PART ONE - WHAT ARE THE DESIGN STANDARDS FOR EXTRA CARE?

In their guidance document Design and Quality Standards the Housing Corporation (now Homes and Communities Agency) set out three core performance standards back in 2007, which they expected to see in well-designed, good quality housing capable of meeting identified needs in places where people want to live. In determining the extent to which this was / was not being achieved, they decided to assess achievement against the following:

1. **Internal environment**

   Internal environments, they said, should be comfortable, convenient, be capable of sensibly accommodating the necessary furniture and equipment associated with specific room activities, and be suitable for the particular needs of intended user groups.

   Normally the HCA would assess a development against Housing Quality Indicators. These indicators include:
   
   1. Location
   2. Site – visual impact, layout and landscaping
   3. Site – open space
   4. Site – routes and movement
   5. Unit – size
   6. Unit – layout
   7. Unit – noise, light, services & adaptability
   8. Unit – accessibility within the unit
   9. Unit – sustainability
   10. External environment - Building for Life

   However, in this instance, the HCA note that “the needs of less active older people are such that application of general needs-based Internal Environment core standards would be inappropriate at addressing the particular design and management considerations associated with the successful provision of this type of housing”. More suitable and more current guidance can now be found in the Non-Mainstream Housing Design Guidance literature review (HCA, Levitt Bernstein and PRP, Jan 2012)
2. **Sustainability**

They set out a target for new homes to be designed and constructed in a sustainable manner using products and processes that reduce environmental impact, better adapt to climate change, with lower running costs and incorporating features that enhance the health and well-being of constructors, occupiers and the wider community. The *performance measure* stipulated for the sustainability core performance standard consists of fully meeting a prescribed minimum standard as set out in the published *Code for Sustainable Homes*. The prescribed minimum standard would normally be Code Level 3. However, in developments such as this where there are a number of shared, large communal facilities (generally over 10% of the overall floor area); HCA recommends that the *BREEAM multi-residential standard* is used instead.

3. **External environment**

Finally they said that the development of new homes should be undertaken in a manner which delivers great places to live, creates well-mixed and integrated communities and provides an appropriate balance between private and public open space. The *performance measure* stipulated for the external environment core performance standard consists of positively addressing a number of design aspects using the Building for Life publication *Delivering Great Places to Live – Twenty Questions You Need to Answer as the Touchstone of Reasonableness*. The prescribed minimum standard to be met is as follows:

The *Design and Quality Standards* guidance also provided specific guidance in the *housing for older people* category.

It noted that properties should be described as housing for older people if they are intended for older people (regardless of the actual characteristics of each tenant) and they either incorporate the range of basic facilities and special design features set out below or are specially designated supported housing for older people.

**Basic facilities**

The scheme or main building must have basic facilities of a laundry for residents and/or washing machines in living units, or provision for washing machines to be installed. The scheme must also have a communal lounge.

**All special design features**

- The whole scheme, including entrances and the buildings that comprise it must be designed to wheelchair-user standards;
• Living units must have walk-in showers or bathrooms, adapted for people with mobility problems or wheelchair users;

• Bathrooms in living units that are wheelchair standard must meet the criteria for adapted bathrooms;

• Living units must have kitchens that are designed to wheelchair standards;

• The scheme must have a bathroom with provision for assisted bathing; and

• If there is more than one storey there must be a lift.
PART TWO - MEETING THE STANDARDS

In assessing whether an Extra Care Development meets these criteria, it is important to review the design against the appropriate guidance documents noted above.

1. Internal environment

The *Non-Mainstream Housing Design Guidance literature review* provides a summary of the main guidance reports and documents on the market. It notes, for example, that the *HAPPI Report* 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. In short is says that the HAPPI Report promotes flexible, adaptable and contemporary housing for the elderly.

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. It notes, inter alia, that:-

- Terminating corridors with a place to sit and enjoy a view can avoid the sense of frustration suffered by residents with short term memory loss who might wander to the end of corridors.
- Walking distances for all users of the building can be kept to a minimum by the sensible location of stairs and lifts
- Circulation areas should be adequately designed for the frail and the wheelchair user and avoid long, dull vistas
- The entrance to service areas such as the boiler and plant room, refuse store, metering room and main kitchen should be separated visually from the main entrance.

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.

The review makes the rather obvious point that 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.

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 the reviewers have observed include the following

- Developments combined with other housing and care to create community hubs
- Communal facilities open to the wider community
- 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.

2. **Sustainability**

**BREEAM multi-residential standard**

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world’s leading and most widely used environmental assessment method for buildings, with over 115,000 buildings certified and nearly 700,000 registered. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building’s environmental performance. Credits are awarded in ten categories according to performance.

These credits are then added together to produce a single overall score on a scale of Pass, Good, Very Good, Excellent and Outstanding. The operation of BREEAM is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry stakeholders.

Aims of BREEAM:

- To mitigate the impacts of buildings on the environment
- To enable buildings to be recognised according to their environmental benefits
- To provide a credible, environmental label for buildings
- To stimulate demand for sustainable buildings

**Summary of BREEAM categories**

<table>
<thead>
<tr>
<th>Management</th>
<th>Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Commissioning</td>
<td>• Construction waste</td>
</tr>
<tr>
<td>• Construction site impacts</td>
<td>• Recycled aggregates</td>
</tr>
<tr>
<td>• Security</td>
<td>• Recycling facilities</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Health and Wellbeing</th>
<th>Pollution</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Daylight</td>
<td>• Refrigerant use and leakage</td>
</tr>
<tr>
<td>• Occupant thermal comfort</td>
<td>• Flood risk</td>
</tr>
<tr>
<td>• Acoustics</td>
<td>• NOx emissions</td>
</tr>
<tr>
<td>• Indoor air and water quality</td>
<td>• Watercourse pollution</td>
</tr>
</tbody>
</table>
These assessments are carried out by qualified independent assessors but we pick up on a couple of the main themes below.

**Health and Wellbeing – thermal comfort**

‘U’ values are a method for assessing the insulation levels of various elements used in the construction of the building. By improving the ‘U’ values over the values indicated in the building regulations the annual energy consumption can be reduced through the reduction in heat losses through the fabric.

**Energy Efficiency**

Highly efficient fittings and plant should be installed to all areas of the building. These will include:

- The installation of low energy lamps within the bedrooms.
- The installation of high efficiency lighting equipment and lighting controls within the communal areas.
- All gas fired boiler plant shall have a minimum seasonal efficiency of 93%.
- Lighting controls will be installed to the communal areas.

Developments should also pursue the following environmental objectives:

- Continuing review of design, specification and construction to optimize performance of the building and its environment.
- Minimize life-cycle impact during construction and operation by designing and specifying to conserve non-renewable energy loads.
- Preserving and creating new biodiversity from the present environment by adding habitats and facilities to encourage flora and fauna. Include native species of plants in new schemes.
- Implement a green travel plan to encourage staff to use public transport and cycles.
- All timber will be from sustainable timber resources.
- Possibility to reduce demands on water supplies by specification of components, monitoring systems and management systems.
3. **External Environment**

*Delivering Great Places to Live – Twenty Questions You Need to Answer as the Touchstone of Reasonableness.*

<table>
<thead>
<tr>
<th>ENVIRONMENT &amp; COMMUNITY</th>
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</thead>
<tbody>
<tr>
<td>1. Does the development provide (or is it close to) community facilities, such as a school, parks, play areas, shops, pubs or cafés?</td>
<td>✓</td>
</tr>
<tr>
<td>2. Is there an accommodation mix that reflects the needs and aspirations of the local community?</td>
<td>✓</td>
</tr>
<tr>
<td>3. Is there a tenure mix that reflects the needs of the local community?</td>
<td>✓</td>
</tr>
<tr>
<td>4. Does the development have easy access to public transport?</td>
<td>✓</td>
</tr>
<tr>
<td>5. Does the development have any features that reduce its environmental impact?</td>
<td>✓</td>
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<tr>
<th>CHARACTER</th>
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<tbody>
<tr>
<td>6. Is the design specific to the scheme?</td>
<td>✓</td>
</tr>
<tr>
<td>7. Does the scheme exploit existing buildings, landscape or topography?</td>
<td>✓</td>
</tr>
<tr>
<td>8. Does the scheme feel like a place with distinctive character?</td>
<td>✓</td>
</tr>
<tr>
<td>9. Do the buildings and layout make it easy to find your way around?</td>
<td>✓</td>
</tr>
<tr>
<td>10. Are streets defined by a well-structured building layout?</td>
<td>✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STREETS, PARKING &amp; PEDESTRIANISATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Does the building layout take priority over the streets and car parking, so that the highways do not dominate?</td>
<td>✓</td>
</tr>
<tr>
<td>12. Is the car parking well integrated and situated so it supports the street scene?</td>
<td>✓</td>
</tr>
<tr>
<td>13. Are the streets pedestrian, cycle and vehicle friendly?</td>
<td>✓</td>
</tr>
<tr>
<td>14. Does the scheme integrate with existing streets, paths and surrounding development?</td>
<td>✓</td>
</tr>
<tr>
<td>15. Are public spaces and pedestrian routes overlooked and do they feel safe?</td>
<td>✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESIGN &amp; CONSTRUCTION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Is public space well designed and does it have suitable management arrangements in place?</td>
<td>✓</td>
</tr>
<tr>
<td>17. Do the buildings exhibit architectural quality?</td>
<td>✓</td>
</tr>
<tr>
<td>18. Do internal spaces and layout allow for adaptation, conversion or extension?</td>
<td>✓</td>
</tr>
<tr>
<td>19. Has the scheme made use of advances in construction or technology that enhance its performance, quality and attractiveness?</td>
<td>✓</td>
</tr>
<tr>
<td>20. Do buildings or spaces outperform statutory minima, such as building regulations?</td>
<td>✓</td>
</tr>
</tbody>
</table>
PART THREE - ADHERING TO CURRENT GOOD PRACTICE – the HAPPI design principles

- GENEROUS INTERNAL SPACE STANDARDS

- PLENTY OF NATURAL LIGHT IN THE HOME AND IN CIRCULATION SPACES

- BALCONIES AND OUTDOOR SPACES, AVOIDING INTERNAL CORRIDORS AND SINGLE-ASPECT FLATS

- ADAPTABILITY AND ‘CARE AWARE’ DESIGN WHICH IS READY FOR EMERGING TELECARE AND TELEHEALTHCARE TECHNOLOGIES

- CIRCULATION SHARED SPACES THAT ENCOURAGE INTERACTION AND AVOID AN INSTITUTIONAL FEEL

- SHARED FACILITIES AND COMMUNITY ‘HUBS’ WHERE THESE ARE LACKING IN THE NEIGHBOURHOOD

- PLANTS, TREES, AND THE NATURAL ENVIRONMENT

- HIGH LEVELS OF ENERGY EFFICIENCY, WITH GOOD VENTILATION TO AVOID OVERHEATING

- EXTRA STORAGE FOR BELONGINGS AND BICYCLES

- SHARED EXTERNAL AREAS SUCH AS ‘HOME ZONES’ THAT GIVE PRIORITY TO PEDESTRIANS
TYPICAL INDIVIDUAL APARTMENT LAYOUT - 70sqm 2 bed apartment

Bedroom 1
Area - 12.7m²

Bedroom 2
Area - 8.0m²

Living/Dining
Area - 19.4m²

Bathroom
Area - 7.3m²

Store

Kitchen
Area - 7.8m²
REFERENCE DOCUMENTS

- **Design and Quality Standards** – April 2007 (Housing Corporation)
- **Housing Quality Indicators** – Homes and Communities Agency
- **The Code for Sustainable Homes** - February 2008 (CLG)
- **Non-Mainstream Housing Design Guidance** literature review (HCA, Levitt Bernstein and PRP, Jan 2012)
- **Delivering Great Places to Live** – *Twenty Questions You Need to Answer as the Touchstone of Reasonableness.*
- **BREEAM** multi-residential standard