it is not appropriate to install sustainable design measures that require a high level of user input to make them work or monitor their performance. The residents have plenty of other concerns without overlaying energy-saving matters on top. It is therefore recommended that the refuge be designed as carefully as possible, in order to create a low-carbon environment with minimal input from residents.

Design considerations

1. Aim for buildings to accommodate between 3 and 7 women and their families.
 2. Refuges located near shops and amenities, with good public transport.
 3. Good general space standards will benefit families directly.
 4. Lifetime Homes criteria will provide adequate space for manoeuvring a buggy, bathing small children, housing older women, etc.
 5. A variety of sizes of rooms to suit different sizes of families.
 6. Extra storage provision for women's possessions and furniture for loans, buggies, etc, both within the building and in the individual rooms.
 7. En-suite bathing facilities provided in every room, as well as a fridge and sink.
 8. Shared outside space with all-weather play area for children.
-

9. Building for Life criteria considered, with the aim of making the building as discrete as possible.
 10. Secured by Design standards met as far as practicable.
 11. Wheelchair-user accommodation provided in all refuges with level access to shared facilities like the kitchen, dining and living spaces.
 12. Some self-contained accommodation provided for women of different faiths or transgender women.
 13. Office accommodation provided in all refuges.
 14. Robust fittings, fixtures and finishes to withstand heavy wear and tear.
 15. Establish sustainability criteria for the design, such as:
 - a. Communal heating system with TRVs on each radiator
 - b. Ground source heat pump
 - c. Passive stack ventilation system with heat exchange
 - d. Low energy light bulbs
 - e. Low energy external lighting
 - f. Low energy white goods
 - g. Green or brown roofs
 - h. Data connection points and sockets for "home" working or learning
 - i. Medium flow showers, dual flush WCs, spray taps
 - j. Good drying facilities that are not dependent on tumble dryers or hanging clothes in rooms
-

4.3 Housing for disabled people - summaries and recommendations

4.3.1 Wheelchair users

1.0 Outcome of literature review

Documents reviewed

| | |
|-----|--|
| 001 | Wheelchair Housing Design Guide, Habinteg and Stephen Thorpe |
| 002 | The Greenwich Wheelchair Site Brief, Greenwich Council |
| 003 | Best Practice Guidance – wheelchair accessible housing, GLA |
| 004 | Mind the Step: an estimation of housing need among wheelchair users in England, Habinteg |
| 005 | Specific Wheelchair Housing Design Standards, Northern Ireland Department for Social Development |
| 006 | Wheelchair User Housing Study: An evaluation of users experience and the evolution of design standards |

Findings

The design of wheelchair housing in England is led by the 'Wheelchair Housing Design Guide' (WHDG); widely felt to be comprehensive and authoritative. In London, the 'GLA Best Practice Guide' (now summarised in both the interim 'London Housing Design Guide' and the draft Housing SPG) describes the features which must be included at planning stage to allow for easy adaptation to achieve a fully WHDG compliant home in the future. This responds to the London Plan policy requirement for 10% of all new housing within London to be suitable for wheelchair users. It is aimed at private sector housing; accepting that the initial purchaser may not require a fully fitted out wheelchair home. For the affordable sector, designers in London, as elsewhere, are usually expected to meet the full requirements of the WHDG, with a view to immediate allocation to households which include a wheelchair user.

Among other local guides, the 'Greenwich Wheelchair Site Brief' is the best known and has been adopted by other SE London boroughs who have reproduced the Greenwich standards in the 'South East London Housing Partnership Design Guide'. The requirements exceed the WHDG in a number of respects, making this the most prescriptive of the documents reviewed.

This and the GLA guide follow the 15 point structure of the WHDG in which requirements and recommendations are functionality based, providing detailed guidance in relation to everyday activities around the home. No overall dwelling space standards are provided by any of the guides reviewed although the Greenwich guide goes furthest by defining minimum room areas related to occupancy, and more specific dimensional requirements than the WHDG.

Two useful documents from Northern Ireland have also been reviewed. The 'Wheelchair Specific Design Standards' are admirably concise and simply presented, and the 'Wheelchair User Housing Study' provides an interesting and comprehensive overview.

Although this summary concentrates on the first three design guides, the Northern Ireland documents are worthy of further consideration; particularly for their pragmatic approach.

2.0 Issues in practice

Although gaining an understanding of the rationale for the various functionality requirements is useful background knowledge, the lack of guidance relating to the overall size of wheelchair homes is a practical problem for designers. Each dwelling type needs to be designed in detail before the overall gross internal area (GIA) can be established with any certainty. This is usually late in the design process; often post-planning. By this stage, footprints and layouts are fixed and cost plans completed, so it can be very difficult to adjust the scheme to achieve compliance. To avoid being caught out, many designers work to their own rule of thumb – typically allowing 10-30% more space than a general needs home of the same occupancy, but others rely on, or resort to, simply reducing occupancy (often from 4p to 3p to avoid having to provide a second WC). The result is often a poor compromise and may cause difficulties in relation to funding bids which have been based on more bed-spaces than can be achieved in practice.

Space standards would therefore be very useful, particularly if those for flats were correlated with the gross internal areas of mainstream homes for larger households. This would allow wheelchair homes to be 'stacked' among general needs flats rather than segregated because of the need for special footprints.

A further complication in practice is that advice from occupational therapists tends to come late in the day (post-contract) and is usually tailored to the needs of an individual – often differing from the generic requirements of the WHDG. This too, can cause costly re-design, and sometimes contractual delay.

In general therefore, the advantages of very specialised design, particularly bespoke approaches, have to be weighed against the risks of complicating the design and/or construction process, and may increase the likelihood of future change or adaptation to meet the needs of subsequent occupants (a point picked up by the Northern Ireland user study).

Other specific design difficulties with current wheelchair housing design standards include:

Covered parking - rarely appropriate for houses in urban areas and usually impractical for ground floor flats with own front door.

Lift provision - WHDG requires two lifts for upper floor dwellings though this is sometimes unaffordable in terms of capital cost and service charge.

Level access to amenity space - the Lifetime Homes standard now recognises that it can be very difficult to achieve level access on steeply sloping sites and to balconies or roof terraces over accommodation where the insulation and water-proofing add to the overall construction, making a step-up (to get outside) very costly to avoid. The WHDG makes no reference to this and whilst a step up would be unacceptable, this situation could be flagged as a problem.

Bathrooms - it is unclear whether the illustrated layout in the WHDG is essential or indicative.

Kitchens - the requirement to allow clear space beneath the sink, hob etc and the need to avoid wall cupboards for storage of basic items means that kitchens must be significantly larger than mainstream equivalents if adequate functionality and storage capacity are to be retained.

Bedrooms - guidance requires full wheelchair access to all bedrooms; producing a floor area of 15-16m² which is larger than mainstream twins or doubles. The necessity of full wheelchair access to all bedrooms could be usefully debated and the Northern Ireland standards adopt a pragmatic compromise here.

Positioning of switches, sockets etc - the requirements of the WHDG for accessible positioning are not reflected in the GLA best practice guidance, leaving designers unsure whether it is acceptable to relocate controls and switches at a later date, which would seem a very costly option.

3.0 Pointers for future guidance

Inclusive design is seen as an increasingly important goal and a means by which to reduce the barriers and obstacles encountered by those with reduced mobility and improve social integration. It is widely recognised that more inclusive mainstream design, based on Lifetime Homes principles, would reduce the need for specialised housing. However, the practical needs of full-time wheelchair users mean that additional space and special features will be needed by the majority of this user group for the foreseeable future.

Needs and preferences vary and circumstances change for wheelchair users as they do with all other user groups. It is generally accepted that 'disability labelling' is unhelpful in housing as in other areas, and that homes for wheelchair users should be externally indistinguishable from mainstream housing. It feels sensible to extend this to the internal environment too; providing only those special features which are needed and then integrating them in a way which either makes them useful to everyone, or minimises their impact.

Even for affordable housing, where need can be reliably identified, this implies that the balance of generic design features which should be provided in every wheelchair home and will rarely need alteration, and those which are best dealt with as an 'easily reversible fit-out' (whether retrospective or from the outset) should be carefully considered.

Subject to a few concerns (including some of those outlined above) the GLA guidance provides a good role model for this approach and is particularly important where local policy (as in London) requires a relatively high proportion of homes to address the needs of wheelchair users. Local authorities should also dictate the type of homes needed, defined by tenure, occupancy and bedrooms to avoid only smaller house and flat types being provided. The guidance for assessing local need in 'Mind the Step' might be useful in this respect.

In general, guidance still leans towards houses as the expected 'norm' but ground floor or lift-served flats offer particular advantages to wheelchair users (as well as to older people) particularly for small households without children, and are often the only option in higher density developments. Future guidance should reflect this reality and seek to maximise the benefits which often include greater security, lower maintenance and fuel costs and reduced isolation, as well as reducing the shortcomings by providing large balconies to compensate for lack of gardens, for example.

Many parallels exist between the needs of wheelchair users and older people and 60% of wheelchair users are 65 or older ('Mind the Step'). Future guidance should aim to identify design features common to both groups to improve flexibility.

Sustainability should no longer be regarded as a mainstream province and the Code for Sustainable Homes should be extended to cover housing for disabled people. Wheelchair users often spend a large proportion of the day at home, may find it harder to compensate for extremes of heat and cold and may have disproportionately low incomes – all good reasons to ensure that their homes meet, or exceed, current mainstream sustainability benchmarks, enhance well-being and help to keep fuel costs affordable.

Taken as a set, the GLA guidance, WHDG and Greenwich guide provide a useful basis for a three-tiered approach to baseline, good practice and best practice design of wheelchair housing. A balance of two or all of these tiers may work well in terms of meeting a range of local need.

Design considerations

1. Except in very rural locations, only provide wheelchair dwellings in locations which are well served by public transport and have easy access to a range of facilities including shops, health and community buildings and services.
 2. Except in very urban locations, provide a designated, accessible parking space for every dwelling, covered where practical.
 3. Provide a broad mix of dwelling types and sizes, as required by the local authority, to suit housing need but generally avoid 3 storey houses and one bedroom flats.
 4. Ensure that all amenity and ancillary spaces (including recreational, parking, refuse and recycling areas) within a development are accessible to a wheelchair user.
 5. Aim to 'smooth out' external level changes across the entire site to a manageable gradient and avoid steps unless a lift or equally desirable alternative means of level or gently sloping access is available.
 6. Always provide lift access to any wheelchair dwelling above ground; preferably two lifts to cover breakdowns and maintenance.
 7. Ensure that wheelchair homes are dispersed throughout the development, are indistinguishable from other homes externally and as similar as possible internally.
 8. Provide generous private, outdoor space and ensure that it is not overlooked.
 9. Provide a level, well-lit and sheltered waiting place outside any entrance (shared or private) likely to be used regularly by a wheelchair user.
 10. Make internal partitions non-loadbearing wherever practical to maximise flexibility.
 11. Allow for full wheelchair access to all parts of each room or space within the home.
 12. Avoid level changes on each floor of the dwelling and provide through-floor lift access to all floors.
 13. Provide space within the entrance hall for transferring from an outdoor to an indoor chair (and vice versa).
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14. Include an area for storing and charging the chair while not in use.
 15. Start by preparing a design for the kitchen and bathroom which suits a wheelchair user and, if no user is identified, produce alternative designs (achieved without major changes) to suit general needs occupants.
 16. Provide at least two accessible WCs in homes for 4 or more people.
 17. Ensure plenty of accessible storage (either shallow cupboards with full width doors or wheel-in stores) providing equivalent storage by volume to a mainstream home of the same occupancy but within a height range of 450 - 1500 mm rather than 0 - 2000mm.
 18. Ensure that controls, switches, handles etc are located within reach from a seated position.
 19. Remember that wheelchair users often spend more time within the home and may be more vulnerable to extremes of temperature. Design for maximum fuel and water efficiency and stable, controllable environmental conditions.
 20. Ensure good standards of daylight and natural ventilation with views out from all habitable rooms when seated. Provide excellent, but manageable security to all doors and windows, and secure gates and boundaries to private open spaces.
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4.3.2 People with autism

1.0 Outcome of literature review

Documents reviewed

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|-----|--|
| 001 | A Practical Guide for Registered Social Landlords: Housing and Autism Spectrum Disorder, Glasgow City Council |
| 002 | Living in the Community: Housing Design for Adults with Autism |
| 003 | NAS architects briefing notes general design points |
| 004 | Evaluation of Features specific to an ASD Designed Living Accommodation |
| 005 | A Life in the Community: Supporting adults with autism and other developmental disorders whose needs are challenging |
| 006 | Fulfilling and Rewarding Lives: the strategy for adults with autism in England, Department of Health |

Findings

These publications are each useful in different ways and the national strategy document, 'Fulfilling and Rewarding Lives' (006), is an excellent place to start for those who are less familiar with Autism Spectrum Disorder (ASD). The National Autism Society (NAS) and The Kingwood Trust have huge expertise in this area and should be consulted before embarking on any design project for people with ASD.

The wide range of housing solutions covered by these documents reflects the diversity of this type of disability. For both children and adults with ASD, the best housing solution will depend very largely on the extent and nature of the disability and the support available; there is no single answer. For many, mainstream housing, particularly if designed to the Lifetime Homes standard, will be suitable provided that allocation is carefully considered.

Document 001, the design guide produced by Glasgow City Council (GCC) describes a range of features which would make home life easier and safer for those living within a family situation, in an ordinary home within the community. It is clearly written and while stressing the important needs of this group, adopts a very measured approach to the special design considerations raised and asks for little more than good mainstream practice.

'Living in the Community' (002) is particularly useful for the design of group housing for adults needing more support, and 'Evaluation of Features specific to an ASD Designed Living Accommodation' (004) is helpful in relation to purpose designed residential accommodation for children living outside of a family context or in respite care.

Common themes for all types of accommodation are the need for simple, legible layouts and spaces and storage dedicated to particular functions – all of which promote routine and order and mitigate stress.

2.0 Issues in practice

In practice it is unlikely that individual dwellings would be commissioned specifically for, or by, people with autism. However, the GCC guide would provide a useful basis for assessing the suitability of a new or existing home for a household which includes a child with ASD.

3.0 Pointers for future guidance

Guidance will need to vary to reflect the range of housing solutions which are potentially appropriate for this diverse user group. Mainstream housing will often be suitable if carefully selected to provide the main features recommended by the GCC guide. Simple adaptations and assistive technology should be considered and may obviate the need for more specialised accommodation.

The literature review suggests that supported accommodation should reflect the trend away from large, institutional care facilities towards environments with a more domestic scale and feel. This points to smaller group homes or clusters of individual flats with some shared accommodation; integrated into the community rather than removed from it.

Design considerations

A General housing (mainstream homes within the community)

1. Good overall space standards with good sized rooms.
2. Lifetime Homes an advantage.
3. Simple internal layout where each space has a clear function (i.e. avoid open plan living/kitchen/dining).
4. Plenty of storage (to help maintain an ordered, clutter free environment).
5. Own bedroom for the family member with ASD (unless co-habiting).
6. Good daylight, use of light, neutral colours generally (to control stress through undue sensory stimulation).
7. Good sound-proofing between adjacent dwellings and between adjacent rooms within the dwelling.
8. Robust fixtures, fittings and finishes (to withstand above average wear and tear).
9. Stable and controllable internal environmental conditions.
10. Access to outdoor space; ideally a reasonably sized garden wherever children are involved.

B Supported housing (particularly care homes for children)

1. Small blocks, generally catering for groups of not more than 8 people with similar needs.
 2. Legible internal layout with wide circulation areas and without sharp corners or blind spots.
 3. A range of shared activity spaces – some passive, some active but each with a clear function.
 4. Bedrooms to be larger than usual single rooms (suggest 10m² approx) with en-suite bath or shower rooms (large enough for one-to-one assistance).
 5. Plenty of storage (to help maintain an ordered, clutter free environment).
 6. Good daylight, use of light, neutral colours generally (to control stress through undue sensory stimulation).
 7. Good sound-proofing between rooms, especially between private and shared spaces.
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8. Robust fixtures, fittings and finishes (to withstand above average wear and tear).
 9. Stable and controllable internal environmental conditions.
 10. Access to outdoor space; ideally including a covered area for wet weather use.
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4.3.3 Disabled (people with visual impairment)

1.0 Outcome of literature review

Documents reviewed

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|-----|---|
| 001 | Housing for people with sight loss: a Thomas Pocklington Trust design guide |
| 002 | The Housing and support needs of adults aged 18-55 with impaired vision: A good practice guide (What architects need to know) |
| 003 | Occasional Paper 7: The housing and support needs of people aged 18-55 with sight loss |
| 004 | Housing for people with sight loss: A practical guide to improving existing homes (Good Practice guide 4) |

Findings

In general, relatively few people with sight loss require highly specialised housing unless they have additional needs associated with other forms of disability or ageing. Most live in mainstream housing within the community; often with various forms of support and/or a guide dog. These publications identify features which would improve housing and the external environment more generally for people with sight loss.

As a guide to exemplary practice, '*Housing for people with sight loss*' (001), is difficult to fault. Extremely comprehensive, it includes a large amount of technical detail, illustrated with numerous diagrams. It is offered as a model for an inclusive design approach and, as a result, brings the important question of how far we can reasonably expect all new housing to go towards meeting special needs, into sharp focus. While the concept is laudable, the document recommends general wheelchair access in addition to numerous features which support sight loss. Much of this seems disproportionate and unaffordable as a mainstream approach; though basic safety features such as tactile paving at road crossings are now widely required.

In contrast, document 004 offers very practical suggestions for simple changes to make existing homes safer and more suitable for people with sight loss. Some of these could be incorporated into all new housing (especially homes for rent) and others could be adopted at the design stage in situations where it is known that the future occupants include a family member with sight loss. None are likely to be unacceptable to people with good eyesight.

The safety and security of the external environment is regarded as very important as is good access to public transport and a range of everyday facilities.

2.0 Issues in practice

As with autism, it is unlikely in practice that individual dwellings would be commissioned specifically for, or by, people with sight loss. However, the guidance reviewed (particularly document 004) would provide a useful basis for assessing the suitability of a new or existing home for a person with visual impairment.

3.0 Pointers for future guidance

Future guidance should focus on the importance of location; bearing in mind that few partially sighted people will be car owners. While it will often be possible to improve the internal environment either by incorporating a small number of special design features or by later adaptation, outside of the dwelling curtilage improving safety and security will be very difficult. A home should therefore be a very high priority.

Design considerations

1. Safe neighbourhood with shops, health services and buses within easy walking distance of the home.
 2. Good overall space standards with good sized rooms.
 3. Lifetime Homes an advantage.
 4. Simple internal layout; open plan living/kitchen/dining spaces may well be better especially in households without children.
 5. Plenty of well-lit storage (to help maintain an ordered, clutter-free environment).
 6. Well planned kitchen with continuous worktop in 'C' or 'L' shaped configuration and eye-level oven.
 7. Excellent and even lighting (both natural and artificial) which avoids shadowing.
 8. Appropriate use of colour contrast and tactile surfaces
 9. Stable and controllable internal environmental conditions.
 10. Space for a guide dog and access to an outdoor space suitable for exercise (ideally a secure, manageable garden).
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4.4 Faith-based housing and BME requirements - summary and recommendations

4.4.1 Faith Housing general

1.0 Outcome of literature review

Documents reviewed

001 Accommodating Diversity: housing design in a multi-cultural society

Findings

This document provides an invaluable introduction to the subject of designing for religious and cultural diversity. It deals briefly with a large number of faiths dealing with each in a sensitive but straightforward way.

‘Accommodating Diversity’ reminds us that good mainstream housing in safe and convenient settings with reasonable space standards is very often enough to allow people to adopt the sort of lifestyle which suits their particular circumstances – including their cultural background and religious practices.

2.0 Issues in practice

As with other client groups which fall under the general heading of *additional development criteria*, a bespoke approach to mainstream design is rarely appropriate except in situations where the majority of residents are known to be from a particular ethnic group. In most mainstream situations, sensible allocation of a home which provides enough space and flexibility will be appropriate and ensure that residents are well integrated and that the dwelling remains suitable for future occupants from different cultural backgrounds.

3.0 Pointers for future guidance

Despite some very specific requirements, for Chinese people for example, there are a number of generic design features which would be helpful to people of many backgrounds living in mainstream housing. Black and minority ethnic households are often larger than average and tend to include a wide age range from babies and young children to ageing grandparents. The design considerations outlined for larger families combined with Lifetime Homes would therefore make a good starting point. The additional suggestions for Muslim households (listed below) would not fully address the requirements of other faiths, but there are few families of any ethnicity for whom they would not be helpful.

In group settings such as sheltered or extra care housing for older people, where there are reasonable numbers of residents from a particular ethnic or faith group, it may be appropriate to take a more bespoke approach to the design, or perhaps just the character and furnishing of private and communal areas.

Design considerations ('mainstream' housing within the community)

1. Good general space standards to reflect the likelihood of full occupancy.
 2. Lifetime Homes an advantage to reflect the likelihood that older occupants will be living with a family within an extended family group.
 3. Large kitchen with gas hob/cooker, double sink bowls and plenty of storage.
 4. Flexible bathroom; at least 2.1m in each direction to provide choice about the placement/alignment of sanitary fittings to achieve acceptable orientation.
 5. Wet room with shower very useful; shower head above bath as a minimum.
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4.4.2 Faith housing (Muslim, including Bengali and Somali)

1.0 Outcome of literature review

Documents reviewed

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|-----|---|
| 001 | Network Housing Group Design Guide (BME addendum) |
| 002 | Accommodating Diversity for Karin Housing Association |

Findings

The two main themes across both documents are the need for men and women to socialise separately within the home and for bathrooms and WCs to allow for ritual washing associated with prayer. Document 001 explains that for Muslims and Bengali residents the WC should avoid alignment with Mecca.

2.0 Issues in practice

The need to make special provision for these requirements seems to be less keenly felt by younger people than by older generations. On the whole, requirements could be satisfied by sensitive allocation, rather than by bespoke design.

3.0 Pointers for future guidance

Good mainstream practice which builds in some flexibility, such as that advocated by the Interim London Housing Design Guide (see ref. 001 under 'larger family housing' in this document), would satisfy the religious and cultural requirements of many Muslim households.

Design considerations

1. Good general space standards to reflect the likelihood of full occupancy.
2. Lifetime Homes an advantage to reflect the likelihood that older occupants will be living with a family within an extended family group.
3. Large kitchen with gas hob/cooker, double sink bowls and plenty of storage.
4. Flexible bathroom; at least 2.1m in each direction to provide choice about the placement/alignment of sanitary fittings to achieve acceptable orientation.
5. Wet room with shower very useful; shower head above bath as a minimum.

4.4.3 Faith housing (Orthodox Jewish)

1.0 Outcome of literature review

Documents reviewed

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|-----|--|
| 001 | 2010 summary of AIHA brief, Agudas Israel Housing Association |
| 002 | The Orthodox Jewish Community Housing Needs Study 2008, Salford City Council |

Findings

The two documents found differ in terms of detailed requirements though both mention the significance of the religious festival of Succos (note various spellings). Here, the Salford City Council (SCC) study recommends a separate living room (preferably outdoor) for use only during this week long festival, whereas the AIHA brief suggests a balcony with view of the sky. This difference may be due to the fact that AIHA are based in inner London where flats predominate but note that there is no suggestion from AIHA that year-round use is inappropriate.

Food preparation is also mentioned by each. SCC prefers a separate kitchen for preparation of unleavened food during Passover while AIHA require 2 sinks on opposite sides of the same kitchen to allow meat and milk to be handled separately. SCC make no mention of Sabbath timers, extra wash-hand basins or other AIHA requirements.

2.0 Issues in practice

None encountered.

3.0 Pointers for future guidance

The SCC requirements for an extra kitchen and living room for use only at particular times are unlikely to be viable, except in particular circumstances. The requirements outlined by AIHA could be accommodated fairly easily at relatively little cost and without creating any visible differentiation from mainstream housing.

Design considerations

1. Avoid open plan layouts; provide a kitchen diner and separate living room.
 2. Additional sink to kitchen.
 3. Additional wash-hand basin to each floor of the dwelling (outside of bathroom or WC).
 4. Larger than normal balcony.
 5. Manual over-ride to electric door keeps (generally applies to flats rather than houses).
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4.5 Additional development criteria - summary and recommendations

4.5.1 Larger family housing

1.0 Outcome of literature review

Documents reviewed

- 001 London Housing Design Guide (interim version)
- 002 Higher Density Housing for Families, LHF

Findings

The scoping exercise found no guidance solely dedicated to this topic and there is no formally adopted definition of *larger family housing*. It is, however, generally accepted that family housing refers to homes designed for three or more people, and that larger family housing implies households of five or more people or (somewhat less usefully) homes with three or more bedrooms. A number of documents include additional design recommendations or requirements for family homes of any size and go further for larger households.

The interim London Housing Design Guide provides the most current (and reasonably comprehensive) standards and guidance in relation to larger family housing and draws on established guides such as the NHF's Standards and Quality in Development and the HCA's Housing Quality Indicators (HQIs).

These documents recognise the increased pressures which tend to occur as family size increases. The greater intensity of use results in higher levels of general wear and tear, more demand on bathrooms and WCs and the tensions that arise from the conflicting hobbies and interests of individual family members. These tensions are exacerbated by insufficient internal space, open plan living, shared bedrooms, inadequate private open space, issues related to shared spaces and limited play opportunities. Siblings who are required to share bedrooms often find it particularly difficult to have 'time alone'.

It is widely recognised that these pressures increase even more when density rises to the point where families need to live above ground level and private entrances and gardens are no longer possible. Good practice suggests that homes with private street level access and private rear gardens still provide the best housing solution for families particularly with 5 or more people (5p+), but current guidance recognises that this isn't always possible and seeks to mitigate the pressure on families in these situations - particularly in developments where child density is high and there may be a cumulative impact on the community, not just on individual households.

2.0 Issues in practice

The standards and guidance relating to larger families tend not to be difficult to achieve in practice, but some best practice requirements could imply more space and higher cost than a fixed 'per person' incremental increase would generate. For example, requiring an extra WC for 5p+ homes would result in a greater increase in floor area between 4p and 5p than between 3p and 4p. Similarly, where an extra bedroom is

required as occupancy rises not just an extra bedspace (as in this same example) the increase in floor area is greater.

However, while the rise from 4p to 5p may justify a greater increase in overall floor space, it is important not to overlook the needs of smaller families. In practice, even one child has a significant impact on living patterns and the needs of a household with two children are far more similar to the needs of a household with three children than they are to a couple.

3.0 Pointers for future guidance

Almost all developments include some 5p and larger general needs dwellings which suggests that this should be a mainstream rather than a non-mainstream issue. Effectively, the HQIs already do this because minimum dwelling areas are defined in relation to occupancy and cover homes of 5-7p and larger. HQIs require more furniture for larger family homes, as well as some additional requirements (e.g second WC for 5p+, space for extra kitchen appliances etc). Lifetime Homes, also aimed at mainstream housing, requires a larger WC in houses with three or more bedrooms.

In principle, it seems sensible to include any features which are related solely to increased occupancy within general needs housing in mainstream standards and guidance rather than as a special design consideration. This would allow a more graded approach; making it easier to include requirements for 4p and 6p dwellings where appropriate.

Design considerations (5 person and above unless otherwise noted)

Note: It is recommended that these are included in mainstream guidance.

1. Good overall space standards which reflect the additional spatial requirements of larger families (as outlined in items 2-6 below).
2. Lifetime Homes an advantage.
3. Two separate living spaces; preferably a kitchen/dining room and living space - ideally directly connected.
4. Additional WC for 5p+.
5. Additional bathroom for 6p+ (could be shower facility provided within Lifetime Homes entrance level WC, or ensuite).
6. At least one single bedroom in 5p+
7. Utility space (may be counted towards storage) for 6p+
8. Avoid single aspect homes for 5p+
9. Private open space of at least 8m²
10. Lift access preferred to all upper floor units and essential at 5 storeys and above; two lifts at 8 storeys and above.
11. Not more than 25 dwellings or 100 people per core, unless concierge or secondary security provided.
12. Shared outdoor space for all family dwellings with gardens of less than 8m² (to include informal play opportunities).
13. Outdoor storage space of at least 1m² for all family dwellings above ground level (may be either remote from the home but close to it, or within the home but additional to general storage).
14. Appropriate parking provision (to be locally determined).
15. Appropriate play provision (to be locally determined).

Additional best practice suggestions

1. Provide houses rather than flats wherever possible.
2. Comply with the Lifetime Homes standards.
3. Not more than two double/twin bedrooms in any home.
4. Some 4p dwellings to have three bedrooms.
5. One ground floor bedroom for 6p+.
6. Space for a chest of drawers for every occupant.
7. Group bedrooms away from living spaces with sound proofing between all rooms.
8. Utility space to all family homes.
9. Access to garden via the kitchen/diner or circulation space rather than via the living space.
10. Manage child density per core and per shared space by controlling dwelling numbers and dwelling mix when determining groupings.
11. Exceed the cycle storage provision under Code for Sustainable Homes by providing space for children's bikes too.
12. Provide an equipped shared play space (public or semi-public) for all developments with the potential for twenty or more children.

Note that a number of these suggestions are common to *higher density* developments and *faith housing*.

4.5.2 Higher density housing

1.0 Outcome of literature review

Documents reviewed

| | |
|-----|--|
| 001 | Higher density design for quality and low maintenance: a good practice guide, Northern Ireland Housing Executive |
| 002 | London Housing Design Guide, GLA |
| 003 | Recommendations for Living at Superdensity |
| 004 | Delivering Successful Higher Density Housing – a Toolkit, East Thames |
| 005 | Higher Density Housing for Families, LHF |
| 006 | Better Neighbourhoods: making higher densities work, CABE |
| 007 | Capital Gains: making high density housing work in London, LHF |
| 008 | Perceptions of Privacy and Density in Housing, Design for Homes |

Findings

No consistent definition of higher density was found amongst the reviews with most publications suggesting that design is more important in terms of a satisfactory outcome than density per se, although most agree that many issues become more acute as density rises. There is a consensus that shared spaces are the most critical areas; in particular in the need to set limits for the number of dwellings or users per core and per floor.

Through the PTAL (Public Transport Accessibility Level) index, London specifically links density to the availability of public transport. Accessibility to a range of local facilities and services, including public transport, is recognised as an important factor in all publications, as are the special pressures on families living in flats.

The interim London Housing Design Guide provides the most current standards and guidance in relation to shared spaces, though the guide for the NIHE is more comprehensive on the particular issue of higher density. All publications recognise that low density development is rarely sustainable but caution against repeating the mistakes of the 1960s and 70s.

'Superdensity' (defined as 150 dph or above in the publication 'Recommendations for Living at Superdensity') argues that higher internal space standards are appropriate at very high density.

2.0 Issues in practice

Although experts tend to agree that the number of people sharing a core is a better indicator of intensity of use than the number of dwellings, it is more difficult as a design metric, and in practice will depend on how dwellings are occupied.

Although some RPs are in favour of complete integration by mixed tenure cores, most prefer segregation by core for management reasons but with pepper-potting across the site and a tenure blind approach to design. In large courtyard blocks which often comprise four or more cores, the communal open space in the centre needs particularly careful consideration as it is usually a mixed tenure, multi-purpose space.

Mixed use buildings are particularly complex to design and manage, and often contain no ground level dwellings or amenity space. Access often involves distribution to secondary cores across a first floor podium, and dwellings at this level can be particularly prone to noise and overlooking as the space is used for circulation as well as amenity and usually serves a large number of dwellings, often mixed tenure.

3.0 Pointers for future guidance

Most contemporary suburban and urban developments now include some flats, and densities above 70 dph are commonplace. This suggests that higher density development should be regarded as a mainstream issue. As density measures can be arbitrary or even misleading, it may be more useful to provide guidance for flats in general, with reference to the impact of increasing density, rather than tie guidance to a particular density threshold.

As the majority of guidance relates to the design of shared spaces, this would seem to be an essential sub-heading in future mainstream guidance. Special consideration should be given to the needs of larger families and the additional complexities of mixed use buildings.

Design considerations

Note: It is recommended that these are included in mainstream guidance:

1. Lift access preferred to all upper floor units and essential at 5 storeys and above; two lifts at 8 storeys and above.
2. Not more than 25 dwellings or 100 people per core, unless concierge or secondary security provided.
3. Shared outdoor space for all family dwellings with private open space of less than 8m² (to include informal play opportunities).
4. Outdoor storage space of at least 1m² for all family dwellings above ground level (may be either remote from the home but close to it, or within the home but additional to general storage).
5. Depending on location, proportionately less parking and more cycle storage provision than for low/medium density schemes.

Additional considerations

6. Refer to additional best practice suggestions for larger family homes.
 7. Acknowledge that the sustainability measures likely to be most appropriate in meeting the Code for Sustainable Homes will probably differ from those which are most suitable for low/medium density settings, e.g. CHP, communal boilers more likely to be appropriate whereas solar panels, wood-burning stoves etc are less likely to work for flats. Similarly, Daylighting and Private Open Space credits in the Code may be more difficult to achieve, whereas those for Building Footprint may be easier.
-

4.5.3 Rural housing

1.0 Outcome of literature review

Documents reviewed

001 Rural Housing Economic Viability Toolkit and Stage 1 Report – July 2010

Findings

This document was selected from the list for review because it represents a very current view of the design and cost issues associated with the development of general needs rural housing.

It appears not to suggest that design standards should vary from those for mainstream housing at more typical densities, though they do highlight areas where development costs tend to be higher.

In particular, there are suggestions that compliance with higher levels of the Code for Sustainable Homes may be difficult in rural situations in respect of surface water attenuation, ecology and alternative energy sources and renewable technology where mains gas is not available. There is concern to ensure that rural development is not unfairly penalised, but this is expressed as a need to consider funding uplifts rather than as a need to lower design standards or compliance thresholds.

2.0 Issues in practice

Although not mentioned in the literature reviewed, it is widely felt that the Building for Life standard may be more difficult to achieve on rural sites due to high levels of parking, conservation planning constraints which favour traditional design with little opportunity to innovate. In some cases, such as small infill sites, not all questions apply.

Individual rural sites also vary considerably in terms of existing infrastructure, and this should be acknowledged and addressed appropriately based on the specific site circumstances.

3.0 Pointers for future guidance

No special design standards would appear to be necessary.

4.6 Travellers - summary and recommendations

1.0 Outcome of literature review

Documents reviewed

| | |
|-----|--|
| 001 | Designing Gypsy and Traveller Sites, DCLG |
| 002 | Providing Gypsy and Traveller Sites – Contentious Spaces, JRF |
| 003 | Out in the Open, BSHF |
| 004 | Planning for Gypsy and Traveller Caravan Sites/Travelling Showpeople |

Findings

The DCLG's design guide most succinctly outlines the physical requirements for site provision for travellers, outlining the spaces required for site development. Other factors - such as integration with the established community with which they are to be associated - are considerations which would not necessarily be undertaken for a settled development, but which are essential to ensuring the viability of encampment sites.

2.0 Issues in practice

None encountered by the research team.

3.0 Pointers for future guidance

The family unit for travellers should be assumed to be larger and more flexible than that of the settled community, due to the communal approach to care for the elderly and for children.

A distinct permanent building is required - not a "dwelling" as such - incorporating washing and cooking facilities, as well as a base for visiting health/education workers. The degree to which these would need to be provided would vary according to site type (permanent, transit or temporary).

Clearer diagrams setting out the parameters for design would be useful, both at the scale of the dwelling as well as that of the site; where possible dimensioned. Case studies may give dimensions of how designs have developed in relation to a particular site, but incorporating requirements for maintenance, grazing, spacing, size provision, communal spaces, etc would ensure that a set of best practice principles can be established.

Design considerations

The requirements for permanent structures to support the "dwelling" - usually caravan or other moveable vehicle - mean that space requirements are not directly comparable to other housing design categories. However, in designing these permanent structures, the following should be borne in mind:

1. Guidance as to appropriate locations for use as sites as outlined in the local DPD should be given, to ensure that those which would not be considered for the settled community are the first consideration for travellers.
 2. Travelling Showpeople should be considered in the development of provision for temporary/transit sites.
-

3. Vehicular access is a requirement, not an option.
4. Open space is essential for vehicular maintenance and grazing of animals intrinsic to the lifestyle.
5. Open space for recreation for children - with passive supervision by residents, as well as barrier-free privacy from the surrounding area - needs to be provided.
6. A warden's office is required for permanent sites.
7. Communal rooms for use for private health/education consultations are required.
8. Setting out an ideal ratio of facilities provision (such as standpipes, parking area, recreation space) to the number of pitches proposed would be useful for site design, feasibility and funding.

Additional best practice suggestions

1. Greater separation between aspects of living and those of cooking/washing for travellers.
 2. There is no reason why disabilities should not be accounted for within the provisions, although they are not specifically required at present.
 3. The proximity of local amenities in the surrounding community and the ease with which these could be accessed should be taken into account when determining the proposed location of sites.
 4. Issues of reducing alienation from the surrounding community, as well as ensuring that such activities do not have a detrimental effect on their physical surroundings need to be accounted for.
 5. Measures for emergency sites accommodating a population not accounted for should also be outlined.
 6. Just as for the settled community, the Right to Buy should be taken into account in the provision of permanent sites.
 7. Greater guidance is required during the planning, consultation and procurement processes to ensure that the sites meet the needs of the proposed residents, as well as to reassure the surrounding settled community as to the impact of the proposals to avoid potential conflict.
-

4.7 Existing buildings - summary and recommendations

1.0 Outcome of literature review

Documents reviewed

The number and range of documents reviewed is wide-reaching and overlapping, and there are useful aspects in the majority of them. For that reason, the list of documents has been broken down into categories which relate to their scope. No design guidance documents for the last two categories were found for review; however these have been included below as they relate to HCA funding categories (refer to recommended additional reading for 'existing buildings' in section 3 for some related information for these two categories).

000 Standards

- 001 Decent Homes, DCLG
- 002 Towards a Successor Standard to Decent Homes, GLA
- 003 Beyond Decent Homes, SHAP
- 004 Community Green Deal, URBED

100 Policy and strategy

- 101 Home Truths, Boardman, Environmental Change Institute
- 102 40% House, Environmental Change Institute
- 103 Stock Take, Sustainable Development Commission
- 104 The Future is Local, Sustainable Development Commission

200 Assessment methodology and measurement

- 201 EcoHomesXB, BRE

300 Advice and Guidance

- 301 Fit for the Future - the Green Homes Retrofit Manual, HCA
- 302 Fit for the Future - the Green Homes Retrofit Technical Supplement, HCA
- 303 An Introduction to Low Carbon Domestic Refurbishment, Construction Products Association
- 304 Sustainable refurbishment 2010 edition, Energy Saving Trust
- 305 Your Home in a Changing Climate, Arup for Three Regions Climate Change Group

400 Exemplars and Good Practice

- 401 Sustainability Brief for Refurbishments, British Land
- 402 RELISH – Residents for Low Impact Sustainable Homes
- 403 Greening the box, Wherry HA
- 404 Retrofit Reality, Gentoo Green
- 405 FutureFit, Affinity Sutton
- 406 Retrofit South East, Radian

500 Purchase and repair

Nothing reviewed

600 Temporary housing

Nothing reviewed

Findings

The majority of the documents reviewed in this section focus on the environmental aspects of improvement and refurbishment; reflecting the increasing importance of the low-carbon agenda and the long and short term energy targets that the UK has agreed to meet. It also reflects the fact that existing stock is responsible for most of the carbon emissions in the housing sector. Research and investigation continue at a tremendous rate in this field; though information becomes out of date, superseded by new developments, the political climate changes so that policies and targets have to be revised, and technologies move on and become cheaper as they are more prevalent. We have nonetheless included early documents in our review, as they can contain essential background and useful case studies which inform later work, or they may approach the subject from a slightly different angle, which other studies do not address.

Some of the documents reviewed set out the strategic background to climate change and the need for a sustainable approach to refurbishment, though again information can become quickly superseded. Some are aimed at influencing and changing government policy to meet approaching deadlines for reduction in carbon emissions, although this may be related directly to their own targets and ways of working. For instance, British Land's requirements in "Sustainability Brief for Refurbishments" (ref. 401) are specific to their properties. However we have included this in the review as it provides good templates that may be useful in the preparation of similar project briefs.

Most documents provide case studies as illustrations of the measures proposed or the methodology tested, and some contain only case studies or exemplars. These can be very useful when they reflect the archetypal building forms encountered by the majority of readers and are therefore replicable. However, readers should note that costs go out of date very quickly in this field.

Many case studies undertaken involve high costs, which is inevitable at this stage of development of technology. This limits their replicability, although they offer other learning opportunities, such as testing out new technologies. RELISH is a very interesting study for two reasons: it does not demand a high capital outlay to achieve significant improvements in energy consumption, and it looks specifically at the impact of resident engagement and commitment to changing their behaviour and therefore their energy consumption.

The reference document in this section from the Energy Saving Trust is clear, concise and informative, and focuses on useful recommendations.

Some of the references provided are links to websites. These are likely to be updated regularly and so remain current for longer than any report or manual. "Home Truths" (ref. 101), as an update to the "40% House" (ref. 102), addressing requirements for the 80% house, is densely written with a large amount of information provided, but some policy sections are out of date. However, the website (<http://www.eci.ox.ac.uk/>) of the Environmental Change Institute, which produced "Home Truths", is more up-to-date with recent news and research.

Particularly useful references, often in the form of a simple graphic or summary chart, can be found in some documents:

- **Stock Take (103)** contains a summary analysis of the Approved Documents of the Building Regulations in relation to sustainable development, which includes the potential for incorporating further measures to promote sustainable development (pages 82 - 98).
-

- **The Future is Local (104)**
 - A summary of the experience which galvanised the sustainable neighbourhood approach (page 21).
 - A section on a useful summary of government policy for existing homes from 1974 to 2009 (page 44 onwards).
- **Fit for the Future Manual (301)** contains a table showing the cumulative benefit, expressed as a SAP rating, of implementing measures for a sample property. This table is essential reading (page 103).
- **An Introduction to Low Carbon Domestic Refurbishment (303)**
 - A "family tree" of insulation materials used in buildings, ranging from natural materials to highly processed (page 11).
 - A chart showing the approximate thermal conductivities of the range of insulation materials (also page 11).
 - The impact on residents of improvement measures is displayed on a chart which shows the works possible within each level of disruption, from minimal impact to significant (page 15).
 - This chart is amplified with carbon cost effectiveness and capital cost for each measure (page 16).
 - A diagram and chart of potential air leakage paths (page 44) and a list of other routes (page 45).
- **Sustainable refurbishment (304)** contains a useful chart showing the opportunities or trigger points for considering energy efficiency (page 7).
- **Your Home in a Changing Climate (305)** has a list of adaptation measures and benefits which can be applied to existing homes (page 41).
- **RELISH (402)** has a very useful summary of the lessons learned in their low-cost, high impact case studies (pages 35 - 37).

2.0 Issues in practice

While the majority of documents reviewed deal with broad brush issues, there is an urgent need for a focus on replicability and roll-out of the low-carbon measures under discussion to meet the government's timescales for achieving an 80% reduction in carbon emissions by 2050.

Replicability relates to the application of the techniques and technologies demonstrated in the pilot study to another situation or location and at another time. Expensive case studies may achieve spectacular results, but their approach cannot be applied across all the millions of properties which need upgrading because of the massive financial investment required. Therefore, the need is more for an acknowledgement of reasonable but highly effective interventions such as RELISH to demonstrate what can be achieved, and for those principles to be recommended in the future.

Roll-out of a low-carbon strategy is discussed in Home Truths and Beyond Decent Homes, but these documents advocate and rely on change in government policy and incentives, which is unrealistic within a reasonable timeframe. It is therefore necessary to identify a realistic roll-out methodology, building on the best and most cost-effective exemplars which have been developed to date.

Refurbishment which includes an aspect of remodelling or conversion should address space and layout. This is important, particularly as remodelling provides an opportunity to address previously inadequate or out-of-date space standards. Linked to that is the opportunity to make buildings more accessible, perhaps in line with Lifetime Homes criteria. This will not always be possible, particularly in relation to some aspects of the

Lifetime Homes requirements (such as the difficulty of inserting through-floor lifts into a concrete frame building), but a simple wish-list or priority list would be of assistance.

A final point relates to the considerations about working in occupied buildings, and the inevitable disruption to residents. It is unrealistic to decant millions of people in order that major works can be carried out to their homes. However, living in a home while all the internal walls are dry-lined is very difficult, and few will tolerate it easily. This is the time to develop some creative thinking about ways to make this process bearable, or even pleasurable, possibly including holiday vouchers for residents or agreements with holiday camps to provide out-of-season respite accommodation.

3.0 Pointers for future guidance

Energy hierarchy

The majority of the existing housing stock is not constructed to minimise leakage of heat and carbon emissions. It therefore makes sense to address the shortcomings of the building fabric before considering expensive new technologies, as their impact is reduced by the inefficiency of the building they serve. It would therefore be useful if an energy hierarchy were covered in future guidance for existing homes:

1. address the fabric of the building first, to make it as energy-efficient as possible,
2. then look at energy-efficient and energy conserving heating systems,
3. and only then consider renewable energy technologies.

This energy hierarchy is described more succinctly in the Interim London Housing Design Guide (see Higher Density Housing, ref. 002 in this document) as:

1. Be lean - with energy efficient design
2. Be clean - decentralised heat and cooling systems
3. Be green - with low and zero carbon technologies

A further example is Fit for the Future, which mentions a 2-stage hierarchy of fabric improvements before micro-generation.

The application of this hierarchy to refurbishment projects would ensure that the most basic requirements of reducing carbon emissions and efficient heating are addressed before the application of more expensive and esoteric interventions.

Guidance on fabric improvements

The existing guidance reviewed in this section is good at addressing a whole range of useful and often essential interventions which improve the performance of the dwelling. These include:

Energy efficient design

- Draught-proofing doors and windows
 - Filling gaps around pipes and ducts, and fitting balloons in chimneys
 - Insulation of floors, walls and roofs
 - Cavity wall insulation
 - Double-glazing
 - Heat recovery and/or passive stack ventilation systems
 - Energy efficient condensing boilers
 - Thermostatic radiator valve and zoned heating controls
 - Low flow taps and dual flush WCs
 - Smart meters to provide feedback to residents
-

However, there are some aspects of fabric improvements which are difficult to implement in existing buildings, for which guidance would be useful, but very little exists. Aspects where further guidance is needed include:

- Avoiding interstitial condensation with dry-lining
- Central heating efficiency
- Methods for dealing with thermal bridging
- How to insulate solid floors
- The problem of insufficient space around a door for external wall insulation
- Ideal location of radiators, and the use of reflective panels
- Plastering details in kitchens and bathrooms.
- Ways of minimising the percentage of floor space lost in dry-lining (currently Approved Document L1B accepts no more than 5% reduction in floor area).

There are other issues in refurbishment and remodelling of existing buildings which would also benefit from further consideration. These include:

1. Sound-proofing, which beyond Building Regulations should touch on the issues of locating habitable rooms away from lifts, communal spaces, refuse areas, etc in remodelled properties, and minimum (increased) standards for refurbishment.
2. Ways of providing adequate, robust drying space in flats.
3. Adaptation of existing homes to allow for the changing needs of occupants, such as provision of a wet-room and preparation of walls for grab rails in a bathroom.
4. Opportunities for future-proofing, such as:
 - Preparing the way for future dry-lining when double glazing is installed
 - Taking the opportunity of installing solar thermal photovoltaic panels whenever possible, especially if scaffolding is being used for other purposes.
 - When a hot water cylinder is being replaced, specify a twin coil cylinder ready for later installation of solar water heating.
 - Extending eaves when roof works are carried out, in anticipation of the depth of future external insulated cladding.

Design considerations

1. Good space and layout standards to be applied to all remodelled buildings.
 2. Lifetime Homes is an advantage where possible.
 3. Adopt an energy hierarchy.
 4. Involve residents in learning about and controlling their internal environments.
 5. Minimum targets for EcoHomes XB ratings for all refurbishment works, on a graduated scale over time (like the Code for Sustainable Homes).
 6. Application of Secured by Design principles and requirements as far as possible.
-

Specific measures

7. Good sound proofing between occupancies as well as externally.
8. Wet rooms with showers, rather than bathrooms, for future flexibility.
9. Under-floor insulation.
10. Location of radiators and the use of reflective panels.
11. Water-efficient taps and WCs.
12. Drying space which works (not flimsy lines over a bath), and clothes line fixings in gardens.
13. Solar thermal and photovoltaics to be installed whenever scaffolding is provided.
14. Heat exchangers and passive stack ventilation.
15. Thermal insulation in roofs, walls and floors.
16. Acoustic insulation between rooms and occupancies.
17. Zoned heating controls, and thermostatic radiator valves.
18. Tadpoles (or similar) fitted to central heating systems for energy efficiency.
19. Low energy light bulbs.
20. Supply or recommend low-energy domestic equipment, like cookers, fridges and washing machines
21. Double glazing, with low-e glass where possible.
22. Consider the lifetime costs and recycling issues around window material choices
23. Draft excluders to doors and windows, and blocking chimneys.
24. Enclosed porches for draft reduction.
25. Heat exchanger for ventilation.
26. Rainwater butts and grey-water recycling.
27. Provide all data connection points and sockets required to encourage home working.
28. Covered bicycle storage locations, with locking points.

Additional best practice suggestions

29. Provide a hierarchy of actions which need to be considered in order to assist in future-proofing homes when major works may be delayed or phased.
 30. Establish a set of good, robust details for addressing difficult but common situations, like junctions, corners, openings, thermal bridging, solid floors, etc.
 31. Consider wind power and ground source heat pumps where possible.
 32. Instruction manuals and training on the running of the refurbished home.
 33. Smart meters which provide feedback on resident behaviour.
-

5.0 Individual literature reviews

5.1 Housing for Older People - literature reviews

| | | | | | |
|--|---|--------------------------|--|---------------------|-----|
| Category: | Supported housing | Sub-group: | Older people | Our ref. no. | 001 |
| Title: | HAPPI Housing our Ageing Population: Panel for Innovation | | | | |
| Author: | Pollard Thomas Edwards architects and Levitt Bernstein | Commissioned by: | HCA on behalf of Dept. for Communities and Local Government (DCLG) and Dept. of Health (DoH) | | |
| Status: | Good practice guidance | Applicability: | Older people generally but especially care-ready retirement homes for independent living | | |
| Format: | Web-based pdf | Publication date: | December 2009 | | |
| Where to find it: | www.homesandcommunities.co.uk/ourwork/happi | Who to contact: | Authors / Kevin McGeough, HCA | | |
| Overview: | <p>Commissioned as part of previous government commitment to Lifetime Homes, Lifetime Neighbourhoods: a National Strategy for Housing in an Ageing Society. Represents the views of 12 expert panel members and their chair, Lord Richard Best. A broad look at the range of issues facing older people but a particular focus on the role of design in improving housing quality as a means by which to improve quality of later life.</p> <p>Draws on best practice models of various housing types (as well as nursing care homes and hospices) in the UK and across western Europe. These were visited by the panel and feature as case studies in the report. Doesn't deal with different types of housing for older people in any detail but makes 12 general design recommendations for a new model of retirement housing. Suggests actions for government and a range of authorities and organisations including private and public sector providers.</p> | | | | |
| Overall rating: | 6/10 general design recommendations | | | | |
| Relevance to other non-mainstream categories: | Potential overlaps with wheelchair housing | | | | |

Key features and recommendations:

The report concludes that there is not enough housing in the UK which meets either the practical needs of older people (particularly those who wish to live independently) or is

attractive enough and located in places which would draw older people from their current homes; many of which are not conducive to the effects of ageing.

It provides 10 fairly general design recommendations for the design of housing for older people. Most could apply equally to the design of mainstream housing but it is implied that standards for space, light, ventilation, private outside space and accessibility should exceed the norms of current mainstream provision.

The recommendations also include the need for some form of communal space which could range from a shared kitchen to large community hub with catering and/or leisure facilities open to the wider community. No specific building typologies are proposed although access galleries are considered preferable to more institutional double-loaded corridor arrangements. Homes should be 'care ready', make appropriate use of technology and fully wheelchair accessible and adaptable; by implication exceeding the Lifetime Homes requirements.

Location is a key feature with proximity to public transport, shops and community, health and leisure facilities all felt to be vitally important. Accessibility and inclusive design principles are essential and cross tenure development is promoted.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | | 4 |
| Space | No space standards given but implies that homes for older people need to be larger (1) | |
| Functionality | Potential for 3 habitable rooms and designed to accommodate flexible layouts (1) Adequate internal and external storage with provision for cycles and mobility aids (9) | |
| Accessibility | Care-ready and adaptable (to full wheelchair use) (4) | |
| Amenity | Building layouts to maximise natural light and ventilation to homes (avoid single aspect) (3) Careful placement of windows (2) Generous private balconies, patios or terraces (3) | |
| Shared spaces | | 4/5 |
| Cores and circulation areas | Internal corridors and single aspect flats to be avoided in favour of deck access or clusters of dual aspect flats promoting natural surveillance and defensible space. Natural light and ventilation to circulation areas. (2) Building layouts/shared spaces to encourage engagement with the wider community and avoid an institutional feel. (5) (Lift access essential). | |
| Activity areas | Some form of multi-purpose space – taking into account facilities in the wider area and considering the potential to serve the wider community. (6) | |
| Outdoor spaces | Shared outdoor space encouraged but not one of the 10 recommendations | |
| Public realm | | 3/5 |
| Streetscape | Pedestrian priority, shared surface home-zones treatment encouraged (10) Homes to engage positively with the street (7) | |
| Public open | Natural environment to be nurtured through new tree and | |

| | | |
|---------------------------------------|--|------------|
| space | shrub planting; protecting existing planting and wildlife habitats (7) | |
| Public transport/ local facilities | Accessible locations encouraged but not one of the 10 recommendations | |
| Sustainability | | 3/5 |
| Energy | Homes to be energy efficient and well insulated, but well ventilated and designed to avoid over-heating (e.g. consider external blinds and shutters, green roofs, ground source heat pumps etc (8) | |
| Water | - | |
| Health / well-being | Heavy emphasis throughout | |
| Other | - | |

(Note: figures in brackets refer to the 10 design recommendations in the report)

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|--|
| Lifetime Homes | yes | Expectation that all homes would exceed LTH |
| Secured by Design | yes | |
| Building for Life | no | |
| Code for Sustainable Homes | yes | No, but suggestion that Code should be extended/revised to include older persons housing |
| Others | | |

| | | | | | |
|------------------|--------------------------|-------------------|------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 002 |
|------------------|--------------------------|-------------------|------------|---------------------|-----|

Title: Design Principles for Extra Care - Factsheet No.6

| | | | |
|--------------------------|--|--------------------------|---|
| Author: | PRP Architects | Commissioned by: | Department of Health - Housing Learning and Improvement Network |
| Status: | Design Guide | Applicability: | Older people / Extra Care |
| Format: | Web-based pdf | Publication date: | February 2008 (2 nd edition) |
| Where to find it: | www.housinglin.org.uk | Who to contact: | PRP / Housing LIN |

Overview: Department of Health required for funding

New edition of Factsheet No6 (February 2008) describes key design principles and issues to consider when designing and developing a brief for a new Extra Care scheme. Case studies illustrate the variety of models that this concept of housing takes and show ways of developing a range of different sites.

The Factsheet signposts to the latest information on Building Regulations and standards, such as the HCA's (previously Housing Corporation) 'Design and Quality Standards' and the 'Wheelchair Housing Design Guide', and showcases industry-accepted good practice examples. To be most up to date it would need to make reference to the HAPPI report, the need to consider more mixed tenure and the latest changes to the Building Regulations and Code for Sustainable Homes requirements.

Overall rating: 8/10

Relevance to other non-mainstream categories: Some overlap with wheelchair standards

Key features and recommendations:

The Design Guidance is broken down into 12 sections with appendices. The objective is to set down the key criteria and briefing issues and then take the reader through the application of these along with specific detailed design issues. There is a useful schedule of accommodation which sets out spaces to consider with suggested floor areas. The Appendices show real schemes that incorporate the principles set out in the guide.

The sections within the design guide are summarised as follows:

1. Design Principles and Aims - a bullet point list of what Extra Care aims to provide
 2. Design Criteria - deals with the typical impairments suffered by residents and considers staff and visitors as important users of the building
-

3. The Brief - Key Issues to Consider, this covers issues about scale, tenure, location, care provision and community uses
4. Planning Issues - references issues about use class and the importance of working with all local authority departments to cover issues such as 'need'
5. Design Concept and Layout Considerations - considers spatial relationships within the building, grouping of homes, circulation and the concept of progressive privacy
6. Dementia Care - briefly sets out design principles for short term memory loss to enable orientation, reduce frustration and create a more legible and pleasant environment for the residents
7. Interior Design - highlights the importance of this as a service that should be undertaken properly in all schemes with communal spaces
8. Landscaping - Sets out the key issues to consider when designing communal gardens whilst bringing interest and variety for the individual
9. Sustainable Design - sets out the policy and requirements relating to extra care
10. Key Design and Specification Issues - a basic 'must have' list of features and items that should be specified in all extra care e.g. at least one stretcher lift and 'free swing' fire door closers
11. Schedule of Accommodation - a list of spaces that should be considered along with suggested floor areas (this is based on a 40 unit scheme)
12. List of Relevant Design Standards and Guidance Documents

Appendices:

- 8 Case Studies showing a range of Extra Care schemes in different locations and scale showing a rural scheme of 32 units to a Village of 326 units
- Typical Flat Plans - 1 bed flat and 2 bed flat giving minimum areas

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|---|--------------|
| The Home | Domestic in scale and appearance where possible | |
| Space | Minimum flat sizes given 54m ² one bed, 68m ² two bed. Typical schedule of accommodation with areas given for guidance | 4/5 |
| Functionality | | |
| Accessibility | Full wheelchair accessibility plus adaptable to full wheelchair use | |
| Amenity | Essential to provide shared communal garden space that offers views from within the building and the potential to extend internal activities to the outside. Natural light is required where there is a change in level and where corridors become lengthy. | |
| Shared spaces | Suggested list of communal spaces is provided in the schedule of accommodation | |
| Cores and circulation areas | Natural light and ventilation to circulation areas, to be interesting, at least one stretcher size lift, progressive privacy | |
| Activity areas | Suggested list of communal spaces is provided in the schedule of accommodation | |
| Outdoor spaces | Communal gardens are essential, including private terraces for ground floor residents | |

| | | |
|---------------------------------------|--|--|
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport/ local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | yes | these standards exceed LTH |
| Secured by Design | yes | yes |
| Building for Life | yes | no |
| Code for Sustainable Homes | yes | no |
| Others | | |

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|--|--|--------------------------|--|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 003 |
| Title: | Homes for our old age - Independent living by design | | | | |
| Author: | Steve Ongeri | Commissioned by: | Department of Health - Housing Learning and Improvement Network / CABE | | |
| Status: | Design guidance | Applicability: | Older people and those with physical and learning disabilities | | |
| Format: | Web-based pdf | Publication date: | 2009 | | |
| Where to find it: | www.housinglin.org.uk | Who to contact: | Housing LIN or Design Council-CABE | | |
| Overview: | <p>The guidance takes the form of lessons elicited from 10 'good practice' case studies that cover a wide range of housing typologies for older people and those with learning and physical disabilities. Although the study title suggests housing for older people, the case studies cast a wider net to include housing for people with disabilities and cognitive impairment. The projects featured include both new build, remodelling existing buildings and aids and adaptations to existing housing. The study appears conflicted in terms of its target readership. Whilst quite design-orientated in terms of its scheme selection and imagery, it does not include any drawings which would be a key element in terms of its value to designers and only draws very broad conclusions. However, its primary benefit might be in terms of raising the profile of housing for older people.</p> | | | | |
| Overall rating: | 6/10 | | | | |
| Relevance to other non-mainstream categories: | It highlights the importance of community integration for other non-mainstream categories such as homes for people with physical disabilities. Good example of housing for people with dementia. | | | | |

Key features and recommendations:

Conclusions:

- In designing for older people we should be designing people's homes rather than care settings
- Those commissioning and designing in this sector must be aware of the needs of older people and the issues that are particular to the sector

- Design and layouts need to be flexible to accommodate changing care and support needs
 - Independence and quality of life rely on good design, management and services
 - Existing and new homes need to be future-proofed to enable people to remain in their own homes
 - Housing for older people and other special needs groups must be integrated into the community to enable people to engage socially whilst offering security and privacy at the same time
 - There should be more direct engagement/consultation between providers and designs and prospective residents both during the design development process and after occupation. Residents should also be actively engaged in the management of their housing where possible.
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|--|---|--------------------------|---|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 004 |
| Title: | Older Persons' Housing Design: A European Good Practice Guide | | | | |
| Author: | Welhops European Working Group under European Project Interreg III C | Commissioned by: | Karlskrona University (Sweden); Brighton & Hove City Council (UK); FAMCP, Aragonese Fed. (Spain); Municipality of Győr (Hungary); ERVET, Emilia (Italy) | | |
| Status: | Design Guidance | Applicability: | All Housing for Older People: for commissioners and designers | | |
| Format: | Web-based pdf | Publication date: | 2007 | | |
| Where to find it: | www.brighton-hove.gov.uk | Who to contact: | housing.strategy@brighton-hove.gov.uk | | |
| Overview: | This is a very useful design guidance document, in the form of a checklist with accompanying illustrations, to illustrate good practice in 'inclusive design' for an enabling environment for older people and those with special needs. The guidance is clearly set out in an accessible, jargon free format in four sections: The Home (Indispensable Needs & Complimentary Needs), Common Areas of the Building, Grounds outside the Building and Urban Context. The guidance could be regarded as an extension of the Lifetime Homes and Lifetime Neighbourhoods strategy in providing detailed guidance for commissioners and designers. | | | | |
| Overall rating: | 10/10 | | | | |
| Relevance to other non-mainstream categories: | Relevant to all housing in promoting 'inclusive' design with a checklist of detailed considerations | | | | |

Key features and recommendations:

The design checklist covers all aspects of accessibility and functionality within the home, the communal/circulation areas and beyond the home to amenity areas and the surrounding neighbourhood taking into account the needs of those with physical, sensory and cognitive impairment. It does not make specific recommendations in terms of space but refers to the need for adequacy of space relative to the needs of the residents in relation to accessibility, storage, furnishing, etc.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-------------------------------------|--|--------------|
| The Home | | |
| Space | Broad recommendations relative to need | |
| Functionality | All aspects covered in detail within the checklist | 5 |
| Accessibility | All aspects covered in detail within the checklist | 5 |
| Amenity | Recommendations included for balconies and terraces for outdoor living and gardening | 4 |
| Shared spaces | | |
| Cores and circulation areas | Design checklist included for all aspects of internal circulation in terms of accessibility and functionality | 5 |
| Activity areas | Broad guidance on communal areas and activity spaces | 3 |
| Outdoor spaces | Design checklist included to cover soft and hard landscape design, accessibility for mobility vehicles, outdoor living, refuse storage & collection etc. | 4 |
| Public realm | | |
| Streetscape | Design checklist included for accessibility, street furniture, homezones etc. | 4 |
| Public open space | | |
| Public transport / local facilities | Checklist included in terms of proximity to facilities and transport | 4 |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|--|---------------------|
| Lifetime Homes | Yes | No |
| Secured by Design | No | No |
| Building for Life | No | No |
| Code for Sustainable Homes | No | No |
| Others | | |
| | <ul style="list-style-type: none"> • Wheelchair Housing Design Guide • Inclusive Mobility • Sign Design Guide • Building Sight • BS8300, 2001 | |

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|------------------|--------------------------|-------------------|------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 005 |
|------------------|--------------------------|-------------------|------------|---------------------|-----|

Title: Very Sheltered Housing in Suffolk:
A Design and Management Guide

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|--------------------------|--|--------------------------|--|
| Author: | Written by a multi-agency group at Suffolk Council. Reviewed and revised by Judith Hawkshaw & Martin Bedwell with support from the Housing LIN | Commissioned by: | Suffolk County Council |
| Status: | Design Guide | Applicability: | Older people |
| Format: | Published & web-based pdf | Publication date: | April 2008 |
| Where to find it: | www.housinglin.org.uk | Who to contact: | Suffolk County Council and Housing LIN |

Overview: This guide describes the design and development of very sheltered housing and provides details of how the service is managed. The guide is 166 pages in length with 12 pages specifically dealing with design issues with the bulk of the document dealing with the management side of things. The appendices make up half the document. It is an excellent example of a Local Authority guide outlining their exact requirements for the built environment through to how it is run and how the residents can take part.

This well established guide has been in existence for over ten years and has been constantly reviewed and updated by Suffolk County Council to ensure the lessons learnt from project to project are encapsulated and that schemes respond to changes in good practice or legislation.

There are other 'bolt on' guides to this main document covering older people with dementia and older people with functional mental ill-health (reviewed separately).

Overall rating: 6/10

Relevance to other non-mainstream categories:

Key features and recommendations:

The Guide takes as its starting point the beginning of the design and development process. It assumes that such matters as the identification of need and the provision of adequate capital and revenue funding have already been fully investigated and resolved. It sets out who the key players are and their roles and makes a strong emphasis on the need to involve a Care and Support provider at the earliest point.

Within the 'design guide' section the aims of very sheltered housing are set out clearly along with the policy criteria such as individual budgets. The guide also states that there will be situations where people's needs will not be met by very sheltered housing such as long term health problems requiring 24 hour nursing care or where changes in behaviour cannot be mitigated by reasonable management actions.

The section on Design Criteria begins by stating that 'An overriding commitment through the design of VSH is to maximise people's mental health and well being. This will affect the design which must include flooding the building with natural light. This is critical for residents and staff alike.'

Specific requirements for all the key areas are given in the brief:

- The Site - easily accessible, able to attract staff, near to services and transport. A suggestion in terms of land take for 50 flats over three stories would be 1.25 - 1.5 acres. Schemes below 30 flats are considered to give higher revenue costs.
- Parking required to be 1 space per 3 bedrooms (not flats) + 1 space per member of staff on duty
- It is noted that refuse stores are never big enough
- Gardens - landscaping to be imaginative and seasonal with footpaths that provide continuous loops, every ground floor flat to have patio doors, balconies with space for plant pots and small table and chairs for upper floor flats.
- All flats will have a minimum of 2 bedrooms
- Two bed flats (2 or 3 persons) to be 60-70sq.m. All main bedrooms to be a minimum of 13sq.m, second bedroom can be 10sq.m (3 examples of flat layouts are shown)
- All schemes to be built for full wheelchair access throughout
- There is a ground floor example plan of a scheme in Suffolk with some photographs to reinforce the messages in the text.
- Widths of hallways and doors must be ACE standards and be light, airy and interesting
- Detailed design features such as handrails design, locations of sockets etc are covered
- Each of the required communal rooms are described with particular spatial requirements and features
- The flats are also described in detail with specific features such as the '2 door viewers' to the front door and setting the worktop heights at 850mm from the floor.
- Other sections include: Electrics, Heating and Hot Water, Energy saving, sustainable requirements, ironmongery etc. and finally requirements for the handover of the building.

The management guidance that follows deals with a broad range of issues such as allocations, inductions, staff management issues, record keeping, recruitment, housing management, models of support and personal care, services to the wider community, health priorities and social activities. The appendices include sample documents such as proformas, letters, and job descriptions.

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|------------------|--------------------------|-------------------|------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 006 |
|------------------|--------------------------|-------------------|------------|---------------------|-----|

Title: The Suffolk Extra Care/Dementia Design and Management Guide

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Written by a multi-agency group at Suffolk Council. Reviewed and revised by Judith Hawkshaw & Martin Bedwell with support from Housing LIN | Commissioned by: | Suffolk County Council |
| Status: | Design Guide | Applicability: | Older people |
| Format: | Published & web-based pdf | Publication date: | March 2009 |
| Where to find it: | www.housinglin.org.uk | Who to contact: | Suffolk County Council and Housing LIN |

Overview: This is a further 'bolt-on' guide to the 'Very Sheltered Housing in Suffolk: A Design and Management Guide, 2008' (Extra Care ref. 005 in this literature review). It details the additional design criteria, social activities, care and support services to be provided in Very Sheltered Housing schemes offering accommodation to older people living with dementia. The guide is 21 pages in length and in the main covers aspects of management and personal care; however there are some design based conclusions that Suffolk have drawn from their own experience and that of other specialist design guidance

Overall rating: 6/10

Relevance to other non-mainstream categories:

Key features and recommendations:

The specific guidance on designing for dementia within this guide is quite limited and makes strong reference back to the work carried out by Mary Marshall et al in 'Design for Dementia', published by the Journal of Dementia Care 1998. There is a list that summarises what Suffolk considers to be the most successful design features as follows:

- Small number of flats grouped together (Suffolk works on basis of a maximum of 8 flats grouped within a scheme);
 - Familiar, domestic, homely design;
 - Plenty of scope for ordinary activities (unit kitchens, washing lines, garden sheds);
 - Unobtrusive concern for peoples safety;
 - Different rooms for different functions located within the group of flats (a minimum of 2 is needed);
-

- Furniture and fittings that reflect the needs and aspirations of the resident group;
- Safe outside space;
- Personal space big enough for lots of personal belongings;
- Good signage and multiple cues where possible (e.g. sign, smell and sound);
- Use of objects, colour orientation, and other visual clues;
- Enhancement of visual access;
- Controlled stimuli especially noise (especially in bathrooms);
- Wandering loops (internally and externally).

Three factors are highlighted as presenting a challenge for implementing these design principles which include: cost due to small group sizes, regulations in particular those relating to fire and finally cultural appropriateness.

There is a useful section on Assistive Technology which highlights where this technology can be helpful in assisting disabled people to function at their optimum whilst taking into consideration the ethical considerations. Specific guidance is given for the assisting with the following:

- Danger from fire
- Danger from falls
- Danger from getting lost
- Damage to self, others or property

Sections within the guide cover the following areas:

- Guiding Principles
- Providing Personal Care and Support
- Medication
- Staffing
- Improvement and Maintenance of Quality of Life
- Involvement with Local Community
- Building and Design for People Living with Dementia in Extra Care Very Sheltered Housing
- Assistive Technology
- Appendices include: Best practice information, risk assessment, role of old age psychiatry services in supporting very sheltered housing, medication record chart

The guide states that 'Very Sheltered Housing is not Residential Care. Commissioners and providers need constantly to focus on principles of Supported Housing, how care and support come together and how to promote the culture of supporting people in their own home....Each resident will be respected as a unique individual, with recognition being given to his/her particular intellectual, physical, psychological, social, emotional, cultural and spiritual needs.'

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| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 007 |
|------------------|--------------------------|-------------------|------------|---------------------|-----|

Title: Homes for the Third Age - A design guide for extra care sheltered housing

| | | | |
|--------------------------|---|--------------------------|---|
| Author: | David Robson, Anne-Marie Nicholson & Neil Barker (University of Brighton) | Commissioned by: | Housing Corporation and Hanover Housing Association |
| Status: | Design guide | Applicability: | Older people |
| Format: | Published book | Publication date: | 1997 |
| Where to find it: | Out of print – available from British Library ISBN: 041923120X | Who to contact: | Hanover Housing Association |

Overview: This is a comprehensive design guide which is now some 13 years old but remains excellent background reading for those interested in the design of environments for older people. The guide deals well with the context in terms of historical precedent, current thinking and new models of housing that are still being developed today. Space standards are no longer relevant as they are smaller than generally recognised good practice of today, but the principles are the same as are the design criteria which are set out well. Clear diagrams, photos and sketches have been carefully chosen to illustrate the points made in all the chapters. There is a lot of text, which in parts is discursive and deals with philosophical issues but there are also clear checklists and bullet points when the information is more factual. The guide was based on 9 months of intensive research by the University of Brighton authors and visits to over 60 sheltered housing schemes throughout the UK.

Overall rating: 8/10

Relevance to other non-mainstream categories:

Key features and recommendations:

The design guide is set out with the following chapter headings:

Chapter 1 Background

This chapter sets out the historical background of housing older people and the options available (with all their shortcomings) and the 'new' concept of Extra Care Sheltered Housing. The effects of ageing both physically, emotionally and socially are dealt with along with the demographic time-bomb of our ageing population.

Chapter 2 Design Criteria

This chapter deals with the following questions: 'in what ways are older people different from the rest of the population, what are the effects of impairments on the built environment, what are their social needs, what particular anthropometric and ergonomic characteristics do they display and what are their environmental requirements? There are clear and comprehensive design recommendations.

Chapter 3 Planning

Contains information and advice about the procurement of a project from the outset; who the key players are, what the criteria for site selection might be and what will determine the overall form of a scheme and its brief. There are sections on site layout, landscape design, cost planning and a subjective view of what constitutes good design...a debate which is welcome.

Chapter 4 Detailed Design

This chapter deals with each of the key spaces within a dwelling and within the communal areas. There are checklists, diagrams, photos and commentary for each area. Most of the guidance is still relevant except for the space standards as noted previously. Further detail is included on doors, windows and balconies and circulation areas.

Chapter 5 Environmental Design

Whilst this section is out of date in terms of current legislation there are some interesting observations made about building form and criteria relating to an older resident group. There is a detailed section on lighting, acoustic issues, fire safety and smart technology. Mobility aids and lifting equipment have their own section, this subject is often misunderstood and the authors were keen that the reader was given an insight into the requirements.

Chapter 6 Generic Design

This section is not about specific issues but seeks to bring together the design thinking of the earlier detailed design chapter to illustrate different models of building form. There are examples of floor plans and site layouts but some of the thinking has moved on.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|---------------------------------------|--------------|
| The Home | | |
| Space | Minimum dimensions and activity areas | |
| Functionality | Key criteria and checklists included | |
| Accessibility | Wheelchair accessibility | |
| Amenity | Balconies to flats | |
| Shared spaces | | |
| Cores and circulation areas | Detailed section dealing with this | |
| Activity areas | Detailed section dealing with this | |
| Outdoor spaces | Landscape design section | |

| | | |
|-------------------------------------|--|--|
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport / local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| Others | | |

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| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 008 |
|------------------|--------------------------|-------------------|------------|---------------------|-----|

Title: Design Guide for the Development of New Build Accommodation for Older People

| | | | |
|--------------------------|---|--------------------------|-------------------------------|
| Author: | PRP Architects | Commissioned by: | The Abbeyfield Society |
| Status: | Design guide | Applicability: | Older people |
| Format: | Published | Publication date: | 2001 |
| Where to find it: | Out of print – available from British Library ISBN: 1872380468 | Who to contact: | Abbeyfield UK |

Overview: This Design Guide was commissioned by The Abbeyfield Society specifically to provide advice for what were, in 2001, local and autonomous Abbeyfield Societies seeking to build new housing for older people. The guidance sought to embrace the guidance and standards set out by English, Welsh, Scottish and Northern Ireland governments in terms of housing for older people. The guide begins by setting out the context within which it was written, then moves onto project planning, briefing and design issues. The largest section deals with design in an elemental way, presenting a kit of parts with a large number of dimensioned technical drawings and additional sketch drawings to illustrate design solutions for the basic spaces found within housing for older people. A technical section deals with fire safety, services, environmental issues, smart systems and IT. There are no case studies as the guide seeks to set out the issues rather than the final product which it states should be a bespoke solution. It is a thorough design guide and one which is still relevant today. However, space standards are no longer relevant as they are smaller than generally recognised current good practice.

Overall rating: 8/10

Relevance to other non-mainstream categories:

Key features and recommendations:

The detailed design guidance is backed up by key aspirations such as good client involvement, high quality accommodation and services, higher space standards, domesticity, flexibility and adaptability, good location, mixed tenure and involvement with the local community. These are all highly relevant aspirations today. The sections within the design guide are summarised as follows:

1.0 The Context

New vistas for Abbeyfield, current trends and policy

2.0 Project Planning

This section deals with the site, developing the brief, consultation, establishing a project team and the procurement process

3.0 Elemental Design

Design Principles

- Component parts of a dwelling - entrance, hallway, kitchen, lounge, bedroom, bathroom
- The dwelling analysed - various arrangements for one and two bedroom flat plans
- Configurations and economic planning
- Communal accommodation - lounges, activity room, tea point, dining facilities, cluster kitchens, assisted bathroom, WCs, hairdressing/treatment room, laundry, guest room, smoking room, staff facilities, circulation areas, main entrance and reception area, service areas
- Community facilities - resource for the local community, providing respite and intermediate care
- Landscape

4.0 General design and good practice

- Sustainable design - taking a holistic approach, exploiting the site, energy use, water conservation, waste, choosing materials, health, evaluation and life cycle analysis
- Fire safety - regulations, requirements, safety measures, means of escape, relevant guidance
- Services and environmental issues - heating systems, ventilation, power and communication, water supply, lighting, acoustics,
- Smart systems

Appendices (note statutory guidelines and legislation may be out of date as this guide was published in 2001):

- New Vistas for Abbeyfield
- Statutory guidelines and minimum requirements
- Relevant legislation
- Further reading and reference documents

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | | |
| Space | Most drawings have dimensions, schedule of furniture with movement zones for wheelchairs shown. Areas of the illustrated flat plans are shown. Typical schedule of accommodation with areas given for guidance | |
| Functionality | | |
| Accessibility | Full wheelchair accessibility plus adaptable to full wheelchair use | |
| Amenity | No mention within section for dwellings | |
| Shared spaces | | |
| Cores and circulation areas | Stairs, corridors, lifts each have their own section | |
| Activity areas | There are a selection of suggested spaces that are looked at in detail | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-------------------------------------|---|--------------|
| Outdoor spaces | A full section on landscaped areas for communal use is given | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport / local facilities | | |
| Sustainability | | |
| Energy | Basic advice on the need to conserve energy and the issues relating to older people and their needs | |
| Water | Basic advice on how to conserve water | |
| Health / well-being | Basic advice on air quality issues, use of materials and natural daylight | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| Others | | |

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|------------------|--------------------------|-------------------|------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 009 |
|------------------|--------------------------|-------------------|------------|---------------------|-----|

Title: Private Rented Extra Care: a new market?
Housing LIN Factsheet 32

Author: Lawrence Miller, Trimmer CS Housing Consultants

Commissioned by: Department of Health Housing Learning and Improvement Network

Status: Report

Applicability: Older people / Extra Care

Format: Web-based pdf

Publication date: November 2010

Where to find it: www.housinglin.org.uk

Who to contact: Housing LIN

Overview: The report looks at the role of the Private Rental Sector generally as a vehicle for the development of new housing before focusing on older people in the Private Rented Sector. It goes on to interrogate older people's decisions regarding moving and tenure and their decisions to consider specialist accommodation. It asks whether there is an existing market and what potential there is for a future market outlining affordability concerns and looking at Private Rental extra care as an alternative to Residential Care and the barriers and obstacles that this might present in terms of care delivery and registration.

Overall rating: 7/10 background information and policy-making

Relevance to other non-mainstream categories: N/A

Key features and recommendations:

The report concludes that if the product is right and the obstacles and barriers can be overcome, there could be much potential for private rental models both for the 'younger' older persons market (in a form of 'extra-care-lite' or streamlined extra care housing with minimal communal provision and hence service charges) and for the frail older persons market as an alternative to residential care. The key to affordability and overcoming significant barriers and obstacles lies in the decoupling of housing and care contracts. It is unlikely that private rental will be affordable for the 'in-betweeners'; that is, those not eligible for Housing Benefit and with insufficient assets to cover their longer term housing and care costs.

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|--|---|--------------------------|--|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Extra Care | Our ref. no. | 010 |
| Title: | Selected Readings - Extra-care Housing | | | | |
| Author: | CPA | Commissioned by: | Centre for Policy on Ageing Information Service | | |
| Status: | Selected Readings | Applicability: | Extra Care Housing / Assisted Living: academics, commissioners, operators, consultants | | |
| Format: | Web-based pdf | Publication date: | July 2011 | | |
| Where to find it: | www.cpa.org.uk | Who to contact: | Centre for Policy on Ageing cpa@cpa.org.uk | | |
| Overview: | The CPA's selected readings are drawn from material held on the CPA Ageinfo database of ageing and older age. The publication is updated annually and provides information on new studies relating to all aspects of the Extra Care housing model; social, behavioural, dementia care, end of life care, remodelling of sheltered to Extra Care, etc. Each entry includes a brief synopsis of the subject and its findings together with information including a listing of its authors, its commissioners, publication details, where it can be accessed, etc. | | | | |
| Overall rating: | 7/10 for background and policy-making | | | | |
| Relevance to other non-mainstream categories: | All other aspects and models related to housing older people | | | | |

Key features and recommendations:

This is a very useful database primarily for those involved in research and development related to social policy and Extra Care and other housing models for older people.

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|------------------|--------------------------|-------------------|------------------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Dementia and High Care | Our ref. no. | 101 |
|------------------|--------------------------|-------------------|------------------------|---------------------|-----|

Title: Opening Doors to Independence

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Sarah Vallely Simon Evans Tina Fear Robin Means | Commissioned by: | Housing 21 Housing Corporation Dementia Voice University of West England |
| Status: | Research study | Applicability: | Housing and care providers for older people with dementia |
| Format: | Web-based pdf | Publication date: | April 2006 |
| Where to find it: | www.housing21.co.uk | Who to contact: | Housing 21 Research Manager, sarah.vallely@housing21.co.uk |

Overview: The study addresses a key issue in housing older people. It sets out to evaluate the contribution that Extra Care housing can make towards the provision of housing and long term care for older people suffering from dementia; whether it provides a suitable environment and whether residents with dementia should be integrated or accommodated in a specialist unit. The study also seeks to assess the limitations of Extra Care for people with dementia and to make recommendations for good practice. Research data was collected from over 100 people including 36 suffering from dementia over a 27 month period.

Overall rating: 8/10 for background and policy-making

Relevance to other non-mainstream categories:

Key features and recommendations:

Conclusions:

- That the Extra Care environment provides a good setting for supporting people with dementia and that they can live independently in extra care housing for a similar length of time as people without cognitive impairment.
 - That it is possible to consult people with dementia about their housing and care needs rather than rely on the views of relatives and advocates.
 - That the effectiveness of the cluster model as a dementia specific environment was limited by several factors that included the fact that about 50% of the entire resident population had memory problems making it impossible to target
-

specialist care within the cluster; accommodating couples with dementia was problematic for the one who was not a sufferer; for staff dealing with allocations, the lack of detailed referral information and psychiatric reports made it difficult to assess resident's suitability.

Recommendations:

- **Housing or Care:** Extra care should be developed within integrated local strategies for housing, health, older people and social support/care. Housing, health and social care should all have input into referrals to extra care where appropriate, including representation on nomination panels.
 - **Good Design:** There is a need for a rigorous investigation of what is most effective in terms of dementia specific design. This should involve the participation of older people including those with dementia as well as other residents and staff.
 - **Where possible extra care housing providers** should try to build 'escorting' hours into the block care contracts so that people can be supported to make the most of the wide facilities available.
 - **Integrated or Specialised Accommodation:** More research is needed to assess the impact of the cluster design for people with dementia and how it compares with integrated environments.
 - **Balancing Risk/Security/Independence:** Greater use should be made of electronic assistive technology to support residents with dementia. This needs to be carried out within the context of well-developed, person-centred risk assessment and management processes.
 - **Challenging Behaviour:** All care staff working with residents with dementia should receive specialist training and support. Training for managers is also crucial because their knowledge and skills have a great impact on the attitude and working practices of care staff.
 - **Quality of Life:** Funding should be secured to support the role of a part-time activities co-ordinator so that a wide range of stimulating activities can be offered. Minimum weekly hours of activity provision should be stipulated in the service level contract with the local authority.
 - **Responding to Diversity:** Further research is needed on the ethnicity dimension of extra care housing and people with dementia.
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|------------------|--------------------------|-------------------|----------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Planning | Our ref. no. | 201 |
|------------------|--------------------------|-------------------|----------|---------------------|-----|

Title: Extra Care Housing - Development planning, control and management - RTPI Good Practice Note 8

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | RTPI | Commissioned by: | Department of Health; Royal Town Planning Institute; Care Services Improvement Partnership (CSIP); Housing LIN |
| Status: | Guidance | Applicability: | Planning & housing officers, developers and service providers |
| Format: | Web-based pdf | Publication date: | October 2007 |
| Where to find it: | www.rtpi.org.uk | Who to contact: | RTPI |

Overview: The guide complements the Extra Care Housing Toolkit published by CSIP in 2006. It sets out demographic and market trends and the policy context as background information before going on to explain the concept of and key drivers for Extra Care housing. It also explains the wide range of needs that Extra Care housing addresses. The main body of the guide covers areas such as planning [olicy development, housing market assessments, working with partners and assessing individual proposals where it provides a checklist of issues that planners should be using for their assessment.

Overall rating: 7/10

Relevance to other non-mainstream categories: N/A

Key features and recommendations:

The key feature is a series of checklists for planners and those commissioning Extra Care developments that covers issues such as housing market assessments and assessing individual proposals, i.e. whether the development is of benefit to local housing and care provision, the involvement of local stakeholder organisations, tenure, typology (is it retirement housing or extra care), use class (C2 or C3), what impacts it will have on the local area and whether the design and layout of the scheme is appropriate for frail residents.

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|--|--|--------------------------|--|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Planning | Our ref. no. | 202 |
| Title: | Continuing care retirement communities: A guide to planning | | | | |
| Author: | Robin Tetlow | Commissioned by: | Joseph Rowntree Foundation, Planning Officers Society | | |
| Status: | Planning guide | Applicability: | Planning professionals, commissioners of CCRCs | | |
| Format: | Web-based pdf | Publication date: | April 2006 (and 2008 update note) | | |
| Where to find it: | www.jrf.org.uk | Who to contact: | Joseph Rowntree Foundation info@jrf.org.uk | | |
| Overview: | Conceived as a companion guide to the 2003 publication by the Planning Officers Society and the Retirement Housing Group, 'Planning for Retirement Housing' (reviewed separately), this guide defines the concept and philosophy of continuing care retirement communities (CCRCs) and sets out the implications of an ageing population. The main body of the document covers development issues such as market research, feasibility studies, site identification, pre-app consultation, management/care arrangements, tenure, planning policy; local, regional and national. There is a more detailed section on planning applications and development control issues which includes the contentious use class issue. | | | | |
| Overall rating: | 7/10 | | | | |
| Relevance to other non-mainstream categories: | N/A | | | | |

Key features and recommendations:

The recommendations and guidance are embedded in the text. The guidance addresses the key planning issues for CCRCs which should be taken into account and included within the Design and Access Statement:

- The planning use class issue (C2, C3 or sui generis) and includes precedents for C2 classification
- The importance of location in terms of sustainability and accessibility/transport
- The permeability of the scheme i.e. gated or community integrated

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- Contribution to affordable housing and the need for a viability assessment
 - Strains on local health resources
 - Presenting the planning benefits of CCRCs including job creation
 - Buildings and layout issues and the extent of communal provision proposed
 - Design issues including relationship to the local context, site constraints etc.
 - Amenity space for individual properties as well as for the overall development
 - Car parking provision is subject to negotiation depending on the site/project (usually between 30% and 60%)
 - Daylight and visual impact in relation to adjoining properties
 - Ancillary features

In 2008 a brief update on the 2006 publication (and a subsequent 2007 update) was published (all available from the above website link). This highlights recent policy developments and new publications. It revisits the use class issue, as well as affordable housing contributions and the varying responses by planners. It provides examples of recent precedent for CCRCs in rural locations including in the Green Belt but concludes that site specific circumstances may well be of overriding importance.

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|--------------------------|--|--------------------------|--|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Planning | Our ref. no. | 203 |
| Title: | Planning for Retirement Housing | | | | |
| Author: | Joint Working Party from RHG and POS | Commissioned by: | Retirement Housing Group; Planning Officers Society | | |
| Status: | Good practice guide | Applicability: | All housing typologies for older people | | |
| Format: | Web-based pdf | Publication date: | November 2003 | | |
| Where to find it: | www.hbf.co.uk | Who to contact: | Home Builders Federation (Retirement Housing Group is part of HBF) | | |

Overview: The guide defines the range of typologies under the broad banner of retirement housing and sets out the case and need for specialist housing provision for older people and the reasons they choose to move. It goes on to explain government policy prevailing at the time and then outlines the key development issues: competition for land, viability for management services, and site acquisition considerations. It then focusses on planning policy and development control issues before reaching a set of conclusions. Although slightly dated in terms of government policy, this guide confronts many of the planning issues that still exist today in terms of planning obstacles in the sector. Its primary aim is to inform and guide local authority planners and retirement housing developers through the planning process.

Overall rating: 10/10 for background and policy-making

Relevance to other non-mainstream categories:

Key features and recommendations:

Planning Policy: Development plans should set the context for housing issues related to an ageing population and recognise the special considerations for the sector in determining applications.

Community Strategies & Involvement: policy should take into account local community needs and spatial requirements of evolving Community Strategies and engage with communities to steer the process.

Planning policies need to be flexible to adjust to changing needs, encourage positive provision particularly in town centres as part of mixed use schemes, focus on the

relevant standards related to the user group and be clear on their approach to affordable housing under Section 106 Agreements and mixing tenures.

Development Control: Developers should select appropriate sites, well located for facilities and public transport and explain this to the local planning authority. LPAs should be aware of local housing needs for older people and should welcome pre-application meetings and provide constructive advice including assessment of parking provision relative to specific site circumstances.

Developers should thoroughly prepare information for pre-application meetings so that they can ensure informed responses prior to land purchase and should explain the contractual timeframe and deadlines along with management arrangements for the development. They should undertake community consultation on the advice of the LPA and ensure that applications include all relevant supporting documentation. They should also submit draft Heads of Terms of proposed planning obligations with the application and comply with all conditions before commencing development.

LPAs should be aware of the special features of retirement housing and the associated costs in considering affordable housing contributions and should be properly briefed by Housing and Adult Services colleagues as part of the consultation process. They should indicate the scope of supporting documentation required with the application as well as the level of community consultation required. They should explain the level of planning gain required at an early stage as well as agreeing the planning conditions prior to approval.

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|------------------|--------------------------|-------------------|--------------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Technical Guidance | Our ref. no. | 301 |
|------------------|--------------------------|-------------------|--------------------|---------------------|-----|

Title: Fire Safety in Extra Care Housing in the UK - Technical Brief No.5

| | | | |
|--------------------------|--|--------------------------|------------------------------------|
| Author: | Roger Standish, Faithful+Gould | Commissioned by: | Department of Health - Housing LIN |
| Status: | Technical briefing | Applicability: | Older people |
| Format: | Web -based pdf | Publication date: | November 2010 |
| Where to find it: | www.housinglin.org.uk | Who to contact: | Housing LIN |

Overview: This technical brief looks at fire avoidance and control strategies in Extra Care housing developments implemented at design and construction stages with particular reference to lessons learnt and current legislation.

The technical brief concludes with an overview in respect of a building owner or manager's responsibility as 'a responsible person' when actively managing the 'fire risk assessment' throughout the lifetime of an Extra Care housing development with particular consideration to the developing frailty of the residents.

Overall rating: 8/10

Relevance to other non-mainstream categories:

Key features and recommendations:

The document is set out in 7 clear sections which start with a section on **Recent Fire Statistics**. This sets out the context of fires within the UK during 2009 and 2010 and stresses the importance of active management as required from the building owners and the 'responsible person' under the current Regulatory Reform (Fire Safety) order 2005.

Section 2 deals with **Construction Fire Safety** where reference is made to HSG 168 'Fire Safety in Construction' along with the warning that neighbouring buildings and members of the public can be exposed to severe and potentially lethal risks should a fire break out in a timber frame building. Reference is made to recent arson attacks on timber frame buildings and the response from the Chief Fire Officers Association and DCLG which do not rule out this method of construction but request robust risk assessments to be carried out before making the decision to use timber frame.

Section 3 specifically deals with **Timber Frame Buildings** which gives further details about buildings under construction and advice on workmanship to ensure adequate compartmentalisation is achieved. Once occupied, timber buildings do not present

evidence of being of any greater risk to life than other buildings. There are further case studies of fires within timber frame buildings.

There is a section on **Fire Safety Design Legislation** which lists and gives commentary on the relevant legislation for Extra Care buildings followed by **Fire Safety Design & Specification Considerations** which deals with design issues from the earliest point of the development process i.e. feasibility stage and through to specification of fire detection and suppression systems including excellent advice on sprinklers and misting systems.

The Regulatory Reform (Fire Safety) Order 2005 is highlighted as the most important legislation related to the assessment of fire safety in Extra Care housing. The emphasis of this Order is on risk reduction and fire prevention and the preparation of a 'fire risk assessment'. How to prepare a **Fire Risk Assessment** is clearly set out in the final section with useful appendices giving examples of specific documentation required. There is a useful bibliography.

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|--|--|--------------------------|---|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Technical Guidance | Our ref. no. | 302 |
| Title: | Eco Housing: taking extra care with environmentally friendly design - Fact Sheet No.13 | | | | |
| Author: | Nicola King, Intertek Testing & Certification Ltd | Commissioned by: | Department of Health Housing Learning and Improvement Network | | |
| Status: | Design Guidance Factsheet for Environmental Sustainability | Applicability: | Extra Care housing | | |
| Format: | Web-based pdf | Publication date: | January 2005 | | |
| Where to find it: | www.housinglin.org.uk | Who to contact: | Housing LIN | | |
| Overview: | This factsheet summarises the 2005 policy and legislative context for 'green' and 'intelligent' housing. These have now been overtaken with new legislation so care needs to be taken when using this guide to meet current requirements. It presents examples of Extra Care Housing and general needs housing developments incorporating such technologies and looks at opportunities and possible future directions which unfortunately are now out of date. It also includes a useful summary checklist of things to consider, adapted from an article in Building magazine (10 December 2004). | | | | |
| Overall rating: | 2/10 | | | | |
| Relevance to other non-mainstream categories: | All multi-residential developments | | | | |

Key features and recommendations:

The factsheet explains both the detailed and the broader policy and legislation context but from 2005 so this now needs an update. There are a number of examples of housing with minimal environmental impact and 'intelligent' technology and case studies include Hanover schemes in Durham showing reduced energy use and Building Energy Management Systems (BEMS). BEMS ensures buildings are operated to their optimum performance; it intelligently manages seasonal changes and it was estimated that the capital costs of the network controls and the central management point could be paid back after 12 to 18 months operation.

Other case studies showed use of IT, which were not remarkable in terms of what would normally be expected within an Extra Care scheme e.g. telecommunications, CCTV, secure access and alarm call, occupant monitoring for those with high dependency needs.

The work of Integer Partnership is described briefly in terms of the refurbishment of a tower block in Westminster called Glastonbury House for people over 55.

The factsheet also includes some case studies from the general needs sector which are often pioneering examples such as BedZed.

A section called 'What Next' is now out of date with the update in the Building Regulations and changes in government policy.

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|--|---|--------------------------|---|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | Technical Guidance | Our ref. no. | 303 |
| Title: | Extra Care Housing: Designing, assessing and delivering sustainable homes - Technical Brief No. 4 | | | | |
| Author: | Roger Standish, Faithful +Gould | Commissioned by: | Department of Health Housing Learning and Improvement Network | | |
| Status: | Design guidance for environmental sustainability | Applicability: | Extra Care housing | | |
| Format: | Web-based pdf | Publication date: | February 2010 | | |
| Where to find it: | www.housinglin.org.uk | Who to contact: | Housing LIN / Faithful + Gould | | |
| Overview: | The factsheet provides very useful information to the commissioners and designers of new Extra Care housing developments on best practice in terms of sustainable eco-friendly design, how and when measures should be assessed in terms of capital and revenue costs and the criteria and process for assessment under the BREEAM method. Unfortunately, although the factsheet was very recently published, it is already out of date in view of policy changes being adopted by the new coalition government (abolition of HIPs and the review of the Code for Sustainable Homes and other housing standards). | | | | |
| Overall rating: | 8/10 | | | | |
| Relevance to other non-mainstream categories: | All multi-residential developments (new build, extensions and major refurbishments/remodelling) i.e. care homes, nursing homes, hospices, hostels, etc. | | | | |

Key features and recommendations:

The factsheet explains:

- the applicability of BREEAM assessment against the Code for Sustainable Homes
- the process of considering sustainable design from feasibility stage through technical development to the on site construction management and building operations
- how renewable energy options should be evaluated and reported to inform specification
- how the BREEAM methodology is applied
- when BREEAM should be applied i.e. in terms of the building typology, the nature of the development (new build/refurbishment/extension and the elements/room functions that are included)
- the evaluation and scoring/evaluation system

It provides a brief summary which sets out the benefits of a structured and methodical approach to inform timely decision making; conceptual design in harmony with nature and the site circumstances, a cost benefit appraisal to inform appropriate selection of renewable energy technology, maximising 'quick wins' on transport, land use and ecology, water, pollution etc, close supervision to ensure implementation of measures on site and training to ensure that residents fully understand the operation of passive design measures.

The factsheet also includes a number of case studies.

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|------------------|--------------------------|-------------------|---------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | BME provision | Our ref. no. | 401 |
|------------------|--------------------------|-------------------|---------------|---------------------|-----|

Title: Beyond Sheltered Accommodation - A Review of Extra Care Housing and Care Home Provision for BME Elders

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Adrian Jones | Commissioned by: | AGE Concern Chinese Housing Consultative Group |
| Status: | Research report | Applicability: | Extra Care and care home housing and care providers |
| Format: | Web-based pdf | Publication date: | December 2006 |
| Where to find it: | www.ageuk.org.uk | Who to contact: | research@ageuk.org.uk |

Overview: The report was commissioned to review existing research on care home and Extra Care services provision for black and minority ethnic (BME) older people; to identify examples and knowledge of 'culturally appropriate' service provision; to identify relevant care home and extra care providers in England and those organisations offering advice or services specifically targeted at BME elders; to review documentation on the policy agenda regarding the provision of care homes and extra care services. The report is inconclusive in many respects and proposes a third phase to the research to determine 'what works and where'.

Overall rating: 3/10

Relevance to other non-mainstream categories: Care Homes

Key features and recommendations:

The conclusions highlight the fact that there is very little published research into the field of extra care and care home needs/provision for BME older people and that there is currently very little extra care provision for BME elders. It identifies different models such as separate wings for specific BME communities and notes that although quite a number cater for BME elders, sometimes this amounts to little more than having staff who can speak the relevant language. Only two homes had admission restricted to a particular BME group.

It was not possible to determine what specific provision was available to BME elders in care homes or to establish how many BME elders were living in care homes/extra care schemes.

The report concluded that the key to successfully attracting BME older people to extra care came down to a provider operating in the right locality and having the right cultural mix of staff and right environment.

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|------------------|--------------------------|-------------------|---------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | BME provision | Our ref. no. | 402 |
|------------------|--------------------------|-------------------|---------------|---------------------|-----|

Title: Developing Extra Care Housing for Black and Minority Ethnic Elders: an overview of the issues, examples and challenges

Author: Professor Naina Patel and Peter Traynor at the Policy Research Institute on Ageing & Ethnicity

Commissioned by: Department of Health Housing Learning Improvement Network

Status: Report

Applicability: Extra Care Housing

Format: Web-based pdf

Publication date: March 2006

Where to find it: www.housinglin.org.uk

Who to contact: Housing LIN

Overview: The report explains the extra care concept and examines the wider context in terms of ethnic minorities and ageing and ethnicity in the UK. It goes on to look at this housing provision from the perspective of commissioners and provides 6 good practice examples. The main body of the report details issues for consideration including cultural, ethnic and religious identity, external and internal considerations and funding sources.

Overall rating: 8/10

Relevance to other non-mainstream categories: Sheltered housing and Residential Care/Nursing Homes

Key features and recommendations:

BME elders represent a small but growing population in the UK. Many have experienced deprivation and inequality in their younger years and continue to do so. There are cultural and linguistic barriers when accessing information and expressing needs.

There are many common denominators with majority elders i.e. ageing with dignity and respect near to their own homes surrounded by family and friends. Their asking for housing provision is not 'special treatment' or an indication of a breakdown in their culture. Commissioners need to engage with and know their market well.

BME elders cannot just 'fit into' existing majority design extra care because of cultural considerations which are important to all of us. Specific provision needs to be made so that cultural identity is imbued in the conception, design, development and delivery of extra care provision for all elders.

The success of a scheme will depend on the internal and external considerations being met in terms of location, engaging with the wider community, the BME community and BME voluntary organisations.

| | | | | | |
|------------------|--------------------------|-------------------|---------------|---------------------|-----|
| Category: | Housing For Older People | Sub-group: | BME provision | Our ref. no. | 403 |
|------------------|--------------------------|-------------------|---------------|---------------------|-----|

Title: Minority Groups in Extra Care Housing

Author: The Institute of Public Care, Oxford

Commissioned by: Department of Health Housing Learning Improvement Network

Status: Report

Applicability: Extra Care Housing

Format: Web-based pdf

Publication date: February 2010

Where to find it: www.housinglin.org.uk

Who to contact: Housing LIN

Overview: The broad report starts by defining what it means by minority groups. This includes black and ethnic minorities, lesbian, gay and bisexual older people as well as those with mental health issues, sight loss, learning disabilities and homeless people. It goes on to examine the national policy context and interrogate the merits of mainstream services against specialist services. It stresses the importance of engagement with the community to establish need and to disseminate information to them as to the services that are available. It briefly discusses the merits of culturally specific against integrated mainstream accommodation and services. A few case studies are included.

Overall rating: 6/10

Relevance to other non-mainstream categories:

Key features and recommendations:

Recommendations are broad and are focused on information gathering to establish needs and demand, service delivery, consultation and communication.

5.2 Supported housing - literature reviews

| | | | | | |
|--------------------------|--|--------------------------|--|---------------------|-----|
| Category: | Supported housing | Sub-group: | Shared housing | Our ref. no. | 001 |
| Title: | Guidance on standards for houses in multiple occupation | | | | |
| Author: | Southampton City Council | Commissioned by: | Private Sector Housing Services | | |
| Status: | Design Requirements | Applicability: | Shared housing and hostels | | |
| Format: | Web-based pdf | Publication date: | June 2010 | | |
| Where to find it: | www.southampton.gov.uk | Who to contact: | private.housing@southampton.gov.uk | | |

Overview: This document is provided to assist landlords and developers to design, improve and maintain HMOs to a reasonable standard. These standards cover both licensed and non-licensable HMOs.

There is considerable diversity in the way that HMOs are occupied and in the health and safety risks that may be present. This advice therefore suggests standards that are appropriate for a wide range of the most common types of HMO.

The advisory standards are flexible and can be adapted to suit circumstances. The exception is in regard to licensed HMOs where national minimum HMO standards must be complied with and in particular the level of bathroom, WC and wash hand basin provision.

As part of the HMO licensing process, councils can discuss with landlords any variations from the standards that may be appropriate for a particular HMO.

The document provides useful definitions:

- What is an HMO, and what buildings are exempt
- HMO categories
- Category A = parts rented out as individual lettings with exclusive use of certain rooms. Occupier may share washing, WC and kitchen facilities, but not usually a communal living room (e.g. bedsits and flatlets, both sharing some personal washing, WC and/or kitchen facilities)
- Category B = rented to a group of people, commonly students and the like, with shared sanitary accommodation and living space. The occupiers tend to operate communally
- Hostels and bed and breakfast accommodation

In addition, the document provides more detailed information

- General notes and requirements
- Detailed requirements for Cat A, Cat B, and hostels

It is highly detailed in some areas - specifically with regard to space standards and fittings.

Overall rating: 8/10 Design guidance
6/10 Background information

Relevance to other non-mainstream categories: Hostels
Potentially women's refuges

Key features and recommendations:

Space standards are precise and well-defined, but not the purpose and philosophy behind the extent of the space provision and shared facilities.
No other data provided, so incomplete regarding amenity space, sustainable criteria, etc, all of which are important and should be included.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| The home | | |
| Space | The bulk of the info provided falls into this category. It is very detailed and useful, organised in tabular format which compares the requirements for Cat A and B accommodation. There is a separate table for hostels. | 5 |
| Functionality | Kitchen facilities standards and shared personal washing and WC facilities are very detailed in a chart which distinguishes between Category A and Category B accommodation and hostels. | 5 |
| Accessibility | | |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | | |
| Activity areas | Mentioned under kitchens and sanitary accommodation | 0 |
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport/ local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | BREEAM applicable |
| Others | | |

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|--------------------------|--|--------------------------|--|---------------------|-----|
| Category: | Supported housing | Sub-group: | Supported housing (general) | Our ref. no. | 001 |
| Title: | Accommodation with Support - Design Guide | | | | |
| Author: | Sunderland City Council | Commissioned by: | Sunderland City Council | | |
| Status: | Design guidance | Applicability: | All supported housing | | |
| Format: | Web-based pdf | Publication date: | First published January 2010; updated April 2011 (version 5) | | |
| Where to find it: | www.sunderland.gov.uk | Who to contact: | housing@sunderland.gov.uk | | |

Overview: This very comprehensive document aims to assist in achieving high quality and sustainable places for living. It focuses on maintaining longevity in terms of appearance, cyclical maintenance, running costs, responses to climate change, and adaptability to meet future life styles and technologies throughout the life of the building including future proofing. It does this by providing discussion about the principles, and checklists for design considerations for a wide range of supported housing typologies.

It also refers to Sunderland Council's Residential Design Guide (SPG) for general detail.

Chapters are arranged as follows:

- Section 1 Complete and thorough design
- Section 2 Place shaping
- Section 3 Maximising the use of outdoor space
- Section 4 Maximising the natural environment
- Section 5 Energy and resources efficiency
- Section 6 Building operations
- Section 7 Accommodation requirements
- Section 8 Space inside the home
- Section 9 Living, playing, working and studying
- Section 10 Designing for dementia
- Section 11 Designing for visual impairment
- Section 12 Designing for other disabilities

Plus: Acknowledgements, schedules of accommodation, design standards and guidance documents and further design guidance and good practice references

It is acknowledged that most published design guidance in this field relates to Extra Care development, so this document is heavily weighted in that direction. However, the point is made that most extra care design issues can provide suitable accommodation for other vulnerable client groups.

The document is laid out with checklists under each category, prompting consideration of essential aspects of design, with an emphasis on the qualitative experience of living in supported accommodation. The emphasis

is on adequate space, while the specific standards are provided only in the appendix at the end of the document. Photographs throughout the document helpfully illustrate the points made.

A drawback in using the document is the quantity of text provided which supplements and amplifies the checklists, so it is not sufficient to use the checklists alone. Since the accommodation schedule is located in an appendix, this means a degree of flicking through the document in order to obtain a good understanding of the specific requirements.

Overall rating:

8/10

Relevance to other non-mainstream categories:

All supported housing, including extra care, cognitive and sensory impairment, complex needs, learning disabilities, mental health, dementia, foyers, long term conditions including physical disability, etc. This might be in the form of extra care housing schemes, core and cluster accommodation, specialist housing and supported accommodation for vulnerable people.

Key features and recommendations:

This document addresses the widest issues for designers, which relate to the quality of life of people living in these buildings. This includes creating identity and variety, encouraging friendships, encouraging wellness activities, and creating an environment which is bio-diverse with multi-use opportunities, using materials which will endure and improve over time.

The accommodation schedule specifically describes a care home with its attendant shared and communal spaces. This is not typical for all shared housing, of course, so the designer needs to extrapolate to determine a specific brief for the type of accommodation under consideration.

Also included is a summary of the relevant design standards and guidance documents, such as Approved Document M, DDA 1995, the Housing Corporation's (now HCA) Design and Quality Standards, Wheelchair Housing Design Guide and PRP's Abbeyfield Design Guide for the Development of New Build Accommodation for Older People. So although the document was produced in 2010 and has been updated since, some of the references already need updating.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|---|--------------|
| The Home | | |
| Space | Well detailed in Appendix 1 | |
| Functionality | The space standard is accompanied by a useful description of the functionality, desired location and required links to other spaces | |
| Accessibility | Mentioned throughout the document | |
| Amenity | Shared amenity is addressed, rather than individual | |
| Shared spaces | | |
| Cores and circulation areas | The opportunity for informal seating areas is described. | |
| Activity areas | The requirements are stated in relation to a shared home of 40 flats, so a degree of intelligent extrapolation will be required to scale the provision up or down for a different size of home. Also included are facilities which might be shared with the wider | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| | community. A fuller description of communal facilities for a care home can be found in section 7.7 | |
| Outdoor spaces | No specific design standards, but section 3 deals with seating and planting, activities, older person's play area | |
| Public realm | | |
| Streetscape | Building for Life | |
| Public open space | | |
| Public transport/ local facilities | Parking provision, public transport, pedestrian and cycle routes are described in Section 2.3 | |
| Sustainability | | |
| Energy | Section 5 addresses sustainability and energy conservation, affordable running costs, minimising energy consumption in construction and design, environmental sustainability | |
| Water | | |
| Health / well-being | Maximising the natural environment, in section 4 addresses biodiversity, while Section 7 addresses security in Extra Care homes and health & safety issues, including fire precautions. | |
| Waste and recycling | Section 5 addresses the need for minimising construction waste, recycling materials and buildings, while Section 6 looks at refuse and recycling | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---|---------------|--------------------------|
| Lifetime Homes | Yes | Recommended - Appendix 2 |
| Secured by Design | No | |
| Building for Life | Yes | Recommended - Appendix 2 |
| Code for Sustainable Homes | Yes | Mentioned in Section 11 |
| BREEAM | Yes | Recommended - Appendix 2 |
| EcoHomes XB | No | |
| NHF Standards & Quality | Yes | Recommended - Appendix 2 |
| Adapting homes for people with sight loss | Yes | Recommended - Appendix 2 |
| Design Guide for the use of colour & contrast | Yes | Recommended - Appendix 2 |
| BS 8300:2001 | Yes | Recommended - Appendix 2 |
| Building Sight | Yes | Recommended - Appendix 2 |
| Extra Care Housing Toolkit | Yes | Recommended - Appendix 2 |
| Homes for the Future 2007 | Yes | Recommended - Appendix 2 |
| Towards Lifetime Neighbourhoods | Yes | Recommended - Appendix 2 |
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|--------------------------|--|--------------------------|---|---------------------|-----|
| Category: | Supported housing | Sub-group: | Supported housing (general) | Our ref. no. | 002 |
| Title: | Shared Living - What works in Supported Housing: summary report | | | | |
| Author: | London South Bank University | Commissioned by: | Carr Gomm Housing Association (now part of Sanctuary Group) | | |
| Status: | Summary report | Applicability: | Shared supported housing | | |
| Format: | Web-based pdf | Publication date: | January 2008 | | |
| Where to find it: | Housing Corporation website archive | Who to contact: | n/a | | |
| Overview: | <p>Shared supported housing is described as follows: accommodation occupied by individuals who may require support and where there is a degree of shared use of all or any of the following - kitchen, bathroom and toilets and other facilities such as sitting rooms which are offered in conjunction with private space (e.g. bedroom).</p> <p>This summary report is designed to provide helpful strategic and operational frameworks to assist housing organisations in focusing on shared housing models in a structured and resident-centred way.</p> <p>It covers the impact of the model on people's lives and the issues that matter to those who manage and commission services plus some strategic considerations at a business level.</p> <p>The report does not cover physical design in any detail but it does give some indication of what users feel is important in the built form. Nor is older people's shared housing included, although the research recognises that many of the innovations developed in older people's housing design have much to offer other groups.</p> <p>This summary report was intended as a basis for discussion inside organisations – with residents, project, policy and strategic staff, in order to clarify some thoughts and stimulate new thinking. For those wishing to read more, a detailed report has been produced which includes a literature review on the development of shared housing, the methodology used in the research programme, case studies and other interviews.</p> <p>In summary, the emphasis of the report is on what works in shared housing, some suggestions on why it works and how organisations can take the findings into consideration when compiling their own responses to the future of their shared housing portfolio.</p> | | | | |
| Overall rating: | 6/10 for background information for policy-making | | | | |

Relevance to other non-mainstream categories:

All shared supported housing, and possibly older people's housing design

Key features and recommendations:

The interviews covered:

- the environment (description of personal and shared space and how it works for the individual)
- people (perceptions of living with others)
- lifestyle (views on the impact sharing has on lifestyle)
- any other general issues

Although some regard shared housing as old-fashioned and not conducive to independent living, it continues to offer a positive option by helping to alleviate loneliness and isolation. However, it needs to be a model of choice, rather than perceived as a second-best option. Resident consultation is essential, whether the shared supported housing is for transitional groups (such as mother and baby, ex-offenders or women fleeing domestic violence) or more permanent groups (such as mental health, learning disabilities), as each has different requirements.

Key issues are identified in the requirements and recommendations section that follows, or in the bullet points below:

- Involvement of residents in the selection of prospective residents, or setting criteria, or meeting new residents before they move in.
 - Fear of violence or drug users, and an expectation that staff will manage these situations.
 - The more vulnerable the group, the more the need for single-gender homes.
 - Better outcomes can be predicted for homes which have training and educational support, in relation to residents' rising expectations.
 - The provision of suitable move-on accommodation is the key to the success of shared supported housing for the transitional groups.
 - There was no difference in satisfaction in relation to the degree of self-containment.
 - A preference for smaller unit size of projects, up to 8 people. However, this depends on the client group and the practicality of development costs.
 - An on-site office is preferable to peripatetic staffing, even if it is only staffed for a part of the day. However, an on-site office with on-site staff was preferred.
 - Tables provide detailed summaries of residents' issues for the following projects:
 - 2a - mental-health projects
 - 2b - learning difficulties projects
 - 2c - women fleeing domestic violence
 - 2d - young people
 - 2e - homelessness (including alcohol) projects
 - 2f - mother and baby projects
 - 2g - ex-offender projects
-

| Subject areas | Requirements/recommendations | Rating (1 - 5) |
|------------------------------------|---|----------------|
| The Home | | |
| Space | Negative comments were on the size of the personal space; however, some clients feel more secure in space that was small enough for them to furnish themselves, while benefiting from shared facilities, as this cuts down on living expenses. | 2 |
| Functionality | Good quality buildings are required that are clean, tidy, safe and well-managed. A private WC is to the most desired facility - for cultural and gender reasons. A private bathroom is more important than a private kitchen. A central kitchen is ideal, with lockable private space available Own TV sockets and cooker/microwave space in bedroom | 3 |
| Accessibility | | |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | People like to see and hear other people moving around a building, even if they wish to remain private and not join in any activity | 2 |
| Activity areas | Shared space should always have a function. Dead space is detrimental to successful outcomes for residents. A communal kitchen should be well-equipped and frequently used, with somewhere to sit round a table. | 3 |
| Outdoor spaces | Not mentioned | |
| Public realm | | |
| Streetscape | Location of buildings is important - they should be in safe locations with good transport links to areas where they can extend their life and networks. Being near cafes and shops and places of entertainment is important. | 3 |
| Public open space | | |
| Public transport/ local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health/well-being | | |
| Waste/ recycling | | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | | |

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|------------------|-------------------|-------------------|-----------------------------|---------------------|-----|
| Category: | Supported housing | Sub-group: | Supported housing (general) | Our ref. no. | 003 |
|------------------|-------------------|-------------------|-----------------------------|---------------------|-----|

Title: Houses in Multiple Occupation - Standards

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Housing Executive, Northern Ireland | Commissioned by: | Housing Executive, Northern Ireland |
| Status: | Standards for compliance and design | Applicability: | All categories of HMO |
| Format: | Web-based pdf | Publication date: | Post 2002, actual date not known |
| Where to find it: | www.nihe.gov.uk | Who to contact: | info@nihe.gov.uk |

Overview: This document identifies a range of categories of HMOs (only some of which would be applicable for funding) as follows:

- Category A - Bedsits
- Category B - Shared Houses
- Category C - Lodgings
- Category D - Hostels, Bed and Breakfast, Guest Houses, Hotels
- Category E - Residential Homes
- Category F - Flats, Flatlets and Maisonettes

Overall rating: 8/10 Design guidance
6/10 Background information

Relevance to other non-mainstream categories: All shared accommodation, whether for vulnerable people or not

Key features and recommendations:

There are a number of useful sections, such as:

- Definitions of overcrowding
- Method of measurement of rooms
- Space standards for number of occupants (including children)
- Very detailed requirements for means of escape, though it should be noted that these are applicable to Northern Ireland only

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|--|---------------------|
| The Home | | |
| Space | Space standard for bedrooms, bed-sitting rooms and flatlets (bedroom/living/kitchens) identified against number of occupants, including number of children. Space standard for kitchens, kitchen/dining rooms, and kitchen/living rooms | 5 |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-------------------------------------|---|--------------|
| Functionality | <p>Summary of facilities to be provided in shared and private kitchens, including worktop lengths, cookers per occupant, food storage, sinks, sockets.</p> <p>Summary of sanitary accommodation to be provided, including private and shared facilities against numbers of occupants, and minimum size of baths, basins and showers.</p> <p>Means of escape from fire and general fire precautions are very detailed, and relate to the categories above and the nature of the accommodation (that is, whether they are vulnerable or not), and distance of travel, widths of exits, numbers of stairs, etc. Since this is related to Northern Ireland standard, the standards are different from UK standards.</p> <p>Activity spaces around furniture are provided in Annex 2</p> | 5 |
| Accessibility | | |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | Minimum width mentioned in relation to means of escape | 1 |
| Activity areas | No specific information, though standards for combined, private bed/living rooms are provided | 1 |
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport / local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | Waste water requirements and washing facilities are mentioned, but there is no consideration of minimising water consumption or re-use of grey water, for instance | 1 |
| Health/well-being | Light and ventilation are covered | 1 |
| Waste and recycling | | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | | |

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|------------------|-------------------|--------------------------|----------------------------|
| Category: | Supported housing | Sub-group: Foyers | Our ref. no. 001 |
|------------------|-------------------|--------------------------|----------------------------|

Title: Project Design Quality Plan - Section 9 and Appendix

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | East Thames Housing Group | Commissioned by: | East Thames Housing Group |
| Status: | Design Brief | Applicability: | Supported accommodation for young people 16-21 |
| Format: | Pdf | Publication date: | Updated May 2006 |
| Where to find it: | Contact East Thames Group for a copy www.east-thames.co.uk | Who to contact: | Christian Woodhead, East Thames |

Overview: East Thames Group is a leading provider of foyers. Their wealth of experience in the design and management of foyers has led East Thames to create an extremely well-detailed brief for their design and provision.

The Project Design Quality Plan (PDQP) covers a large range of accommodation types, and Section 9 and the appendix address foyer provision specifically, though there are overlaps with sustainable design provision and Scheme Development Standards (2003 – so now outdated) compliance elsewhere in the document.

The design brief is clearly written and identifies both mandatory and discretionary design requirements for foyers.

It provides definitions of the range of provision in foyers:

- first stage for new entry young people (self-contained flats for young people between 16 and 25 years old)
- second stage for people moving on (from first stage)
- wheelchair users and those with disabilities
- young parents (self-contained accommodation)
- carers (for the young people in wheelchair flats)

Overall rating: 9/10 for quality of detailed thinking about this form of specialist housing

Relevance to other non-mainstream categories: Specific to foyers, but the need for an exit strategy is a major concern

Key features and recommendations:

The document contains detailed briefing on:

- design principles
 - building layout
 - definitions and relationships of space and rooms
 - controlling access and circulation
-

- determination of mix
- general requirements
- additional requirements
- zoning and access
- external areas
- private residential areas and individual flats

It provides detailed descriptions of the requirements for offices and ancillary accommodation for staff, as well as the residents, and the zoning of the building into leased and managed areas.

Mix is determined by taking a proportion of the total number of flats and deducting a proportion (between 9 and 10) for young parent flats, two wheelchair-accessible flats and two carer flats. The remainder is then divided 60:40 between first and second stage flats, which are then divided in half to achieve an equal gender split.

Further general requirements are identified, relating to:

- security
- fire strategy and precautions
- robustness
- form and layout
- refuse management
- windows and doors
- services
- sound insulation

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|---|--------------|
| The home | | |
| Space | Bed-sitting type accommodation: 26-30m ² per person for 1 st and 2 nd stage, 40-49m ² for wheelchair users, 30m ² for young parent, and 26m ² for the carer of a wheelchair user. Wheelchair user flats should conform to the requirements of the Wheelchair Housing Design Guide | 5 |
| Functionality | Well-described | 4 |
| Accessibility | Follows the Lifetime Homes process | 4 |
| Amenity | No balconies (for security reasons) | 5 |
| Shared spaces | | |
| Cores and circulation areas | Well-described | 5 |
| Activity areas | Well-described | 5 |
| Outdoor spaces | | 4 |
| Public realm | | |
| Streetscape | Comply with Scheme Development Standards 2003 and Housing Quality Indicators v2 (both now superseded) | 2 |
| Public open | Not mentioned | 0 |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------------------------------|-----------------------------------|--------------|
| space | | |
| Public transport/ local facilities | Not mentioned | 0 |
| Sustainability | | |
| Energy | Mentioned in relation to EcoHomes | 3 |
| Water | Touched on | 3 |
| Health/ well-being | Yes | 5 |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|--|---------------|--|
| Lifetime Homes | Yes | Discretionary (to be determined on a project-specific basis) |
| Secured by Design | No | But safety and security covered in section 6.1.4 |
| Building for Life | No | |
| Code for Sustainable Homes | No | EcoHomes mentioned and general energy efficiency |
| Accommodating Diversity | Yes | |
| NHF Standards and Quality in Development | Yes | |
| Others | | |

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|--------------------------|--|--------------------------|--|
| Category: | Supported housing | Sub-group: Foyers | Our ref. no. 002 |
| Title: | Launch pad for life - an assessment of the role of foyers in housing association provision | | |
| Author: | Dr Roland Lovatt and Professor Christine Whitehead, University of Cambridge | Commissioned by: | Housing Corporation Innovation and Good Practice Programme |
| Status: | Research report | Applicability: | Supported accommodation for young people 16-21 |
| Format: | Web-based pdf | Publication date: | July 2006 |
| Where to find it: | www.cchpr.landecon.cam.ac.uk | Who to contact: | Cambridge Centre for Housing and Planning Research |

Overview: Report on research of 11 designated foyers in existence in 2003, covering 4,630 bed spaces for young people between 16 and 21.

The report looks at the following:

- foyer size, organisation and geographic distribution
- aims and objectives
- client groups
- services provided
- client turnover and management
- financing, costs and the measurement of outputs and outcomes.

It identifies the fact that most clients have needs over and above basic training, accommodation and life-skills support, which reflects a continuing trend towards higher support requirements, so less emphasis on traditional training as a means of accessing employment.

Overall rating: 2/10 for usefulness as a design guide
7/10 for background information for policy-making

Relevance to other non-mainstream categories: None, except potentially in terms of exit strategy

Key features and recommendations:

The majority of foyers have 21-50 bed spaces (50.5%) though there are also significant numbers of 11-20 and 51-100 space foyers, with the larger ones being built in the mid 1990s. The tendency since 1998 is for much smaller foyers, of up to 40 bed spaces, where there is more potential for interaction among residents.

The development of exit strategies was considered important to most foyers.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-------------------------------------|--|--------------|
| The home | | |
| Space | | |
| Functionality | | |
| Accessibility | Brief mention about the percentage of foyers with suitable (adapted) accommodation. Comment that a number of disabilities can be accommodated in standard rooms, but this limits the intake. The assessment was based on the numbers of people receiving disability allowance or incapacity benefit. | 2 |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | | |
| Activity areas | Larger foyers with 20+ bedspaces have a full range of IT equipment, social and leisure facilities and training provision on site. Sport and fitness was not well catered for, generally, though it is very popular when provided | 2 |
| Outdoor spaces | Not mentioned | 0 |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport / local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health/ well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------------------|
| Lifetime Homes | Not relevant | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | Would be BREEAM rather than CSH |
| Others | | |

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|--|--|--------------------------|--|
| Category: | Supported housing for vulnerable groups | Sub-group: Foyers | Our ref. no. 003 |
| Title: | Feeling Good - Supporting resilience in young people in foyers in England | | |
| Author: | Eric Carlin | Commissioned by: | The Foyer Federation with the Foyer Health Programme |
| Status: | Assistance to policy-making | Applicability: | all foyers |
| Format: | Web-based | Publication date: | November 2010 |
| Where to find it: | www.foyer.net | Who to contact: | The Foyer Federation inbox@foyer.net |
| Overview: | <p>The Foyer Federation develops and encourages new approaches to supporting young people who have faced barriers in their lives as they make the transition to adulthood. For nearly two decades, the Foyer Federation has worked mainly through a network of over 100 accredited, integrated learning and accommodation providers, known as foyers, who re-connect up to 10,000 young people a year between the ages of 16-25 with personal development, education, training and employment opportunities.</p> <p>Young people living in foyers come from a range of backgrounds including those who have had experiences of care and those with a history of offending. Many young people living in foyers have also experienced significant barriers to health and well-being, ranging from poor levels of nutrition, lack of physical activity and emotional and mental health issues. The Foyer Health Programme, funded by the Big Lottery Fund's Well-Being Programme, has increased the skills, resources and opportunities that young need to make a healthy transition to adulthood.</p> <p>This report was commissioned by the Foyer Federation to conduct research on resilience, in particular the factors that build resilience in young people, and the impact that this would have on the foyer as a physical environment.</p> <p>The study was carried out from January to May 2010. A literature review was carried out in the first instance, followed by field research. The focus was on the benefits to young people of living in a foyer, in relation to resilience.</p> | | |
| Overall rating: | 0/10 No specific design guidance provided 8/10 Excellent for policymaking and management practice | | |
| Relevance to other non-mainstream categories: | None | | |

Key features and recommendations:

Priorities for residents were identified in relation to each foyer, and these differed according to the size and location. However, the basic needs were: safety and physical security (more important in inner-city foyers than rural), positivity and provision of secure accommodation and shelter. Second priorities were: life skills and independence, everyday support, help to overcome problems such as drug or alcohol misuse, and opportunities to grow.

The main recommendations form a checklist for all foyers to review and improve existing practice, as follows:

1. The maintenance of safety and security should be prioritised at all times. CCTV must be adequate and staff should work out with residents how to maintain an appropriate balance between feeling physically secure and 'homely'.
 2. All staff working in foyers should be trained and supported to understand the needs of residents and to be able to feel comfortable in offering informal advice and support at any time. This includes administrative, reception and night staff.
 3. Formal communications using noticeboards, group and one-to-one meetings need to be run in an effective, efficient manner. Where action is agreed in meetings, it needs to be followed up and reported.
 4. Attention needs to be paid to ensuring that young people understand 'the contract' between them and the foyer when they enter, that the foyer is seen as a step and support into independent living, not as an end point or permanent accommodation.
 5. Planning and review meetings with key workers should take place regularly. Attention should be given to relationships between the young people, staff, peers, friends and families.
 6. Staff team meetings need to be held regularly and creative ways need to be developed to ensure that all staff, including administrative, reception and night staff, are included in reviewing what is going on in the foyer and planning accordingly.
 7. Strategies should be developed with young people for engaging with and improving relationships with the external community, including agencies such as the police and employment services and voluntary agencies. This should include providing volunteering opportunities for residents and also opportunities for external people to visit the foyer and contribute to its activities.
 8. All foyers should have an ongoing programme of equal opportunities training, a well-publicised code of conduct and up to date information for staff and residents to ensure that young women, gay, lesbian and transgender, disabled and black and minority ethnic young people are supported to avoid direct or indirect discrimination by other residents or staff.
 9. Programmes of practical support and training should be reviewed and planned with young people through residents' meetings and other meetings. These should include 'open agenda' meetings where young people are encouraged to review and set the foyer's agenda.
 10. Foyers at local level and the Foyer Federation at national level should expand the resources that they have to improve opportunities and reduce stigma against young people. This includes actively seeking to influence policy agendas over the long term.
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|--------------------------|--|--------------------------|-------------------------------|---------------------|-----|
| Category: | Supported housing | Sub-group: | Women's refuges | Our ref. no. | 001 |
| Title: | Kyle Smart Associates Brief | | | | |
| Author: | Kyle Smart Associates | Commissioned by: | Individual Women's Aid groups | | |
| Status: | Selection of briefing documents amalgamated for this review | Applicability: | Specifically women's refuges | | |
| Format: | Pdf provided | Publication date: | Not known | | |
| Where to find it: | Available from KSA www.kylesmartassociates.co.uk | Who to contact: | Colin Smart, KSA | | |

Overview: This group of documents provide a framework for design considerations for the design of refuges or supported accommodation for women fleeing domestic violence. Together they provide a good range of information about the design requirements for a refuge.

Doc 1. Initial Design Brief for Welwyn/Hatfield project
 Doc 2. Room data sheets for Edward Street project
 Doc 3. Room data sheets for Swanhill project

1. The Welwyn/Hatfield project is for 8 families, comprising 8 women and 24 children. The brief is a page long but contains some essential information about the refuge design considerations, which are recorded below under the requirements/recommendations section.

2. The Edward Street project room data sheets were produced for a tender. They are prefaced by some general requirements in terms of compliance with standards such as Building Regulations, insurance provisions, Secured by Design, etc, and the need for robust materials which can withstand heavy use. This is followed by a room-by-room description of finishes, door specification, electrical and mechanical specification, and fixtures and fittings. Without a qualitative description of the use of the rooms, this has limited application but, read in conjunction with the other documents, is useful. Much of this information could helpfully have been summarised in a spreadsheet, due to the inevitable repetition. In this project, each flat is self-contained, and therefore equipped with a full kitchen, as well as a shower room.

3. Swanhill project is similar to Edward Street, in providing room data sheets for a tender. Very similar to Document 2, with all flats self-contained, but with a number of shared amenity and activity spaces.

It is not clear how many flats/rooms are provided in the last two projects, but there is provision for a main office and a front office, which suggests a large scheme, or a project which acts as the base for the Women's Aid workers. There are no dimensions or space standards provided for any of the rooms, but a mention of using HMO standards.

The range of accommodation is as follows:

- Entrance, lobbies, stairs, corridors
- Counselling / consulting room
- Quiet rooms one of which doubles as a store (Doc 2 only)
- Bathroom
- Front office
- Main office, scheme manager's office, play worker's office (Doc 3 only)
- Wheelchair-accessible WC, baby change, children's and adult toilet
- Teenage room (Doc 3 only)
- Staff rest room
- Children's play area and store, and children's kitchen
- Common lounge
- Kitchen/dining area
- Storage (for suitcases, etc), general stores, pram store, cleaner's store
- Bedrooms and en-suites (and self-contained kitchen provision in Doc 2)
- Laundry
- Plant room
- Externals (Doc 2 only)

Overall rating:

7/10 as design guidance

Relevance to other non-mainstream categories:

Some general applicability to shared supported housing.
The security aspects are applicable to projects which need a high level of security and/or privacy

Key features and recommendations:

Document 1:

- Communal lounge, quiet room (for homework/counselling room)
- Playroom for the number of children stated, with description of fittings required, including a floor gully to accommodate messy play and children's WC.
- Office facilities for 5 full-time staff (serving 8 families), including staff shower room, tea and rest area.
- Wheelchair-accessible WC on ground floor for visitors, near the lounge.
- One bathroom to comply with HMO standards, over and above the en-suites.

Document 2:

- One-way glass in ground floor windows for privacy
 - All flats self-contained with kitchen and bath/shower room, and washing machine
 - All ceilings capable of taking a future hoist
-

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|---|--------------|
| The Home | | |
| Space | Doc 1: Mix of sizes of bedrooms required to cater for different sizes of family group, with the proviso that one bedroom needs to be large enough for an 8-person family group (note this was a specific brief for the Welwyn/Hatfield project). | 2 |
| Functionality | Doc 1: All rooms to have en-suite facilities, which can be a bath or shower. Space for a fridge-freezer required in bedrooms Doc 2: Self-contained flats with kitchen facilities and bath-shower room Doc 3: Kitchens not provided within bedrooms | 4 |
| Accessibility | Doc 1: All to mobility standard (not defined) with visitability access to ground floor rooms. However, no lift required. Wheelchair-accessible WC required at entrance level near lounge. Doc 2: A suite of 5 colour schemes is suggested for internals of flats, with a coordinated approach for the whole scheme which includes considerations of disabilities. | 4 |
| Amenity | Private amenity not mentioned | 0 |
| Shared spaces | | |
| Cores and circulation areas | Descriptions of fittings and finishes provided | 2 |
| Activity areas | Doc 1: Size of shared spaces, such as kitchen/dining room, number of cookers and sinks are stated to be as HMO standards, though restriction of number of cookers (two per kitchen) might be clarified with Environmental Health and the Registering authority. Doc 2: TV requirements | |
| Outdoor spaces | Doc 2: External lighting requirements Broad description of external works and play areas Details of gates, fences, refuse store, pram store, cycle store and rotary dryers provided, as well as M&E requirements. | |
| Public realm | | |
| Streetscape | Doc 1: Refuge building to blend into the surrounding environment and appear as much like a conventional house as possible. | |
| Public open space | Not mentioned | 0 |
| Public transport/local facilities | Not mentioned | 0 |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health/ well-being | Doc 2: Fire alarm specification, panic alarm specification, security installation and entry control, internal and external door locking system with fob access, whole house ventilation system, sound transmission requirements | |
| Waste and recycling | Mentioned, but not detailed | 1 |
| Pollution | Not mentioned except in relation to noise pollution | 2 |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|--|
| Lifetime Homes | No | However, accessibility issues addressed in relation to ground floor rooms. |
| Secured by Design | Yes | Comments required |
| Building for Life | No | |
| Code for Sustainable Homes | N/A | |
| Other | | |

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|--------------------------|--|-------------------------|---------------------------------|---------------------|-----|
| Category: | Supported housing | Sub-group: | Women's refuges | Our ref. no. | 002 |
| Title: | Project Design Quality Plan - Section 6 | | | | |
| Author: | East Thames Group | Commissioned by: | East Thames Group | | |
| Status: | Briefing document | Applicability: | All women's refuges | | |
| Format: | Pdf and hard copy | Published: | May 2005 | | |
| Where to find it: | Contact East Thames Group for a copy www.east-thames.co.uk | Who to contact: | Christian Woodhead, East Thames | | |
| Overview: | <p>This document, although over 5 years old, contains a plethora of useful information as a briefing for a wide range of dwelling types. Section 6 deals with what East Thames calls Care and Disability Needs groups, and this includes supported housing, older persons, refuge accommodation and wheelchair users.</p> <p>In addition, other sections of the Project Design Quality Plan (PDQP) are also relevant, which necessitates a good understanding of the document and probably extraction of relevant pages in order to make up a complete set of briefing documents for a refuge.</p> <p>There are 17 pages of requirements that are specific to these dwelling types. Mandatory design requirements are indicated by a black box (which makes ticking the box to demonstrate compliance rather difficult). A white box denotes discretionary items.</p> <p>This document describes refuge accommodation as comprising bedsitting rooms with en-suite facilities in clusters of 3-6 with a communal kitchen and dining/living space per cluster, supported by some communal living features and on-site staff. Staff would not live-in but would be provided with a staff bedroom facility.</p> <p>There are general requirements about the overall standards that must be achieved, and then specific dwelling-type requirements which relate to the level and type of support being provided. In four columns along the right hand side of the page, the banding identifies which requirement the category of dwelling must comply with.</p> <p>There is very little about space standards, or the functionality of the building, The format lends itself to a fragmentary view of the building requirements, rather than addressing the support needs of the client group. An understanding of both aspects would be required in order to provide a building that satisfies the needs of the client group.</p> | | | | |
| Overall rating: | 6/10 | | | | |

Relevance to other non-mainstream categories:

It also applies to flats and other HMOs

Key features and recommendations:

The following are requirements (with recommendations noted):

- An office adjacent to and providing surveillance of the main entrance, providing for general secretarial and administrative use. A sliding glazed screen will work as a reception hatch. Tea-making facilities must be provided.
- Laundry room, with all fixtures and fittings described
- Guest room, large enough for twin beds with built-in storage and standard bathroom which can be converted into a shower room. This room should also function as a staff bedroom.
- Lockable cleaner's store on each floor level
- 13 person lift (recommended)
- Shared kitchen/dining room
- Separate shared living area for each cluster of 3-6 bedrooms
- Information provided on en-suite facilities, windows and doors, floor finishes, heating and electrical installations, entryphone, CCTV and emergency alarm system
- Recommendations to be incorporated from Scheme Development Standards

Unfortunately, the grouping of different types of supported accommodation does not yield full details of some aspects of the requirements for a women's refuge. For instance, there is no specific detailed description of the kitchen requirements, though there are clauses describing fully-wheelchair accessible kitchen requirements. It may be that, through an oversight, the refuge kitchens are not described. However, the fact that laundries have to be wheelchair-accessible suggests that kitchens (or some part of them) should be accessible too. It may be that the black or white boxes signifying a compliance item have been omitted inadvertently.

Storage is not mentioned, though this is an important aspect of refuge requirements, both for residents' cases and furniture, as well as for buggies/wheelchairs and outdoor equipment.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|--|--------------|
| The Home | | |
| Space | One bed en-suite rooms should be between 15 - 20m ² in area | 3 |
| Functionality | Not mentioned | 0 |
| Accessibility | Communal wheelchair-accessible WC may be provided adjacent to the common room Laundry room must be accessible All flats to be accessible to wheelchair users | 2 |
| Amenity | Not mentioned | 0 |

| | | |
|---------------------------------------|--|---|
| Shared spaces | | |
| Cores and circulation areas | Entrance requirements defined (section 5.1) | 3 |
| Activity areas | Communal lounges, kitchens and dining rooms are described | 2 |
| Outdoor spaces | Car parking considerations provided, with 5 spaces to be provided for staff Detailed requirements for soft and hard landscape provided (sections 5.2 and 5.3), but not play provision | 3 |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport/ local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Waste and recycling | | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | No | |
| Secured by Design | Yes | |
| Building for Life | No | |
| Code for Sustainable Homes | No | |
| Other | | |

| | | | |
|------------------|-------------------|----------------------------------|----------------------------|
| Category: | Supported housing | Sub-group: Women's refuge | Our ref. no. 003 |
|------------------|-------------------|----------------------------------|----------------------------|

Title: Eaves Refuge Scheme Initial Brief

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Family Mosaic Group | Commissioned by: | Family Mosaic |
| Status: | Design brief | Applicability: | One specific refuge, not a general design standards briefing |
| Format: | Pdf | Publication date: | November 2002 |
| Where to find it: | Contact Family Mosaic for a copy www.familymosaic.co.uk | Who to contact: | Dave Norris, Family Mosaic |

Overview: Brief for an 8-bedroom women's refuge.

Provides information on:

- number of bedrooms, size, capacity and location
- Wheelchair standard accommodation
- Sanitary accommodation
- Shared kitchens (but not equipment to be provided)
- Laundry
- Playroom
- Garden access
- Buggy and pram store
- Shared lounges
- Staff accommodation:
 - office
 - kitchenette
 - wc/shower room
 - sleepover room

This document was published in 2002, which suggests that it may not be entirely relevant in regard to current standards.

Overall rating: 4/10 for design standards

Relevance to other non-mainstream categories: Only applicable to refuges

Key features and recommendations:

This is a project-specific brief, so does not contain more general information, such as the desirability of a garden, security, sustainability, interior finishes (the need for a homely environment, for instance) or location.

Some of these issues will have been dealt with in the selection of the property or site in the first place.

However, the document is nearly 10 years old, and it is likely that standards have changed.

Certainly some considerations will have changed in the interim, such as:

- the desirability for self-contained accommodation
- the need for provision for mothers with teenage boy children
- the need for separate cooking facilities for Muslim or Jewish mothers

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-------------------------------------|---|--------------|
| The home | | |
| Space | Approximate sizes provided | 4 |
| Functionality | Partially addressed | 3 |
| Accessibility | Mentioned but no details provided on adaptable kitchens and bathrooms | 2 |
| Amenity | Mentioned but not quantified | 2 |
| Shared spaces | | |
| Cores and circulation areas | | |
| Activity areas | Play room mentioned but no fitting-out requirements stated | 3 |
| Outdoor spaces | Garden mentioned but no requirements stated | 2 |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport / local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health/well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|--|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | No | No, but this is a very important issue for refugees, so should be considered in a design brief |
| Code for Sustainable Homes | | |
| Others | | |

| | | | | | |
|--------------------------|--|--------------------------|------------------------------|---------------------|-----|
| Category: | Supported housing | Sub-group: | Women's refuges | Our ref. no. | 004 |
| Title: | Refuges for Women, Children and Young People in Scotland - a research report | | | | |
| Author: | University of Glasgow, Department of Urban Studies | Commissioned by: | Scottish Executive | | |
| Status: | Report on a review of refuges | Applicability: | Specifically women's refuges | | |
| Format: | Web-based pdf | Publication date: | October 2003 | | |
| Where to find it: | www.scotland.gov.uk | Who to contact: | Scottish Executive | | |

Overview: This document is subtitled, "Final Report to the Working Group to Review Recommendations on Refuge Provision in Scotland".

It asks women and children and young people about their experiences, preferences and priorities in relation to refuge provision, assesses the level and standard of refuge accommodation currently provided in Scotland and produces an audit tool for future assessment.

The document distinguishes between:

- **shared refuges** - a flat or house with different families sharing kitchens, living rooms and bathrooms, possibly with additional communal facilities such as children's rooms and on-site women's aid offices
- **cluster refuges** - a number of separate flats grouped together in the same building/complex. The flats may be shared or used to accommodate only one family at a time (single occupancy) with additional communal facilities.
- **dispersed flats** - individual flats spread across an area, usually used as single occupancy accommodation.

Note that these definitions may not correspond with the use of these terms in some Women's Aid groups. HMO licences were not obtained for almost half of the refuges, but it was not the responsibility of the Women's Aid group to organise this.

The groups that appear most difficult for Women's Aid groups to accommodate are women with drug problems (still using), women with alcohol problems (still drinking), women with male children over the age of 16, women with serious mental health problems, and asylum seekers. This begs the question whether specific separate accommodation should be provided for these groups. The document has a specific section which looks at the needs of these groups and how they can be met (see p 77 -84).

This is an important document for policy-makers.

| | |
|------------------------|---|
| Overall rating: | 4/10 Design guidance 8/10 Background information |
|------------------------|---|

| | |
|--|---------------------|
| Relevance to other non-mainstream categories: | Specific to refuges |
|--|---------------------|

Key features and recommendations:

The majority of those interviewed preferred:

- Cluster refuges containing single-occupancy flats with communal facilities, for mutual support and security
- Some flats for families for whom shared/clustered provision was inappropriate, probably dispersed, rather than a cluster arrangement
- Shared accommodation, if provided, should be limited to kitchen/dining facilities, and not bathrooms.
- Good external security
- Refuge workers accommodated on-site rather than off-site
- Access to the same refuge worker throughout their time in the refuge for consistency, and in move-on accommodation
- Children's support workers available as soon as children moved into the accommodation and on a daily basis
- Access to children's play areas at all times during the day (meaning a worker needs to be present)
- Provision of age specific children's rooms
- Specialist provision for women with drug or alcohol problems, and for young women
- Separate accommodation for women with and without children
- Addressing the issue of women with teenage sons
- Addressing the requirements of minority ethnic women whose needs and preferences are diverse, with language, religion and immigration status being the most important issues
- Accessibility of public transport and the availability of local specialist services (particularly relevant to rural and semi-rural areas)

An off-the-peg design brief for refuge accommodation reflecting the cluster model should be developed.

Other important issues addressed, which impact on policy and running of refuges, were as follows:

- Consultation and support in move-on accommodation
 - Specific workers for children of different ages
 - Children need safety, support and stimulation. Many children and young people were especially enthusiastic about the trips and activities they had been involved in.
-

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| The Home | | |
| Space | Storage space generally inadequate, particularly for residents' large-scale possessions | |
| Functionality | One bath or shower per 6 people, and at least one toilet for every 5 people. Lockable kitchen cupboards liked, but not always provided At least one kitchen sink, one fridge, one washing machine, one cooker per three women | |
| Accessibility | This is reported as an important issue, though only 32% of the surveyed refuges had level or ramped access and 25% had full ground floor accommodation for wheelchair users. | |
| Amenity | Facilities for children and teenagers can encompass stereos, computers, Play stations, books, toys and games, table tennis, pool table, settees to chill out on, storage and gardens | |
| Shared spaces | | |
| Cores and circulation areas | Secure entry system imperative, possibly but not essentially with CCTV | |
| Activity areas | | |
| Outdoor spaces | An external play area should consider installing slides, seesaws, trampolines, climbing frames, soft play areas, tents, bikes, swings, etc. | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport /local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health/ well-being | | |
| Waste and recycling | | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| EcoHomes XB | | |

| | | | | | |
|--|--|--------------------------|------------------------------|---------------------|-----|
| Category: | Supported housing | Sub-group: | Women's refuges | Our ref. no. | 005 |
| Title: | Refuge - for women and children against domestic violence | | | | |
| Author: | Refuge | Commissioned by: | n/a | | |
| Status: | Online resource | Applicability: | Specifically women's refuges | | |
| Format: | Website | Publication date: | Up to date | | |
| Where to find it: | www.refuge.org.uk | Who to contact: | See website details | | |
| Overview: | <p>Refuge is a complementary organisation to Women's Aid, which provides a 24hr National Domestic Violence helpline. Similar to Women's Aid, the organisation provides a safe house for women and children escaping domestic violence. The address is confidential and no men are allowed in the building. A refuge is a place where women can be sure they are safe, and where they can access emotional and practical support from staff who understand what they have been through.</p> <p>Specifically useful on this website is the reference to the differences between the cultural needs of various client groups, most of whom state that they prefer living in a specialist refuge:</p> <ul style="list-style-type: none"> • African and Afro-Caribbean refuges: http://refuge.org.uk/about-us/what-we-do/african-and-african-caribbean-refuges/ • South Asian women http://www.refuge.org.uk/about-us/what-we-do/asian-services/ • Community outreach services to Vietnamese, Asian, Somali and Turkish women http://refuge.org.uk/about-us/what-we-do/community-outreach/ | | | | |
| Overall rating: | 2/10 Design Guidance 5/10 Background information - the website is very useful | | | | |
| Relevance to other non-mainstream categories: | None | | | | |

Key features and recommendations:

A number of issues are highlighted, such as:

- Separate pots, cutlery and utensils for non-pork eating women
- An extra room for prayer
- Advice surgeries and drop-in sessions for women in the refuge and the wider community
- Community outreach services provided
- Storage for emergency supplies for women and their children arriving with nothing

5.3 Housing for disabled people - literature reviews

| | | | | | |
|--------------------------|---|--------------------------|--|---------------------|-----|
| Category: | Disabled | Sub-group: | wheelchair housing | Our ref. no. | 001 |
| Title: | Wheelchair housing design guide (2 nd edition) | | | | |
| Author: | Stephen Thorpe and Habinteg Housing Association | Commissioned by: | Originally commissioned by NATWAG (National Wheelchair Housing Association Group) and Home Housing Trust | | |
| Status: | Published guidance | Applicability: | Housing for wheelchair users | | |
| Format: | Hard copy | Publication date: | 2006 (first edition 1997) | | |
| Where to find it: | Available from www.habinteg.org.uk | Who to contact: | Chris Goodman, Habinteg | | |
| Overview: | <p>A comprehensive guide widely regarded as the key resource for the design of wheelchair housing. The technical sections cover a range of 15 activities associated with the home environment and is illustrated with numerous diagrams. (Note that aside from one additional section on 'Controlling services', the activities are reflected directly in the checklist of 14 'key features' in the GLA Best Practice Guide – reviewed separately).</p> <p>Each activity is dealt with under four headings:</p> <ul style="list-style-type: none"> • Principle • Design Considerations • Requirements • Recommendations <p>An appendix includes a checklist of over 100 requirements and over 200 best practice prompts – this represents a summary of the full set of requirements in the technical sections.</p> <p>Full compliance is onerous and designers find it very difficult to accommodate the full set of requirements especially in more urban contexts where flats predominate and a wide variety of block typologies are employed. In practice, with the exception of some two storey houses, the design of wheelchair dwellings is usually bespoke for each project. Also there is a sense that many occupants may not need all the features required. The key issue for designers is the absence of space standards, making it very difficult to allow appropriate space during the early stages.</p> | | | | |
| Overall rating: | Design guidance: 8/10 Background reading: 7/10 | | | | |

Relevance to other non-mainstream categories: Older people

Key features and recommendations:

The very detailed nature of the technical guidance characterises this document. Activity areas covered in the technical section are as follows:

1. Moving around outside
2. Using outdoor space
3. Approaching the home
4. Negotiating the entrance door
5. Entering and leaving; dealing with callers
6. Negotiating the secondary door
7. Moving around inside; storing things
8. Moving between levels within the dwelling
9. Using living space
10. Using the kitchen
11. Using the bathroom
12. Using bedrooms
13. Operating internal doors
14. Operating windows
15. Controlling services

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | | 4/5 |
| Space | Considerable spatial implications but no space standards given. | |
| Functionality | Very detailed requirements and recommendations; from turning and transfer space to mounting height of doorbells, types of door furniture, taps and two-way light switching. Particular detail for bathrooms, kitchens and circulation areas . Direct connection needed between bedroom and bathroom and second WC required in 4p+ . | |
| Accessibility | Most of the functionality requirements derive from the need to achieve full wheelchair access to all parts of the home and associated outdoor space. Lift required to connect all floors of 2 and 3 storey dwellings. | |
| Amenity | Gardens/balconies highly desirable (not essential) and must provide level access. | |
| Shared spaces | | 2/5 |
| Cores and circulation areas | 2 lifts required to any upper floor wheelchair dwellings. | |
| Activity areas | - | |
| Outdoor spaces | Where provided, must have level access . Dwellings with own front door (e.g. houses) must have a covered parking | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|--|--------------|
| | space (5400 x 3600mm, 2200mm high). Dwellings with communal entrance need designated space with level transfer to and from vehicle. | |
| Public realm | | 2/5 |
| Streetscape | General requirement for wheelchair access to all site amenities. | |
| Public open space | - | |
| Public transport/local facilities | Good access to public transport and services recommended i.e. wheelchair homes must be in appropriate locations. | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | General recommendations promote well-being. | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---------------------------------------|---------------|---|
| Lifetime Homes | yes | exceeds all Lifetime Homes standards |
| Secured by Design | yes | no, but suggests that compliance with SBD should be possible with careful design, e.g. doors and windows need careful consideration to reconcile security and usability |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Other wheelchair design guides | yes | |

| | | | | | |
|--|--|--------------------------|---|---------------------|-----|
| Category: | Disabled | Sub-group: | Wheelchair housing | Our ref. no. | 002 |
| Title: | Greenwich Wheelchair Site Brief 2008 (Revised) - updated June 2010 | | | | |
| Author: | Greenwich Council | Commissioned by: | Greenwich Council | | |
| Status: | Published planning guidance | Applicability: | Housing for wheelchair users in Greenwich (and adopted elsewhere by other SE London boroughs) | | |
| Format: | Web-based pdf | Publication date: | 2010 (first edition 2008) ¹ | | |
| Where to find it: | www.greenwich.gov.uk | Who to contact: | www.greenwich.gov.uk | | |
| Overview: | <p>A locally produced variation of the Wheelchair Housing Design Guide (WHDG) required by Greenwich Council as a condition of planning (also re-titled and adopted by other London boroughs through the SE London Partnership).</p> <p>Mirroring the 15 point structure of the WHDG but providing more definitive requirements and exceeding many of its standards, making compliance clearer but even more onerous. Still no overall dwelling space standards, though annotated, dimensioned room layouts are provided.</p> <p>Overall a very clear and straightforward document which contains only what are described as 'essential features' (i.e. avoids any ambiguity about recommendations as distinct from requirements and offers little scope for deviation or interpretation). No case studies or diagrams provided except for the room layouts which follow the written standards set out on 11 pages.</p> | | | | |
| Overall rating: | Design guidance: 8/10 Background reading: 3/10 | | | | |
| Relevance to other non-mainstream categories: | Older people | | | | |

Key features and recommendations:

Activity areas covered in the technical section are consistent with the WHDG (see below) but many requirements are more onerous. As with the WHDG and GLA guide, there is limited guidance for shared spaces (houses appear to be the expected norm) and no reference is made to sustainability.

¹ Note that a further revised update was published by Greenwich Council in April 2011 but the summary information provided in this literature review relates to the June 2010 version (the version available at the time of writing).

1. Moving around outside
2. Using outdoor space
3. Approaching the home
4. Negotiating the entrance door
5. Entering and leaving; dealing with callers
6. Negotiating the secondary door
7. Moving around inside; storing things
8. Moving between levels within the dwelling
9. Using living space
10. Using the kitchen
11. Using the bathroom
12. Using bedrooms
13. Operating internal doors
14. Operating windows
15. Controlling Services

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | | 5/5 |
| Space | Considerable spatial implications. Room areas given but no overall dwelling space standards provided. | |
| Functionality | Very detailed requirements and recommendations; generally exceeding WHDG. Min. clear door opening widths increased to 900mm (840mm in exceptional circumstances), nibs increased to 550mm to both sides of doors (compares with 300mm to leading edge, 200mm to following edge in WHDG). 1400mm clear space in front of all furniture to living room; 1100mm clear space to sides of bed; 1000mm to foot (1400mm if furniture opposite). Bath, shower rooms and kitchens particularly specific. Full set of furnished, dimensioned room layouts are included e.g. for 5 person occupancy - living room 22.5m ² ; dining area 12.5m ² (excluding kitchen); double bedroom 17m ² etc. | |
| Accessibility | Wider clear openings to entrance doors and larger parking bays than WHDG. Circulation areas increased to minimum 1200mm and 3 storey dwellings prohibited. | |
| Amenity | Sliding doors prohibited to gardens and balconies; 1500mm turning circle to balconies | |
| Shared spaces | | 1/5 |
| Cores and circulation areas | 2 lifts required to any upper floor wheelchair dwellings; otherwise few requirements | |
| Activity areas | - | |
| Outdoor spaces | - | |
| Public realm | | 2/5 |
| Streetscape | General requirement for wheelchair access to all site amenities; maximum gradient reduced to 1:20 | |
| Public open space | - | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|--|--------------|
| Public transport/ local facilities | Good access to public transport and services recommended i.e. wheelchair homes must be in appropriate locations. | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | General requirements promote well-being | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---|---------------|----------------------------------|
| Lifetime Homes | yes | exceeds Lifetime Homes standards |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| <ul style="list-style-type: none"> • HCA Design and Quality standards • NHF standards and Quality in Development • Wheelchair Housing Design Guide • GLA Best Practice Guidance | yes | |

| | | | | | |
|--------------------------|---|--------------------------|--|---------------------|-----|
| Category: | Disabled | Sub-group: | Wheelchair housing | Our ref. no. | 003 |
| Title: | Best Practice Guidance - Wheelchair accessible housing (designing homes that can be easily adapted for wheelchair users) | | | | |
| Author: | David Bonnett and Rachel Marshall with Habinteg Housing Association and Sabrina Aaronovitch | Commissioned by: | Greater London Authority | | |
| Status: | Planning guidance | Applicability: | New housing for wheelchair users in London, but with wider applicability | | |
| Format: | Web-based pdf | Publication date: | September 2007 | | |
| Where to find it: | www.london.gov.uk | Who to contact: | Julie Fleck, GLA julie.fleck@london.gov.uk | | |
| Overview: | <p>Provides detailed planning guidance for the design of the 10% of new dwellings which must be wheelchair accessible and adaptable (London Plan policy). Requirements go significantly beyond Lifetime Homes and are intended to ensure that these designated homes can be easily adapted (without structural alteration) to comply in full with the Wheelchair Housing Design Guide (WHDG) at a future date. Particularly aimed therefore at market sale and intermediate dwellings where end users are not identified, but useful at pre-planning stages for affordable rented dwellings before allocations are made.</p> <p>Chapter 7 comprises a checklist of 14 key features or topic areas related to aspects of daily life; drawn directly from the WHDG. Each contains a set of specific functional requirements, illustrated by diagrams. Earlier chapters are more general, and Chapter 8 features two case studies. Note that the interim London Housing Design Guide includes a useful summary of the key requirements of this document at Appendix 3 and it is also summarised in the revised draft London Plan Housing SPG.</p> <p>This provides a useful, pragmatic attempt to prevent 'over-specification' during the design process; before specific need has been identified. The key features are the most useful part and are cross-referenced to the WHDG. Contains some ambiguities (e.g. suggests that occupancy could be reduced when modified to full wheelchair use), contradictions (e.g. lift provision), omits to give guidance on locating services and fails to give overall space standards or show any comprehensive internal layouts. Overall a good role model for a more pragmatic and flexible approach but more definitive spatial</p> | | | | |

parameters and greater clarity needed in some key areas.

Note that further work is currently being carried out by the GLA prior to inclusion in a revised Housing SPG. A more comprehensive review is planned, following commissioning of new ergonomic research (dependent on identifying a source of funding).

Overall rating: Design guidance: 7/10
Background reading: 6/10

Relevance to other non-mainstream categories: Older people

Key features and recommendations:

The functional requirements of Chapter 7 work from outside to inside; similar to Lifetime Homes. These relate directly to the WHDG and diagrams are reproduced from that document. Specific standards are set out under the sub-headings listed below for each topic:

1. **Moving around outside** - footpaths/gradients/cross falls/crossings
2. **Using outdoor spaces** - gardens/balconies/refuse
3. **Approaching the home** - parking for dwellings with a direct external entrance/parking for dwellings with a communal external entrance/entrance landing/canopy at entrance/lifts
4. **Negotiating the entrance door** - door/approach space/threshold
5. **Entering and leaving; dealing with callers** - lobby/turning space/transfer space
6. **Negotiating the secondary door** - external landing/door/approach space/threshold
7. **Moving around inside: storing things** - straight passages/head-on approach to doors in passages/turning 90⁰, turning 180⁰/effective clear widths for doors, doors at angles/sliding doors/storage
8. **Moving between levels within the dwelling** - through the floor lift and circulation
9. **Using living spaces** - room layout
10. **Using the kitchen** - room layout
11. **Using the bathroom** - bathroom/access from bedroom/second wc/layout/shower/baths/supports
12. **Using bedrooms** - layouts/door/hoist
13. **Internal doors** - construction
14. **Windows approach** - approach/safety/glazing/transoms

Note that topic 15 (Controlling Services) is not considered to be a planning matter and therefore not included. This would appear to allow switches, sockets controls etc to be located as for mainstream housing – running the risk of very costly alteration later.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|---|--------------|
| The Home | | 4/5 |
| Space | Requirements imply considerably more space than mainstream housing, but no space standards given. | |

| | | |
|------------------------------------|---|-----|
| Functionality | Detailed requirements set out for bathrooms and circulation spaces ; general spatial parameters and recommendations for other spaces. No room areas given. Second WC required for 4 person and larger homes. | |
| Accessibility | Requires full wheelchair access to all parts of the home and associated outdoor space. Level thresholds throughout. Covered, level platform required outside main entrance; large transfer space required inside. 200mm nibs required to approach side of door as well as 300mm to leading edge. Applies to sliding doors too. Hole must be provided for future through floor lift in houses and strengthened ceiling to bedroom and bathroom for hoisting with direct connection from bed to bath. | |
| Amenity | General recommendations and requirements for sill heights to living rooms to be 800mm or lower, transoms not to interrupt seated eye-line. | |
| Shared spaces | | 3/5 |
| Cores and circulation areas | Lift access required to serve any upper floor wheelchair dwellings; requirement for 2 lifts not entirely clear (London Housing Design Guide now says preferable, not essential). | |
| Activity areas | No requirements | |
| Outdoor spaces | Covered car-parking must be convenient to home, level or ramped access from parking to front door. Details as WHDG. | |
| Public realm | | 2/5 |
| Streetscape | General requirement for wheelchair access to all site amenities. | |
| Public open space | - | |
| Public transport/ local facilities | Good access recommended to public transport and services, i.e. wheelchair homes must be in appropriate locations | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | General recommendations promote well-being. | |
| Other | - | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---------------------------------|---------------|--------------------------------------|
| Lifetime Homes | yes | exceeds all Lifetime Homes standards |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Wheelchair Housing Design Guide | yes | |

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|--|--|--------------------------|---|---------------------|-----|
| Category: | Disabled | Sub-group: | Wheelchair housing | Our ref. no. | 004 |
| Title: | Mind the Step: an estimation of housing need among wheelchair users in England | | | | |
| Author: | Habinteg Housing Association with London South Bank University supported by HCA | Commissioned by: | Habinteg HA | | |
| Status: | Research report | Applicability: | housing for wheelchair users | | |
| Format: | Web-based pdf and hard copy | Publication date: | 2010 | | |
| Where to find it: | www.habinteg.org.uk | Who to contact: | Lynn Watson, Habinteg lynn.watson@habinteg.org | | |
| Overview: | <p>Sets out to present current national and regional estimates of housing need among wheelchair users in England and shows how the figures can be used to produce similar estimates at local authority level.</p> <p>Reports that 84% of homes in England fail to allow a wheelchair user to get to, and through, the front door without difficulty, and only 0.5% are reported to be 'accessible and adaptable' (English House Condition Survey 2007: Annual Report, CLG, 2009). This is set against findings from the survey of English Housing 2007-8 that 2.8% of households include a wheelchair user (of these 55% are owner occupied, 39% social rented and 6% private rented).</p> <p>Includes a checklist of criteria used in the English House Condition survey 2007 to assess which homes are 'visitable, accessible and adaptable' (Appendix 3) and an extensive bibliography.</p> <p>Good background reading giving a useful feel for the size of the problem. The formula for estimating unmet need in local authority areas may be useful but the checklist of criteria used by EHCS seems lacking in substance or rationale in some respects. Useful references.</p> | | | | |
| Overall rating: | Design guidance: n/a Background reading: 8/10 | | | | |
| Relevance to other non-mainstream categories: | Older people | | | | |

Key features and recommendations:

Identifies 3 interlinked solutions:

- Development of new wheelchair standard homes for owner-occupiers and tenants
- Support for home adaptations across tenures
- Efficient allocation, in social housing, of accessible and adaptable homes.

| | | | | | |
|--|--|--------------------------|--|---------------------|-----|
| Category: | Disabled housing | Sub-group: | Wheelchair housing | Our ref. no. | 005 |
| Title: | Specific Wheelchair Housing Design Standards | | | | |
| Author: | Department for Social Development, Northern Ireland | Commissioned by: | Department for Social Development, Northern Ireland | | |
| Status: | Published guidance | Applicability: | Social housing schemes, Northern Ireland | | |
| Format: | Website | Publication date: | not known | | |
| Where to find it: | www.dsdni.gov.uk | Who to contact: | HAGuideGeneralEnquiries@dsdni.gov.uk | | |
| Overview: | <p>A set of minimum design standards required by Department for Social Development, Northern Ireland (DSDNI) for all new build social housing schemes that receive Housing Association Grant or utilise Disposal Proceeds Funds.</p> <p>A succinct, bullet pointed list outlines key areas of design (see below) as well as additional good practice recommendations. This has been built from existing standards determined by independent bodies compiled by DSDNI from relevant existing literature across the industry. However, it is not intended that these requirements should supersede or absolve responsibility for compliance with related statutory requirements. External reference is given to BS8300, and a requirement to fit HSC Trust fittings is given in relation to bathroom design. Aside from this, many design intentions are designated as “preferred” or “to be considered” rather than all-out requirements.</p> <p>Whilst aimed primarily at new build social housing, many of the categories would also be applicable for refurbishment and conversion schemes due to their outline character.</p> <p>Further research would need to be undertaken by a designer in order to ensure that the spatial requirements which are referred to in the document but not explicitly outlined (such as that for hoists) can be incorporated within a design.</p> | | | | |
| Overall rating: | Design Guidance: 4/10 Background Reading: n/a | | | | |
| Relevance to other non-mainstream categories: | Applicable to all wheelchair users, ambulant disabled residents also accounted for and some relevance to older people. | | | | |

Key features and recommendations:

The information is clear and concise and set out in an easy to follow checklist format. However, detail and elaboration are missing, and no diagrams are provided to clarify the requirements in terms of plan or section. Areas covered include:

1. External access
2. General manoeuvrability / negotiating the entrance door
3. Kitchen layout
4. General fixtures and fittings within the home
5. Bathroom layout
6. Bedroom layout
7. General storage requirements

Externally, aspects such as carports, handrails, illumination, etc. are recommended, although sizes, levels, etc. are not given.

Internally there is more detail as to turning circles and access, although there is little to clarify how this relates to how a disabled resident would use the spaces provided, therefore limiting the understanding and ability to accommodate their needs.

No guidance is given for appropriate materiality.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|---|--------------|
| The Home | | 1/5 |
| Space | Turning circles and minimum access widths outlined | |
| Functionality | Outlines such as “easy to operate” or “within reach” given, although not explicitly stated | |
| Accessibility | Dwelling assumed to be on one level, or with a bedroom provided at entrance level. Car parking to be provided with appropriate approach to dwelling, and level thresholds throughout. | |
| Amenity | - | |
| Shared spaces | | 0/5 |
| Cores and circulation areas | - | |
| Activity areas | - | |
| Outdoor spaces | Where provided, must have level access. Dwellings with own front door must have a covered parking space (5400 x 3600mm, 2200mm high; designated space with level transfer to and from vehicle required to dwellings with communal entrance). | |
| Public realm | | 2/5 |
| Streetscape | To comply with Lifetime Homes criteria. Route from car-parking space (3.6m) to the home should be minimised with a max slope of 1:20. Carports, where provided, must be linked to dwellings. Main entrances covered, illuminated and with a level area (1200 x 1200mm) and a flush threshold provided outside all | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-------------------------------------|--|--------------|
| | external doors. Main paths to be 1200mm wide with firm even surface. Ramped areas must have handrail and safety edges both sides. | |
| Public open space | - | |
| Public transport / local facilities | - | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | - | |
| Other | <p>In larger family units a separate kitchen area is preferable. Some wheelchair users find open plan living and kitchen areas more convenient due to the reduction in the number of doors to negotiate. However, open plan arrangements need to have regard for and, where possible, mitigate noise from appliances and kitchen odours.</p> <p>Consider radiator free dwellings to assist wheelchair circulation.</p> | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---|
| Lifetime Homes | yes | Subservient to Lifetime Homes standards (with credit given for compliance under Code for Sustainable Homes) The HA Guide clearly differentiates between the latest Joseph Rowntree Lifetime Homes criteria and additional DSD accessibility and design requirements. |
| Secured by Design | no | no |
| Building for Life | no | no |
| Code for Sustainable Homes | no | all 'new build' self-contained schemes must meet the Code for Sustainable Homes rating level 3 or better |
| Others | yes | British Standards for kitchen design |

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|--------------------------|---|--------------------------|--|---------------------|-----|
| Category: | Disabled | Sub-group: | Wheelchair housing | Our ref. no. | 006 |
| Title: | Wheelchair User Housing Study: An evaluation of users experience and the evolution of design standards | | | | |
| Author: | Northern Ireland Housing Executive | Commissioned by: | Northern Ireland Housing Executive | | |
| Status: | Research report | Applicability: | Social housing in Northern Ireland, but with wider applicability | | |
| Format: | Web-based pdf | Publication date: | October 2006 | | |
| Where to find it: | www.nihe.gov.uk | Who to contact: | info@nihe.gov.uk | | |

Overview: This study was jointly commissioned by the Department for Social Development (DSD) and the Northern Ireland Housing Executive (NIHE) following a comprehensive literature search which identified the need for focused customer satisfaction feedback from wheelchair users on the design of their homes. The study looked at wheelchair users living in domestic settings rather than residential facilities.

Three aims were identified:

1. Systematically evaluate core design features present in both new build and adapted wheelchair standard dwellings from both user and provider perspectives.
2. Identify evidence of good practice and areas which require further development.
3. Gather data to help inform the development of new build wheelchair housing standards and identify areas for product development and assist with future reviews of design elements within new build or adaptation design guides.

The methodology incorporated a number of elements:

- an extensive literature review relating to wheelchair standard housing was carried out and used to identify trends and areas for future design development and to formulate key aims for the study
- an analysis of wheelchair provision was carried out to identify and quantify the number and type of wheelchairs in use (the type of chair affects the spatial implications)
- semi-structured interviews were completed with key managerial and technical personnel within the Regional Disablement Services to identify data that may assist with the future planning of new build wheelchair housing in Northern Ireland.
- in-depth interviews with a broad spectrum of wheelchair users from different age groups, in varying household tenures, were facilitated from a variety of operational sources. In total, 31 participants were interviewed, 16 from the North-West and 15 from the greater Belfast

area. Eight people also participated in the pilot study.

A very useful and comprehensive study; particularly the literature review which tracks wheelchair standards and legislation since the 1970s, and the detailed recommendations arising from the case study findings. These are offered for consideration in future standards and reference is made to 'a guide to be published by Habinteg - England later this year' so we can assume that the findings were considered (if not incorporated) in the revised Wheelchair Housing Design Guide (WHDB). (Interesting that Northern Ireland's own web-based Wheelchair Specific Design Standards - reviewed previously as ref. 005 - are much shorter than the WHDG. Note that they are undated but assumed to postdate this research).

The 11 page summary which includes the case study and interview findings is worth reading in full.

Overall rating: Design guidance: n/a
Background reading: 8/10

Relevance to other non-mainstream categories: Applicable to all wheelchair users; particular relevance to older people.

Key features and recommendations:

The report finds that, despite evidence that wheelchair housing design has evolved over time and become more inclusive for a wider range of wheelchair users, some tension remains between emerging good practice in design guidance for wheelchair users and the actual funding mechanisms for new build wheelchair dwellings in Northern Ireland.

It considers that space recommendations for specific elements of wheelchair standard housing have tended to increase over time. Although relatively small, they can be highly significant for wheelchair users and their carers but have not necessarily been achieved in practice, in part because funding is largely determined by a banded classification of the overall area of the home.

A critical issue for debate is whether new build schemes are customised to the specific needs of known wheelchair users, or there is an attempt to find more universal design solutions for all new build wheelchair standard housing. Part of this debate is that the needs of wheelchair users can change over time due to the progression of underlying medical conditions and the ageing process. Some people who had been independent wheelchair users required powered wheelchairs later in life.

It concludes that a more inclusive design approach to new build, wheelchair standard housing, has the potential to reduce the need for expensive, time-consuming and disruptive adaptations.

The recommendations for further research include these key areas:

- A need to invest in further anthropometric research to identify the spatial needs of assisted wheelchair users and carers in a variety of home settings.
-

- A technical and user evaluation of prefabricated building technologies should be undertaken with a view to considering these technologies for housing in Northern Ireland.
- An investment appraisal of a more inclusive and larger blueprint for wheelchair standard housing should be carried out incorporating current good practice established for design elements in new build and adapted property.

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------------------|---|
| Lifetime Homes | yes | Recommended baseline for all new mainstream housing |
| Secured by Design | yes | recommended in future |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | HCA Design and Quality standards | |

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|--|--|--------------------------|--|---------------------|-----|
| Category: | Disabled | Sub-group: | young people | Our ref. no. | 001 |
| Title: | Freedom to Live: transition for disabled young people Livability's report on young disabled people moving towards adulthood | | | | |
| Author: | Rachael Christophides | Commissioned by: | Livability (formerly Grooms-Shaftesbury) | | |
| Status: | Research report | Applicability: | Young disabled people | | |
| Format: | Web-based pdf | Publication date: | April 2008 | | |
| Where to find it: | www.livability.org.uk | Who to contact: | www.livability.org.uk | | |
| Overview: | <p>This study, intended to prompt government action, was commissioned by Livability (previously known as Grooms-Shaftesbury - a charitable organisation formed by the merger of John Grooms Housing Association and the Shaftesbury Society). Wide ranging in scope, it looks at the health, social, housing, educational, and employment issues faced by disabled teenagers.</p> <p>Chapter 4, <i>'Somewhere to Live'</i> looks at housing and while it doesn't deal specifically with housing standards, it is a salutary reminder that disability affects young as well as old. The specific problem addressed by this chapter is that, <i>'Young disabled people trying to work towards independent living are constrained by the chronic shortage of suitable accommodation. The dearth of provision undoubtedly restricts choice for disabled young people'</i>.</p> <p>It explains that young disabled people are currently badly served in many ways, particularly during the time when they are managing the transition from childhood to adulthood. In the context of support services, this transition happens at 16 and is often very abrupt, leaving young adults with little choice other than to remain or return (in the case of those who have been in residential care for children) to the parental home, or move to a care setting designed for older people. In many cases, neither is a satisfactory option.</p> | | | | |
| Overall rating: | Design guidance: n/a Background reading: 9/10 | | | | |
| Relevance to other non-mainstream categories: | - | | | | |

Key features and recommendations:

The report finds that although many disabled young people could live independently given the right support, there is a shortage of suitable and affordable housing particularly in urban locations close to amenities. It also recognises that for some, residential care will be appropriate and should be provided in a modern setting and tailored to meet individual needs, and must remain part of the spectrum of options available to young, disabled people. Care environments for younger people should be separate from those for older people.

Key recommendations of Chapter 4 are as follows:

1. The Government should undertake an immediate inquiry into the numbers, locations, needs and preferences of disabled young people who are inappropriately housed. A strategy to transfer them to more appropriate provision is urgently needed but cannot be devised before first establishing how many there are, where they are and what their precise needs may be.
2. Legislation is needed to allow disabled tenants to make essential alterations to the communal areas of shared properties.
3. Adoption of the Lifetime Homes standard should be mandatory for all new properties.
4. The Government should ensure that a minimum of 10% of new social housing is built to wheelchair standard with further targets set by local authorities based on the outcome of a far-reaching inquiry into demand.
5. Local authorities should be under an obligation to establish an Accessible Housing Register to ensure that what accessible housing stock is available is effectively used.
6. Guidance to professionals on the practical application of independent living, due to be devised by the Government as part of its independent living strategy, should emphasise that residential care must remain a part of the spectrum of options available to disabled young people.

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---------------------------------|---------------|---|
| Lifetime Homes | yes | Recommended baseline for all new mainstream housing by 2011 |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Wheelchair Housing Design Guide | no | Recommends that 10% of all new housing should be to wheelchair housing design standards |

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|--|--|--------------------------|---|---------------------|-----|
| Category: | Disabled | Sub-group: | Autism | Our ref. no. | 001 |
| Title: | A Practical Guide for Registered Social Landlords: Housing and Autism Spectrum Disorder (ASD) | | | | |
| Author: | Glasgow City Council (GCC) | Commissioned by: | GCC | | |
| Status: | Published guidance | Applicability: | Affordable housing for those with ASD, Glasgow but with wider applicability | | |
| Format: | Downloadable pdf and hard copy | Publication date: | March 2010 | | |
| Where to find it: | www.glasgow.gov.uk | Who to contact: | www.glasgow.gov.uk | | |
| Overview: | <p>This guide (claiming to be the first of its kind in the UK) is described as a training note to assist RSLs and other housing agencies to meet the needs of households with members with Autism Spectrum Disorder (ASD).</p> <p>It starts by considering the results of a survey, followed by clear summaries of what autism means, the legislative requirements, meeting needs and allocations and preventing homelessness. The guide recognises that solutions include general housing, which might be allocated to individuals alone/with carers/within a family situation, or various types of supported/group housing. It provides a few clear and simple design recommendations for general housing with short case study examples of why these issues are particularly important to those with ASD. Landlord responsibilities are also usefully summarised (Annex 2) and some examples of Specialist Housing Development are considered briefly but without details of any additional design standards (Annex 3).</p> <p>The guide provides admirably brief, clear and practical advice for homes designed for independent living, though there is little detail for supported housing.</p> | | | | |
| Overall rating: | Design guidance: 9/10 (for general housing only) Background reading: 8/10 | | | | |
| Relevance to other non-mainstream categories: | | | | | |

Key features and recommendations:

The survey revealed that the two most frequently raised issues facing households renting from RSLs were firstly, **insufficient bedrooms** (the need for those with ASD to have their own bedroom - largely because of the need for order and routine as well as the risk of disturbing sleep and behaviour patterns of siblings) and secondly, the **lack of access to a safe and secure garden**.

Landlord's responsibilities (described in Annex 2 as 'environmental service standards') are summarised below and design recommendations summarised in the table which follows. Note that the distinctions are not always clear.

1. Clarity of purpose for each room – multi-purpose or open plan spaces discouraged.
2. Rooms/spaces to be used consistently for the same purpose.
3. Maximum use of natural light and neutral colours, avoiding heavy patterns and generally controlling sensory stimuli as a means of reducing stress.
4. Minimise environmental change.
5. Pictures, symbols, signifiers and other visual communication systems encouraged as a means to support people's understanding of their environment.
6. Spaces to be clutter free.
7. Regular environmental audits to ensure that conditions are monitored (e.g. audit noise levels).
8. Use of appropriate assistive technology to promote independence.
9. Robust fixtures and fittings.
10. Regular maintenance needed to maintain a high standard, with repair work carried out quickly and sensitively.
11. Adequate internal space (must recognise that some ASD sufferers are sensitive about the need for personal space).
12. Important to recognise that the needs of people with ASD tend to be very specific - possibly unconventional - and may require an individual response. A range of flexible housing options should be considered:
 - supported housing
 - home ownership
 - group living
 - core and cluster
 - residential care
 - specialist/secure accommodation

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|--|--------------|
| The Home | | 4/5 |
| Space | Functionality requirements imply above minimum space standards but not significantly higher. | |
| Functionality | Own bedroom - needed for ASD sufferer regardless of age. Extra storage - needed to stay clutter free. Separate kitchen/diner - needed to provide clarity of function. Robust fixtures and fittings - and secure cupboards and window catches, 2 way locks, isolation switches for appliances. | |
| Accessibility | No particular requirements unless accompanied by physical disability (Lifetime Homes probably appropriate). Stairs pose an additional climbing hazard. | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| Amenity | <p>Secure private garden - highly desirable particularly for children with ASD; balconies far from ideal and may pose a hazard.</p> <p>Soundproofing within, and between dwellings - very desirable; in some cases essential to reduce friction both within the family and between neighbours</p> <p>Natural light</p> | |
| Shared spaces | | |
| Cores and circulation areas | Design recommendations geared towards houses rather than flats; no additional design requirements given for shared spaces or grouped dwellings. | |
| Activity areas | - | |
| Outdoor spaces | -. | |
| Public realm | | 1/5 |
| Streetscape | - | |
| Public open space | - | |
| Public transport/ local facilities | No particular requirements but good access to public transport and services seem appropriate and if re-housing becomes necessary should aim to be within the same neighbourhood (important for social and support networks and familiarity). | |
| Sustainability | | 2/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | General recommendations promote well-being and suggest the need for a stable and controllable internal environment. | |
| Other | - | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | no | |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | no | |

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|------------------|----------|-------------------|--------|---------------------|-----|
| Category: | Disabled | Sub-group: | Autism | Our ref. no. | 002 |
|------------------|----------|-------------------|--------|---------------------|-----|

Title: Living in the Community: Housing Design for Adults with Autism

| | | | |
|--------------------------|--|--------------------------|---|
| Author: | Andrew Brand | Commissioned by: | The Kingwood Trust with the Helen Hamlyn Centre (RCA) and BEING |
| Status: | Published guidance | Applicability: | Adults with ASD |
| Format: | Web-based pdf | Publication date: | 2010 |
| Where to find it: | www.hhc.rca.ac.uk | Who to contact: | www.kingwood.org.uk |

Overview: This comprehensive design guide specifically addresses the housing needs of the estimated half a million people with autism currently living in the UK.

It was commissioned by The Kingwood Trust who consider that, *‘The importance that design can play in improving the living environment for people with autism has until now gone largely unrecognised. At Kingwood we were convinced that the impact of housing design sensitive to the particular needs of people with autism would be significant, with the potential to improve their quality of life immeasurably’.*

The report notes that Autism Bill, passed in 2009, has led to increased attention being paid to autism, and that housing authorities now recognise their responsibility to respond to the needs of people with autism in their planning, design and housing allocation policies. It aims to help those involved with delivery to:

- understand how the built environment and housing design in particular affects the health and well-being of people with autism
- look at how housing design impacts on the effective delivery of care and support for adults with autism
- develop recommendations and concepts that show good practice in the design of residential accommodation for people with autism.

The report focuses on smaller living units such as group homes or self-contained flats in single, domestic-sized buildings within the community, not apart from it. These are now widely considered to be preferable to the large institutions which had tended to provide over-stimulating environments, and were occupied by large numbers of people for whom daily routines were determined by staff rather than residents. The shift to more domestic accommodation has reportedly reduced incidences of challenging behaviour, with individuals benefiting from more variety and stimulation from their living environment and inclusion in a community.

Specific findings include a number of recommendations formulated by experts in design, and based on the experience, observations and insights of people

with autism, their families and a wide group of professionals. The authors report surprise at some of the findings, including the importance of relating activity to space, the need for safe spaces or 'dens' to help reduce anxiety and the role of transitional spaces such as corridors which encourage casual social interaction.

It also threw up a number of questions prompting Kingwood to commission two further studies which are on-going at the time of writing (January 2011). One is looking in more depth at the design of specific spaces and the other focusing on sensory space.

Overall rating: Design guidance: 9/10 (for supported housing)
Background reading: 8/10

Relevance to other non-mainstream categories: Adults with other kinds of profound disability

Key features and recommendations:

The report finds that, *'The environment in which an adult with autism lives can have a profound impact on their health and wellbeing. Providing the right setting can help to enhance motivation, confidence and self-esteem'*.

Recommendations are structured under the following chapter and sub-headings:

1. Design Themes

Growth and development: *'Enhance the motivation, confidence and self-esteem of residents by encouraging exploration of their environment and providing spaces for developing interests and skills'*

Triggers: *'Reduce the triggers of agitation and anxiety, by providing comprehensible, coherent spaces that meet the sensory needs of individuals'*

Robustness: *'Keep residents and staff safe in a robust environment that is tolerant of unintended use'*

Support tools: *'Give staff the tools to deliver people-centred care and support'*

2. Design Guide

Planning: Deals with identifying the location and defining the right type of building for prospective residents.

Massing and layout: Covers the size, orientation, structure and internal organisation of the building. Mechanical and electrical outlines technologies and utility services.

Furniture, fabric and finishes: Introduces ideas about interior design and decoration.

Fixtures and fittings: Covers items that are installed in a building in such a way that they may be considered part of the building.

3. Design Concepts

Through an illustrative 'concept residence', considers the implications for the design of: **communal spaces, kitchen, bedroom, bathroom and WC, circulation space, dining space, laundry and staff space, outdoor spaces.**

As this is a specialised area, the recommendations of the Design Guide section are comprehensive and too numerous to list in full, but some key points are included below:

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | Note that in a care setting, this refers only to the private bedrooms and bathrooms as other spaces are shared | |
| Space | Rooms to be larger than usual, designed to conform to DoH National Minimum Standards for Care Homes for Young Adults and Adult Placements, and Lifetime Homes. | |
| Functionality | Group residents with similar needs but limit numbers to 8 people Provide clear visual access throughout the building. Provide larger bathrooms to facilitate one-to-one assistance with personal hygiene. | |
| Accessibility | Build in flexibility e.g. to allow residents to cohabit with a partner or facilitate reduced mobility with ageing. | |
| Amenity | Maximise daylight and ventilation and good views. Allow for assistive technology. Provide controllable heating and safe water temperatures. Provide plenty of sockets to reduce trailing cables, and install circuit breakers to rooms Use muted colours and non-reflective surfaces to reduce distraction/undue stimulation Keep furniture and fittings domestic but robust. Consider outward opening or double action pivot doors generally but always to private bathrooms. Use lever handles generally and flush fittings on the private side of doors. Specify non-flickering lights, flush or recessed. Use toughened or laminated glass. | |
| Shared spaces | | |
| Cores and circulation areas | Provide wide circulation spaces with passing places; avoid 'surprises' e.g. blind corners Use curved walls along circulation spaces or avoid corridors altogether by designing short connecting spaces so the building interior does not look institutional | |
| Activity areas | Design a simple layout in which rooms have a clearly discernable function Include communal rooms with high ceilings to allow for large movements such as jumping and pacing as well as smaller enclosed spaces for retreat. Use form, material, light or colour to differentiate communal spaces from private spaces. Maximise daylight and sunlight according to usage patterns e.g. bedrooms to face east, day spaces south and west etc. Provide more than one exit from communal spaces to give | |

| | | |
|------------------------------------|--|--|
| | <p>residents choice and help staff to manage challenging behaviour.</p> <p>Design smooth transitions spaces between areas of activity to allow for 'sensory recalibration', especially at entrances to the building or between high stimulus areas.</p> <p>Include low stimulus areas to minimise transmission of noise and soundproofing between spaces.</p> <p>Use washable, durable wall finishes and consider corner guards but avoid institutional feel.</p> <p>Maximise views of natural features like gardens and trees to enhance alertness and improve mood.</p> <p>Provide good access to outdoor spaces, and include some covered external space.</p> <p>Include plenty of accessible built-in storage to reduce clutter.</p> <p>Include sufficient space for staff to work and rest away from residents.</p> | |
| Outdoor spaces | Provide adequate car-parking for staff and visitors. | |
| Public realm | | |
| Streetscape | | |
| Public open space | Locate buildings close to public open space. | |
| Public transport/ local facilities | Locate buildings close to neighbourhood services and amenities. | |
| Sustainability | | |
| Energy | Consider whole house ventilation. | |
| Water | | |
| Health / well-being | As noted under other headings. | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | yes | recommended |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | | |

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|------------------|----------|-------------------|--------|---------------------|-----|
| Category: | Disabled | Sub-group: | Autism | Our ref. no. | 003 |
|------------------|----------|-------------------|--------|---------------------|-----|

Title: NAS architects briefing notes general design points

| | | | |
|--------------------------|--|--------------------------|------------------------------|
| Author: | National Autistic Society (NAS) | Commissioned by: | NAS |
| Status: | General guidance | Applicability: | children and adults with ASD |
| Format: | Website | Publication date: | not known |
| Where to find it: | www.autism.org.uk | Who to contact: | NAS |

Overview: Part of a series of helpful notes for those involved with the design and construction of buildings for people with Autism Spectrum Disorder (ASD). Not specifically geared to housing, but interesting and accessible general advice alongside information about symptoms, diagnosis etc.

Needs further work to establish how many of the requirements would be appropriate for general and supported housing.

Overall rating: Design guidance: 7/10
Background reading: n/a

Relevance to other non-mainstream categories:

Key features and recommendations:

- Handles on internal doors should be of a consistent type throughout.
 - Window catches should be of a consistent type throughout.
 - Large single-pane windows and large areas of glass in glazed doors should be avoided on safety grounds.
 - Key locks should be provided to external doors, to each bedroom, any office(s), food stores, kitchen, boiler rooms, domestic chemical stores (including cupboards used for that purpose) and rooms/cupboards containing electrical switchboards.
 - To minimise the number of keys carried by staff and to enable residents to use keys, a lock system should be adopted as follows:
 - A master key system for individual locks on all bedroom doors, food stores, kitchens, boiler rooms and electrical switchboards.
 - A separate master key system for locks to external doors.
 - Separate keys for chemical stores and offices.
-

- Multiple-use WC and bath/shower rooms should have a sliding bolt lock that can be opened from the outside in case of emergency.
 - External and ground floor doors and ground floor corridors must be wide enough to permit access by wheelchair, either for people with multiple disabilities or for access by staff using wheelchairs to assist someone recovering from an epileptic seizure. Where ground and floor levels change, shallow ramps should be provided in preference to steps.
 - Where building layout permits, a minimum of one ground floor room should be available for use as a bedroom for a wheelchair user.
 - The need to offer personal support, supervision and training in aspects of personal hygiene requires that at least some WC pans, hand basins and baths are positioned so that staff can stand beside the person they are assisting. All general use bathrooms or WCs must provide this additional space.
 - The dignity and privacy of individual residents in the building requires that they be offered en-suite washing/WC/shower or bath facilities where possible. Each self-contained housing unit should provide a majority of en-suite facilities, with a minimum of one bathroom and one separate WC also available for general use.
 - 'Push bar to open'-type fittings on external doors are unacceptable due to the risk of residents absenting themselves from the building at night.
 - Mechanical door-closers are a continual maintenance problem due to the high proportion of people with autism who try to close the door against the braking mechanism. Swing free closers are cheaper in the long-run.
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|--------------------------|---|--------------------------|---|---------------------|-----|
| Category: | Disabled | Sub-group: | Autism | Our ref. no. | 004 |
| Title: | Evaluation of Features specific to an ASD Designed Living Accommodation | | | | |
| Author: | Teresa Whitehurst, Sunfield Research Institute | Commissioned by: | Sunfield Research Institute | | |
| Status: | Published research | Applicability: | Intended for children with profound ASD | | |
| Format: | Website and downloadable pdf | Publication date: | 2007 | | |
| Where to find it: | www.autism.org.uk | Who to contact: | NAS | | |

Overview: This report set out to provide an evidence base for the design of a residential care environment for children with profound autistic spectrum disorder (ASD), based on the findings of a building specifically designed to include a set of pre-defined features.

The resulting accommodation comprised two identical, adjoining houses, centred around a shared courtyard. Following the move into the new accommodation in April 2004, Sunfield Research Institute commissioned an evaluation of the impact of the design upon children and staff. This evaluation was based on:

- interviews with Team Leaders
- focus groups involving a range of care staff
- feedback from the children via photographs

Using this information, each feature incorporated into the design was considered; particularly its benefits and impact on the residents.

Overall rating: Design guidance: 5/10 (care homes for children)
Background reading: 5/10

Relevance to other non-mainstream categories:

Key features and recommendations:

The design features incorporated and main findings are summarised below:

- **curvilinear design** - curved walls; facilitated movement around the building
- **specific colours** - pink and purple; found to have a particularly calming effect, grey; neutral effect
- **noise reduction fabrics** - slatted timber ceilings with acoustic blanket behind and fair-faced brick walls with raked joints; reduced noise and stress

- **non-fluorescent lighting** - flicker-free lighting; proved beneficial
 - **sensory suite** - distinct from a sensory room because it can be easily modified to provide a stimulating or calming environment to suit individual preference; proved popular
 - **courtyard and outdoor canopies** - provided a safe outdoor environment allowing children to play independently while still being observed by staff. Covered areas allowed for play in bad weather and for dry storage of play equipment; proved invaluable
 - **specific floor coverings** - Flotex carpet (in place of usual lino); proved very successful
 - **specific bedroom design** - children were encouraged to personalise their rooms which though small, had high ceilings and plenty of natural light and ventilation; increases sense of ownership and reduced institutional feel
 - **under floor heating** - avoided unsightly and potentially unsafe radiators and improved comfort
 - **circulation space** - designed to encourage casual social interaction; proved very successful
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|--------------------------|--|--------------------------|---|---------------------|-----|
| Category: | Disabled housing | Sub-group: | Autism | Our ref. no. | 005 |
| Title: | A Life in the Community: Supporting adults with autism and other developmental disorders whose needs are challenging | | | | |
| Author: | Simon Whitehead, Patrick Bolton, Mary McGuire | Commissioned by: | The Kingwood Trust | | |
| Status: | Research report | Applicability: | adults with ASD and other developmental disorders | | |
| Format: | Web-based pdf | Publication date: | September 2001 | | |
| Where to find it: | www.kingwood.org.uk | Who to contact: | The Kingwood Trust | | |

Overview: While not a design guide, this strategic report provides background insight into the unmet support needs of adults with particularly complex and challenging conditions; many of which are associated with some form of autistic spectrum disorder (ASD). Jointly authored, it draws on the work of The Kingwood Trust and many additional experts in the field and was produced in association with the Autism Research Centre, University of Cambridge, The National Autistic Society, The National Development Team and supported by the Three Guineas Trust. It has directly informed the 2010 publication, *Living in the Community: Housing Design for Adults with Autism*, which has been reviewed separately as part of this study.

The trustees of The Kingwood Trust commissioned the report in response to their concern that policy initiatives to close many of the larger residential institutions, which until 2000 had housed many of those with severe forms of ASD, had not adequately addressed the provision of other types of accommodation. Initial work revealed the worrying extent and complexity of the problems that organisations providing social care for this hard to place group of people were experiencing.

Although the report concentrates on service provision issues, it includes important reminders about human rights and the impact that the physical environment, particularly the home, can have on quality of life. It places great emphasis on individual need while making the general point that people with autistic spectrum disorders like structure, rhythm and routine in their lives, and yet are too often placed in environments where these issues are either not addressed, or if they are, there are too many conflicting demands from others for them to be adhered to effectively.

It also reminds us that very few people with learning disabilities, let alone those with more complex needs, choose where, or with whom, they live.

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| Overall rating: | Design guidance: n/a Background reading: 8/10 |
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| Relevance to other non-mainstream categories: | Adults with other forms of profound disability |
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Key features and recommendations:

Key themes include:

- Finding out enough about people to make effective individual plans: this includes issues about assessment and person centred planning
 - Preparing individuals for changes at key stages of transition in life and at other times
 - Identifying options for living that provided the environments and living arrangements best suited to someone's needs and wishes
 - Extending opportunities for a fulfilling life through work, lifelong learning and a range of social and leisure activities.
 - Getting the funding and commissioning right; this has to be flexible, involved, local and accountable
 - Providing good quality social care through a workforce which is appropriately trained, managed and supported
 - Ensuring access to specialist support and other services from health and other agencies
 - The need for better integration of services with more effective joint working and partnership
 - Developing standards and quality assurance processes that safeguard people's lives.
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| Category: | Disabled housing | Sub-group: | Autism | Our ref. no. | 006 |
|------------------|------------------|-------------------|--------|---------------------|-----|

Title: Fulfilling and rewarding lives
The strategy for adults with autism in England (2010)

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|--------------------------|--|--------------------------|--|
| Author: | Department of Health (DoH) | Commissioned by: | DoH |
| Status: | Government policy | Applicability: | UK |
| Format: | Web-based pdf | Publication date: | March 2010 |
| Where to find it: | www.dh.gov.uk | Who to contact: | www.dh.gov.uk |

Overview: Sets out the government's strategy for adults with autism; underpinned by the principles of equality and human rights. It draws on the findings of the National Audit Office report, 'Supporting adults with autism through adulthood' (2009), and the recommendations from the Public Accounts Committee report (2009) of the same title. This also follows the landmark Autism Act 2009 (the first legislation designed to address the needs of a specific impairment group – adults with autism).

Government's vision is quoted as being that '*All adults with autism are able to live fulfilling and rewarding lives within a society that accepts and understands them. They can get a diagnosis and access support if they need it, and they can depend on mainstream public services to treat them fairly as individuals, helping them make the most of their talents.*'

The report explains that despite progress to reduce inequality across the UK, adults with autism remain socially and economically excluded and are often let down by public services. Many are dependent on benefits for their income and on the care and support of families, for housing as well as many aspects of everyday life.

Useful background reading in relation to national policy, but not specifically related to housing and no design guidance included.

Overall rating: Design guidance: n/a
Background reading: 8/10

Relevance to other non-mainstream categories:

Key features and recommendations:

Promotes independent living with support, and support in to work, as the best ways in which to enhance quality of life for sufferers, carers and families, and reduce overall care and health costs.

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| Category: | Disabled | Sub-group: | Sight loss | Our ref. no. | 001 |
|------------------|----------|-------------------|------------|---------------------|-----|

Title: Housing for people with sight loss:
A Thomas Pocklington Trust design guide

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|--------------------------|---|--------------------------|--|
| Author: | Chris Goodman, Habinteg | Commissioned by: | Thomas Pocklington Trust |
| Status: | Published design guidance | Applicability: | People with sight loss |
| Format: | Hard copy | Publication date: | April 2008 |
| Where to find it: | Summary available from: www.pocklington-trust.org.uk Full guide available to purchase from: www.brebookshop.com | Who to contact: | info@pocklington-trust.org.uk |

Overview: A comprehensive technical guide containing good practice guidance, primarily to assist architects/designers and housing practitioners. The emphasis is on maximising functional vision and on minimising barriers and risk, by achieving specific design and specification requirements. It seeks to promote a good standard of inclusive design in all new housing; a key consideration given the link between the ageing population and sight loss.

It was written following various research projects commissioned by the Thomas Pocklington Trust. The two principal projects were carried out by University College London who considered:

- the housing and support needs of people of working age with sight loss
- the housing, care and support needs of older people with sight loss.

Two general chapters provide an introduction and set out the general principles and considerations when designing for people with sight loss, and the remaining 14 chapters are technical, focusing on specific spaces or topics. For each of these, a clearly stated principle is followed by design considerations and technical requirements. Chapters are subdivided into 4 sections:

1. External areas
2. Functional spaces
3. General services and components
4. Communal areas

The guide states that the emphasis is on inclusive design, based on the social model of disability. This focuses on the design of the built environment, not on an individual's impairment. Although the exemplary approach and thoroughness have to be admired, the requirements are so

detailed and so extensive that full compliance would be extremely onerous; exceeding typical mainstream practice in almost all areas including the design of the public realm. In terms of shared spaces, it is not clear whether the requirements for communal areas are expected to apply to all block of flats (i.e. represent an inclusive mainstream design approach) or just to those which are specifically designed for the visually impaired.

As all requirements are given equal weight, it is not easy to see how you would cut down from good (or more accurately, best) practice to baseline standards.

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| Overall rating: | Design guidance: 8/10 Background reading: n/a |
| Relevance to other non-mainstream categories: | Older people and possibly wheelchair housing as well as housing for those with autism or dementia. Also relevant to mainstream housing. |

Key features and recommendations:

Some of the more notable requirements are summarised below, but the document needs to be referred to in full.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|--|--------------|
| The Home | | 4/5 |
| Space | Higher than average space standards are implied. No minimum floor areas are given; designers are required to provide sufficient space to meet the requirements of each chapter. | |
| Functionality | Simple layouts are required and fairly square rooms considered helpful; irregular or long, thin rooms to be avoided. 'Usual furniture' to be accommodated but generally placed against walls, leaving central floor space free. Detailed requirements set out for hallways and circulation areas including storage, living areas, kitchens, bathrooms and WCs, and bedrooms . Kitchen requirements are particularly specific. At least two bedrooms considered desirable; one bedroom acceptable in supported accommodation with guest facilities but not bedsits. | |
| Accessibility | Lifetime Homes is required as the baseline standard for accessibility and adaptability but exceeded in some respects. For example, a fully wheelchair accessible WC is required at entrance level in all dwelling types and an accessible shower required in all single storey dwellings (with the potential required in multi-level dwellings). | |

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|-----------------------------------|---|-----|
| Amenity | Daylight and lighting critically important where visual impairment is concerned, and requirements here are extensive and detailed. Controls should be accessible and have clear tactile coloured clues and switches and handles should be located consistently so that things are where you would expect them to be. Dimmers and two-way switching are required. Surface finishes and contrast are very important too, as is durability . | |
| Shared spaces | | 4/5 |
| Cores and circulation areas | These areas are dealt with in detail in Chapter 16, <i>Communal Areas</i> , as additional requirements to the preceding chapters. Approaches and entrances, lobbies, hallways and corridors, doors, lifts and stairs are all subject to comprehensive guidance. A number, including 'no dead-end hallways' are restricting and others, for example, 'circulation routes minimum 1800mm wide' very onerous; in some cases more than wheelchair housing guidance. | |
| Activity areas | General guidelines for lounge/activity spaces, informal seating areas, laundry facilities, stores and guest accommodation are provided, together with some very specific requirements for certain areas including the laundry where worktop lengths are given. | |
| Outdoor spaces | Front and rear gardens, parking and refuse disposal areas are considered within Chapter 16. Chapter 3, <i>Public and communal areas outside plot boundaries</i> , and Chapter 4, <i>Private areas within plot boundaries for houses or blocks of flats</i> , are also relevant to shared outdoor spaces and the overlaps between these three chapters can be confusing. | |
| Public realm | | 3/5 |
| Streetscape | Chapter 3 includes detailed requirements for footpaths/pavements, street furniture, planting, parking, lighting and colour contrasts . Requirements such as the need for kerbs can conflict with shared surface designs. | |
| Public open space | (Considered above as part of streetscape). | |
| Public transport/local facilities | Proximity to local services considered vital as is the safety and security of the neighbourhood. Busy roads with fast moving traffic present a particular hazard. | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | Many requirements promote general well-being. | |
| Other | - | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|------------------------------|----------------------|----------------------------|
| Lifetime Homes | yes | yes |
| Secured by Design | yes | yes, full certification |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Wheelchair housing standards | yes | |

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|--|--|--------------------------|--|---------------------|-----|
| Category: | Disabled | Sub-group: | Sight loss | Our ref. no. | 002 |
| Title: | The housing and support needs of adults aged 18-55 with impaired vision: A good practice guide (What architects need to know) | | | | |
| Author: | Julienne Hanson, University College London | Commissioned by: | Thomas Pocklington Trust and Housing Corporation | | |
| Status: | Published good practice guidance | Applicability: | Adults with sight loss (18-55) | | |
| Format: | Web-based pdf | Publication date: | February 2005 | | |
| Where to find it: | www.space.bartlett.ucl.ac.uk | Who to contact: | info@pocklington-trust.org.uk | | |
| Overview: | <p>This chapter of the good practice guide deals specifically with design issues associated with housing for people with impaired vision. The guide is one of the outcomes of a two year research project to consider how best to guide housing choices or support service delivery for adults with sight loss. It includes some of the direct findings of the research which are outlined in other Pocklington publications <i>'Research Findings No 11: The housing and support needs of people aged 18-55 with sight loss'</i> and <i>Occasional Paper No 7: The housing and support needs of people aged 18-55 with sight loss</i> (the latter is reviewed separately in the following pages).</p> <p>The emphasis is on good mainstream housing based on inclusive design principles. It opens with a definition of inclusive design and goes on to consider the urban context, the pedestrian environment, management of the public realm and the design of the 'home patch'. It considers the exterior design of the home, internal space and interior design issues and concludes with a summary and 20 recommendations. As well as informing designers and providers, it can also be used to evaluate an existing home and neighbourhood when considering a move.</p> | | | | |
| Overall rating: | Design guidance: 7/10 Background reading: n/a | | | | |
| Relevance to other non-mainstream categories: | Older people and possibly wheelchair housing as well as housing for those with autism or dementia. Also relevant to mainstream housing. | | | | |

Key features and recommendations:

The specific design features recommended in homes for adults with impaired vision are not onerous, and it is recommended that they are discreet in order to minimise drawing attention to disability and to maximise integration.

In addition to the design features summarised below, it is recommended that:

- strategic plans should recognise that low density dispersed towns which rely on car usage are unsuitable for the visually impaired
- public transport systems should be more disability aware
- housing providers should offer a choice of homes in different residential scales and settings
- a network of regional 'demonstration flats' are provided to allow people to try out a range of assistive technology
- training and starter packs with instruction packs are recommended for each home

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | | 4/5 |
| Space | Higher space standards - implied but no areas suggested. Space needed for furniture and possessions, to entertain or accommodate overnight guests, to move about safely and be sociable – and to accommodate a guide dog | |
| Functionality | Flexibility and simple layout - considered most important features Two bedrooms - advantageous even for singles and couples | |
| Accessibility | No particular requirements unless accompanied by physical disability, but must be hazard free (Lifetime Homes probably appropriate). Ground floor accommodation not essential. | |
| Amenity | Private garden - highly desirable as long as low maintenance; essential where residents have guide dogs Light - good natural and artificial light very important for the partially sighted; should be tailored to individual need and supported by a lighting consultant. Note that more detail on lighting is included in ' <i>Improve the lighting in your home</i> ' published by TPT and the RNIB. Safety and security features - perimeter fencing accessed by a locked security gate, sensor-activated external security lighting, porch lighting, secure doors, locks and windows catches, a burglar alarm and smoke alarms recommended. General approach to interior design - 'bigger, bolder and brighter' with good tonal contrast Must be easy to maintain and manage | |
| Shared spaces | | 1/5 |
| Cores and circulation areas | All areas must be well maintained and managed to eliminate trip hazards | |
| Activity areas | - | |
| Outdoor spaces | - | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|--|--------------|
| Public realm | | 3/5 |
| Streetscape | Frequent safe crossings points which are suitable for the visually impaired e.g. tactile paving | |
| Public open space | Public realm must be well maintained and managed to eliminate trip hazards | |
| Public transport/local facilities | Public transport and services – good access vital | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health / well-being | General recommendations promote well-being | |
| Other | - | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | no | |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | no | |

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|--------------------------|--|--------------------------|--|---------------------|-----|
| Category: | Disabled housing | Sub-group: | Sight loss | Our ref. no. | 003 |
| Title: | Occasional Paper No 7: The housing and support needs of people aged 18-55 with sight loss | | | | |
| Author: | University College London | Commissioned by: | Thomas Pocklington Trust and Housing Corporation | | |
| Status: | Published research | Applicability: | Adults with sight loss (18-55) | | |
| Format: | Web-based pdf | Publication date: | February 2006 | | |
| Where to find it: | www.pocklington-trust.org.uk | Who to contact: | info@pocklington-trust.org.uk | | |
| Overview: | <p>This paper summarises the findings of a two year research project which considers how best to guide housing choices or support service delivery for adults with sight loss. The research involved interviewing blind and partially sighted adults and talking to stakeholder organisations that deliver housing and support services to this group. Direct findings are published in a separate paper titled '<i>Research Findings No 11: The housing and support needs of people aged 18-55 with sight loss</i>' (also available from the above web link).</p> <p>The study found that working-age adults with sight loss see themselves first and foremost as independent people who are integrated within mainstream society, but who just happen to have impaired vision. They are more likely than previous generations with sight loss to embrace normalisation and independent living. These young adults value the opportunity to live independently within a mainstream community setting rather than a specialist purpose-built one, provided they have a sympathetic landlord or help to hand if needed. Most of those in the study felt there should be a wider choice of housing and support, not just for people with sight loss but for anyone who would prefer a more supported housing setting.</p> <p>The study includes a telling statistic that 7 out of every 10 of the people interviewed rented their home, whilst only 3 out of 10 were owner-occupiers. In the mainstream population the figures are reversed, with 7 in 10 people owning their home.</p> <p>The study is aimed primarily at general rather than specialised housing and although much of it deals with delivery and support, a short section on the built environment highlights some useful design issues.</p> | | | | |
| Overall rating: | Design guidance: 6/10 Background reading: 7/10 | | | | |

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| Relevance to other non-mainstream categories: | Older people and possibly wheelchair housing as well as housing for those with autism or dementia. Also relevant to mainstream housing. |
|--|--|

Key features and recommendations:

The study concludes that the detailed design of housing for people with impaired vision need not be very different from mainstream housing. It suggests that designers and house builders need to embrace inclusive design principles so that an increasing proportion of the general housing stock is suitable for people with disabilities, including those with sight loss. Adequate housing was felt to be vital for quality of life and 3 particular issues were identified:

- location
- space
- safety and security.

The recommendations for the built environment are as follows:

- In line with the requirements of the Disability Discrimination Act, planners, architects and designers should adopt inclusive design principles, not only when designing new housing specifically for people with sight loss, but also when designing general needs housing and public and community spaces.
 - Public transport systems need to be accessible for people with sight loss.
 - All housing providers, including private sector house builders, should develop a portfolio of housing that is suitable for people with sight loss and offers a choice of residential scales and settings.
 - Specialist housing for young people with sight loss can usefully be packaged to reflect diverse needs, abilities and levels of independence. New forms of specialist housing should be explored that bring different sections of society together on a basis of interdependence and mutual support rather than setting them apart from mainstream society.
 - Housing providers should locate housing for visually impaired people in safe, integrated locations well served by public transport, with good local shops and amenities.
 - Housing intended for people with sight loss should be spacious and designed with flexibility in mind. A clear and logical plan will assist orientation indoors.
 - A greater proportion of two-bedroom units for single people with sight loss should be provided by the social rented sector.
 - Existing and new homes should be individually tailored to visually impaired people's requirements, using evidence-based design guidance and checklists developed for this purpose. A home visit from a vision impairment consultant should be offered as standard at the time of a move, to help people with residual vision tailor the lighting and colour contrast in their home to their individual requirements.
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| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| The Home | | 4/5 |
| Space | Higher than average space standards - implied but no areas suggested | |
| Functionality | Flexibility and simple layout - considered most important features Two bedrooms - advantageous even for singles and couples | |
| Accessibility | No particular requirements unless accompanied by physical disability (Lifetime Homes probably appropriate). | |
| Amenity | Private garden - highly desirable as long as low maintenance and suitable for guide dogs Light - good natural and artificial light very important for the partially sighted Safety and security features - perimeter fencing accessed by a locked security gate, sensor-activated external security lighting, porch lighting; secure doors, locks and windows catches, a burglar alarm and smoke alarms General approach to interior design - bigger, bolder and brighter with good tonal contrast | |
| Shared spaces | | 1/5 |
| Cores and circulation areas | Safety and security features - CCTV, entry phone or intercom etc. all with audio signals | |
| Activity areas | - | |
| Outdoor spaces | - | |
| Public realm | | 1/5 |
| Streetscape | - | |
| Public open space | - | |
| Public transport/ local facilities | Public transport and services - good access vital | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health / well-being | General recommendations promote well-being | |
| Other | - | |

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|--------------------------|--|--------------------------|--|---------------------|-----|
| Category: | Disabled housing | Sub-group: | sight loss | Our ref. no. | 004 |
| Title: | Housing for people with sight loss: A practical guide to improving existing homes (Good Practice Guide 4) | | | | |
| Author: | Thomas Pocklington Trust | Commissioned by: | Thomas Pocklington Trust | | |
| Status: | Published design guidance | Applicability: | Existing homes for people with sight loss | | |
| Format: | Web-based pdf | Publication date: | July 2009 | | |
| Where to find it: | www.pocklington-trust.org.uk | Who to contact: | info@pocklington-trust.org.uk | | |
| Overview: | <p>A short simple guide to home improvements which make existing homes more suitable for people with sight loss.</p> <p>Comprises 8 very short chapters (a double page spread each) dealing with:</p> <ul style="list-style-type: none"> • Improving homes: six key points • Involving people • Entrances, halls and stairways • Kitchens and utility areas • Living and dining areas • Bedrooms • Bathrooms and WCs • Outdoors <p>For each part of the home, an objective is clearly stated, followed by '<i>What good practice looks like</i>' – dealing with design recommendation and '<i>Things you can do now</i>' – suggesting inexpensive, quick fixes. Useful checklists are provided at the end.</p> <p>Although this document has limited relevance to this piece of work as it does not provide design guidance for new build, non-mainstream housing, it is an excellent presentational role model because of its brevity, pragmatism, clear style and simple format. Similarly, In terms of content, although many of the suggestions relate to the use of strong colour contrast - ideas which many with good eyesight might find unappealing - these are generally easy to do as adaptations. Other suggestions are useful reminders of things which would make all housing more inclusive and are fairly simple to include at the design stage. A twin publication, <i>Good Housing Design – Lighting: A practical guide to improving lighting in existing homes (Good Practice Guide 5, March 2010)</i> provides more detail on this topic</p> | | | | |
| Overall rating: | Design guidance: 4/10 (NB. full marks for presentation/clarity) Background reading: n/a | | | | |

Relevance to other non-mainstream categories: Older people and possibly wheelchair housing as well as housing for those with autism or dementia.
Also relevant to mainstream housing.

Key features and recommendations:

The main features which are specifically highlighted or implied as likely to make mainstream housing more suitable for people with sight loss are summarised below:

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|---|--------------|
| The Home | | 4/5 |
| Space | Space standards - generous enough to make moving around safe; more space needed if associated with mobility problems. | |
| Functionality | Layout - simple and straightforward Storage - generous enough to help avoid clutter and allow things to be stored systematically for easy access. Kitchen - logical layout (cooker and sink close together), visible, easy-grip handles Space for guide dog bed. | |
| Accessibility | no special requirements but Lifetime Homes would seem sensible | |
| Amenity | Daylight and lighting - good, even lighting which avoids shadows; lights inside wardrobes. Controls switches and handles - located consistently so that things are where you would expect them to be and accessible Telephone point - next to an electrical socket that can support a computer, internet connection, call system tele-care equipment and task lighting in bedrooms and living rooms. Durable finishes and robust fixtures and fittings | |
| Shared spaces | | 1/5 |
| Cores and circulation areas | Tactile surfaces suggested at the top and bottom of stairs | |
| Activity areas | - | |
| Outdoor spaces | To include secure dog runs with water and drains for guide dogs | |
| Public realm | | 3/5 |
| Streetscape | Paths wide enough for 2 people to walk together, smooth, even surface with tactile hazard paving . Bins, bollards, lighting etc carefully placed; gates inward opening. Low planting . Convenient parking and drop off points close to entrances. | |
| Public open space | | |
| Public transport/local facilities | Proximity to local services considered vital as is the safety and security of the neighbourhood. Busy roads with | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|--|---------------------|
| | fast moving traffic present a particular hazard. | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | Many requirements promote general well-being. | |
| Other | - | |

5.4 Faith-based housing literature reviews

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|--------------------------|--|--------------------------|-----------------------------------|---------------------|-----|
| Category: | Faith housing | Sub-group: | general | Our ref. no. | 001 |
| Title: | Accommodating diversity: Housing design in a multicultural society | | | | |
| Author: | Penoyre and Prasad with Audley English Associates, Matrix Feminist Architectural Co-operative and Elise Owusu Architects | Commissioned by: | National Housing Federation (NHF) | | |
| Status: | Good practice guidance - endorsed by HCA in its <i>Design and Quality Standards 2007</i> . | Applicability: | Minority ethnic groups | | |
| Format: | Hard copy only (ISBN 978 0 86297 383 4) | Publication date: | First edition 1993, revised 1998 | | |
| Where to find it: | www.housing.org.uk | Who to contact: | NHF | | |

Overview: The original edition, 'Accommodating diversity: the design of housing for minority ethnic, religious and cultural groups', was one of the first publications to deal specifically with this subject. This second version is reformatted and includes minor revisions but is generally unchanged. The aim remains to increase awareness about the home lives of people from a range of minority ethnic, religious and cultural groups with a view to improving the understanding of general housing design principles as well as responding sensitively to specific ethnic requirements.

It is intended to be used as 'an aid to full consultation with the client group(s) rather than as a substitute for it', but a number of design matters specific to the following ethnic groups are considered: *African, Bangladeshi, Caribbean, Chinese, Filipino, Greek Cypriot, Indian, Jewish, Kurdish, Pakistani, Tamil, Turkish, Turkish Cypriot and Vietnamese*.

The guide also touches on the additional needs of older or disabled people of BME origin.

Following an introductory section, the guidance is arranged in 3 chapters:

- **Chapter 2 (Design: General issues)** – considers factors other than those specific to the individual parts of the dwelling. Themes addressed are: *location, mix and layout, aesthetics, style and appearance, family structures and house form, home and work, religious practices, accessibility, people with disabilities and communal facilities*.

- **Chapter 3 (Design: The home)** – examines the internal arrangement of the home and its rooms. Themes addressed are *layout and room use, circulation space, kitchens and cooking, living, 'dining' and family rooms, bathrooms and WCs, bedrooms, storage, services, and around the dwelling.*
- **Chapter 4 (Background)** – contains brief historical and socio-cultural facts about the minority ethnic groups covered in the guide.

From beginning to end, this publication is admirably clear and direct; providing a really useful introduction to some basic priorities of a wide range of ethnic groups. It is particularly useful for its sensitive but 'no nonsense' explanations as to why sometimes familiar but puzzling design requirements arise. It adopts a measured approach – proposing generally additions to mainstream housing; mindful of affordability and avoiding undue differentiation or any sense of preferential treatment. It often outlines a pragmatic compromise as well as an optimum solution and frequently makes the point that many of the recommendations would be advantageous in mainstream housing too.

Similarities and common ground between the requirements of different ethnic groups are flagged up and this is clearly helpful in terms of flexibility; avoiding undue restriction in terms of the types of residents for whom homes with special features might be suitable over time. A summary matrix illustrating the design requirements of various ethnic groups might have been a useful addition (or could yet be produced), and it would be interesting to see how a third revision might highlight social and attitudinal changes over the last 13 years since the last revision.

Overall rating:

Design guidance: 8/10
Background reading: 9/10

(Note: scoring reflects the excellence of the document as an introduction to the principles of design of faith housing, accepting that the broad coverage necessarily limits detail for each cultural group).

Relevance to other non-mainstream categories:

Some pointers for older or disabled people of minority ethnic backgrounds.

Key features and recommendations:

Numerous design recommendations are included with reference to one or more of the ethnic groups. Generalisations are difficult but many are associated with the fact that average household size among all of the ethnic groups considered is larger than the norm in white households, and that religious and cultural requirements tend to affect living, kitchen and washing areas in particular.

Some of the more recurrent themes are summarised in the table below, and the publication ends with 5 simple conclusions:

- *'Think of the guidance offered as pointers - explore further*

- *Get in close. Learn about the people who are likely to occupy the housing being designed. Consult thoroughly.*
- *Pay continuous attention to needs. Do not rely on received wisdom. The situation is a dynamic one. Generational and cultural changes will continue, but distinct needs are likely to remain for the foreseeable future.*
- *The real challenge is to design homes that accurately and economically meet expressed needs while being capable of harbouring different lifestyles of future occupants.*
- *The rich experience of black and minority ethnic registered social landlords is a valuable resource in designing appropriate homes’.*

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | | 4/5 |
| Space | Space - an important issue for many ethnic groups and HCA legacy standards may be inadequate particularly for larger households. Increased household size and the common cultural tendency for extended families makes larger family homes particularly sought after. | |
| Functionality | Living spaces - in many cultures men and women socialise separately so two living spaces are advantageous (Living room + kitchen/diner likely to be adequate but play space also valued). Kitchen - the importance of food preparation and eating is also a recurring theme; extra storage space, larger sinks and gas hobs/cookers help most ethnic groups. Bathrooms and WCs - washing facilities also very important. Detailed requirements vary but the need for many to wash under running (rather than still) water makes a shower virtually essential, if only an over-bath fitting. Wet rooms with floor drainage also advantageous; Muslims have particular needs in relation to the placement and alignment of sanitary fittings and ritual washing associated with prayer. The principles of Feng Shui can be highly relevant to Chinese people. | |
| Accessibility | Lifetime Homes - especially useful in extended family situations; ground floor bedroom advantageous for older dependent relatives. | |
| Amenity | Heating - efficient and controllable. Gardens - space for growing food highly desirable. | |
| Shared spaces | (Note: this section applies mostly to sheltered housing) | 3/5 |
| Cores and circulation areas | Corridors - should avoid an institutional feel and include incidental spaces for casual social interaction. | |
| Activity areas | Communal lounges - larger spaces which are designed for partial sub-division into bays work well. Intermediate spaces (i.e. larger than private sitting spaces within flats but smaller than the main communal lounge) particularly useful for larger groups of visiting friends and family. Meeting spaces - worth considering in larger regeneration schemes which include a number of residents from one or more ethnic group. | |
| Outdoor spaces | Communal gardens - have proved successful and popular in sheltered housing developments; both for practical (food | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|--|--------------|
| | growing) and recreational reasons. Ponds are significant for some Vietnamese people and sheltered/covered outdoor spaces widely appreciated. | |
| Public realm | | 1/5 |
| Streetscape | - | |
| Public open space | - | |
| Public transport/local facilities | Location - many ethnic groups tend to prefer locations which have an established community of the same ethnicity; the advantages of this, and the likelihood of having good access to appropriate shops and religious buildings as a result, must be balanced against the risk of limiting integration. Sites close to cemeteries or in areas known to suffer from racial harassment to be avoided. | |
| Sustainability | | |
| Energy | Although sustainability is not specifically mentioned (due perhaps to the age of the document) the high levels of occupation, often with some family members at home all day, coupled with higher than normal water usage would suggest that services systems generally should be very carefully considered in relation to fuel and water efficiency. | |
| Water | (see above) | |
| Health / well-being | Many of the recommendations seek to enhance well-being | |
| Other | Close links between home and employment for many ethnic groups are highlighted so a 'home office' space – as described under the Code for Sustainable Homes would be advantageous. | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|--|---------------|---------------------|
| Lifetime Homes | yes | not specifically |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others: Standards and Quality in Development, NHF + comprehensive bibliography | | |

Note: All of these are referenced in the main body of the design guide, but none specifically in relation to faith housing.

| | | | | | |
|--|---|--------------------------|--|---------------------|-----|
| Category: | Faith housing | Sub-group: | Muslim and Bengali | Our ref. no. | 001 |
| Title: | Network Housing Group Design Guide (BME addendum) | | | | |
| Author: | Levitt Bernstein with Mitali | Commissioned by: | Network Housing Group | | |
| Status: | Good practice guidance | Applicability: | Muslim and Bengali homes in Network developments, but with wider applicability | | |
| Format: | Hard copy | Publication date: | 2008 | | |
| Where to find it: | Network Housing Group www.networkhg.org.uk | Who to contact: | Elaine Parker, NHG nhg@networkhg.org.uk | | |
| Overview: | <p>Short addendum to Network Housing Group's own design guide setting out additional design requirements for housing for Muslim and Bengali residents. Produced in direct collaboration with Mitali – a small housing association which forms part of the Network Group and is responsible for developing and managing homes for Muslim and Bengali residents.</p> <p>Two main requirements followed by other good practice recommendations; clear and concise.</p> | | | | |
| Overall rating: | <p>Design guidance: 9/10 Background reading: n/a</p> | | | | |
| Relevance to other non-mainstream categories: | - | | | | |

Key features and recommendations:

Two key features are the separate kitchen and orientation of WC; remaining items are secondary.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|---|--------------|
| The Home | | 4/5 |
| Space | Network's recommended space standards for all mainstream housing are derived from Standards and Quality in Development and exceed minimum HCA standards. | |
| Functionality | <p>Kitchen - to be separate from living space to allow men and women to socialise separately. Kitchens generally to be large with efficient extract and natural ventilation where possible. Large, deep sink bowls with double drainers, grease traps and tall necked mixer taps; gas hobs and ovens and separate dining rooms where preferred.</p> <p>WCs - to be positioned to avoid alignment with Mecca.</p> <p>Bathrooms - to facilitate washing before prayer (five times/day). Wet rooms with large wash hand basin with mixer tap preferred; separate WC helpful especially for larger families.</p> | |
| Accessibility | - | |
| Amenity | <p>Heating - efficient and controllable.</p> <p>Gardens - space for growing food highly desirable.</p> | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | no | |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | no | |

Note: All of these are referenced in the main body of the design guide, but none specifically in relation to faith housing.

| | | | | | |
|--|--|--------------------------|--|---------------------|-----|
| Category: | Faith housing | Sub-group: | Muslim (Somali) | Our ref. no. | 002 |
| Title: | Accommodating Diversity for Karin Housing Association | | | | |
| Author: | Karin Housing Association | Commissioned by: | Karin Housing Association | | |
| Status: | Good practice guidance/design brief | Applicability: | Homes for Somali residents in Karin developments, but with wider applicability | | |
| Format: | Hard copy | Publication date: | not known | | |
| Where to find it: | Contact Karin Housing Association for a copy | Who to contact: | www.karin-ha.org | | |
| Overview: | <p>Useful table of additional Somali design requirements set out on 3 pages using the principles set out in the NHF's Accommodating Diversity. Each item is ranked in importance from 1-5 (5 being the most important).</p> <p>Clear and concise but with considerable spatial implications overall so precise requirements would need to be clarified on a project by project basis. Ranking system very useful for identifying priorities.</p> | | | | |
| Overall rating: | <p>Design guidance: 7/10</p> <p>Background reading: n/a</p> | | | | |
| Relevance to other non-mainstream categories: | Similar to general Muslim requirements | | | | |

Key features and recommendations:

Key features are larger kitchens, separate living spaces, the ability for women to move around the house without encountering male guests and ritual washing facilities. Specific issues listed below with rankings.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|---|--------------|
| The Home | | 4/5 |
| Space | More space implied but not quantified except in kitchen. | |
| Functionality | <p>Layout, circulation and living areas - separate living and dining (4), reception at front of plan, kitchen at rear (4), shoe storage near entrance (4), staircase that allows women to move around house without encountering male guests (4). Connecting door between living and family room (kitchen/ diner) (1) and third living room upstairs in larger units.</p> <p>Kitchens - 2-3m² 'extra storage space' (5), pantry (3), separate storage for milk and meat (1) and lower kitchen units (1). Heavy duty extract and ventilation (5), large, deep double sink bowls with grease traps and tall necked mixer taps (4). Gas hobs and ovens preferred (3). Separate hand washing sink (3).</p> <p>Bathrooms and WCs - shower fitted over bath (5) with additional, separate shower in larger units (5). Wet rooms (4) with floor gulley (3) and bidet (4) preferred. Handset with mixer for WC (4) and mixer taps to wash hand basins (4). All associated with ritual washing before prayer.</p> <p>Bedrooms - flexible sleeping arrangements - rooms to take single or double beds (4), ground floor bedroom in 3 bed+ (2). Wardrobe space - loose (3) or fitted (4).</p> <p>Prayer space - area dedicated to prayer (1), sink in family room (1).</p> | |
| Accessibility | (Ground floor bedroom as noted above). | 1/5 |
| Amenity | <p>Heating - zone control with thermostatic radiator valves (1).</p> <p>Safety and security - lighting (5)</p> <p>Gardens - garden shed for storage, hobbies or work (3), children's play area (3), avoid large trees and bushes (3).</p> <p>Tenant manuals - multi-lingual instruction and manuals (3)</p> | 2/5 |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|--|
| Lifetime Homes | yes | No, but some requirements imply that it would be appropriate |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | no | |

| | | | | | |
|--|---|--------------------------|---|---------------------|-----|
| Category: | Faith housing | Sub-group: | Orthodox Jewish | Our ref. no. | 001 |
| Title: | 2010 summary of AIHA brief (Agudas Israel Housing Association) | | | | |
| Author: | Agudas Israel Housing Association (AIHA) | Commissioned by: | AIHA | | |
| Status: | Design brief | Applicability: | AIHA developments for Orthodox Jews | | |
| Format: | Issued electronically by AIHA | Publication date: | 2010 (summary) | | |
| Where to find it: | AIHA | Who to contact: | AIHA 206 Lordship Road London N16 5ES Tel: 020 8802 3819 | | |
| Overview: | AIHA are the largest specialist UK social housing provider for the Orthodox Jewish community. The summary design guide sets out a clear set of requirements. However it is not always obvious which of these requirements apply specifically to this faith group or what the underlying cultural or religious purpose is, though this may be explained in the full version of the design guide. | | | | |
| Overall rating: | Design guidance: 7/10 Background reading: n/a | | | | |
| Relevance to other non-mainstream categories: | - | | | | |

Key features and recommendations:

Requirements are set out under the following headings:

1. Bathrooms
2. Central heating/hot water
3. Kitchens
4. Utility room storage
5. Lighting and electrics
6. Sabbath timer
7. Outdoor spaces
8. Boundary walls
9. Floor coverings
10. Windows/ventilation
11. Security
12. Other issues

Main religious requirements are summarised below:

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|--|--------------|
| The Home | | 3/5 |
| Space | The requirements may imply higher space standards e.g. larger kitchen | |
| Functionality | Hand wash basins - required on every floor, outside of bathrooms Kitchen - to allow for separation from living area and include 2 sinks for separate preparation of meals containing meat and milk Sabbath timer - required to restrict electrical use on the Sabbath i.e. boiler and lighting circuits (except kitchen and bathroom) to be fitted with timers. | |
| Accessibility | - | |
| Amenity | Balconies, terraces - should be staggered (or located to achieve a view of the sky to make them useable during the religious festival of Succohs when families may even sleep outdoors) Boundary walls - min. 1000mm high when bordering public space | |
| Shared spaces | | 1/5 |
| Cores and circulation areas | Door entry systems - electric keeps must include facility for manual operation on Sundays | |
| Activity areas | | |
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport/ local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---|---------------|-----------------------------------|
| Lifetime Homes | no | |
| Secured by Design | no | |
| Building for Life | yes | yes, as required by HCA (12/20) |
| Code for Sustainable Homes | yes | yes, as required by HCA (Level 3) |
| HCA Design and Quality Standards inc. HQI | yes | yes |

| | | | | | |
|--|--|--------------------------|---|---------------------|-----|
| Category: | Faith housing | Sub-group: | Orthodox Jewish | Our ref. no. | 002 |
| Title: | The Orthodox Jewish Community Housing Needs Study 2008 (Salford) | | | | |
| Author: | Salford City Council (SCC) with Interlink and Binyan Housing | Commissioned by: | Salford City and Bury Metropolitan Borough councils | | |
| Status: | Published research | Applicability: | Orthodox Jewish people in study area | | |
| Format: | Web-based pdf and hard copy | Publication date: | 2008 | | |
| Where to find it: | www.salford.gov.uk | Who to contact: | SCC Strategy & Partnerships team 0161 793 2786 | | |
| Overview: | <p>Report setting out the results of a study into the housing and housing-related support needs of the Orthodox Jewish community of north Greater Manchester.</p> <p>Relevant findings are that over a third of households indicated the need for adaptations for cultural or religious reasons. Only two design requirements highlighted.</p> | | | | |
| Overall rating: | Design guidance: 3/10 Background reading: 5/10 | | | | |
| Relevance to other non-mainstream categories: | - | | | | |

Key features and recommendations:

The adaptations needed or desired comprise extra rooms to use during two important religious festivals.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------|--|--------------|
| The Home Space | The extra rooms imply higher space standards. | 1/5 |
| Functionality | <p>Extra living space - to provide a Succoh for the family to occupy and entertain friends and relatives during the week-long festival of Sukkot.</p> <p>Extra kitchen (or separate appliances) - to allow for the</p> | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|--|---------------------|
| | preparation of kosher meals during the 8 day festival of Passover. | |
| Accessibility | - | |
| Amenity | - | |

5.5 Additional development criteria literature reviews

| | | | | | |
|--|---|--------------------------|---|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Larger family housing | Our ref. no. | 001 |
| Title: | London Housing Design Guide (interim version) | | | | |
| Author: | Design for London | Commissioned by: | Mayor of London | | |
| Status: | The London Housing Strategy requires all homes developed with public funding to deliver high quality in line with the LHDG from 2011 (a London Plan SPG is being developed in parallel for all new homes) | Applicability: | LHDG applies to HCA London funding from April 2011, and the SPG (anticipated spring 2012) will apply to all new housing | | |
| Format: | Web-based pdf | Publication date: | 2010 (consultation version 2009) | | |
| Where to find it: | www.london.gov.uk | Who to contact: | Design for London for LHDG GLA London Plan team for SPG | | |
| Overview: | Contains Priority 1 (required) and Priority 2 (recommended) standards for all aspects of housing design in 6 chapters. Although strictly applies to London only, most requirements are generic and would be applicable elsewhere. Not specifically for larger family housing but does include a number of additional requirements/recommendations for homes with 3 or more bedrooms. Useful because it is the most current available guidance, is supported by a published evidence base, and has been subject to extensive consultation and impact assessment. | | | | |
| Overall rating: | Design guidance: 8/10 Background reading: 8/10 | | | | |
| Relevance to other non-mainstream categories: | Higher density housing | | | | |

Key features and recommendations:

Key features in relation to larger family homes are found in Chapter 4 – Dwelling Space Standards, and Chapter 5 – Home as a Place of Retreat. Minimum mandatory overall space standards are defined for a number of dwelling types, determined by the number of storey heights, people (bed-spaces) and bedrooms.

Minimum room areas are recommended (i.e. Priority 2); the essential standard being the requirement to demonstrate fully furnished layouts based on furniture and activity zones.

Minimum storage areas are Priority 1, as is private open space. Standards also set for ceiling height, daylight, privacy etc.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|---|--------------|
| The Home | | 4/5 |
| Space | Overall minimum gross internal areas defined for flats, 2 and 3 storey houses | |
| Functionality | <p>Living/dining/kitchen (LDK) - for 3bed+ must allow for 2 separate living spaces. Recommended combined LDK areas start at 23m² for 2 person homes (i.e. 1 bed), rising by 2m² per person (i.e. 29m² for 5 people). Minimum living room width for 5 person homes 3.2m (2.8m for smaller dwellings).</p> <p>Additional WC - recommended for 5p+ (note that diagram at appendix 1 shows larger than Lifetime Homes to include a full shower space).</p> <p>Storage - starts at 1.5m² for 2p, rising by 0.5m² per person (i.e. 3m² for 5p).</p> <p>Utility space - preferred for 5p+ but not embodied in the standards.</p> | |
| Accessibility | All dwellings must be designed to meet Lifetime Homes; 10% to be wheelchair accessible/easily adaptable. | |
| Amenity | <p>Private open space - minimum of 5m² for 2p, rising by 1m² per person (i.e. 8m² for 5p).</p> <p>Dual aspect - 3bed+ homes may not be single aspect. (Cycle storage increases from 1 to 2 per dwelling for 3bed+)</p> | |

Note: only selected requirements from chapters 4 and 5 with particular relevance to larger family homes included here. Standards for shared spaces included in higher density housing category.

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---|---------------|--|
| Lifetime Homes | yes | yes, 100% of new dwellings to meet LTH |
| Secured by Design | yes | certification recommended |
| Building for Life | No | No, but standards in the LHDG incorporate BfL key urban design principles |
| Code for Sustainable Homes | yes | Level 4 recommended, not essential (though there are some elements of Code level 4 that are essential, such as energy) |
| GLA Best Practice Guide for wheelchair accessible housing | yes | yes, 10% of new dwellings to meet the standard |

| | | | | | |
|--|--|--------------------------|---|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Larger family housing | Our ref. no. | 002 |
| Title: | Higher density housing for families – a design and specification guide | | | | |
| Author: | Helen Cope with Levitt Bernstein and Walker Management | Commissioned by: | London Housing Federation (LHF) | | |
| Status: | Good practice guidance. Currently referenced as a core document in HCA Design and Quality Standards for developments above 80 dph and referred to elsewhere. | Applicability: | Applies to family dwellings (2b3p+) at higher density (80+ dph) - aimed primarily at the affordable sector. | | |
| Format: | Hard copy | Publication date: | November 2004 | | |
| Where to find it: | www.housing.org.uk | Who to contact: | NHF London or authors | | |
| Overview: | <p>Opens with a matrix of 15 'everyday' factors which become increasingly important as density rises. These are assessed in relation to 6 types of built form defined by typology. This starts with Type A (simple family houses or maisonettes with private gardens and own front doors) posing few issues, and runs through to Type F (groups of upper floor family dwellings totalling 120 or more bedspaces served by a single core) for which a concierge is considered the only practical solution. The text expands on the recommendations for dealing with each of the 15 issues in turn which are summarised in the matrix. Although family dwellings are defined as 2b3p+, some specific requirements are included for larger families of 5p+.</p> <p>Fairly useful general guidance but largely superseded by more recent documents in most of the subject areas covered. Many of the recommendations have since been encompassed in the 2008 revision of Standards and Quality in Development (NHF) and some might now be considered unduly conservative in view of technological advances.</p> | | | | |
| Overall rating: | Design guidance: 4/10 Background reading: 7/10 | | | | |
| Relevance to other non-mainstream categories: | Larger family housing | | | | |

Key features and recommendations:

Key aspect is the focus on shared spaces and the importance of good, practical design with security, safety, management and maintenance in mind. Interesting because it emphasises that the number of people who are served by a core is the most relevant indicator of where problems are likely to occur (i.e. has more impact on wear and tear, security etc than the number of dwellings served by a core or the density per se). While this principle holds good (and is reflected in the London Housing Design Guide), in practice it is much easier to tailor design decisions to the number of dwellings than the number of bed-spaces particularly in mixed tenure cores where private sector dwellings are typically under-occupied.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| The Home | | 3/5 |
| Space | No space standards given but implies that homes in high density locations need to be larger. | |
| Functionality | Recommends 2 family spaces in 3bed+ (open plan only acceptable in 2b3p or smaller) and at least one single bedroom in 3b5p+ (and not more than 2 doubles in any dwelling). Utility space needed for 4b+ (and 3b where possible). Storage highlighted as a key issue inside and outside of the home. | |
| Accessibility | - | |
| Amenity | Sections on privacy, sound insulation and clothes drying. Private open space considered (no size given). | |
| Shared spaces | | 3/5 |
| Cores and circulation areas | Extensive recommendations in terms of achieving the right balance between limiting numbers of people/core for security and management reasons, but providing enough households to keep lift service charges affordable. Suggests at least 1 lift needed at 5 storey and above and 2 at 7 storey and above | |
| Activity areas | - | |
| Outdoor spaces | - | |
| Public realm | | |
| Streetscape | - | |
| Public open space | - | |
| Public transport/ local facilities | - | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health / well-being | Stresses the need for family members to have space to be alone as well space to be together. | |
| Other | - | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | yes | no |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | | |

| | | | | | |
|--|--|--------------------------|--|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher density | Our ref. no. | 001 |
| Title: | Higher density design for quality and low maintenance: a good practice guide | | | | |
| Author: | Design for Homes with Levitt Bernstein | Commissioned by: | Northern Ireland Housing Executive (NIHE) | | |
| Status: | Research/discussion paper with recommendations. | Applicability: | Higher density housing from 50-150 dph. Intended for Northern Ireland but with wider applicability | | |
| Format: | Hard copy | Publication date: | 2008 | | |
| Where to find it: | www.designforhomes.org | Who to contact: | Design for Homes or Levitt Bernstein | | |
| Overview: | <p>A good practice guide intended to ensure that as towns and cities in Northern Ireland make the transition from suburban to urban typologies in a move to achieve more sustainable housing, they learn from the successes and failures of recent UK experience. The report includes 8 generic diagrams which illustrate and compare typical housing typologies suitable for density bands ranging from 50 dwellings per hectare (dph) to 150dph and summarises the main implications of each. Emphasis is on the increased implications for management and maintenance as density rises and houses inevitably give way to flats and/or stacked maisonettes. Draws heavily on Higher Density Housing for Families, but the brief from NIHE required the recommendations to be focussed on defined density bands.</p> <p>Useful for understanding the far-reaching implications of early design decisions about dwelling groupings, and the practical (rather than aesthetic) issues associated with the design of shared spaces. Includes some useful specific recommendations.</p> | | | | |
| Overall rating: | Design guidance: 8/10 Background reading: 8/10 | | | | |
| Relevance to other non-mainstream categories: | Any housing types at higher density | | | | |

Key features and recommendations:

The generic diagrams are a useful way of considering the implications of different dwelling types and groupings particularly in relation to lift provision and the impact on service charges. Key recommendation is to aim for 15-25 dwellings per core unless a concierge with CCTV is provided in which case, numbers can be safely increased.

Important to view the entire route from communal street entrance to each individual front door as an extension to the home and ensure that it is safe, legible and enjoyable.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|--------------|
| The Home | | |
| Space | | |
| Functionality | | |
| Accessibility | | |
| Amenity | | |
| Shared spaces | | 4/5 |
| Cores and circulation areas | <p>Entrance lobbies - digital entry system, robust doors to include some glazing, tamper-proof letter boxes.</p> <p>Lift and stair cores - dwellings and people per core to be kept to manageable limits but with enough households to keep service charges reasonable (15-25 per core recommended depending on mix of dwelling types). Lifts must be 8 person (wheelchair size); 2 lifts preferable where wheelchair dwellings are above ground.</p> <p>Corridors - short and straight, minimum recommended width 1500mm, double-loaded corridors to be avoided, natural light and ventilation important.</p> <p>Access galleries - encouraged as a good solution particularly where a double-loaded corridor is the likely alternative, suggests maximum of 6 dwellings for each stretch of deck access and cautions against linking high level galleries.</p> <p>Podia - significant warnings about the complexities of mixed use buildings which tend to give rise to podia and the design of these multi-functional spaces</p> | |
| Activity areas | <p>Cycle stores - options considered; must be secure and covered under the Code for Sustainable Homes, shared stores more efficient than individual lockers</p> <p>Refuse and recycling stores - options considered; best solution depends on local waste management policy, but all options should build-in some flexibility and anticipate increased recycling</p> <p>Resident stores - recommends secure individual lockers or 1m² additional space within the dwelling (as proposed in Standards and Quality for Development, 2nd edition).</p> <p>Laundries and drying rooms - advises against communal provision</p> <p>Under-croft parking areas - cheaper and easier than underground solutions but needs to be secure and designed to maintain active street frontage; usually implies 'wrapping' with single aspect dwellings</p> <p>Underground parking areas - expensive and need significant management.</p> <p>Other parking solutions - multi-level car-parks, stackers</p> | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|---|--------------|
| | and remote parking only rarely appropriate; car-clubs highly desirable | |
| Outdoor spaces | <p>Ground level courtyards - good substitute for private gardens, should generally be fully or partially enclosed and secure</p> <p>Raised courtyards and roof terraces - suggests that high level spaces work better when overlooked by some dwellings, lift access needed for inclusive design but often difficult to bring all lifts up to a single raised amenity space</p> | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport/local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | yes | no |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | | |

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|------------------|---------------------------------|-------------------|----------------|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher density | Our ref. no. | 002 |
|------------------|---------------------------------|-------------------|----------------|---------------------|-----|

Title: London Housing Design Guide (interim version)

| | | | |
|--------------------------|---|--------------------------|---|
| Author: | Design for London | Commissioned by: | Mayor of London |
| Status: | The London Housing Strategy requires all homes developed with public funding to deliver high quality in line with the LHDG from 2011 (a London Plan SPG is being developed in parallel for all new homes) | Applicability: | LHDG applies to HCA London funding from April 2011, and the SPG (anticipated spring 2012) will apply to all new housing |
| Format: | Web-based pdf | Publication date: | 2010 (consultation version 2009) |
| Where to find it: | www.london.gov.uk | Who to contact: | Design for London for LHDG GLA London Plan team for SPG |

Overview: Contains Priority 1 (required) and Priority 2 (recommended) standards for all aspects of housing design in 6 chapters. Although strictly applies to London only, most requirements are generic and would be applicable elsewhere. Not specifically for higher density except that almost all development in London exceeds 80 dwellings per hectare (dph) and includes flats. Useful because it is the most current available guidance, is supported by a published evidence base, and has been subject to extensive consultation and impact assessment.

Overall rating: Design guidance: 7/10
Background reading: 7/10

Relevance to other non-mainstream categories: Any housing types at higher density

Key features and recommendations:

Key features in relation to higher density housing are found in chapter 3. This deals with shared spaces, particularly safety and management issues associated with circulation areas. Sets limits for dwellings and/or people per core and per floor, above which increased security measures are needed.

Provides guidance and standards relating to lift provision, cycle storage, refuse and recycling areas. Also deals with qualitative issues such as natural light and ventilation to cores and circulation spaces, and the benefits of shared amenity space for flat dwellers. Strongly supports dual aspect rather than single aspect. Recommends the preparation of management plans and particular care with mixed use buildings where the complexity increases and multiple landlords are involved.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|--|--------------|
| The Home | | |
| Space | | |
| Functionality | | |
| Accessibility | | |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | <p>Shared entrances - must be inviting and accessible from the public realm.</p> <p>Cores - must not serve more than 25 dwellings or 100 people per core unless a concierge or secondary security is provided, and a maximum of 8 dwellings per floor is recommended. Audio visual verification to door entry systems also recommended.</p> <p>Lift access - at least 1 lift required at 5 storeys; 2 lifts at 8 storeys.</p> <p>Circulation areas - must not be narrower than 1200mm wide and must receive natural light and ventilation. Double-loaded corridors and single aspect units are discouraged and dwellings which are north facing, have 3 or more bedrooms or are exposed to severe noise must not be single aspect.</p> | |
| Activity areas | Not required except ancillary areas for cycle storage, refuse and recycling. | |
| Outdoor spaces | Design which supports a sense of community and ownership of shared spaces is encouraged | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport /local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health/ well-being | | |
| Other | - | |

Note: only requirements for shared spaces (Chapter 3 'From Street to Front Door') have been included here as these are most relevant to higher density. LHDG requirements relating to 3-bed and larger dwellings are covered in the larger family homes category (ref. 001) within this document.

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---|----------------------|--|
| Lifetime Homes | yes | yes, 100% of new dwellings to meet LTH |
| Secured by Design | yes | certification recommended |
| Building for Life | no | no, but standards in the LHDG incorporate BfL key urban design principles |
| Code for Sustainable Homes | yes | Level 4 recommended, but not essential (though there are some elements of Code level 4 that are essential, such as energy) |
| GLA Best Practice Guide for wheelchair accessible housing | yes | yes, 10% of new dwellings to meet the standard |

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|--|--|--------------------------|---|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher density | Our ref. no. | 003 |
| Title: | Recommendations for Living at Superdensity | | | | |
| Author: | HTA, LBA, PRP and PTEa with Design for Homes | Commissioned by: | n/a | | |
| Status: | Published good practice guidance | Applicability: | Housing developments above 150 dph (equivalent to 450+ habitable rooms per hectare) | | |
| Format: | Web-based pdf | Publication date: | July 2007 | | |
| Where to find it: | www.designforhomes.org | Who to contact: | Authors | | |
| Overview: | Very useful guidance about how to embrace very high density living while avoiding pitfalls of the past. Covers a wide range of issues under 10 chapter headings which deal with design, procurement and management issues. | | | | |
| Overall rating: | Design guidance: 7/10 Background reading: 9/10 | | | | |
| Relevance to other non-mainstream categories: | All housing types developed at 'superdensity'. | | | | |

Key features and recommendations:

Key features are the breadth of the issues considered and the simple messages contained within 10 chapters:

1. **Neighbourhood context** - developments must be in the right place and can then transform an area and benefit the wider area
2. **Balanced communities** - a mix of tenures and dwelling types is important; design should be tenure blind meaning the general appearance and physical access to different housing on a mixed tenure site should be as identical as possible
3. **Making flats work for families** - a house is still best for families, but well designed flats with private open space can work well
4. **Management** - need for a legally binding agreement ideally with the local authority at planning stage through section 106.
5. **Organising and accessing flats** - a critical issue to success; avoid long, double-banked corridors in favour of decks or smaller groups of flats
6. **Privacy** - good sound proofing even more important than preventing overlooking; private outdoor space should be as private as possible
7. **Outdoor space and the public realm** - design needs to be at a civic scale but mindful of day to day convenience and practicality

8. **Environmental sustainability** - exploit 'centralised' opportunities to improve energy efficiency that a large critical mass of dwellings provides; think broadly from CHP to car clubs etc
9. **The role of local authorities in procurement** - consult planners early and encourage involvement in procurement and long term support
10. **Meeting the cost of service charges** - explore ways to keep service charges reasonable; capitalise if necessary

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|--|--------------|
| The Home | | 4/5 |
| Space | No space standards given but implies that homes in very high density locations need to be larger. | |
| Functionality | 1m ² extra utility space for families and single bedrooms should be a minimum 8.5m ² . Suggests that half of 5p+ should have separate kitchen/diner, half of 4p affordable should have 3 beds and no affordable dwellings should have more than 2 doubles. Highlights storage as a key issue inside and outside of the home and recommends utility space for families. | |
| Accessibility | - | |
| Amenity | Private open space essential for all families (no size given). Good sound-proofing crucial and private open space should not be over-looked. | |
| Shared spaces | | 2/5 |
| Cores and circulation areas | Deck access considered preferable to long-double-banked corridors; suggests not more than 6 flats per deck (in any one direction). | |
| Activity areas | - | |
| Outdoor spaces | - | |
| Public realm | | 2/5 |
| Streetscape | General recommendations regarding high quality public realm, active street frontages, carefully integrated parking and ancillary spaces etc. | |
| Public open space | | |
| Public transport/ local facilities | | |
| Sustainability | | 2/5 |
| Energy | General recommendations to exploit the sustainable opportunities presented by high density development e.g. CHP more likely to be viable. | |
| Water | | |
| Health/ well-being | Stresses the need for family members to have space to be alone as well space to be together. | |
| Other | | |

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|--------------------------|---|--------------------------|---|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher Density | Our ref. no. | 004 |
| Title: | Delivering Successful Higher Density Housing – a Toolkit (2 nd edition) | | | | |
| Author: | East Thames with Helen Cope | Commissioned by: | East Thames | | |
| Status: | Good practice guidance. Currently adopted as part of the evaluation of higher density schemes to achieve compliance with HCA Design and Quality Standards 2007. Widely referenced elsewhere. | Applicability: | Applies to mixed tenure higher density developments of 20 or more dwellings at 70+ dwellings per hectare (dph). | | |
| Format: | Web-based pdf and hard copy | Publication date: | 2008 (first edition 2005) | | |
| Where to find it: | www.east-thames.co.uk | Who to contact: | East Thames | | |
| Overview: | <p>Primarily intended to be a review tool for interrogating scheme design proposals, thus promoting an integrated approach to planning and evaluation. Dispelling some of the myths and preconceptions about higher density living, it suggests that good design is more important to ultimate success than density per se, and places strong emphasis on tackling climate change.</p> <p>Eight determining factors are combined to form a ‘density wheel’ set alongside 15 top concerns or preconceptions expressed by residents in relation to higher density living. Using the 8 determinants as chapter headings, Part 1 provides general guidance, recommendations and key questions; Part 2 provides checklists of questions which are scored as positive (P), neutral (O) or negative (N) with space for comments. Provides an overview of performance and highlights areas of concern. For funding, HCA suggest that not more than 25% of responses should be negative, and require evaluation sheets to be retained for audit purposes.</p> <p>Contains numerous references to other publications notably Higher Density Housing for Families.</p> <p>As an add-on to all prevailing standards for mainstream housing below 70dph, this is useful and clearly written, though the checklists are long. Geared more towards the affordable sector than the private sector and to general good practice rather than baseline</p> | | | | |
| Overall rating: | Design guidance: 5/10 Background reading: 7/10 | | | | |

Relevance to other non-mainstream categories: Any housing types at higher density

Key features and recommendations:

Eight chapter headings are:

- Neighbourhood, amenity and location
 - Mixed communities
 - Design standards
 - Private and communal external space
 - Parking provision and management
 - Allocations and lettings
 - Management, maintenance and community engagement
 - Service charges
-

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|------------------|---------------------------------|-------------------|----------------|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher density | Our ref. no. | 005 |
|------------------|---------------------------------|-------------------|----------------|---------------------|-----|

Title: Higher density housing for families – a design and specification guide

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Helen Cope with Levitt Bernstein and Walker Management | Commissioned by: | London Housing Federation |
| Status: | Good practice guidance. Currently referenced as a core document in HCA Design and Quality Standards for developments above 80 dph and referred to elsewhere. | Applicability: | Applies to family dwellings (2b3p+) at higher density (80+ dph) - aimed primarily at the affordable sector |
| Format: | Hard copy | Publication date: | 2004 |
| Where to find it: | www.housing.org.uk | Who to contact: | NHF London or authors |

Overview: Opens with a matrix of 15 'everyday' factors which become increasingly important as density rises. These are assessed in relation to 6 types of built form defined by typology. These start with Type A (simple family houses or maisonettes with private gardens and own front doors) posing few issues, and run through to Type F (groups of upper floor family dwellings totalling 120 or more bedspaces served by a single core) for which a concierge is considered the only practical solution. The text expands on the recommendations for dealing with each of the 15 issues in turn which are summarised in the matrix.

Fairly useful general guidance but largely superseded by more recent documents in most of the subject areas covered. Many of the recommendations have since been encompassed in the 2008 revision of Standards and Quality in Development (NHF) and some might now be considered unduly conservative in view of technological advances.

Overall rating: Design guidance: 4/10
Background reading: 7/10

Relevance to other non-mainstream categories: Larger family housing

Key features and recommendations:

Key aspect in relation to this category is the focus on shared spaces and the importance of good, practical design with security, safety, management and maintenance in mind. Interesting because it emphasises that the number of people who are served by a core is the most relevant indicator of where problems are likely to occur (i.e. has more impact

on wear and tear, security etc than the number of dwellings served by a core or the density per se). While this principle holds good (and is reflected in the London Housing Design Guide), in practice it is much easier to tailor design decisions to the number of dwellings than the number of bed-spaces particularly in mixed tenure cores where private sector dwellings are typically under-occupied.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| The Home | | 3/5 |
| Space | No space standards given but implies that homes in high density locations need to be larger. | |
| Functionality | Recommends 2 family spaces in 3bed+ (open plan only acceptable in 2b3p or smaller) and at least one single bedroom in 3b5p+ (and not more than 2 doubles in any dwelling). Utility space needed for 4bed+ (and 3bed where possible). Storage highlighted as a key issue inside and outside of the home. | |
| Accessibility | - | |
| Amenity | Sections on privacy, sound insulation and clothes drying. Private open space considered (no size given). | |
| Shared spaces | | 3/5 |
| Cores and circulation areas | Extensive recommendations about achieving the right balance between limiting numbers of people/core for security and management reasons, but providing enough households to keep lift service charges affordable. Suggests at least 1 lift needed at 5 storeys and above, and 2 at 7 storeys and above. | |
| Activity areas | - | |
| Outdoor spaces | - | |
| Public realm | | |
| Streetscape | - | |
| Public open space | - | |
| Public transport/ local facilities | - | |
| Sustainability | | 1/5 |
| Energy | - | |
| Water | - | |
| Health/ well-being | Stresses the need for family members to have space to be alone as well space to be together. | |
| Other | - | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | yes | |
| Secured by Design | no | |
| Building for Life | no | |
| Code for Sustainable Homes | no | |
| Others | | |

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|--|---|--------------------------|-------------------------------------|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher density | Our ref. no. | 006 |
| Title: | Better Neighbourhoods: making higher densities work | | | | |
| Author: | CABE (now part of the Design Council) | Commissioned by: | CABE | | |
| Status: | Good practice guidance | Applicability: | no defined density threshold | | |
| Format: | Web-based pdf | Publication date: | March 2005 | | |
| Where to find it: | CABE's archived website www.cabe.org.uk | Who to contact: | Design Council/CABE | | |
| Overview: | Addresses how to increase the supply of homes in areas of high demand, in particular how to build at higher densities without sacrificing quality. Features a range of case studies, identifies barriers to achieving higher density and makes general recommendations. | | | | |
| Overall Rating: | Design guidance: 2/10 Background reading: 7/10 | | | | |
| Relevance to other non-mainstream categories: | | | | | |

Key features and recommendations:

5 sections look at:

- Challenges
- Benefits
- Barriers
- Key factors for success
- Tools for better neighbourhoods

Recommendations focus on more objective assessment, urging local authorities to review highways and other local policies to include new thinking, encouraging developers to explain how new buildings will fit into their context and publishing design guides identifying features that contribute to local distinctiveness.

Features of successful higher density schemes include:

- good sound insulation between dwellings
- relationship with the surrounding area in terms of connectivity, scale and integration
- proximity to good (reliable, clean and safe) public transport
- priority for pedestrians and cyclists

- high quality open space to provide visual relief and recreation
- some useable private outside space, such as patios or balconies
- clear demarcation between public and private spaces
- adequate level of car parking that does not dominate the street scene

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| The Home | | 1/5 |
| Space | no specific guidance, but considered very important | |
| Functionality | | |
| Accessibility | | |
| Amenity | good sound proofing and usable outdoor space for every dwelling | |
| Shared spaces | | |
| Cores and circulation areas | | |
| Activity areas | | |
| Outdoor spaces | | |
| Public realm | | 4/5 |
| Streetscape | promotes high quality public realm including public open space | |
| Public open space | | |
| Public transport/ local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | | |
| Health / well-being | | |
| Other | - | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---|
| Lifetime Homes | no | |
| Secured by Design | no | |
| Building for Life | yes | No, but promoted as a key assessment tool |
| Code for Sustainable Homes | no | |
| Others | | |

| | | | | | |
|--|---|--------------------------|--|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher density | Our ref. no. | 007 |
| Title: | Capital Gains: making high density housing work in London | | | | |
| Author: | Helen Cope | Commissioned by: | London Housing Federation | | |
| Status: | Research/discussion paper with recommendations. | Applicability: | no defined threshold; intended primarily for affordable housing – could apply outside London | | |
| Format: | Hard copy | Publication date: | 2002 | | |
| Where to find it: | www.housing.org.uk | Who to contact: | NHF London | | |
| Overview: | <p>Intended to stimulate renewed debate about higher density living following the publication of PPG3 in 2000, which required a more sustainable approach to housing. This implied intensification beyond the 49 dph (the average density in London in 1999). The document (correctly) anticipates mayoral support for this agenda in the emerging London Plan at the time.</p> <p>Compares findings from 8 London case studies ranging from 81dph to 455dph, all managed by social landlords. Analyses what makes them work and puts forward 28 recommendations aimed at a number of public sector organisations but with applicability to the private sector in mixed tenure developments.</p> <p>Mostly cautionary, the report also recognises the advantages of higher density living. Concludes that developing successfully at higher density implies higher capital cost, and that occupancy, higher allocation and housing management are even more important than design or density per se.</p> <p>It is useful background reading and has informed many subsequent publications which are generally more useful in terms of specific housing design recommendations. It addresses how to increase the supply of homes in areas of high demand, in particular how to build at higher densities without sacrificing quality. Features a range of case studies, identifies barriers to high density and makes (general) recommendations.</p> | | | | |
| Overall rating: | Design guidance: 1/10 Background reading: 8/10 | | | | |
| Relevance to other non-mainstream categories: | Any housing types at higher density | | | | |

Key features and recommendations:

Contains 10 key messages:

1. Density alone is not an indicator of urban quality.
 2. There are several different ways of relating public to private space.
 3. Higher densities in urban areas can sustain improved infrastructure and transport.
 4. Densities across sites should not be uniform.
 5. Higher urban housing density need not mean town cramming.
 6. A range of lifestyles should be catered for; creating mixed communities – especially on larger sites.
 7. Different social groups have different lifestyles and make different trade-offs in property choice.
 8. People or bed-spaces per hectare considered the most sensible measure of housing density.
 9. Density is a measure rather than a determinant of design.
 10. Increased densities need not lead to a decrease in residential amenity and quality.
-

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|------------------|---------------------------------|-------------------|----------------|---------------------|-----|
| Category: | Additional development criteria | Sub-group: | Higher density | Our ref. no. | 008 |
|------------------|---------------------------------|-------------------|----------------|---------------------|-----|

Title: Perceptions of Privacy and Density in Housing

| | | | |
|--------------------------|--|--------------------------|----------------------------------|
| Author: | Mullholland Research | Commissioned by: | Design for Homes |
| Status: | Research/discussion paper with recommendations | Applicability: | no defined density threshold |
| Format: | Hard copy | Publication date: | 2003 |
| Where to find it: | www.designforhomes.org | Who to contact: | Design for Homes |

Overview: A review of what privacy means to people, where it is most valued and how to avoid creating discomfort from 'invading privacy'. Ten schemes are analysed, including two low density controls, to assess which typologies and levels of density were most successful and least successful.

The research began with the assumption that visual issues, as a core tenet of planning regulations since the early 20th century (such as 70ft rule for distances between principal windows initiated by Tudor-Walters) are at the heart of privacy. This assumption was challenged by the findings (set out below).

Interesting because of the focus on residents' priorities, but limited direct applicability to standards.

Overall rating: Design guidance: 1/10
Background reading: 5/10

Relevance to other non-mainstream categories: Any housing types at higher density

Key features and recommendations:

The most important finding was that sound transfer between adjoining properties appears to dominate privacy stress: neighbours subjected to noise from next door as well as feeling at risk of being overheard. This was just as intense a problem in low density schemes.

Also important to note:

- Not having sufficient space was also a major privacy problem for some housing sectors. Those most seriously affected were some families living in lower cost private housing and social housing. Three specific problems were identified:
 - rooms were not big enough to share
 - not enough separation of adult from child space
 - not enough storage.
 - Despite preconceptions, there were few privacy problems caused by homes being overlooked. In most of the case studies, occupants felt sufficiently well screened from the gaze of the general public and their neighbours. Large, floor to ceiling windows did, however prove problematic in high density housing, as did the surprisingly widespread practice of installing clear glass in new build bathroom windows.
 - Privacy from being overlooked was a greater problem in some private gardens and communal outdoor spaces. Residents wanted good screening with head height walls, fences or landscaping so they could relax in private.
 - The safety and security of people within their homes emerged as the fundamental issue. Break-ins were experienced as an invasion of physical and emotional space. Designing for privacy also implies designing out, not designing in, crime.
 - The research confirmed that the nation values privacy in its homes and gardens. In higher density living, however, this privacy is intertwined with a strong sense of community responsibility. In every neighbourhood, a degree of community organisation and agreement on shared values was crucial in ensuring household privacy.
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|--------------------------|---|--------------------------|---|----------------------|-----|
| Category: | Additional development criteria | Sub-group: | Rural housing | Our ref. no.: | 001 |
| Title: | Rural Housing Economic Viability Toolkit and Stage 1 report | | | | |
| Author: | Scott Wilson | Commissioned by: | HCA and Department for Environment, Food and Rural Affairs | | |
| Status: | Published good practice guidance | Applicability: | Rural settlements with a population of 3000 or less (HCA working definition relating to monitoring for a national target) | | |
| Format: | Web-based pdf | Publication date: | July 2010 | | |
| Where to find it: | www.ruralaffordablehousing.org.uk | Who to contact: | HCA | | |
| Overview: | <p>The Rural Affordable Housing Project is a joint initiative between the Homes and Communities Agency (HCA) and the Department for Environment, Food and Rural Affairs. Launched in April 2009, its main aim is to support local authorities and their partners to enable the delivery of affordable housing across rural communities.</p> <p>The study responds to claims from rural housing providers that development on rural sites tends to be more expensive than that on urban sites. Its purpose is to consider these claims based on a series of built case studies and to develop a rural specific economic viability assessment toolkit. This aims to provide clarity and a consistent approach for local authority officers with regard to measuring the economic viability of affordable housing schemes in settlements with a population fewer than 3,000 when identifying potential programmes of delivery and windfall sites.</p> <p>The report and toolkit are clearly written and well researched. Findings do not suggest that higher/additional funding design standards are appropriate, though they do highlight other areas where higher costs tend to arise and suggest ways of mitigating the effects</p> | | | | |
| Overall rating: | Design guidance: n/a Background reading: 9/10 | | | | |

Relevance to other non-mainstream categories:

Key features and recommendations:

Conclusions and recommendations of the Stage 1 report are summarised under five headings:

Design

- Planning requirements for particular design features and/or materials can add undue cost, especially in conservation areas.
- Recommendation: that local authorities should be mindful of financial constraints and prepared to consider less expensive solutions.

Infrastructure

- Lack of existing utilities such as drainage and electricity can cause unavoidable and abnormal costs, and on greenfield sites with no existing vehicular access.
- Absence of a gas supply was considered less problematic as appropriate alternative solutions are possible.
- Recommendation: appoint a team with experience of alternative energy solutions and a willingness to apply for grants.

Code for Sustainable Homes

- Environment Agency surface water attenuation requirements are often more difficult to achieve on rural greenfield sites than brownfield. Recommendation: innovative solutions including holding ponds, reed beds, swales, permeable paving, centralised soakaways etc.
- Ecology issues likely to be more prevalent involving more pre-development investigation and mitigation.
- Planners may be less amenable to roof mounted technologies; reducing the options for renewable technologies.
- Recommendation: greater flexibility from planning officers.

Resources

- Rural schemes can involve longer, more complicated pre-planning negotiations with stakeholders including parish councils.

Fees

- Planning consultant fees may be disproportionately high.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------|------------------------------|--------------|
| The Home | none | |
| Space | | |
| Functionality | | |
| Accessibility | | |
| Amenity | | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|--|--------------|
| Shared spaces | none (unlikely to apply) | |
| Cores and circulation areas | | |
| Activity areas | | |
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | Planners may require particular materials and design approaches. | |
| Public open space | | |
| Public transport/local facilities | | |
| Sustainability | | |
| Energy | Acceptable, affordable alternative technologies may be difficult | |
| Water | | |
| Health / well-being | | |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|--|
| Lifetime Homes | no | |
| Secured by Design | no | |
| Building for Life | no | Not mentioned but anecdotal evidence suggest that the Building for Life standard may be more difficult to achieve in rural situations, e.g. proximity to local services, higher levels of car parking making pedestrian priority less realistic. |
| Code for Sustainable Homes | yes | Solutions which achieve compliance with higher levels may be more limited. |
| Others | | |

5.6 Travellers - literature reviews

| | | | | |
|------------------|------------|-------------------|--|----------------------------|
| Category: | Travellers | Sub-group: | | Our ref. no. 001 |
|------------------|------------|-------------------|--|----------------------------|

Title: Designing Gypsy and Traveller Sites

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Department for Communities and Local Government (DCLG) | Commissioned by: | DCLG |
| Status: | Good practice guide | Applicability: | Local authorities/ RPs/designers/ funding |
| Format: | Web-based pdf and hard copy | Publication date: | May 2008 |
| Where to find it: | www.communities.gov.uk | Who to contact: | DCLG contactus@communities.gov.uk |

Overview: Developed from a combination of existing research and consultation with residents, site managers, landlords, associated authorities and stakeholders, this provides overall guidance and identifies key considerations for 3 categories of sites; permanent, transit (28 days - 3 months) and temporary (less than 28 days) for both new build and refurbishment, and for integration within a mixed community structure.

Travelling showpeople (who are eligible for the Gypsy and Traveller Site Grant via RPs, ALMOs and local authorities, along with ethnic gypsies and travellers, and New Age travellers) are not accounted for within this guidance, although their considerations are occasionally alluded to within the document.

Guidance is given as outline only to accommodate the varying needs of the community – there is no standard requirement which could be applied to all potential users. It is suggested that these are discussed and refined with potential residents as part of the design process.

Guidance is given according to site type for location, size, number, layout and orientation of pitches, services provision, health and safety considerations, security concerns, play areas, landscape design, grazing, car parking provision, maintenance issues, as well as provision for permanently standing amenity buildings (5.36, 7.17 - 7.26, and Annex B7).

Case studies illustrate a series of approaches, outlined both graphically and in text form. These include a range from traditional, parallel site design, circular layout, to small scale urban site design.

Reference frequently given to non-gypsy specific documents, such as the DTLR PPG3 companion guide Better Places to Live By Design, DCMS's Time For Play, and DoT's Manual for Streets.

Overall rating: **Design guidance:** 6/10
Background reading: 7/10

Relevance to other non-mainstream categories:

-

Key features and recommendations:

General detail is given within each of the areas outlined above, although no generic layout diagrams are provided – only text based requirements and specific implemented examples. Areas covered include:

- Site location
- Site layout, access and orientation
- Site services and facilities
- Health, safety and accessibility
- Pitch design

Also outlines consultation process, with recommendations for timing, undertakings and feedback.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|--|--------------|
| The Home | | |
| Space | Suggested facilities for permanent structures are provided, although specific sizes are not given. | 3 |
| Functionality | Washroom and kitchenette facilities are assumed to be generically sized, although there is little detail about how the communal day rooms or site warden's office are intended to be used. | 2 |
| Accessibility | Reference made to external documents outlining vehicular access only. | 2 |
| Amenity | - | - |
| Shared spaces | | |
| Activity areas | Communal day rooms and community rooms are intended to share facilities with the local community, although where not possible provision should be made for a base where health visitors, youth workers and education resources can make contact with the residents. Detailed, quantifiable space guidelines relating to the functional considerations are not given. | 2 |
| Outdoor spaces | Outlines considerations for children's play and animal grazing facilities, details of which are assumed to be taken from external documents. Concerns over and above those normal in standard design - including potential harassment from surrounding community, encroachment by non-licensed travellers pitches, etc - are also given. | 2 |

| | | |
|-----------------------|--|---|
| Public realm | | |
| Streetscape | Landscaping measures are detailed to address issues of accessibility, parking, security, to increase passive supervision, and to reduce alienation from the surrounding community. | 1 |
| Sustainability | | |
| Energy | Multiple power/fuel sources are to be considered as part of the design. | 1 |
| Water | Drainage and water provision outlined without reference to sustainability considerations. | 1 |
| Health / well-being | Health and safety aspects include noise transfer from site, that the land is to be as suitable for travellers as it would be for permanent housing (i.e. not contaminated), and respect should be given to the case that traveller sites are more susceptible to flooding than dwellings of bricks and mortar. | 3 |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|--|----------------------|--|
| Lifetime Homes | no | - |
| Secured by Design | yes | Reference to be made in design of pitch layout and landscaping. No explicit sign-off required. |
| Building for Life | no | - |
| Code for Sustainable Homes | no | - |
| PPG3 companion guide Better Places to Live By Design, DCMS's Time For Play, DoT's Manual for Streets | yes | |

| | | | | | |
|--|--|--------------------------|--|---------------------|-----|
| Category: | Travellers | Sub-group: | - | Our ref. no. | 002 |
| Title: | Providing Gypsy and Traveller Sites: Contentious Spaces | | | | |
| Author: | Joanna Richardson, De Montfort University | Commissioned by: | Joseph Rowntree Foundation | | |
| Status: | Good practice guide | Applicability: | Local authorities / funding | | |
| Format: | Web-based pdf | Publication date: | October 2007 | | |
| Where to find it: | www.jrf.org.uk | Who to contact: | Joanna Richardson , Centre for Comparative Housing Research | | |
| Overview: | <p>Undertaken in consultation with traveller groups, local authority officers (education, housing, planning and communication), police and health representatives.</p> <p>Examines the process of developing provision; making recommendations as to how social barriers from the surrounding, settled community might be resolved.</p> <p>Effective communication with existing communities prior to and during the design process is highlighted as being key to the success of a site, regardless of its location. Effective management proposals and political integration are recommended to ensure the sustainability of the development.</p> <p>It was found that local authorities vary greatly in their approach to consultation, site selection and assessment, and provision requirements.</p> <p>The necessity for a legal case (between councillors), a business case (cost vs. that of an unauthorised encampment) and moral case (also outlined in PPG3 for social inclusion within integrated communities, human rights, race equality).</p> | | | | |
| Overall rating: | Design guidance: 1/10 Background reading: 6/10 | | | | |
| Relevance to other non-mainstream categories: | - | | | | |

Key features and recommendations:

Six case studies are outlined, covering urban and rural contexts, varying population levels, and stages of development.

No guidance given explicitly for the sites themselves.

Research for this document was undertaken via Centre for Comparative Housing Research at DeMontfort University.

See: http://www.dmu.ac.uk/faculties/business_and_law/business/housing/

| | | | | | |
|------------------|------------|-------------------|---|---------------------|-----|
| Category: | Travellers | Sub-group: | - | Our ref. no. | 003 |
|------------------|------------|-------------------|---|---------------------|-----|

Title: Out in the Open

Author: Diane Diacon, Hannah Kriteaman, Jim Vine and Silvia Yafai
Commissioned by: Building and Social Housing Foundation (BSHF)

Status: Consultation feedback / guidance
Applicability:

Format: Web-based pdf
Publication date: 2007

Where to find it: www.bshf.org
Who to contact: BSHF
bshf@bshf.org

Overview: Undertaken in consultation with traveller groups, as well as representatives of the public.

Seeks to address integration with mainstream communities, as well as the shortfall in accommodation provision (around 21% of travellers have no lawful site available) by altering the political and social integration factors which are inhibiting their development.

The degree to which a lifestyle is nomadic can vary - being settled, seasonal, or transient. The site provision requirements for each are also variable as a result.

Overall rating: Design guidance: 1/10
Background reading: 8/10

Relevance to other non-mainstream categories: -

Key features and recommendations:

The culture surrounding traveller lifestyle approaches family structure differently from mainstream culture, placing more emphasis on care for the elderly and children within the family unit; therefore accommodation should account for a larger sized household.

Culture dictates strict guidelines regarding hygiene (such as a separation between cooking/eating, living and washing facilities). Some form of self-employment is intrinsic, although this now ranges from manual to professional work.

Best practice guidance for designing and managing sites has been promised to be provided by Government (presumably the DCLG documents currently in use).

Sites are currently situated in locations deemed unacceptable for the settled community, such as next to major roads, sewage plants, runways and rubbish tips. This does not encourage use of authorised sites by the community, and - coupled with an existing shortage - may lead to exacerbating the problem of unauthorised encampment. Earlier consultation with the intended residents in the site selection process may improve this situation. It is suggested that section 106 agreements be utilised, and that DCLG could diversify their base of stakeholders, in addressing the shortfall in provision of land. Temporary measures are required to address these issues in the short term, before a more sustainable solution can be reached.

Existing sites should ensure that rents are affordable, and that any change in use away from encampment provision is replaced with alternative sites within the area. The Right to Buy should be taken into account in the provision of sites, as for the settled community.

A case study for best practice management by a local authority is outlined, along with measures recommended to promote understanding and race relations, and reduce prejudice which may create barriers to site creation.

Recommendations for action by government departments, including DCLG as well as police, local councillors and other bodies, are made regarding funding, procurement, integration and provision (pages 43-48).

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|--|---------------------|
| Space | Accommodation should account for a larger sized household. | 1/5 |
| Other | Access to local community facilities. | 1/5 |

| | | | | | |
|------------------|------------|-------------------|---|---------------------|-----|
| Category: | Travellers | Sub-group: | - | Our ref. no. | 004 |
|------------------|------------|-------------------|---|---------------------|-----|

Title: Planning for Gypsy and Traveller Caravan Sites (Circular 01/06) and Planning for Travelling Showpeople (Circular 04/07)

| | | | |
|--------------------------|--|--------------------------|--|
| Author: | Office of the Deputy Prime Minister (ODPM) | Commissioned by: | ODPM |
| Status: | Guidance | Applicability: | England (Circular 22/91 applies for Wales) |
| Format: | Web-based pdf | Publication date: | 2006 |
| Where to find it: | www.communities.gov.uk | Who to contact: | DCLG contactus@communities.gov.uk |

Overview: These two circulars are planning guidance, primarily orientated towards the overall process rather than site design specifics. HCA grant is applicable to the needs of travellers. Design parameters have some overlap, hence reviews of the two documents have been combined here.

The development of appropriate provision levels (previously part of regional spatial strategies) is to be undertaken by local authorities and included within the DPD. This gives further guidance for provision requirements.

No sizes or diagrams are provided for guidance.

Overall rating: Design guidance: 1/10
Background reading: 3/10

Relevance to other non-mainstream categories:

-

Key features and recommendations:

The number and location of pitches is to be determined as part of the Local Authority's Draft Planning Document, highlighting appropriate sites for potential use. Previous sites, under-used land, or land available through compulsory purchase should be considered, with means of access taken into account as part of the selection criteria.

Due to the transient and fluctuating nature of the requirements, interim measures specific to the area, time and need are to be accounted for should the necessity arise, which may contradict the Gypsy and Traveller Accommodation Assessment. Any

maximum cap set on the number of caravans permitted within the development should be related to the size, density and location of the surrounding population, which may fluctuate.

Some businesses may be run from a traveller site; therefore the spaces provided for encampment should be applicable for mixed business and residential uses. Provision should be made for travellers who may want to buy the land on which they are camped for their own development.

Travelling showpeople have different needs from Gypsies and Travellers, as their culture, traditions, ways of life are not the same. A licence fee is paid for a traveller residential 'pitch', whilst a showperson's 'plot' may incorporate the storage and repair of machinery.

Travelling showpeople do not require any separation between business and residential uses, although the opportunity to repair machinery should be taken into account. However, all categories may require the opportunity to graze animals.

Sites in rural areas are given specific consideration - deemed inappropriate development for Green Belt land under PPG2, provision should therefore be made in the area on unused land outside the Green Belt and other designated areas, such as on the edge of built-up areas.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------|---|--------------|
| Public realm | | |
| Streetscape | Minimising impact upon surroundings through provision of planting - walls or fencing should not be used due to association with social exclusion. | 2 |
| Sustainability | | |
| Other | Social sustainability - such as provision of health and education services - is given priority. Local authorities are advised to be realistic about the likely availability of alternatives to the car in accessing local services. Close proximity to these services should be considered. Areas prone to flooding or significant contamination should be discounted from use. | 1 |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | no | - |
| Secured by Design | no | - |
| Building for Life | no | - |
| Code for Sustainable Homes | no | - |
| Others | no | - |

5.7 Existing buildings literature reviews

| | | | | | |
|--------------------------|--|--------------------------|----------------------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Standards | Our ref. no. | 001 |
| Title: | A Decent Home: Definition and guidance for implementation | | | | |
| Author: | Department for Communities and Local Government (DCLG) | Commissioned by: | DCLG | | |
| Status: | First issued 2000, with several updates | Applicability: | Applicable to all social housing | | |
| Format: | Web-based pdf | Publication date: | June 2006 (updated from 2004) | | |
| Where to find it: | www.communities.gov.uk | Who to contact: | DCLG | | |

Overview: The Decent Homes Standard was introduced in 2001 in response to the backlog of repairs that had built up in many local authorities' housing stock. It applies to all social sector housing stock owned by local authorities and by housing associations or Registered Providers (RPs). It is a minimum standard that housing stock must not fall below, and represents a 'trigger for action' and is not a standard that stock must aspire to reach.

The government set a target in 2000 that it would "ensure that all social housing meets set standards of decency by 2010, by reducing the number of households living in social housing that does not meet these standards by a third between 2001 and 2004, with most of the improvement taking place in the most deprived local authority areas".

In order to enable local authorities to raise funds to bring stock up to the Decent Homes Standard, the policy encouraged councils to carry out option appraisals, and to consult their tenants on whether to retain or to transfer their housing stock to registered social landlords, or to establish Arms Length Management Companies (ALMOs), or to seek funding under the Private Finance Initiative in order to fund works.

Aspects to note concerning the Decent Homes Standard (DHS):

- There is a regulatory expectation (from the Tenant Services Authority²), but no enforceable minimum standard.
- Although the thermal efficiency requirement has had a significant impact on the energy efficiency of social housing stock, the standard did not address other aspects of climate change and fuel poverty, thus having less environmental benefit than might otherwise have been possible.
- Households could opt out of having the Decent Homes work done, but their homes would not be included in reports as failing the DHS.

² From April 2012, regulation of social housing will be transferred into the HCA

-
- The target includes homes in the private sector occupied by vulnerable people.
 - The Housing Health and Safety Rating System (HHSRS) confers powers to intervene where there are hazards, although it is not enforceable on local authority owned stock.
 - It stimulated the undertaking of large programmes of work and the development of supply chains which could be exploited for large scale retrofit programmes if funding mechanisms can be identified for these.
 - Complying with the standard does not guarantee that homes meet an acceptable standard.
 - It does not address inherent problems of design of existing homes, such as cold bridging (where the structure of the building is expressed on the outside, allowing coldness to penetrate into the homes) and scissor blocks (where maisonettes 'cross-over' each other so that bedrooms are stacked, for instance), etc.
 - It addresses the fabric of the buildings, but not the amenity spaces or communal areas or the local environment, all of which would have had a major impact on the enjoyment of the home.

In summary, a regulatory minimum standard to be aware of in tackling existing stock.

Overall rating: 2/10 as design guidance and for the low level of standard sought
6/10 as information essential for funding

Relevance to other non-mainstream categories:

-

Key features and recommendations:

Local authorities were required to set out a timetable under which they would assess, modify and, where necessary, replace their housing stock according to the conditions laid out in the standard.

The criteria for the standard are as follows:

1. it must meet the current statutory minimum standard for housing, since 2006 (HHSRS)
2. it must be in a reasonable state of repair
3. it must have reasonably modern facilities and services
4. it must provide a reasonable degree of thermal comfort.

In practice many social housing providers aim to maintain their homes to higher standards than the Decent Homes Standard, while still seeking to keep the disruption to a minimum, adapting the works as necessary through consultation with residents.

Both the Greater London Authority and the Sustainable Housing Action Partnership (West Midlands) have developed standards for energy efficiency of existing stock which start from the Decent Homes Standard (both reviewed in the following pages but links are also provided below):

- Beyond Decent Homes by Urbed for the Sustainable Homes Action Partnership (SHAP) at <http://www.shap.uk.com/projects/20091016091553>
- Towards a Successor Standard to Decent Homes by the BRE for the Greater London Authority at <http://www.london.gov.uk/who-runs-london/mayor/publications/housing/towards-successor-standard-decent-homes>.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|--|--------------|
| The Home | | |
| Space | No requirement for minimum space standards for family size, which would assist in avoiding over-occupation | |
| Functionality | | |
| Accessibility | | |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | Yes, in communal blocks | |
| Activity areas | | |
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport/local facilities | | |
| Sustainability | | |
| Energy | Basic thermal efficiency in fourth criterion requires minimum insulation levels | 1 |
| Water | | |
| Health / well-being | In order to meet the DHS, homes must be free of Category 1 hazards under the Housing Health and Safety Rating System | 3 |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| EcoHomes XB | | |

| | | | | | |
|------------------|--------------------|-------------------|-----------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Standards | Our ref. no. | 002 |
|------------------|--------------------|-------------------|-----------|---------------------|-----|

Title: Towards a Successor Standard to Decent Homes

Author: Building Research Establishment **Commissioned by:** Greater London Authority (GLA)

Status: Research study **Applicability:** Social housing

Format: Web-based pdf **Publication date:** April 2009

Where to find it: www.london.gov.uk **Who to contact:** [GLA Housing team](#)

Overview: The GLA commissioned the Building Research Establishment (BRE) to scope a successor to the Government's existing Decent Homes criteria for public sector landlords. Following consultation with key London-based housing organisations and a tenant focus group, a review of other relevant work on setting higher environmental housing standards and consideration of the costs and benefits of potential elements of a successor standard, six core areas were identified:

- energy efficiency
- carbon emissions
- summer overheating
- water use
- dwelling security
- state of repair and serviceability of lifts.

The report sets out the full findings of this research.

Building on this work, the GLA has published further research in January 2011 on costing an enhanced environmental standard for social rented homes in London, available from the following link:

<http://www.london.gov.uk/who-runs-london/mayor/publication/costing-enhanced-decent-homes>

Overall rating: 7/10

Relevance to other non-mainstream categories: Research carried out on affordable housing only

Key features and recommendations:

Different targets need to be set for different dwelling types, which would reflect the degree of improvement that is physically possible and economically practical. However, in addition there should be minimum performance standards for all homes. Improvements also need to be made to the security, design and upkeep of estates, common areas, community facilities and green space. No prescribed standards were possible, due to the variety of circumstances of the different estates. Instead

meaningful and constructive consultation is required with residents on what they need on their estates.

Accessibility and adaptability are also identified, although the scope for improving existing homes to the Lifetime Homes standard is limited. Demonstration projects are sought which will show practical ways of improving homes to Lifetime Homes standard.

Climate change adaptation is also important.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|--|---------------------|
| The Home | | |
| Space | | |
| Functionality | | |
| Accessibility | An important consideration for all refurbishment projects, advocated here | |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | Security of blocks considered | |
| Activity areas | | |
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | | |
| Public open space | Considered | |
| Public transport/ local facilities | | |
| Sustainability | | |
| Energy | | |
| Water | Water-reduction and flood mitigation measures discussed | 3 |
| Health / well-being | Summer overheating discussed, and mitigation measures proposed | 3 |
| Waste and recycling | Recommendation not to include waste storage and disposal in a new standard | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|--------------------------------------|
| Lifetime Homes | Yes | Some LTH criteria should be included |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | | |

| | | | | | |
|--------------------------|--|--------------------------|---|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Standards | Our ref. no. | 003 |
| Title: | Beyond Decent Homes Standard 2009 - creating the low carbon standard for social housing | | | | |
| Author: | Nick Dodd, Charlie Baker and John Sampson - URBED | Commissioned by: | Sustainable Housing Action Partnership (SHAP) | | |
| Status: | Report on best practice in retrofit, and tool for decision-making | Applicability: | All existing social and private housing | | |
| Format: | Website and pdf document | Publication date: | October 2009 | | |
| Where to find it: | www.shap.uk.com | Who to contact: | SHAP | | |
| Overview: | <p>SHAP's aim is "to provide leadership in Sustainable Housing in the West Midlands by promoting, researching and disseminating best practice in the Environmental Social and Economic aspects of Sustainable Housing"</p> <p>SHAP partners recognised that while the Decent Homes programme delivered substantial improvements to existing homes, opportunities might have been missed to tackle fuel poverty comprehensively. They decided that the Decent Homes Standard could be enhanced to establish a new environmental standard for existing housing and this led to the decision to prepare and publish this report.</p> <p>The Beyond Decent Homes Standard report is designed to be a practical tool for use by social landlords to achieve equality of living standards for all social housing tenants.</p> <p>The document is supported by eight case studies of representative property archetypes, each of which were used to test and develop the overall approach. Costings are provided for each of the examples chosen.</p> <p>The structure of the study and rigorous application to each of the archetypes is very useful and practical, and can be replicated easily. However, the costs incurred for each house type (ranging from £16K to £32K) make it imperative that lessons are learned about the funding required in order to be able to roll out a programme of retrofit for social housing more widely.</p> | | | | |
| Overall rating: | <p>4/10 in relation to replicability</p> <p>6/10 in relation to methodology</p> | | | | |

Relevance to other non-mainstream categories: All existing housing

Key features and recommendations:

The standard aims to achieve targets ahead of national commitments for carbon reduction in three stages, linked to Energy Performance Certificates:

1. Minimum standard - all stock to achieve a minimum of 42% reduction on 1990 levels by 2016
2. Work in progress - asset management plans to be in place to achieve the 2025 target, and substantial initial progress made by 2020
3. Approaching completion - over 90% of stock to have achieved a minimum 80% reduction on 1990 levels by 2025 (equivalent to SAP 85 and EPC rating B).

The standard has three components, designed and tested with project partners:

1. Standard for improvement - identifying the performance standards and requirements
2. Framework of benefits - a framework for capturing the wider benefits of investment for the benefit of tenants, landlords and the local economy
3. Implementation plan - the plan for programming investment in order to meet the 2016, 2020 and 2025 milestones.

The SHAP Partners have committed to the inclusion of the standard in their Development Briefs and Asset Management Strategies, subject to appropriate funding.

| | | | | | |
|------------------|--------------------|-------------------|-----------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Standards | Our ref. no. | 004 |
|------------------|--------------------|-------------------|-----------|---------------------|-----|

Title: Community Green Deal

Author: URBED with support from Bates Wood and Grant Thornton
Commissioned by: Sustainable Housing Action Partnership (SHAP) and HCA

Status: Research study and good practice delivery model
Applicability:

Format: Web-based pdf
Publication date: 2010

Where to find it: www.shap.uk.com
Who to contact: [SHAP](#)

Overview: The Community Green Deal report develops the work of the Beyond Decent Home Standard report (Ref 003). It considers three key areas:

- how to deliver retrofit measures at scale,
- how to finance retrofit measures and,
- how this could impact the economy in terms of jobs, skills and the supply chain

It presents a model for community-scale delivery of energy efficiency measures for existing stock, developed with the input of over 75 stakeholders during a series of workshops and steering groups between June and November 2010. Representation included the HCA, local authorities, social landlords, lead contractors, builders merchants and architects. The detailed evidence base for the report is based on four example areas in the West Midlands and ten supply chain opportunity areas.

A detailed financial model was developed for one of the example areas.

Overall rating: 7/10 for background on policy-making
0/10 for design standards/guidance

Relevance to other non-mainstream categories: All existing homes

Key features and recommendations:

The recommendations are based on a model of delivering whole home retrofits to social housing communities of between 750 and 3,000 homes, assuming the model will attract large-scale institutional investors.

| | | | | | |
|--------------------------|--|--------------------------|--|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Policy and strategy | Our ref. no. | 101 |
| Title: | Home Truths: a low-carbon strategy to reduce UK housing emissions by 80% by 2050 | | | | |
| Author: | Brenda Boardman, Oxford University Environmental Change Institute (ECI) | Commissioned by: | The Co-operative Bank and Friends of the Earth | | |
| Status: | Strategy and recommendations | Applicability: | All homes | | |
| Format: | Web-based pdf | Publication date: | November 2007 | | |
| Where to find it: | www.eci.ox.ac.uk | Who to contact: | ECI | | |
| Overview: | <p>The precursors for this report are the 40% House (see review, ref. 504) and research by the Lower Carbon Futures team (based in the Environmental Change Institute in the University of Oxford) in 2006.</p> <p>The title is generated as a response to the fact that residential carbon emissions have increased by 5% since 1997, despite a number of Government initiatives and projections for an 11-18% carbon reduction from 1990 to 2020. The lack of progress across the country with such simple measures as insulating cavities, for example, demonstrates that change comes as a result of action taken by individual home owners rather than being spear-headed by government. Instead the government's focus (at the time of writing) had been on new homes, with a target of zero carbon for all new homes by 2016. But this approach does not address the millions of existing homes which need upgrading and adapting to climate change.</p> <p>Home Truths offers a low carbon strategy for 80% reduction in household emissions which can be done equitably and fairly, wiping out fuel poverty.</p> <p>Although the proposals are radical and require significant investment, Home Truths identifies the cost of not adopting such a strategy as £100 billion per year by 2050 due to the cost of damage caused by climate change.</p> <p>The document is already more than three years old and some of the targets identified have passed. However, the basic premise remains; that significantly reducing carbon emissions is possible if the political will is behind it.</p> | | | | |
| Overall rating: | <p>4/10 in relation to design guidance 6/10 in relation to policy-making</p> | | | | |

Relevance to other non-mainstream categories:

Applies to new housing as well as existing and refurbished homes

Key features and recommendations:

The document proposes the way forward via a 10-point action plan:

Tough standards:

1. **An integrated strategy** with legally-binding targets for housing emissions, reducing by 3.7% every year from 2008.
2. **Minimum legal standards for homes** relating to Energy Performance Certificates, with no G-rated property resold after 2010, and F-rated after 2013, etc, aiming to have no homes less than Band D by 2050. This requires support for the poorest and most vulnerable households, and access to long-term financing as well as practical assistance.
3. **Local authorities** have a clear responsibility to create low-carbon zones and support households making changes.
4. **Minimum legal standards required for products**, established by the government, requiring energy consumption labels which meet rising standards on all products, and a moratorium on the sale of the most energy-inefficient appliances.
5. **New homes** to be built in urban areas, to avoid the loss of greenfield sites, encouraging the use of CHP, and reduce reliance on private transport. Mandatory air-tightness tests on all new homes, Code for Sustainable Homes, Merton-type rules regarding on-site energy generation (with the proportion increasing over time).

Making it cheap and easy:

6. **Reform the energy market** with feed-in tariffs which guarantee a premium price for exported electricity, a renewable heat obligation incentive, and rewards for energy saving rather than high consumption.
7. **Financial support** through a robust programme of government tax incentives and investments worth £13 billion a year to ensure all homes become low carbon. This includes Stamp Duty rebates for households insulating homes, VAT reduction for installing energy efficiency measures, Landlord's Energy Saving Allowance, targeted low interest loans for improving energy efficiency of homes, linked to green mortgages.
8. **Roll-out of low and zero carbon (LZC) technologies** through grants, to ensure that there is at least one LZC technology per house. Community-wide CHP is fully backed, fired with renewable "green" gas derived from household and commercial waste.
9. **Fuel poverty** is addressed by identifying the fuel poor through a specific database, and rolling out low carbon zones in those areas, along with a second round of Decent Homes.

An information revolution:

10. **Information** is key, and at least a third of carbon savings in the residential sector will come from behavioural changes, prompted by information on the amount of carbon emissions a household is generating to help reduce
-

emissions. Smart meters are recommended for gas and electricity usage. This topic is addressed in Chapter 8.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------|--|---------------------|
| Sustainability | | |
| Energy | Lights and appliances feature in Chapter 3. Low and zero carbon technologies and fuels are addressed in Chapter 6, and delivering the low carbon strategy in Chapter 10. | 2 |
| Water | | |
| Health / well-being | Fuel poverty is covered in Chapter 7 | 2 |
| Waste and recycling | | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|---------------------------------|----------------------|----------------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | Yes | For new homes |
| BREEAM | | |
| EcoHomes XB | No | |
| SAP | Yes | |
| Energy performance certificates | Yes | |

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|--------------------------|--|--------------------------|---|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Policy and strategy | Our ref. no. | 102 |
| Title: | 40% house | | | | |
| Author: | Brenda Boardman et al, Environmental Change Institute (ECI), Oxford University | Commissioned by: | Funded by Tyndall Centre for Climate Change Research | | |
| Status: | Published research | Applicability: | Policy-making on achieving UK carbon reduction targets, particularly in relation to existing housing | | |
| Format: | Web-based pdf | Publication date: | March 2005 | | |
| Where to find it: | www.eci.ox.ac.uk | Who to contact: | ECI | | |

Overview: The 40% House (i.e. one which is responsible for only 40% of the carbon dioxide emissions of the average UK home) is a demand-side energy strategy to deliver 60% carbon savings in the UK's residential energy use by 2050. Since housing consumes almost a third of the UK's energy, the achievement of the target is crucial.

The study looked at:

- Identifying the policies required to achieve the 60% reduction in the domestic sector by 2050.
- Investigating the more careful use of energy, and the supply of energy through household-level renewables, including heat pumps, solar thermal and PV, and micro-combined heat and power.
- Determining the impact of expected climate change on the demand for heating and cooling, and identify the most appropriate ways of minimising this demand.
- Examining the load profiles of individual appliances and the extent to which these can be modified, with a consequent reduction in peak load.
- Assessing the views of householders, so that proposals work with and enhance public opinion.

It culminated in a conference on 23 March 2005.

This 130-page document is an extremely comprehensive study, which includes notable projections for the performance of all homes by 2050, the level of demolition and new build necessary to meet the target, the upgrading of existing homes, the government policies which will need to be in place to support the change from now till 2050, changes in consumer awareness, and the parameters of the 40% home in terms of lighting and appliances, and space and water heating. It addresses the definition of fuel poverty and the need for energy efficiency to address it.

The level of detail provided is useful, particularly as time passes, as it gives an opportunity to compare the achievement of energy and carbon savings with the projections. As this study is now 5 years old, some projections are superseded by technological and other developments, but it is a useful seminal reference point for addressing climate change. More up-to-date work can be found in the Home Truths report (see review ref. 502).

Overall rating: 4/10 sustainability guidance
6/10 background information

Relevance to other non-mainstream categories: None

Key features and recommendations:

Particularly relevant to this study is the assessment of change required in existing buildings, and though these are inevitably limited by their physical constraints, they are all the more important for having a larger impact on reduction of carbon emissions. The measures considered (in section 5.2.3) include the usual: cavity insulation, loft insulation, floor insulation (for suspended floors), and better performing windows.

The study is very comprehensive, particularly in terms of the projection of data towards 2050, taking into consideration all the variables which would affect that data, such as change in technology (for fittings and appliances), changing cost of new technologies, policy change requirements to support the projected figures, etc.

The report contains:

- | | |
|--------------------------------------|--|
| Executive summary | |
| 1. Introduction | 6. Lights and appliances |
| 2. Views of the future | 7. Provision of heating and electricity through low and zero carbon technologies |
| 3. Households and living space | 8. Electricity and gas implications |
| 4. Thermal comfort and control | 9. Achieving the 40% House scenario |
| 5. Building fabric and housing stock | References |

The report comments on the useful policies and programmes (at the time of writing) to address fuel poverty and market transformation, such as the Energy Efficiency Commitment, Warm Front and Decent Homes, but identifies the problem that they are not linked and their effect is therefore limited.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------|--|--------------|
| The Home Space | | |
| Functionality | Comfort in the home in relation to fuel poverty and target warmth levels | 1 |
| Accessibility | | |
| Amenity | | |

| | | |
|-----------------------------------|--|---|
| Shared spaces | | |
| Cores and circulation areas | | |
| Activity areas | | |
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | Not mentioned, except in relation to the problems of providing external insulation to existing buildings | |
| Public open space | | |
| Public transport/local facilities | | |
| Sustainability | | |
| Energy | Detailed considerations provided | 3 |
| Water | | |
| Health / well-being | Mentioned in relation to fuel poverty and thermal comfort | 1 |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| EcoHomes XB | | |

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|--|--|--------------------------|--|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Policy and strategy | Our ref. no. | 103 |
| Title: | Stock take: delivering improvements in existing housing | | | | |
| Author: | Sustainable Development Commission | Commissioned by: | The Co-operative Bank and Friends of the Earth | | |
| Status: | Research study and recommendations | Applicability: | All existing homes | | |
| Format: | Web-based pdf | Publication date: | July 2006 | | |
| Where to find it: | www.sd-commission.org.uk | Who to contact: | n/a | | |
| Overview: | <p>The Sustainable Development Commission (SDC) was commissioned by the Office of the Deputy Prime Minister to look at the potential for significantly improved resource efficiency in the existing housing stock of 21 million homes (note the SDC ceased to exist in March 2011). Over a period of a year, the SDC worked with stakeholders to assess the technical improvements which could be made to minimise resource use, and this report outlines the technical findings. It also aims to inform decision-making by policy makers in an attempt to accelerate the adoption of the technical measures, particularly in relation to energy efficiency and waste reduction, in order to assist in neighbourhood renewal.</p> <p>The report covers:</p> <ol style="list-style-type: none"> 1. The sustainable buildings work programme 2. The context for existing housing 3. Cross-cutting policy measures to deliver sustainable homes 4. Sustainable and Secure Buildings Act and Building Regulations 5. Energy and carbon 6. Water 7. Materials and construction and demolition waste 8. Household waste 9. Conclusion | | | | |
| Overall rating: | 4/10 | | | | |
| Relevance to other non-mainstream categories: | Applies to new housing as well as existing and refurbished homes | | | | |

Key features and recommendations:

The Sustainable Development Commission found that:

- Consumers need clear and consistent signals about policy directions and priorities in order to change behaviour.
- Policies should not only inform them about technological improvements that can be installed in their homes, but should also strongly encourage and incentivise people to do so.
- Assessing the effectiveness of policy interventions requires a clear understanding of consumer motivations across all income groups so that the most appropriate approaches are developed.

- Setting statutory standards, through regulation with proper enforcement, is necessary to ensure that a minimum standard is being met by all actors in a market.
- Much of the construction sector aims to deliver projects at lowest short term capital cost. To persuade them to adopt an acceptable minimum standard will require reasonable and cost effective regulations.
- Therefore voluntary standards cannot be relied on to deliver the great improvements in resource efficiency that are necessary.

- Regulations should set minimum standards that are achievable by all, proportional, and clearly deliver on policy objectives.
- Far from being a consistent burden on business, regulation can minimise the administrative burden on market players and the cost of compliance, as it provides a “level playing field” for those sectors.
- As industry capacity develops and the social and environmental context changes, regulations can be revised and tightened over time.

For improving resource efficiency in the existing housing stock, the SDC identifies the fact that an overarching framework for change would include action in several areas:

- 1.1 Develop a Code for Sustainable Buildings (Existing Housing), which could be integrated into existing policies and programmes such as the Decent Homes Standard or other publicly funded refurbishment schemes.
- 1.2 Offset any increase in CO₂ emissions or water consumption in areas by matching this with a commensurate reduction in carbon emissions or water consumption in existing homes in the same region.
- 1.3 Equalise VAT on refurbishment and new build to overcome the current distortion that encourages developers and home owners to demolish and replace homes instead of refurbishing existing buildings to high environmental standards.
- 1.4 Use the enabling powers of the Sustainable and Secure Buildings Act 2004 to make sustainable development the driving force behind revised Building Regulations.
- 1.5 Raise awareness on all resource efficiency issues, which should be delivered alongside any regulatory changes.

To encourage more sustained and widespread adoption of energy efficiency measures, the following steps could be taken:

- 2.1 Improved consumer information through measures such as installing smart meters into homes; improved information on fuel bills; linking home energy efficiency to the Government's climate change objectives; and a voluntary agreement with global electronics producers on electronic goods standby power.
- 2.2 Improved incentives and requirements such as:
- Amending the Building Regulations Part L to implement the proposal to require consequential energy efficiency works when carrying out building work.
 - Setting the Energy Efficiency Commitment 3 target at least three times the level of Energy Efficiency Commitment 1, with a programme of supporting policies to engage owner occupiers.
 - Introducing a Microgeneration Commitment, parallel to the Energy Efficiency Commitment to require a proportion of microgeneration to be installed by energy suppliers in homes, and financed using an energy services model.
 - Government to support pilot projects in developing a system of carbon trading at household level, so individuals receive personal carbon credits that they can then buy or sell in a trading system.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------|---|--------------|
| Sustainability | | |
| Energy | Chapter 5 deals with energy and carbon | |
| Water | Chapter 4 addresses water issues, such as water saving and efficiency, conservation, rainwater and drainage, etc. | |
| Health/ well-being | | |
| Waste and recycling | Demolition waste is covered in Chapter 7, while domestic waste is covered by Chapter 8 | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | | |

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|--|---|--------------------------|--|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Policy and strategy | Our ref. no. | 104 |
| Title: | The Future is Local - empowering communities to improve their neighbourhoods | | | | |
| Author: | Sustainable Development Commission (SDC) | Commissioned by: | Homes and Communities Agency, Department for Communities and Local Government, Department for Energy and Climate Change, Energy Efficiency Partnership for Homes | | |
| Status: | Published document | Applicability: | National and local government, civil societies, business organisations, academic institutions and individuals | | |
| Format: | Web-based pdf | Publication date: | July 2010 | | |
| Where to find it: | www.sd-commission.org.uk | Who to contact: | SDC no longer exists but links are provided on their archive website | | |
| Overview: | <p>This document argues the case for enabling communities to renew both their neighbourhood properties and infrastructure at a local level as the most cost-effective way to ensure that villages, towns and cities are fit for the future and create the best conditions for people to thrive. The focus is away from individual property retrofit programmes and single outcome campaigns such as carbon reduction, and towards a wider, more holistic, co-ordinated approach to sustainable neighbourhood improvement.</p> <p>The report's main proposals dovetail with the Government's promotion of a Big Society through increased localism and community involvement.</p> <p>There are some useful case studies and a helpful executive summary.</p> | | | | |
| Overall rating: | 2/10 for design guidance 7/10 for policy and decision-making | | | | |
| Relevance to other non-mainstream categories: | All existing housing | | | | |

Key features and recommendations:

The report recommends the establishment of neighbourhood partnerships that can bring increased benefits through:

- multi-disciplinary cooperation between local authorities, infrastructure owners, finance and technical experts
- taking a form that is appropriate to local needs and resources
- having a long term, ongoing presence and interest in the neighbourhood
- providing mentoring and organisational support

A section on learning from the past (page 44 onwards) provides a useful summary of government policy for existing homes since 1974 up to 2009.

Summaries of each chapter, as well as recommendations, can be found in yellow boxes at the end and within the chapters.

| | | | | | |
|--|--|--------------------------|---|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Assessment methodology and measurement | Our ref. no. | 201 |
| Title: | EcoHomes XB - The Environmental Rating for Existing Housing - The guidance 2006 (issue 2.5) | | | | |
| Author: | BRE (Building Research Establishment) | Commissioned by: | The Housing Corporation (now the HCA) | | |
| Status: | Environmental Assessment methodology for existing, managed stock - guidance (not mandatory) | Applicability: | Applicable to all existing housing | | |
| Format: | Web-based pdf | Publication date: | April 2006 (first issued 2003) | | |
| Where to find it: | www.breeam.org | Who to contact: | BRE breeam@bre.co.uk | | |
| Overview: | <p>The Housing Corporation (now the Homes and Communities Agency) commissioned the Building Research Establishment to develop EcoHomes XB for existing buildings and managed stock.</p> <p>EcoHomes XB can be used to:</p> <ul style="list-style-type: none"> ▪ assess the current environmental performance of existing stock, ▪ plan the most effective interventions to improve the worst cases, and ▪ measure the improvements made. <p>EcoHomes XB is designed to accommodate the fact that existing stock includes a wide range of property ages and types. It helps housing associations and local authorities to identify the best score that can realistically be achieved by their particular stock and to track their progress towards it. It provides a framework to ensure that they incorporate all the environmental measures that they can, recognising the challenges of existing stock, and it enables them to record and measure their achievements.</p> <p>Each of the sections of the guidance provides information about the aim of the measure, how credits can be awarded, the requirements to meet the assessment, and further guidance. This is followed by a list of any further information available, the background and references.</p> | | | | |
| Overall rating: | 8/10 for sustainable design guidance | | | | |
| Relevance to other non-mainstream categories: | It does not cover sheltered housing, nursing homes, student accommodation, etc, for which a bespoke assessment is required. | | | | |

Key features and recommendations:

Credits largely follow the format of the current EcoHomes (which covers new-build and major refurbishment and has now been subsumed into the Code for Sustainable Homes) within the same topics:

- Management
- Energy
- Transport
- Pollution
- Water
- Health
- Waste

| Subject areas | Requirements/recommendations | Rating (1-5) |
|------------------------------------|---|--------------|
| The Home | | |
| Space | Not mentioned, except in relation to the need for space to be able to work from home (Hea 2), and to encourage the use of on-line shopping. | 1 |
| Functionality | No | 0 |
| Accessibility | No | 0 |
| Amenity | Yes, in Hea 1, but no dimensions provided | 1 |
| Shared spaces | | |
| Cores and circulation areas | No | 0 |
| Activity areas | No | 0 |
| Outdoor spaces | Yes, in Hea 1, but no dimensions provided and no specific guidance for refurbished properties | 1 |
| Public realm | | |
| Streetscape | No | 0 |
| Public open space | No | 0 |
| Public transport /local facilities | Only in terms of access to transport nodes, with different ratings for rural and urban situations | 1 |
| Sustainability | | |
| Energy | Good, requiring a Registered Provider (RP) to have an energy and environmental policy endorsed by the management, with a commitment to integrate renewable energy sources. The RP should also provide advice to residents on operating heating systems and purchasing energy efficient appliances. Insulation levels are included to reduce energy loss, but these only require compliance with 2006 Building Regulations. SAP ratings are included, with more points scored for the highest ratings. | 3 |
| Water | Reduction of consumption of potable water, giving credits for different fittings, and re-using rainwater. No mention of greywater recycling, though that may be more difficult to achieve with refurbished properties without significant disruption. | 2 |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|---|---------------------|
| Health / well-being | Drying space is mentioned under Ene 5 Ventilation covered by Hea 3 The corollary of carrying out any of the measures identified is improved health and well-being, but it is not covered in detail. | 2 |
| Waste and recycling | Detailed section (Was 2) which covers recycling domestic waste | 2 |
| Pollution | There is a category for zero emission energy sources | 3 |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|--|
| Lifetime Homes | No | |
| Secured by Design | No | No, but should be a requirement if achievable, at least in security of the home. |
| Building for Life | No | |
| Code for Sustainable Homes | No | |
| Other | | |

| | | | | | |
|--------------------------|---|--------------------------|--|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Advice and guidance | Our ref. no. | 301 |
| Title: | Fit for the Future - the Green Homes Retrofit Manual | | | | |
| Author: | ESD (now Camco) | Commissioned by: | Housing Corporation (now Homes and Communities Agency) | | |
| Status: | Guidance and support | Applicability: | Social housing landlords dealing with existing housing stock | | |
| Format: | Web-based pdf | Publication date: | June 2008 | | |
| Where to find it: | www.homesandcommunities.co.uk | Who to contact: | HCA | | |
| Overview: | <p>This publication comprises two documents - the Manual (120 pages) and the Technical Supplement (see separate review on the Technical Supplement).</p> <p>Its purpose is to encourage and support managed housing providers to improve their housing stock by looking at environmental choices as a means of reducing fuel poverty, as well as doing less damage to the planet. The Manual demonstrates to social housing landlords how they can ensure that they are getting the basics right, as well as providing key information about more advanced measures which could be adopted.</p> <p>The Manual deals with:</p> <ol style="list-style-type: none"> 1. Introduction 2. Delivery matters (strategic approach, using EcoHomes XB, delivery and finance) 3. Saving carbon 4. Energy efficiency - core physical measures (cavity, solid wall, roof or loft and floor insulation, windows and doors, draughtproofing and airtightness, boilers and controls, commercial heating, lighting and appliances) 5. Low and zero carbon technologies (biomass, heat pumps, solar PV, solar water heating, wind, fuel cells) 6. Water and waste 7. Environmental matters (transport, health and well-being, materials, landscaping measures) 8. Behaviour and awareness-related matters 9. Conclusion 10. Recommendations | | | | |
| Overall rating: | <p>8/10 Sustainability guidance</p> <p>8/10 Background information</p> | | | | |

Relevance to other non-mainstream categories:

Homes in multiple occupation, hostels, refuges, etc, as well as being of value to private home owners

Key features and recommendations:

The document advises social housing landlords to take a strategic approach to making environmental improvements through their planned and responsive maintenance programmes. It sets out the order in which measures should be adopted i.e. fabric improvements before microgeneration or renewables, and the most cost effective / fastest payback measures. It reviews the state of technologies for energy efficiency, from insulation to solar and wind at the date of writing, and it aims to give enough information for social landlords to ascertain whether they should be looking into each technology further.

The format is excellent for a number of reasons:

- It is written in simple language.
- Each section begins with highlighted boxes with information "In a nutshell" summarising the benefits of the measures discussed in the chapter, followed by a "Useful to know" box which suggests good practice, and issues that might be overlooked.
- Advantages and disadvantages of different approaches are discussed in table format for ease of comparison.
- At the end of each section, there is a "Suitability key" which is in the form of a flow-chart, asking relevant questions to guide decision-making.
- Information on current thinking is provided (though this may need to be updated over time).
- There are case studies dotted through the manual, which illustrate the issues discussed.
- Cost implications are discussed, in as definitive a form as possible, depending on the topic.
- Further information is supplied in the form of reference documents and relevant websites.

The Manual concludes with a table showing the cumulative benefit, expressed as a SAP rating, of implementing measures described in the text for a sample property. This table is essential reading, and can be found on page 103.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|--|---------------------|
| The Home | | |
| Space | | |
| Functionality | | |
| Accessibility | Discussed in passing in 7.4 in relation to EcoHomes XB credits | 2 |
| Amenity | Discussed in Chapter 7 in relation to EcoHomes XB credits | 3 |
| Shared spaces | | |
| Cores and circulation areas | | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------------|---|---------------------|
| Activity areas | | |
| Outdoor spaces | Discussed in Chapter 7 in relation to EcoHomes XB credits | 3 |
| Public realm | | |
| Streetscape | | |
| Public open space | Discussed in Chapter 7 in relation to EcoHomes XB credits | 3 |
| Public transport/local facilities | Discussed in Chapter 7 in relation to EcoHomes XB credits | 3 |
| Sustainability | | |
| Energy | Covered well and in great detail | 5 |
| Water | Covered well and in great detail | 5 |
| Health / well-being | Mentioned as part of EcoHomes XB in Chapter 7 | 3 |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | No | |
| Secured by Design | No | |
| Building for Life | No | |
| Code for Sustainable Homes | No | |
| EcoHomes XB | Yes | Suggested |

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|------------------|--------------------|-------------------|---------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Advice and guidance | Our ref. no. | 302 |
|------------------|--------------------|-------------------|---------------------|---------------------|-----|

Title: Fit for the Future - the Green Homes Retrofit Technical Supplement

Author: ESD (now Camco) **Commissioned by:** Housing Corporation (now Homes and Communities Agency)

Status: Guidance and support **Applicability:** Social housing landlords dealing with existing housing stock

Format: Web-based pdf **Publication date:** June 2008

Where to find it: www.homesandcommunities.co.uk **Who to contact:** HCA

Overview: This publication comprises two documents - the Technical Supplement (102 pages) and the Manual (see separate review for the Manual).

Its purpose is to encourage and support managed housing providers to improve their housing stock by looking at environmental choices as a means of reducing fuel poverty, as well as doing less damage to the planet. The Manual (see previous review) demonstrates to social housing landlords how they can ensure that they are getting the basics right, as well as providing key information about more advanced measures which could be adopted. The Technical Supplement (reviewed here) provides information where it is available and relevant to the technologies and subjects in the Manual.

The Technical Supplement has similar chapter headings to the Manual, and deals with:

1. Introduction
 2. Strategic approach
 3. Saving carbon
 4. Energy efficiency - core physical measures (cavity, solid wall, roof or loft and floor insulation, glazing, draughtproofing, boilers and controls, communal heating, lighting and appliances)
 5. Low and zero carbon technologies (biomass, heat pumps, solar PV, solar water heating, wind)
 6. Water and waste
 7. Not used
 8. Behaviour and awareness-related matters
- CS: Detailed Case Studies

This document can be read as stand-alone, or as a supplement to the Manual.

Overall rating: 8/10 for sustainable design guidance

Relevance to other non-mainstream categories:

Homes in multiple occupation, hostels, refuges, etc, as well as being of value to private home owners

Key features and recommendations:

The document takes a stronger view than the Manual, placing into context the work of social landlords in relation to the challenges of climate change. It focuses on both mitigation to minimise climate change and adaptation to accommodate the effects of climate change - such as rising sea levels, extreme weather events and warmer summers.

A similar format is adopted to that in the Manual, with inevitably more diagrams and charts. The excellent presentation style of the Manual is continued, which is effective as follows:

- It is written in simple language.
- Sections feature highlighted boxes with information "In a nutshell" summarising the benefits of the measures discussed in the chapter, followed by a "Useful to know" box which suggests good practice, and issues that might be overlooked.
- Inspirational case studies are featured at the end of the Technical Supplement, with charts comparing U-values, annual heating demand and energy generation before and after refurbishment. It also details the installations which have made an impact on performance.
- Further information is supplied in the form of reference documents and relevant websites.

The Technical Supplement starts with a table showing the type of construction and age of typical properties in the UK, as a percentage of the total stock (page 11). This is followed by a chart which compares the tenure of homes in the UK with the percentages of homes with central heating, cavity walls that could be insulated and average SAP ratings (page 12). The chart shows clearly that private rented properties lag far behind other tenures in relation to their energy efficiency characteristics.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|--|---------------------|
| Sustainability | | |
| Energy | Covered well and in great detail | 5 |
| Water | Covered well and in great detail | 5 |
| Health / well-being | Mentioned as energy advice to tenants on heating systems controls, advice on energy and running costs, control of condensation, ventilation, and appropriate clothing. | 4 |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | No | |
| Secured by Design | No | |
| Building for Life | No | |
| Code for Sustainable Homes | Yes | |
| EcoHomes XB | Yes | Recommended |

| | | | | | |
|--|--|--------------------------|--|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Advice and guidance | Our ref. no. | 303 |
| Title: | An Introduction to Low Carbon Domestic Refurbishment | | | | |
| Author: | Construction Products Association | Commissioned by: | n/a | | |
| Status: | Guidance | Applicability: | Landlords, homeowners and builders refurbishing houses and flats | | |
| Format: | Web-based pdf | Publication date: | June 2010 | | |
| Where to find it: | www.constructionproducts.org.uk | Who to contact: | Construction Products Association | | |
| Overview: | <p>This guide is concerned with the refurbishment of existing houses and flats and aims to provide clear information about how to carry out refurbishment in a way that improves the energy efficiency of the building and reduces CO₂ emissions.</p> <p>The point is made that in any given year existing homes currently account for approximately 99% of CO₂ emissions from housing overall and will still make up most of the housing stock in 2050.</p> <p>Sections of the guide address various building elements such as floors, walls, heating and air tightness, giving illustrated advice on upgrading and achieving both Building Regulations (the document refers to both 2006 and 2010 versions) and advanced level U-values. However, the carbon dioxide emissions factors tabulated on page 5 are out of date. A number of case studies demonstrate how the wide range of recommendations can be implemented.</p> <p>A well written, practical and easy to understand document which explains how energy is wasted in a house, how improvement materials work and their relative cost benefits. The life expectancy and relative physical disruption to be expected when carrying out different improvements are explained in tabular form.</p> | | | | |
| Overall rating: | 7/10 | | | | |
| Relevance to other non-mainstream categories: | All existing homes | | | | |

Key features and recommendations:

An overall 'whole-house' improvement plan is recommended which takes into consideration all the low carbon shortfalls and opportunities in the home and which can be implemented in stages.

The guide recognises that few householders can afford the whole-house approach at one time and recommends a three stage plan to address improvements in order of magnitude, disruption and cost:

- make quick fixes: improvements that are affordable and achievable with readily available materials
- exploit and preserve opportunities: exploit the opportunities that arise while other work is being carried out - for example, when replacing a hot water cylinder consider installing a twin coil cylinder to allow later installation of solar water heating
- implement major projects: larger interventions to be implemented at a future time when funds allow

Homeowners and landlords should consider carrying out energy efficiency improvements as part of routine maintenance or larger scale refurbishment projects.

Useful charts in this document include:

- A 'family tree' of insulation materials is useful (page 11), ranging from natural materials to highly processed.
- This is linked to a chart showing the approximate thermal conductivities of the materials discussed.
- The impact on residents of improvement measures - this is displayed on a chart on page 15, which shows the works possible within each level of disruption, from minimal impact to significant.
- This chart is amplified with carbon cost effectiveness and capital cost for each measure on the following page (16).
- A diagram and chart of potential air leakage paths is on page 44 and a list of other routes on page 45.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------------|---|--------------|
| Sustainability | | |
| Energy | Yes, looking at the simpler options appropriate to work on individual dwellings, such as ground source heat pumps, biomass heating, micro CHP, etc | |
| Water | Hot water and solar water heating are discussed, but the concentration is on cutting water use by modifying behaviour, rather than using low-flow taps and dual flush WCs | |
| Health / well-being | Suggestions for growing your own food, eating seasonal food, etc, under 'other issues' | |
| Waste and recycling | Mentioned briefly under 'other issues' | |
| Pollution | No | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | No | |
| Secured by Design | No | |
| Building for Life | No | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | No | |

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|------------------|--------------------|-------------------|---------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Advice and guidance | Our ref. no. | 304 |
|------------------|--------------------|-------------------|---------------------|---------------------|-----|

Title: Sustainable refurbishment (2010 edition)

| | | | |
|--------------------------|--|--------------------------|-------------------------------------|
| Author: | Energy Saving Trust | Commissioned by: | n/a |
| Status: | Guidance | Applicability: | Applicable to all existing housing |
| Format: | Web-based pdf | Publication date: | February 2010 |
| Where to find it: | www.energysavingtrust.org.uk | Who to contact: | Energy Saving Trust |

Overview: The Climate Change Act (2008) requires that by 2050, the UK's annual carbon dioxide (CO₂) emissions should be reduced by 80% compared to 1990 levels. Home energy use is responsible for over a quarter of UK CO₂ emissions which contribute to climate change. We must therefore aim to reduce CO₂ emissions from all dwellings by an average of 80% to help meet the UK's long term goal.

This guide, developed by the Energy Saving Trust housing programme, provides an integrated package of measures that will enable builders, developers and householders to hit the demanding 80% target and make radical improvements to energy performance that go beyond current Building Regulations.

This document covers a wide range of topics in great detail, with some house-type case studies for readers to use as the basis of their application of energy efficiency measures in existing homes.

The energy-efficiency measures include:

- Insulation
- Air tightness and ventilation
- Lighting and appliances
- Renewable energy
- Water efficiency
- Recycling of waste and materials
- Climate change adaptation

Overall rating: 8/10 highly relevant

Relevance to other non-mainstream categories: Useful for all existing dwellings, regardless of purpose

Key features and recommendations:

This document has a very practical style, advising on the possibilities and opportunities for improving thermal performance.

It includes useful diagrams and drawings, showing how the relevant work is carried out, such as applying thermal laminate plasterboard, insulating a steel frame system, how a ground source heat pump works, or insulating an existing concrete floor, etc.

Simple comparisons are provided, for instance, for the impact on u-values of different types and depths of insulation. A chart identifies the basic information to reduce unwanted air leakage.

It also provides charts advising of the trigger points for considering climate change adaptation measures in relation to normal household activities, such as creating a loft conversion, re-roofing, replacing the heating or boiler, and so on (refer to page 7).

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------------|---|---------------------|
| Sustainability | | |
| Energy | Excellent | 5 |
| Water | Excellent | 5 |
| Health/ well-being | The corollary of carrying out any of the measures identified is improved health and well-being, but it is not covered specifically. | 2 |
| Other | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|----------------------------|
| Lifetime Homes | No | |
| Secured by Design | No | |
| Building for Life | No | |
| Code for Sustainable Homes | No | |
| EcoHomes XB | No | |

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|------------------|--------------------|-------------------|---------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Advice and guidance | Our ref. no. | 305 |
|------------------|--------------------|-------------------|---------------------|---------------------|-----|

Title: Your Home in a Changing Climate

| | | | |
|--------------------------|--|--------------------------|---|
| Author: | Arup | Commissioned by: | Three Regions Climate Change Group |
| Status: | Research study | Applicability: | Aimed at policymakers, housing professionals and householders; also applicable to landlords of multiple housing units |
| Format: | Web-based pdf | Publication date: | February 2008 |
| Where to find it: | www.london.gov.uk/trccg | Who to contact: | Three Regions Climate Change Group |

Overview: This report focuses on the three geographical regions of London, East and South East England. It tackles the need to adapt housing stock to protect against climate change, as well as to mitigate climate change, and it makes the case for retrofitting existing homes to ensure that they are liveable and comfortable in the context of the current and on-going process of climate change, demonstrated by the increased incidence of:

- Flooding (2007)
- Water stress (drought - 2006)
- Overheating (2003)

The report identifies the fact that climate change has arrived, but awareness of the need to adapt and the measures that can be taken is low.

The emphasis is therefore on adaptation of the existing housing stock to deal with climate change, to ensure homes are comfortable and sustainable now and in the long term. The point is made that, in the regions considered, approximately 21m people live in about 9m homes, most of which were constructed around the middle of the twentieth century to meet the demands of a very different climate, and most of which will still form the bulk of the regional housing stock in 2050. It is therefore important that action is taken now to retrofit and adapt existing homes to increase their resilience and long-term sustainability in the face of increased climate change.

The report combines a well written description of the current and predicted future effects of climate change with a case study of a three-bed semi-detached house and practical examples of retrofit measures that can be applied, graded from free/DIY improvements to specialist contractor installations.

A case is made for Government intervention to increase the profile of climate change adaptation to the same level of prominence currently ascribed to reducing CO₂ emissions and to coordinate campaigns in both

areas. The suggestion is also made that providers of non-mainstream housing (vulnerable and older people housing) and other landlords are better placed than private householders to implement adaptation measures, as they can build in greater efficiencies through larger refurbishment programmes across the wide range of homes in their care.

Overall rating: 7/10 - particular to the South-East of England, though potentially applicable throughout the country

Relevance to other non-mainstream categories: All existing dwellings, particularly those which suffer from flooding

Key features and recommendations:

The main purpose of this report is to increase awareness of the physical consequences of climate change in terms of flooding, water stress and overheating, and to make recommendations for education and adaptation that are applicable at both national and household level including:

- promote understanding that the climate change process is already taking place and that action needs to be taken now - what were once one-off events will become increasingly commonplace
- national coordination of regional and local campaigns such as those by Thames Water and Homebase
- promotion of reduced insurance premiums where climate change preventative measures are installed
- inclusion of the effects of climate change in school and university teaching programmes, since students now will be the homeowners of the future
- educate homeowners in the need for forward planning and the preparatory measures that can be carried out now
- with regard to flooding, promote the ideas of resistance (what can be done to reduce the amount of water that enters the home) and resilience (minimising the physical and financial consequences when it does).

The onus of educating, encouraging and enabling home owners to make appropriate changes is placed on policy makers, NGOs, installers, suppliers, professional institutions and housing market institutions.

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------|--|--------------|
| Sustainability | | |
| Energy | Fill all service penetrations through external walls to reduce heat loss | 1 |
| Water | A number of recommendations at varying levels of cost and intervention, such as flood defences: <ul style="list-style-type: none"> - During refurbishment programmes or routine maintenance, consider installing flood barriers at gates and doors, and placing service connections and boilers at high level - Consider installation of drainage non-return valves and 'smart' air bricks - Store important or valuable and possessions at first floor level | 3 |

| | | |
|---------------------|--|---|
| Health / well-being | Adaptation measures to address overheating are listed on page 41, and include: - Increase insulation - Solar shading - Ventilation to guard against overheating | 3 |
| Waste and recycling | | |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | | |

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|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Exemplars and good practice | Our ref. no. | 401 |
|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|

Title: Sustainability Brief for Refurbishments

| | | | |
|--------------------------|---|--------------------------|---|
| Author: | British Land Company plc | Commissioned by: | n/a |
| Status: | Brief | Applicability: | All rehabilitated buildings owned by British Land |
| Format: | Web-based pdf | Publication date: | 2008 |
| Where to find it: | http://files.the-group.net/library/britishland/files/pdf_119.pdf | Who to contact: | British Land |

Overview: British Land, as one of the UK's largest property development and investment companies, recognises that environmental, social and economic considerations should be integrated with everyday working practices.

This document is a response to British Land's Corporate Responsibility Policy, and aims to facilitate the management of environmental, social and economic impacts of the company's refurbishments.

It covers:

1. Definitions of sustainability and the purpose of the brief, its scope and limitations
2. When to use the brief
3. The process
4. Standards and guidance for planning and designing
5. Standards and guidance for construction
6. Appendices and references

The brief itself comprises three sections: a process guide, key standards for planning and design, and construction standards. Also included are good practice measures (to be considered when setting objectives and targets), appendices with templates for use in the processes described, and references.

Against each of the sections above there are five broad headings to apply the principle of sustainable development to British Land refurbishments:

1. Site and Neighbourhood - constraints and opportunities, including planning issues, the ecological value of the site, environmental conditions (such as noise, heritage, local character, local economy issues and transport options);
 2. Resource Consumption - energy, water, materials and waste management;
 3. Environmental Quality - controlling processes during design, construction and operation of a building in order to minimise the effects on the surrounding environment, such as emissions to air,
-

- noise and vibration, landscape and water protection;
4. User and Occupant Satisfaction - including provision of amenities, comfort, health and safety, employment , training and human rights;
 5. Stakeholder Relations and Dialogue - looks at the management of the sustainable aspects of the refurbishment in relation to stakeholders, which includes the local community, current and potential users and occupiers, and other organisations, agencies and other individuals with a stake in the refurbishment.

Overall rating: 3/10 sustainable design guidance
3/10 background information

Relevance to other non-mainstream categories: None

Key features and recommendations:

This document is very clearly laid out and accessible, though it adds little to the design requirements for sustainable design that cannot be found in the BREEAM standard or EcoHomes XB, other than specific considerations for the company's requirements.

However, it contains an admirable statement of intent and usefully embraces stakeholder issues very broadly, as well as defining the process for consideration of sustainable requirements to ensure they are addressed early enough to be incorporated satisfactorily in a refurbishment project. Unusual in this type of document is the section considering the principle of training and employment. It does not seek to impose targets for employment of local people within the construction chapter, though this is well established in public sector contracts.

There are a number of useful templates which can be found in the appendices covering such topics as:

- Template for sustainability briefing
- Template for sustainability review
- Template for selection for sustainability objectives and targets
- Template for close-out reports

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-----------------------------|------------------------------|--------------|
| The Home | | |
| Space | | |
| Functionality | | |
| Accessibility | | |
| Amenity | | |
| Shared spaces | | |
| Cores and circulation areas | | |
| Activity areas | | |

| Subject areas | Requirements/recommendations | Rating (1-5) |
|-------------------------------------|--|--------------|
| Outdoor spaces | | |
| Public realm | | |
| Streetscape | | |
| Public open space | | |
| Public transport / local facilities | Mentioned | |
| Sustainability | | |
| Energy | No specific targets, but general guidance provided | |
| Water | No specific targets, but general guidance provided | |
| Health/ well-being | No specific targets, but general guidance provided | |
| Waste and recycling | No specific targets, but general guidance provided | |
| Pollution | No specific targets, but general guidance provided | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------------------|
| Lifetime Homes | No | |
| Secured by Design | No | |
| Building for Life | No | |
| Code for Sustainable Homes | No | |
| BREEAM | Yes | Mentioned as a current standard |
| EcoHomes XB | Yes | Mentioned as a current standard |

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|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Exemplars and good practice | Our ref. no. | 402 |
|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|

Title: Residents for Low-Impact Sustainable Homes (RELISH) - a case study on community involvement

Author: Andrew Leatherland with the Knowledge Transfer Partnership and the University of Brighton

Commissioned by: RELISH™, part of Worthing Homes

Status: Report on a case study

Applicability: Existing homes

Format: [Website](#) and pdf report (link below)

Publication date: August 2010

Where to find it: www.relish.org

Who to contact: Worthing Homes

Overview: This 12-month pilot project set out to prove how a pragmatic and cost-effective approach to retrofitting can meet the Decent Homes Standard as well as contribute to the government's sustainability and fuel poverty agendas. The document is excellent; simply written with lively graphics which make it highly accessible to all.

This project was recognised as an "Innovation in Practice" project by Constructing Excellence. It is being developed further to provide a RELISH Rating to enable households to assess their individual energy performance in relation to their lifestyles (bearing in mind their cooking, washing, heating, appliance purchase and use, etc).

The difference between this and other retrofit projects is:

- £6,500 budget (as opposed to circa £80K costs achieved by Hyde Group in Mottingham)
- Residents remain in their homes (thus replicating the most likely scenario for significant retrofit activities across the country)
- Residents are involved in learning how the improvements and their behaviour have an impact on lowering energy use
- The specific impact of resident involvement and education is measured and a Relish™ Rating is being developed as a way of helping households maintain their energy saving habits.

A 5 week refurbishment programme was established. Energy meters and water monitoring were added to each home. Monthly advice sheets were provided, adjusted for family lifestyles, with a traffic light system for the overview of gas and electricity consumption compared with previous year.

Phase 2 is being rolled out across 159 occupied homes in tandem with Decent Homes works.

Overall rating: 4/10 for design guidance
9/10 for sustainability guidance and replicability

Relevance to other non-mainstream categories: Not likely to be applicable to any temporary accommodation, but useful for move-on longer-term provision.

Key features and recommendations:

This study looked specifically at the benefits of educating residents measured alongside the benefits of carrying out physical improvement works to the homes. Some homes and households received works and education, while others had education only. There was additionally a comparison of the energy saving of previously good energy users and poor energy users before and after they received the RELISH education.

As well as a focus on behavioural intervention, the project identifies low cost and common sense ways of achieving energy efficiency, including a focus on construction details such as sealing services junctions.

Essentially, education can make a significant difference in the way that households save energy, aside from the benefits of carrying out specific energy works to the home.

The Lessons Learned section (page 34) identifies the following as important outcomes of the study:

- benefits of energy education
- low cost can still mean high achievement
- energy modelling isn't perfect
- reducing gas consumption through education alone is difficult
- better energy habits reduce electricity bills
- carbon emissions can be reduced through education alone
- The RELISH principles assist in making the right decisions

| Subject areas | Requirements/recommendations | Rating (1-5) |
|---------------------|---|--------------|
| Sustainability | | |
| Energy | A low cost, low carbon approach worked well with resident engagement, using passive solutions such as improved insulation levels, sealing the building envelope and upgrading the heating system. | 5 |
| Water | Aerated mixer-fed shower heads and replacement dual-click taps installed | 3 |
| Health / well-being | | |
| Waste and recycling | Resident engagement was essential in driving down waste | 3 |
| Pollution | | |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|----------------------|--|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | | SAP ratings discussed, but not particularly relevant, as many small improvements do not affect the SAP rating. |

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|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Exemplars and good practice | Our ref. no. | 403 |
|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|

Title: Greening the Box

| | | | |
|--------------------------|--|--------------------------|---------------------------------------|
| Author: | Wherry Housing Association in conjunction with SEArch (Sustainable Ecological Architecture Ltd) and Broadland District Council | Commissioned by: | n/a |
| Status: | Report on a retrofit case study | Applicability: | All existing homes without gas supply |
| Format: | Website | Publication date: | 2009 |
| Where to find it: | www.greeningthebox.co.uk | Who to contact: | Greening the Box team |

Overview: Greening the Box was an initiative introduced by SEArch (Sustainable Ecological Architecture Ltd) and adopted by Wherry Housing Association in partnership with Broadland District Council for the environmentally responsible adaptation of an existing dwelling to low carbon standards.

As with many rural housing providers, Wherry has a number of homes that are not covered by the gas network, and therefore residents are more likely to rely on more expensive electric or oil heating options which can exacerbate fuel poverty.

The housing scheme at the centre of this study was a 1930s hard-to-treat, hard-to-heat property off the mains gas network in rural Norfolk, which had no insulation and inefficient heating.

Wherry employed a low-tech, practical 'whole house' approach, incorporating 'zero heating' – a natural regime that relies on solar heating and human occupation:

- The only other kind of heating in the home is a low-grade electric under-floor heating system – there is no gas fire, oil or mechanical boiler, radiators, flues or pipes.
- Super insulation helps retain heat generated by the occupants and appliances; the dense concrete floor and superstructure of the building acts like a storage radiator.
- Other features include passive stack and cross ventilation to cool the building, 600mm of quilted recycled plastic roof insulation, a rotating cowl on the roof to draw air through, and breathable walls.
- Estimated 93% reduction in CO₂

A three-year monitoring programme is underway and will cover Life Cycle Analysis (LCA), thermal performance, energy consumption and comparative studies against a conventional house.

Overall rating: 6/10 sustainability design guidance for rural housing
5/10 background information

Relevance to other non-mainstream categories: Rural housing

Key features and recommendations:

The project adopted some unique approaches:

- Low Technology - a low technological approach, reducing ongoing servicing, maintenance and replacement of high tech equipment e.g. boilers, fans, central heating systems etc
- Zero Heating - a natural heating regime, relying on solar gains and human occupation with supplementary backup heating (no mechanical heating boiler, radiators, gas, or oil)
- Passive Ventilation - Passive stack and cross ventilation regimes built into the building (no mechanical ventilation)
- Super Insulation - super insulated building envelope, floor u-value 0.22W/m²K, walls 0.29W/m²K, roof 0.17W/m²K
- High Thermal Mass - inherent high thermal heat capacity within building's fabric for storage of heat (storage radiator effect)
- Remodelling Fenestration - glazed surface areas to the north elevation have been reduced, thus reducing rates of heat loss while glazed areas to the south have been increased to encourage greater quantities of solar gain, contributing to the natural heating of the property

| Subject areas | Requirements/recommendations | Rating (1-5) |
|----------------|--|--------------|
| Sustainability | | |
| Energy | Addressed in these proposals through the installation of photovoltaics, and super insulation against heat loss | 3 |
| Water | Solar water heating and rainwater harvesting | 2 |

Other published standards referred to or required:

| Publication | Ref. included | Compliance required |
|----------------------------|---------------|---------------------|
| Lifetime Homes | | |
| Secured by Design | | |
| Building for Life | | |
| Code for Sustainable Homes | | |
| BREEAM | | |
| EcoHomes XB | | |

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|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Exemplars and good practice | Our ref. no. | 404 |
|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|

Title: Retrofit Reality

Author: Gentoo Green

Commissioned by: Housing Corporation Innovation and Good Practice Programme

Status: Report on retrofit case studies

Applicability: All existing properties

Format: Website

Publication date: 2009

Where to find it: www.gentooogroup.com

Who to contact: Paul Burns, Gentoo Green

Overview: With initial funding from a Housing Corporation Innovation and Good Practice grant, Gentoo installed a number of energy efficient products to 139 properties in their Retrofit Reality scheme.

They wanted to test products designed to make homes more sustainable, to understand the challenges involved in installing these products in homes, how easy they were to use, what the benefits would be for the people living in the homes and what kind of maintenance the products would require.

As a result of the Retrofit Reality scheme, Gentoo have published a series of three reports that have helped answer these questions and inform best practice in the future.

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|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Exemplars and good practice | Our ref. no. | 405 |
|------------------|--------------------|-------------------|-----------------------------|---------------------|-----|

Title: FutureFit

Author: Energy Saving Trust, Camco, Affinity Sutton

Commissioned by: Affinity Sutton

Status: Report on retrofit case studies

Applicability: All existing properties

Format: Website and downloadable pdf reports

Publication date: 2010

Where to find it: www.affinitysutton.com/futurefit

Who to contact: Future.fit@affinitysutton.com

Overview: FutureFit is a project working with over 200 Affinity Sutton homes and residents delivering combinations of low carbon refurbishment works and energy lifestyle advice. The website includes reports on phase one of the project and on key findings from the installation.

| | | | | | |
|--------------------------|--|--------------------------|---|---------------------|-----|
| Category: | Existing buildings | Sub-group: | Exemplars and good practice | Our ref. no. | 406 |
| Title: | Retrofit South East | | | | |
| Author: | Radian with GESB, Camco and Parity Projects | Commissioned by: | Radian Housing Group | | |
| Status: | Report on retrofit case studies | Applicability: | All existing properties | | |
| Format: | Website | Publication date: | 2010 | | |
| Where to find it: | www.radian.co.uk | Who to contact: | Radian - Paul.ciniglio@radian.co.uk | | |

Overview: Radian launched Retrofit South East in October 2009. It is an 18 month project led by Radian Group with partners Camco, Parity Projects and GESB, and part funded by the European Regional Development Fund (ERDF) via the South East England Development Agency (SEEDA).

The project aims to develop a model for low carbon retrofit of social housing that will help transform businesses and reduce carbon emissions from existing housing stock across the South East region.

The website includes a number of resources including reports on the funding structure, regional benefits, the refurbishment process, and water efficiency. Radian also carried out the Generation Homes Project.

This document has been produced by:

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