



**Northern Ireland
Housing Executive on
behalf of the
Department for
Communities**

**STANDARDS AND
COST OF
DEVELOPING SOCIAL
HOUSING IN
NORTHERN IRELAND**
December 2021

**Three Dragons
Ulster University**



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EXECUTIVE SUMMARY

1. On behalf of the Department for Communities, the Northern Ireland Housing Executive commissioned Three Dragons with Ulster University to identify efficiencies in social rented housing delivery that will allow costs to be reduced while maintaining quality. The research objectives were to:
 - Review standards of new build general needs social housing in Northern Ireland in comparison with new private housing in Northern Ireland and new social rented housing in Great Britain and the Republic of Ireland;
 - Estimate the additional cost resulting from key differences in design, specification and standards;
 - Consider whether the higher design standards provide value for money and recommend potential areas for improved value for money;
 - Provide comment and analysis of other development issues which may also affect the cost of developing new social housing in Northern Ireland; and
 - Explore, where research is available, wider economic benefits (i.e. savings to public purse) and non-monetary benefits.
2. The study reviewed the Development Guide standards; analysed social housing build cost data; reviewed equivalent standards in operation elsewhere in Great Britain and in the Republic of Ireland; undertook interviews with housing associations and cost consultants active in Northern Ireland; consulted contractors/developers that develop both market and social rented housing and interviewed a sample of cost consultants with experience of social rented and speculative residential developments. The research focussed on the prescribed specifications, dwelling sizes, Lifetime Homes, Secured by Design and energy efficiency.
3. In reviewing the costs of meeting the Development Guide standards for social rented housing it is important to note that the focus of this study is on the initial capital costs rather than the lifecycle of the buildings or the wider impact on the internal and external environment and its role in place-shaping. However, where the research identified points about these issues, mention is made of them.

Findings

4. The design and specification of new build social rented housing is set out in the Development Guide and this must be adhered to by developing housing associations as a condition of grant. Housing associations are supportive of the standards and consider that each contributed to the quality of new social rented homes.
5. Dwelling sizes prescribed for social rented housing in Northern Ireland are similar to those identified in the other jurisdictions. The analysis shows that market dwellings are not systematically smaller than social rented units in Northern Ireland, although space may be used differently depending on tenure.
6. Compared to other jurisdictions, the mandatory adherence to Lifetime Homes standards is unique to Northern Ireland. This can have a significant impact on the design of newbuild social rented housing, and this sets social rented units apart from most market facing development. Generally, the Lifetime Homes standard is considered by landlords to be of value to tenants although there are issues with smaller dwellings and providing additional

space at entry level for a future shower takes considerable ground floor space in houses that in practice often just forms storage space.

7. Information provided by NIHE indicated that vertical through-lifts, stair lifts and showers have been installed in both LTH and non LTHs. From the information made available, it is difficult to conclude whether the provision of LTHs makes it easier to achieve necessary adaptations or not and it is noteworthy that a significant scale of adaptations has been achieved in other property types.
8. Costs of achieving Lifetime Homes are estimated to be £2,000-£5,000 per unit depending on dwelling type.
9. Achieving Secure by Design Gold Standard is essentially 'built in' to the design process and is not a major issue for associations although there can be delays in 'signing off' schemes. There may be some additional costs providing enhanced window/door locks and entry phone systems, CCTV etc. in apartment blocks but the former are likely already 'built into' build costs and the latter, will be something the private sector will also provide because the market will expect that level of security. Costs of achieving the Secured by Design standard are estimated to be up to £1,500 per apartment.
10. As a minimum, social rented housing, as all new housing, must meet Building Regulations in terms of energy efficiency and SAP ratings. Very little use has been made for social rented housing of the Energy Efficiency Multiplier option, with associations being unclear whether additional funding through the Multiplier would cover additional costs of an enhanced standard in their scheme(s). However, there is clearly an appetite for higher energy standards that both reduce carbon emissions and improve the comfort levels and costs for residents and an expectation that new standards will be introduced shortly, through revised Building Regulations. From the associations' perspective, it will be important that enhanced standards go hand in hand with additional grant to reflect the extra costs. Research indicates that the cost of meeting higher standards of energy efficiency at build stage is cheaper than retrofitting houses to improve standards later.
11. Build costs for social rented housing are of the order of £1,060 per sq m GIA for houses and £1,450 per sq m GIA for flats; with external plot and site costs adding another 25-30% to the build costs for houses and about 20% for apartments. These costs are significantly higher than indicated by the BCIS data for Northern Ireland but BCIS relies on a very limited sample from Northern Ireland and may not properly represent build costs. The build costs for social rented housing are estimated by the cost consultants interviewed for this research to be up to 30% more expensive than in the speculative sector. A similar difference in costs was quoted for apartments.
12. Reasons for the variance in cost offered by the cost consultants (and housing associations with relevant experience) focused on the type of site available to housing associations - which are often brownfield sites with associated higher costs and/or are sites of a very irregular shape that are less efficient to develop. Other reasons for the differences put forward included design costs and the development procurement process for social rented housing. Contributors to the study also cited higher material specification to reduce maintenance and replacement costs during the life cycle of the dwelling as reasoning for the initial cost variation.
13. Overall, it has proved difficult to comment directly on whether the current standards offer value for money to the public purse. The housing associations interviewed were clear that the quality of social rented housing exceeds that in the market and provide much better

accommodation for tenants. The contractors meanwhile suggested that it was no longer the case that market housing was of a lower standard than social rented housing.

14. One potential way to improve value for money would be to make greater use of standard house types as the development industry does. However, this is not favoured by associations, who want to ensure their schemes reflect the locality and encompass fully the benefits that well-designed, quality housing provision has on tenant health and well-being. Indeed, it was highlighted by Housing Associations that not all aspects of 'good' design incurred a 'cost' and that in fact quality design could generate 'savings' both during the construction phase and in respect of maintenance and running costs.
15. Nonetheless, given the need to meet the standards discussed above and the limited architects and contractors, notional standard house types emerge by default. Achieving larger social rented developments would seem to offer better value for money as this reduces costs without reducing quality. The data demonstrates that schemes of less than 10 dwellings are more expensive to build and there is some evidence that there are further reductions in costs at schemes of more than 20 dwellings. However, larger schemes may not always meet local housing needs and there are potentially also issues around the availability of larger sites in many key urban centres.
16. The different 'routes' by which associations secure social rented housing provide choice for associations and diversification of procurement. Although there are trade-offs to be made between the full oversight with the 'traditional' acquisition and works route, and the use of packaged 'land, design and build' contracts. The latter approach passes most of the risk onto the private contractor, but the association has less direct input and relies on a comprehensive contract at Day 1 that achieves all the standards it requires.
17. Identifying land for development remains an issue for associations but without an obvious ready solution and it seems likely that associations will have to develop on sites that the market does not take up for example, those that require land remediation. This has implications for development costs that the grant system should take into account, for example, through the use of a remediation bond.
18. While the associations understand how the SHDP operates, the interviews with associations and cost consultants along with the discussions with contractors' at the workshops, all highlighted that the degree of oversight and checks through the process are overly onerous which takes up time and resources and, implicitly, adds to costs.
19. There is said to be a limited pool of professional advisers and contractors who understand the system and are willing to develop social rented housing. On the one hand this means that associations are working with knowledgeable, experienced organisations but the system deters new entrants and restricts competition with an implied upward pressure on costs. Contractors suggested that potential new market entrants are discouraged by the bureaucratic nature of the process and the protracted timelines between tender submission and appointment confirmation.
20. The annual programme cycle of the SHDP is said to exacerbate this with associations seeking to appoint professional advisers and then contractors at similar times, with consequent impact on availability and again on competition.
21. As is the case for speculative housing, housing associations have to work within the planning system to obtain permission for their new developments. The protracted turnaround times for both local and major planning applications has been well documented and within the confines of new social housing provision this can hold up individual schemes,

for example when an association has to submit a revised application for a scheme which it wants to take up using the 'Competitive Land, Design and Build' route but which has a planning permission in place that does not conform to the Development Guide. Persistent delays in the planning system which, in part, were attributed to the "annual funding model" which prompted high volumes of applications from housing associations at the end of the financial year. Delays in planning exacerbate supply-side constraints and in the prevailing climate will have contributed to higher associated construction costs as a result of raw material price inflation.

Recommendations

22. The Development Guide serves a very useful purpose and the standards it contains are well respected. Future changes we recommend are:
 - On Lifetime Homes - More emphasis is given to planning and designing in adaptive options for more effective use of space assigned for a future shower at access level;
 - On Lifetime Homes – Information is collected systematically on the cost and frequency that showers are installed in the allotted space and/or other alterations are made to social rented housing to meet the changed needs of occupants;
 - A detailed review of the size of smaller units and specifically that of second bedrooms – including consideration of any emerging evidence of longer term working and education trends and the need for spaces to 'work/school from home';
 - A greater role for those that manage social rented housing in dwelling design and scheme layout which should be evidenced and taken into account through the grant approval process;
 - When the Building Regulations are updated – energy efficiency standards will need to be described in full and guidance provided on options for achieving the updated standard; we are not recommending an extension of the Energy Efficiency Multiplier when the new Building Regulations are available – other than the potential to use the Multiplier for pilot/demonstration schemes that showcase a particular approach to achieving the new Building Regulations.
23. We are recommending that the development routes currently available are retained. However, the SHDP process has some unintended consequences and potentially puts up development costs. This study could only touch on these issues and we are recommending a more systematic review which considers which steps in the process could be culled or simplified without the loss of essential controls. Such a review should include:
 - Moving away from a single year programme to a two or three year programme, designed to increase competition for professional services and development contractors with associated efficiencies and cost reductions;
 - A review of the option that smaller developments, with a correspondingly lower value, should be dealt with separately to open up the opportunity to bid for such schemes to a wider range of (smaller) contractors; greater use made of pre-qualification procedures to minimise the time taken (by the associations) to produce tender documents and (by tenderers) to set out basic information already known to the association; this can include the use of framework agreements and relates to both professional services and development contractors;

- Consideration of setting out the maximum time by which associations must notify tenderers of the outcome of a tender process, thus providing greater certainty to contractors of their flow of work (with provision to review the timetable for all tenderers if there are delays in the process, for example, while planning permission is obtained);
 - Greater transparency about build and other development costs across the sector and how these compare with those of the private sector (see also below);
 - Consideration of options to advantage associations that produce schemes that are below relevant TCI costs – but such an approach must ensure no dip in quality and that schemes comply with Building Regulations and the Development Guide.
24. The review should also consider how the programme could include a higher percentage of larger schemes that both meet local need and achieve sufficient scale of development to keep down costs.
25. Finally, the lack of information on build costs across all tenures in Northern Ireland makes it very difficult to compare costs in the social rented sector with those of private housebuilding or costs elsewhere in the UK and then to comment on value for money issues. It would be very useful for NIHE/DfC to address this issue, working with local costs consultants and, possibly, BCIS in the first instance.

1 Introduction

Purpose of the research

- 1.1 On behalf of the Department for Communities, the Northern Ireland Housing Executive commissioned research to, “.....*help the Housing Executive and other stakeholders identify efficiencies in current (social rented) housing delivery that will allow costs to be reduced while maintaining construction and design quality. The resulting cost savings could then be used to build more houses and improve supply.*”
- 1.2 Within this overall study purpose there are five objectives for the research, with the latter two considered secondary to the first three. The objectives are to, in summary:
- Review the standard of design, specification and procurement of new build general needs social housing in Northern Ireland in comparison with new private housing in Northern Ireland and new social rented housing in Great Britain and the Republic of Ireland;
 - Estimate the additional cost resulting from key differences in design, specification and standards;
 - Consider whether the higher design standards provide value for money and recommend potential areas for improved value for money;
 - Provide comment and analysis of other development issues which may also affect the cost of developing new social housing in Northern Ireland; and
 - Explore, where research is available, wider economic benefits (i.e. savings to public purse) and non-monetary benefits.
- 1.3 The research focuses on the design and specification standards and development costs for new build, general needs social rented housing¹ which is grant funded by the DfC via the Housing Executive and delivered by Registered Housing Associations (referred to in the report as ‘housing associations’). The research explores in detail six topics - general design & specification, space standards, lifetime homes (LTH), Secured by Design (SbD), energy efficiency and procurement. The research did not explore in detail the role of the standards over the lifecycle costs of social rented housing or the wider impact on the internal and external environment and its role in place-shaping. However, where the research identified points about these issues, mention is made of them.
- 1.4 The study specification reflects assertions sometimes made about the standard of new build social rented housing and which may or may not be correct. The key one is that the standards required of social housing are higher than for market housing and higher than elsewhere in the UK and the Republic of Ireland. Key factors in the differences are said to be design, Lifetime Homes and space standards and these differences will be contributing factors to higher build

¹ Out of scope for the study are ‘Off The Shelf’ (OTS) and ‘Existing Satisfactory Purchases’ (ESP) as well as wheelchair housing, housing for older people (CAT1-4) and supported housing although these forms of housing are discussed where they are raised by others during the research.

costs. Generally, the design of private housing only needs to comply with planning policy and Building Regulations whereas new social housing in Northern Ireland also has to comply with the Department for Communities' Housing Association Guide. Then, although the standard of new social housing may prove to be the main reason for the higher costs assumed, other aspects such as the procurement process, abnormalities and the annualised development programme may also be contributory factors.

The Housing Association Guide

- 1.5 The Housing Association Guide provides guidance about aspects of Development, Finance, Procurement, Governance and Housing Management functions. The development component includes a section on design standards.
- 1.6 The Guide has been in use since at least the early 1990s and has been reviewed periodically with minor revisions on a regular basis ever since. The section on design provides standards for newbuild social rented housing and it is expected that applications for grant funding for such housing will comply with the Guide. However, it is recognised that this may not be possible in all schemes and housing associations can move away from the standards set out in the Guide where they can evidence that, *".....the resulting scheme will provide suitable accommodation for the people to be housed."*
- 1.7 The standards in the Guide are not an alternative to Building Regulations or relevant planning policies but augment these in a number of important respects, notably:
 - On development density – there is a general requirement for new schemes to be, *"...economical, efficient and sustainable"*;
 - Since 1998², new homes have been required to meet Lifetime Homes standards,".... *to ensure that a home is flexible, adaptable and accessible - and that there is added comfort, convenience and safety for tenants and visitors."*;
 - Internal environments should be, *" safe, comfortable, convenient, and capable of sensibly accommodating the necessary furniture and equipment associated with specific room activities"*;
 - Minimum and maximum space standards for different housing types (by number of bedrooms and assumed occupancy) for example, 80/85 m² for a 2 storey 4 person/3 bedroom house;
 - There is further guidance on minimum size of specific rooms, for example for single bedrooms, there is a minimum floor area of 7.5m² and width of 2.15m;
 - Standards for the energy efficiency and comfort of new homes relies on Northern Ireland Building Regulations – last updated in 2012. There is an option for associations to design homes that go beyond the statutory minimum and for the associations to claim a

² A NI Housing Council report on Lifetime Homes (www.nihousingcouncil.org) states 'Consequently, in 1998 the Social Housing Programme in Northern Ireland adopted Lifetime Homes.

supplementary 'Energy Efficiency Multiplier' for new dwellings which exceed Building Regulations;

- New build housing is to achieve the Secured By Design Gold Award where possible. Secured by Design encourages the adoption of crime prevention measures in the initial design process.

Procurement mechanisms

1.8 There are a variety of routes by which housing associations obtain social rented housing which have been considered in the research and where relevant we have sought to identify how the development route impacted on the operation of the standards and associated costs. Directly within the scope of this study are those routes that relate to newbuild development. However, at some stages of the research, other routes have been discussed with us by interviewees and so our description of the procurement routes relevant to this study includes both newbuild and acquisition of existing stock. These are described in broad outline below³, noting that it is a prerequisite of grant funding from NIHE that there is a proven need for social rented housing in the location of a proposed development. The procurement routes relevant to this study are:

- **Acquisition and works** (the 'traditional' development route) - the housing association undertakes all aspects of the development including identifying/acquiring the development site (or using a site already in their ownership), negotiating planning permission for the scheme, commissioning the scheme's design and specification, selecting and overseeing the building contractor;
- **Design and build (competitive tendering)** – the housing association produces a detailed brief and then advertises for competitive tenders from suitable contractors who will be responsible for undertaking the scheme design and carrying out the development. This development route requires the association to already own the land for the scheme. It is expected that the new homes delivered through design and build will have a 'structural' life expectancy of at least 60 years;
- A further development of this model is the **Competitive Land, Design & Build model** where the association seeks bids from landowners/developers to provide a site (with planning permission) as well as the scheme design and build programme (in conformity with the Development Guide). Housing associations have different approaches when using this model of development. Some may only sign an agreement with the landowner/developer in parallel with the land transfer completion. Others choose to sign the Development Agreement in advance of certain milestones e.g. subject to land transfer, subject to planning approval. In most cases, once the land transfer to the housing association completes, the land is passed back to the developer/contractor under license (to allow the works to be carried out);
- **Off The Shelf Purchase** – the housing association buys newbuild units direct from a developer for an agreed price. Such properties may not meet all the standards in the Development Guide but need to, “*provide an internal environment that is safe, comfortable, convenient, and capable of sensibly accommodating the necessary furniture, equipment and activities associated with specific rooms.*”

³ The following link provides a fuller description of the different routes <https://www.communities-ni.gov.uk/scheme-types>

- **Acquisition and Works (Rehabilitation)** – these scheme types are not strictly within the scope of this research but are noted here because their use was raised during the research. This development route is where existing dwellings are purchased and require substantial repair and improvement, conversion or extension to be acceptable as social rented units.

Research strands

1.9 A number of research strands contributed to the study findings. These were:

- A desk-top **analysis of the Development Guide standards** to identify features required of social rented housing and their indicative costs;
- An analysis of anonymised **social housing build cost data** - DfC provided the study team with a set of anonymised social housing build cost data for developments undertaken by housing associations and funded by NIHE. This data was taken from the standard Project Information Form (PIF) forms used by NIHE;
- A review of the **equivalent standards in operation elsewhere** in Great Britain and in the Republic of Ireland. The research was essentially desk based but followed up with discussions with funding agencies (including Welsh Government, Homes for Scotland and The Housing Agency Ireland) to clarify the standards in operation in each jurisdiction;
- **Interviews with housing associations** active in Northern Ireland - all housing associations with a development programme were asked if they would take part in the research. Eight associations agreed to be interviewed with interviews undertaken by the study team over the winter of 2020/21. Interviews were in-depth and lasted between one and two hours and were followed up with a meeting note sent to interviewees to ensure the study team had properly understood points made in the interview and to offer the opportunity for associations to provide additional information that would be helpful to the process. The associations interviewed were representative of developing associations across NI in terms of stock size, scale of their development programme and location of their developments. The associations interviewed used a mix of development routes including the traditional 'in-house' approach and design and build. Half the associations interviewed only developed social rent and only in Northern Ireland while the remainder had experience of market housing development /PRS development and/or development in the Republic of Ireland. As was agreed with the associations, interviews were undertaken on an anonymous basis and the notes of the interviews are not included in the report, nor were they shared outside the research team;
- **Interviews with cost consultants** who provide services to contractors/developers in both the social and private housing sectors in Northern Ireland. Three cost consultants were interviewed affording insight on the contrasts in cost dynamics between public and private housing provision. A prerequisite of these interviews was that the anonymity of participants would be safeguarded and the notes of the interviews would not be included in the report, nor were they shared outside the research team;
- **Consultation with contractors/developers** that develop both market and social rented housing – undertaken through a workshop-based discussion facilitated by the Construction Employers Federation.

1.10 Further information about the research undertaken is found in the Appendices.

- Appendix A provides a bibliography of the key documents referenced in the research;

- Appendix B sets out the discussion agendas used to guide the contractor and housing association interviews, along with the initial emails requesting the interviews.

Other appendices are included to provide supporting information to points made in the report.

1.11 We acknowledge and thank those organisations and individuals who gave up their time and contributed invaluable operational insight to the research. The study was guided by officers from NIHE and Department for Finance and we thank them for their support. There was also a project advisory group established for the project. Member organisations of the advisory group are listed below. Their help and advice has proved instrumental in delivering the research programme and to securing the commitment from key stakeholders directly involved in housing provision across NI.

Project Advisory Group members:

- NIHE
- Department of Finance
- NIFHA (and two housing association representatives)
- Construction Employers Federation

2 Scale and type of social rent developments

Scale of development programmes

- 2.1 The scale of the development programmes being undertaken by the housing associations interviewed varied significantly and tends, as would be expected, to reflect the scale of the association's overall stock ownership. The associations interviewed included a number with programmes of c400 or more new dwellings per annum, as well as associations with more modest programmes of 50 to 100 newbuild units per annum or specialist associations with a smaller programme. The scale of the development programmes can influence how units are planned and developed and we highlight through the report where this was apparent.
- 2.2 About half the associations interviewed had experience of developing other tenures (different types of low costs sale and/or private rent) and/or developing in the Republic of Ireland. Where low-cost sale units have been developed, this tends to be a small number of units. This variety in experience brings a useful perspective to the research which we highlight later in the report.
- 2.3 A common theme across many of the associations interviewed, irrespective of the current scale of operation, is a wish to increase the size of their development programmes. This would be an ambition included in their business plans. Several associations, especially those with larger programmes, are looking to, "*achieve a more diverse tenure portfolio*" and to develop more "*mixed and sustainable communities*" in the future with low-cost home ownership (e.g. on a shared ownership basis) in the same schemes as social rented units. Mixed tenure schemes with market led sale housing was not mentioned as a future aspiration – but it was not an issue we directly asked about.

Size of schemes

- 2.4 The size of newbuild social rented schemes varies between associations and between schemes developed by the same association – depending on local needs, the size of sites available etc. There is generally little interest in developing schemes of less than 10 units and typical scheme size is between 10 and 30 dwellings. However, in some locations the need for social rented housing is very localised and smaller schemes will be built. On the other hand, a small number of associations have experience of developing much larger schemes with examples quoted of developments of 70 or 90 units or greater. Some comments were made that associations are looking to increase the scale of individual developments to help achieve 'economies of scale' and also to introduce a wider variety of tenures (low-cost home ownership and/or private rented units) and to avoid mono tenure social rented housing projects.
- 2.5 Larger schemes also tend to be those which have a mix of houses and apartments; the exact mix and type of each depending on local circumstances and the type of site. The more urban the location, the greater the proportion of apartments but even in more suburban/rural settings, associations may include apartments in their schemes, reflecting local needs for smaller units. Where they can, associations prefer not to develop schemes with only apartments and spoke of a

preference to have schemes with, say, 60% or 70% houses. However, associations may find, because of local circumstances, this is difficult to achieve. The general view is that achieving a good balance of houses and apartments in new social rented schemes are easier to manage in the longer term.

Procurement routes

- 2.6 The associations interviewed were, together, able to offer views based on experience of a wide range of procurement routes for social rented housing – Acquisition and works, (Land) Design and Build, Off the Shelf Purchase, Acquisition and Works (Rehabilitation). Most associations interviewed had experience of more than one approach – particularly where they had relied mainly or solely on Acquisition and works in the past but had included (Land) Design and Build in their development portfolio more recently. The latter approach is increasingly important for developing associations and may represent c50% of all newbuild social rented units. However, this is not a route used by all those interviewed.
- 2.7 The contractors attending their workshop generally considered that the (Land) Design and Build route afforded the contractors greater flexibility and ‘control’ over the development process. However, there were some concerns that the contractors are having to take on greater levels of risk from the housing associations but that the costing of that risk was not being reflected in the contracts. An earlier meeting with the CEF facilitated by DfC was reported by DfC to have identified a similar mix of views. Advantages of the Land, Design and Build route were said to be that it is more time efficient and allows contractors to be more frugal with site layout/external works as well as with materials/ specification.
- 2.8 Where housing associations buy newbuild units direct from a developer (Off the Shelf Purchase) this tends to be either opportunistic (they are offered properties that fit their requirements) or because the association only wants a small number of units in a particular locality. Either way, ESP is of much less importance to the associations interviewed than the other procurement routes. We review issues about procurement of social rented units in more detail later.

3 The Development Guide standards

Standards assessed

- 3.1 As set out earlier, the Development Guide provides standards for newbuild social rented housing that differ from Building Regulations and thus from the standards required of market housing. This chapter reviews the key ones that are the focus of this research, noting that energy standards rely on Building Regulations and so are not included here.

Dwelling size

UK Context

- 3.2 Space standards for affordable housing [in England] are long established. They were originally introduced in the 1960s in 'Homes for Today and Tomorrow' and 'Space in the Home' - more commonly known as 'The Parker Morris Standards'. These included minimum internal floor areas based on functionality requirements and the space required for typical furniture and 'everyday activities'.
- 3.3 Going forward to 2013, the then Department for Communities and Local Government in England (DCLG) undertook a consultation⁴ that primarily sought to rationalise different national and local building standards but also considered quality, sustainability, safety and accessibility aspirations in the round. This was based upon an industry-led review, which split requirements into those relating to buildings and those relating to the wider environment. The review recommended that the former were put into Building Regulations and that the latter formed policy and would be expressed in guidance.
- 3.4 The review recognised that as well as increased amenity, adequate sized dwellings helped avoid health and social costs. There was evidence that in England, dwelling sizes had reduced on average and that this potentially compromised the pursuit of normal daily activities. In addition, the review uncovered evidence that owners of new homes were dissatisfied with internal storage space and daylighting. Additionally, the review in England highlighted the benefits of quality, decently-sized housing in reducing local resistance to new development.
- 3.5 Countering this, the review noted that there was also some evidence that new house buyers were satisfied and that much of the industry felt that market forces should determine sizes. The review also noted that larger dwellings may mean that they become unaffordable for some purchasers, and separately, that there is a link between space standards and accessibility standards. The outturn of the consultation was that a set of Nationally Described Space Standards are used in England as an optional technical standard, with Local Authorities able to require adherence if the local evidence supports this.

⁴ DCLG, 2013, Housing Standards Review Consultation
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- 3.6 The 2017 Levitt Bernstein report reviewing 100 years of space standards⁵ notes that space remains a contentious issue, with some proponents pushing for the optional standards to become mandatory. The report concludes that the benefits of regulation are likely to significantly outweigh any disadvantages, and could be a catalyst for far-reaching, positive changes. The report noted that there is little evidence that stripping away standards improves supply or affordability, and that the market by itself does not function sufficiently well to guarantee the provision of decent new housing.

Current standards

- 3.7 The Development Guide sets out dwelling sizes for different types and sizes of dwellings for social housing in Northern Ireland with a range for each. Below is an extract from the Guide that sets this out.

Figure 3.1: Space standards - General Needs Housing - Sq metre NIA

General Needs Housing TCI Area/Cost Bands Applicable			
House Type	Single Storey/Flat m ²	Two Storey m ²	Three Storey m ²
1-Person/Bedsit	30/35*	-	-
1-Person/1-Bedroom	35/40	-	-
2-Person/1-Bedroom	50/55	-	-
3-Person/2-Bedroom	60/65	70/75	
4-Person/2-Bedroom	70/75	75/80*	-
4-Person/3-Bedroom	75/80	80/85	-
5-Person/3-Bedroom	80/85	90/95	95/100
6-Person/3-Bedroom	85/90	95/100	100/105
6-Person/4-Bedroom	90/95	100/105	105/110
7 Person/ 4-Bedroom	105/110	115/120	115/120
Shared Dwellings	Up to 25m ² (per person)		

- 3.8 There are further space standards in the Guide that influence the layout of new homes. These include:

- the minimum width of a living area (3.0m);
- a minimum amount of built-in storage;

⁵ Levitt Bernstein, 2017, 100 Years of Space Standards
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- a minimum (desirable⁶) size for single bedrooms of 7.5sq m and of double bedrooms of 11.5sq m;
- a minimum (desirable) amount of floor space for living/kitchen/dining floor area.

- 3.9 Accommodating the different dwelling space requirements, as well as the other standards, is a prerequisite of schemes for which grant is being sought. Where the floor area exceeds the dwelling sizes set out in the Guide, the additional floor area is a non-qualifying cost. Only in Existing Satisfactory Purchases and Off the Shelf schemes are associations provided the flexibility of claiming an additional two area bands in cases where the dwelling is larger than the prescribed area band for that house type.
- 3.10 We carried out an exercise to compare the dwelling sizes of newbuild market dwellings in Northern Ireland with the dwelling sizes of general needs social rented housing. Information on market homes was collected from the Ulster University House price survey and comprised 1,758 new build transactions in the period Q2 2019 – Q1 2020. The data was collected for different areas of Northern Ireland premised on NIHE district level. We found considerable variation in dwelling sizes for different areas but using an all Northern Ireland average, we found that:
- 2 bed apartments have a floor area of 65sq m
 - 3 bed semi-detached houses have an area of 102sq m
 - 2 bed terrace have a floor area of 85sq m
- 3.11 On the face of it, two-bedroom market apartments are a similar size to 2 bed social rented apartments, while private market houses are larger (say 102sq m for the market semi-detached compared with, say, 90/95sq m for an equivalent 3bed/5p social rented units). The argument was put to us from the PAG that market homes will include space e.g. utility rooms and ensuites that 'inflate' the size of the dwelling and is not very usable for residents and this makes for a poor comparison. This is a point picked up in our synthesis of the interviews with the housing associations where we have identified a number of issues about the operation of the space standards in conjunction with the requirement to meet Lifetime Homes standards. But it is worth reiterating that the overall GIFA of social rented homes has not proved to be systematically larger than their market counterparts.
- 3.12 We have not directly assessed the 'additional costs' of the social rent space standards but simply note that the costs of building a new dwelling will relate to the size of that dwelling. On this basis – market houses could cost more than social rented units which are smaller in terms of their total GIFA.

⁶ Schemes will still be approved if they meet a 'desirable' standard so long as the dwellings still provide reasonable accommodation (e.g. space for furniture, activity, circulation, etc).

Lifetime Homes

3.13 Lifetime Homes standards were developed by the Joseph Rowntree Foundation and Habinteg Housing Association in the early 1990s and have been updated since then with the most wide-ranging update in 2010. There are 16 criteria for Lifetime Homes which cover:

1. Parking (width or widening capability)
2. Approach to dwelling from parking (distance, gradients and widths)
3. Approach to all entrances
4. Entrances
5. Communal stairs and lifts
6. Internal doorways and hallways
7. Circulation space
8. Entrance level living space
9. Potential for entrance level bed space
10. Entrance level WC and shower drainage
11. WC and bathroom walls
12. Stairs and potential through-floor lift in dwellings
13. Potential for fitting of hoists and bedroom / bathroom relationship
14. Bathrooms
15. Glazing and window handle
16. Location of service controls

3.14 DfC have published additional requirements for social rented housing, which are found in Appendix C of this report.

3.15 Achieving Lifetime Homes is a condition of contract for newbuild social rented housing, unless it can be demonstrated that doing so is not feasible 'commercially'.

Secured by Design

3.16 As with Lifetime Homes, Secured by Design Gold Award standard is a condition of contract for newbuild social rent – but similarly subject to being feasible commercially. Secured by Design (SBD) encourages the adoption of crime prevention measures in the initial design process, so as to reduce the opportunity for crime and the fear of crime, and to create a safer and more secure environment. PSNI are the arbitrators of SBD for new housing schemes and need to 'sign off' housing designs as part of the planning process.

Tenant satisfaction with the standards

- 3.17 It is useful to note the value placed on the standards by tenants and the survey 'Designing for Life'⁷ provides useful feedback from tenants. This was a post occupancy survey, undertaken to investigate the quality and design of new homes funded through the Social Housing Development Programme (SHDP) and completed between 1st April 2015 and 31st March 2016. The research surveyed tenants' views about a number of items including the Lifetime Homes Standard. It is relevant that just under half (47%) of the respondents to the full survey said a member of their household had a disability that affected their normal day to day activities (p5). Just over half of respondents had heard of Lifetime Homes and 96% thought it was 'a good idea'. 74% of tenants surveyed thought their current house would continue to meet their needs in the future (p10). Regarding the issue of Lifetime Homes providing wider hallways to accommodate future potential for wheelchair movement between rooms and a downstairs shower, 56% of respondents said they preferred this arrangement; 16% said they would rather have a narrower hallway and more living room space; 26% said they would prefer open plan with no hallway (p11).
- 3.18 Whilst not asked directly about Secured by Design, the same survey found that 99% of new tenants felt safe in their home during the day (94% after dark) (p24).

Comparison with the other jurisdictions

- 3.19 Our research included a review of the newbuild standards for social rent found in the other UK jurisdictions and the Republic of Ireland. We summarise these in the table below. However, it is important to note that in the other jurisdictions there is not always a single tenure comparable to social rent in Northern Ireland (e.g. in England there is both Affordable Rent⁸ and social rent) and that standards for social rent are not always distinguished from those for market housing. The table below highlights where this is the case and Appendix D provides a fuller description of the standards applying in each jurisdiction. In the table, where the standards are described as 'Building Regs' this implies that the standard is the same across all tenures, but we have not made a technical comparison to assess how current Building Regs compare.

Figure 3.2 Comparison of standards with other jurisdictions – see next page

⁷ Designing for Life: new social housing in Northern Ireland post occupancy survey 2018, Housing Executive

⁸ With rents at below 80% of equivalent market rents

Standard	Northern Ireland	Republic of Ireland	Scotland	Wales	England
Dwelling size (GIA sq m) ⁹	For social rent only for example 2b 3p flat – 60/65 sq m 3b 5p house – 90/95 sq m	In accordance with national Building Regs and EU minimum standards for apartments As per market dwellings	In accordance with national Building Regs As per market dwellings	For social rent only – for example 2b 3p flat 58sq m 3b 5p house 94sq m	Nationally Described Space Standards – applies to all new development ¹⁰ for example: 2b 3p flat 61sq m 3b 5p house 93sq m
Lifetime Homes	Applies to social rent. Building regs market housing	Not directly – best practice guidance	Very similar to Lifetime Homes – incorporates ‘Housing for Varying Needs’ Building regs market housing	Applies to social rent ‘wherever possible’ Building regs market housing	Building regs include minimum accessibility standard (M(4)1) and option to include higher standards (M(4)2 – adaptable and M(4)3 – wheelchair) ¹¹
Energy efficiency	Building Regs 2010 Building Regulations NI 2012	Building Regs - require a Building Energy Rating (BER) of A2 ¹²	For social rent - The Energy Efficiency Standard for Social Housing (EESH). Minimum SAP rating (SAP2012) apply	Building Regs	Building Regs ¹³
Secured by Design	Requires SBD gold standard	Not currently implemented	Strongly promoted	Requires SBD gold standard	Not required but maybe adopted by individual housing associations <i>Building Regulations (at Q1) include a general requirement to provide for the security of homes.</i> ¹⁴

⁹ Appendix E provides a copy of the complete Nationally Described Space Standards for England and compares these with the standards in the Housing Association Guide. It is noted that housing associations may develop new social rented housing below these standards if local policy allows.

¹⁰ Subject to adoption by local authority through the planning process

¹¹ Westminster government currently consulting on making mandatory that all dwellings should be to M(4)2 standard

¹² Recent ministerial statement stated an ambition to make “all new residential dwellings 70% more energy efficient than performance requirements in 2005” – see [www.gov.uk/government/news/ministers-pledge-further-action-to-deliver-energy-efficient-homes-offshore-renewable-energy-and-nature-based-solutions-for-the-climate/](https://www.gov.uk/government/news/ministers-pledge-further-action-to-deliver-energy-efficient-homes-offshore-renewable-energy-and-nature-based-solutions-for-the-climate) and <https://www.igbc.ie/nzeb/>

¹³ Westminster government currently consulting on making mandatory energy standard at 31% emissions less than 2013 Building Regulations and at 2025, 75% less (Future Homes)

¹⁴ *The key phrase used is that: Reasonable provision must be made to resist unauthorised access to- a) Any dwelling and b) Any part of a building from which access can be gained to a flat within the building*¹⁴

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- 3.20 The analysis of standards in the comparator jurisdictions shows that not all the jurisdictions use different standards for social rent and market housing but the use of different standards for social rent is also found in Scotland and Wales. Where space standards are set out, the standards for social rent in Northern Ireland are similar to those in Wales and England – Appendix E provides further comparison of space standards between Northern Ireland and England. Similarly, Lifetime Homes is required (or at least applied ‘wherever possible’) in Scotland and Wales. In England the equivalent ‘M4’ standards are within Building Regs and the Westminster Government acknowledges that M(4)2 is broadly equivalent to Lifetime Homes. The Westminster Government is currently consulting on whether to introduce this as a standard for all new homes.
- 3.21 It is noted that DfC space standards are a requirement for social rented housing and are being taken up by councils for all new build properties as they take forward their local development plans. For example, see the Belfast Local Development Plan, Draft Plan Strategy.¹⁵
- 3.22 Across the other UK jurisdictions there are proposals to move to higher energy standards for new buildings as part of wider decarbonisation goals. In England, this will be cross tenure and current proposals are that by 2025 new buildings will be required to achieve a reduction of 75% carbon emissions compared with the 2013 Building Regs.
- 3.23 In Northern Ireland, some changes to standards are being driven by local planning policies. For example, the Mid and East Antrim Draft Plan Strategy¹⁶ Policy HOU7 Adaptable and Accessible Homes requires that except for exceptional circumstances, some parts of the Lifetime Homes standards are included in all new residential development¹⁷:
- Wider parking spaces
 - Wheelchair turning space in dining areas and living rooms
 - Wheelchair level outlook for the principal window in the principal living space
 - Accessible bathroom with wheelchair turning space.
- 3.24 This can also start to address the point made by some housing associations that design standards such as Lifetime Homes can in some cases mark out social homes as different from open market which goes against the need for tenure blindness.

¹⁵ Published by Belfast City Council and can be found at https://www.belfastcity.gov.uk/getmedia/473f71a1-e0d2-431a-971b-def39e550934/DPS001_DPS.pdf

¹⁶ Mid & East Antrim Borough Council, 2019, Local Development Plan 2030 Draft Plan Strategy. The Plan is ready for examination submission.

¹⁷ Note that these are a subset of the 16 Lifetime Homes standards

- 3.25 The introduction of higher accessibility standards for new market housing as well as social housing through local development plans may bring the design and cost of different tenures together.

4 Developing to the Development Guide Standards

Introduction

- 4.1 This chapter of the report reviews the impact of achieving the key standards set out above i.e.:
- Size of dwellings;
 - Lifetime Homes;
 - Secured by Design;
 - And including Energy standards.
- 4.2 Where the information is available, we have included estimates of the additional costs implied by the implementation of the standards and provided qualitative commentary from the interviews about value for money. In the next chapter we review information available about overall development costs.

Size of dwellings

- 4.3 None of the housing associations interviewed argued that it is not possible to develop within the space standards in the Development Guide – the space standards were typically described as, '*generally adequate*'. However, most of the associations indicated that they needed to develop at the upper end of the dwelling size ranges to accommodate the other standards in the Guide – in particular Lifetime Homes requirements.
- 4.4 There were also comments that, particularly in smaller units, the size of the second bedroom was very restricted. In addition to the overall space standard for a dwelling (depending on dwelling type and bedrooms/persons), the Guide sets a benchmark (non-essential) based on 7.5sqm for a single (second) bedroom and a minimum width of 2.15m. Some of the comments about second bedrooms reflected the recent need to study or work from home as an effect of the Pandemic.
- 4.5 The issue of the size of the second bedroom could only be touched on in the interviews but was raised sufficiently often to indicate an area for further review, especially as home-working is increasingly part of the employment pattern for many.
- 4.6 In designing new properties, the associations were clear that they preferred not to use standard house types and to ensure each new scheme is designed afresh, to reflect the character of the specific site and mix of units required. But developing to meet both the space standards and the other standards in the Guide has been variously described as a '*jigsaw*' and a '*puzzle*' that a small pool of architects and contractors have mastered and that this has led to the development of 'industry standard' house types rather than associations using a 'pattern book' of agreed house types.

Lifetime Homes

Background to Lifetime Homes

- 4.7 The Lifetime Homes Standard is a series of sixteen design criteria intended to make homes more easily adaptable for lifetime use at minimal cost. The concept was initially developed in 1991 by the Joseph Rowntree Foundation and Habinteg Housing Association. Lifetime homes are said to offer a number of benefits¹⁸. They are adaptable and can accommodate different life events, such as growing old, starting a family, or developing mobility problems, with minimal upheaval.
- 4.8 Meeting the Lifetime Homes standard is a requirement of new social housing in Northern Ireland, as set out in the Guide.

The requirements and costs

- 4.9 Our analysis of the Lifetime Homes requirements assumed that if a new dwelling met the required space standards it would be able to accommodate the Lifetime Homes standards which relate solely to space requirements (e.g. level access, provision of a downstairs toilet in houses of two or more storeys). We then identified the Lifetime Homes requirements that would require additional expenditure at the time the dwellings are built. Our analysis (carried out by a quantity surveyor) is set out in full in Appendix F while the table below provides a summary of Lifetime Homes requirements which have a potential additional cost. This issue was also discussed with the housing associations and we report their views later in this section.

Figure 4.1 Summary of Lifetime Home Requirements – study team’s analysis

LIFETIME HOMES CRITERIA	COMMENT
1a – ‘On plot’ (non-communal) parking	This requirement will have minimal cost significance to a scheme. Max - £1,000 per space
1b – Communal or shared parking	This requirement will have minimal cost significance to a scheme. Max - £1,000 per space
2 – Approach to dwelling from parking	This requirement will have minimal cost significance to a scheme. Max - £1,000 per space
3 – Approach to all entrances	This requirement will have minimal cost significance to a scheme. Max - £1,000 per dwelling
4 - Entrances	This requirement will have minimal cost significance to a scheme. Max - £100 per dwelling
5a – Communal Stairs	This requirement will have minimal cost significance to a scheme. Max - £100 per dwelling

¹⁸ See, for example, a publication by Gloucester City Council setting out its approach to Lifetime Homes - <http://democracy.gloucester.gov.uk/documents/s3711/pt05097bAppendix%205%20Lifetime%20Homes%20Draft%20SPD.pdf>

LIFETIME HOMES CRITERIA	COMMENT
5b – Communal Lifts Provision of a lift is not a Lifetime Home requirement	See criterion 12
6 - Internal doorways and hallways	Increasing widths of doorways will have minimal cost significance Less than £500 per dwelling (dependant on number of doors in dwelling)
7 - Circulation Space	Assume space standards cater for this and can be designed in
8 – Entrance level living space	Assume space standards cater for this and can be designed in
9 – Potential for entrance level bed-space	Assume space standards cater for this and can be designed in but see also comments from housing associations about this requirement
10 – Entrance level WC and shower drainage	Assume space standards cater for this and can be designed in but see also comments from housing associations about this requirement
11 - WC and bathroom walls	May require additional fixings Less than £100 per dwelling
12 - Stairs and potential through-floor lift in dwellings	Affects layout of dwelling and some additional structural costs (future fixings) to allow for potential through-lift and to support stair lift C£600 per dwelling
13 – Potential for future fitting of hoists and bedroom / bathroom relationship	Affects layout of dwelling and some additional structural costs (future fixings) to allow for potential fitting of hoist. C£1,000 per dwelling
14 – Bathrooms	Assume space standards cater for this and can be designed in
15 – Glazing and window handle heights	Minimal cost significance Less than £100 per dwelling
16 – Location of service controls	Can be designed in
Lifetime Homes (LTH) Additional DfC requirements	
Ref 1B Lifetime Homes (LTH) Additional DfC requirements	
Ref 3 A level area (1200x1200mm min) should be provided at the main entrances.	No cost implications – complements current building regulations
Ref 5 Doors to bathrooms and WCs	No cost implications
Ref 7 There should also be space for turning a wheelchair in a kitchen	Assume space standards cater for this and can be designed in

LIFETIME HOMES CRITERIA	COMMENT
Ref 8 The wheelchair accessible entrance level WC criteria for 'dwellings of three or more bedrooms' should also apply to two bedroom accommodation.	Assume space standards cater for this and can be designed in but see also comments from housing associations about this requirement.
Ref 10 There should be drainage and service provision enabling a shower to be fitted in the future.	Cost implication to provide, for example, additional drainage connection Less than £250 per dwelling
Ref 12A The design should incorporate a straight-flight, dog-leg or 'L' shaped stairs with adequate space top and bottom for chair parking provision for a future stair lift.	Assume space standards cater for this and can be designed in but see also comments from housing associations about this requirement
Ref 12B DfC requires that there is no compromise to the occupancy of the unit with the installation of a through the floor lift.	No cost implications
Ref 16 Gas/electricity meters and automatic heating system controls should be fully accessible.	No cost implications
Generally In 3 storey houses only the ground and first floors need comply with Lifetime Homes criteria.	Assume no cost implications
Where required, the choice of shower enclosure needs careful consideration.	Minimal cost implications Less than £100 per dwelling

4.10 From the above review, it is clear that the additional costs of meeting the Lifetime Homes standards will vary between schemes (e.g. for flats versus houses, amount of car parking provision, whether site is level or sloping etc). Our best estimate of a typical additional cost per dwelling is that a figure of £5,000 per dwelling is a reasonable assumption. This assumes that the space standard set out in Figure 2.1 are adequate to accommodate the implied space required to meet the Lifetime Homes standards.

4.11 Our interviews with the housing associations confirmed that achieving Lifetime Homes require some additional structural work, summarised by one interviewee as:

- *"Making provision for through floor lifts – which is a major bugbear as reduces the usable space in the bedroom;*
- *Strengthening stairways to accommodate stairlifts;*
- *Making provision for future hoists in bedrooms and bathrooms – but this isn't seen as major issue;*
- *Provision for a (future) shower tray in the downstairs toilet."*

4.12 Estimates of the additional costs for the above work were provided by most housing association interviewees but these varied and it was pointed out that with a design and build contract, it is not possible for the association to identify these costs separately. Where estimates were provided, they were mostly in the range of £2,000 to £5,000. The view from the contractors we consulted was that the additional costs to achieve Lifetime Homes were 'marginal'.

- 4.13 Published evidence of the additional costs of meeting the Lifetime Home standard is limited and from outwith Northern Ireland and there is always the issue of what the 'starting point' is for the comparison (as Building Regulations are not aligned across the jurisdictions of the UK).
- 4.14 In England, a DCLG review in 2012 concluded that, *"The Lifetime Homes Standards (LHS) can be achieved with a minimal increase to most dwelling sizes. the implementation of LHS will have a cost implication on almost all units irrespective of size in any given typology."* The DCLG report showed that, at that time, the costs of meeting Lifetime Homes was around £600 for houses and £1,000 for flats in larger developments schemes (i.e with a contract value of £20,000,000). The full range of costs is shown in the table below:

Figure 4.2 Costs of meeting Lifetime Homes Standards from DCLG review 2012

Dwelling Type	Total Costs	
	Minor Development	Major Development
2 Bedroom Terraced House*	£928.10	£796.08
3 Bedroom Terraced House (Example 1)*	£2,500.50	£2,117.65
3 Bedroom Terraced House (Example 2)*	£119.99	£119.54
4 Bedroom Semi-Detached House*	£687.47	£594.67
1 Bedroom Flat – Example 1†	£845.05	£717.90
1 Bedroom Flat – Example 2†	£1,216.18	£1,033.20
1 Bedroom Flat (Excluding Lift) – Example 2†	£904.90	£779.63
2 Bedroom Flat – Example 1†	£321.86	£273.44
2 Bedroom Flat – Example 2†	£1,378.32	£1,170.94
2 Bedroom Flat (Excluding Lift) – Example 2†	£906.32	£780.85

* Refer to Table 8

† Refer to Table 16

Note: Minor Development - A development of 10+ properties with a contract value of approximately £750,000 for houses, and single blocks of low rise flats with a contract value of £1,000,000

Where there are two examples – 1 and 2 – 1 relates to a Typical Speculative House Builder Example Layout and Example 2 to an Alternative Lifetime Homes Layout.

Source: Assessing the Costs of Lifetime Homes, 2012, DCLG¹⁹

- 4.15 This compares with our own assessment of the additional costs at £5,000 per dwelling and the feedback from the housing associations that the additional costs of providing Lifetime Homes were in the range £2,000 to £5,000'.
- 4.16 Going forward, it would be valuable for NIHE to collect information, on a systematic basis, about the additional costs of implementing the required standards.

Relationship with space standards

- 4.17 The relationship of the space standards set out in the Development Guide and meeting Lifetime Homes requirements seems to be achievable, but this is not without issues. Developing to

¹⁹

https://www.housinglin.org.uk/assets/Resources/Housing/OtherOrganisation/Assessing_the_cost_of_Lifetime_Homes_Standards.PDF

Lifetime Homes means that the new property must have, at entrance level, an accessible WC compartment, with potential for a shower to be installed (i.e. space for a future shower tray and capable of accommodating the necessary plumbing). Properties must also have sufficient space at the foot of the stairs to ensure someone can transfer from a wheelchair to a stair lift if needed later on, plus a space for a through-the-floor lift from the entrance level to a storey containing a main bedroom and a bathroom. Designing all these requirements into a new home is the 'jigsaw' spoken of earlier and evoked comments such as:

"Main issue in meeting Lifetime Homes Standard is providing downstairs wc which has to be large enough to be capable of being used by a wheelchair user and therefore – for most households – provides more space than is needed and space not available for use elsewhere in the property."

"Space standards are generally adequate to accommodate Lifetime Homes requirements but the Guide is very prescriptive and there are sometimes issues with the 2nd bedroom at 7.5 sq m – which is very restrictive on space and providing adequate storage."

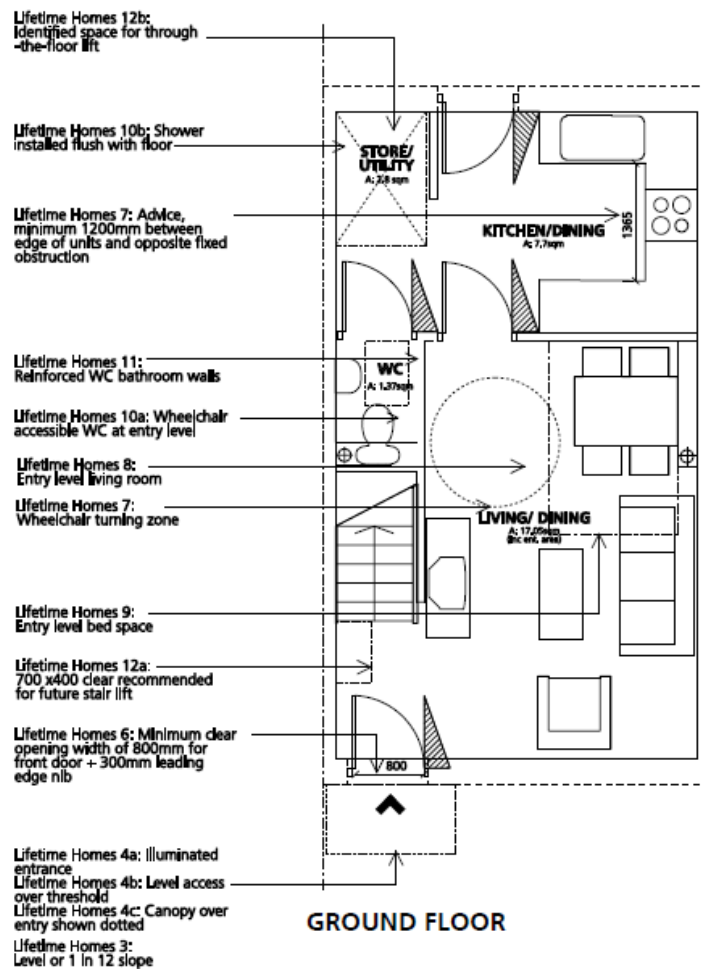
"The size of the ground floor shower room required to meet lifetime homes often results in a large central area of the ground floor plan being dedicated for a function that may not ever be used."

(Referring to apartments and the requirement to provide both a shower and bath – potentially in combination in one bedroom units) ".....the bathrooms end up as very large rooms to comply with this requirement and often the space would be better utilised in habitable rooms where people spend more time."

"Achieving Lifetime Home standards within the space standards can sometimes be difficult, e.g. if have an awkward shaped site – with particular difficulties in fitting in the downstairs toilet in some house types. But generally – Lifetime Home and standards space standards are 'workable'."

- 4.18 Meeting Lifetime Home requirements successfully in smaller units is not something unique to the Northern Ireland social rented sector. The following illustrations are from guidance in England and Scotland on potential design solutions – although we note that associated space standards may be different.

Figure 4.3 Illustration of lifetime Home layouts from guidance in England²⁰ – two bed house



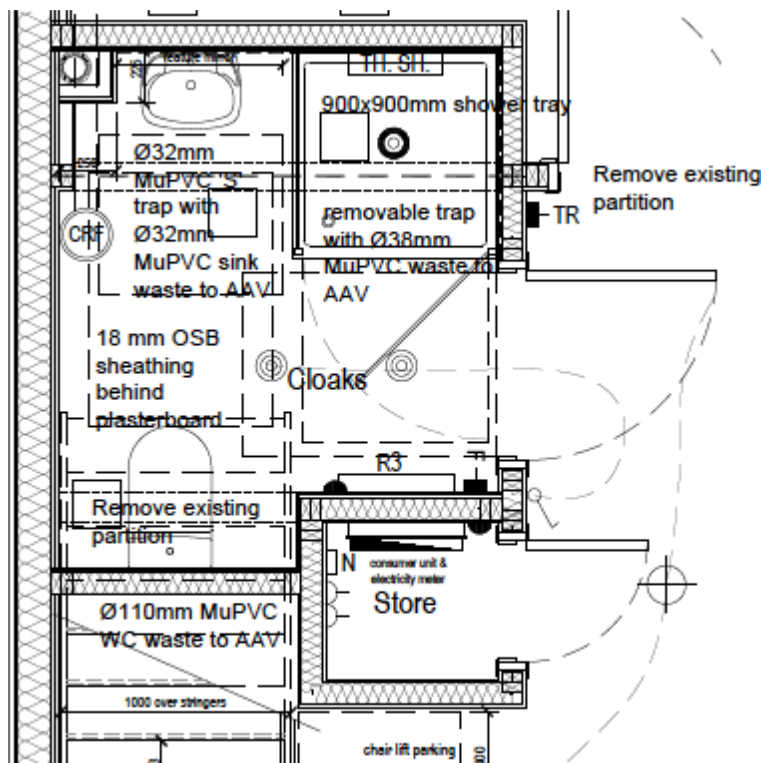
The standard to be met in England is for an:

- a) A wheelchair accessible entrance level WC, with b) Drainage provision enabling a shower to be fitted in the future.

4.19 Guidance from Scotland has the same requirement for provision for a future shower at entrance level but also sets out how this space can be used for storage if and until it is needed for a shower.

²⁰ Design of Lifetime Homes, Department of Communities and local Government, 2012

Figure 4.4 Illustration of Lifetime Home layouts from guidance in Scotland²¹ – illustrating ‘meanwhile use’ as storage space



Accessible Shower Room Layout

- 4.20 The guidance from Scotland highlights the use of demountable partitions to separate off the storage space initially and which can be readily removed if a shower needs to be installed into the space. There are two issues that also need to be considered – the partition must not be load bearing and there should be adequate storage space in the home if the option of installing a shower needs to be taken up.
- 4.21 The approach taken in Scotland shows the potential of planning for a ‘meanwhile’ storage use. Where the solution, as with the Northern Ireland guidance, is generally to provide a large downstairs wc space which is used informally for storage (e.g. for buggies, sports kit etc) there may be value in having a more structured approach to providing the additional space and acknowledging how it can be used as and until it is needed for a shower. Another approach may be to install the shower at build stage whether it was required by the household or not, as it would offer flexibility for the occupants anyway.

²¹ LABSS Information Paper INFOP16 - 2016 Version 10 as Amended – 5 May 2020 Clause 3.12.3: Accessible Sanitary Accommodation, Local Authority Building Standards Scotland [LABSS], May 2020

Overview

- 4.22 Despite the practical issues in accommodating Lifetime Homes standards described above, the overall view of interviewees was that working to these standards was, overall, the right way to develop social rented units. However, some questioned how often an association was asked to install the shower provided for:

“There is always a debate between the cost effectiveness of building to Lifetime Homes at day 1 versus converting properties as and when needed.”

- 4.23 To explore this issue, NIHE provided Information taken from Disability Adaptation Grant claims²², for the four years to 2020/21 which showed that:

- 23 vertical through-lifts were installed – 16 of which were in LTH and 7 in other properties;
- 102 stair lifts were installed – 52 of which were in LTH and 50 in other properties;
- 2,054 showers were installed (either in addition to the existing bath or a replacement for the bath) – 1,037 in LTH and 1,014 in other properties.

- 4.24 The data is inconclusive whether the provision of LTHs makes it easier to achieve necessary adaptations or not and it is noteworthy that a significant scale of adaptations have been achieved in other property types.

Secured by Design

- 4.25 Secured by Design (SBD) is a national police initiative to encourage the adoption of crime prevention measures in the initial design process, so as to reduce the opportunity for crime and the fear of crime, and to create a safer and more secure environment. The requirement for new social rented units is to meet Secured by Design Gold standard and which need to be approved by the PSNI (Architectural Liaison Officer) before schemes can be tendered.

- 4.26 The Gold standard has three elements - Development Layout and Design and Physical Security of the Home with additional features in specific circumstances, for example – where there are bicycle stores, underground car parking.

- 4.27 Housing association interviewees felt that Secured by Design had been integrated into the ‘thinking’ about the design and layout of new schemes, for example:

“Secured by Design has, very good objectives and has proved a relatively simple set of concepts to follow”

“Not a big issue”

²² The data relies on information provided by the housing associations that distinguishes between alterations in LTH and in other properties. The data about provision of showers could be in the ground floor WC (as envisaged for LTH) or it simply could be a replacement of the bath in an upstairs bathroom or bungalow/apartment

“Can factor into design and layouts.”

- 4.28 Some interviewees highlighted the importance of involving their management team at an early stage in design as they can point out aspects of a design/layout that their experience showed can lead to management issues later on. While the involvement of the management team at design is generally considered good practice, it is particularly important in considering Secured by Design aspects:

“Proposed layouts of new schemes are discussed with management/repairs teams to help ensure longevity of the new housing.”

- 4.29 The contractors' workshop did not highlight any particular costs associated with meeting Secured by Design Gold Standard. However, the association interviewees had more mixed views and highlighted specific additional costs for:

- Double boarded 1.8m fences to rear of properties where added security required and sometimes toughened glass;
- More secure windows and doors (e.g. using internal beading);
- For apartment blocks - access control, CCTV and Recording, communal lighting etc.

- 4.30 There is limited information about the additional costs of these items but an estimate of c£500 per dwelling was put forward by one interviewee for houses, although others thought there would be minimal additional costs arguing that:

“.....these types of doors and windows are increasingly mainstream and additional costs are merging into the standard cost.”

- 4.31 However, the additional costs for an average apartment in meeting Secured by Design standards may be more – perhaps up to £1,500 per apartment as suggested by one interviewee to include additional security systems e.g. entry phones and CCTV.
- 4.32 Again, it should be noted that housing associations using a design and build route would not have separate costs for this element of the standards.

Energy standards

Development of the standards

- 4.33 Energy efficiency standards for new social rented housing in NI were first introduced as the EcoHomes standard in 2000. This was the domestic version of the Building Research Establishment's Environmental Assessment Method (BREEAM), applied to a variety of non-residential buildings. There were various updates to the EcoHomes Assessment, the last one in 2006.
- 4.34 The EcoHomes standard was replaced by the Code for Sustainable Homes (CFSH) in April 2008.

- 4.35 CFSH was a national assessment method for rating and certifying the environmental performance of new homes in United Kingdom. It was an optional standard and covered nine design categories, including energy, water, materials, surface water runoff, waste, pollution, health and well-being, management and ecology. House builders were able to obtain certification for their homes ranging from Level 1 (lowest) up to Level 6 (Zero Carbon). The CFSH standard was withdrawn by the UK government in 2015 as a result of the 'Housing Standards Review.'
- 4.36 Up until 2012/13 it was mandatory within DSD's Guide for Housing Associations to achieve CFSH level 3 and housing associations received extra grant to do so. In 2012 new Building Regulations came into force in Northern Ireland and the standard for thermal performance was raised to a level that was equivalent to the CFSH level 3. As energy efficiency, which was one of the main drivers for making CFSH mandatory, was now covered under Building Regulations, DSD made CFSH Level 3 optional before dropping it altogether.
- 4.37 An Energy Efficiency Multiplier was introduced as a direct replacement for the Code for Sustainable Homes Multiplier and is intended as a contribution towards the additional costs incurred by achieving a higher level of energy efficiency than Building Regulations.²³

Current requirements

- 4.38 Social rented housing is only required to meet the standard set in Building Regulations (Part F) with carbon emissions as the main compliance target²⁴. Therefore there should be no additional cost (for this) in comparison with market units. The associations have had the option of taking up the Energy Efficiency Multiplier and using higher energy efficiency standards but only one association had done so – in a pilot project. This association were yet to establish whether the costs of achieving a higher EPC (Energy Performance Certificate) would be matched by the additional grant funding they would secure. Appendix G provides further information about the operation of the Multiplier.
- 4.39 However, interviewees were aware that the Building Regulations are under review and are waiting to see what the new standards will be and how grant funding will respond to this. The associations recognise that the Building Regulations were last reviewed in 2012 and that tackling fuel poverty amongst their tenants and meeting UK-wide targets for decarbonisation are very real issues.

²³ For example, it provides additional grant for dwellings that achieve SAP band A and meet the fabric energy efficiency standard (FEES). The FEES requirement is to ensure a fabric first approach – i.e. that funding is spent on the construction rather than applied technology that will require regular maintenance, have a shorter life, and may become obsolete in time.

²⁴ See Department of Finance and Personnel, 2012, Technical Booklet F1 Conservation of fuel and power in dwellings

- 4.40 As part of the Building Regulations review, the December 2020 Part F requirements information note²⁵ provides some limited clarification about how emission rate requirements apply to all new buildings from December 2020. This requires that those carrying out the work should undertake an analysis of the technical, environmental and economic feasibility of using high efficiency alternative systems such as decentralised renewable energy supply. This 2020 note also states that the Department is working to increase standards as soon as possible. At the time of writing the Department of Finance (DoF) is consulting on the uplift to standards of Part F of the Building Regulations. The consultation proposals are intended as an interim step and to provide a more robust application of Regulation 43B (Nearly zero-energy requirements for new buildings). Consultation opened on 11th October 2021 and closes on 19th December 2021²⁶.
- 4.41 Going forward, the Committee on Climate Change's letter of May 2021 to the Minister of Agriculture, Environment and Rural Affairs (NI) recommends that any climate legislation for Northern Ireland includes a target to reduce all greenhouse gas emissions by at least 82% by 2050 as part of a fair contribution to the UK Net Zero target in 2050. Research from elsewhere has shown that the implied improvements to the grid should be accompanied by improvements to housing stock or fuel poverty will be increased²⁷.
- 4.42 The Westminster Government has consulted on the implementation of a Future Homes Standard²⁸ which promotes low carbon heating and fabric thermal efficiency. Its intention is to introduce necessary legislation in 2024, ahead of full implementation of the Future Homes Standard in 2025²⁹. The consultation and impact assessment provide guidance on the cost of a 31% uplift (to the English Building Regulations) in carbon emissions, this is given as of £3,130 for a house and £2,260 for a flat. We include this in the report as an indication of the sorts of costs that might need to be added to future development of all homes. It is notable that where cost estimates for retrofitting exist these are significantly higher³⁰. (However it is important to note that studies are not necessarily directly comparable because they are based on Building Regulations and housing stock in other jurisdictions and thus serve as guidance only).
- 4.43 Another study, again England based, looked at the cost of achieving a Passivhaus standard development³¹. Passivhaus is a fabric first approach to achieving carbon reduction of C70%. It found that the Passivhaus standard adds about 4% to building costs and this is similar to the cost of achieving the 31% uplift described above. (Note that it requires different technologies to those

²⁵ Department of Finance, 2020, Building Regulations Part F Conservation of fuel and power – Nearly zero-energy buildings (NZEB) requirements for new buildings

²⁶ <https://www.finance-ni.gov.uk/consultations/consultation-proposals-amendment-technical-booklet-guidance-part-f-conservation-fuel-and-power>

²⁷ See Welsh Government (Green et al), 2019, Homes of Today for Tomorrow stage 2 report

²⁸ <https://www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-building-regulations-for-new-dwellings>

²⁹ Ibid para 2.49

³⁰ See for example Welsh Government (Green et al), 2019, Homes of Today for Tomorrow stage 2 and stage 3 reports

³¹ Three Dragons Enhabit & Ward Williams Associates – Lancaster City Council Climate Change Local Plan Review Viability Assessment – Main Report - May 2021

for the Future Homes Standard.) However small schemes with inexperienced builders could cost significantly more.

- 4.44 The associations will welcome a consistent approach to energy efficiency and emissions across the sector when the review of the Building Regulations is completed.

Quality and comparison with market units

- 4.45 The associations interviewed consider that social rented housing is built to a high standard and argue that it is the combination of requirements set out in the development guide that achieves this. Some interviewees also made a connection between the quality of newbuild schemes and longer term management issues:

“No single standard is key –all play their part and important to look at them together... the quality of development achieved through the use of the standards has a longer term impact on management costs”

“If the finish is good, tenants take more pride”

“Of the standards discussed, “.....all play their part and important to look at them together – the quality of development achieved through use of the standards has a longer term impact on management costs etc.”

“Quality in social rented housing is really important and all the standards are needed as all ‘ingredients are needed in a cake’ – nothing should be left out. Good design is vital so that tenants take pride in where they live”

- 4.46 Where associations had experience of buying units directly from the market, they considered that social housing is built to a higher standard than the average private unit quoting issues such as wardrobes in new units that could not accommodate a standard clothes hangar.
- 4.47 However, interviewees with experience of developing ‘market facing’ properties (e.g. for some form of low-cost sale and/or low cost market rent) recognise the different consumer needs of the market. This could include provision of en suites, utility rooms, more white goods in the kitchen, fully painted finishes and floor coverings throughout. These were not requirements of the Development Guide for social rented homes and were not put forward by interviewees as something they wanted to see included in the future and were not argued as representing value for money for the social rented sector. However, where an association is designing ‘market facing’ units it may design the homes as near as possible to Development Guide standards so it is easier to convert them to social rent units later, if there is no market for low-cost sale/low-cost market rent.
- 4.48 The contractors, with experience of developing across both the market and social rented sector, commented that, while social rented units in the past may have been developed to a higher standard than comparable market units, nowadays all new homes were being built to a ‘good standard’, as set out in the building regulations.

- 4.49 The contractors also indicated that some housing associations might sometimes specify the use of particular materials and/or design that would not be used in market housing because of the extra costs involved. Examples given to us were the use of dormer windows, limestone window frames and specific types of external cladding and which were said could lead to higher costs without any specific benefits to the occupants. It may be that particular specifications by housing associations reflects other factors such as a planning condition but we were unable to explore the full range of issues in detail.

5 Total build costs

Introduction

- 5.1 The Department for Communities provided data on reported construction cost for housing association developments in Northern Ireland. The data includes a basic breakdown of dwelling construction costs split between substructure, superstructure, fittings and finishes, M&E, lift and siteworks. The data covered 30 schemes in the financial years 2018-19, 2019-20 and 2020-21 with a total of 645 dwellings (houses, flats and bungalows). Other development costs relating to land, professional fees, agents, legal, finance etc. are not included in this data.
- 5.2 Some records were excluded from the analysis where the categorisation of dwellings and/or costs was incomplete, or in one instance where there appeared to be an error in the recording of the dwelling size, leaving records for 525 dwellings across 27 schemes to inform this work. The records cover 327 houses, 186 flats and 12 bungalows. The small number of bungalows in the data means care must be taken in considering data for this dwelling type, especially as almost all bungalows were wheelchair accessible rather than general needs housing.
- 5.3 All of the data has been retained at the values provided rather than being indexed to estimate changes in build costs over time. This reflects a lack of certainty about the extent to which social housing build costs respond to the funding available as well as construction market changes over time.
- 5.4 It is noted that, although broadly representative of developments taking place over the three years covered, the sample of scheme costs provided is relatively small. Therefore, comparisons between the costs of different dwelling types and years should be treated with caution, although a useful indication of broad costs. What the data cannot do is provide a comparison between the costs of social rented housing and market housing.

Scheme characteristics

- 5.5 Schemes varied between 3 and 78 dwellings, with the majority (82%) between 6 to 50 dwellings. However, because of their size the two largest schemes made up 25% of the dwellings. The schemes are spread across Northern Ireland although Belfast has the most schemes, followed by Derry City & Strabane and Mid & East Antrim. Assuming that the schemes provided for this study are representative, it is clear that Belfast is more likely to have the larger schemes (26% of schemes comprising 51% of the dwellings).

Figure 5.1 Scheme sizes

Scheme size (dwellings)	Number of schemes	% of schemes	Number of dwellings	% of dwellings
1-5	3	11%	13	2%
6-10	8	30%	58	11%
11-20	6	22%	82	16%
21-50	8	30%	241	46%
51-100	2	7%	131	25%
Total	27	100%	525	100%

Figure 5.2 Scheme locations

District	Number of schemes	% of schemes	Number of dwellings	% of dwellings
Antrim & Newtownabbey	1	4%	10	2%
Ards & North Down	2	7%	45	9%
Belfast	7	26%	266	51%
Causeway Coast & Glens	3	11%	24	5%
Derry City & Strabane	5	19%	62	12%
Lisburn & Castlereagh	3	11%	51	10%
Mid & East Antrim	5	19%	61	12%
Mid Ulster	1	4%	6	1%
Grand Total	27	100%	525	100%

Build costs

- 5.6 Across all 525 dwellings the total dwelling and site cost was £1,462/sq m. Within this, flats were notably more expensive than houses and bungalows, which is common to other areas in the UK. It is known³² that the build costs for flats will increase in line with building heights and although the data for the schemes used for this analysis does not have this information it is logical that this will apply in Northern Ireland as much as elsewhere.
- 5.7 The build cost for bungalows is lower than other forms of housing although we note that this is a less common form of development and it is possible that this build cost may relate to the limited sample rather than being a replicable cost in other schemes³³.

³² E.g. through the Royal Institute of Chartered Surveyors' Building Cost Information Service

³³ Other data suggests that bungalow build costs are slightly above general houses of the same standard as the cost of the sub-structure and roof structure is spread over less floor area.

Figure 5.3 Build cost by dwelling type

Dwelling type	Dwelling build cost £/sq m	Plot and site costs £/sq m	Plot & site costs as a % of dwelling build costs	All in costs £/sq m
Bungalow	941	277	29%	1,219
Flat	1,453	274	19%	1,726
House	1,063	299	28%	1,362
Grand Total	1,171	291	25%	1,462

- 5.8 Plot and site costs (but excluding the cost of buying the land) make up 25% of the total cost, although this is lower for flats.

Figure 5.4 House and flat build cost breakdown

Cost	Proportion of total	
	Houses	Flats
Substructures/unit	10%	9%
Superstructure/unit	37%	41%
Heating Installation/unit	4%	4%
Other Services/unit	3%	4%
Lift Installation/unit	0%	1%
Electrical Installation/unit	7%	10%
Plumbing installation/unit	6%	5%
Fittings/unit	2%	2%
Finishes/unit	9%	8%
External Works/unit	17%*	14%*
Site Development Works/unit	5%*	2%*
Total	100%	100%
*The sum of the external works + Site development works in this table is different to the totals in the table above as this table is as a proportion of the whole cost while the table above is as a proportion of the dwelling build cost.		

- 5.9 The schemes analysed include wheelchair housing as well as general needs. Of the 17 wheelchair dwellings, 10 were provided as bungalows (which is almost all the bungalows) and 6 as flats. Overall, there is no evidence from this data that wheelchair accessible housing is more expensive to build on a £/sq m basis than general needs housing, although the data does suggest that the wheelchair dwelling sizes are larger meaning that overall costs are higher for bungalows but still lower for flats. Given the small number of general needs bungalows it is difficult to make a meaningful comparison but it is clear that the wheelchair bungalows had lower costs than the average for all houses (see tables above). Wheelchair flats are less expensive to construct than general needs flats although they have higher plot and site costs suggesting that some of the additional adaptations relate to access – possibly parking for cars or mobility scooters. It may be that wheelchair accessible flats are provided on the ground floor which may be responsible for the lower build costs.

Figure 5.5 Build cost by accessibility standard

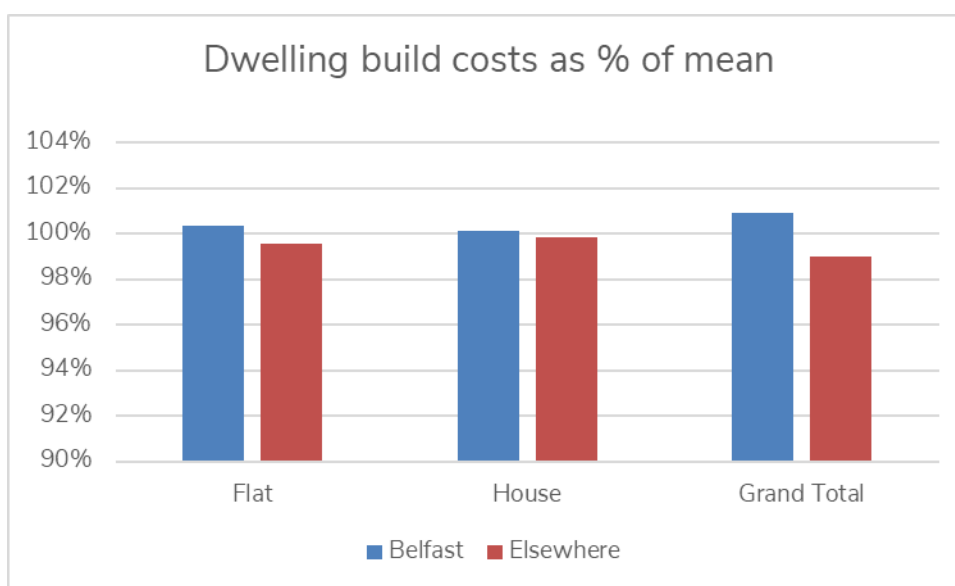
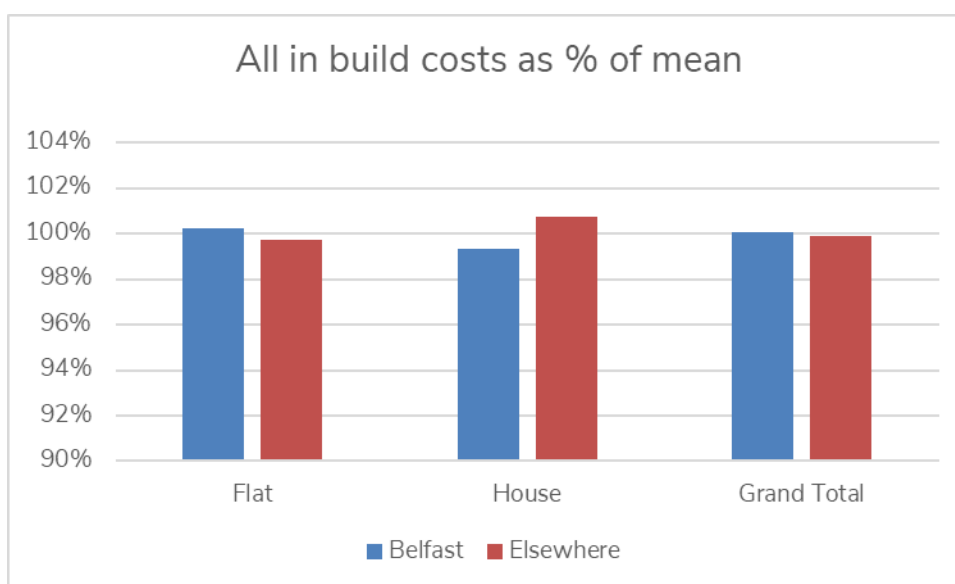
Dwelling type	Dwelling build cost £/sq m	Plot and site costs £/sq m	Plot & site costs as a % of build costs	All in costs £/sq m	Avg size sq m
<i>General needs bungalow*</i>	951	508	53%	1,460	64
Wheelchair bungalow*	940	250	27%	1,190	110
General needs flat	1,465	272	19%	1,737	61
Wheelchair flat	1,145	317	28%	1,462	70
*Note small sample for bungalows and very small sample for general needs bungalows					

- 5.10 The schemes have been categorised into size bands. This shows a clear impact relating to size, with development benefiting from economies of scale as the number of dwellings increases. This is also evident elsewhere in the UK. The overall build costs for the smallest schemes are 112% of the mean while the largest schemes are 99% of the mean.
- 5.11 The economies of scale are evident in both dwelling build costs and plot and site costs, although the build cost savings effect stops after 20 dwellings while there are further plot and site cost savings (albeit based on a small number of the largest schemes in the sample of costs analysed).

Figure 5.6 Build cost by size of scheme

Scheme size	Dwelling build cost £/sq m	Plot and site costs £/sq m	Plot & site costs as a % of build costs	All in costs £/sq m
1-5	1,292	346	27%	1,637
6-10	1,239	292	24%	1,531
11-20	1,164	315	27%	1,479
21-50	1,158	285	25%	1,443
51-100	1,158	283	24%	1,441
Grand Total	1,171	291	25%	1,462

- 5.12 The schemes were split into those that were in Belfast and those that were elsewhere. There are some indications of variance by location, with dwelling build costs per square metre consistently slightly higher in Belfast than in other locations, although once plot and site costs are added in the overall costs per sq m differences by location were without any clear pattern.

Figure 5.7 Dwelling build cost by location of scheme**Figure 5.8 All in build cost by location of scheme**

Views of the housing associations and contractors

5.13 Through our interviews with housing associations and from the follow-up information provided in some instances we are able to set out further detail that can be compared to the data reviewed above. All-in build costs (but not including abnormals) provided for 7 different house types ranged from £1,260 sqm through to £1,700 sqm, with plot costs (where given) of between 10% and 15%. For apartments, from 4 apartment types, the range was from £1,350 sqm up to £1,580 sqm. This gives an average (mean) all-in cost of £1,400 per house and £1,485 per apartment. It should be

noted however that associations have given broadly average figures in some cases for a 'typical unit' developed by that association.

- 5.14 The costs for houses are comparable to those obtained from the data analysed in the first part of this chapter and fall within those parameters. The apartment costs are slightly lower than those in the data. We have not been supplied with build costs for private market schemes, although one interviewee suggested that build costs for a private home could be as much as £400 sqm lower. Others noted that private schemes often provide features such as en-suites or incentives such as white goods which should be included in any comparison.
- 5.15 Not all associations had full information readily available on costs at a unit type level. Clearly costs will vary between locations and sites, but associations may find it helpful to record detailed breakdown of costs associated with each type of unit, to help drive efficiencies and better understand how value for money could be achieved. From the information made available to us, the association evidence further supports the finding that build costs reduce as scheme size increases.
- 5.16 Housing associations were asked about the cost of professional fees which cover architects and Quantity Surveyors in the main but also include clerk of works or employers agent depending on scheme type and project management. Again, a range of expense cost was given, with Land Design and Build at a lower cost by between 2% and 4% compared to acquisition and works contracts, although the difference was not specified by the association in every case. A percentage of between 6.5% and 12% of build costs (including external works) was given as an average. Some associations employed their own QS which led to costs being lower again. Where costs were separated out, architects were around 4.5% to 6% of build costs, dependent upon scheme size, and QSs 1.5% / 2.5%. For project management, a cost of 0.5% to 0.75% was given. More than one association commented that the cost of design was exceptionally low and they felt this had been driven down at the expense of quality.
- 5.17 The contractors' workshop, with representatives of those experienced in building both market and social rented units, was not able to provide information to compare build costs between the sectors. Elsewhere, we have noted the point made by the contractors that there are some occasions when the particular materials are being specified for social rented housing e.g. the exact type of insulation and that these are likely to increase costs because there is limited (or only one) product that meets the specification, although we don't have any information about the scale of the increase. The contractors also indicated that other aspects of housing association requirements may lead to increase costs. For example, where associations require their development schemes to be 'flat' sites, irrespective of the existing topography and which can mean mass earth removal and digging to 'level out' the site. By contrast, it was said that the private sector would design the scheme into the site.
- 5.18 We were unable to explore these statements further and speculate that it could reflect the need to meet Lifetime Homes Standards, providing a level access to homes. However, we note that

Building Regulations³⁴ also require level access to the principal entrance with flexibility for level access to be to an alternative entrance. Lifetime Homes requires all entrances to be level or gently sloping.

- 5.19 There is no other published source of information about development costs in the market sector which we could rely on to make a direct comparison between the build and other costs for social rent and market developments. The Building Cost Information Service does provide build cost information for Northern Ireland but the information is based on a very limited sample and so is not as robust as elsewhere. Currently BCIS, based on a maximum age of results of 5 years, is showing a mean base build cost for a two storey terrace of £682 per sq m GIA and £782 per sq m for a 3-5 storey flat. These costs are significantly lower than those identified for social rented units from the PIF data. We are not suggesting that a straight comparison between PIF and BCIS data is reliable in terms of the scale of any difference, but the comparison does indicate that market costs are likely to be lower than those for social rent.

Modern methods of construction

- 5.20 Whilst it was not a requirement of the research to investigate Modern Methods of Construction (MMC), it is appropriate to comment on MMC as an option for the future development of social rented housing, drawing on research we have undertaken elsewhere.
- 5.21 Proponents of MMC argue that it can offer energy efficient/carbon neutral construction, speed of delivery and potentially cost savings compared with traditional construction methods. It also offers faster construction at a time when skilled labour may be in short supply.
- 5.22 MMC is used to describe a range of on and offsite techniques that promote alternatives to traditional construction methods. MMC is common in parts of Northern Europe but still relatively untried in the UK. During 2017-18 *“only 7.5% of new homes built in the UK used prefabricated or modular elements compared to 15% in Japan, 20% in Germany and an immense 84% in Sweden”*³⁵.
- 5.23 The advantages of MMC are more fully described as being:
- **Energy efficient/carbon neutral construction:** recent research by DeAth and Farmer suggests that some MMC techniques can reduce carbon emissions by up to 40%³⁶;
 - **Speed of delivery:** Assembly and delivery of a building is only part of the construction process. Groundworks need to be carried out, infrastructure services connected and the site completed and signed off. Further back in the process planning consent must be obtained and land assembly may be required. This requires an efficient onsite development partner to

³⁴ Paragraph 7.1 of Technical Booklet R

³⁵ PBCtoday.co.uk (2020) '2020 The year modular construction goes mainstream?' Accessed online via <https://www.pbctoday.co.uk/news/modular-construction-news/2020-modular-construction/70496/>

³⁶ DeA'th & Farmer (2020) 'Build Homes, Build Jobs, Build Innovation: A Blueprint For A Housing Led Industrial Strategy'

complement the advantages in terms of speed of development that MMC can offer. Some MMC companies have already partnered with organisations with development expertise;

- **Cost savings:** There are mixed reports as to how much cheaper MMC and offsite delivery is compared to traditional housing. Farmer & De'Ath (2020) refer to findings by the public sector purchasing framework LHC who indicate *“when measuring whole life costs, MMC delivers a 10% saving over 30 years compared to traditional construction, without factoring in the benefit of scale”*. An article³⁷ published in PBCtoday.co.uk in January 2020 notes that *“at this relatively early stage in the industry, building a modular home actually costs around 12% more than a conventional build. However, the money saved in reduced build time puts a developer’s overall net savings at about 7%”*. It acknowledges that as the industry matures then it is expected that this saving would likely be increased. However Savills³⁸ report that *“the cost of adopting MMC is generally higher than continuing with business as usual”*.

5.24 MMC would therefore seem to offer some advantages for the future delivery of social rented housing in Northern Ireland but may not be the ‘game changer’ that its supporters suggest.

³⁷ PBC today (2020) ‘2020: The year modular construction goes mainstream?’ accessed online via <https://www.pbctoday.co.uk/news/modular-construction-news/2020-modular-construction/70496/>

³⁸ Savills Research (2020) ‘Modern Methods of Construction What can MMC offer the housebuilding industry in the UK?’ accessed via <https://pdf.euro.savills.co.uk/uk/spotlight-on/spotlight-modern-methods-of-construction-spring-2020.pdf>

6 Views of cost consultants

Research undertaken

- 6.1 To achieve an understanding of why the cost of social housing is more expensive in comparison to speculative housing in Northern Ireland, qualitative research was carried out with a number of quantity surveying practices involved in the cost management of social housing or speculative housing schemes or both.
- 6.2 An initial list of fifteen consultancies were contacted, four agreed to take part with a further two practices declining citing that they had no recent experience of the cost management of either social or speculative housing. The remaining nine consultancies failed to respond, despite being contacted for a second time.
- 6.3 With regard to the four consultancies that agreed to take part, one had only experience of the cost management of social housing, one had only experience of the cost management of speculative housing while the other two consultancies had experience of both sectors. All the consultancies that agreed and ultimately were interviewed requested anonymity for what they considered to be the sharing of very sensitive commercial information and were not prepared to share detailed cost information such as bills of quantities etc that may identify them, the project concerned, and the specific housing association and the contractor involved. It is also important to note that the vast majority of social housing schemes, as will be highlighted later, are now procured as design and build under an NEC form of contract that uses an activity schedule as the pricing document and therefore there is no contract bill of quantities.

Variations in build costs

- 6.4 The research noted that general housing in the social sector that is constructed where there were good ground conditions and no “abnormals” would cost approximately £1,300.00 to £1,350.00 per square metre. This included a contribution to preliminaries, substructures and external works but excluded any contribution to design fees.
- 6.5 When directly compared to speculative housing of a similar size and standard it was stated that social housing could be up to 30% more expensive than the speculative sector with £1,050.00 to £1,200.00 per square metre given as approximate costs of general housing in this sector.
- 6.6 The contribution to preliminaries in both social and speculative housing is comparable with a figure of 10% being given at initial cost planning stage. However, it was noted that this can range from 5 to 19% of the value on tenders returned depending on the overall financial value of a scheme and/or a contractor’s method of pricing.
- 6.7 To explain the reasons for the variance in cost of social housing in comparison to speculative a number of factors were highlighted. A number of respondents indicated that the sites acquired for social housing in many instances are brownfield sites that require detailed structural foundation design and construction (piled foundations) and/or contain contaminated ground. It was also

highlighted that the topography of sites acquired for social housing can in many instances slope steeply and require the design and construction of retaining walls which add to the cost. Another issue identified was the plan footprint of the site which directly impacts on the preparation of an efficient site layout in terms of the ratio of the area of access roads and paths to the floor areas of the housing. Many sites acquired for social housing are on sites that have a very irregular shape on plan necessitating that the area occupied by roads and pavings can be a higher proportion of the overall site area.

- 6.8 If ground conditions are good and traditional strip foundations can be used the substructure costs on social housing are comparable with speculative housing at approximately £200.00 to £250.00 per square metre.
- 6.9 Similarly, where an efficient site layout can be developed for general housing in both the social and speculative housing sectors the contribution of the cost of external works to the overall cost of housing is £200.00 to £250.00 per square metre.
- 6.10 Therefore, the higher prevalence of having to accommodate “abnormals” for ground conditions and site layout on social housing schemes has a direct impact on increasing substructure and external works costs in particular. These differences may also be reflected in lower land costs where there a significant level of abnormalities is present.
- 6.11 The cost of wheelchair accessible social housing was given as approximately £1425.00 per square metre which is about 9% higher than general housing. There was no direct comparator cost obtained for the speculative housing sector.
- 6.12 The reasons provided for this cost variance with general housing included the need for low level kitchen fittings and associated white goods to suit and the specialist equipment required in bathroom/shower/toilet areas. It was also stated by an interviewee that wheelchair accessible housing was slightly larger in floor area and that a greater site curtilage to the property in terms of wider paths, ramps etc is required which also adds to the cost.
- 6.13 The input of occupational therapists in terms of wheelchair accessible housing was also highlighted as an issue as costs for making recommended adaptations can occur during construction or retrospectively after completion of construction to suit specific tenant needs and this adds to the overall cost of a unit and ultimately to its cost per square metre. Where adaptations to a social rented property are funded during the construction process, grant funding is only made available at the relevant grant percentage applicable for the scheme, Yet, if the adaptation was carried out after practical completion, it is more likely to be 100% funded.
- 6.14 The cost of apartments/flats in the social sector in comparison to the speculative sector was also reviewed.

- 6.15 The cost per square metre for apartments/flats in the social sector ranged from £1,325.00 to £1,700.00. The large cost range is attributable to a number of factors including ground conditions, topography and the plan shape of the site as previously discussed.
- 6.16 Other issues that affect build costs **within** the social sector is whether the structure is constructed using a structural frame as opposed to load-bearing masonry and whether or not there is undercroft car parking. Such cost variations are not unique to the social rented sector and similar differences would likely apply to sale housing.
- 6.17 The requirement for communal areas and associated lifts, stairs, lighting, signage and security were also cited as contributing to the cost differential in many instances with general housing in the social sector.
- 6.18 In comparison to the speculative sector the cost of apartments/flats in the social sector could be 30% more expensive. This is attributed, in many instances, to ground conditions, topography and plan shape of sites used for speculative developments being better. However, it was noted that apartment/flat development in the social sector was generally low-rise of no more than three storeys whereas in speculative sector apartment developments the number of floors frequently exceeds this. Therefore, the cost contribution of the substructure and roof as a proportion of the cost per square metre is less.
- 6.19 In terms of regional variations in cost there was an even split in views of the interviewees. Two interviewees indicated that, as Northern Ireland was such a small region, there was no cost variation. One interviewee indicated that, in comparison with greater Belfast costs, the Northwest region of Northern Ireland would be -5% and the region around Omagh would be -10%. The final interviewee was only aware of costs in greater Belfast and the region covering Newry and Lurgan in Northern Ireland and cited a difference of -30%.

Other factors affecting development costs

- 6.20 With regard to procurement, it was indicated that design and build was a quicker process in comparison to the traditional approach in the social housing sector but only offered marginal savings equating to £20.00 per square metre.
- 6.21 The other factors identified that contribute to social housing being more expensive is specific planning requirements on certain projects to incorporate design items such as natural slate roofs, stone cladding, sliding sash windows etc. There was also reference to a higher specification of mechanical and electrical installation being required in comparison to speculative housing as well as higher quality materials and workmanship being specified to reduce maintenance and replacement costs during the life cycle of the dwelling.
- 6.22 Another important aspect identified was the costs associated with managing a social housing scheme in terms of administration and bureaucracy. This adds to cost and obviously has to be allowed for in tenders. Issues such as the pre-qualification process during the pre-tender phase

and dealing with variations/compensation events during the construction phase were identified as adding to costs and time.

- 6.23 In terms of transparency in the cost management of social housing schemes it was highlighted by one interviewee that the client (housing association) was in control of the contingency sum for a project/contract and that the quantity surveyor was not aware of its value. This made dealing with compensation events and providing a projected final account value difficult.

Professional fees

- 6.24 Design fees generally start at around 5% of the projected contract value for projects up to £250,000.00 in value. The percentage allowance decreases as project values increase and cover the consultancy fees of the architect, the quantity surveyor, the services engineer and the structural engineer.
- 6.25 Generally, these fee scales appear to be extremely competitive as the fee for a quantity surveyor providing cost management services on a speculative development could be two or three times that for social housing schemes.

Competition and tendering

- 6.26 The consultants involved in social housing schemes were also asked whether the tendering process for such schemes was competitive and if there are opportunities for “new” contractors to enter the market to increase competition further.
- 6.27 The respondents indicated that it appeared to be the same contractors in many instances appearing on lists that were bidding for projects. Two of the respondents were of the opinion that the tendering process was competitive. One respondent went on to say that a number of contractors appeared to be specialising in social rented projects and in dealing with difficult ground conditions.
- 6.28 The third respondent did not specifically mention competitiveness in relation to the development of social rented schemes. However, they noted that it was difficult for smaller contractors to establish themselves in the market and put in bids because of their lack of experience with the sector and they were eliminated in the pre-qualification process.
- 6.29 With regard to the pre-qualification process, it was also noted that there was little recognition of a contractor having experience of projects of a similar value in say the commercial, industrial and retail sectors of construction; contractors are required to demonstrate experience in the social housing sector in the pre-qualification process. The respondent also highlighted another issue with the framework under which projects are procured. They suggested that smaller developments, with a correspondingly lower value, should be dealt with separately to open up the opportunity to bid for such schemes by smaller contractors looking to establish themselves in the sector and grow and develop their business and experience.

6.30 Overall, the level of administration and bureaucracy for the design team and the contractor and their supply chain involved in the delivery of social housing schemes was identified as a major problem and contributor to the higher costs. This is coupled with a higher incidence of dealing with poor ground conditions, topography and layout of sites in comparison to speculative development housing. The limited number of contractors specialising in bidding and carrying out this work also appears to be an issue with the pre-qualification process being restrictive. However, the majority of respondents felt that the procurement process for social housing was competitive.

7 Procurement and regulations

Different procurement routes

- 7.1 Earlier in the report we identified the different procurement routes used by housing associations and highlighted that many of the (larger) associations have been moving from solely using the 'traditional' acquisition and works route to a more mixed approach, which increasingly includes design and build options. In comparing the two procurement routes, the overview from the housing associations interviewed is that 'acquisition and works' is more resource intensive and the risk remains with the housing association but the association retains more control over the project. By contrast with 'design and build' there is much less risk for the association but also less direct control which itself brings with it a degree of risk.
- 7.2 While both routes require sound contractual arrangements with professional advisors/contractors etc, the importance of a 'watertight' contract for design and build arrangements was emphasised. Such contracts are being refined and strengthened with more experience of their use.

Identifying development opportunities

- 7.3 Only in those areas where NIHE has identified a need for social rented housing can associations consider undertaking developments. This shapes the range of locations, and hence suitable sites, that associations can look to develop although associations can and do bring sites to the attention of NIHE and then check if there is a need for social rent that a development in this location would meet.
- 7.4 Where an association undertakes some or all of its development programme through 'acquisition and works', it needs to source land in the locations with an identified need for social rent. Sources of land are varied, with the following options mentioned by interviewees:
- surplus public sector land e.g. from an education authority;
 - brought to the association by a private developer (e.g. when they no longer want to develop on that site);
 - similarly sites brought to the association by an agent;
 - sites identified through a review of planning applications in a locality and then followed up with the applicant;
 - by word of mouth;
 - through open market tenders.
- 7.5 Where an association is in competition for a site with a developer, it is understood that the association will usually be 'outbid'. The private sector is seen not to have to meet the same standards as associations and to have a different appetite for risk and is therefore willing to pay more for the land. Associations can also feel at a disadvantage competing for land because of possible delays in the bidding process; associations have to seek the necessary internal approvals which takes time.

- 7.6 Competition with the private sector is more likely in the more pressured markets (such as Belfast) and was said by several interviewees to be on the increase in these locations. Associations therefore often settle on more 'difficult' and complex sites – often brownfield and ex industrial with the associated additional (abnormal) development costs and that will impact on scheme viability.
- 7.7 Associations will look to develop long-term relationships with agents/developers etc so that potential development sites that meet their needs will more likely be brought to them but the overall picture is that associations have to be very proactive to find sites that are suitable for their development and coincide with need for social rented housing identified by NIHE.
- 7.8 Securing land for development was identified as, "... *the most difficult part of the process*" and the interviews implied that considerable time and effort was needed to source suitable land for development.
- 7.9 Some of the (larger) associations have built up and hold land banks in areas of known need for social rent providing, say, up to five years supply of development land for them. This may be part of an overall strategy and/or because of specific opportunities. For example, where there is need for a certain number of dwellings now but the site available is larger than required and the association judges that there will be need for the surplus land at a later date. The association decides to purchase the whole site and that part not developed now is added to their land bank.
- 7.10 Across the board, the associations noted that land for housing was becoming scarcer although no specific reasons for this were identified although a comment was made by one association that the previous supply of sites made available following bankruptcy of a private developer, following the market crash of a decade before, had now dried up.
- 7.11 With the land, design and build route, the association puts out a tender for a scheme of X dwellings in location Y and relies on there being a developer/landowner with a suitable site they can bring to the association, with the effort and risk to identify sites thus passed to the private sector. However, this doesn't mean land supply issues are entirely overcome as several interviewees commented on the limited options (perhaps just one or two) brought to the association when they called for land, design and build proposals. Sometimes these schemes, already designed and with a planning permission, may not meet all the requirements for social rent set out in the Development Guide and some aspects may need to be redesigned and an amended planning permission sought. Changes to the design were typically to meet Lifetime Homes requirements. The relative merits of the two routes were summarised by one interviewee as:
- "Land design & build de-risks the development and gives the certainty of a fixed price contract but does not speed things up. It is usually more complex to get schemes through procurement than for (one of our) own schemes."*
- 7.12 Reflecting the scale of their stock and development programmes, development teams vary significantly in size between associations. Teams of about 15 to 20 professionals are found in the larger associations but associations with smaller programmes have much smaller development

teams to manage the development process, including sourcing land and overseeing contracts and the development itself. Development teams of around two to five full time equivalents were indicated by some interviewees and these smaller teams are one reason why the use of land, design and build contracts are attractive; once a suitable site and scheme are identified (via a tender process) there is less risk downstream and the cost of the scheme is known upfront.

- 7.13 The associations with large development programmes have much larger teams and can dedicate resources specifically to sourcing land.

The planning process

- 7.14 Planning delays mentioned in the interviews were mainly in connection with the need to amend an existing permission to deal with schemes taken through the land, design and build route which needed to meet Lifetime Homes requirements. Otherwise, the planning process itself was not said generally to be the cause of delays but with exceptions where delays in obtaining a planning approval were said to be having an adverse impact on costs.
- 7.15 Furthermore, there are signals that planning departments are asking for more from proposals for social rented housing whether as part of the application process (e.g. for physical surveys in support of the application) or as changes to the design (e.g. additional landscaping to the front of the new homes to improve the street scene). These extra costs would not be reflected in an increase in the grant available).
- 7.16 Planning obligations may be sought from social rented housing schemes, with obligations varying by local authority and scheme and not required on smaller schemes (typically under 50 units). Examples mentioned of obligations were provision of play areas and/or MUGAs (the most common type of obligation) and season tickets for public transport. The cost of any planning obligation has to be absorbed by the developing association.
- 7.17 The main complaint from associations is about problems with the provision of essential infrastructure and, in particular, the service delivered by Northern Ireland Water. A lack of capacity in the network can hold up obtaining planning permission and/or lead to the association bearing the cost of a temporary (waste management) system.

Community consultation

- 7.18 As part of the planning process, it is a requirement to consult with the local community for all schemes of 50 or more dwellings. In addition, the Development Guide sets out a requirement that housing associations must, “...*consult with prospective neighbours to provide them with details of social housing proposals...*”. The Guide sets out seven consultation criteria, with further guidance in a code of practice. The research also identified that individual associations may supplement these requirements with its own procedures – focusing on relationships with those living nearest the proposed scheme.
- 7.19 While the consultation process does take time and effort, it is said generally to, “.....*help build up positive relationships with neighbours and minimises objections to schemes later on.*” However, the process can be less positive when it becomes essentially a consultation on who lives in the new homes. And it was pointed out that the requirements of the Guide would not be something the private sector would need to follow.

Sourcing professional advisors and contractors

Acquisition and works

- 7.20 With the ‘traditional route’ of acquisition and works, the association has to source all the professional services it requires and a contractor to undertake the build work itself. There is a variety of ways in which associations identify their design team and associated professionals (such as planners, cost consultants and project managers) noted in the research and which were:
- Use of an in-house team;
 - On a scheme by scheme and profession by profession basis via a competitive tender (with a separate architect and cost consultant to ensure a cost efficient specification for the development and effective cost management – the cost consultant could be separately appointed or be an in-house officer);
 - Appointing, via a scheme by scheme competition, an architect led team to lead the full range of professionals.
- 7.21 No single approach to the appointment of the professional team appears dominant. However, it was acknowledged that, however appointed, there is a limited pool of professionals available to undertake the work for the associations. This was said to have the advantage that these are experienced organisations that understand the social rent development process and the required standards.
- “(We) only work with contractors that can meet these standards - this drives up the standards of new homes and puts architects at the heart of the process”.*
- 7.22 On the other hand, this does mean there is less competition and innovation (and potentially higher costs) although architects were said to be ‘efficiently priced’ or even that prices were being driven down:

“We see ‘the same old faces’ as the pool is small and they are set up to work on social housing e.g. will only have 2 to 4 architects can approach to tender for work on a scheme ...”

- 7.23 A similar picture emerged about the availability of contractors to undertake the building work with a small pool of contractors that understand the work, meaning there is limited choice and little interest from potential new entrants:

“As there is a small pool of contractors in Northern Ireland bidding for social housing schemes main players have understood and complied with procurement requirements, however this tends to maintain the same contractors and not allow new firms to enter the market.”

“English firms sometimes express interest in entering the market but are almost always put off by the red tape/bureaucracy, making the pool of potential contractors even smaller”

- 7.24 Interestingly we had one comment to the effect that furloughing in response to the Covid-19 pandemic had impacted on availability of professionals and contractors but had also brought in new entrants to the market.
- 7.25 The associations had mixed views and levels of experience on the use of framework agreement, whereby professional and contractors pre-qualify to be on a list of approved organisations and the association can ask a selection of firms from the framework to tender for a specific scheme – with a more limited requirement for information about the business than would otherwise be the case. For those that had set up frameworks, this was seen to streamline the process of appointing consultants and contractors but others argued that the complexity and time invested in setting up the framework in the first place did not justify later time savings in its use. There was no evidence of a trend towards greater use of frameworks in the future – decisions about whether to use frameworks will continue to be made on an organisation by organisation basis.
- 7.26 From the viewpoint of contractors, appreciating that we have the views of a relatively small sample of companies, the use of frameworks was favoured. The contractors pointed out that when they are asked to tender on a contract by contract basis, they have to go through a full process of ‘pre qualifying’ each time, even if they are well known to the association – and may even be currently working on another scheme for the association. This was said to be time consuming and adds to costs. It was understood that associations would need to set up their own frameworks and these would need to be time-limited but, even so, the use of frameworks was the preferred option.
- 7.27 The contractors also thought that the time taken to confirm appointment to a new contract was overly lengthy with an example cited of an association taking a year to announce the outcome of a tender. No views were offered about the reasons for the delays.
- 7.28 Although not directly confirmed by the associations interviewed, this may reflect the decision-making processes for associations, reporting back through their governance structures and to NIHE. The contractors indicated that such delays mean that contractors pursue other contracts and are unable to build up a confirmed pipeline of work and can end up ‘chasing work’.

Other development routes

- 7.29 Fewer comments were made about the other development routes used by the associations, other than the importance of ensuring that development agreements for (land) design and build were well drafted at the outset and that contracts had become tighter with experience.
- 7.30 From the contractors' perspective, the increased use of land, design and build means that, "*more and more of the risk of social housing construction was being passed through to the contractor...*" with issues highlighted around the purchase of sites for development (e.g. dealing with decontamination). Reducing development risk is, of course one of the benefits of this route highlighted by the associations.

Regulation, timing and costs

Complexity and delays

- 7.31 All developing housing associations must adhere to public procurement rules and work within the Social Housing Development Programme (SHDP) - a three year rolling programme split into three individual programme years. The operation of the SHDP is well understood by the associations.
- 7.32 However, a theme across the housing association interviews was the perceived complexity of the process with associations needing to meet the requirements of the SHDP/NIHE and the associations' own governance arrangements. This view was echoed by the contractor workshop.
- 7.33 Housing association interviewees with private sector experience and/or an element of 'market facing' housing in their portfolio were particularly critical and questioned the need for the, "*layers of compliance*" required of them. Examples to illustrate this were:
- The inability of an association to specify a particular type of boiler it wanted used in a new scheme because of procurement rules. It therefore had to construct a complex specification in its tender documents to arrive at the same end;
 - The range of insurances and accreditations required to be sought from contractors;
 - Additional site investigations required to meet due diligence criteria
 - The requirement to use NEC3 contracts for all professional and construction contracts is extremely prescriptive and restricts associations' ability to use professional judgment re contracts to use;
 - Need to adhere to standard construction clauses within contracts limits flexibility to introduce different standards into contracts.
- 7.34 Also mentioned were the need for a number of stages in the grant approval process and seeking approval across a number of departments.
- 7.35 While there is an acceptance that "*the process is what the process is...*" there is a belief, difficult to prove and/or quantify, that the complexity of the process slows down delivery and increases costs. On the latter point, examples were given of land prices increasing due to delays by the

association in getting to a date when they can pay for the land and generally of a much lengthier process to develop social rent housing:

“Compared to developing private housing, the procurement process for social rent takes about three times as long.”

“When developing in the private sector – there is less bureaucracy, greater flexibility about timing of development and less in the way of due diligence. Not arguing that due diligence is not important but there is a difference between the two sectors.”

- 7.36 Contractors consistently reported that the decision making process had become much slower than in the past with award outcomes being notified much later, with resultant impact on workload management. The time and complexity of the process for developing social rent is said to limit the number of contractors willing to enter the market, thus reducing competition for contracts:

“The whole public procurement policy in NI is unnecessary and is limiting interest from contractors from outside NI”

“The process costs time and money. It adds risk through additional time spent on its adherence. Sometimes the way contracts have to be written adds risk.”

- 7.37 However, an alternative view is that social rented schemes, serving the social purpose they do, may have a smoother ride through the planning system and this aspect of the process can be quicker.

Cyclical programme

- 7.38 The programme for applying for grant, securing a development site and starting work is said to be very tight and to mean that associations can be at the same stage in the process, roughly at the same time. The key stages in the annual timetable as described to us are:

- August – submit funding bids
- December – bids signed off by NIHE
- Jan to March – obtaining planning permission (noted a very narrow window)
- April through to Q4 – finalising designs etc and appointing contractors
- Q4 start on site.

- 7.39 The one year timetable is considered to be very tight and associations may have to take a risk with one element of the process to ensure they do not lose out later on and are able to start a scheme within the timetable. Associations perceive that, when they are making a decision to buy a site, there is a risk that funding from the SHDP will not be materialise at the end of the process. Similarly, there may be a need to pay for a full scheme design and specification in advance of obtaining planning permission, which may not be granted or requires amendment. The three month ‘window’ to obtain planning permission was considered to be particularly difficult with planning applications sometimes taking many months to get permission.

- 7.40 Adherence to the timetable means that associations are appointing architects and other professional services and then contractors at similar points in the timetable. This was said to push up costs as contractors can ‘pick and choose’ or even that a scheme may not progress because there is no contractor available who can do the work.
- 7.41 While there was a general understanding amongst interviewees about the SHDP process and how to achieve successful bids for funding, there was a strong call for a multi annual programme and that, for example:

“A rolling 3-year programme would work much better and would mitigate planning risk as well as alleviating the annual time-pressure around 31st March”.

Cyclical programme – experience elsewhere in the UK

- 7.42 Although we did not carry out any interviews with housing associations in other jurisdictions, so have not gathered any direct comment on how well procurement systems work elsewhere, our research suggests that there is more flexibility in other jurisdictions.
- 7.43 In England for example, the Affordable Homes Programme (2021-26)³⁹ is a five-year programme and provides grant funding to support the capital costs of developing affordable housing for rent or sale. There are two routes to access funding:
- i) Scheme by scheme bidding through continuous market engagement (CME) which provides access to grant throughout the duration of the programme, while funding remains available. Under the current programme all schemes funded through CME must have started on site by 30 September 2025 and be completed by 31 March 2026.
 - ii) A multi-year strategic partnership to access grant for a longer-term development programme. A competitive process for partners that can deliver a minimum of 1500 homes, 25% through MMC. For current programme must start on site by the 31 March 2026 and be completed by the 31 March 2028.
- 7.44 In Wales Social Housing Grant is allocated annually based on a formula. Local authorities are responsible for choosing their Housing Association partners, who are paid SHG to develop, own and manage the affordable housing. The SHG programme⁴⁰ is planned over three financial years with Local Authorities given a final confirmed budget for the first year based on the allocation formula and indicative budgets for the following two years.

³⁹ See <https://www.gov.uk/guidance/apply-for-affordable-housing-funding>

⁴⁰ See <https://gov.wales/sites/default/files/publications/2019-11/social-housing-grant-guidance-for-registered-social-landlords-and-local-authorities.pdf>

- 7.45 And in Scotland local authorities prepare a Strategic Housing Investment Plan (SHIP)⁴¹ which sets out the strategic investment priorities for housing over a 5 year period, including specifically affordable housing. This informs government investment decisions. Where grant funding is provided for a scheme, it is through the Affordable Housing Supply Programme (AHSP) on a three-year rolling programme. The grant provider (Scottish Government) aims to issue Programme Agreements to those local authorities and RSLs which request one by the end of May of each year. These will notify grant recipients of their annual grant planning targets over a three-year period.
- 7.46 It should be noted that social / affordable housing is not necessarily grant funded in other jurisdictions with development industry contributing through planning obligations in England, Wales and Scotland.

⁴¹ <https://www.gov.scot/publications/affordable-housing-supply-programme-process-and-procedures-mhdgn-2020-02/>

8 Conclusions and future actions

Overview

- 8.1 In this final chapter of the report we draw together the findings of the research and set out our conclusions as well as recommendations for future action. This chapter uses the original five objectives for the research, to provide a structure for our findings, as well as identifying potential efficiencies in current (social rented) housing delivery that could allow costs to be reduced while maintaining construction and design quality.

Review of design, specification and procurement

Development Guide

- 8.2 A number of design and specification requirements for newbuild social rented housing are set out in the Development Guide and these must be adhered to by developing housing associations as a condition of grant. Some associations supplement the Guide with further in-house guidance but none of the associations we spoke with indicated that they used an alternative standard.
- 8.3 The key requirements the research focused on were, as set out in the Guide, dwelling size, adherence to Lifetime Homes standards, meeting Secured by Design gold standard and energy efficiency standards. As context for our review, it is important to note that the housing associations interviewed were both supportive of the standards and considered that each contributed to the quality of new social rented homes.

Dwelling size

- 8.4 Dwelling sizes prescribed for social rented housing in Northern Ireland are similar to those identified in the other jurisdictions we reviewed, noting that space standards are not prescribed in Scotland and the Republic of Ireland. In England, there is a single space standard for all tenures while Welsh Government has a different standard for social rented units. The size of dwellings on its own is not a major issue for the housing associations we interviewed although the size of the second bedroom in two bedroom units is thought to be on the margins of acceptability – with the impact of recent ‘lock downs’ and increased home-working for adults and children showcasing this further.
- 8.5 Our analysis of the size of market dwellings indicated that they are not systematically smaller than social rented units. It can be argued that the private sector utilises space differently in response to purchaser expectations with space devoted to, for example, en suites and utility rooms which is not seen to offer value for money in social rented housing. However, this does not affect the overall build costs and we have concluded that the dwelling size of social rented units is unlikely to affect the overall build costs on a like for like basis.

Lifetime Homes

- 8.6 The adherence to Lifetime Homes standards can have a significant impact on the design of newbuild social rented housing and this sets social rented units apart from market facing development, which does not follow these standards. The mandatory use of Lifetime Homes for social rent housing is unique to Northern Ireland, although similar standards apply in Wales and Scotland. In England, Lifetime Homes has been replaced by Part M of the Building Regulations, which is applicable to all new housing but does not mandate Lifetime Homes. However, the government is currently consulting on updating the Building Regulations so that a standard very similar to Lifetime Homes would apply to all new housing in England.
- 8.7 This reflects secondary research that highlights the benefits of Lifetime Homes for its residents. For example, the health benefits of housing built to Lifetime Homes standards in England are set out in a report by the Department for Communities and Local Government (DCLG) and the Buildings Research Establishment (BRE)⁴². This used a quantitative model to estimate health costs direct to the NHS or to society as a whole from building-related hazards (physiological, infection and accidents). The then current Building Regulations as well as LTH standards were assessed to gauge how they would reduce these hazards and their associated costs. The report concluded that:
- The changes in the then current Building Regulations had the biggest cost savings (£4,000/dwelling over 60 years saving to the NHS and £83,000 saving to society)
 - LTH standards provided up to an additional £700/dwelling saving to the NHS and £8,600 saving to society.
- 8.8 Generally, the adherence to Lifetime Homes is considered, by social landlords in Northern Ireland, to be of value to residents; in theory allowing tenants to stay in their homes over the long term. But it does have its critics, especially in designing suitable solutions within the dwelling size standards; a problem that is more acute with the smaller (1 and 2 bed) units. Providing additional space at entry level for a future shower takes up a relatively large amount of the ground floor in houses. In addition to providing for a future stairlift and/or through-lift, this becomes a 'jigsaw' for housing associations and their architects to solve. In practice, tenants use the space allowed for a future shower (usually within a large WC), for storage. In Scotland, some of the criticism of the requirement for a downstairs shower have been overcome by designing in the space as storage, with a separate access but capable of being converted into a WC/shower simply by removal of a demountable partition. The practice in Scotland would seem one that is worth replicating in Northern Ireland.

⁴² DCLG/BRE, 2012, Assessing the health benefits of Lifetime Homes - http://data.parliament.uk/DepositedPapers/Files/DEP2012-1192/HealthBenefitsLifetimeHomes_final.pdf

- 8.9 Information provided by NIHE indicated that vertical through-lifts, stair lifts and showers have been installed in both LTH and non LTHs. From the information made available, it is difficult to conclude whether the provision of LTHs makes it easier to achieve necessary adaptations or not and it is noteworthy that a significant scale of adaptations has been achieved in other property types.
- 8.10 It is therefore very difficult to comment on whether adhering to this standard offers value for money. In any case, we did not find a consistent estimate of the additional Day 1 costs of meeting Lifetime Homes standards. The cost estimates varied from 'marginal' to (the view of the contractors' workshop) of £2,000 to £5,000 per unit (which was our own expert assessment). Where an association has used some form of design and build contract with a single price per unit, it has proved difficult to isolate the costs of meeting the Lifetime Homes standards.
- 8.11 There is also the issue that adaptations made during construction usually attract a lower grant than when made after completion of a dwelling. It was not possible to explore this apparent funding inconsistency in detail but it would seem an issue worth further investigation by NIHE to test the value for money of the difference in approach.

Secured by Design

- 8.12 Achieving Secured by Design Gold Standard is essentially 'built in' to the design process and is not a major issue for associations although there can be delays if PSNI are not readily available to review and 'sign off' schemes as they go through the planning process. There may be some additional costs providing enhanced window/door locks and entry phone systems, CCTV etc in apartment blocks but the former are likely already 'built into' build costs and the latter, will be something the private sector will also provide because the market will expect that level of security, as confirmed by relevant consultees. However, at a generous estimate, perhaps another £1,500 per apartment, would be the additional costs of achieving Secured by Design.⁴³

Energy efficiency

- 8.13 Social rented housing is meeting Building Regulations in terms of energy efficiency and SAP ratings. We have not made a detailed technical comparison of the standards in Northern Ireland with those of the comparison jurisdictions but note that the Building Regulations (or their equivalent) in the comparator jurisdictions have been updated since the last update in Northern Ireland. We are aware that Building Regulations in NI are currently under review. At the time of writing the Department of Finance (DoF) is consulting on the uplift to standards of Part F of the Building Regulations. The consultation proposals are intended as an interim step and to provide a more robust application of Regulation 43B (Nearly zero-energy requirements for new buildings). Consultation closes on 19th December 2021.

⁴³ These comments were based on consultation with a number of cost consultants working across the private and social housing sectors

- 8.14 Very little use has been made for social rented housing of the Energy Efficiency Multiplier, with associations being unclear whether additional funding through the Multiplier would cover additional costs of an enhanced standard in their scheme(s). However, there is clearly an appetite for higher energy standards that both reduce carbon emissions and improve the comfort levels and costs for residents and an expectation that new standards will be introduced shortly, through revised Building Regulations. From the associations' perspective, it will be important that enhanced standards go hand in hand with additional grant to reflect the extra costs as well as guidance to help achieve the new standards. Research indicates that the cost of meeting higher standards of energy efficiency at build stage is cheaper than retrofitting houses to improve standards later.

Additional costs

- 8.15 It has not proved possible to compare directly the overall build costs for social rented housing with that of equivalent market properties. Qualitative comments from housing associations and cost consultants with experience of both sectors suggested that the costs of social rented housing provision are higher. The contractor workshop criticised some housing associations for adding to costs by the use of higher spec materials and/or design features. On the other hand, the private sector is said to include more white goods and floor covering throughout new units so that they are 'turnkey' when they are first occupied. Housing Associations meanwhile justified 'higher' material specification citing that this reduced maintenance and replacement costs over the lifecycle of the property given that they take a longer term view on the build specification than the private sector.
- 8.16 Comments from the housing associations indicated that build costs for social rented housing are of the order of £1,060 per sq m GIA for houses and £1,450 for flats with external plot and site costs adding another 25/30% to the build costs for houses and about 20% for apartments – taking the total costs to around £1,350 per sq m for houses and £1,740 for flats. These costs were confirmed by the cost consultants that we interviewed – who indicated that build costs for social rented housing were £1,300.00 to £1,350.00 per square metre. The cost consultants indicated that these costs are up to 30% more expensive than in the speculative sector. A similar difference in costs was quoted for apartments.
- 8.17 Reasons for the variance in cost offered by the cost consultants (and housing associations with relevant experience) focused on the type of site available to housing associations - which are often brownfield sites with associated higher costs and/or are sites of a very irregular shape that are less efficient to develop. Other reasons for the differences put forward included design costs (such as specification of higher cost materials) and the development procurement process for social rented housing.
- 8.18 The costs identified for social rented housing are significantly higher than indicated by the BCIS data for Northern Ireland. We recognise that BCIS relies on a limited sample from Northern Ireland and are not suggesting that the BCIS data properly represents build costs, although it does suggest that costs of developing social rented housing are higher than found in the market.

We argue that this gap in the available information needs to be addressed by government and that DfC/NIHE should work with BCIS to develop more robust publicly available build cost information so that the question of relative costs can be properly evaluated rather than referencing anecdotal information.

- 8.19 In terms of the direct costs of meeting standards in the Development Guide, meeting Lifetime Homes perhaps adds up to £5,000 per dwelling and Secured by Design another £1,500 for apartments but both figures are at the upper end of the range of additional costs for these items that we identified.

Value for Money

- 8.20 As already noted, it has proved difficult to comment directly on whether the current standards offer value for money to the public purse. The associations were clear that the quality of social rented housing exceeds that in the market and provide much better accommodation for tenants which tenants can be proud of and which helps in fostering commitment to their home and area. The contractors argued that it was no longer the case that market housing was of a lower standard and that the Building Regulations ensure the quality of all new homes. Housing association interviewees also pointed out that local housebuilders have their reputations to maintain and so also take care of the quality of their market product.
- 8.21 'Quality' is, in any case, difficult to compare. Which is better – a new house with painted walls, floor coverings throughout, more white goods and a utility room versus a property with more 'living' space, easy access and the capability to provide for the needs of an increasingly immobile occupant?
- 8.22 The study specification asks for recommendations for potential ways to improve value for money without reducing quality. One option could be to make greater use of standard house types as the development industry does. This is not an option the associations favour, wanting to ensure their schemes reflect local needs and the character and the setting of each development. However, in practice, notional standard house types emerge by default. This reflects the limited number of options available in meeting the combination of standards in the Development Guide – notably Lifetime Homes and space standards – and the limited number of architects and contractors in the market. This leads us to conclude that standardising house types would not add greatly to efficiency and could do harm by clearly demarking social rented housing simply by its external appearance.
- 8.23 Achieving larger social rented developments would seem to offer better value for money as this reduces costs without reducing quality. The data demonstrates that schemes of less than 10 dwellings are more expensive to build and there is some evidence that there are further reductions in costs at schemes of more than 20 dwellings. In some locations, larger schemes would neither fit with the local context or meet a local need. However, the evidence indicates that focusing on fewer larger schemes could offer better value for money.

- 8.24 It is recognised that housing association scheme costs are set by the relevant TCIs but that; as stated in the Development Guide, “...Associations gain financially on some schemes which in turn subsidises more expensive schemes.” TCIs should not therefore be viewed as a ‘target cost’ for every scheme and that some schemes, reflecting their specific circumstances, will exceed their TCI. Nevertheless, some incentive for associations to offer value for money in their scheme costs should be investigated. However this is achieved, it would need to recognise that exceeding TCI does not necessarily indicate that a housing association is being inefficient.

Other development issues.

- 8.25 The different ‘routes’ by which associations secure social rented housing provide choice for associations and diversification of procurement which is welcomed by the associations. There are trade-offs to be made between the full oversight achieved through the ‘traditional’ acquisition and works route and the use of packaged ‘land, design and build’ contracts. The latter approach passes most of the risk onto the private contractor, but the association has less direct input and relies on a comprehensive contract at Day 1 that achieves all the standards it requires.
- 8.26 It is not clear from the research how associations make the choices they do and whether one route rather than another offers better value for money.
- 8.27 Whichever route is used, a number of points about the system by which affordable housing is delivered have been raised through the research. Identifying land for development remains an issue for associations but without an obvious ready solution and it seems likely that associations will have to develop on sites that the market does not take up. This has implications for development costs.
- 8.28 While the associations understand how the SHDP operates, the associations, cost consultants and contractors’ workshops all highlighted the degree of oversight and checks through the process which takes up time and resources and, implicitly, adds to costs.
- 8.29 There is said to be a limited pool of professional advisers and contractors who understand the system and are willing to develop social rented housing. On the one hand this means that associations are working with knowledgeable, experienced organisations but the system deters new entrants and restricts competition with an implied upward pressure on costs.
- 8.30 The annual programme cycle of the SHDP is said to exacerbate this and that associations are both appointing professional advisers and contractors at similar times with consequent impact on availability and again on competition.
- 8.31 The cost consultants suggested that smaller developments, with a correspondingly lower value, should be dealt with separately to open up the opportunity to bid for such schemes by smaller contractors looking to establish themselves in the sector and grow and develop their business and experience.

8.32 Housing associations also have to work within the planning system to obtain permission for their new developments. The current timelines for securing planning consent, particularly for major applications, adversely impinges upon housing delivery in Northern Ireland. Moreover, even minor revisions to planning permissions can take several weeks and hold up individual schemes for example when an association has to submit a revised scheme which it wants to take up using the 'Competitive Land, Design and Build' route but which has a planning permission in place that does not conform to the Development Guide.

Recommendations

8.33 The Development Guide serves a very useful purpose and the standards it contains are well respected. Future changes we recommend are:

- On Lifetime Homes - More emphasis is given to planning and designing in adaptive options for more effective use of space assigned for a future shower at access level;
- On Lifetime Homes – Information is collected systematically on the cost and frequency that showers are installed in the allotted space and/or other alterations are made to social rented housing to meet the changed needs of occupants;
- A detailed review of the size of smaller units and specifically that of second bedrooms – including consideration of any emerging evidence of longer term working and education trends and the need for spaces to 'work/school from home';
- A greater role for those that manage social rented housing in dwelling design and scheme layout which should be evidenced and taken into account through the grant approval process;
- When the Building Regulations are updated – energy efficiency standards will need to be described in full and guidance provided on options for achieving the updated standard. We are not recommending an extension of the Energy Efficiency Multiplier when the new Building Regulations are available – other than the potential to use the Multiplier for pilot/demonstration schemes that showcase a particular approach to achieving the new Building Regulations.

8.34 We are recommending that the development routes currently available are retained. However, the SHDP process has some unintended consequences and potentially puts up development costs. This study could only touch on these issues and we are recommending a more systematic review which considers which steps in the process could be culled or simplified without the loss of essential controls. Such a review should include:

- Moving away from a single year programme to a two or three year programme, designed to increase competition for professional services and development contractors with associated efficiencies and cost reductions;
- A review of the option that smaller developments, with a correspondingly lower value, should be dealt with separately to open up the opportunity to bid for such schemes to a wider range of (smaller) contractors; greater use made of pre-qualification procedures to minimise the time taken (by the associations) to produce tender documents and (by tenderers) to set out basic information already known to the association; this can include the use of framework agreements and relates to both professional services and development contractors;

- Consideration of setting out the maximum time by which associations must notify tenderers of the outcome of a tender process, thus providing greater certainty to contractors of their flow of work (with provision to review the timetable for all tenderers if there are delays in the process, for example, while planning permission is obtained);
- Greater transparency about build and other development costs across the sector and how these compare with those of the private sector (see also below);
- Consideration of options to advantage associations that produce schemes that are below relevant TCI costs – but such an approach must ensure no dip in quality and that schemes comply with Building Regulations and the Development Guide.

8.35 Such a review should also consider how the programme could include a higher percentage of larger schemes that both meet local need and achieve sufficient scale of development to keep down costs.

8.36 Finally, the lack of information on build costs across all tenures in Northern Ireland makes it very difficult to compare costs in the social rented sector with those of private housebuilding or costs elsewhere in the UK and then to comment on value for money issues. It would be very useful for NIHE/DfC to address this issue, working with local costs consultants and, possibly, BCIS in the first instance.

Appendix A – Literature list

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<https://gov.wales/sites/default/files/publications/2019-11/social-housing-grant-guidance-for-registered-social-landlords-and-local-authorities.pdf>

<https://www.gov.scot/publications/affordable-housing-supply-programme-process-and-procedures-mhdgn-2020-02/>

DCLG/BRE, 2012, Assessing the health benefits of Lifetime Homes

http://data.parliament.uk/DepositedPapers/Files/DEP2012-1192/HealthBenefitsLifetimeHomes_final.pdf

Appendix B – interview discussion agendas

Housing association interviews

Note that NIFHA assisted with setting up the interviews so initial contact by the research team with interviewees was to arrange date/time for the discussions. Interviews were mainly held by video conference.

Pre meeting guide sent to interviewees

1. Scale of building programme – social rent and (if relevant) affordable and market housing
2. Location and types of social rented schemes developed
3. Use of standards – as per the Development Guide or to a higher standard.
4. Space standards and relationship with Lifetime Homes standards.
5. Operation of, and other costs, associated with LTH standards
6. Energy efficiency standards operated and reasons for this
7. Impact of Secured by Design requirements on designs and layouts and any associated costs
8. Use of standard house/flat types – advantages/drawbacks
9. Sourcing land for development – approach and any issues/costs
10. Typical build costs and plot costs (and impact on costs of the standards required for social housing)
11. Range of professional activities required and approx. fees allowed for.
12. How social housing is developed and any issues associated with the procurement route and NI public procurement policy
13. Quality of social rented versus market housing
14. Any other comments

Interview discussion agenda

Background

1. In a typical year – say over the last 3 to 5 years – how much new build development have you undertaken? Is this all social rent or includes affordable housing or other market products – what sort of balance?
2. For developments you undertake - what sort of social rented schemes have you been developing – site size in dwelling nos, dwelling types (predominately apartments, all houses, mix of the two etc)
3. In which areas do you mainly undertake development? Would you say you developed in mainly urban or rural parts of NI or a mixture? And roughly what % of your developments are on brownfield or on greenfield sites?
4. Do you ever purchase completed units direct from developers i.e. off the shelf development and, if so – what volume of units and in what circumstances?

5. Do you ever develop properties for sale on the open market e.g. through a separate company? How much/what sort/reason for/where?
6. Do you ever develop outside NI (where and how much)? If yes, see also later

Operation of standards

7. Does your organisation operate its own standards that you would consider to be higher than the Housing Association Development Guide (DfC) or Building Regs? What are these? Why does your organisation do this? Can you give specific examples?
8. And for outside facilities – what facilities does the social housing development typically include:
 - Parking/paths/patio– car port (for wheelchair adapted homes) – EV charging
 - Garden planted to what specification
 - Shed/drier
 - Boundary fencing/walls/railings
 - Landscaping (generally)

Space standards

9. What space standards do you build to and does this vary by tenure (If develop affordable or market housing)? What space standards (dwelling sizes) do you build to? If not DfC – which standards do you use and what are your reasons for this?

Lifetime Homes

10. Do you consider that the DfC space standards set out in the Development Guide are adequate to meet LTH requirements? If not, what are the issues? How do you resolve these – please can you illustrate this with some examples?
11. Putting aside the issue of space, what additional requirements does building to LTH standards entail - for things such as additional path width, strengthened ceilings for (future) hoists in bathrooms, need for toughened glass to deal with low cill heights?
12. Do you have an estimate of the extra costs of these items – if possible on an item by item basis or an overall figure? Does this vary with type of unit? If no estimate is available - our analysis shows that the additional costs of building to LTH standards are about c£5,000 per dwelling – how reliable an estimate do you think this is – and why do you say this?
13. (If develop affordable or market housing) - Do you follow the Lifetime Homes Standards or use a different standard? If so – why is this?

Energy efficiency standards

14. Do you operate standards above those of building regs – excluding the Energy Efficiency Multiplier?
15. If different - What are these standards? Why do you use them? What, if any, additional build costs (on a sq m basis) do you think this leads to and can you help with some specific examples?
16. Do you make use of the DfC's Energy Efficiency Multiplier (*see interviewer note at the end of the questionnaire*)?
 - If no – why is this? Is your decision associated with the extra over costs of the standards?

- If yes – what do you see as the benefits of doing so? Do you make use of the higher standards across all your new homes or just a proportion? Why is this? Do you have an estimate of the additional costs of using the multiplier (on a sq m basis)? Do you consider the extra grant is sufficient to meet the extra costs?

Secured by design

17. What impact does Secured by Design requirements have on designs and layouts – please can you help with specific examples? We are thinking both of the housing itself ⁴⁴and external spaces.
18. Can you deliver SbD within normal development costs? If there are 'extra over' costs – what are these for and how much per unit do they involve. Again – examples here would be very helpful.

Other development issues

19. For those that purchase units direct from developers (off the shelf) – how does this work with regards the standards we have just been looking at? Do you have to retrofit?
20. (For social rent newbuild) Do you have a standard range of house/apartment designs that you use when developing?
 - If so – what advantages to this approach? Are there circumstances when you are unable to use your standard range – what are these? How does it impact on development costs?
 - If not – what are the reasons for this? Do you have any views on the impact of standard ranges on costs?
21. How do you source land for your developments?
22. Are there difficulties finding suitable sites for new schemes? Explore for:
 - Competition from other development;
 - Tend to be left with poorer quality sites e.g. i.e. more abnormals – ground conditions, contamination, demolitions, sloping sites
23. Do requirements for consultations add cost or affect chances of getting approvals? See <https://www.communities-ni.gov.uk/consultation-scheme-approval>

Cost of development

24. Do you have a view about typical build costs (sub+superstructure) for **houses** at the moment – on a per sq m basis e.g. thinking of recent tenders? Does this vary with development type or location? If so – in what way?
25. As above for **flats** - and what sort of storey heights are we talking about here?
26. What rule of thumb do you have for external works? (e.g. 10-15% of build costs). External works include fencing/driveways within the curtilage and an allowance for site access/roads/pavements/cycleways/footpaths, landscaping. Does this figure include the costs of utility provision to the site e.g. water/waste water?
27. What allowances do you make for professional fees? As a % of development costs (build and external) – e.g. 8%?

⁴⁴ E.g. composite front doors

28. Do you consider, in comparison with developing affordable/market housing – that there are other obligations and/or additional costs you have to meet (e.g. the admin process, use of NEC contract, tendering, meetings, compliance with standards, compliance with procurement regulations, consultations, etc?) Can you give an estimate of how these activities translate into costs and which have the greatest impact?
29. Are planning obligations typically required by the local authority? For what sort of items? Is there a typical figure or do you find there is a range of costs – and what is this – as £/dwelling?
30. Of the standards we have discussed (Space, LTH, carbon reduction and SbD), which do you think represent value for money for your organisation as a landlord? And which standards are of most benefit for residents?

Procurement

31. Very approximately- how many people (FTE if possible) do you have in your development team?
32. Which procurement routes do you normally use and the reasons behind your choice? E.g. design and build, contractors' framework, through agreement with market developer on-site, as project managers (marrying up architects and contractors)
33. (As appropriate) How competitive is the market for i) professional services e.g. architects ii) contractors? For example – number of tenders you receive for recent contracts you put to the market.
34. Do you consider that the level of competitiveness amongst contractors is having an impact on development costs? If so – in what way? And can you provide any specific examples to illustrate this?
35. Do you have any other comments on the impact of complying with NI Public Procurement Policy on your activities and on your costs – such as :
 - admin, legal
 - use of NEC
 - social clauses
 - construction registration
 - 3rd party H and S
 - accreditation

Comparison with private sector housing development

36. From what you know, do you build to different space/quality/environmental standards or specification than typical private sector developments? Following as items for discussion if required:
 - External finishes (e.g. materials for roofs/walls)
 - Standard of kitchen and bathrooms? (materials used and provision of white goods in kitchens)
 - Type of heating system provided
 - Floor coverings?
 - Turnkey finish
 - Rainwater goods e.g. seamless guttering
37. Do you believe that you typically pay the same build and site costs on a like for like basis as the private sector? If not, what do you think are the main differences and reasons for these?

38. On a like for like basis- do you consider that social housing takes longer to develop than market housing – if so, why is this? What impact on the costs of finance for associations?
39. Overall, do you think there is more emphasis on design quality in social housing – and on which aspects?
40. If yes to Q6 (i.e. the HA develops outside NI or has knowledge of development approach in other parts of the UK) - what is done differently/better in other jurisdictions and are there things that can be learned?

Funding

41. Does the (SHDP) development programme process have any impact on development costs? If yes – what are the reasons for this?
42. If you were able to spend more money on new social housing development, where would you focus it (e.g. more units, bigger schemes, higher quality homes)

AOB

43. Are there any other comments you want to make about the way standards being operated affect development costs?

Thank you and please can I reassure you that the information you have provided will be treated in confidence and not disclosed outside the research team, other than in a composite form where individual views cannot be identified.

Cost consultant interviews – introductory email and discussion agenda

Dear X

I am writing to ask for your assistance with the above study which is being sponsored jointly by NIHE and DfC.

The main objectives of the study are to, in brief:

1. Review the standard of design, specification and procurement of new build social housing in Northern Ireland (including intermediate i.e. shared ownership housing);
2. To estimate the additional cost resulting from key differences in design, specification and standards vis-a-viz private sector housing; and
3. To consider whether the higher design standards for social housing provide value for money and recommend potential areas for improved value for money – primarily from the viewpoint of the public purse.

This research is focusing specifically on new social rented housing schemes, their costs and how new development is procured. These are the issues I should like to talk through with you and hope you are able to share information about costs in the market at the moment. I am not looking for data specific to individual schemes although this would be helpful if it provides a useful illustration of specific points.

We understand that your practice provides cost management services to housing associations in Northern Ireland for the construction of new housing developments- but please let us know if this is not the case and we will not take up any more of your time.

But if you can help, I hope that you will be take part in the research, either by phone or as a virtual meeting. The interview will take around 20 minutes and a copy of the questionnaire will be provided in advance to assist with preparation for our discussions.

The interviews will be undertaken by myself, Gervase Cunningham from Ulster University, and will be in strict confidence and the information you provide will be shared only within the research team (comprising Ulster University and Three Dragons). Your views will be incorporated into our final report in such a way that individual comments or organisational approaches will not be identifiable. Interview notes will not be included in the report.

I hope that you will be able to take part in the research and look forward to hearing from you. If you have any questions about the research, please contact me at XXXXXXXXXXXX

And the questions:

1. What is the cost per m2 for general housing on such schemes? And how does this compare with the cost for similar market properties?
2. What is included in this cost per m2:
 - Professional fees?
 - Preliminaries?
 - Substructure?
 - Fit-out of dwelling?
3. How are the costs for external works (roads, pavings, landscaping, boundary walls, main drainage to the development etc) taken into consideration:
 - As part of the dwelling cost per m2?
 - As a percentage of the dwelling build cost?
 - As a lump sum addition per unit/dwelling?
4. What is the cost per m2 for wheelchair accessible housing in comparison to general housing?
5. What is the cost per m2 for flats/apartments in comparison to general housing? Again, how does this compare with the cost for similar market properties?
6. Does this rate vary depending on location within Northern Ireland and if so please provide indicative costs per m2?
7. Does the method of procurement, design and build in comparison to traditional procurement have an impact on the cost per m2?
8. What other factors can specifically impact on cost per m2 of social housing in comparison to speculative housing developments?
9. What are the professional fees for providing cost management services on such projects as a percentage of the projected/actual construction cost?
10. Are there any aspects of the process of undertaking work for housing associations in Northern Ireland that you consider adds to your time and costs and if so what sort of things would you highlight?
11. Are there specific aspects of the procurement and cost management process you would like to see changed and if so what would these be?
12. Does your consultancy provide cost consultancy services on speculative housing developments for contractors (specifically focussed on first time buyer i.e. similar to social housing)?

Thank you for your time and taking part in the research

Appendix C - Additional Lifetime Homes Standards from DfC

LTH Ref:	Lifetime Homes (LTH) - Additional DfC Requirements
1b	A percentage (ideally not less than 25%) of any communal car parking spaces adjacent to the home or within a secure compound / basement should be capable of enlargement to attain a 3.3m width.
3	A level area (1200x1200mm min) should be provided at the main entrances. (Where it is to assist the removal of surface water, a small gradient of $\leq 1:40$ is acceptable in addition to the drainage channel). DfC requires level or gentle sloping approach to all LTH units.
5	Doors to bathrooms and WCs should be outward opening and be fitted with special locks openable from the outside.
7	There should also be space for turning a wheelchair in a kitchen.
8	The wheelchair accessible entrance level WC criteria for 'dwellings of three or more bedrooms' should also apply to two bedroom accommodation.
10	<p>There should be drainage and service provision enabling a shower to be fitted in the future. The future shower provision should be in addition to a bath. In the case of a one person/bed-sit or one person/one bedroom accommodation the bath/shower space can be combined.</p> <p>In order to minimise potential adaptation costs, DfC requires the Associations to identify a minimum 1300 x 800mm unobstructed shower space and install a level deck floor former at construction stage. This area can also function as the transfer space to the WC and must not be compromised if/when a shower is required at a future time (See further note below).</p>
12a	The design should incorporate a straight-flight, dog-leg or 'L' shaped stairs with adequate space top and bottom for chair parking provision for a future stair lift.
12b	DfC requires that there is no compromise to the occupancy of the unit with the installation of a through the floor lift.
16	Gas/electricity meters and automatic heating system controls should be fully accessible. External gas/electricity meters should be mounted between 700mm and 1000mm above ground level, and boiler timer controls and thermostats should be located between 900mm and 1200mm above finished floor level.
	Note:
	<p>In 3 storey houses only the ground and first floors need comply with Lifetime Homes criteria.</p> <p>Where required, the choice of shower enclosure needs careful consideration. Associations must ensure that when not in use, the enclosure doors fold back into a position where they do not obstruct the clear lateral transfer space at the WC.</p>

Appendix D – Comparison of Standards across other Jurisdictions

Wales - has separate guidance/standards for SR – tied to grant

Standard	Social Housing (Under review)*	Open Market Housing	Cost Implications
Space	<div> <div>ACG</div> <div> 2b 3p flat 58 sq m 3b 5p house 94 sq m </div> </div> <div> <div>Proposed</div> <div> 58 sq m 93 sq m </div> </div>	Building Regs – 1-3 bed units likely smaller, but 4 and 5 bed units larger	Varies by size dwelling
Lifetime Homes	Yes – wherever possible	Building Regs	Depends
Energy	Building Regs (Under review)* See note below.	Building Regs	Yes – but limited
Secured by Design	Requires SBD gold standard		
Other standards	Sprinklers	Sprinklers	N/a
In the offing	Beautiful Homes and Spaces – consulting various upgrades to standards	Energy standards – under review	

* A report designed to set new quality requirements for social housing in Wales centred on flexibility, space and sustainability has launched. 'Welsh Development Quality Requirements 2021 (WDQR2021) sets out a new standard for affordable homes funded by Welsh Government. It promotes low carbon designs, as well as moving away from fossil fuels for domestic heating and hot water systems. The standard will come into force from 1 October 2021. (<https://www.insidermedia.com/news/wales/welsh-social-housing-standards-report-launches>)

With regards energy it includes (NB. our EEM specifies SAP Band A also):

- 'New homes must meet energy and decarbonisation requirements which consists of: Achieving EPC A (SAP92 or greater) through the minimum fabric standard set out in "Appendix E" – Elemental specification for the DER/TER, within the Building Regulations Approved Document Part L Wales 2020 and by not using fossil fuel fired boilers to provide domestic hot water and space heating.'

Scotland

Standard	Social Housing	Open Market Housing	Cost Implications
Space	Scottish Building Regulations do not set requirements for minimum dwelling sizes. They do set minimum sizes for the main living area, apartments, kitchens and accessible sanitary accommodation and circulation areas.	Building Regs	None
Lifetime Homes	Yes – wherever possible. Lifetime Homes and wheelchair accessible housing principles were revised in 2010, however the principles remain largely unchanged, Current standard derived from 'Housing for Varying Needs' and the Lifetime Homes concept developed by the Joseph Rowntree Foundation.	Building Regs	Varies significantly depending on property type.
Energy	The Energy Efficiency Standard for Social Housing (ESSH). Minimum SAP rating (SAP2012) apply.	Buildings Regs Support via the Energy Efficient Scotland Programme.	Varies depending on source of energy and type of dwelling.
Secured by Design	Yes, this is promoted strongly.	Building Regs	Varies significantly depending on property type.
Other standards	Some LAs (Glasgow for example give minimum space requirements.		
In the offing	ESSH2 Consultation currently ongoing		

England – some standards depend on local authority planning policies

Standard	Social Housing	Open Market Housing	Cost Implications
Space	Nationally Described Space Standards (NDSS) See also Appendix E – but only if the local planning authority adopts the NDSS through policy 2b 3p flat – 61 sq m 3b 5p house – 93 sq m Otherwise Building Regs	Same	None
Lifetime Homes	Accessibility - Building Regs part M sets 3 standards but only M4(1) mandatory – LAs can specify M4(2) or M4(3) in local plan. Otherwise at discretion of HA.	Same	None unless HA own standards
Energy	Building regs	Same	None
Secured by Design	No mention	Same	Could be adopted by individual housing associations
Other standards	Can be through planning policies	Same	
In the offing	Government consulting on: Energy - Future Homes Standard Electric Vehicle Charging Points Biodiversity gain (Environment Bill) Extending requirement for M4(2)	Same	

Republic of Ireland – some standards depend on local authority planning policies

Standard	Social Housing	Open Market Housing	Cost Implications
Space	<p>Minimum space standards were last updated in 2020 to amend and review in particular apt sizes and shows a number of variations in respect of size from 2007 Building Regulations. Apts are now being developed in line with EU minimum guidance standards i.e.</p> <ul style="list-style-type: none"> • 1-bedroom apartment (2 persons) 45 sq.m • 2-bedroom apartment (4 persons) 73 sq.m • 3-bedroom apartment (5 persons) 90 sq.m • Also option to develop 2-bedroom apartment (3 persons) 63 sq.m <p>The 2020 standards now include houses, example</p> <ul style="list-style-type: none"> • 2-bedroom house (3 persons) 70 sqm • 3-bedroom house (5 persons) 92 sqm 	Buildings Regs – minimum standards are EU compliant.	In the case of social and affordable this will be facilitated partly through reduced admin/land costs where applicable.
Lifetime Homes	The concept of lifetime homes and universal design are detailed as best practice guidance rather than 'standards' per se.	Same.	No parameters upon which to base cost assessment.
Energy	From 1 November 2019, new building standards have applied to all new residential dwellings (houses or apartments). New dwellings will typically require a Building Energy Rating (BER) of A2.	BER A2 applies to all new build stock and is in line with EU Energy Performance Guidance as of Nov 2019.	Varies by property type.
Secured by Design	Not mentioned in standards	Same	No parameters upon which to base cost assessment.
Other standards:			

In the offing	Note that more than 70% of social housing is constructed by private developers which has helped tenure integration.		
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Appendix E – Comparison space standards - Development Guide Design Standards and NDSS (England)

Space standards compared. Square metre – gross internal floor area

Number of bedrooms	Number of bedspaces (persons)	One storey dwellings		Two storey dwellings		Three storey dwellings		Storage	
		NI ⁴⁵	NDSS ⁴⁶	NI	NDSS	NI	NDSS	NI ⁴⁷	NDSS
1b	1p	35/40	39					1.0	1.0
	2p	50/55	50		58			1.5	1.5
2b	2p							2.0	2.0
	3p	60/65	61	70/75	70			2.0	2.0
	4p	70/75	70	75/80	79			2.0	
3b	4p	75/80	74	80/85	84		90	2.5	2.5
	5p	80/85	86	90/95	93	95/100	99	2.5	2.5
	6p	85/90	95	95/100	102	100/105	108	2.5	2.5
4b	5p		90		97		103	3.0	3.0
	6p	90/95	99	100/105	106	105/110	112	3.0	3.0
	7p	105/110	108	115/120	115	115/120	121	3.0	3.0
	8p		117		124		130	3.0	3.0
5b	6p		103		110		116	3.5	3.5
	7p		112		119		125	3.5	3.5
	8p		121		128		134	3.5	3.5
6b	7p		116		123		129	4.0	4.0
	8p		125		132		138	4.0	4.0

(See below for full NDSS)

‘Out of the 20 comparable dwelling types, DfC require homes that are equal or larger than the minimum for the equivalent house type in the NDSS for five dwelling types. For seven dwelling types the NDSS minimum sits within the DfC area band meaning that, although broadly comparable, the lower limit of the DfC standards may still allow smaller homes than the minimum in the NDSS. In the remaining eight dwelling types the NDSS minimum is wholly above the equivalent DfC area band meaning DfC has a lower space standard for these house types. Though standards are broadly similar for the most common dwelling types

⁴⁵ **Standards for general needs housing – HAG - Development Guide Design Standards - see <https://www.communities-ni.gov.uk/sites/default/files/publications/dsd/hagds-general-needs-housing.pdf>**

⁴⁶ Nationally Described Space Standards – England

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/524531/160519_Nationally_Described_Space_Standard_Final_Web_version.pdf

The Housing Association Development Guide states that, “As a general rule, Associations should aim to provide accommodation based on the TCI Area/Cost Band for General Needs housing, applicable for the persons/bedrooms required in the DfC Design Standards.”

⁴⁷ <https://www.communities-ni.gov.uk/general-needs-housing#toc-2>

(3P2B & 5P3B houses), generally the NDSS requires more space for the larger house types (e.g. for 6-7 persons) than DfC. The difference in standards can be up to 10sqm (6P3B single storey) although this would be based on the lower limit of the TCI area band.'

The rationale for the range of dwelling sizes was set out in an old version of the Housing Association Guide which stated that:

'Circular HAC 5/98, Costs and Standards – TCI Area/Cost Bands, introduced 'benchmark' TCI area/cost bands, for all new build self-contained housing, including Package Deals and Design and Build schemes, funded or part funded by HAG.

DfC explained that this change was necessary because, although satisfactory standards were being achieved by associations, the trend had been for the areas of self-contained dwellings to increase to such an extent that in some cases the TCI area/cost band being claimed by some associations was sometimes one, two or three TCI area/cost bands above that previously claimed for a similar house type. Whilst the Department would always encourage associations to provide as high a standard as possible, the extra demand on HAG by increased TCI area/cost bands is difficult to justify when public finances are under constant pressure. The 'benchmark' TCI area/cost bands selected should provide satisfactory dwelling areas for a given (optimum) occupancy and at the same time ensure a more equitable distribution of HAG to all Associations.'

Nationally Described Space Standards – MHCLG - 2015⁴⁸

Table 1 - Minimum gross internal floor areas and storage (m²)

Number of bedrooms(b)	Number of bed spaces (persons)	1 storey dwellings	2 storey dwellings	3 storey dwellings	Built-in storage
1b	1p	39 (37) *			1.0
	2p	50	58		1.5
2b	3p	61	70		2.0
	4p	70	79		
3b	4p	74	84	90	2.5
	5p	86	93	99	
	6p	95	102	108	
4b	5p	90	97	103	3.0
	6p	99	106	112	
	7p	108	115	121	
	8p	117	124	130	
5b	6p	103	110	116	3.5
	7p	112	119	125	
	8p	121	128	134	
6b	7p	116	123	129	4.0
	8p	125	132	138	

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/524531/160519_Nationally_Described_Space_Standard_Final_Web_version.pdf

December 2021

Three Dragons with Ulster University

Appendix F – Schedule of potential additional costs

LIFETIME HOMES CRITERIA	COMMENT
<p>1a – ‘On plot’ (non-communal) parking</p> <p>Where a dwelling has car parking within its individual plot (or title) boundary, at least one parking space length should be capable of enlargement to achieve a minimum width of 3300mm.</p>	<p>This requirement will have minimal cost significance to a scheme.</p> <p>Less than £1,000 per space provided</p>
<p>1b – Communal or shared parking</p> <p>Provide at least one parking space (or a greater number as determined by the local planning authority), at least 3300mm wide x 4800mm deep adjacent to (or close to) each block’s entrance or lift core. Where some dwellings in a development are designated as “wheelchair housing”, any specific parking for such dwellings should be in addition to those provided in respect of this Lifetime Home Criterion. The access route between the parking and communal entrance (or in the case of basement parking, the lift core) should maintain a minimum clear width of 1200mm.</p>	<p>This requirement will have minimum cost significance to a scheme, but will possibly be slightly more cost impact than criterion 1 in terms of site area used and the fact that it has to be provided as complete and not provided for.</p> <p>Less than £1,000 per space provided</p>
<p>2 – Approach to dwelling from parking</p> <p>No gradient exceeding 1:60, and/or no crossfall exceeding 1:40</p> <p>Increase the width of the path between the parking and the dwelling within individual dwelling curtilages to 1200mm, particularly if there is a change in direction</p> <p>Increase the width of communal paths to 1800mm.</p> <p>Where the approach route exceeds 50m, provide seating and weather protection at the required level resting places along the route.</p>	<p>This will have minimal cost significance to an overall scheme.</p> <p>Complement Technical Booklets H and R of the Northern Ireland Building Regulations.</p> <p>Less than £1,000</p>

LIFETIME HOMES CRITERIA	COMMENT
<p>3 – Approach to all entrances</p> <p>No gradient exceeding 1:60, and/or no crossfall exceeding 1:40</p> <p>Increase the width of the path between the parking and the dwelling within individual dwelling curtilages to 1200mm, particularly if there is a change in direction.</p> <p>Increase the width of communal paths to 1800mm.</p>	<p>This will have minimal cost significance to an overall scheme.</p> <p>Complement Technical Booklets H and R of the Northern Ireland Building Regulations.</p> <p>Less than £1,000</p>
<p>4 - Entrances</p> <p>Dwelling entrance doors Minimum effective clear width 800mm.</p> <p>Communal entrance doors minimum effective clear width 800mm when approach straight on; 800mm when approaching at right angles to an access route at least 1500mm wide and 825mm clear width when approaching at right angles to an access route at least 1200mm wide.</p> <p>A level external landing (maximum gradient 1:60 and/or maximum crossfall 1:40 for effective drainage) should be provided at all main entrances*. The minimum dimensions for this at an entrance to an individual dwelling should be 1200mm x 1200mm. At a communal entrance the minimum dimensions should be 1500mm x 1500mm. These dimensions for level landings should be clear of any door swings.</p>	<p>This will have minimal cost significance to an overall scheme.</p> <p>Complement Technical Booklets H and R of the Northern Ireland Building Regulations.</p> <p>Less than £100</p>

LIFETIME HOMES CRITERIA	COMMENT
<p>5a – Communal Stairs</p> <p>Communal stairs providing a principal access route to a dwelling regardless of whether or not a lift is provided should be easy going, with:</p> <ul style="list-style-type: none"> • Uniform rise not exceeding 170mm. • Uniform going not less than 250mm. • Handrails that extend 300mm beyond the top and bottom. • Handrails height 900mm from each nosing. • Step nosings distinguishable through contrasting brightness. • Risers which are not open. 	<p>This will have minimal cost significance to an overall scheme.</p> <p>Complement Technical Booklet H of the Northern Ireland Building Regulations.</p> <p>Less than £100</p>
<p>5b – Communal Lifts</p> <p>Provision of a lift is not a Lifetime Home requirement (see recommendations below), but where a lift is provided, it should:</p> <ul style="list-style-type: none"> • Have minimum internal dimensions of 1100mm x 1400mm. • Have clear landings adjacent to the lift entrance of 1500mm x 1500mm. • Have lift controls at a height between 900mm and 1200mm from the floor and 400mm from the lift's internal front wall. • Provide access to two lifts within blocks of 4 or more storeys. 	<p>Probably not a requirement under the scope of the schemes under consideration other than making provision for individual lifts at a later stage when required which is dealt with in criterion 12.</p> <p>See criterion 12</p>

LIFETIME HOMES CRITERIA	COMMENT
<p>6 - Internal doorways and hallways</p> <p>The width of doorways and hallways should conform to the following specification</p> <p>Minimum clear opening width</p> <p>750mm if straight-on (without a turn or oblique approach)</p> <p>750mm if at right angles to a hallway/landing at least 1200mm wide</p> <p>775mm if at right angles to a hallway/landing at least 1050mm wide</p> <p>900mm if at right angles to a corridor / landing less than 1050mm wide (minimum width 900mm).</p>	<p>Increasing widths of doorways will have minimal cost significance.</p> <p>Less than £500 (dependant on number of doors in dwelling)</p>
<p>7 - Circulation Space</p> <p>There should be space for turning a wheelchair in dining areas and living rooms and basic circulation space for wheelchair users elsewhere.</p> <p>Living rooms/areas and dining rooms/areas should be capable of having either a clear turning circle of 1500mm diameter, or a turning ellipse of 1700mm x 1400mm. Where dwelling layout plans include furniture layouts, occasional items of furniture (typically coffee tables & side tables) can be within or overlap these turning zones. Where movement between furniture is necessary for essential circulation (e.g. to approach other rooms, or the window) a clear width of 750mm between items should be possible.</p> <p>Kitchens should have a clear width of 1200mm between kitchen unit fronts / appliance fronts and any fixed obstruction opposite (such as other kitchen fittings or walls). This clear 1200mm should be maintained for the entire run of the unit, worktop and/or appliance. Kitchen layouts, whenever possible, should be planned so that they can include (following adaptation) a continuous run of units, unbroken by doorways, including: a built in oven at an accessible height beside a minimum 600mm of work surface, a hob</p>	<p>This criterion will impact size of living rooms, dining rooms, kitchens and the main bedroom as well as layout of rooms and how they interface with each other.</p> <p>This will have cost significance in terms of greater floor area and floor plan layout.</p> <p>This will depend if and by how much this will increase the floor area</p> <p>But designers may minimise areas elsewhere in the building to accommodate this additional area</p>

<p>beside a further minimum 600mm of work surface, and a sink/drain. This continuous run, uninterrupted by doorways, (c. 3600mm in length measured along the front face) could be straight, L shaped, or U shaped. In addition, window positions should not impede on the oven or hob positions. Space for other typical 'white goods' and fittings should be available elsewhere in the kitchen (so that only the oven and hob are contained within this particular length of run). Provide a clear 1500mm diameter circular, or 1400mm x 1700mm elliptical, manoeuvring space from floor for a minimum height of 900mm.</p> <p>The main bedroom in a dwelling should be capable of having a clear space, 750mm wide to both sides and the foot of a standard sized double bed. Other bedrooms should be capable of having a clear space, 750mm wide, to one side of the bed. In addition, in these bedrooms, where it is necessary to pass the foot of the bed (e.g. to approach the window as required by Criterion 15), a clear width of 750mm should also be provided at the foot of the bed.</p>	
<p>8 – Entrance level living space</p> <p>A living room / living space should be provided on the entrance level of every dwelling. Also provide the kitchen on the entrance level.</p>	<p>Generally in private sector comparable dwellings would have living rooms and kitchens at entrance (ground floor) level so no cost implication.</p> <p>NIL</p>

LIFETIME HOMES CRITERIA	COMMENT
<p>9 – Potential for entrance level bed-space</p> <p>In dwellings with two or more storeys, with no permanent bedroom on the entrance level, there should be space on the entrance level that could be used as a convenient temporary bed-space for a member of the household to sleep on the entrance level if they are temporarily unable to use stairs .</p> <p>This space is typically provided in the corner of a living room following rearrangement of the furniture – however, the living room should remain functional (despite a compromised layout). A dining room or dining area can also provide for the temporary bed space as long as the dining function can continue (or be relocated elsewhere). However, providing this facility within a dining space of a kitchen/diner provides the least convenient arrangement and should be avoided whenever possible.</p>	<p>This criterion will increase floor area where entrance level bed-space is to be provided. It will also impact floor plan layout in terms of access to this area.</p> <p>This will have cost significance in terms of greater floor area and floor plan layout.</p> <p>This will depend if and by how much this will increase the floor area</p>
<p>10 – Entrance level WC and shower drainage</p> <p>Where an accessible bathroom, in accordance with Criterion 14, is not provided on the entrance level of a dwelling, the entrance level should have an accessible WC compartment, with potential for a shower to be installed.</p>	<p>This will have cost significance in terms of greater floor area and floor plan layout.</p> <p>This will depend if and by how much this will increase the floor area</p>
<p>11 - WC and bathroom walls</p> <p>Adequate fixing and support for grab rails should be available at any location on all walls, within a height band of 300mm – 1800mm from the floor.</p>	<p>This will have cost significance where partition walls and also boundary walls are not of masonry construction, but are of timber stud and plasterboard construction as plywood and timber "grounds" will have to be provided for the fixing of such items, but will not be a significant cost factor.</p> <p>Less than £100</p>

LIFETIME HOMES CRITERIA	COMMENT
<p>12 - Stairs and potential through-floor lift in dwellings</p> <p>The design within a dwelling of two or more storeys should incorporate both:</p> <p>a) Potential for stair lift installation; and,</p> <p>b) A suitable identified space for a through-the-floor lift from the entrance level to a storey containing a main bedroom and a bathroom satisfying Criterion 14.</p>	<p>This will have be of cost significance in terms of layout of dwelling and in terms of provision for fitting at a later stage. There will be a structural design implication for both, particularly the provision for fitting a lift at a later stage</p> <p>Provision of additional area, trimming around to provide structural opening for lift, potentially larger joists etc as structural design And/or Additional "grounds" to fix and support stair lift less than giving total cost of say c£700</p>
<p>13 – Potential for future fitting of hoists and bedroom / bathroom relationship</p> <p>Structure above a main bedroom and bathroom ceilings should be capable of supporting ceiling hoists and the design should provide a reasonable route between this bedroom and the bathroom.</p>	<p>This will have significance in terms of layout of dwelling and in terms of provision for fitting at a later stage. There will be a structural design implication for provision of supporting framework for fitting a hoist at a later stage.</p> <p>Impact on layout plus provision of structurally designed timbers to support hoist plus panel above bathroom and bedroom door to facilitate operation of hoist through doorways less than £1,000.</p>
<p>14 – Bathrooms</p> <p>Provide an accessible bathroom that has ease of access to its facilities from the outset and potential for simple adaptation to provide for different needs in the future.</p>	<p>This has cost significance in terms of overall area of space and in terms of ideally locating such an area on the ground/entrance level.</p> <p>This will depend if and by how much this will increase the floor area</p>

LIFETIME HOMES CRITERIA	COMMENT
<p>15 – Glazing and window handle heights</p> <p>Windows in the principal living space (typically the living room), should allow people to see out when seated.</p> <p>In addition, at least one opening light in each habitable room should be approachable and usable by a wide range of people – including those with restricted movement and reach.</p>	<p>Minimal cost significance and complement current Building Regulations on glazing.</p> <p>Less than £100</p>
<p>16 – Location of service controls</p> <p>Service controls should be within a height band of 450mm to 1200mm from the floor and at least 300mm away from any internal room corner.</p>	<p>No cost significance.</p>
<p>Lifetime Homes (LTH) Additional DfC requirements</p>	
<p>Ref 1B Lifetime Homes (LTH) Additional DfC requirements</p>	
<p>Ref 3 A level area (1200x1200mm min) should be provided at the main entrances. (Where it is to assist the removal of surface water, a small gradient of $\leq 1:40$ is acceptable in addition to the drainage channel). DfC requires level or gentle sloping approach to all LTH units.</p>	<p>Complements current building regulations.</p>
<p>Ref 5 Doors to bathrooms and WCs should be outward opening and be fitted with special locks openable from the outside.</p>	<p>No cost significance.</p>
<p>Ref 7 There should also be space for turning a wheelchair in a kitchen</p>	<p>Will increase area and layout of space. Cost significant.</p>
<p>Ref 8 The wheelchair accessible entrance level WC criteria for 'dwellings of three or more bedrooms' should also apply to two bedroom accommodation.</p>	<p>See criterion 10 above. Cost significant.</p>

LIFETIME HOMES CRITERIA	COMMENT
<p>Ref 10 There should be drainage and service provision enabling a shower to be fitted in the future. The future shower provision should be in addition to a bath. In the case of a one person/bed-sit or one person/one bedroom accommodation the bath/shower space can be combined. In order to minimise potential adaptation costs, DfC requires the Associations to identify a minimum 1300 x 800mm unobstructed shower space and install a level deck floor former at construction stage. This area can also function as the transfer space to the WC and must not be compromised if/when a shower is required at a future time</p>	<p>Increases floor area requirement. Cost significant.</p> <p>Less than £250 (May need to construct an additional inspection chamber for drainage connection).</p>
<p>Ref 12A The design should incorporate a straight-flight, dog-leg or 'L' shaped stairs with adequate space top and bottom for chair parking provision for a future stair lift.</p>	<p>Impacts layout of dwelling will potentially add slightly to floor area.</p>
<p>Ref 12B DfC requires that there is no compromise to the occupancy of the unit with the installation of a through the floor lift.</p>	<p>See criterion 12 above.</p>
<p>Ref 16 Gas/electricity meters and automatic heating system controls should be fully accessible. External gas/electricity meters should be mounted between 700mm and 1000mm above ground level, and boiler timer controls and thermostats should be located between 900mm and 1200mm above finished floor level.</p>	<p>No cost significance.</p>
<p>Generally In 3 storey houses only the ground and first floors need comply with Lifetime Homes criteria.</p>	<p>No separate costs identified</p>
<p>Where required, the choice of shower enclosure needs careful consideration. Associations must ensure that when not in use, the enclosure doors fold back into a position where they do not obstruct the clear lateral transfer space at the WC.</p>	<p>Minimal cost significance. Less than £100</p>

Appendix G – Energy Efficiency Multiplier

– see <https://www.communities-ni.gov.uk/general-needs-housing>

Increasing the energy efficiency of homes is a vital way of mitigating the effects of climate change, reducing fuel poverty and improving health. Therefore the Department is supporting sustainable and energy efficient design beyond the statutory minimum by allowing Associations to claim a supplementary 'Energy Efficiency Multiplier' for new dwellings which exceed the minimum standards currently required under the NI Building Regulations 2012. This standard is optional, and dwellings must achieve the following two criteria to avail of the multiplier:

1. SAP Band 'A' (92-100)
2. A minimum Fabric Energy Efficiency Standard (FEES)* of:
 - 39 kWh/m²/year for apartment blocks and mid-terrace homes
 - 46 kWh/m²/year for end terrace, semi-detached and detached homes

* FEES is the calculated maximum space heating and cooling energy demand for low energy homes. This is the amount of energy which would normally be needed to maintain comfortable internal temperatures and in a dwelling this can be influenced by:

- Building fabric U-values
- Thermal bridging
- Air permeability
- Thermal mass
- External heat gain (solar)
- Internal heat gains e.g. from people or equipment

A FEES criteria is included to ensure that a good minimum standard for fabric (the longest-lasting part of a home) will be embedded in new homes availing of the multiplier. It is measured in kWh/m²/yr and is therefore not affected by carbon emission factors for different fuel types. FEES allows flexibility in design approach, and can be achieved in a variety of ways with different combinations of materials or product specifications.

Associations will be required to provide evidence of achieving the standard by submitting a copy of the As-Built SAP reports for each dwelling type to DPG at Practical Completion (3rd tranche) stage.

This Energy Efficiency Multiplier is being introduced as a direct replacement for the Code for Sustainable Homes Multiplier (Ref: 287) and is intended as a contribution towards the additional costs incurred by achieving a higher level of energy efficiency..