UK COLLABORATIVE CENTRE FOR HOUSING EVIDENCE

December 2020

Delivering design value: The housing design quality conundrum

James T. White, Tom Kenny, Flora Samuel, Chris Foye, Gareth James and Bilge Serin

Economic and Social Research Council
Economic and Social Research Council
JRF JOSEPH ROWNTREE FOUNDATION
housingevidence.ac.uk

<< < CONTENTS > >>

About the authors

Dr James T. White, MRTPI is Senior Lecturer in Urban Design at the University of Glasgow and a Co-Investigator at the UK Collaborative Centre for Housing Evidence.

Tom Kenny was Policy Officer at the Royal Town Planning Institute and a Co-Investigator at the UK Collaborative Centre for Housing Evidence until July 2020.

Prof. Flora Samuel, ARB is Professor of Architecture in the Built Environment at the University of Reading and a Co-Investigator and 'Place' theme lead at the UK Collaborative Centre for Housing Evidence.

Dr Chris Foye is Knowledge Exchange Associate (South and South East England) at the UK Collaborative Centre for Housing Evidence.

Dr Gareth James is Knowledge Exchange Associate (Scotland) at the UK Collaborative Centre for Housing Evidence.

Dr Bilge Serin is a Research Associate at the UK Collaborative Centre for Housing Evidence.

About the UK Collaborative Centre for Housing Evidence

The UK Collaborative Centre for Housing Evidence (CaCHE) is a consortium of 14 institutions led by the University of Glasgow. The centre, which was established in August 2017, is a multidisciplinary partnership between academia, housing policy and practice. It produces evidence and new research focused on tackling the UK's housing problems at a national, devolved, regional, and local level. CaCHE is funded by the Economic and Social Research Council, Arts and Humanities Research Council and The Joseph Rowntree Foundation.

Project partners

Royal Town Planning Institute

Ministry of Housing and Local Government, HM Government

Department for Communities, Northern Ireland Executive

Local Government and Communities Directorate, Scottish Government

Planning Directorate Welsh Government

Acknowledgements

We are grateful to the ESRC, AHRC and the Joseph Rowntree Foundation for financial support through the UK Collaborative Centre for Housing Evidence. We would also like to thank our project partners, the Royal Town Planning Institute, the Ministry of Housing, Communities and Local Government (HM Government), the Department for Communities (Northern Ireland Executive), the Local Government and Communities Directorate (Scottish Government) and the Planning Directorate (Welsh Government).

At the UK Collaborative Centre for Housing Evidence we would like to thank Claire Martin and Lynsay Cooper, Communications and Engagement Officers, and Edward Strudwick, Business Manager, for assisting with the presentation and distribution of the report, and Dr Gareth Young, Knowledge Exchange and Impact Fellow, for kindly photographing one of the housing developments we researched.

We would also like to thank the many participants across the UK who we interviewed for this study and, in particular, key contacts in each case study area who helped us organise the fieldwork, the transcription team at 1st Class Secretarial Services who completed the interview transcribing both efficiently and accurately, and the team at Room for Design for typesetting and producing the graphics for this report.

Finally, we are extremely grateful to our project advisory group who kindly gave up their time to help us shape the scope of the review and provided critical and constructive feedback on our findings.

Project advisory group

Prof. David Adams	Emeritus Professor in Urban Studies, University of Glasgow
Chris Brown	Executive Chair and Founder, igloo Regeneration
Prof. Matthew Carmona	Professor of Planning and Urban Design, University College London
Sophia Cox	Sustainability Advisor, UK Green Building Council
Russell Curtis	Founding Director, RCKa
Carole-Anne Davies	Chief Executive, Design Commission for Wales
Nikki Linsell	Operations Director, Public Practice
Jeffrey Matsu	Chief Economist, Chartered Institute of Public Finance and Accountancy
Dan Roberts	Senior Specialist, Homes England
Nick Rogers	Director of Design, Taylor Wimpey
Andy Sutton	Co-Founder, Director of Design and Innovation, Sero Homes
Dr Jennifer Thomas	Head of Built Environment, Ministry of Housing, Communities and Local Government
Steven Tolson	Real Estate Practitioner and Former Chair, Royal Institution of Chartered Surveyors in Scotland
Dr Elanor Warwick	Head of Strategic Policy and Research, Clarion Housing Group

Disclaimer

All views and any errors contained in this report are the responsibility of the authors. The views expressed should not be assumed to be those of the Collaborative Centre for Housing Evidence, our project partners or the members of our project advisory group.

Report headlines

Background

Well-designed places have an enduring sense of place and are characterised by diversity in form, function and community.

Research has long shown that good design has a positive impact on health and wellbeing, the economy and environmental sustainability. As a result, the value of design is foregrounded in planning policy across the UK. Yet, the quality of new-build housing remains poor and design is consistently undervalued – we call this the *housing design quality conundrum*.

The research

This report examines the complex and meandering process of planning, designing and developing new homes and neighbourhoods through a series of case studies conducted in all four UK nations during 2019 and 2020.

Our aim was to understand why new homes and neighbourhoods are poorly designed and, using the evidence we collected, to make a series of recommendations about how the *status quo* might be changed.

Conclusions

The design quality of new homes and neighbourhoods across the UK remains stubbornly low: Our research found that new homes and neighbourhoods fail to meet the aspirations of the national planning policy statements in England, Scotland, Wales and Northern Ireland.

The responsibility for delivering design value is shared: The four UK governments, local authorities, housebuilders, and their consultants, are all accountable, in different ways, for allowing poorly designed places to be created.

Despite differences in policy emphasis and articulation, the four planning systems in the UK do not deliver better (or worse) design outcomes than each other: Our research found that housing and neighbourhood design is undervalued across the UK and, more often than not, planning decisions are driven by the need to achieve housing targets or to make a planning decision quickly and efficiently.

The barriers to design value are wide-ranging: They encompass the ways in which the four UK governments plan for new housing and the extent to which local authorities are prepared to foreground design as an issue of genuine local concern. There is also an endemic culture of deprioritising design in the housebuilding industry.

Recommendations

Our principal recommendation is that the four UK governments should consider adopting 'design value standards' that place neighbourhood urban form principles and layout parameters in regulation and embed the economic, social and environmental value of design at the heart of planning and housebuilding.

Our full list of 12 detailed recommendations for policy and practice can be read here. To summarise:

The housebuilding industry must stop receiving a 'free pass' on design: It must be held better to account by the planning systems in all four nations.

Good design should be cast as a crucial public good: The responsibility to deliver well-designed places must be understood as a shared responsibility between the public and private sector.

Future planning reforms must put design at their heart: The four UK governments must do more to translate positive policy rhetoric on design into actionable, measurable and well-funded design governance solutions that lead to the creation of sustainable and enduring places.

Contents

About the authors i

About the UK Collaborative Centre for Housing Evidence i

Project partners i

Acknowledgements ii

Project advisory group ii

Disclaimer ii

Report headlines iii

Background iii

The research iii

Conclusions iii

Recommendations iv

Tables and figures ix

Executive summary xi

Chapter 1: Introduction: the housing design quality conundrum 1

1.1 Contribution of 'Delivering design value' 2

1.2 Design value 4

1.3 Research aims and objectives 5

1.4 Empirical focus 7

1.5 Report structure 7

1.6 Summary 7

Chapter 2: Existing perspectives on design and housebuilding 8

2.1 Design value aspirations in national policy and guidance in the four nations 8

2.2 Local authority design governance 9

2.3 Design value and the development process 10

2.4 Development financing and viability 12

2.5 Types of housebuilders 13

2.5.1 Volume housebuilders 14

2.5.2 Small- and medium-sized housebuilders 14

2.5.3 Housing associations 15

2.5.4 Local authorities 16

2.5.5 Community-owned housing and self-builders 17

2.6 Types of housing development 18
2.6.1 Greenfield development 18
2.6.2 Brownfield development 19
2.7 Key actors in the design and development of new housing 20
2.8 Summary 22

Chapter 3: Methodology 23

3.1 Research design 23
3.2 Local authority selection process 24
3.3 Housing development selection process 26
3.4 Data sources 28
3.4.1 Archives and documents 28
3.4.2 Semi-structured interviews 28
3.4.3 Direct observations 29
3.4.4 Key informant interviews 29
3.5 Data analysis 29
3.6 Ethics and good research practice 30
3.7 Research limitations 30
3.8 Summary 31

Chapter 4: The case studies 32

4.1 South of England: South Oxfordshire District Council 32
4.1.1 Great Western Park (Northern Neighbourhood, Phase 2a), Didcot 34
4.1.2 Sycamore Rise, Thame 37
4.2 North of England: Rotherham Metropolitan Borough Council 38
4.2.1 The Banks, Waverley, Rotherham 40
4.2.2 Sky-House, Waverley, Rotherham 41
4.3 Scotland: East Lothian Council 42
4.3.1 Dovecot, Haddington 44
4.3.2 Gateside West, Haddington 45
4.4 Wales: Bridgend County Borough Council 47
4.4.1 Parc Derwen (Phase R19), Bridgend 49
4.4.2 Ysgol Bryn Castell (Phases 1 and 2), Bridgend 50
4.5 Northern Ireland: Belfast City Council 52
4.5.1 Peter Pan Complex, Belfast 54
4.5.2 Portland 88, Belfast 55
4.6 Summary 57

Chapter 5: Cultures of design practice **58**

5.1 General reflections on 'good design' and the components of a well-designed place 58
5.2 Holistic design and practicing 'placemaking' 59
5.3 Sophisticated understandings of design yet unfulfilled ambitions 60
5.4 Prioritising design value in local authorities and the housebuilding industry 62
5.5 Balancing design value and risk in local authorities 63
5.6 Siloed decision making in local authorities and the 'highways' challenge 64
5.7 Resourcing and funding challenges in local authorities 65
5.8 Design skills and design training for local authority officers and councillors 66
5.9 Housebuilder commitments to design: addressing the bottom line 67
5.10 Housebuilders and the standard house type 68
5.11 The role of consultants in the public and private sphere 69
5.12 Summary 70

Chapter 6: When is 'design value' delivered and when is it not? **71**

6.1 National planning policy and legislation in the four nations 71
6.2 Local authority plan making and guidance 72
6.3 Housing development viability assessments 74
6.4 Pre-application discussion 77
6.5 Engaging with local people 79
6.6 Outline planning permission 80
6.7 Planning obligations 82
6.8 Full planning permission and reserved matters 83
6.9 Construction 84
6.10 Post-occupancy evaluation 86
6.11 Delivering design value: the critical points of intervention 86
6.12 Summary 88

Chapter 7: Recommendations and conclusions **89**

7.1 Headline findings 89
7.2 Significant barriers to 'design value' 90
7.3 12 recommendations for practice 93
7.4 Concluding remarks 97

Bibliography **98**

Appendices **120**

Appendix 1: Key stages in the housing development process with mapped interview questions 120

Appendix 2: Semi-structured interview schedule 124

Appendix 3: Anonymised interview codes 125

Appendix 4: Raw data analysis framework 127

Appendix 5: Thematic data analysis framework 129

Tables and figures

Figure 1: Typical housing design outcomes in the UK 2

Figure 2: Design value at the neighbourhood scale 4

Figure 3: Location of the case study local authorities and housing developments 6

Figure 4: A typical example of a standard house type produced by a volume housebuilder 14

Figure 5: Social housing design excellence in Laurieston, Glasgow 15

Figure 6: New award-winning council housing at Goldsmith Street, Norwich 16

Figure 7: Marmalade Lane Co-Housing, Cambridge 17

Figure 8: Typical greenfield housing development, Middleton, South Yorkshire 18

Figure 9: Brownfield housing development using non-standard house types by Barratt Homes 19

Table 1: Shortlisted and selected local authorities 25

Table 2: Selected housing developments 27

Figure 10: Housing development locations in South Oxfordshire 33

Figure 11: Phase 2a at Great Western Park facing The Oval public space 35

Figure 12: Examples of the house types and layout of Phase 2a, Great Western Park 36

Figure 13: Example of the layout and house types used at Sycamore Rise, Thame 37

Figure 14: The entrance to Sycamore Rise, Thame 38

Figure 15: Housing development locations in Rotherham 39

Figure 16: Street layout and house types at The Banks, Waverley New Community, Rotherham 40

Figure 17: Green landscape corridor at The Banks, Waverley New Community, Rotherham 41

Figure 18: Sky-House, Waverley New Community, Rotherham 42

Figure 19: Housing development locations in East Lothian 43

Figure 20: House types and streetscape at Dovecot, Haddington 45

Figure 21: Examples of house types and streetscape at Gateside West, Haddington 46

Figure 22: Open space at Gateside West, Haddington 46

Figure 23: Housing development locations in Bridgend, Wales 48

Figure 24: Image of the house types and streetscape of Phase R19, Parc Derwen, Bridgend 50

Figure 25: The streetscape at Phase 1 of Ysgol Bryn Castell, Bridgend 51

Figure 26: Housing development locations in Belfast, Northern Ireland 53

Figure 27: The streetscape at the Peter Pan Complex, Belfast 54

Figure 28: Houses and flats within the Peter Plan Complex 55

Figure 29: The frontage of Portland 88, Belfast 56

Figure 30: The rear elevation of Portland 88 56

Figure 31: The entrance to Phase 1 at Ysgol Bryn Castell in Bridgend, compromised by a high retaining wall 60

Figure 32: Neighbourhood open space, Phase 2a, Great Western Park, Didcot 61

Figure 33: Public open space at Dovecot, Haddington, East Lothian with little evidence of thoughtful design 65

Figure 34: A streetscape designed for vehicles at Parc Derwen, Bridgend 65

Figure 35: Examples of standard house types from our case studies 69

Figure 36: Delivering design value: critical points of intervention 87

Figure 37: The leaky bucket of design value 92

Executive summary

Introduction: the housing design quality conundrum

Well-designed places have an enduring sense of place and are characterised by diversity in form, function and community.

Good quality design positively impacts health and wellbeing (Jackson, 2003; Kleinert and Horton, 2016; Royal Town Planning Institute, 2020; Scott, 2020; White et al., 2013), the economy (Royal Institution of Chartered Surveyors, 2016; Savills, 2016) and environmental sustainability (Carmona, 2019; Frumpkin et al., 20-4; Hong et al., 2014).

The 'value' of design is foregrounded in UK planning policy, yet the quality of new-build housing remains poor and the value of design is under appreciated – we call this the *housing design quality conundrum* (see Chapter 1).

Contribution of 'Delivering design value'

This research uniquely examines housebuilding and design value in all four nations of the UK.

We hope our research findings will influence current and future reforms to planning policy in the four nations, while encouraging change in the housebuilding industry.

Design value

This report builds on an evidence review by members of the research team called *Design Value at the Neighbourhood Scale* (Serin et al., 2018). It defined 'design value' and reported that it is typically framed through the lens of the 'triple bottom line' of sustainability (see 1.2).

> ***Value*** is typically understood as the measurable worth of something. Design value combines all of the values derived from a place, whether they are financial (exchange value) or more socially and culturally grounded (use or aesthetic value).
>
> (Serin et al., 2018)

Research aims and objectives

We aimed to investigate the extent to which design is valued (or undervalued) during the various stages of planning, designing and developing new homes and neighbourhoods.

Our research questions and objectives focused on understanding the cultural conditions and expertise needed to deliver design value by identifying the points in the planning, design and development process where a commitment to design can lead to higher quality homes and neighbourhoods (see 1.3).

Existing perspectives on design and housebuilding

Chapter 2 explores existing research on the theory and practice of housebuilding. From this review of the literature, we identified a series of gaps that informed the development of the research questions (see 1.3).

The pursuit of housing design quality is clearly established in the planning policies of the four UK nations, but evidence on the implementation of these policies, particularly in the last decade, is very limited (see 2.1).

Local authorities can employ a range of 'design governance' tools to deliver design value (Carmona, 2016). Although scholarly work on this topic is well developed in the literature (e.g. Carmona, 2017, 2016; Punter, 2007; White, 2015), there is a lack of empirical evidence on the current practices and cultures of design governance (see 2.2).

The housebuilding sector is dominated by market-orientated volume housebuilders that rarely prioritise design (see 2.4 and 2.5). While research has been conducted on the value afforded to design by housebuilders, it is dated (e.g. Hooper and Nicol, 1999, 1999; Tiesdell and Adams, 2004).

Evidence on the practice of post-occupancy evaluation in the housing sector is growing (e.g. Hay et al., 2018; Stevenson, 2019) but it demands further scrutiny. (see 2.4).

Housebuilding occurs on both greenfield and brownfield land, the latter of which is widely considered to be riskier (Pediaditi et al., 2005). Existing research has more to say about brownfield than it does about greenfield housing development (see 2.6).

A range of 'supply side', 'demand side', and 'regulatory' actors are involved in housebuilding and the 'opportunity space' (Tiesdell and Adams, 2004) they are able to carve out during the planning, design and development process influences design value. An emerging focus in the literature on the fluid roles that public and private sector actors play in design governance merits further investigation (e.g. Linovski, 2019; Parker et al., 2018; Wargent et al., 2020) (see 2.7).

Methodology

- Our research took the form of a multiple case study of ten carefully selected housing developments in five local authorities across the UK (see Chapter 3).
- We approached the research with the understanding that five case studies would not be sufficient to capture the diversity of housing markets across the UK, however, we felt that in-depth study was important, and we were able to achieve diversity on a range of dimensions, as we outline below.

UK-wide study

To ensure that our research accounted for any national or regional variations, we examined housing developments in one local authority in Scotland, Wales and Northern Ireland, while, in England, we examined one local authority in the South and one in the North. This is because England is much larger than the other nations and there is a distinct north-south difference in the housing market (Meen and Nygaard, 2010).

Data sources

We used semi-structured interviews, documents and archives, and direct observation data, alongside key informant interviews. In total we conducted 48 semi-structured interviews with 54 participants, and 6 purposefully-sampled key informant interviews.

Data analysis

Five members of the research team each collected the data and conducted a phased analysis. The lead author of this report then undertook a content analysis of all the data and wrote up the findings.

Local authority selection process

We identified the five local authorities using housing delivery data from each UK local authority, aiming for case studies that would give us insights into typical new housing development rather than examples of best practice that are already well-versed in the literature.

Housing development selection process

We identified two housing developments in each of the local authorities using a set of key criteria and by examining planning applications online. We also sought advice from local authority officers via email.

Image © Stocker1970

Image © Duncan Andison

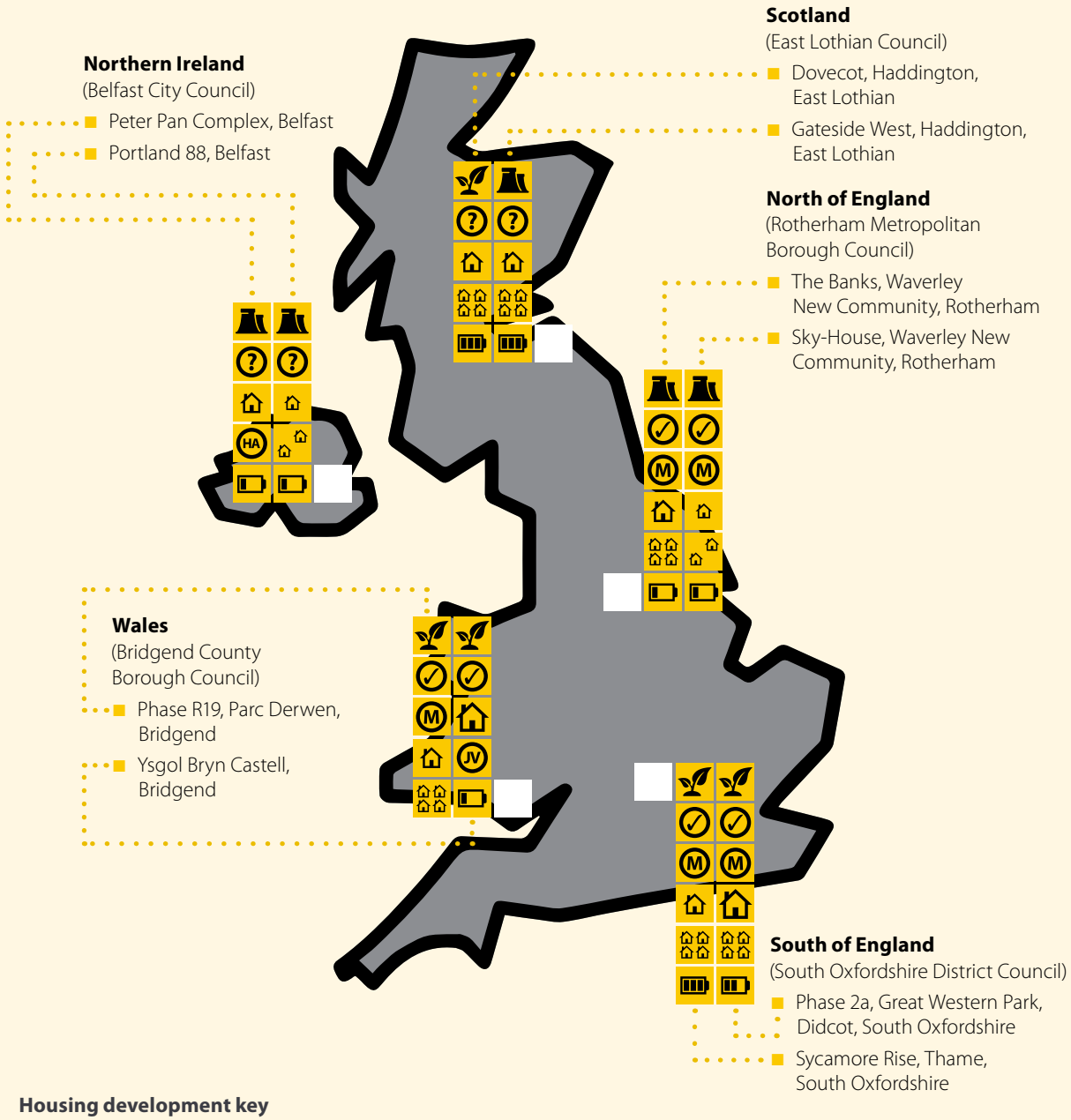
Typical housing design outcomes in the UK

The case studies

The housing developments we examined provided sufficient breadth and variety to offer a range of conclusions on housing design value (see Chapter 4).

We looked at housing developments in high land value areas and areas where land values are lower, and we identified sites that were either allocated for housing or where an application for housing development had been made on a speculative basis (see 4.6).

The local authorities and housing developments where we conducted primary research are highlighted on the following map.



Location of the case study local authorities and housing developments

Image © Gareth Clarke

Phase 2a at Great Western Park facing The Oval public space

Cultures of design practice

The first part of our research findings focus on how the participants we interviewed conceptualised design and explores how design influences the way decisions in their respective organisations are made (see Chapter 5).

Different actors perceived 'good design' in various ways, but our interview participants in local authorities, private consultancy and the housebuilding industry, largely shared in the view that well-designed places are shaped by human needs (see 5.1).

Achieving a 'sense of place' was widely discussed by a range of regulatory and supply-side actors. Some participants also stressed that 'aesthetic' concerns should come second to strategic urban design objectives (see 5.1).

> "What we're trying to do is create legibility, create a structure to the neighbourhood, so we're looking at gateways, we're looking at primary routes. …I think [a] good neighbourhood obviously [has] legibility, structure to the street scene, high quality design on gateways and ....corners."
>
> **Rotherham 1 Planning Officer interview**

Overall, participants understood the social and environmental value of design, and more than one referred to the 'holistic' role that design should play in the planning and development of new housing (see 5.2).

Our participants had quite a sophisticated understanding of design, although we did observe differences (see 5.2):

- Local authority officers tended to be outward looking in their definition of design and were concerned about how a scheme might fit into a wider area.
- Housebuilders and their planning consultants were more inward looking and were motivated by the external appearance of their housing products within the neighbourhood/ development setting.
- Many of the architects and designers we spoke to bridged these two perspectives, although their conceptualisation of design was framed by their specialist professional training.

Images © Tom Kenny

Example of road layout and house types used at Sycamore Rise, Thame

Numerous participants provided examples of where design value had been ignored and where efforts at design governance had largely failed, and participants rarely spoke about the role of ecology in delivering sustainable places (see 5.3).

Some of the local authority officers we spoke to operate with the knowledge that their ability to shape design outcomes is often constrained by processes beyond their control (i.e. housing delivery target setting and planning appeal decisions) and which occur long-before their involvement in shaping local policy or assessing the design merits of a particular housing development (see 5.4).

A number of local authority officers we interviewed viewed design governance through a lens of risk. They were concerned that developers would not build in their local authority if design conditions were imposed and also worried that refusing planning permission on design grounds would lead to an appeal where their decision would be overturned (see 5.5).

The challenge of siloed decision-making in local authorities was mentioned by a number of our research participants, some of whom noted that officers struggle to take actions outside of their immediate area of specialisation (see 5.6).

Highway design and adoption was an area of acute frustration for many participants and differing interpretations of safety and appropriateness appear to prevail between planning, design and highways officers (see 5.6).

Across the four nations, two of the most significant roadblocks to better design governance were a lack of resources and the retention of specialist employees, including urban designers. These pressures can result in contradictory advice being offered to housebuilders (see 5.7).

Many participants spoke of the importance of training officers and local councillors in design, and also mentioned that local authorities increasingly rely on private sector expertise to plug design skills gaps (see 5.8).

> "I remember we lost half of our department [after austerity measures introduced post-2010 ....I'm afraid collectively you just have to accept that there are less people ....And, I'm afraid you lose years and years of skills and experience, and those people, once they leave local government, they don't come back."
>
> **Bridgend 11 Planning Officer**

We found that housebuilders are not necessarily disinterested in design, but some are more prepared to make design investments than others. Participants across our case studies reported that larger housebuilders tend to be driven by a profit-focused model and are motivated by identifying 'the path of least resistance' to gaining planning permission (see 5.9).

Housebuilders' focus on profit reinforces the use of standard house types because they deliver economies of scale, especially in places where the housing market is weak (see 5.10).

Image © Flora Samuel

Image © Tom Kenny

Standard house types around the UK

Private sector design consultants play an important role throughout the process of planning, designing and developing new neighbourhoods and are centrally involved in delivering successful planning applications for housebuilders (see 5.11).

We found that private consultants also undertake work for the public sector and produce design policies and guidance for local authorities that might otherwise have been produced by in-house local authority experts (see 5.11).

Image © Gareth James

Image © Tom Kenny

Standard house types around the UK

When is 'design value' delivered and when is it not?

The second part of our research findings set out the critical points for delivering design value in the planning, design and development process for new housing (see Chapter 6). We have mapped what we consider to be the 'critical points for intervention' in the diagram on page xxiii and we have characterised these points as either being 'upstream', 'midstream' or 'downstream' in the often lengthy and meandering process of planning, designing and developing new housing.

National planning policy and legislation in the four nations: Opinions were mixed about the influence of upstream national planning policy produced by the four UK national governments on housing design outcomes at the local level. Some participants stated that national policies that apply in their respective local authority play a critical role in setting a 'design benchmark'. Others held a contrary view and variously remarked that, across the four nations, national design policies are weak and ineffective (see 6.1).

Images © Gareth James

House types and streetscape at Dovecot, Haddington, East Lothian

Local authority plan making and guidance: Local plan site allocations were said to play a key role in shaping housing design outcomes upstream, and many local authority officers referred to the role that local plans play in 'setting the tone' for new development. A number of participants also stated that the most significant roadblocks to design quality at the local level were housing delivery targets (see 6.2).

> "I think it's often left to the private sector of putting the sites forward and the kind of sifting process. I think local authorities do need to….be more proactive…actually saying: how are we going to grow? And, identify the areas where they want to grow. Rather than putting out this call for sites and then using a spreadsheet approach of sifting the sites….I think we need to think about that process and adjust…[it]…because I don't think it leads to the best possible development we can have."
>
> **S. Oxfordshire 10 P2 interview**

Housing development viability assessments: For housebuilders, 'development viability' is perhaps the single most important upstream consideration in the housebuilding process. Some participants noted that developers tend to keep viability assessments confidential, thus making it difficult for local authorities to gauge how much to push developers to invest in design (see 6.3).

Pre-application discussion: Numerous participants said that the pre-application stage of the planning process, the last upstream point in the wider planning, design and development journey for new housing, is a critical moment for design value. This is because housebuilders can demonstrate what a viable scheme might look like, and local authorities can apply their design policies and establish their design priorities for the site in question (see 6.4).

Engaging with local people: Many of the participants we spoke to downplayed the role of community engagement in shaping housing design outcomes. It typically occurs too far downstream in the process of planning, designing and developing new housing (see 6.5).

> "Sometimes we do go through the pre-application process, we do give the general place-making advice of all these different components of how the development should work and sometimes we're just routinely ignored. They'll just come in with the development that they want to put on the ground, rather than a development that we've advised might be a bit more successful."
>
> **East Lothian 1 Planning Officer P2 interview**

Outline planning permission and site masterplanning: Our participants widely acknowledged that outline planning permission[1] is a critical moment for delivering design value. It sits midstream in the process of planning, designing and delivering new homes and establishes both the principle of development and the anticipated design language of a scheme. On larger schemes, outline permission is typically granted on the condition that a site masterplan is produced in advance of more detailed planning application(s) submitted downstream in the planning process. Downstream 'value engineering' was said to be easier to avoid on larger sites where tools like a masterplan are deployed (see 6.6).

> "…the masterplans and the design codes and the frameworks need to be very flexible, certainly…we have changed the Waverley masterplan, not fundamentally, but we have changed it probably about seven or eight times in the last ten years. And that is to reflect market demands; to reflect changing demand for different types of housing,...changes on the ground and different ways of thinking. So, for me, the masterplan has to be very flexible and the planning consent has to allow the masterplan to change over time."
>
> **Rotherham 4 Landowner interview**

[1] Planning-Permission-in-Principle in Scotland

Planning obligations: Planning obligations are used to ensure that new development provides wider public benefits and contributes towards the functioning of the surrounding area. Although planning obligations are finalised downstream in the planning, design and development process, some participants noted that negotiations on these issues can often begin upstream and with limited transparency (see 6.7).

Full planning permission and reserved matters: Our research participants had differing views on the extent to which design value was influenced by the downstream process of gaining full planning permission or the conclusion of reserved matters. The main distinction was that issues of urban design are usually finalised midstream during outline planning permission, while more detail-orientated design decisions, such as housing typologies and material choices, tend to be treated as 'reserved matters' further downstream (see 6.8).

Construction: Although most strategic design decisions have been made by the time a housing development goes on site, there are still day-to-day decisions that impact design value. Sometimes these are made with limited design oversight (see 6.9).

Post-occupancy evaluation: We also found that post-occupancy evaluation, the very last downstream stage in the planning, design and development process for new housing, is rarely used. Our participants did not refer to monitoring design outcomes or to feeding lessons back into upstream plan-making processes (see 6.10).

> "Decisions will be [taken] by the developer and a construction team and the engineers and architects will still be involved. I think it's quite interesting in a scheme like [Great Western Park] how there are several sets of architects involved. There's one specific architect who does the layout, but they don't do the detailed design in the construction drawings. Then there comes another [architect] after they have got their planning consent, [and then] another set of architects come in who only focus on actually making it work. So there's a kind of split there. . . .because the architects who are [doing the] planning might think to a certain level of detail but might not actually look at the sub-level changes. . . .I think on a development like this, there are so many parties involved, that it is really tricky."
>
> **S. Oxfordshire 10 Design Consultant P2 interview**

NATIONAL POLICY & LEGISLATION

Goal: National policies can play a critical role in setting a 'design benchmark' for local authorities to follow.

Barriers to design value:
National policies that support well-designed places are easily overlooked and housing delivery targets often take precedence over design.

DEVELOPMENT VIABILITY

Goal: To establish whether a housing development is viable on a particular piece of land.

Barriers to design value:
Housebuilders are very focused on profitability and often exhibit little interest in design. This can be difficult to overcome, especially if local authority officers have a limited understanding of property markets.

ENGAGING LOCAL PEOPLE

Goal: To collect general feedback from local people on both the vision and intention of planning policy and detailed feedback on the scope of proposed development.

Barriers to design value:
Community engagement typically occurs too late in the planning process for new housing and few opportunities are offered for 'bottom up' decision-making or co-design.

PLANNING OBLIGATIONS

Goal: Planning obligations are used to ensure that new development provides wider public benefits and contributes towards the functioning of the surrounding area.

Barriers to design value:
Negotiations between local authorities and housebuilders about the scope and value of planning obligations can occur with limited transparency.

CONSTRUCTION

Goal: Completion of a housing development on time and within budget.

Barriers to design value:
Day-to-day design decisions made during construction are sometimes taken with limited design oversight and there is often a lack of post-permission scrutiny by local authorities.

LOCAL PLANS & GUIDANCE

Goal: Local plans and guidance can be used to 'set the tone' for discussions and negotiations with housebuilders about a proposed development.

Barriers to design value:
Local authority officers can be overwhelmed by the plans and guidance they are expected to enact and sometimes offer conflicting advice to housebuilders. This is exacerbated by the fact that many local authorities have limited resources.

PRE-APPLICATION DISCUSSION

Goal: Discussions before a planning application is submitted allow housebuilders and local authorities to explore what a viable scheme might look like and can lead to a series of shared design priorities.

Barriers to design value:
The advice offered to housebuilders during pre-application discussions can sometimes fall on deaf ears or occur after a housebuilder has already determined the scope and viability of a proposed development.

OUTLINE PERMISSION & SITE MASTERPLANNING

Goal: Outline permission is used to establish the basic design principles for a development. The production of a design masterplan can be made a condition of permission (especially on larger sites).

Barriers to design value:
Outline permission is often awarded to poorly designed schemes in a bid to stop housebuilders choosing to develop elsewhere or to avoid a planning appeal. Masterplan can often be poorly enforced or altered significantly.

FULL PERMISSION & RESERVED MATTERS

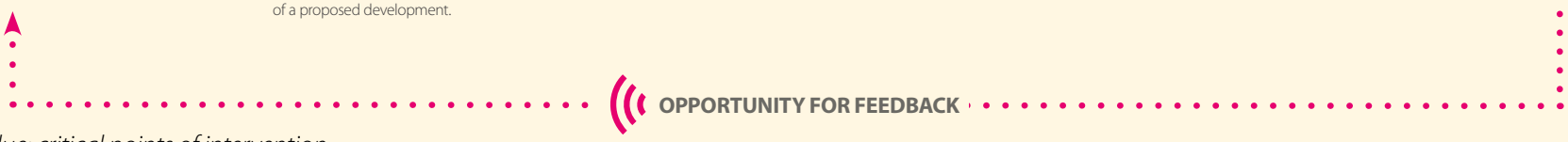
Goal: If awarded, full permission or reserved matters establishes the detailed design parameters of a housing development (i.e. house types and materials).

Barriers to design value:
Local authorities often lack the confidence to refuse a planning application on design grounds. This sends a message to supply-side actors in the housebuilding industry that delivering design value is a low policy priority.

POST-OCCUPANCY EVALUATION

Goal: An opportunity to collect the views of new residents and evaluate the design quality of a new development.

Barriers to design value:
Post-occupancy evaluation is rarely used to critically assess new housing developments and the outcomes are rarely monitored or fed back to earlier stages of the planning process.



Delivering design value: critical points of intervention

Download a high resolution version of this image here

Recommendations and conclusions

Our research concludes by highlighting the significant barriers to delivering housing design value in the UK and makes 12 recommendations for policy practice. We have characterised the significant barriers to design value as a 'leaky bucket'. This is illustrated on the following page.

The principal recommendation emerging from our research is that **housing and neighbourhood design principles should be regulated by the four UK governments in 'design value standards'** that embed the economic, social and environmental value of design at the heart of housebuilding and design governance.

Significant barriers to design value

- The design policies of the four national governments and local authority design policy and guidance is frequently overlooked because other policy objectives take precedence over design, and environmental design value is rarely foregrounded.
- A chronic lack of resourcing and a scarcity of design skills in local authorities means that design governance is severely restricted and design policy and guidance is not always enforced.
- Design priorities vary between local authority officers, and siloed organisational decision-making limits the ability of local authorities to make decisions that prioritise design value.
- Engagement with local communities about new housing development tends to be 'top down' and poorly implemented. The positive impacts of community participation associated with new build housing are not well understood.
- Housebuilders producing 'everyday' housing in the UK have a razor-sharp focus on profitability and exhibit a limited interest in delivering design value.
- Housebuilders are rarely prepared to make design investments in areas where land values are low. This leads to a culture of low expectations in local authorities where land values are below average.
- Masterplans and other formal design governance tools can help to deliver design value, but they are often poorly enforced or altered to such a degree that they become ineffective.
- Due to resourcing challenges, there is often a lack of scrutiny by local authorities over decisions taken on-site after planning permission has been granted.
- Post-occupancy evaluations of new housing developments are rarely conducted in the UK, and local authorities do not have the resources to adequately monitor design outcomes.

(See 7.2 for further detail)

The leaky bucket of design value

12 recommendations for policy and practice

1. **Housing and neighbourhood design principles should be regulated by the four UK governments in 'design value standards'.**
2. **Creating well-designed places should be a core national planning objective in each of the four nations.**
3. **Volume housebuilders should be held to account on design matters.**
4. **The four UK governments should encourage and support a more diverse housebuilding industry.**
5. **Housing land allocations should be based on sustainable development principles and prioritise brownfield development.**
6. **Design governance leadership should be championed in local authorities.**
7. **Local plans should be more place-based and outcome-focused.**
8. **Masterplans should be produced and enforced for larger housing sites.**
9. **Genuine community engagement should be undertaken early in the planning and design process where it can have the most influence.**
10. **Design and construction procurement decisions should be more design driven.**
11. **Post occupancy analysis and development monitoring should be used much more widely.**
12. **The four governments should provide more direct funding for design governance, especially at the local level.**

(See 7.3 for further detail)

Chapter 1
Introduction: the housing design quality conundrum

This report focuses on the quality of new homes and neighbourhoods and the value placed on design in the context of the UK's current 'housing crisis' (Preece et al., 2019). We contend that simply increasing the volume of houses delivered will not fully address the crisis and argue that new homes and neighbourhoods must also deliver long-term 'design value' (Serin et al., 2018).

Well-designed places have enduring sense of place and are characterised by particular design features, including easy to navigate streets and spaces that support an active lifestyle, a mix of land uses that provide access to employment and local services, an equitable range of housing choices, and safe and accessible public space. Design quality can have a positive impact on health and wellbeing (Jackson, 2003; Kleinert and Horton, 2016; Royal Town Planning Institute, 2020; Scott, 2020; White et al., 2013), strengthen local economic development by attracting investment (Royal Institution of Chartered Surveyors, 2016; Savills, 2016), and support environmental sustainability by reducing car use and encouraging walking (Carmona, 2019; Frumpkin et al., 2004; Hong et al., 2014).

The devolution of planning powers to the four UK governments has led to an increasingly diverse design policy landscape over the past twenty years, however, the four governments share the view that good design can deliver economic, social and environmental value (e.g. Department for Infrastructure, 2014; Ministry of Housing and Local Government, 2019a; Scottish Government, 2013; Welsh Government, 2016a). Yet, in spite of this, the creation of consistently well-designed homes and neighbourhoods has not been widely achieved in the UK (James and Tolson, 2020; Place Alliance et al., 2020; Punter, 2010) and design continues to be subsumed by a focus on the number of homes delivered – we call this the *housing design quality conundrum*.

New housing developments that deliver design value are thus the exception rather than the rule. Housing developers, and the larger volume housebuilders in particular, continue to use tried and tested site layouts and building typologies that lack design value, while local authorities often approve development that fails to meet the design standards set out in policy (e.g. Anderson Bell + Christie, 2013; Place Alliance et al., 2020). This fact was highlighted in a 2020 *Housing Design Audit for England*, which found that new housing is overwhelmingly 'mediocre' or 'poor' (Place Alliance et al., 2020), while in Scotland, a 2014 research project on national placemaking stated that "[w]hat often passes for 'development'. . ..is the rather placeless, single-use housing development characterised by poor estate layout, over-engineered roads, dominant parking, poor amenity space, lack of connectivity and bereft of planting and local facilities" (Gulliver and Tolson, 2014, p. 3).

Similar conclusions have been reached by the Design Commission for Wales. It found that, despite an overall improvement in design quality between 2012 – 2015, critical design issues continue to persist, including the ongoing use of standard house types and a failure to create "accessible, compact, well landscaped and socially inclusive" places (Punter, 2015, p. 100). In Northern Ireland the national design guide, *Living Places*, cuts right to the chase, stating that 'bad' places "hamper economic performance of the wider area by suppressing land values and deterring investment" (Department for Infrastructure, 2014, p. 10). The housing design challenges identified in all four nations are starkly summarised in the recent report of England's Building Better, Building Beautiful Commission: "At present we are in a vicious circle of unpopular and unsustainable new development, often in the wrong place….People have lost confidence in both the industry and the regulators." (2020, p. 131)

Image © Stocker1970

Image © Duncan Andison

Figure 1: Typical housing design outcomes in the UK

1.1 Contribution of 'Delivering design value'

Our research uniquely examines housebuilding in all four nations of the UK and explores the extent to which design is valued during the planning, design and development process. Based on an in-depth analysis of ten housing developments in five local authority areas across the UK, we make a series of 12 practical recommendations on how to better deliver design value upstream, midstream and downstream in the complex and meandering process of planning, designing and developing new housing. In so doing, we capture a range of phenomena that, hitherto, have been largely anecdotal. We intend that these insights will influence the delivery of various planning reforms that have either recently been adopted or are currently being considered by the four governments. These include:

- The recently published *Planning for the Future* White Paper in England, which seeks to further deregulate England's maligned planning system (Barker, 2020; Lord and Tewdwr-Jones, 2014; Raynsford, 2018) and introduce a form of design-based coding that will fast track new housing development demonstrating 'beauty' (Ministry of Housing, Communities and Local Government, 2020a).

- *Planning Policy Wales Edition 10*, which situates people and placemaking at the heart of planning policy (Welsh Government, 2018) and sits alongside the Welsh Government's future generations agenda. This compels public bodies in Wales to "think about the long-term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change" (Future Generations Commissioner for Wales, 2020, p. 1). It is also supported by a new *Placemaking Wales Charter* that was launched by the Welsh Government and the Design Commission for Wales in September 2020 (Design Commission for Wales 2020).
- A commitment to creating '20 minute neighbourhoods' in the Scottish Government's 2020 programme for government (Scottish Government, 2020a), alongside technical policy amendments to *Scottish Planning Policy* (Scottish Government, 2014a; Scottish Government, 2020b) on the delivery of 'good quality homes in the right locations'. Wider consultation is also occurring on the emerging *National Planning Framework 4* that follows new planning legislation in Scotland and seeks to integrate government-wide commitments to inclusive growth, health and wellbeing into planning and design policy (Scottish Government, 2019).
- Changes to planning and design policy in Northern Ireland that make a firm commitment to sustainable development and community well-being (Department of the Environment, 2015a) and follow major reforms to planning decision-making that occurred in April 2015[2].

In addition, the existential climate change emergency places additional pressure on both the four governments and the housebuilding industry to plan and build in a more environmentally responsible way. Housebuilding remains a carbon intensive process, and the wider construction industry is responsible for a significant percentage of the UK's overall carbon emissions (UK Green Building Council, 2020). The continuing development of low-density single-use housing development on greenfield land furthermore supports carbon-intensive behaviour by restricting access to sustainable modes of transportation and increasing the necessity of the private car. Urgently addressing these challenges, including through design, is crucial if the four UK governments are going to meet their ambitious and time-sensitive targets on carbon reduction (see for example: Committee on Climate Change, 2019).

The unprecedented impacts of the Covid-19 pandemic in 2020 have also increased the amount of time that people are spending in their homes and local neighbourhood both for work and leisure (Davern et al., 2020; Office for National Statistics, 2020). In June 2020, the property tracking website Rightmove identified a notable rise in the number of users searching for homes away from city centres and with access to a private garden or home office space (Bloom, 2020). Troubling, a 2020 *Home Comforts* survey conducted by the Place Alliance on the experience of households during lockdown found that newer homes and neighbourhoods do not provide well for residents' everyday needs and tend to have a weak 'sense of community' (Carmona et al., 2020). This highlights just how important the design of homes and neighbourhoods is to community resilience and wellbeing (Mosteanu, 2020; Scott, 2020).

[2] In April 2015 most planning application decision-making powers in Northern Ireland were transferred from the Department of the Environment to local authorities (major applications deemed to be of regional significance continue to be determined centrally by the Department for Infrastructure). Before this change, decisions were based on regional and metropolitan plans. The new system replicates the two-tier (national and local) plan-making hierarchy found in England, Scotland and Wales.

1.2 Design value

Prior to embarking on this research, we published an evidence review called *Design value at the neighbourhood scale* (Serin et al., 2018) We found that design value is typically understood through the lens of the 'triple bottom line' of sustainability because well-designed places are widely thought to deliver numerous economic, social and environmental benefits (e.g. Carmona, 2019; Department of Communities and Local Government, 2017), and that conceptualisations of design value frequently have a temporal dimension. For example, in the short-term, developers may benefit from a quicker planning permission process if they submit a well-designed scheme. For residents, the benefits of a well-designed home or neighbourhood tend to be more long-term and might include a better resale value and better access to other facilities or open space (Carmona et al., 2002).

> ***Value*** is typically understood as the measurable worth of something. Design value combines all of the values derived from a place, whether they are financial (exchange value) or more socially and culturally grounded (use or aesthetic value).
>
> (Serin et al., 2018)

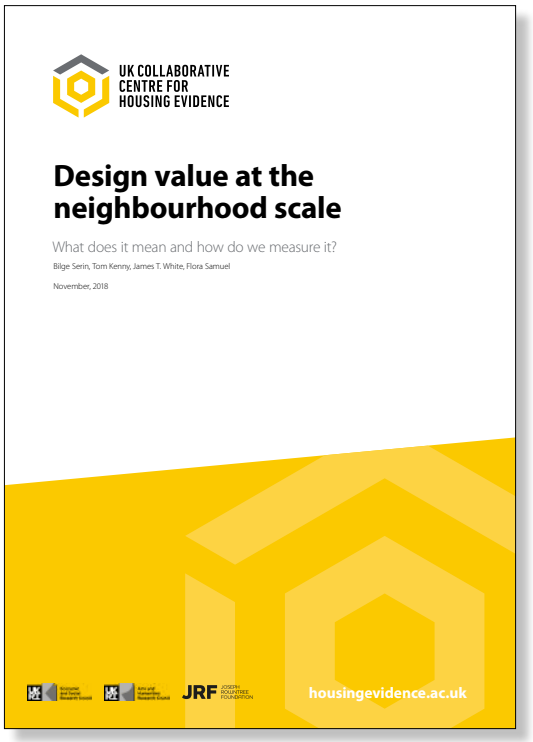


Figure 2: Design value at the neighbourhood scale

A temporal understanding of design value explains why much of the existing evidence emphasises the importance of the design process. This is clearly articulated in the Scottish Government's *Creating Places* policy statement:

> Good design is not merely how a building looks, it is an innovative and creative process that delivers value. Design provides value by delivering good buildings and places that enhance the quality of our lives. (2013, p. 8)

Finally, we explored design value at 'the neighbourhood scale' to acknowledge that design value goes beyond the home itself, or even the strict boundaries of the development, and also relates to how new housing influences the neighbourhoods around it.

1.3 Research aims and objectives

In this report we aim to understand why the quality of new-building housing in the UK remains poor, despite a raft of policies that support the creation of well-designed places. To address this '*housing design quality conundrum*', we investigate the extent to which design is valued during the meandering process of planning and developing new homes and neighbourhoods. We identify the critical points at which decisions about design are made and consider what factors impact these decisions. In this respect, we tackle head-on the 'false polarity' of blaming developers or planners for the design failings of contemporary housebuilding identified by England's recent Building Better, Building Beautiful Commission (2020).

The project is framed around the following questions drawn from the gaps we identified in the literature (see Chapter 2):

1. What cultural conditions and/or mix of expertise is needed to deliver design value during the housebuilding process?
2. How is design value delivered through the planning and design process for new housing development?
3. At what points during the planning and development process for new housing does attention to design have the biggest impact?
4. How can the policies and practices that currently generate new housing encourage the creation of higher quality homes and neighbourhoods?

To address these questions, we agreed on the following five objectives:

1. Conduct a literature review of existing evidence on how design value is delivered in the housebuilding process.
2. Identify five local authorities delivering the average number of homes in each country/region of the UK using existing datasets on housebuilding and delivery.
3. Select two recently completed housing development case studies in each of the chosen local authorities by securing a list of recently completed projects from local authority officers.
4. Collect and analyse primary data on the planning and development process for each case study using semi-structured interviews, a content analysis of relevant documents and archives and direct observations, plus a series of supplementary key informant interviews with housebuilders, planners and design experts.
5. Conduct a thematic analysis of the research data and construct a diagrammatic illustration of where the key decisions about design are taken during the housebuilding process.
6. Propose a series of policy recommendations that focus on how to consistently deliver design value through the planning and development process for new homes and neighbourhoods.

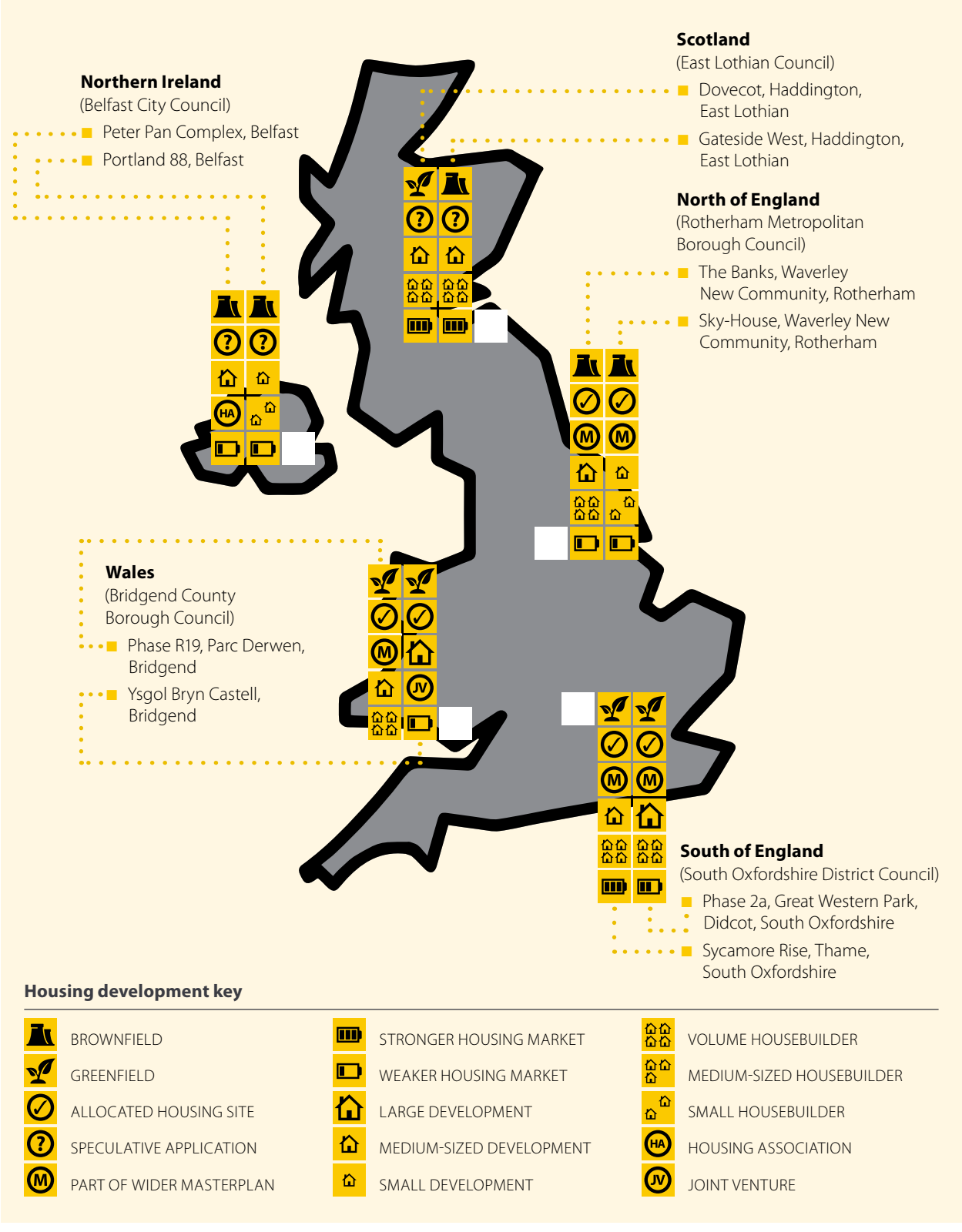


Figure 3: Location of the case study local authorities and housing developments

1.4 Empirical focus

Our research focuses on ten housing developments located in five local authority districts across the four nations of the UK (one each in Scotland, Wales and Northern Ireland and two in England). The five local authorities produced approximately the average number of houses in their respective country or region between 2015 and 2018. We chose the ten housing developments because they are broadly representative of the typical new places produced by the housebuilding industry. The location of the five local authorities and the chosen housing developments are shown in Figure 3 overleaf. The selection procedure for the local authorities and housing developments is described in more detail in the methodology (see Chapter 3).

1.5 Report structure

We follow this introduction with an overview of the literature on design and housebuilding (Chapter 2) and a statement on the project methodology (Chapter 3). We then introduce the five local authorities and the housing development case studies in more detail (Chapter 4), before presenting the research findings thematically (Chapter 5 and Chapter 6). We conclude the report with a series of recommendations for future policymaking and practice (Chapter 7).

1.6 Summary

To summarise, in this introduction we have:

- Identified the challenges associated with delivering design value during a 'housing crisis', the climate emergency and a pandemic.
- Highlighted the challenges associated with delivering design quality and defined the meaning of 'design value'.
- Established our research aim and a series of questions and objectives that focus on unravelling the meandering decision-making processes that shape new homes and neighbourhoods to understand where the critical points of design intervention lie.
- Described and justified the UK-wide focus of our empirical research.

Chapter 2
Existing perspectives on design and housebuilding

In this review of the literature we identify the areas of enquiry that are pertinent to the study of design, planning and housebuilding. We begin by exploring the extent to which the four national governments aspire to deliver design value through planning policy and consider the ways in which design is governed by local authorities. We then chart the points at which design decisions are made during the wider planning and development process, which we conceptualise as a metaphorical meandering river where critical design decisions are made 'upstream', 'midstream' and 'downstream'. We then categorise the types of housebuilders operating in the UK, before exploring how the physical context for housing development influences design, and finish by cataloguing the actors involved in delivering design value. This review forms the basis of the search criteria and interview questions that we employed in our primary research. The research gaps are identified in the chapter summary.

2.1 Design value aspirations in national policy and guidance in the four nations

National planning policy across the four nations of the UK sets the design baseline for new housing development and, as we set out in Chapter 1, is currently going through a period of change and diversification, especially in England and Scotland. Looking at the current policy landscape we find that the most recent edition of the *National Planning Policy Framework* (NPPF) in England includes a dedicated chapter on design which spells out the indivisible link between well-designed places and successful planning and development (Ministry of Housing, Communities and Local Government, 2019b). This is supported by a *National Design Guide* that provides further details on the expected design qualities of new and existing places (Ministry of Housing, Communities and Local Government, 2019b) and also sets the foundation for a national model design code that is scheduled for publication in 2021 (Jenrick, 2019). The design code is one of the significant reforms proposed in the Westminster government's 2020 White Paper, *Planning for the Future* (Ministry of Housing, Communities and Local Government, 2020a).

Scotland has a long-standing commitment to design in national policy dating back to the early 2000s (Scottish Executive, 2001, 2000). This commitment is currently contained in the place and architecture policy, *Creating Places* (Scottish Government, 2013) and is reflected in the health and wellbeing-focused Place Standard toolkit (Architecture and Design Scotland et al., 2015). The current *Scottish Planning Policy*, which is soon to be merged with *National Planning Framework 4* (Scottish Government, 2019), following the introduction of the new Planning (Scotland) Act 2019, also emphasises the need to consider design at each stage of delivery:

> The design-led approach should be applied at all levels – at the national level in the NPF, at the regional level in strategic development plans, at the local level in local development plans and at site and individual building level within master plans that respond to how people use public spaces. (Scottish Government, 2014a, p. 11)

The most recent edition of the Scottish Government's 2020 programme for government, which was published in September 2020, build on these existing policy ambitions and includes plans to encourage the development of '20 minute neighbourhoods' that are "…liveable, accessible places, with thriving local economies, where people can meet their daily needs within a 20 minute walk" (Scottish Government, 2020a, p. 37).

Planning Policy Wales (Welsh Government, 2018) focuses on creating sustainable places for future generations and integrates the requirements of the Well-being of Future Generations (Wales) Act 2015 (Future Generations Commissioner for Wales, 2020). These pivotal initiatives have been accompanied by a range of further legislation that places an increasing amount of pressure on housebuilders to act sustainably, for example, including a mandatory requirement for all new housing developments to have Sustainable Urban Drainage (SuDs) systems (Welsh Government, 2019)[3]. In September 2020, the Welsh Government also launched the *Placemaking Wales Charter* in conjunction with the Design Commission for Wales. The charter brings together over 25 organisations into a new Placemaking Wales Partnership that aims to "provide a common understanding of the range of considerations that go into placemaking" via a series of six 'placemaking principles' (Welsh Government and Design Commission for Wales 2020, p. 1).

Finally, the Northern Ireland government references the importance of 'placemaking' in its *Strategic Planning Policy Statement* (Department of the Environment, 2015a) and provides further design guidance in *Living Places* (Department for Infrastructure, 2014) and *PPS7 Quality Residential Environments* (Planning Service (DOE), 2001).

2.2 Local authority design governance

The concept of 'design governance' provides an instructive framework for understanding how local authorities might improve design decision-making for new housing. Characterised as a 'sub-field' of urban design, it is defined as "the state-sanctioned intervention in the means and processes of designing the built environment in order to shape both processes and outcomes in a defined public interest" (Carmona, 2016, p. 706). One of the enduring interests of design governance scholars has been to evaluate the effectiveness of the tools used to guide development through the planning system (e.g. Adams and Tiesdell, 2013; Punter, 2007; Punter and Carmona, 1997; White, 2015).

In seeking to categorise these various 'tools', Carmona (2017) distinguishes between those that are 'formal' and 'informal'; both are used by local authorities to varying degrees. Formal tools are the legally binding components of the statutory planning process, such as design policy and guidance, the granting of planning permission and 'planning gain' mechanisms (e.g. a Section 106 agreement or the Community Infrastructure Levy in England and Wales, a Section 75 agreement in Scotland and a Section 76 agreement in Northern Ireland). Other formal processes that occur alongside the statutory planning process include the design and adoption of new streets by the local authority (Jones et al., 2008) and building control standards, which focus on the technical performance and safety of buildings (Evans, 2018).

[3] Similar SuDS requirements have been mandatory in Scotland since 2005 (Scottish Environment Protection Agency, 2010).

Informal tools can be used to address some of the blind spots of formal statutory planning, highways regulation and building control (Carmona, 2017). They include: evidence of best practice, skills training, urban design review panels, 'hands on' assistance from planning and urban design officials – often at the pre-planning application (or 'pre-app') stage – and post-occupancy evaluations of recent developments using scoring tools such as Building for Life 12 (Birbeck and Kruczkowski, 2015) and its most recent iteration, Homes England's design guidance, *Building for a Healthy Life* (Birbeck et al., 2020). A similar method was also used for the recent *Housing Audit for England* by the Place Alliance (Place Alliance et al., 2020). The extent to which informal design governance tools are used is dependent on the local authority's commitment to design and therefore ranges from sophisticated integration to much more sporadic usage or no use at all. As we will demonstrate later in the report, we found evidence of both formal and informal design governance tools being employed upstream, midstream and downstream in the planning and design process for new housing.

2.3 Design value and the development process

The design governance literature primarily focuses on the responsibilities that local authorities have to shape planning policy and manage or 'control' design outcomes (Adams and Tiesdell, 2013; Carmona, 2016), but the delivery of design value must be viewed as a shared responsibility (Carmona, 2016). Housebuilders should be expected to respond in good faith to the aspirations of planning policy and there are key points in the development process that occur before, after and in parallel to the planning process when critical decisions are made by housebuilders, landowners and land promoters that directly influence the design of new homes and neighbourhoods. The challenge for researchers like ourselves is that the design practices of developers and their consultants can often be shrouded in mystery (see 1.3).

Existing property development research does nevertheless identify the principal stages in the housing development process (e.g. Syms, 2002; Tunstall, 2006), if not the critical moments of design intervention. Similarly, the Royal Institute of British Architects' (RIBA) identifies the points at which architects take critical design decisions in the planning and development process in its *2020 Plan of Work* template (Royal Institute of British Architects, 2020). The stages identified by Syms (2002) and Tunstall (2006), in particular, helped inform the structure of the analysis framework we used to collect of our primary data (see 3.4.2 and Appendix 1), alongside the literature on design governance discussed in the preceding section. Briefly, these stages in the property development process include (but are not limited to):

- **Raising finance:** Housebuilders tend not to have large financial reserves (Morris, 2018). Access to finance upstream in the development process therefore plays an important role in design because early, broad brush, design concepts generated to secure finance often dictate what is possible on the site.
- **Land availability and valuation:** The current 'housing crisis' is often attributed to a lack of available affordable land (Wilson and Barton, 2020) and housebuilders are often expected to pay a high price for land that either has planning permission or has a high probability of receiving it. This impacts upon the delivery of design value in various ways, including the willingness of the landowner to give up some profit to invest in design (Adams et al., 2013) and the ability of the local authority to 'capture' land value through the planning gain mechanisms it deploys downstream in the planning process (see 2.2). We discuss the relationship between finance, land and development viability further in 2.4 below.

- **Site assembly:** The assembly of a site can directly impact design. When a landowner, land promoter or developer has a long-term stake in a site they are more likely to be interested in design value than a developer that is looking to sell units quickly and move on to the next project (Adams et al., 2013).
- **Scheme design:** A theoretical best practice design process is set out in the RIBA's *2020 Plan of Work*. This emphasises the need for housebuilders and their design consultants to engage in a methodical process of research, conceptual design, technical design and extensive engagement with the community (Royal Institute of British Architects, 2020). The early upstream stages in the design process also include pre-application discussions with the local authority before a planning application is submitted (see 2.2).
- **Procurement:** After planning permission has been secured, developers will procure a construction team. Many large housebuilders are 'developer-builders' and manage the construction themselves, procuring the necessary subcontractors to design and build the project using traditional contracts. Other models include the 'design and build' method, in which all of the design and construction work is organised by one contractor and the scheme is delivered complete to the developer (Ball, 2012), and 'management contracts', whereby subcontractors are wholly overseen by a lead contractor appointed by the developer (CQSA, 2020). These various means of procurement offer different ways to spread risk and reduce overheads, but they can also lead to inadequacies in design and specification and dangerous quality lapses in construction. When a traditional contract is used, for example, it is often the case that the original design architect has a limited role after planning permission has been secured and, therefore, does not oversee quality control on site (Cole, 2019).
- **Construction:** The UK housebuilding industry tends to use 'on site' construction methods with different skilled trades contracted to build the various components of buildings and the wider site infrastructure. This traditional approach has faced criticism in recent years for being labour intensive, slow and delivering buildings and neighbourhoods of varying quality (e.g. Davies, 2018). Modern Methods of Construction (MMC), where building components are constructed in a factory setting for erection on-site, are increasingly seen as a means of speeding up construction and improving quality control (Iuorio et al., 2019). Although it is not yet widely used by the UK housebuilding industry, MMC is a potential area for growth and innovation, particularly in the context of the climate emergency and the 'housing crisis' (Davies, 2018).
- **Sales and marketing:** Housebuilders tend to operate on the basis of 'what has sold before will sell again' and thus employ significant caution in the development process (Payne, 2016). This directly informs the stylistic design choices they consider marketable. Reputation is also important. Media coverage and social media discussion can therefore impact design decisions. For example, one of the UK's largest housebuilders, Persimmon Homes, recently commissioned a report on the quality of their new homes because of concerns about their reputation (Barwise et al., 2019).
- **In use:** Facilities managers and the residents of new homes and neighbourhoods have much to gain from understanding more about how they use a building or neighbourhood, yet they rarely have a role in the housing design process. Post-occupancy evaluation (POE), the revisiting of homes after completion, therefore has a critical part to play in the housebuilding process because, without it, it is hard to ascertain whether design value has been delivered. Despite the role POE can play in creating feedback loops and encouraging learning downstream in the planning, design and development process, it is rarely used in the UK (Hay et al., 2018; Stevenson, 2019). Recognising this, the RIBA included 'lessons learned' in its most recent *2020 Plan of Works* (Royal Institute of British Architects, 2020).

- **After Use:** How the materials used to construct new housing are used at the end of a building's useful life is underappreciated and understudied. Processes such as 'Design for Disassembly' as well as significant improvements in the aforementioned arena of MMC are creating opportunities for expanding the lifecycle of a building (e.g. Aitchison, 2018; Bayliss and Bergin, 2020), and remain a nascent arena for housing design innovation in the context of the climate emergency.

2.4 Development financing and viability

For a development to be viable the value generated must exceed the costs of delivering it to generate the required profit (Crook et al., 2016). As a rule of thumb, housebuilders do not take on a project unless it is likely to generate a profit of between 15-20% of the gross development value (Savills, 2017). Several key factors determine viability. Housebuilders have to balance the projected revenue generated from a development, against the various expenditures associated with delivery. These include the original land purchase price, construction costs, agency and marketing fees, as well the interest charged on any borrowing (see: Hudson, 2018 for a recent breakdown of a volume housebuilder's balance sheet).

Some design features 'add' economic value to a housing development because they increase the developer's potential profits by adding more to the gross development value than they do to the cost of developing the scheme (Place Design Wiki, 2020). These features include external appearance, local neighbourhood character and access to open space. They fall under what we might term the 'economic' dimension of design value (Serin et al., 2018). Whether a particular design features is profitable or not will of course depend on a range of factors, including the location of the development, the tastes and spending power of its target market and, as we discuss below, the type of developer and the timescale over which they make their profits (Ball, 2017).

Other design features, such as affordable housing, community spaces, sustainable drainage systems, etc., do not generate profit for housing developers, but there might nevertheless be strong social and environmental reasons why these elements ought to be provided. It is not clear, for example, whether low-carbon homes are profitable for housebuilders, yet few would dispute the imperative to build more of them (Payne and Barker, 2018). In economic parlance, these 'unprofitable' design features represent positive externalities which contribute to societal well-being even if they are not valued by the immediate consumer. 'Unprofitable' design features like those mentioned above must be factored into the viability calculations of a housing development because they are often required as part of the conditions (or 'planning obligations') associated with planning permission. The housebuilder may determine that the additional costs these design features generate should be offloaded on to the consumer through higher house prices or rents; a decision that is easier to make in areas with higher or increasing sales values. If the additional costs threaten the wider viability of the scheme, however, the housebuilder will likely look for other ways to generate a profit, such as seeking a higher number of dwellings on a site.

An alternative way to address this challenge is for land to be valued more realistically. An extensive literature already details how the cost of affordable housing could be paid for through 'land value capture' (the delivery of public good through national or local government action) (see for example: Crook et al., 2016), and the same principles arguably apply to the provision of design features that generate social and environmental value but negatively impact the economic viability of a scheme. Such a change requires local authorities to be clearer and more upfront about the social and environmental outcomes they wish to achieve when determining a planning application. If developers know early-on in the development process that they will have to provide certain social benefits – be it affordable housing or other enhanced design features – they can adjust downwards the amount they bid for land (Crook et al., 2016).

Local authorities will nevertheless need to accept some level of flexibility when setting social and environmental design value targets because land values and the strength of the housing market both fluctuate and are subject to volatility. Therefore, the amount of value that can be captured without stopping land coming forward for development altogether (i.e. the threshold land value) will vary dramatically between places and will differ over time. As a result, local authorities will need to adjust the planning obligations they demand on a case-by-case basis. Managing this tension is the central challenge for local authorities looking to maximise the amount of land value captured for public good (Crook et al., 2016).

2.5 Types of housebuilders

A range of housebuilders operate in the UK and include volume housebuilders, small- and medium-sized housebuilders, housing associations, local authorities, community-led developers, and self-builders (Communities and Local Government Committee, 2017). When it comes to valuing design, Tiesdell and Adams (2011a) hypothesise that housebuilders sit on a spectrum ranging from 'place entrepreneurs' to 'non-place entrepreneurs'.

Although there are exceptions, towards one end of the spectrum typically lie self-builders, community development trusts, small- and medium-sized housebuilders, some housing associations and local councils ('place entrepreneurs'). These operators tend to be more design-aware and seek to add design value through their work because they hold a long-term stake in what they produce. The 2020 report of the Building Better, Building Beautiful Commission recently identified this as a form of 'stewardship' and recommended that the long-term responsibility for new places should be better incentivised (Building Better, Building Beautiful Commission, 2020, p. 81).

Towards the other end of the spectrum typically sit the larger and more commercially-orientated housing associations as well as volume housebuilders ('non-place entrepreneurs'). Tiesdell and Adams (2011a) argue that volume housebuilders, in particular, tend to have a short-term interest in the projects they develop because they sell the units as quickly as possible before moving on to the next project. As a result, they are more likely to be interested in design value insofar that it impacts the 'net' value of the development. Depending on local market conditions and other externalities, this can result in housebuilders' activities working against place-based design solutions.

Image © Ewelina Wachala

Figure 4: A typical example of a standard house type produced by a volume housebuilder

2.5.1 Volume housebuilders

In 2016, ten volume housebuilders produced over 60% of new private housing (Ministry of Housing, Communities and Local Government, 2020b) and 38% was built by only five developers (Building, 2017, p. 20; Rhodes, 2019). The one regional exception is Northern Ireland where the housebuilding industry is more stratified (Haran et al., 2019).

Most volume housebuilders are public limited companies and have been criticised for prioritising shareholder dividends over other concerns (Archer and Cole, 2016). Volume housebuilders have also been branded 'non-place entrepreneurs' because they rely heavily on standard house types that are subtly reconfigured to suit the target constituency (Adams and Tiesdell, 2013; Hooper and Nicol, 2000, 1999) (see Figure 4). The volume housebuilding sector is nevertheless diverse and different operators place varying degrees of emphasis on design depending on the local housing market. Many also have regional branches with different operating models designed to suit local market conditions (Payne et al., 2019) and consumer preferences. Construction practices also differ between firms, with some being more innovative than others (Studio Partington, 2019).

2.5.2 Small- and medium-sized housebuilders

Competing with volume housebuilders are small- and medium-sized housebuilders that typically produce between 0-100 (small) and 101-2,000 (medium) homes per annum (Communities and Local Government Committee, 2017). Small developers often report than limited land availability and a lack of institutional finance are among their biggest barriers to entering the housing market (Federation of Master Builders, 2019). The number of small- and medium-sized housebuilders has thus declined in recent years as the volume housebuilders have assumed a position of dominance (Department for Communities and Local Government, 2017). This has implications for delivering design value because smaller housebuilders tend to be less beholden to shareholders and some seek to be 'place entrepreneurs' delivering higher quality homes, often on brownfield land (Adams and Tiesdell, 2013). Calls have been made by researchers and housebuilding bodies alike for better points of entry into the marketplace to be identified for small- and medium-sized housebuilders (e.g. Gibb, 1999; Home Builders Federation, 2017; Homes for Scotland, 2018).

2.5.3 Housing associations

Housing associations are the largest producers of non-market new homes (Communities and Local Government Committee, 2017). As they usually manage the houses they produce, housing association tend to have a longer-term stake in design quality than private sector developers, and some have a commitment to long-term design value the stems from efforts to address the failures of modernist social housing development in the middle of the 20th century (see Figure 5). This means that housing associations may be more likely to embrace design innovations such as co-design processes and MMC because it is financially prudent for them to futureproof their assets (Scanlon et al., 2017).

In recent years, the housing association sector has been characterised by mergers in the pursuit of economies of scale (Adams et al., 2013), despite the perceived "qualitative advantages" of "more local housing management" (Marsh, 2018, p. 10). This challenge was highlighted in a report by the UK Parliament's Communities and Local Government Select Committee, which noted that some housing associations have become more commercial and are therefore less focused on their long-term charitable role (Communities and Local Government Committee, 2016). By extension this draws into question whether larger and leaner housing associations have the same place-entrepreneur characteristics as smaller, more locally-based organisations.

Image © James T. White

Figure 5: Social housing design excellence in Laurieston, Glasgow

2.5.4 Local authorities

Before housing associations became the main provider of social housing, homes for social rent were mostly produced as 'council houses' by local authorities using their Housing Revenue Account (HRA) and grant funding from central government. The politics of state-funded housing over the past four decades means that many local authorities no longer have an HRA and council housing grants have all but disappeared (Partridge, 2019). From the 1980s onwards, a lot of existing council housing stock was also lost to the market through the 'right-to-buy' scheme. In Scotland and Wales, the 'right to buy' was scrapped in 2016 and 2019[4] respectively but it continues in England and Northern Ireland. The lack of sustainable funding for new building or long-term maintenance also led many local authorities to transfer all or most of their remaining council houses to housing associations (Morphet and Clifford, 2017).

Image © Tim Crocker 2019.

Image © Mikhail Riches

Figure 6: New award-winning council housing at Goldsmith Street, Norwich

Local authorities are now beginning to look for new ways to deliver housing directly, including through semi-independent housing companies (Morphet and Clifford, 2019, 2017) and in partnerships with the private sector (White, 2019). These council-owned companies are starting to produce significant numbers of new homes of various different tenures (including private rent and market sale), often on local authority-owned land (Hackett, 2017). This is allowing local authorities to play a renewed role in diversifying the housing market and pushing for better design (Hackett, 2017; Morphet and Clifford, 2019; Wainwright, 2019a). The 2019 award of the Stirling Prize to Goldsmith Street in Norwich recognised the potential of local authorities to deliver design value (Wainwright, 2019b) (see Figure 6).

[4] For further information on the diversification of the social housing sector in the Scottish context see *Social Housing in Scotland* (Bilge Serin et al., 2018)

Image © David Butler. Reproduced with the kind permission of TOWN

Figure 7: Marmalade Lane Co-Housing, Cambridge

2.5.5 Community-owned housing and self-builders

The other types of housing producers are very small scale and comprise community-owned enterprises and self-builders. There has been a gradual increase in the number of Community Land Trusts since the 1980s (Davis et al., 2020) and over 16,000 community-owned homes are currently in the pipeline (National Community Land Trust Network, 2020). Co-housing schemes such as Marmalade Lane in Cambridge, developed by TOWN (see Figure 7), can be difficult to initiate (Scanlon and Fernandez-Arrigoitia, 2015) but often prioritise design value and secure resident buy-in for sustainable design (Chatterton, 2013). A small number of new homes are also produced by self-builders. Compared to other European countries, however, the rates of self-building are low in the UK (Wilson, 2017) but the commitment to design quality is often very strong because self-builders are the pre-eminent 'place-based entrepreneurs' (See: National Custom and Self Build Association, 2020).

2.6 Types of housing development

New housing developments are either produced on 'greenfield' or 'brownfield' sites. Since the late 1990s, national government planning policies across the UK have encouraged the development of brownfield land as a route to creating more sustainable and well-designed settlements (Payne, 2013; Tiesdell and Adams, 2004). Nevertheless, 44% of new housing in England continues to be built on greenfield land (Booth, 2019) and in Scotland the amount of land recorded in the national Vacant and Derelict Land Register has been static for many years (Scottish Land Commission, 2020).

2.6.1 Greenfield development

Housebuilders and the volume housebuilding industry in particular are extremely cautious about identifying and buying land and prefer to focus on lower risk greenfield sites that they have 'optioned' from a landowner and/or have been allocated for housing in the local authority's development plan. Greenfield land is typically in suburban locations and tends to suit the replicable housing layouts and standard housing typologies that are favoured by volume housebuilders (Hooper and Nicol, 2000) (see Figure 8). Despite a raft of policy, practice guidelines and academic evidence that supports the development of well-connected and mixed use development (e.g. Carmona, 2019; Ministry of Housing and Local Government, 2019a; Scottish Government, 2013; Serin et al., 2018), most new greenfield housing developments are characterised by low density site layouts organised around cul-de-sacs (Adams et al., 2013). These new places tend to prioritise automobile use and have limited access to established open spaces (Adams and Tiesdell, 2013; Transport for New Homes, 2018). They nevertheless remain popular with purchasers and have proven profitable for volume housebuilders (Hooper and Nicol, 2000, 1999; Tiesdell and Adams, 2004).

Image © Duncan Cuthbertson

Figure 8: Typical greenfield housing development, Middleton, South Yorkshire

2.6.2 Brownfield development

Brownfield land is typically found in existing urban areas where land values are high and local planning policy tends to encourage higher density development. This means that brownfield land is likely to be developed at a higher density than greenfield land and contain flatted accommodation. Brownfield developments also tend to be more diverse and include a mixture of market, affordable and sometimes social housing. As a result, inner city brownfield sites rarely lend themselves to the standardised approach to development favoured by bigger housebuilders (Tiesdell and Adams, 2004). In contrast to a greenfield site, where much of the design work can be completed in-house by design technicians (Hooper and Nicol, 1999), brownfield sites typically require a more 'bespoke' solution that requires the expertise of an architect (Tiesdell and Adams, 2004).

Images © HTA Design LLP, photographed by Richard Downer

Figure 9: Brownfield housing development using non-standard house types by Barratt Homes at Cane Hill Park in South London (left) and Trinity Square, North London (right).

Brownfield development is also widely considered to be more risky than greenfield development (Pediaditi et al., 2005). While the big players in the UK's housebuilding industry have developed a finely tuned understanding of the market and a business model for delivering suburban homes, their knowledge of how to develop inner city houses and flatted accommodation tends to be less well-developed. There are nevertheless exceptions to this general rule including Berkeley Group, which operates in London and South East, and the regeneration company Urban Splash. The volume housebuilder Barratt Homes has also made a commitment to using non-standard house types on some of its higher value developments (see Figure 9). Generally, however, housebuilders find it harder to predict the demands of potential purchasers and gauge sales values (Adams, 2004; Payne, 2013). The previous use of a site can also lead to additional costs that are difficult to calculate before commencing on site and which can cause delays (Dixon, 2006; Leger et al., 2016). For example, the land might require significant demolition, phased purchasing, be contaminated and/or contain archaeological remains.

Brownfield sites also tend to be smaller than greenfield sites and developers might need to amalgamate various land parcels or work in partnership with a different housing provider to ensure viability (CIRIA, 2018). The bespoke nature of brownfield land, particularly smaller sites, means they are often attractive to small- and medium-sized developers (Home Builders Federation, 2017) looking to deliver local design value (Tiesdell and Adams, 2004).

2.7 Key actors in the design and development of new housing

In this final section of the literature review, we consider the roles that different protagonists play in delivering design value. It is crucial to recognise that interpretations of 'quality' and the delivery of 'better' design can differ widely between so-called 'supply side', 'demand side', and 'regulatory' actors (Tiesdell and Adams, 2011a). These interpretations can sometimes change and overlap at different upstream, midstream and downstream points in the planning, design and development process for new housing, and as actors move between the public and private spheres.

Supply side actors encompass landowners, land promoters, financiers and the housebuilders themselves, as well as their planning, design and construction partners. Tiesdell and Adams (2011a, p. 4) argue that these actors typically have "short term, financial and economic motives and see. . ..development as a financial commodity". Many of the positive economic, environmental and social values that might be generated by a well-designed scheme downstream, such as improved local amenities or better transportation connections, do not typically flow to the developer (Tiesdell and Adams, 2011b). These are the 'unprofitable' elements of design value, to use the terminology we employed in 2.4. As Henneberry et al. explain, "[t]he developer is primarily interested in exchange value – that is, prices or rents/yields achieved on disposal. . ..and only, secondarily, in the reputational value arising from corporate association with well-designed schemes" (2011, p. 221).

Demand-side actors, principally home buyers, but also including property investors and renters, typically have longer-term 'design' objectives and tend to see development as an environment to be used" (Tiesdell and Adams, 2011a, p. 4). Although not 'demand side' actors in strictly economic terms, established local communities and their elected representatives also have a vested interest in the long-term design quality of any new development as it becomes part of the local built environment.

Regulatory actors encompass national policymakers and local authority officials, including development management officers, urban designers, housing officers, highways engineers and many other statutory consultees. Elected councillors, who have a demand-side role as the representatives of the local community, are also key regulatory actors and ultimately have the final say on major planning applications on behalf of their electors[5]. Independent planning inspectors are also key regulatory actors should a housing developer appeal a local authority planning decision. While the motivations of regulatory actors will ultimately depend on their commitment to design quality, other non-design related factors, such as local housing market demand or pressure for economic development, can strongly influence how robustly design governance is practiced from one local authority to another (Tiesdell and Adams, 2011b; White, 2015).

[5] In Northern Ireland, local councillors assumed these powers in April 2015 following the devolution of plan making and development management to local authorities (Department of the Environment, 2014).

If the aim of a local authority is to produce a high quality and coherent urban environment through the planning process, then a balance must be struck between allowing supply side actors some degree of market flexibility, while also requiring them to meet the design quality thresholds established in policy and regulation. This 'push and pull' relationship has been described metaphorically by Bentley (1999) as the urban design 'battlefield' where the supply side, demand side and regulatory actors 'scheme and plot' like characters in a Shakespearian play to achieve often contrary design objectives throughout the meandering process of planning, designing and developing new homes.

The concept of 'opportunity space' has been used to further describe the urban design battlefield (Adams, David et al., 2011; Tiesdell and Adams, 2011a). It recognises that:

> all development actors operate by rules and command 'resources' – finance, expertise, ideas, interpersonal skills etc – which other actors want and need" and that "various webs of rules create 'opportunity space' – or scope for autonomous action – within which actors necessarily operate. (Tiesdell and Adams, 2011a, p. 7)

In the case of a new housing development, the housebuilder's 'opportunity space' is largely determined by the financial viability of the chosen site, an early upstream calculation in the development process. This influences the extent to which the housebuilder seeks to expand their 'opportunity space' by attempting to push down land values on the one hand and push back on design regulation on the other. Designers (architects, urban designers, and other professional consultants employed by the housebuilder) also have 'opportunity space' but it is contained within that of the housebuilder. Their 'opportunity space' is therefore restricted by the decisions of the housebuilder. For designers, the challenge is to balance their creative ambitions with the commercial realities of design practice (Adams and Tiesdell, 2013; Carmona, 2016; Tiesdell and Macfarlane, 2007).

The local authority or 'regulator' also has its own 'opportunity space'. The regulator will consider myriad factors when determining the extent to which they widen or restrict their opportunity space. This balancing act determines whether the regulator imposes firmer or weaker design prescriptions upstream in the planning process and influences how bullish they decide to be during midstream negotiations with the developer. The boundaries between the 'opportunity spaces' of housebuilders, designers and the local authority are fuzzy. Tiesdell and Adams argue that 'strategic advantage' is only possible when one or more actor knows "the limits of other actors' opportunity space" (2004, p. 32). The relative size of any one actor's 'opportunity space' is also shaped by the fact that individual supply side and regulatory actors move back and forth between the public and private sphere as they travel through their career. Private consultants also increasingly work for both public (regulatory) and private (supply side) clients (Linovski, 2019; Parker et al., 2018; Wargent et al., 2020) which, depending on the context, is likely to influence how they interpret design value and define 'good' or 'bad' design.

2.8 Summary

This review of the literature explored an empirically rich body of scholarship on the theory and practice of housebuilding. We nevertheless identified a series of gaps in this literature that informed the development of the research questions we pose in 1.3. To summarise:

- The pursuit of design value in housebuilding is clearly established in national planning policy across the UK. Empirical evidence on the implementation of national urban design policies at the local level, particularly in the last decade, is very limited.
- Local authorities can employ a range of tools to deliver design value and the extent to which design governance tools are deployed depends on the local authority's commitment to design. Scholarly work on theories of design governance are well developed in the literature (e.g. Carmona, 2017, 2016; Punter, 2007; White, 2015), but there is a lack of up-to-date empirical evidence on the practices and cultures of local authority design governance in the UK.
- The housebuilding sector is dominated by a small number of market-orientated volume housebuilders that rarely prioritise investment in design. While empirical research has been conducted on the value afforded to design in the housebuilding sector, it is increasingly dated (e.g. Hooper and Nicol, 1999, 1999; Tiesdell and Adams, 2004).
- There is little consideration of buildings in use or after use meaning those responsible for housing delivery rarely learn from mistakes. Evidence on the practice of post-occupancy evaluation is growing (e.g. Hay et al., 2018; Stevenson, 2019) but it demands further scrutiny, especially at the neighbourhood level.
- Housebuilding occurs on both greenfield and brownfield land, but brownfield development is also widely considered to be more risky than greenfield development (Pediaditi et al., 2005). Existing research tends to focus on the challenges and opportunities associated with brownfield land, with less known about the processes that shape design outcomes on greenfield land.
- A range of 'supply side', 'demand side', and 'regulatory' actors are involved in the housebuilding process, and their relative influence or 'opportunity space' (Tiesdell and Adams, 2004) on the 'urban design battlefield' (Bentley, 1999) influences design value in different ways upstream, midstream and downstream in the planning, design and development process. Furthermore, the emerging focus on the fluid roles that public and private sector actors play in planning and design governance merits further investigation (e.g. Linovski, 2019; Parker et al., 2018; Wargent et al., 2020).

Chapter 3
Methodology

Our research took the form of a multiple case study of five local authorities across the UK. We introduce the case studies in Chapter 4 and the findings in Chapter 5 and Chapter 6. We used three qualitative data sources to conduct our research: semi-structured interviews, documents and archives, and direct observations. Alongside the case studies, we also conducted six unstructured key informant interviews with senior built environment professionals and had numerous helpful conversations with our project advisory group. Together these discussions helped enhance our general understanding of housebuilding and design practice. The research was conducted in late 2019 and early 2020 and, in this chapter, we describe how the data were collected and analysed.

3.1 Research design

To ensure that our research accounted for any national or regional variations in housebuilding practice, we examined five local authorities across the four nations of the UK. We approached the research with the understanding that five case studies would not be sufficient to capture the diversity of housing markets across the UK, however, we felt that in-depth study was important, and that we were able to achieve diversity on a range of dimensions, as we outline in more detail throughout this chapter.

As previously explained in 1.4, two local authorities were selected in England and one local authority was selected in Scotland, Wales and Northern Ireland respectively. We decided to collect data in all four nations because, as we note in 2.1, planning and design policy and housing delivery practices have diverged during the last two decades. Furthermore, we decided to examine two local authorities in England (one in the South and one in the North) because of the relative size of England's population compared to the other nations and because of the north-south variation in the housing market (Meen and Nygaard, 2010). Within each of the five local authorities, we examined two housing developments or 'embedded units of analysis' (Yin, 2003) to ensure that any differences within the same context could be explored.

3.2 Local authority selection process

We identified the five local authorities using housing delivery, population, housing market and political control data from each UK local authority between 2015-2018. Ultimately, our aim was to select five 'typical' local authority case studies rather than ones with especially unique characteristics. We ordered the local authorities by the number of homes delivered in each authority[6], moving down the list to focus on local authorities at the approximate point at which the cumulative total number of houses delivered approached half the total. The selection process generated a shortlist for each of the nations/regions of the UK.

We then compared the local authorities within each nation/region using local data on population size and population density from the 2011 Census (Office for National Statistics, 2013), Land Registry data on UK house prices (HM Land Registry, 2019), and open source data on the political control of each local authority (Open Council Data UK, 2020). This allowed us to undertake a qualitative assessment of our shortlist and ensure that the key dimensions of each case were diverse. It also helped us avoid selecting 'outliers', i.e. local authorities with particularly unique circumstances, geographies, demographics or housing markets, and to ensure that we had a range of political control represented. Before making a final selection we also sought advice from our project advisory group. This process culminated in the selection of South Oxfordshire District Council (South of England), Rotherham Metropolitan Borough Council (North of England), East Lothian Council (Scotland), Bridgend County Borough Council (Wales) and Belfast City Council (Northern Ireland) (see Table 1).

By focusing on local authorities surrounding the median our aim was to develop insights on 'everyday' practice. This decision was made because the housebuilding industry is dominated by a small number of volume housebuilders who operate at a national scale (UK-wide but excluding Northern Ireland) (Communities and Local Government Committee, 2017). Focusing primarily on the median number of homes delivered at the level of the local authority allowed us to investigate if housebuilders treat design differently from place to place. It also meant we could examine whether local authorities respond to design matters in similar or dissimilar ways. In this respect, we used the scale of the local authority as a sorting device. We did not presuppose that local authorities have a pre-eminent role in delivering design value but nevertheless recognised that all new development proposals must pass through a development management process. While five case studies is certainly not sufficient to provide insights into every aspect of the UK's many different housing markets, we believe this purposive sampling allows us to generalise to wider regional and national contexts to a reasonable degree.

[6] Data sourced from: HM Land Registry, 2019; Housing and Social Justice Directorate, 2019; Department of Finance, 2019; StatsWales, 2019.

Nation/Region	Local authority	Total number of houses built between (2015-2018)	Regional cumulative number of houses built*	Population density (UK median = 4.7 persons per hectare)	Population size	Average house price (median 2018 yr. end)	Political control
South of England	Hillingdon	1,900	101,600	23.7	304,824	£415k	Cons
	Thurrock UA	1,890	103,490	9.7	172,525	£285k	NOC**
	Brent	1,880	105,370	72	330,795	£495k	Labour
	Wandsworth	1,880	107,250	89.6	326,474	£620k	Cons
	South Oxfordshire	1,790	109,040	2.0	140,504	£390k	NOC
	Camden	1,790	110,830	101.1	262,226	£775k	Labour
	Basildon	1,770	112,600	15.9	185,882	£295k	NOC
	Ashford	1,750	114,350	2.0	129,281	£285k	Cons
	South Cambridgeshire	1,740	116,090	1.6	157,519	£360k	Lib Dem
North of England	Warwick	1,860	118,310	4.9	142,484	£305k	NOC
	Plymouth UA	1,810	120,120	32.1	263,100	£178k	Labour
	Manchester	1,780	121,900	43.5	547,627	£173k	Labour
	Balby	1,750	123,650	7.2	100,421	£220k	Cons
	South Northamptonshire***	1,730	125,380	1.3	92,515	£310k	Cons
	Rotherham	1,720	127,100	9.0	264,671	£140k	Labour
	Solihull	1,640	128,740	11.6	214,909	£273k	Cons
	Chorley	1,610	130,350	5.3	116,821	£165k	Labour
	Wolverhampton	1,590	131,940	35.9	262,008	£150k	Labour
Scotland	South Lanarkshire	3,158	21,453	1.8	319,020	£128k	NOC
	Aberdeen City	2,665	24,118	12.0	227,560	£150k	NOC
	Highland****	2,650	26,768	0.1	235,540	£166k	NOC
	Renfrewshire	2,224	28,992	6.7	177,790	£120k	NOC
	East Lothian	1,984	30,976	1.5	105,790	£222k	NOC
Wales	Rhondda Cynon Taff	1298	3,638	5.5	240,131	£110k	Labour
	Bridgend	1209	2,340	5.6	144,876	£152k	NOC
	Swansea	1131	1,131	6.3	246,466	£142k	Labour
Northern Ireland	Ards and North Down	2,048	8,917	2.1 and 9.8*****	160,864	£150k	NOC
	Belfast	1,914	10,831	25.7	341,877	£128k	NOC
	Newry, Mourne and Down	1,826	12,659	1.1	180,012	£138k	NOC

* Cumulative total number of houses across entire region/nation.

** No Overall Control, including minority gov. and coalitions.

*** To ensure that the research included the North of England, we made the discretionary decision to use Rotherham instead of South Northamptonshire as the case study local authority.

**** Due to the unique rural geography of Highland, we made a discretionary decision to selected East Lothian as the case study local authority in Scotland.

***** Ards and North Down calculated separately.

Table 1: Shortlisted and selected local authorities

3.3 Housing development selection process

We next sought to identify two everyday (or typical) housing developments (or 'embedded units of analysis' (Yin, 2003)) in each of the five local authorities. We adopted this strategy to avoid looking solely at examples of best practice that likely emerged due to a unique set of circumstances (e.g. Adams et al., 2013; Hall, 2011; Tiesdell and Macfarlane, 2007). To identify suitable developments, we examined planning applications on the online planning portals for England, Wales, and Northern Ireland and the ePlanning database in Scotland, and also sought advice via email from local authority officers. We did not specifically seek to examine housing developments produced by the same developer in different regions/nations, although in some instances this did occur. We used the following criteria to select the final list of ten housing developments shown in Table 2:

- **Time period:** Developments that were completed as close to 2017-19 as possible.
- **Scale of development:** Developments with 30 or more units to ensure we could examine design value at the neighbourhood scale.
- **Development type:** Developments near to the median in terms of number of units developed and/ or average sale price of the units, as well as developments led by housebuilders that deliver among the highest number units in the area.
- **Other criteria synthesised across the whole sample:** Diversity in terms of size/ type of housebuilder, number of units, location, and a mixture of greenfield and brownfield sites.

Region/nation	Local authority	Development	Location	Size	Permission granted	Completed	Land	Main developer	Developer type	No. of units	Housing mix	Part of masterplan
South East of England	South Oxfordshire District Council	Great Western Park, Phase 2a	Didcot	7.23ha	2011	2015	Greenfield	Taylor Wimpey	Volume Housebuilder	250	174 market 75 affordable	Yes
		Sycamore Rise	Thame	21.7ha	2016	2020	Greenfield	Persimmon	Volume Housebuilder	175	105 market 70 affordable	Yes
Rest of England	Rotherham Metropolitan Borough Council	The Banks, Waverley New Community	Waverley	2.95ha	2012	2013	Brownfield	Taylor Wimpey	Volume Housebuilder	89	94 market 9 affordable	Yes
		Sky-House, Waverley New Community	Waverley	0.45ha	2017	2020	Brownfield	Sky-House	Small Developer	44	44 affordable (for families and first-time buyers)	Yes
Scotland	East Lothian Council	Dovecot	Haddington	6.7ha	2015	2019	Greenfield	David Wilson Homes*	Volume Housebuilder	113	85 market 28 affordable	No
		Gateside West	Haddington	4.07ha	2016	2019	Brownfield	Persimmon	Volume Housebuilder	97	73 market 24 affordable	No
Wales	Bridgend County Borough Council	Parc Derwen, Phase R19	Coity	1.97ha	2018	2020	Greenfield	Persimmon	Volume Housebuilder	77	77 market only	Yes
		Ysgol Bryn Castell, Phases 1 and 2	Brynmenyn	5.5ha	2015 (Phase 1); 2020 (Phase 2)	2018 (Phase 1); Phase 2 under construction	Brownfield	Barratt Developments (Phase 1); Persimmon (Phase 2)	Volume Housebuilders	194	181 market 14 affordable (Phase 1 only)	No
Northern Ireland	Belfast City Council	Peter Pan Complex	West Belfast	1.12ha	2015	2019	Brownfield	Pan-Residential (for Radius HA)	Small Developer	90	90 affordable	No
		Portland 88	Belfast City Centre	0.3ha	2016	2019	Brownfield	Barnett Developments	Small Developer	88	88 market	No

*David Wilson Homes are a subsidiary of Barratt Developments

Table 2: Selected housing developments

3.4 Data sources

We collected the data on the ten housing developments using a combination of semi-structured interviews, documents and archives, and direct observations, alongside a series of key informant interviews. Using multiple data sources is a common practice in qualitative research and is known as 'triangulation'. This means that multiple perspectives on the subject matter are collected and ensures that the subject matter is analysed as comprehensively as possible (Bryman, 2016). Each of the five members of the research team were responsible for gathering all the data on one local authority case study to ensure as much familiarity with the context as possible. Simultaneously, the Quality of Life Foundation undertook surveys of resident attitudes on two of the developments we researched, Parc Derwen in Bridgend and Portland 88 in Belfast, thus giving us a richer picture of design value for these particular examples (See: Mosteanu, 2020).

3.4.1 Archives and documents

We first collected the relevant documents relating to each of the housing developments. This meant that the interviews and direct observations we would later conduct were informed by the researchers' understanding of the local context. The documents sourced in each of the five local authorities included: national policy relating to design and housing in the respective nation, local housing design policy and guidelines, and other data on the local economy and the housing market. Where possible, we also collected site design documents (e.g. design codes, neighbourhood plans, etc.) from the online planning application repositories in each local authority, as well as media reports and publicly available material produced by the developer. Finally, we sought to collect any building contracts, framework agreements, post-occupancy studies or other commercial documents that developers were prepared to share with us.

3.4.2 Semi-structured interviews

We conducted a total of 48 semi-structured interviews amounting to approximately 5 interviews per housing development. Some were conducted with two respondents meaning the total number of interview participants was 54. For each housing development we aimed to conduct an interview with the landowner, the housebuilder, a member of the design team, and a local authority officer. Some interviews were also conducted with planning consultants and local elected officials.

The interviews were either conducted in person or via telephone and lasted approximately 60 minutes. Where participants consented, the interviews were recorded and professionally transcribed. We devised a simplified semi-structured interview proforma that was based on our review of the literature and our more detailed analysis framework (see 2.3 and Appendix 1). This ensured consistency while also allowing the interviewer some discretion to tailor questions to suit the research participant or the local context (see Appendix 2 for the simplified interview proforma). Anonymised interview codes are used throughout the remainder of the report to reference the participant(s) when we quote them directly. Indirect quotes are not referenced to specific participants to protect anonymity and ease the flow of the text. A list of the interviews conducted in each local authority and the code assigned to each interviewee can be found in Appendix 3.

3.4.3 Direct observations

Members of the project team visited the local authority areas and conducted field observations of the housing developments. We took a series of photographs as we walked around each development. Later, desk-based analysis was conducted to identify key design features such as: key site gateways, relationships and connections between the development and other neighbourhoods/districts, building elevations, building corner treatments, building setbacks, size and arrangement of open spaces and other landscaping, and hardscaping treatments (roads, pathways, bike lanes, shared spaces, etc.), and mixed use or non-housing land uses.

3.4.4 Key informant interviews

We conducted a series of six non-random key informant interviews with senior professionals working across the UK in the housing, design and planning sectors. The key informants were selected on the basis of their expertise. We used our own networks and took advice from our project advisory group to identify relevant participants. The key informant interviews were intended to aid and contextualise our understanding of the broader themes and issues being examined through the five case studies. As such, they have not been quoted directly in this report. The project research questions (see 1.3) were used to guide the key informant interviews, which otherwise followed a largely unstructured format to ensure as wide-ranging discussion as possible. Each of the key informant interviews lasted approximately 60 minutes and were recorded and professionally transcribed for analysis.

3.5 Data analysis

We purposefully designed the data analysis process so it could be conducted more or less simultaneously by the research team. As noted earlier in 3.4, five members of the research team each collected the data from one local authority (i.e. two housing developments per researcher) and then conducted a phased analysis of the data from their case. The remaining member of the research team (the lead author of this report) then undertook a synthesised content analysis of all the data and wrote this report. To ensure that the data from all five case studies could be analysed in a consistent and efficient manner, the research team undertook a four-phased process of analysis. This was structured as follows:

Phase 1	**Initial content analysis:** For each of the housing developments the raw data were organised into a framework that reflected the typical stages in the planning, design and development process (see Appendix 3).
Phase 2	**Simplified content analysis:** Each of the Phase 1 framework analyses were then simplified to ensure that the initial findings were clearly articulated.
Phase 3	**Initial thematic analysis:** For each of the housing developments an initial thematic analysis of the data was then conducted. This phase of the analysis was organised under a series of themes drawn from research questions (a copy of the thematic analysis template is provided in Appendix 5).
Phase 4	**Synthesised thematic analysis:** We conducted the final synthesised analysis using the series of themes from Phase 3, as well as identifying any sub-themes that emerged across the five case studies.

3.6 Ethics and good research practice

The primary data collection was subject to ethical clearance from the University of Glasgow (No. 400180239). All of the research participants were provided with clear information on the conduct of the research and gave written consent before participating. The project was also overseen by our project advisory board whose feedback was sought at key intervals during the research and which informed the conduct and presentation of the results herein.

3.7 Research limitations

As with any research project, there were limitations to our methods and approach. First and foremost, Covid-19 social distancing rules introduced at the tail end of our fieldwork in early 2020 meant that a small number of the interviews we had hoped to conducted in-person were either delayed and conducted remotely or were not conducted at all. Covid-19 movement restrictions also prevented us from making a site visit to the Waverley New Community in Rotherham, however, a colleague at the Collaborative Centre for Housing Evidence who is based close to the site kindly agreed to take a series of photographs for us when the restrictions were lifted. These were then used to complete a desk-based analysis of the two housing developments we examined.

Beyond the impact of the 2020 Covid-19 pandemic, we found that it was not always possible to interview someone from all of the professional categories we had identified for each housing development. The research team went to great lengths to identify potential participants, however, we often found that some did not wish to be involved in the study, others had moved on to another organisation and were difficult to track down, while a small number simply ignored our requests for an interview. At times, it also proved difficult to gain access to written data (documents, drawings, etc.) because participants were either reluctant to share commercially sensitive material or no longer had access to documents that we asked for. In some instances, this meant that we were unable to research our preferred housing developments in the selected local authorities. This problem served as a reminder that it can be difficult for researchers to piece together the story of a housing development process even soon after the project has been completed. Finally, the research team agreed that post-occupancy evaluations of the ten housing developments would have provided an important additional angle on the outcomes of the planning, design and development processes we examined.

3.8 Summary

To summarise, in this explanation of our methodology we have:

- Set out the project research design as a multiple case study of housing developments across the UK.
- Detailed the systematic selection of five local authorities across the UK and ten 'everyday' housing developments.
- Justified the means of data collection and provided a rationale for using four qualitative data sources for the purpose of triangulation, namely: archives and documents, semi-structured interviews, direct observations, and key informant interviews.
- Noted some of the challenges we experienced collecting archival and interview data.
- Described the four-phased process of thematic data analysis we employed.
- Stated our commitment to the ethics of good research practice and reflected on the research limitations.

Chapter 4
The case studies

In this chapter we introduce and describe the case study local authorities and housing developments we examined. For each local authority we give an overview of the planning context for housing development and a description of the two housing developments we researched. This chapter is followed by a detailed thematic presentation of the primary data (see Chapter 5 and Chapter 6).

4.1 South of England: South Oxfordshire District Council

South Oxfordshire is located between Oxford and Reading. It is a predominately suburban and rural local authority incorporating the settlements of Thame, Didcot, Henley-on-Thames and Wallingford. The local authority area has a steadily rising population and, in 2016, the total population was estimated to be 138,128 (Oxford City Council, 2017). South Oxfordshire is affluent with significantly higher than average wages and house prices (Oxford City Council, 2017). A large number of people in South Oxfordshire commute to work outside of the local authority area, including to London, Oxford and Reading.

South Oxfordshire District Council is part of the wider Oxfordshire Housing and Growth Deal consortium of local authorities, where up to 100,000 new homes are anticipated to be built between 2011 and 2031 (Oxfordshire Growth Board, 2020). In South Oxfordshire, there is a housing delivery target of 556 homes per year (South Oxfordshire District Council, 2019) and the *South Oxfordshire Local Plan 2011-2034* is committed to "high quality development" (South Oxfordshire District Council, 2019, p. 198) and the delivery of "…sustainable, inclusive and mixed communities in order to create successful places where people want to live, work and play" (p. 199). The first of the two housing developments we examined is located in Didcot, on the south-western edge of the local authority area, while the other is in Thame, which is on the north-eastern boundary of South Oxfordshire (see: Figure 11).

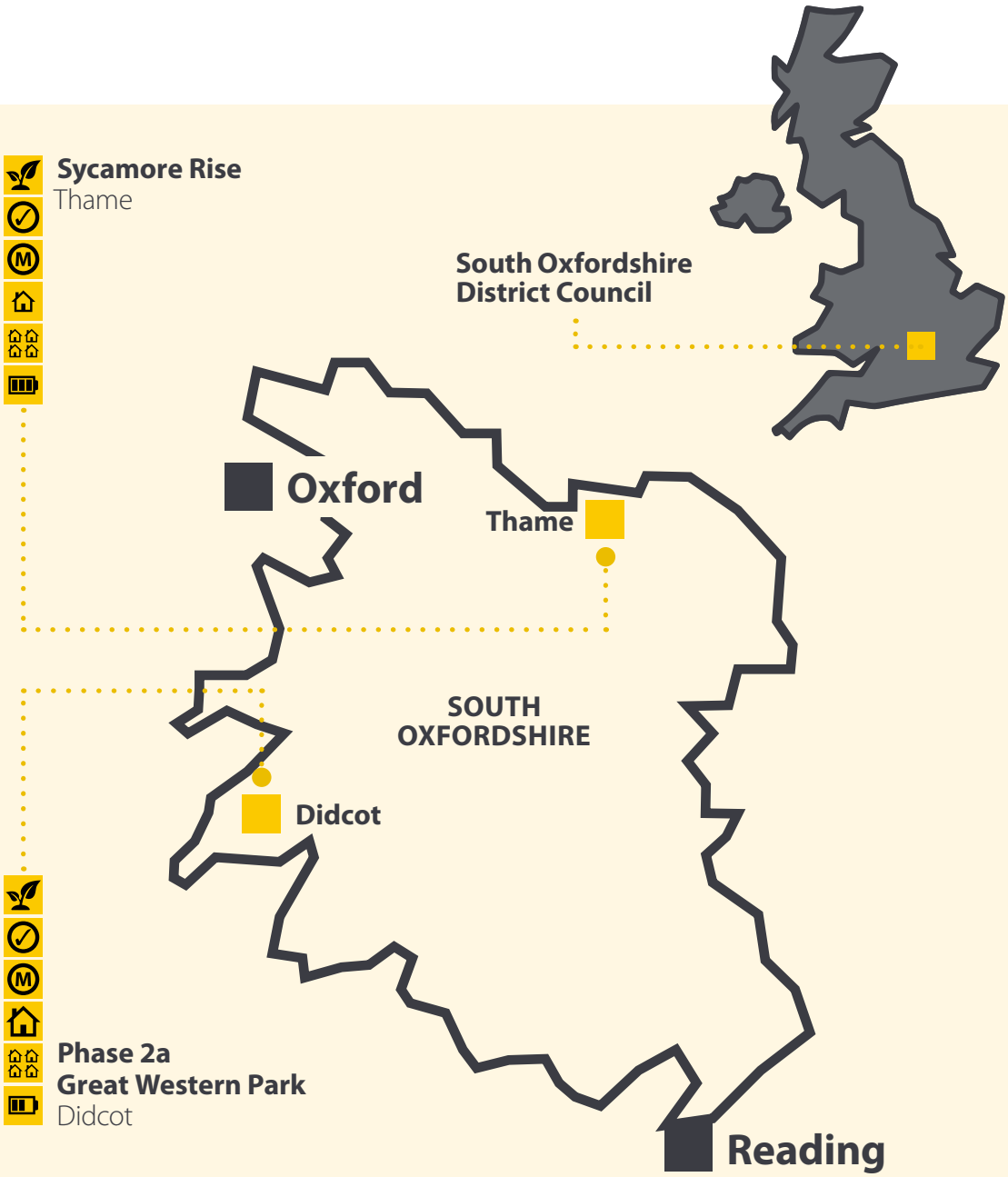


Figure 10: Housing development locations in South Oxfordshire

4.1.1 Great Western Park (Northern Neighbourhood, Phase 2a), Didcot

Phase 2a of Great Western Park is a 179-hectare greenfield site on the edge of Didcot that was assembled by the volume housebuilders George Wimpey and Taylor Woodrow[7] in the early 2000s (South Oxfordshire District Council, 2006). It has subsequently been developed in phases by a consortium of volume housebuilders including Taylor Wimpey, Miller Homes, Bellway, David Wilson Homes, Persimmon Homes and the retirement housing developer, McCarthy and Stone (Taylor Wimpey et al., 2020). The development history of Great Western Park can be traced back to 1956, when a planning application for new housing was first submitted (and refused because the site was located in the countryside). A series of subsequent planning applications also failed on similar grounds, until a policy change in 2001 established the site as a potential growth area (South Oxfordshire District Council, 2006).

George Wimpey and Taylor Woodrow submitted an outline planning application for the site in 2002. This led to a masterplanning process coordinated by South Oxfordshire District Council and the Vale of the White Horse District Council[8]. The local authorities engaged Tibbalds Planning and Urban Design to advise on the masterplan and the housebuilders commissioned PRP Architects to work on a revision of the outline planning application (South Oxfordshire District Council, 2006). The masterplan was completed in late 2005 and outline planning permission was granted a few years later in 2008 for a mixed use urban extension containing 3,300 homes and associated shops, services and open space (RPS Planning & Development, 2011). The conditions attached to the outline planning applications required the developer to produce a phasing strategy and a development strategy for the whole site, as well as a series of more detailed framework plans and design briefs (Taylor Wimpey, 2010).

The masterplan and detailed design framework are both contained in the *Great Western Park Design Statement* produced by PRP Architects in 2005 for the purposes of securing outline planning permission for the housing extension area (PRP Architects Ltd., 2005). It envisaged Great Western Park as a seamless extension to Didcot that would improve the existing urban-rural divide by creating three distinct character areas, called the Northern Neighbourhood, the District Neighbourhood and the Southern Neighbourhood. The three character areas were designed to be interwoven with a series of radiating landscape corridors and were each to contain mixed-use neighbourhood centres linked by a linear spine road that would form a high street through the site. The high street was also designed to connect a series of more formal public spaces, the largest of which, 'The Oval', was positioned between the Northern and District neighbourhoods.

Within each neighbourhood area the masterplan envisaged a permeable street network defined by organic perimeter blocks. The density of development was intended to gently increase towards the three neighbourhood centres. It is clear that the masterplan was heavily influenced by the concept of 'townscape' as it emphasised the role of "identifiable streetscape sequences" and "landmark buildings" to "enhance the sense of place" (PRP Architects Ltd., 2005, p. 5). The *Design Statement* also stressed the importance of reflecting local traditional development patterns in Oxfordshire and used images of the local architectural vernacular to ensure that "[t]he character of the new buildings and architectural language should be developed both as a response to local physical and cultural features and surrounding vernacular and, as interpretation of the vernacular in a modern context" (PRP Architects Ltd., 2005, p. 5).

[7] George Wimpey and Taylor Woodrow subsequently merged in 2007 and became Taylor Wimpey (Warwick-Ching, 2007).

[8] The Vale of the White Horse District Council were involved in the masterplanning process because part of the site extends over the boundary between the two local authorities. The two authorities also share a planning service.

Image © Gareth Clarke

Figure 11: Phase 2a at Great Western Park facing The Oval public space

Our research focused on Phase 2a of Great Western Park, a 7.23ha site in the Northern Neighbourhood area that was developed by Taylor Wimpey. Full planning permission for 250 new homes, a retail unit and associated open space was granted in 2011 (South Oxfordshire District Council, 2011). The proposals for Phase 2a were established in the *Northern Neighbourhood Framework Plan*, a secondary precinct-level masterplan which reinforced and developed the principles established in the wider masterplan in more detail. The Northern Neighbourhood itself was divided into a series of five further character areas to reinforce the concept of increasing densities towards the linear spine road, which runs from north to south through the district (Taylor Wimpey, 2010). The southern quadrant of the Northern neighbourhood contains Phase 2a and is orientated to face The Oval public space (see Figure 11). It also borders the existing suburban edge of Didcot to the east.

Phase 2a was completed in 2015. It was developed as a mix of 174 private homes and 76 units of affordable housing at a density ranging from 40 to 44 dwellings per hectare (RPS Planning & Development, 2011). A small retail unit was also included in the scheme which, as a condition of the planning approval, was designed in such a way that it could be reconfigured into a residential unit (RPS Planning & Development, 2011).

The completed scheme is a largely faithful interpretation of the *Northern Neighbourhood Framework Plan*. Low to medium density house types have been arranged organically in a series of perimeter blocks, which provide enclosed areas for car parking. The density of development increases towards the central spine road where taller townhouses and flats help to reinforce the 'high street' character of the street, although because only one retail unit was built, the sense of an urban high street is rather tangential.

The layout of the scheme suggests that standard house types have been used but adapted slightly to suit the masterplan. There is little evidence of the sort of 'landmark buildings' envisaged in the original masterplan, although some effort has been made to position larger and more prominent house types at the termination of some tertiary streets, thus creating 'closed vistas'. Grander townhouses are also positioned around The Oval public space to form a crescent. Overall, however, there appears to have been little effort to respond to the architectural vernacular of Oxfordshire and only a limited palette of materials has been used to differentiate the house types.

Images © Tom Kenny

Figure 12: Examples of the house types and layout of Phase 2a, Great Western Park

4.1.2 Sycamore Rise, Thame

Sycamore Rise is the second of the two housing developments we examined in South Oxfordshire. It is located on an edge-of-settlement greenfield site on the southern boundary of Thame, an affluent market town east of Oxford. Originally called 'Land West of Thame Park Road', Sycamore Rise was allocated as a housing growth area for 175 dwellings in the 2013 *Thame Neighbourhood Plan* (Thame Town Council, 2013). The site covers an area of 21.7 ha, comprising 8.5ha of developable land and 13.2 ha of open space (Thame Town Council, 2013). Outline planning permission was sought by Commercial Estates Group Ltd, a strategic land promoter, in 2013 as part of a wider masterplan for three land parcels. For the land parcel in question, the application proposed the development of 175 dwellings, as envisaged in the neighbourhood plan, with up to 40% designated as affordable housing (South Oxfordshire District Council, 2013).

A contextually rich masterplan was included in the *Design and Access Statement* and *Design Brief* for the site. It proposed a series of seven organic perimeter blocks carefully positioned outward to the street to ensure a strong sense of enclosure (Civic Studio, 2013). The design concepts contained in the masterplan were directly informed by a detailed townscape analysis of Thame. This analysis informed the size, massing and proportion of the built form, and care was taken to ensure that the proposed development positively addresses the existing Thame Park Road using a landmark corner treatment. A generous central greenway was proposed north-south through the site, opening onto an existing green space on the southern boundary of the site. Two smaller public spaces were also incorporated into the masterplan to create a central focus for the development blocks located east and west of the central spine (Civic Studio, 2013). Outline planning permission for the site was granted in June 2014 (South Oxfordshire District Council, 2014) and the land was then sold to the volume housebuilder, Persimmon Homes.

Persimmon Homes submitted a reserved matters planning application for the site in 2016 (South Oxfordshire District Council, 2016). This application included the more detailed house plans for the site and also adjusted some of the wider design proposals. Persimmon Homes sought to build the approved number of residential units and stipulated a mix of 105 market homes and 70 affordable units, comprising 11 one bedroom, 36 two bedroom, 25 three bedroom and 8 four bedroom homes (Pegaus Group, 2015). Permission was granted permission in late 2016 and the site was developed soon thereafter and marketed during 2019 and 2020 (Persimmon Homes, 2020). The affordable housing at Sycamore Rise, some of which are shared-equity homes, was passed to Red Kite Community Housing (Red Kite Community Housing, 2020).

Images © Tom Kenny

Figure 13: Example of the layout and house types used at Sycamore Rise, Thame

Image © Tom Kenny

Figure 14: The entrance to Sycamore Rise, Thame

The scheme is nearly complete and is somewhat faithful, at least in broad strokes, to the original masterplan. Persimmon Homes retained the central green spine and used a perimeter block morphology to organise the streets and blocks. Some significant changes were nevertheless approved as part of the reserved matters application which detracted from the original design. Notably, the road network east of the central green spine was reorganised to make room for a small number of cul-de-sacs. This resulted in the loss of one of the smaller open spaces. Additionally, the developer used a limited number of standard house types which negatively impacted upon the townscape character of the development and led to much less design diversity than the outline planning permission had envisaged. Some of the smaller nuances of the original proposal, such as the way buildings might have framed the gateway to the site or how the landscaping and hardscaping was finished, were also lost in the completed scheme.

4.2 North of England: Rotherham Metropolitan Borough Council

Rotherham Metropolitan Borough lies nine miles north west of Sheffield in the county of South Yorkshire and forms part of the wider Sheffield City Region (Rotherham Metropolitan Borough Council, 2015). Rotherham grew during the industrial revolution from a small market town into a major industrial centre dominated by steel production. The metropolitan borough encompasses the urban environs of Rotherham but is also characterised by rolling countryside and numerous villages (Rotherham Metropolitan Borough Council, 2014). Rotherham witnessed rapid population growth in the late 19th century before post-industrialism took hold during the 1980s and 1990s and the population declined in the early 2000s. Today, Rotherham's population is steadily growing and, in 2018, it was home to 254,000 people (Rotherham Metropolitan Borough Council, 2014). Rotherham's location close to major road and rail links in the centre of South Yorkshire means there is considerable inward and outward commuting. Due to the decline of traditional industries, however, Rotherham's unemployment rate remains higher than the English national average and 35% of the working-age population have only limited or no qualifications. The borough has higher than average levels of poverty and deprivation (Rotherham Metropolitan Borough Council, 2015). These socio-economic conditions mean that housing in Rotherham is generally affordable (Rotherham Metropolitan Borough Council, 2014).

A key part of the regeneration agenda in Rotherham is to deliver more homes than are currently produced and to both diversify and widen opportunities for employment through urban regeneration (Rotherham Metropolitan Borough Council, 2015). The 'Core Strategy' in the *Rotherham Local Plan* explicitly commits to improving the choice and quality of new housing and intends that "new development built to sustainable design standards will have contributed to the creation of safe, accessible, and well managed places…" (Rotherham Metropolitan Borough Council, 2014, p. 28). The local plan also identifies a number of strategic sites for housing growth within the Borough, including a 'Special Policy Area' designated for 4,000 new homes called Waverley New Community (Rotherham Metropolitan Borough Council, 2018). Both of the housing development projects we examined in Rotherham are in the Waverley New Community (see Figure 15).

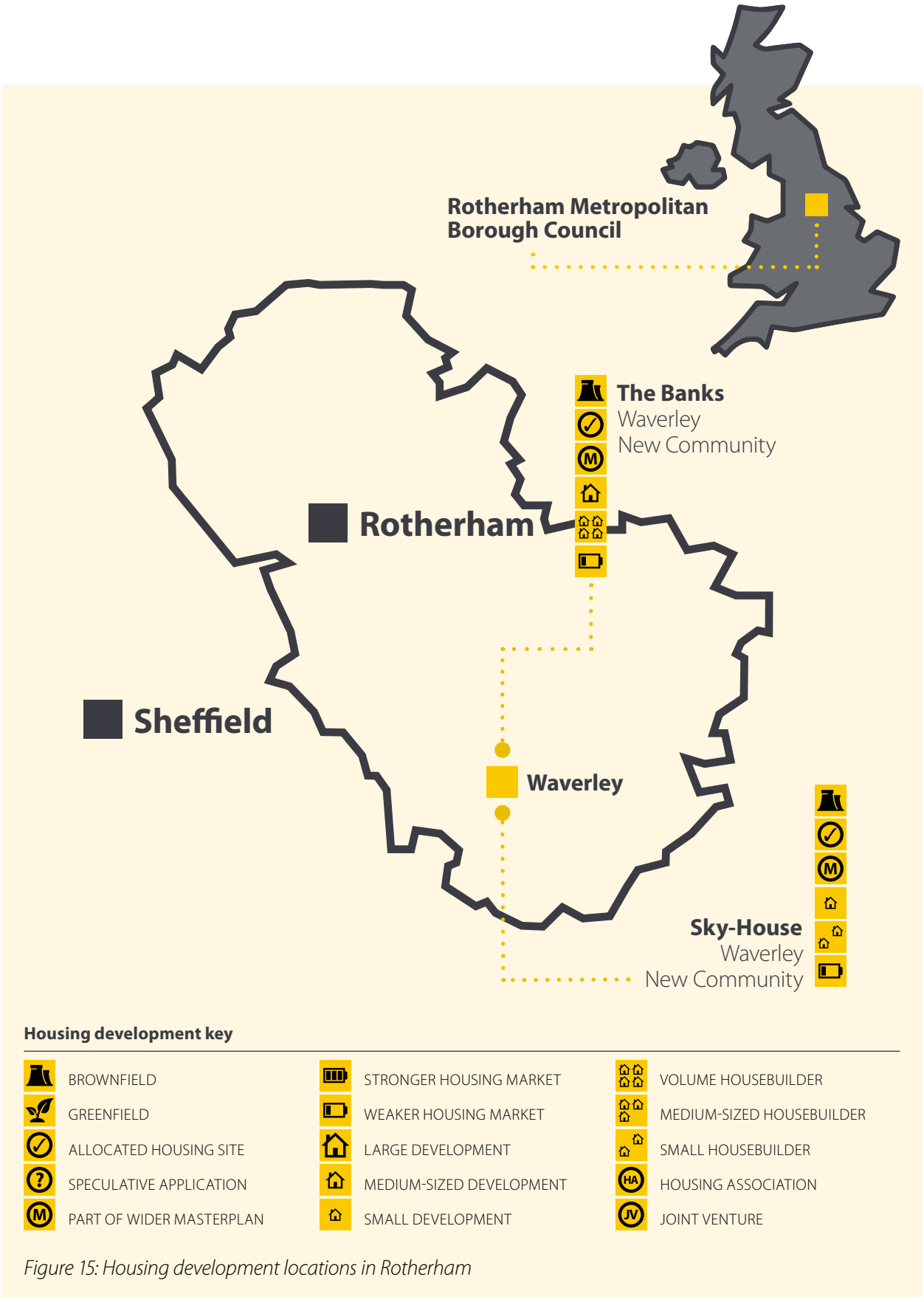


Figure 15: Housing development locations in Rotherham

4.2.1 The Banks, Waverley, Rotherham

The Waverley New Community is a 300-ha brownfield site being developed on the site of the former Orgreave Open Cast colliery. Outline planning permission for the site was sought in 2008 by the regeneration company Harworth Group (Rotherham Metropolitan Borough Council, 2011a) following a decade-long ground remediation process (Harworth Group, 2020). The application was approved in 2011 and provided conditional permission for the development of 3,890 residential units as well as associated mixed use office and retail space, schooling, health, community and cultural facilities (Rotherham Metropolitan Borough Council, 2011a). Harworth Group are the 'master developer' of Waverley which, at the time of writing, is an on-going phased development that is projected to continue until 2030 (Harworth Group, 2020).

Images © Gareth Young

Figure 16: Street layout and house types at The Banks, Waverley New Community, Rotherham

The outline planning application included a masterplan, phasing plan and *Design and Access Statement* that were originally produced by LDA Design (LDA Design and Harworth Estates, 2009a, 2009b) and have since been updated in response to market conditions (John R Paley Associates, 2011). The masterplan divided the large post-industrial site into a series of permeable rectilinear residential blocks with access points to the north, east and west. Immediately east of the masterplanned area lies a new advanced manufacturing site and, form here, a green spine weaves through the site southeast to Waverley Lake and an expansive recreational green space. The masterplan subdivided the site into seven character areas, with taller and more dense residential buildings located in the Waverley Central character area and lower density development spreading out towards the site boundaries (John R Paley Associates, 2011).

Harworth Group continue to coordinate the site masterplan and prepare each of the land parcels for the group of housebuilders involved in the project. At present these include volume housebuilders Avant, Taylor Wimpey, Barratt Homes, and two small- to medium-sized housebuilders, Harron Homes and CODA Studios/ Broadfield Holdings (Harworth Group, 2020). The first of two sites that we examined at Waverley New Community was 'The Banks'. It was the first land parcel at Waverley to be developed and is located in Phase 1a of the Highfield Spring Character Area. Harworth Group selected the volume housebuilder Taylor Wimpey to develop the site and they received planning permission via a reserved matters application in January 2012 for 89 houses (Rotherham Metropolitan Borough Council, 2011b). This application was subsequently amended to accommodate five additional dwellings in 2013 (Rotherham Metropolitan Borough Council, 2013). Nine houses in The Banks were designated as affordable (Rotherham Metropolitan Borough Council, 2011b). The Banks was completed as part of the first phase of the Waverley New Community in 2013.

Image © Gareth Young

Figure 17: Green landscape corridor at The Banks, Waverley New Community, Rotherham

The Highfield Spring Character Area, of which The Banks is a part, is located on the edge of Waverley New Community and was envisaged as a relatively low-density area that would have quite a traditional architectural form. The masterplan contained in the area design code proposed a series of small and mostly rectangular perimeter blocks with a mixture of permeable streets and cul-de-sacs (see Figure 16). A landscape corridor called 'Orgreave Greenway' (named after the original colliery) was designed to run east-west through the character area (John R Paley Associates, 2011) (see Figure 17). The completed development largely follows the spirit of the character area masterplan. It was, however, built using the developer's standard house types which has resulted in a slightly less-refined interpretation of the masterplan than might otherwise have been achieved had more bespoke architectural design been commissioned. This is especially noticeable at the termination of key corners and with respect to the organisation of various cul-de-sacs, which are larger and have less sense of enclosure than the masterplan anticipated (see Figure 16).

4.2.2 Sky-House, Waverley, Rotherham

The second development we examined at Waverley New Community was 'Sky-House', a bespoke housing development of 44 houses on 0.44ha proposed by a small local housebuilder named CODA Studios and a property developer called Broadfield Holdings. The ambition was to deliver 44 distinct homes that would be affordable for families and first-time buyers. A reserved matters application for 'Sky-House' was approved by Rotherham Metropolitan Borough Council in 2017 in the context of the wider outline permission and its associated masterplan (Rotherham Metropolitan Borough Council, 2017). 'Sky-House' is in the Waverley Square Character Area, which is located near to the centre of the wider Waverley neighbourhood. The detailed masterplan for this area called for higher building densities than in Phase 1a and proposed that developers use more contemporary architectural forms (CODA Planning, 2017).

Sky-House is currently being developed with most of the units either sold or reserved (Sky-House Urban Living, 2020). The design of 'Sky-House' is distinctly different from the other phases of Waverley New Community, which have been developed by volume housebuilders using standard or slightly adapted house types arranged in perimeter blocks. In contrast, Sky-House was designed by an architect-housebuilder and experiments with a contemporary interpretation of a 'back to back' architectural from, a common 19th century housing typology in the industrial cities of the North of England. The scheme is organised as a series of four rectangular blocks and the back-to-back arrangement allows for active frontages on three sides. Each of the dwellings has a private roof garden obscured from public view by a striking geometric roof line. The four blocks are separated by a series of three parking courtyards, one of which contains a pocket park. The shorter, principal elevations of the four blocks face the main street and are defined by larger townhouses with contemporary façades and large window openings (see Figure 18).

Images © Gareth Young

Figure 18: Sky-House, Waverley New Community, Rotherham

4.3 Scotland: East Lothian Council

East Lothian is located to the east of Edinburgh and is a mostly rural local authority with 43 miles of coastline on the Firth of Forth and the North Sea (East Lothian Council, 2018a). The principal settlements within the local authority boundary include Haddington, Dunbar and Musselburgh, the popular seaside town of North Berwick, and many smaller villages. Famous for its golf courses and coastline, East Lothian is considered a mostly affluent local authority. It is home to 107,000 people (2017 figures) and has a rapidly growing population that is projected to increase by 18% between 2016 and 2041 (East Lothian Partnership Connected Economy Group, 2018). East Lothian has low unemployment and only small pockets of deprivation (East Lothian Partnership Connected Economy Group, 2018). A high proportion of those in work are employed in professional, managerial and highly skilled jobs (East Lothian Partnership, 2016), although many of these jobs are not located in East Lothian and a large number of working age adults in East Lothian commute into Edinburgh for work (East Lothian Partnership Connected Economy Group, 2018).

The growing population of East Lothian means it is a housing growth area. Scotland's current *National Planning Framework 3* (NPF3) recognises East Lothian as a key driver of the Scottish economy and thus an area where new land for housing should be made available (Scottish Government, 2014b). The regional *Strategic Plan for Edinburgh and South East Scotland* (SESPlan) furthermore requires that land be available for 74,836 new homes across the region until 2019, and for an additional 32,170 homes up to 2024 (Strategic Development Authority for Edinburgh and South East Scotland, 2013). In the recent past, East Lothian Council has struggled to maintain a ready supply of land for housing development and a series of planning applications for new housing that were refused by East Lothian have been overturned on appeal (East Lothian Council, 2013). As a result, the authority produced interim guidance in 2013 on its housing land supply. This allows proposals for new housing on sites not allocated for development in the 2008 *Local Plan*, including on greenfield land (East Lothian Council, 2013). This housing land challenge has been addressed further in the most recent *East Lothian Local Development Plan*, adopted in 2018, which states that the local authority must have "land capable of delivering 10,050 homes….up to 2024" (East Lothian Council, 2018a).

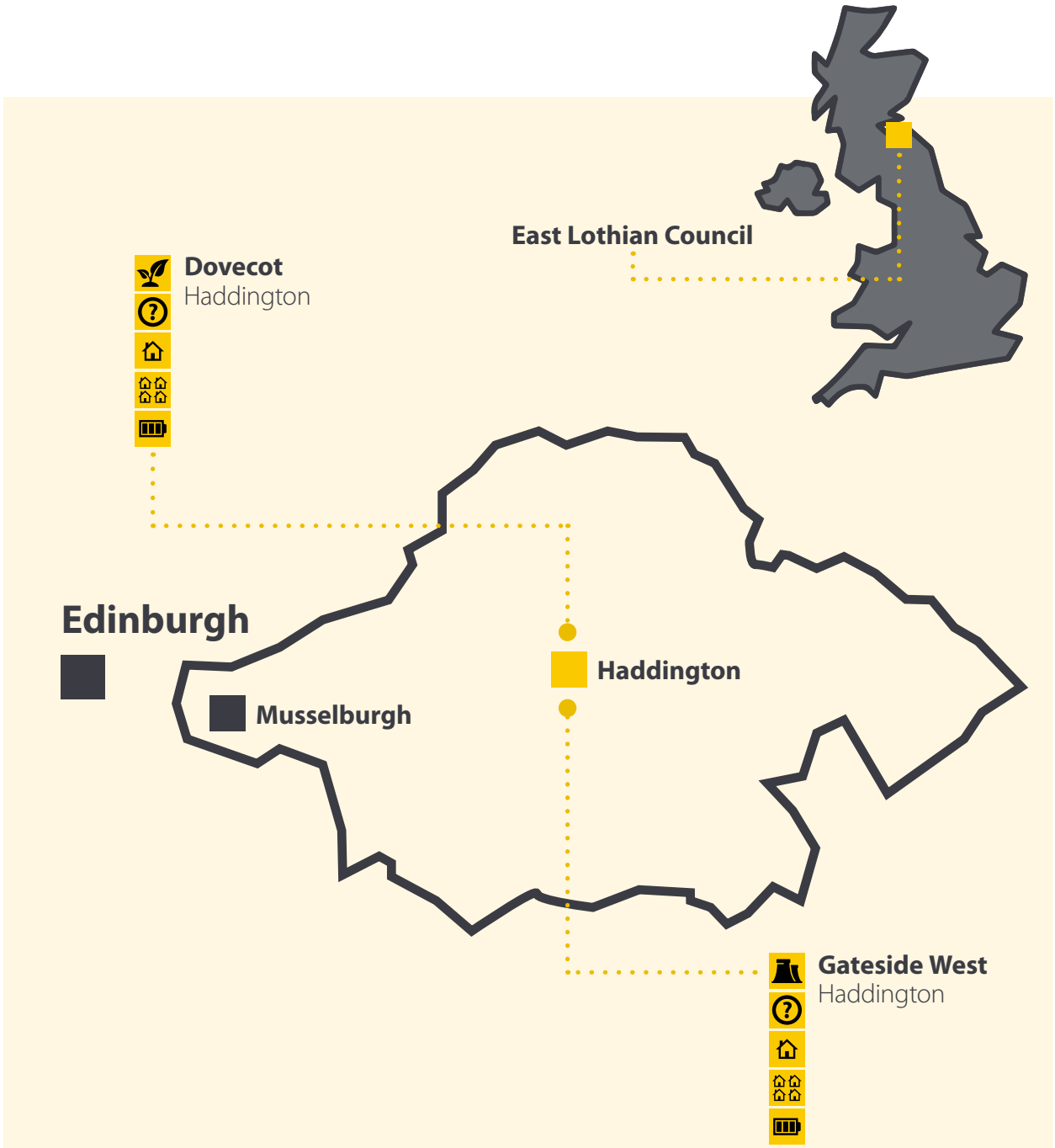


Figure 19: Housing development locations in East Lothian

The delivery of well-designed places is clearly established in national planning policy in Scotland (e.g. Scottish Government, 2014a, 2013) and is reiterated in the regional *SESPlan*, which identified an explicit aim to "[c]ontribute to the response to climate change through mitigation and adaptation and promote high quality design / development" (Strategic Development Authority for Edinburgh and South East Scotland, 2013, p. 6). At the local level, the 2008 *East Lothian Local Plan* (East Lothian Council, 2008a), which was the adopted plan at the time the two developments we looked at were planned and delivered, provides sophisticated supplementary guidance on housing design. Among a range of detailed recommendations, it focuses on the need to encourage housing developments that are integrated into existing settlements and designed to prioritise pedestrian movement (East Lothian Council, 2008b). The two housing developments that we researched in East Lothian are Dovecot and Gateside West, both of which are located on the edge of the historic and affluent town of Haddington (see Figure 19).

4.3.1 Dovecot, Haddington

Dovecot is a 6.7ha housing development located on greenfield land approximately 1.5 miles south-west of the town centre. The site lies immediately south of Letham Mains, a large greenfield development allocated for housing in the 2008 *East Lothian Local Plan* (East Lothian Council, 2008a). East Lothian Council produced a detailed *Development Framework* for Letham Mains, which allows for 750 houses and associated community facilities (East Lothian Council, 2011). This development is progressing through a phased masterplan involving various volume housebuilders, including CALA Homes, Taylor Wimpey and the Scottish firm Mactaggart and Mickel (Ritchie, 2016). Although Dovecot was not allocated for housing in the local plan, the developers, Barratt Developments/David Wilson Homes and Hallam Land Management, submitted a speculative planning-permission-in-principle application in 2013 (East Lothian Council, 2015a), arguing that the site would help address East Lothian's housing delivery shortfall (Geddes Consulting, 2015). This had occurred, in part, because development on some of the larger allocated sites in the local authority area stalled in the years following the Global Financial Crisis.

The speculative application sought permission for 113 houses but was appealed because East Lothian Council failed to decide on the application within the prescribed four month window (East Lothian Council, 2015a). The appeal was granted on the basis that the regional *SESPlan* identified an urgent need for new housing in East Lothian, subject to a series of conditions and an obligation to contribute to both the cost of social housing and a new school in nearby Letham Mains (Directorate for Planning and Environmental Appeals, 2014). The developer subsequently sought approval for the conditions set out in the Appeal Decision Notice and an application for 109 houses and 4 flats, of which 28 dwellings (including the flatted units) are designated affordable, was approved in 2015 (East Lothian Council, 2015a). Dovecot was built and marketed under Barratt Development's David Wilson Homes banner. Development of the site commenced in 2016 and, at the time of writing, the homes for private sale are largely sold, while the social housing became available in March 2020. The design proposals for Dovecot that were taken forward after the appeal were broadly similar to those originally submitted to East Lothian Council.

Images © Gareth James

Figure 20: House types and streetscape at Dovecot, Haddington

The site is only accessible on its northern boundary and was therefore designed with two access roads located either side of a cluster of existing buildings. Within the site the roads join together to form an east-west spine. Street-facing dwellings front the spine road as it curves around the existing buildings. A small cul-de-sac of detached houses and a larger cul-de-sac courtyard of terraced houses are accessed from the northern side of the spine road. South of the spine road are a series of four perimeter blocks that provide permeable access through the rest of the site. This area of the development is laid out exclusively with detached homes. On the southerly edge of the development a series of these detached homes face onto a green open space that incorporates a children's play park as well as a Sustainable Urban Drainage basin. The scheme was built using unremarkable standard house types, finished in a uniform off-white render, with many having a double garage. Aside from the large open space, which itself lacks any significant landscape features, there is limited streetscape landscaping and little variation in the hardscape, which is mostly tarmacked.

4.3.2 Gateside West, Haddington

The second housing development we looked at in East Lothian was Gateside West, a brownfield site that was previously home to a commercial complex (ema and PLOT (Haddington) LLP, 2014). Located on the north-western fringe of Haddington, about 1.5 miles from the town centre, the 4.07ha site sits immediately north of the aforementioned Letham Mains development (described in 4.3.1). Gateside West was not allocated for housing in the 2008 *East Lothian Local Plan* (East Lothian Council, 2008a). It was therefore identified by a land promoter called Plot (Haddington) LLP who submitted a speculative planning application for new housing in 2014 (Ryden LLP, 2014). They sought permission for 112 houses, a small number of industrial units and a pub/restaurant. The site plan envisaged the development being accessed via a single road on the southern boundary that would become a central residential spine road, looping to both the east and west to form a permeable series of rectilinear perimeter blocks. Smaller terraced homes were proposed on the southern part of the scheme closer to the main road, with larger semi-detached and detached houses to the north. The proposals incorporated a small open space close to the centre of the development and a larger open space on the south-eastern boundary that was to be edged by a row of detached houses. The pub/restaurant and the industrial units were positioned immediately west of the housing with their own access road.

The local authority officer assigned to the application recommended that it be refused on the grounds that it proposed mostly non-commercial/industrial uses in an area lacking suitable space for these uses and, furthermore, that the housing element would lead to capacity challenges at the local school (East Lothian Council, 2014a). East Lothian's Planning Committee went against their officer's advice and a majority deemed the proposal acceptable in the context of the Council's 2013 interim guidance on housing land supply (see 4.3), subject to various conditions and obligations (East Lothian Council, 2014b). Following the granting of planning permission, the land was purchased by the volume housebuilder Persimmon Homes, which, in 2014, had also been granted planning-permission-in-principle for an adjacent site it called Gateside East (East Lothian Council, 2014a). In 2015, Persimmon Homes submitted a revised planning application for 97 houses at Gateside West, of which 24 would be affordable. This application did not include the industrial units or the pub/restaurant (East Lothian Council, 2015b). It was granted planning permission, subject to conditions, in late 2016 (East Lothian Council, 2016).

Images © Gareth James

Figure 21: Examples of house types and streetscape at Gateside West, Haddington

The revised design of the Gateside West site, which was built between 2017 and 2019, is largely identical to the plans laid out in the initial planning application, save for a small number of minor adjustments. The most significant of these being a reinterpretation of the small open space at the centre of the development which was elongated and extended along the central spine road. The site was developed using unremarkable standard house types that are set back from the street to allow for off-street parking. The houses are mostly rendered and have simple stone detailing. The site has limited landscaping and the hardscape is mostly tarmacked, save for some areas of monobloc.

Image © Gareth James

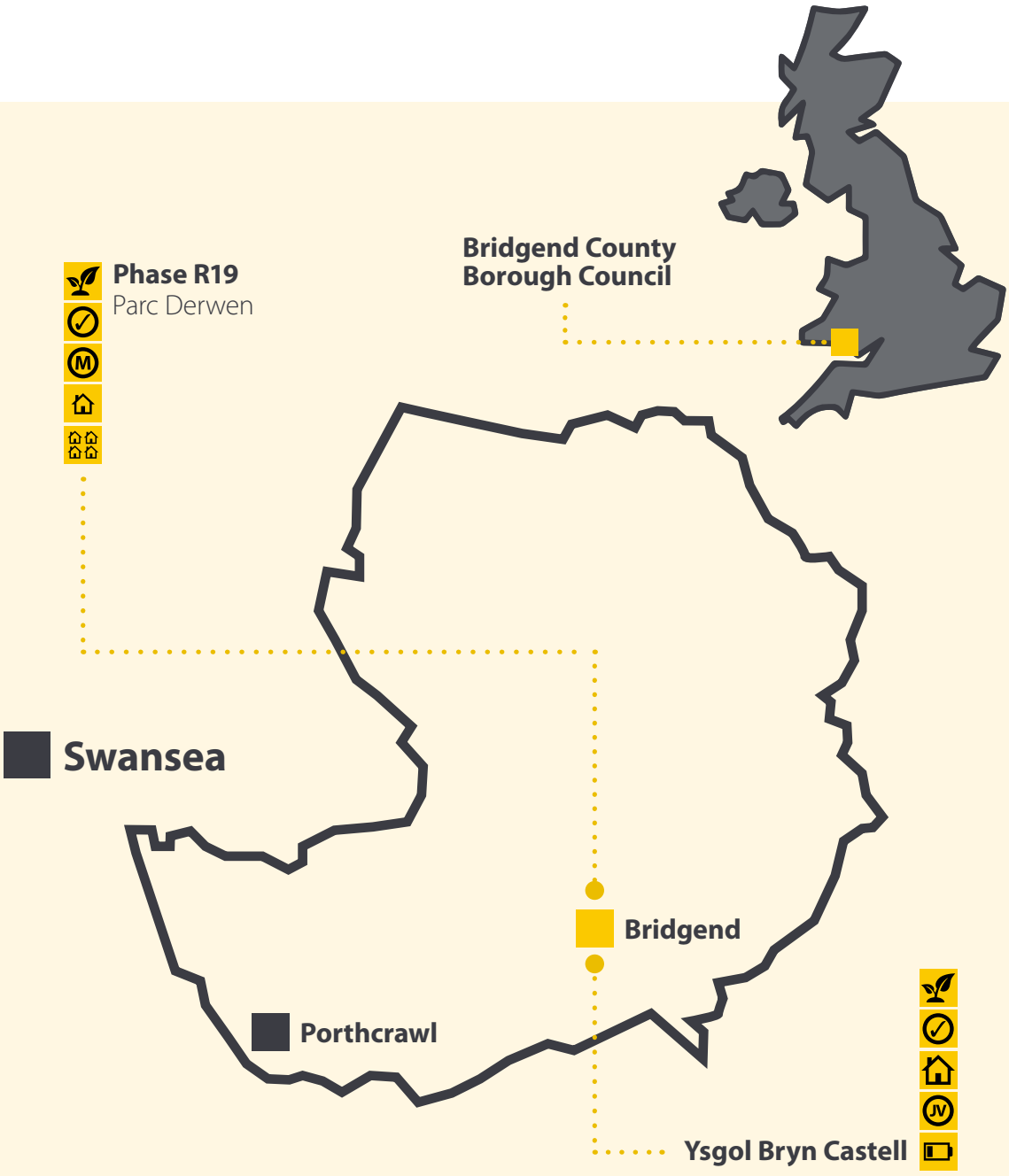
Figure 22: Open space at Gateside West, Haddington

4.4 Wales: Bridgend County Borough Council

The County Borough of Bridgend is situated in South Wales roughly 20 miles from both Cardiff (to the east) and Swansea (to the north west). The borough has a varied geography that spans from its Bristol Channel coastline in the south to the Ogmore, Garw and Llynfi valleys in the north. There are three principal settlements, Bridgend, Maesteg and Porthcawl, as well as many smaller villages (Bridgend County Borough Council, 2013). Bridgend County Borough has a population of 143,400 (2015 figures) and is experiencing population growth (Bridgend County Borough Council, 2018a). The formally-industrial valleys within the borough suffer from high levels of unemployment, deprivation and poor accessibility (Bridgend County Borough Council, 2013). In contrast, transportation links to the central part of the borough around Bridgend are very good. The M4 motorway passes just north of the town and it is also served by the high-speed railway line between Swansea and London (Bridgend County Borough Council, 2013). Approximately 70% of the working population are employed within the local authority area and many others work in employment centres close to the boundary with Rhondda Cynon Taff and Neath Port Talbot (Bridgend County Borough Council, 2018a). Since 2014, Bridgend County Borough has received European Union regional economic aid (Bridgend County Borough Council, 2018a), and is also part of the 2016 Cardiff Capital Region City Deal (HM Government, 2016). These funding initiatives have helped encourage private sector investment in the area (Bridgend County Borough Council, 2018a), which in turn has hastened population growth.

Bridgend County Borough is currently struggling to meet the five-year housing land supply target required by the Welsh Government (Bridgend County Borough Council, 2019a). The current *Local Development Plan* (adopted in 2013) projected that a total of 9,690 market dwellings should be delivered between 2008 and 2021 (Bridgend County Borough Council, 2013); however, a 2019 study found that the Borough only had a 2.9 year supply and thus a five-year shortfall of 3,033 units (Bridgend County Borough Council, 2019a). The Council has therefore identified a need to take a more "pro-active approach with landowners and developers especially where development sites are in the Council's ownership and bring forward new schemes, masterplans and development briefs to facilitate development" (Bridgend County Borough Council, 2019b, p. 5).

The design quality ambitions of the Welsh Government contained in *Planning Policy Wales* and reflected in *Technical Advice Note 12: Design* (Welsh Government, 2016a), are replicated in Bridgend's local planning policy. The first objective of the current *Local Development Plan* is to deliver "high quality sustainable places" (Bridgend County Borough Council, 2013, p. 6) that meet 'Sustainable Place Making' criteria. These focus on the creation of mixed use, accessible places that are appropriately scaled and achieve "design of the highest possible quality" (Bridgend County Borough Council, 2013, p. 22). Bridgend also provide more detailed supplementary design guidance on residential development which reiterates the sustainable design principles contained in *TAN12* and provides further details on how to achieve the County Borough's commitment to 'Sustainable Place Making' (Bridgend County Borough Council, 2008). The two housing developments we examined are located in close proximity to the town of Bridgend. One, Phase R19, is part of a larger masterplanned development called Parc Derwen. The other, Ysgol Bryn Castell, is a smaller two-phase development located on the site of a former school (see Figure 23).



Housing development key

BROWNFIELD	STRONGER HOUSING MARKET	VOLUME HOUSEBUILDER
GREENFIELD	WEAKER HOUSING MARKET	MEDIUM-SIZED HOUSEBUILDER
ALLOCATED HOUSING SITE	LARGE DEVELOPMENT	SMALL HOUSEBUILDER
SPECULATIVE APPLICATION	MEDIUM-SIZED DEVELOPMENT	HOUSING ASSOCIATION
PART OF WIDER MASTERPLAN	SMALL DEVELOPMENT	JOINT VENTURE

Figure 23: Housing development locations in Bridgend, Wales

4.4.1 Parc Derwen (Phase R19), Bridgend

The first housing development is located in Parc Derwen, a large masterplanned urban extension currently progressing on a sloping 79-ha site of previously agricultural greenfield land to the north-east of Bridgend (Bridgend County Borough Council, 2011a). The site was designated for housing by Ogwr Borough Council (since replaced by Bridgend County Borough Council) in the early 1990s. In promoting the site for new housing, the Council stated that development would only proceed under the auspices of a development brief to ensure a high standard of planning and design (Llewelyn-Davies, 2001). In 1998, the new Bridgend County Borough Council commissioned Wyn Thomas, Plc to produce this brief. It was updated in 2001 by the urban designers Llewellyn Davies. An outline planning application for just over 1,500 homes, local retail, a school, community facilities and open space soon followed (Bridgend County Borough Council, 2011a) and was approved in 2002 (Barton Wilmore Partnership, 2005).

In 2005, a more detailed masterplan and design code were produced by Barton Wilmore. This document became the supplementary planning guidance for Parc Derwen (Barton Wilmore Partnership, 2005). It envisaged the site as a self-contained settlement surrounded by a landscape buffer. The site was designed with two principal access points on the southern boundary of the site and two secondary access points on the northwest boundary. Internally, Parc Derwen was planned around an inner loop road with a large open space in the centre and a neighbourhood village square located in the south-west quadrant of the development, close to the two principal access points. The proposed site morphology was arranged as a series of organic urban blocks radiating outwards and inwards from the loop road. Higher density development was restricted to the area around the village square. A series of woodland pathways were also interwoven into the masterplan and form the basis of an open space network focused on the central open space. Parc Derwen was divided into five 'character areas', all of which have subtly different design emphasis, but all share a townscape character inspired by the local Victoria and Georgian vernacular.

The development was taken forward by a consortium of developers that included the Welsh Development Agency, Gallagher Estates, Taylor Woodrow and Westbury Homes. Initially, the development stalled due to the 2008-2009 Global Financial Crisis (Bridgend County Borough Council, 2009) but began again in earnest from 2011 (Bridgend County Borough Council, 2011a). All of the various phases of development were taken forward as 'reserved matters' applications. Phase R19, the focus of our research, was developed by the Welsh regional branch of the volume housebuilder, Persimmon Homes. It is located in the southern part of the Parc Derwen masterplan and has a site area of 1.97ha. Persimmon Homes submitted a reserved matters application for Phase R19 in 2017 for 77 homes with a mix of two, three and four bedrooms (Bridgend County Borough Council, 2017). The application was granted permission in 2018 and the development was completed and marketed in early 2020.

Phase R19 sits on the southern edge of Parc Derwen. The masterplan for the site aspired to recreate a traditional 'Garden City' character but there is little evidence this was achieved. The completed scheme is organised as a series of three organic perimeter blocks with numerous road access points that connect Phase R19 into the rest of Parc Derwen. Two of the blocks also incorporate a shared parking mews to shield car parking from the streetscape. On the south-eastern boundary of the site is an area of open space that is part of a green buffer between Parc Derwen and the nearby village of Coity. A series of detached and semi-detached houses face on to this boundary creating the sense of a defined urban edge. The housebuilder has used a series of standard house types that were not altered to any great extent to suit the masterplan. This has a particularly negative effect on the treatment of street corners, where areas of blank frontage might have been more sympathetically finished had bespoke house types been used. Both the houses and the wider streetscape are finished with a limited material palette (see Figure 24). In a recent post-occupancy study of Parc Derwen by the Quality of Life Foundation, the words most frequently used by residents to describe the new housing development were "quiet", "friendly", "nice" and "safe" (Mosteanu, 2020, p. 25).

Images © Flora Samuel

Figure 24: Image of the house types and streetscape of Phase R19, Parc Derwen, Bridgend

4.4.2 Ysgol Bryn Castell (Phases 1 and 2), Bridgend

The second of our two Bridgend housing developments is Ysgol Bryn Castell, a 5.5ha brownfield site that was promoted for development by the Borough Council following the closure of the school occupying the land in 2005 (Bridgend County Borough Council, 2011b). A hilltop site with impressive views, it is located north-west of Bridgend town centre and was allocated for housing in the current *Local Development Plan* (Asbri Planning Limited, 2015a). The site was developed in two phases and the Council commissioned planning consultants GVA to produce a development brief for each phase (GVA, 2016, 2013). The two phases have one interconnecting pedestrian path between them but are otherwise distinct and accessed from different existing roads (Persimmon Homes West Wales, 2016).

At 1.8ha, Phase 1 is the smaller of the two phases and used to be the Ysgol Bryn Castell playing fields (Asbri Planning Limited, 2015b). The site development brief stated that the land should be developed for between 40-45 dwellings with 20% affordable homes. The proposed density was set at 35 dwellings per hectare (GVA, 2013). No design concept or site masterplan was included in the development brief, but the document did state that any proposal brought forward to the local authority should meet the design quality standards set out in Welsh national policy and the adopted plan (GVA, 2013). The land was purchased jointly by the South Wales division of the volume housebuilder Barratt Homes and United Welsh Housing Association. In 2015, they applied for full planning permission to build 67 dwellings on the site, considerably more than the development brief had proposed; 14 homes were designated affordable. Planning permission was granted for the scheme in the same year (Bridgend County Borough Council, 2015).

Phase 1 was marketed and sold in 2017 and 2018. The long, narrow site is constrained by having only one access point, which precipitates a simple cul-de-sac arrangement with one main road and a series of shorter spurs. A group of established trees sit at the main entrance to the site and the two houses closest to the entrance are orientated towards the existing street and frame the entrance, however, the site topography has led to a relatively high garden wall being constructed alongside the entrance. Otherwise, the semi-detached and detached houses within the development are mostly orientated to the street and have off-street parking. There is only limited landscaping and no hardscaping details beyond tarmac. The standard house types used by the developer are finished in a mixture of cream render and red brick. A flatted block containing the affordable housing is located at the termination of the main access road flanked by on-street parking. Two future access points, including a pedestrian connection, are also established from two of the spurs allowing Phase 1 and 2 to be joined (although this has not occured).

Phase 2 at Ysgol Bryn Castel was occupied by the school buildings and covers an area of 3.7ha (GVA, 2016). A development brief for the site was released in 2016 and followed much the same format as the brief for Phase 1, stating that the site could accommodate between 120 and 130 dwelling units at 35 units per hectare (GVA, 2016). The brief also stated that the *Local Development Plan* requires 20% of the homes to be affordable but noted that these could be delivered off-site (GVA, 2016). Only limited reference is made to Phase 1 in the brief and no design concept or masterplan was included. Repeating the advice provided in the brief for Phase 1, the Phase 2 brief stated that any proposals for the site should meet the Welsh Government's national design quality standards and the principles contained in the LDP (GVA, 2016).

Image © Flora Samuel

Figure 25: The streetscape at Phase 1 of Ysgol Bryn Castell, Bridgend

The Phase 2 site was purchased by the West Wales division of the volume housebuilder Persimmon Homes, which sought full planning for 127 dwellings at the end of 2018 (Bridgend County Borough Council, 2018b). Despite its location alongside the first phase of development, no obvious effort was made to create a visual or physical connection between the two, other than a single pedestrian footpath. The site is instead accessed from the southwest and the internal roads are organised as a series of five cul-de-sacs. Permission for Phase 2 was granted subject to conditions in May 2020 (Bridgend County Borough Council, 2020). At the time of writing this report, the site was under construction. A public space will be located in the middle of the development against the southern boundary and a series of houses will be orientated to face it. The development will comprise a mix of terraced, semi-detached and detached dwellings and the developer will be using their standard house types, with little apparent regard paid to enlivening key views and street terminations with bespoke building elevations or enhanced landscaping. The site has relatively good connectivity and is walkable from the town centre.

4.5 Northern Ireland: Belfast City Council

Belfast has a population of 338,907 (Belfast City Council, 2017), although it sits within a much larger metropolitan area encompassing the settlements of Lisburn, Carrickfergus, Castlereagh, Newtownabbey and North Down and areas of countryside that is home to 667,559 people (2011 census figures). In 2011, this represented 37% of the total population of Northern Ireland (Department of the Environment, 2015b). Belfast has one of the youngest urban populations in Europe and, in recent years, the city has experienced modest population growth, particularly in the surrounding metropolitical areas (Department for Regional Development, 2010), as well as strong employment growth (Belfast City Council, 2017). This can partly be attributed to foreign direct investment in the city centre, a growing hospitality sector, and a series of significant regeneration projects, including the famous 'Titanic Quarter' in the city's harbour area (Ramsey, 2013). Despite these positive trends, however, the legacy of 'The Troubles' means that parts of northern and western Belfast suffer from significant socio-economic challenges and contain some of the most deprived districts in Northern Ireland (Devlin et al., 2018). Furthermore, 50% of people that work in Belfast commute into the city from other places (Department for Regional Development, 2010).

A key objective of the Northern Ireland government's *Regional Development Strategy 2035* (Department for Regional Development, 2010) is to grow the population of Belfast and to do so predominately through the development of brownfield land in the metropolitan area for housing (Department of the Environment, 2015b). Across this area a total of 1,958-ha of land was allocated for housing in the 2015 plan. Within Belfast City this amounts to 315-ha with land explicitly zoned for housing development. Requirements for social housing are attached to particular land parcels zoned for housing (Department of the Environment, 2015b). In Northern Ireland, as noted earlier, most planning powers were transferred to local authorities from the Department of the Environment in April 2015[9]. Since then, local authorities have begun the process of preparing local development plans. Belfast's new plan is currently being independently examined by Northern Ireland's Planning Appeals Commission (Belfast City Council, 2017) and, when adopted, will supersede the existing *Belfast Metropolitan Area Plan 2015* (Department of the Environment, 2015b). It is expected to include a final housing delivery target up to 2035 of 37,000 homes, with an ambition to deliver as many homes as possible on brownfield land at a density of 60 dwelling per hectare or more (Belfast City Council, 2017).

Sustainability and design quality are closely linked in the local development plan, which emphasises the importance of "secure, safe and accessible places" (Belfast City Council, 2017, p. 36) that create opportunities for walking, cycling and using public transport, and achieve a lasting sense of place. These policies mirror the higher-level design policies at the metropolitan level (Department of the Environment, 2015b) and the ambitions of Northern Ireland's design guidelines, notably *Development Control Advice Note (DCAN) 8* (Planning Service (DOE), 2002) and *Creating Places: Achieving Quality in Residential Environments* (Department of the Environment and Department for Regional Development, 2000). We researched two housing developments in Belfast, both of which were built on brownfield land. The first is a housing association scheme called the 'Peter Pan' Complex located in a relatively deprived part of West Belfast. The second is a private development called Portland 88, located close to the city centre (see Figure 26).

[9] Major planning applications that are deemed to be of regional significance continue to be dealt with by the national Department for Infrastructure.

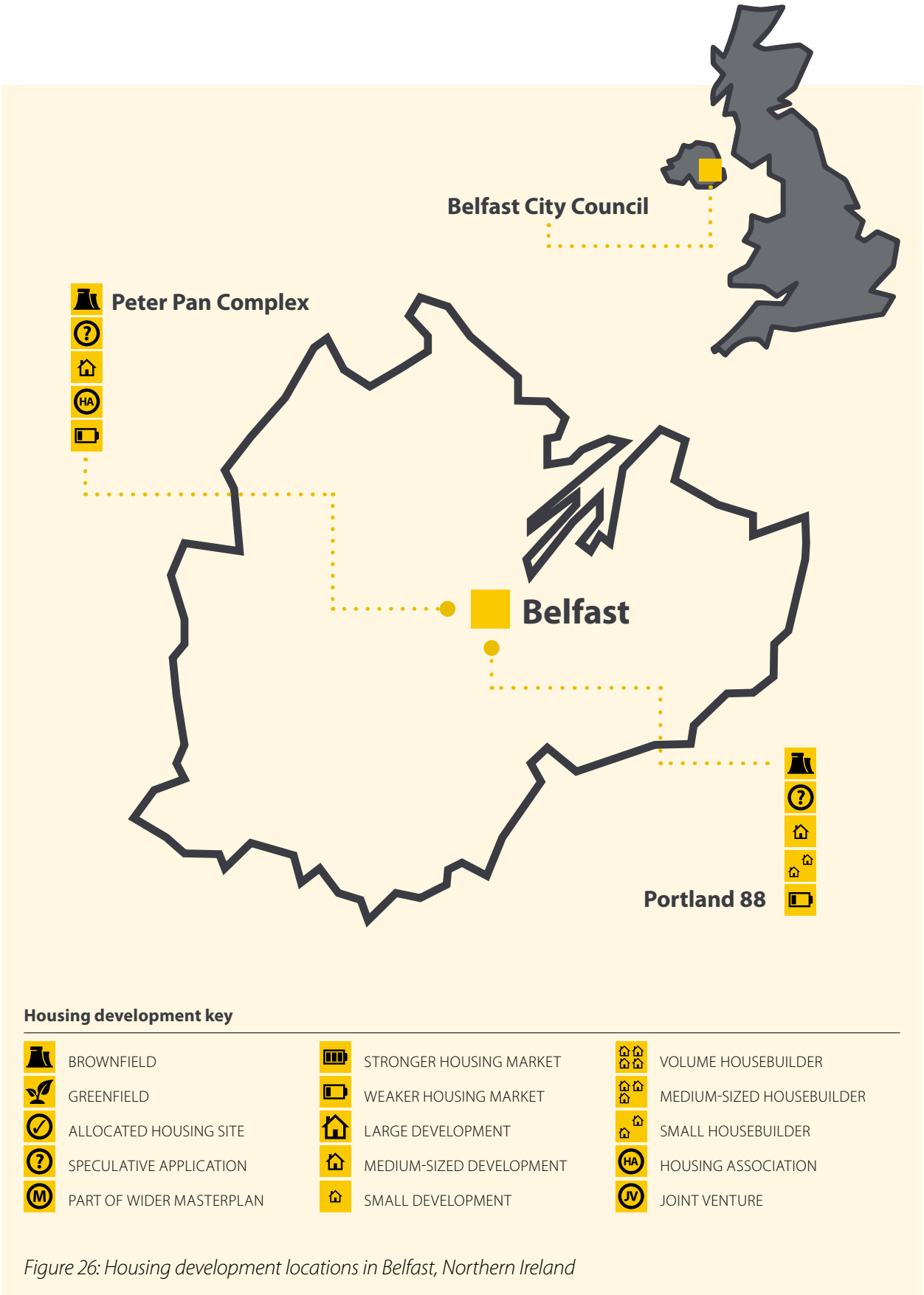


Figure 26: Housing development locations in Belfast, Northern Ireland

4.5.1 Peter Pan Complex, Belfast

The Peter Pan Complex, which is named after a bakery that used to occupy part of the site (EHA Group, 2020), is a 1.12ha piece of urban brownfield land (TSA Planning, 2014). It is located just over a mile west of Belfast city centre on Springfield Road, a major arterial route, and is bordered on its southern and western edge by 19th century terraced housing and by commercial and industrial units to the north and east. The land was not zoned for housing or any other specific land use in the *Belfast Metropolitan Area Plan 2015* and instead carried a 'whiteland' designation (Department of the Environment, 2015b). A precedent for residential development had been set on the site in 2009 when planning permission was granted for a mixed use development of 184 social and affordable dwellings and four retail units, as well as associated basement parking (Belfast City Council, 2015). This development was not taken forward.

Planning permission for the current scheme was sought in December 2014 by Pan-Residential, the site owner/developer. The application was made in conjunction with a local housing association called Radius Housing Association (EHA Group, 2020). It proposed the development of 90 affordable housing units and two commercial units fronting Springfield Road. Documentation submitted with the planning application noted that the application represented a density reduction over the previous scheme because the number of units had been dropped by half and the underground parking provision removed. The applicant argued that the revised design would be "more reflective of the surrounding residential area" (TSA Planning, 2014, p. 3). As a major application, the proposal was considered by the Belfast City Council planning committee. The local authority officer assigned to the case recommended approval, and the application was duly approved in December 2015, subject to conditions (Belfast City Council, 2015).

Images © Chris Foye

Figure 27: The streetscape at the Peter Pan Complex, Belfast

Development of the site commenced in 2017 and was completed in 2019 for Radius Housing Association tenants to occupy the units (EHA Group, 2020) (see Figure 28). The scheme was produced by JNP Architects, a Northern Irish practice. It has a traditional architectural appearance. Facing Springfield Avenue are a row of terraced two-storey houses that are set back slightly from the street with bay windows at ground level. Around the corner, on Springfield Road, are a series of larger four-storey apartment buildings accessed from three glazed stairwells. On-street parallel parking bays are provided on both streets. A single access road into the development is located on Springfield Avenue and, within the block, are two mews roads organised in a 'T' formation that are fronted by terraced houses. Architecturally, the houses are similar to those facing Springfield Avenue. They all have small private gardens, and parking bays are provided either in parallel formation or directly in front of the houses. This does mean that much of the internal space within the block is dominated by parking. A landscaped amenity space for residents is provided within the block at the rear of the apartment buildings that face Springfield Road. It is, however, very small and does not offer play space or any communal recreational facilities. Indeed, open space for residents' use is a noticeable deficit of the scheme. This was one of the issues reported in the post-occupancy evaluation of the site completed by Radius Housing Association in July 2020. The other main issues raised related to anti-social behaviour on the development and the relatively small living rooms. That said, responses were generally positive with 22 out of 29 respondents rating the overall quality of accommodation "good", the other options being "satisfactory" (6 responses) or "poor" (1 response).

Images © Chris Foye

Figure 28: Houses and flats within the Peter Plan Complex

4.5.2 Portland 88, Belfast

The second development we researched in Belfast was Portland 88, a high density scheme on a small 0.3-ha brownfield site that was most recently used as a surface car park (Turley, 2016). It is located on Ormeau Road, a busy southbound thoroughfare within Belfast City Centre. Surrounding the site are a mixture of commercial office and residential buildings (Turley, 2016). The Portland 88 site carried a 'whiteland' designation in the current *Belfast Metropolitan Area Plan 2015* (Department of the Environment, 2015b) and thus the type of land use was not specified. An application for planning permission was made in 2016 by Barnett Developments, a small property developer based in Bristol that specialises in developing apartments for sale (Barnett Developments, 2020). Barnett proposed a scheme comprising 88 flatted apartments in an eight-storey building – hence the moniker 'Portland 88' – with associated car parking on the ground floor and a mezzanine level (Belfast City Council, 2016a). The planning application followed a series of previous applications, including one for a similar proposal with seven rather than eight storeys that had been granted consent (Belfast City Council, 2016a).

Images © Chris Foye

Figure 29: The frontage of Portland 88, Belfast

The proposed form of Portland 88 was set out in the *Design and Access Statement* submitted with the planning application. It envisaged a simple rectangular form with a series of two-storey apartment-townhouses located in the base of the building fronting Ormeau Road and six further storeys of apartments above. The local authority officer that assessed the scheme noted some reservations about the design in their written report, stating that "[t]he proposal may not comply with relevant policies from PPS 6 and 7 with regard to residential character and the setting of listed buildings" (Belfast City Council, 2016a, p. 8). Consent was nevertheless recommended because of the previous permission granted to the applicant for a very similar scheme on the same site in 2015 (Belfast City Council, 2016a). Approval for the application followed, subject to conditions, including Section 76 contributions for public realm improvements around the building (Belfast City Council, 2016b). Development of the site was completed in 2019 and it was marketed for sale soon thereafter (Barnett Developments, 2020).

The completed building is clad in a mixture of red brick, terracotta rainscreen panelling and off-white render, apart from the uppermost floor which is finished in grey panelling. The street-facing apartment-townhouses have larger window openings at street-level, although a wall with a series of metal railings provides privacy to residents. This means that the building offers limited animation to passers-by. The sides and rear of the building have quite an imposing presence on the surrounding laneways and a proposed public art mural planned for the north elevation of the building was not completed. Indeed, the building is noticeably denser than the surrounding built environment and there is limited architectural continuity between Portland 88 and neighbouring structures. Car parking is accessible from the rear of the building. The building contains no outdoor or indoor amenity space for residents, although some of the apartments have rear-facing balconies.

The Portland 88 project was included in the aforementioned (see 4.4.1) post-occupancy study by the Quality of Life Foundation. The words residents most frequently used to describe Portland 88 were "friendly", "busy", "nice", "community" and "convenient" (Mosteanu, 2020, p. 25).

Image © Chris Foye

Figure 30: The rear elevation of Portland 88

4.6 Summary

In this chapter we provided an overview of the planning and design policy context of the five local authorities we researched across the UK, and summarised the planning and design process and outcomes for each of the 10 housing developments. The developments we looked at provide sufficient breadth and variety to offer a range of conclusions on housing design value. In the two chapters that follow, we share the views and reflections of the various actors we interviewed in connection with the ten developments, presenting a general picture of the *housing design quality conundrum* and citing specific examples from the ten developments where appropriate. To summarise this chapter:

- The research comprised housing developments in high land value areas (South Oxfordshire and East Lothian) and areas where land values are lower (Rotherham, Bridgend and Belfast).
- Some of the local authorities are experiencing significant housing growth pressures (South Oxfordshire, East Lothian and Bridgend) while others have relatively less demand and thus slower growth (Rotherham and Belfast).
- We identified sites that were allocated for housing in a local plan (Great Western Park, Sycamore Rise, both sites at Waverley New Community, Parc Derwen and Ysgol Bryn Castell), and sites where an application for housing development was made on a speculative basis (Dovecot, Gateside West, Peter Pan Complex and Portland 88).
- Some of the sites were part of larger masterplanning exercise (Great Western Park, Sycamore Rise, both sites at Waverley New Community and Parc Derwen), while others were standalone planning applications that were subject to varying degrees of site masterplanning (Dovecot, Gateside East, Ysgol Bryn Castell, the Peter Pan Complex and Portland 88).
- Most of the sites we looked at included either a mixture of market and affordable housing or a contribution to affordable housing to be built off-site. The two exceptions were the Peter Pan Complex in Belfast, which is a fully affordable housing scheme, and Portland 88, also in Belfast, which was all delivered as market housing without any requirement for affordable housing either on- or off-site.
- Reflecting their dominance of the housebuilding industry, the majority of the developments we looked at were built by volume housebuilders. The exceptions were Sky-House (Waverley New Community, Rotherham) and the Peter Pan Complex and Portland 88 in Belfast.
- The majority of the ten housing developments we looked at were built using standard house types, reflecting our aim to examine typical 'everyday' examples of new housing development across the UK.

Chapter 5
Cultures of design practice

In this chapter we present the first part of our research findings on delivering design value. We describe how the actors involved in the planning, design and development of new housing conceptualise 'good design' and consider the extent to which design is valued by stakeholders with differing supply-side, demand-side and regulatory roles. This provides a basis for exploring the cultures of decision-making that exist within the organisations that shape housing design outcomes, and the skills and expertise that are available to cultivate design-aware decision-making. We begin by examining our participants' general impressions of design value, before looking in more detail at local authority design cultures and then commitments to design in the housebuilding industry.

5.1 General reflections on 'good design' and the components of a well-designed place

Different actors we interviewed perceived and articulated 'good design' in a variety of ways, but there was a widely shared view that well-designed places are shaped by human needs. This was articulated both by regulatory actors (e.g. local authority officers) and by supply-side actors (e.g. housebuilders, consultant urban designers, architects, etc.), as well as by non-professional regulatory/demand-side actors (e.g. local councillors). An architect we spoke to explained that the measure of a well-designed place was whether it was "fully suited to the people who are intended to live in it" (Belfast 4 Architect interview). The focus on human needs was described particularly clearly by a local authority design officer we interviewed who emphasised the importance of understanding human behaviour when creating successful places or, as another local authority officer put it, "tak[ing] into account [a] mix of individuals and their needs" (Rotherham 1 Planning Officer interview).

When asked to describe the features of a well-designed place, our participants were fairly consistent in their responses. Achieving a 'sense of place' was widely discussed by regulatory and supply-side participants, who used terms like 'fit', 'variety', 'curiosity', 'identity', 'character' and 'mix' to articulate their understanding of a memorable place. The importance of connectivity was highlighted by a wide range of participants, many of whom spoke of the need to integrate new housing development into existing urban environments. We also found that our participants emphasised the importance of 'legibility' and the creation of places that had a clear urban structure. In numerous interviews, access to high quality public space that is safe for local residents to use was highlighted as a fundamental component of a well-designed place. Two local councillors that we interviewed were also exercised by issues of equality, believing that a mix of property sizes and tenures are critical elements of a good place. They added that the provision of play space for children and access to decent public transportation was also essential. The lockdown restrictions introduced in response to the Covid-19 pandemic during 2020 reinforce this argument and, indeed, the wider importance of 'complete communities' at the local neighbourhood level.

> "What we're trying to do is create legibility, create a structure to the neighbourhood, so we're looking at gateways, we're looking at primary routes.…I think [a] good neighbourhood obviously [has] legibility, structure to the street scene, high quality design on gateways and….corners"
>
> **Rotherham 1 Planning Officer interview**

The external architectural appearance of new housing was also highlighted as an important component of good design, especially the choice of materials, however, a number of participants emphasised that such 'aesthetic' concerns should be secondary to more strategic urban design objectives, like connectivity and legibility.

5.2 Holistic design and practicing 'placemaking'

Not unsurprisingly, the urban designers and architects we spoke to, many of whom worked for both local authority and housebuilder clients, were well aware of the social and environmental value of design, and more than one referred to the 'holistic' role that design should play in the planning and development of new housing. In this respect, many participants discussed 'placemaking' in their description of good design practice, and one architect connected placemaking directly to human need. A design officer we spoke to summed up this holistic conceptualisation of design value in the following way: "If it's really good design, people assume it's just normal" (S. Oxfordshire 11 Design Officer interview).

Another common theme highlighted by participants was the importance of collaboration in the design process and more than one participant described it as a crucial element of successful placemaking. This was emphasised by a planning consultant we interviewed who explained that his firm uses a 'co-design' process when undertaking masterplanning work to ensure that the final design is "…informed by the community around it and the community that will use it" (Belfast 7 Planning Consultant interview). The consultant went on to say that, when developers engage with people, they are exposed to more human-centred values which challenge them to think beyond the commercial outcomes of their scheme. Demonstrating the challenges that can occur when the urban design process becomes a 'battlefield' of competing interests (Bentley, 1999), a consultant urban designer we spoke to noted specifically that the design quality of the Dovecot development in East Lothian might well have been better had there been more collaboration, engagement and co-operation between stakeholders.

> "…community is our biggest thing and something that we've developed heavily…If the community don't buy into it….if they're not buying into it and taking ownership of it then it will ultimately not work. So that's been a real key strategy beyond just the two-dimensional design; it's about that environment that you create for people to engage with"
>
> **S. Oxfordshire 9 Housebuilders P1 interview**

5.3 Sophisticated understandings of design yet unfulfilled ambitions

On the whole, participants had quite a sophisticated understanding of design and its potential to deliver value through the housebuilding process, although we did observe some subtle differences between the regulatory, supply-side and demand-side actors we spoke to. Local authority officers tended to be quite 'outward looking' in their definition of design and were preoccupied by the 'fit' of the development in its context. Housebuilders and their planning consultants were typically more 'inward looking' and appeared to be motivated by the external appearance of their housing product within the context of the neighbourhood/development setting, while the architects and design consultants we spoke to 'bridged' these two perspectives and often recognised the tensions between them, although within the context of their specialist areas of focus.

Numerous participants were keen to provide examples of where the value of design had simply been ignored in the planning and development process and efforts at 'design governance' (Carmona, 2016) had largely failed. For example, a design officer we spoke to observed that many volume housebuilders continue to use standard house types and cul-de-sac layouts that limit the ways in which new housing can be integrated into the existing urban fabric. Similarly, a local authority officer we interviewed in Bridgend noted their frustration with poorly planned site layouts and described examples where numerous blank frontages face the public realm (see Figure 31). The fact that planning applications for new housing developments that objectively fail to meet the design standards of local authority officers are often approved suggests that housebuilders and their consultants are well aware of the weaknesses in local design governance and act to expand their 'opportunity space' (Tiesdell and Adams, 2011a) to maximum effect.

Image © Flora Samuel

Figure 31: The entrance to Phase 1 at Ysgol Bryn Castell in Bridgend, compromised by a high retaining wall.

Image © Tom Kenny

Figure 32: Neighbourhood open space, Phase 2a, Great Western Park, Didcot

One dimension of design that was notable for its absence in our discussions with participants was environmental sustainability. Despite the recent focus on the climate emergency in local, national and international political discourses, the definitions of design and design value that were used by our participants rarely focused on ecological design or the natural environment and its relationship with human settlements. While some participants did mention the importance of environmental sustainability, particularly with respect to connectivity, few spoke about issues like wildlife protection and green infrastructure. One exception was the masterplanning process for Great Western Park, where three participants noted the critical role that environmental sustainability issues played in shaping the plan and the open space/landscaping strategy. A further exception was the Ysgol Bryn Castell development in Bridgend, where local authority officers made a considerable effort to protect a large number of trees on the site. On Phase 1 this ensured that the roots of established trees close to the site entrance were not damaged and, on Phase 2, a third of the trees which the developer sought to remove were protected. In spite of this, one of the local authority officers we interviewed in Bridgend described how efforts were made to rush the planning and approval of Phase 2 to avoid compliance with emerging Welsh legislation on Sustainable Urban Drainage.

5.4 Prioritising design value in local authorities and the housebuilding industry

After developing an understanding of how different supply-side and regulatory actors define and conceptualise design, we sought to understand the cultural conditions that underpin design governance in local authorities and design decision-making within the housebuilding industry. A local authority design officer we interviewed argued that formal design governance tools like high quality and up-to-date policy should be the cornerstone of design-led planning. Similarly, a local authority officer explained that 'robust' design policy was a crucial means of demonstrating the seriousness of a local authority's design governance aspirations and thus, by extension, a critical 'starting point' for discussions with housebuilders. This was clearly understood by a housebuilder we interviewed in East Lothian, who stated that the local authority was "quite strong in their principles; of what they're aiming to achieve" (East Lothian 4 Housebuilder interview).

Two of the local authority officers we interviewed in Bridgend spoke positively about Welsh design policy and praised the most recent edition of *Planning Policy Wales* (Welsh Government, 2018) for its emphasis on achieving better wellbeing outcomes through placemaking. One of the officers argued that strong national policy in Wales is especially important for setting the tone for design governance at the local level, but also cautioned that local authority officers must be able to feel confident that a refusal determined on design grounds will be upheld if the developer launches a planning appeal. This suggests that local authority regulatory actors operate with the knowledge that their 'opportunity space' to shape design outcomes is oftentimes constrained by governance processes beyond their immediate control, some of which occur upstream before they assess the design merits of a particular housing development.

The introduction of robust design policy and guidance at the local level can often stem from strong leadership. An architect we spoke to cited the example of the former chief planner's leadership at East Lothian Council, who he described as playing "…a key leadership role in fostering a design culture within the local planning authority" and added that "[East Lothian] have, ultimately, got slightly enhanced neighbourhoods and places to live than you may find elsewhere in the country" (East Lothian 8 Architect interview). This view was shared by a housebuilder who stated that the former chief planner "made the decision that East Lothian Council had to improve and up their game on design" (East Lothian 5 Housebuilder interview). He went on to say that developers were initially resistant to the changes, afraid perhaps that stronger design governance would constrain their 'opportunity space'. The chief planner's persistence ultimately paid off, however, and has forced developers to produce better designed places.

5.5 Balancing design value and risk in local authorities

One of the significant challenges faced by local authority officers is whether to 'stick their neck out' on design matters when negotiating with a housebuilder or assessing a planning application. A local authority officer we spoke to noted that there is often a culture of 'avoiding risk' in local authorities. Contradictory interpretations of health and safety by departments within a local authority, especially in relation to the design of roads and highways, was highlighted as one example where different officers were prepared to assume different levels of risk. We discuss this in more detail in 5.6 below. In other respects, a number of the local authority officers we interviewed told us that decisions about design were often driven, in part, by two distinct risks factors. First, the risk of losing a potential housing development in the local authority area because of design conditions that the developer might consider onerous. Second, the risk of losing a planning appeal and incurring the subsequent legal costs if a planning application was refused on design grounds. It was also clear from the discussions we had with our participants that local authority officers also have to take into account their own personal risks when weighing up a decision (e.g. will a potentially controversial decision impact their career progression?). Additionally, senior local authority officers also have to navigate the politics of planning and design and ensure that their decisions and recommendations are not wholly out of step with the views of local councillors.

Assessments of financial viability, a topic we return to in more detail in 6.3, also influences the extent to which local authorities 'push' developers to invest in design, suggesting that regulatory actors are constantly looking for ways to balance market considerations against the public good. By way of example, an urban design consultant we spoke to criticised local authorities in Scotland for their refusal to be flexible with housebuilders that have viability criteria to meet. This serves to highlight how financial viability can take precedence over design decision-making in the housebuilding sector, while also illustrating the extent to which design governance processes are often dominated by external assessments of market conditions. A local authority officer we interviewed argued that local authorities were getting better at challenging the viability arguments made by housebuilders, but that they face an uphill battle. They explained that some housebuilders are still bringing forward projects on land that was purchased some time ago, including sites that were bought for inflated prices before the Global Financial Crisis, and as a result are struggling to identify ways to develop them profitably.

> "The house-building sector went through, over the last decade, more issues on how to provide a more energy-efficient home, putting sustainability measures in, and the conclusions reached is the cost of it is not perceived by the incoming house-buyer as an additional price to add onto the value of the house. So, if it cost £25,000 to get a more highly sustainable house then that price rise in construction costs can't be passed on"
>
> **East Lothian 2 Planning Consultant interview**

5.6 Siloed decision making in local authorities and the 'highways' challenge

The challenge of 'siloed decision-making' in local authorities was mentioned by a number of our research participants, some of whom noted that local authority officers can sometimes struggle to take actions outside of their immediate area of specialisation. Indeed, we found that one of the key obstacles preventing local authorities from establishing a culture of design governance is that 'good design' is not necessarily prioritised by different divisions within the organisation. One local authority officer explained that important design considerations, such as the construction and maintenance of high-quality public spaces, for example, are not always prioritised and have subsequently faced significant budget cuts. A local councillor we spoke to also mentioned that, when local authorities fail to prioritise design quality, housebuilders quickly see a chance to adapt their behaviour and widen their 'opportunity space'. "There's no real incentive really for it to be a great design," the councillor stated, "when good or even just adequate is enough" (Bridgend 9 Local Councillor interview).

Another local authority officer we interviewed stated that fragmented decision-making within a local authority can leave housebuilders confused about "what they need to do to satisfy all these different groups" (Belfast 1 Planning Officer interview), while a housebuilder mentioned that, because design decisions are often subjective, there can be issues of consistency within a local authority when one local authority officer has a 'different take' on a design problem than their colleagues, thereby precipitating confusion and delay. As we mentioned in the preceding section, highway design often falls into this category because established cultures of decision making, and conflicting interpretations of safety and risk, lead to very different interpretations of good design. This was highlighted by one of the housebuilders we interviewed who explained that decisions about highway design and highway adoption[10] were made by different teams within the local authority. An architect we spoke to in Belfast noted that, in Northern Ireland, decisions about highways are further complicated by the fact that the national roads department within the Department for Infrastructure makes decisions about highway design, whereas planning applications are decided by local authorities.

The most significant highway design challenge we identified was that local authority engineers responsible for road infrastructure are primarily focused on ensuring safety and making sure that cars can move around the street network quickly and efficiently. It is typically the case, therefore, that highways engineers are less concerned about the active travel and pedestrian accessibility considerations that preoccupy urban designers. As a result, and despite relatively well-established national guidelines on place-based road and highway design (e.g. Scottish Government, 2011; Welsh Assembly Government et al., 2007), there remain significant differences in interpretation between planners and highways engineers on the appropriateness of different road configurations and their relative safety. In East Lothian, for example, an architect we spoke to noted his frustration that the Scottish Government's *Designing Streets* guidelines have been interpreted very differently by local authorities across the country and that roads officers (as highways engineers are called in Scotland) often resist adopting the new guidelines.

[10]The process whereby a local authority assuming ownership of the roads and pavements.

Image © Gareth James

Figure 33: Public open space at Dovecot, Haddington, East Lothian with little evidence of thoughtful design.

Image © Flora Samuel

Figure 34: A streetscape designed for vehicles at Parc Derwen, Bridgend

5.7 Resourcing and funding challenges in local authorities

For many local authorities one of the most significant roadblocks to better design governance is a lack of resources. This challenge was faced across all four nations and also resonates with the recent findings of a 2020 report by the Royal Town Planning Institute, *Enabling Healthy Placemaking*, which similarly noted that "investing in planning will be crucial in the coming years to ensure the delivery of healthy, sustainable places and resilient communities" (Royal Town Planning Institute, 2020, p. 32). Funding challenges are worsened by the fact that local authorities are under pressure to make planning application decisions relatively quickly, leaving little time to use more informal design governance tools such as a peer design review panel.

A housebuilder admitted that it can be very difficult for local authorities with limited resources to police land allocations and produce design briefs for potential housing sites that may or may not be developed in the future. Another housebuilder noted that there is often limited push back if a scheme is poorly designed because most local authorities only have a small number of dedicated urban design staff who cannot devote their time to each and every planning application. This finding reaffirms research conducted by the Urban Design Group and the Place Alliance in England which found that urban design skills in local authorities are extremely scarce (Carmona and Giordano, 2017). Similarly, a local authority officer we interviewed stressed that budget cuts have reduced, not only the number of in-house specialists but also the amount of money that can be spent on external consultants. This means that many sites lack detailed design briefs or site-specific guidelines that would help local authorities to widen their 'opportunity space' and improve design governance outcomes. As a result, the officer explained, local authorities are "vulnerable to volume housebuilders coming along and saying, this is what we're going to offer you" (Bridgend 1 Planning Officer P2 interview).

In some local authorities it has also proven quite difficult to retain specialist employees (e.g. urban designers, landscape architects, ecologists, conservationists, etc.) because they quickly move on to private practice where pay and conditions are often better. This 'churn' results in fragmented knowledge of ongoing projects and leads to contradictory opinions and advice being offered to housebuilders by newly appointed staff. A local authority officer we spoke described this as a 'brain drain'. One of the local councillors we spoke to explained that, due to a lack of expertise, few local authority officers are prepared to accept or trial new design ideas.

> "I remember we lost half of our department [after austerity measures introduced post-2010]... I'm afraid collectively you just have to accept that there are less people. And, whilst government constantly criticise us about wanting local government reform to build resilience, you've still got to have those bums on the seats. It doesn't matter what form the authority takes, whether it's one big authority or individual authorities, there are not the people there, because they were cut. And, I'm afraid you lose years and years of skills and experience, and those people, once they leave local government, they don't come back, because the money's rubbish, you're worked harder than you are in the private sector, and you realise when somebody leaves, that they're doing a lot more work than they should be doing"
>
> **Bridgend 11 Planning Officer**

Some local authorities have sought to adapt in the face of resourcing pressures and adopt novel design governance processes. For example, South Oxfordshire Council shares specialist functions with a neighbouring local authority meaning that both authorities can benefit from more in-house expertise, thereby reducing the need to hire expensive consultants. In Rotherham, the landowner/master developer of the Waverley New Community makes a financial contribution to the local authority to facilitate ongoing meetings with a dedicated local authority officer who is assigned to the project. In spite of these examples, the ongoing impact of fiscal austerity means it is difficult for local authority officers to use effective design governance tools, such as informal discussions and brainstorming with housebuilders on design matters, before a planning application is submitted (see 6.4 for further discussion of the pre-application stage in the planning and development process).

5.8 Design skills and design training for local authority officers and councillors

Local authorities often rely on private sector expertise to plug design skills gaps. The masterplan for Great Western Park in South Oxfordshire, for example, was produced on behalf of the local authority by a widely-respected urban design consultancy, however, when the contract concluded, two of the local authority officers we spoke to noticed a considerable void in expertise to deliver the plan, although this has since been addressed by the hiring of specialist officers. In Northern Ireland, where planning application decision-making was devolved to local authorities in 2015, Belfast City Council has only recently employed a specialist urban design team that provides comments and design support to development management officers reviewing larger developments. Before the governance changes occurred, there appeared to be little discretionary input from those with urban design expertise.

Skills training is an example of an informal design governance tool that can improve design governance outcomes (Carmona, 2017), and a number of our participants pointed to the role that training has played in addressing the urban design skills gap in local authorities. One local councillor we interviewed noted how important it was for local councillors to receive design training because most of them have no urban design expertise. The councillor stated that Bridgend Brough Council was very good at providing training for newly-elected members. In contrast, a local councillor in South Oxfordshire blamed budget cuts for a lack of training opportunities for elected officials.

A similar picture was painted by a design officer we spoke to at the same local authority who mentioned that it was also difficult to arrange design training for local authority officers because of wider work-load pressures. While skills training is undoubtedly a critical 'first step', it is important to state that design education is also crucial. This speaks to the need for more professionally-educated design officers to be embedded within local authorities as discussed in 5.7 above.

5.9 Housebuilder commitments to design: addressing the bottom line

Turning to the housebuilding industry, we found that commitments to 'design value' and the delivery of well-designed places varied. Housebuilders are not necessarily disinterested in design, but some are certainly more prepared to make design investments than others. This contrast was highlighted by examples of housebuilders that engaged positively with the local authority on design matters, and others that stuck rigidly to their standard house types and looked for opportunities to avoid investing in design value. For the small developer of Sky-House in Rotherham, design was a fundamentally important consideration and a crucial means of distinguishing their scheme from other phases of Waverley New Community, which were mostly produced by volume housebuilders. A local authority officer we spoke to in East Lothian also wanted to emphasise that not all housebuilders are difficult to work with and some engage in constructive conversations about delivering design value.

> "we did work quite positively with [a volume housebuilder] on a number of sites in East Lothian…. they came to us in the first instance with their standard brand product and just through negotiation….we said….'you've really got to pay due regard to the character of these areas, the local vernacular, the character of the conservation areas, the building materials and the building styles'. So, they actually did come up with their East Lothian brand of housing, which they took forward on a number of sites….[T]hat's where we positively worked with that particular housebuilder to actually get them to change their standard designs to something that was more in keeping for East Lothian"
>
> **East Lothian 1 Planning Officer P2 interview**

More broadly, however, our interview respondents were of the view that smaller developers are more likely to produce well-designed homes and neighbourhoods than volume housebuilders. Participants across our case studies reported that larger housebuilders tend to be driven by a profit-focused model which does not prioritise design value and are mostly interested in identifying 'the path of least resistance' to gaining planning permission. This view was confirmed by some of the housebuilders we spoke to. For example, one shared their view that volume housebuilders only hire design consultants for the purpose of identifying a viable market for their product and securing planning permission. Others explained that housebuilders balance design investments against commercial considerations, and the latter usually end up carrying more weight.

5.10 Housebuilders and the standard house type

The focus on profit by the larger housebuilders reinforces the use of standard house types that have often faced criticism for lacking design value (e.g. Adams et al., 2013; Place Alliance et al., 2020; Tiesdell and Adams, 2004). For housebuilders, standard house types deliver economies of scale, especially in places where the housing market is weak. While housebuilders might 'tweak' the external architectural appearance of their house types, broadly speaking, they attempt to replicate the same footprint across the country, often without much regional variation, and merely 'dress' buildings differently (Adams and Payne, 2011). A housebuilder we spoke to noted that variation in the range of standard house types has reduced over time as off-site MMC is now increasingly used to create wall panels and other building components.

> "There are a lot of [house] types….I think there are about 16 or 17 house types and there are different variations of each one and there are different styles of each house type. But the footprint, the layout and the accommodation contained within it and what comes with it in terms of a garage or whatever else remains the same. Now they can be fairly traditional in their appearance. They can be enhanced to a sort of 'landmark building status' in certain parts of certain sites. Obviously, they can be faced with different materials from brickwork, render, stone fronted, and they can be more of the contemporary-type style"
>
> **Bridgend 4 Housebuilder interview**

Some of the local authority officers we spoke to were keen to point out that many housebuilders continue to stick doggedly to their standard house types and are particularly resistant to innovation. As one explained, "housebuilders….have a very strict agenda, they have a standard product and they use architects that they call designers who will deliver what they want" (Bridgend 6 Planning Officer interview). As we touched on earlier, local authorities often fail to challenge this approach and allow housebuilders considerable leverage to exploit gaps in their formal design governance apparatus, such as the planning permission process and planning obligation negotiations. This was confirmed by the officer quoted above, who noted that local authorities have to share some of the blame for the proliferation of standard house types because, more often than not, there is simply not much appetite to refuse a planning application for new housing.

Image © Flora Samuel

Image © Tom Kenny

Image © Gareth James

Image © Tom Kenny

Figure 35: Examples of standard house types from our case studies

5.11 The role of consultants in the public and private sphere

Private sector design consultants have an important role to play throughout the process of planning, designing and developing new neighbourhoods and, as we noted in 2.7, they work for both public and private sector clients. Their role in the public sector has increased as the number of in-house design experts in local authorities has reduced (Slade et al., 2019), a fact that raises important questions about the extent to which design governance processes can fully operate in the public interest (e.g. Linovski, 2019). When working for housebuilders, consultants often have to tread a fine line between securing future design work and pushing their clients to deliver quality. One design consultant we spoke to admitted that they often find themselves battling with clients to deliver design value and have to identify innovative ways to achieve good design outcomes in the context of their client's viability assessments and the particularities and constraints of the site they are working on.

Some consultants have a passionate commitment to design and can often end up frustrated when their plans are adjusted or rationalised in later phases of the planning or design process. This commonly occurs when a designer works for a landowner or land promoter to gain permission on a piece of undeveloped land and, after the land is sold, a different design team is brought in to deliver the scheme for the successful housebuilder. One of the architects we interviewed who had experienced this reflected that "we got a planning consent for [the land promoter] and then [the housebuilder that purchased the land] subsequently, went and amended that themselves,….[O]n the consented drawings we had a….centralised open space, like a village green, which had the housing….around it….They then, subsequently, went in and remixed the development to change that" (East Lothian 8 Architect interview).

5.12 Summary

In this chapter we considered how the various actors involved in planning, designing and developing new housing conceptualise and operationalise design in their practice. To summarise:

- Different actors perceived 'good design' in a variety of ways, but our participants largely shared the view that well-designed places are shaped by human needs.
- We found that most actors in the housebuilding process have a good understanding of design value and the principles of successful placemaking.
- One dimension of design value that was notable for its absence was environmental sustainability. Despite the recent policy focus on the climate emergency, the design principles that motivated our participants rarely focused on the natural environment.
- Design is rarely prioritised by local authorities and housebuilders and it is often balanced against other competing priorities.
- Local authority design governance decision-making is often driven by assessments of risk.
- The delivering of design value in local authorities is easily compromised by 'siloed' decision-making and a lack of skilled design knowledge.
- Highway design and adoption was an area of acute frustration for many participants and differing interpretations of safety and appropriateness appear to prevail between planning, design and highways officers.
- Resourcing and capacity are major challenges for local authorities endeavouring to deliver design value.
- Commitments to design value in the housebuilding industry were varied. Housebuilders are not necessarily disinterested in design, but some are more prepared to make design investments than others.
- Standard house types that do not always respond well to the local context continue to be preferred by housebuilders for the economies of scale they offer.
- Private sector planning and design consultants have a passionate commitment to design but can also end up frustrated when their plans are adjusted or rationalised in later phases of the housebuilding process.

Chapter 6
When is 'design value' delivered and when is it not?

In this chapter we present the second part of our findings, which identify the critical points for delivering design value in the planning, design and development process. As we have noted earlier in the report, we have characterised these points as either being 'upstream', 'midstream' or 'downstream' in the often lengthy and meandering process of planning, designing and developing new housing; these are mapped in Figure 36 at the end of the Chapter. Using evidence from the ten housing developments we examined, we attempt to follow the logical sequence of a typical house building process to highlight where decisions taken by different regulatory and supply-side actors have the greatest impact on housing design outcomes, what motivates these decisions, and where opportunities for delivering design value might be missed. We start by looking at the influence of 'upstream' national, regional and local policy in the four nations, move through land purchasing decisions, 'midstream' planning permissions and conditions, and end 'downstream' at construction and completion.

6.1 National planning policy and legislation in the four nations

In earlier chapters of this report, we have described the relatively unambiguous commitments to well-designed places in the planning policies of the four UK governments (see 1.2 and 2.1). There was, however, a mix of opinions among our research participants about the influence of upstream national planning policy on design governance and housing design outcomes at the local level, with varying views on both the potential and actual importance of English, Scottish, Welsh and Northern Irish national policy.

Some described national policies in the four nations playing a critical role in shaping the formal design governance tools produced by their local authority (e.g. design policy, guidance, etc). For example, one of the local authority officers we spoke to in Bridgend stated that the strength of the urban design policies contained in the local development plan was dependent on the weight given to design by the Welsh Government. Another local authority officer, also in Bridgend, explained that the Welsh Government's recent wellbeing objectives (Welsh Government, 2016b) give planners the power to make bolder design-aware planning decisions and, for example, reject affordable housing that is poorly located for public transport. Scotland has a long-standing commitment to design in national policy dating back to the early 2000s (Architecture and Design Scotland et al., 2015; Scottish Executive, 2001, 2000; Scottish Government, 2013), yet one of the Scottish land promoters we spoke to hinted that, despite national planning and design policies playing an important role in setting a 'design threshold', without a minimum design quality standard, developers remain unlikely to improve the design outcomes of their projects independently.

Other participants felt that upstream national-level design policies and standards are simply ineffective and are often resisted by local authorities (see 5.6 for further discussion). One local authority officer expressed their frustration with the "weakness" of national policy in England and Wales and stated that local authorities adopt a "that'll do" attitude to design and do not push for quality (Bridgend 13 Planning Officer interview). This was echoed by a development agent we spoke to in East Lothian, who described a frustrating disparity between aspirational national design policies and mediocre implementation. Some of the design consultants we interviewed also admitted that best practices tended to influence their design choices more than national design policies.

A number of the participants we spoke to stated that the most significant roadblock to the delivery of design quality at the local level were housing delivery targets and the perception that they emphasise accelerating the speed of building new homes. In South Oxfordshire, for example, one of the local authority officers we spoke to stated that they would not feel confident rejecting a planning application for housing on design grounds because the decisions would likely be overturned further downstream on appeal if the proposal delivered new homes. The very same challenge was faced by local authority officers we interviewed in Wales and Scotland. One referred specifically to the 'pressure' they felt to approve new housing and meet housing targets. A local councillor we interviewed in Bridgend also stated in explicit terms that local authority officers are "very fearful of losing the goodwill of the housing developers" because of the pressure they are under to deliver a certain number of new homes (Bridgend 10 Local Councillor interview).

6.2 Local authority plan making and guidance

Across the UK, local plans[11] set out a local authority's spatial planning polices, including matters relating to design, housing and, crucially, the land within the local authority allocated for future housing development. All of the developments we examined were determined under the auspices of an 'upstream' local plan, with the exception of the two sites in Belfast. At the time, Northern Ireland was only just beginning to adopt local plans and planning applications were still determined on the basis of the 2015 *Belfast Metropolitan Area Plan* alongside a suite of planning policy statements and consultation input from an array of statutory agencies (see 4.5).

Many of the local authority officers we spoke to were keen to stress the important role that local plans and supporting supplementary guidance plays upstream in 'setting the tone' for new development and identifying and mapping strategic design concerns. More than one local authority officer told us that the local plan provides decision-makers with a clear basis upon which to practice design governance and therefore approve well-designed and sustainable development and reject schemes that fail to meet such a standard.

> "We've recently adopted our local plan, so we have some very, very up-to-date policies that we have to consider. Those policies require the provision of good urban design in all developments. . ..we will refuse an application if we don't think a development reflects the urban grain of its surroundings or is overdevelopment"
>
> **Rotherham 1 Planning Officer interview**

[11]Variously 'Local Plan' (England), 'Local Development Plan' (Scotland, Wales, Northern Ireland).

In South Oxfordshire an additional layer of planning policy also proved influential on the Sycamore Rise housing development we examined in Thame. As we outlined in 4.1.2, the *Thame Neighbourhood Plan* (Thame Town Council, 2013) was produced by Thame Town Council using the community planning powers introduced in England as part of the 2011 Localism Act and was formally incorporated into South Oxfordshire's local planning framework in 2013. Local authority officers at South Oxfordshire District Council and representatives of the housebuilder of Sycamore Rise agreed that, in practice, the plan took precedence over the *South Oxfordshire Local Plan 2011* because it provided more detailed policies for the town and identified housing land allocations that had been agreed with the local community. Notably, both the local authority officers and the housebuilder remarked that local authorities can increase their 'opportunity space' and therefore push for better design outcomes when there is a strong and well-developed neighbourhood plan in place.

Some of the local authority participants we interviewed added that it was important to have high quality supplementary planning guidance alongside the local plan to establish the authority's detailed design expectations. A local authority officer we spoke to in East Lothian stated, for example, that East Lothian's current *Design Standards for New Housing Areas* (East Lothian Council, 2018b) provide clarity on the minimum standards they expect developers to meet on issues such as the massing and frontages of buildings, garage typologies and parking, etc. The officer further explained that these formal design governance standards have played an important role in shaping proposals on land not allocated for housing in the local development plan[12]. Contrastingly, an interview we conducted with a local authority officer in Bridgend provided a rather different perspective on the role of supplementary planning guidance as a formal design governance tool. Blaming a lack of resources, the officer lamented the fact that Bridgend's guidelines on housing and design were not only out of date but also a virtual facsimile of another local authority's guidance.

One area where we found considerable consensus among participants was on the influential role that local plan site allocations play upstream in establishing design governance benchmarks and shaping housing design outcomes. The process of determining housing allocations is a key part of the lengthy and often politicised process of consultation that occurs in the years leading up to the adoption of a local plan. A range of stakeholders including housebuilders, landowners and land promoters, directly influence this process by lobbying for particular sites to be included in the final land allocation. A design consultant that we spoke to in South Oxfordshire argued that housebuilders tend to be more proactive than local authorities in identifying potential housing sites.

> "I think it's often left to the private sector of putting the sites forward and the kind of sifting process. I think local authorities do need to…be more proactive…actually saying: how are we going to grow? And, identify the areas where they want to grow. Rather than putting out this call for sites and then using a spreadsheet approach of sifting the sites….I think we need to think about that process and adjust…[it]…because I don't think it leads to the best possible development we can have"
>
> **S. Oxfordshire 10 P2 interview**

[12]Reforms to the planning system in Scotland introduced in 2019 via the Planning (Scotland) Act 2019 will remove supplementary planning guidance from the emerging plan-making hierarchy (The Scottish Parliament, 2019).

The process of allocating sites for housing, especially on larger pieces of land, can often span more than one local plan cycle. For example, a local councillor in South Oxfordshire described how a series of strategic land decisions made in the 1990s as part of the *Oxfordshire Structure Plan* (Oxfordshire County Council, 1998) adoption process ultimately shaped the location and form of Great Western Park on the edge of Didcot. A representative of the developer further explained that it was, in fact, the housebuilder's planning consultants who identified the potential of the Didcot site and successfully lobbied the county council for it to be included in the structure plan. A design consultant we spoke to in East Lothian described much the same process, stating that a successful allocation is often the first stage of a years-long design process for a housing development, which his firm might see through from outline planning permission/planning-permission-in-principle to full planning permission.

One of the housebuilders we interviewed emphasised how important the housing allocation process can be because it 'locks in' certain strategic design decisions upstream including, not only the distribution of future development, but also the expected number of dwellings on each allocated site. The housing allocation process is thus one of the primary ways that supply-side actors in the housebuilding industry can widen their 'opportunity space' early in the planning and design process and serves to highlight the significant and long-standing role that private sector supply-side actors play betwixt and between the formal processes of planning and design governance. The long-term impact of the land allocation process is laid bare when a local authority fails to meet its housing delivery targets, as happened in East Lothian after the adoption of the 2008 *East Lothian Local Plan* (East Lothian Council, 2008a). This left the local authority vulnerable to speculative planning applications for new housing occurring further downstream in the planning process on undesignated land and, in some cases, resulted in planning decisions being granted against the local authority officer's recommendation, as occurred in the case of the Gateside West development (see 4.3.2).

6.3 Housing development viability assessments

For housebuilders, 'development viability' is perhaps the single most important upstream consideration during the planning, design and development of new homes and neighbourhoods. The effect that viability and the financing of housing development have on design value is therefore significant and influences many of the decisions taken by a range of actors further downstream. The development viability of land is also directly linked to the housing land allocation process, described in 6.2, and is used by land promoters, planning consultants and developers alike to determine whether a site should be put forward as a suitable location for housing during the local plan consultation process.

A strategic land buyer we spoke to explained that volume housebuilders look for ways to balance the valuation of a site against the cost of securing planning permission, with the aim of maximising the return on their investment. As an architect-developer we spoke to in Rotherham stated, the skill is "to balance all the constituent parts of the development…. marry them together and then ultimately create something that makes a profit" (Rotherham 3 Housebuilder Designer interview). This view was shared by the representative of a housebuilder we interviewed in East Lothian, who explained that the developer's land buying team must always keep an eye on design costs when they bid for land to ensure that the site remains viable well into the future.

This financial balancing act causes many housebuilders to constantly look for ways to 'value engineer' various aspects of an emerging housing development scheme to keep down costs as it moves downstream through the planning process. A volume housebuilder we spoke to in South Oxfordshire explained this push-and-pull in the following terms: "we're a business, if we can't generate any profit out of a site, it's just not suitable for us….[W]e want to leave positive legacies, but ultimately we also have to run as a profitable business. So, if it's not viable, we're not doing it" (S. Oxfordshire 9 Housebuilder P2 interview). Another housebuilder explained that the Global Financial Crisis caused his firm to change their business model resulting in "an average unit size that was a lot lower, and a smaller mix of homes" (East Lothian 5 Housebuilder interview). More than one participant stated that housebuilders are protective of their viability calculations while, at the same time, using 'viability' as an excuse to drive down costs.

> "I suppose the frustration of being an architect working for developers was [that] constantly the design would be eroded by the client and the quantity surveyors and the whole team trying to make it viable….[S]ometimes it could be just through greed to make even more money. It wasn't always open to us why the decisions were being made by the developer…"
>
> **Rotherham 3 Housebuilder-Designer interview**

'Location' is typically the most important element of a viability assessment for new housing and directly influences the amount developers are prepared to invest in design. This has a particular impact on areas with lower land values and influences the extent to which a local authority is able to widen its 'opportunity space' and fight for better design outcomes. For example, a volume housebuilder that we interviewed in Bridgend explained that, while land values are low in the area, the cost of materials and labour is roughly the same as it in parts of the country with higher land values. This means that "the emphasis [is] on really squeezing that land as much as possible…." (Bridgend 4 Housebuilder interview). It is, they admitted, "…a much more difficult task in some parts of the country than others" (ibid). In a similar vein, a local authority officer we spoke to described how this problem can be exacerbated by the inflated price that housebuilders often pay for land that is allocated for housing. The officer suggested that some housebuilders appear to calculate the price they are prepared to pay with little regard to the financial obligations they might later assume downstream in the planning process as a condition of permission. This means that housebuilders can wield significant power in low value areas. A local councillor in Bridgend highlighted this challenge in the following terms: "[t]hey know they've got clout, they know that they bring employment, but they're very bad at following through" (Bridgend 8 Local Councillor interview).

Even in South Oxfordshire, which has higher than average house prices, land values can have a direct impact on design. A local authority officer we interviewed stated that it proved difficult to attract housebuilders that were prepared to invest in design value at the Great Western Park development on the edge of Didcot because the land value was weaker than in other parts of the district. Similarly, in East Lothian, another area with higher than average house prices, competitive bidding can often lead to inflated land values which later restrict the amount that housing developers are prepared to invest in design.

A number of the research participants we interviewed were keen to highlight the role that landowners and land promoters play in determining development viability and, by extension, long-term design quality. A landowner we spoke to stated that their calculations on the future viability of a large masterplanned project upstream in the planning, design and development process influenced the type of developers they chose to work with. This meant they sold the initial land parcels to volume housebuilders that could operate at scale, before later looking for ways to work with smaller developers that were more committed to design excellence. At Great Western Park in South Oxfordshire, the site was simply too large for one housebuilder to viably develop on their own. A representative of a housebuilder told us that "[n]o one developer can hold on to the amount of debt required for a scheme of this size, so once you've developed the overall framework or masterplan you sell off some of the site" (S. Oxfordshire 7 Land Promoter interview). From a design perspective this means that detailed design decisions are delegated downstream to other housebuilders leading, in this participant's opinion, to greater design diversity.

In another example, a land buyer we spoke to explained that, in the past, potential development sites tended to be identified by the housebuilders' in-house land buying teams but, in recent years, many housebuilders have started to rely on land promoters to identify and assemble appropriate sites before selling them to a housebuilder, typically with outline planning permission already secured (see 6.6). Land promoters routinely engage planning and urban design consultants to produce schematic proposals or a masterplan that are then used to test the site's viability and, later, become the basis for an outline planning application. This way of working allows housebuilders to spread their risk and reduce the length of time that upfront debt financing is required. As the land promoters receive a cut, however, the amount of money available for overall design value arguably decreases.

In many ways the financing and viability of housing development is a difficult topic to research because concerns about commercial sensitivity mean that research participants can be quite circumscriptive in their responses. Further, a wealth of existing research evidence shows that the viability models used in the housebuilding industry are often flawed or biased, thus leading to miscalculations (e.g. Adams and Tolson, 2019; Crosby, 2019; McAllister, 2019) and, in some cases, "opportunistic behaviour" (McAllister, 2019, p. 448). This can make it difficult for local authorities to gauge how much they seek to widen their 'opportunity space' upstream in the planning process and push developers to invest more in design, especially if local authority officers have a limited understanding of property markets (see for example: Adams and Tiesdell, 2010).

Before moving on, it is important to note that there tends to be more clarity around the funding and viability of affordable housing because many of these projects are subject to upstream grant funding, as well as design regulations/space standards that require greater transparency. This was certainly the case on the Peter Pan social housing development we looked at in Belfast. Here, the housing association engaged in a 'design and build' contract with a developer that already owned an appropriate site in West Belfast. The developer and their architects produced a scheme that met the design standards contained in the Northern Ireland Executive's *Housing Association Guide* (Department for Communities, 2009). A housing association representative we spoke to explained how this ensured the project, and others like it, achieved the lifetime home standards established in the guide. The participant did note, however, that the standards can also have a homogenising effect on the external architectural appearance of social housing (i.e. they all look the same) and result in poorly proportioned homes that try to accomodate too many features. In this particular example, the desire to maximise the density of the buildings resulted in the removal of on-site community space and the prioritisation of flats over houses. This, explained one interviewee, led to increased anti-social behaviour.

6.4 Pre-application discussion

The pre-application stage is the final upstream point in the wider process of planning, designing and developing new housing and is thus a critical moment for design value. It is the first point at which a developer or landowner/promoter engages informally with local authority officers about their vision for a new housing development and, depending on the size of the scheme, the local community as well. For housebuilders and landowners/promoters, the pre-application stage is thus a chance to demonstrate what a viable scheme might look like, while for the local authority, it is the first opportunity to apply their design policies, establish design priorities for the site in question and set out the anticipated contributions they might expect the housebuilder to provide for affordable housing, infrastructure, and other obligations further downstream in the planning process (see 6.7). A local authority officer we spoke to in Rotherham told us that the pre-application stage was arguably the most important point in the design governance process for both raising the overall standard of design and beginning a conversation with local authority staff and statutory consultees on the expected design requirements.

> "[w]e invite the developers to come in, not just with the layout plan, but with house types, street elevations and we bring in urban designers, we bring in landscape designers to that meeting to discuss all elements of it. So, design isn't the only criteria but it's a very important one"
>
> **Rotherham 1 Planning Officer interview**

The same officer went on to explain that the process of agreeing changes to the design is often easier during the pre-application stage because the proposals have not been fully developed. Furthermore, early dialogue can also foster a sense of goodwill between stakeholders. The architect-developer responsible for the Sky-House project at Waverley New Community in Rotherham confirmed this and mentioned that, without pre-application discussions, it would have been much harder to get planning consent. This view was shared by one of the local authority officers we spoke to in South Oxfordshire who highlighted the importance of finding a balance between the policy objectives of the local authority and the commercial ambitions of the developer. She explained that it was important for the local authority to be able to demonstrate to the housebuilder that "we've thought about the way that design works". This, the officer argued, often resulted in developers being "…very willing to do anything that they think will improve the area" (S. Oxfordshire 3 Planning Officer interview).

During the pre-application stage for Great Western Park in South Oxfordshire the developer and the local authority clashed over the level of formal design control, with the developer seeking a more flexible approach than the local authority desired. The solution that emerged led to a broad-brush outline planning application with a series of conditions that required the developer, among other things, to produce a portfolio of formal design governance tools, including a masterplan and district design frameworks for each phase of the development. At the Waverley New Community in Rotherham, the pre-application discussions established similar masterplanning and phasing requirements, as well as an agreement between the local authority and the master developer that there would only be limited design intervention on the initial phases of the project to allow development to proceed smoothly following the Global Financial crisis. This meant that the first phases of the project, including The Banks development that we looked at, involved the use of more standard housing types than might otherwise have been envisaged.

In East Lothian, the local authority uses an informal design governance tool to encourage compliance with their design policies and guidelines by offering a free weekly pre-application advice service. A local authority officer we spoke to explained that, because the service is free, some developers are less inclined to submit a speculative application and instead engage in a pre-application dialogue with the local authority. The officer added that it is important to encourage these discussions upstream in the planning process and, crucially, before the developer's viability assessments lead to what might be termed 'design freeze', i.e. that the housebuilder has effectively spent all the money they budgeted for design. Unfortunately, when this happens, the pre-application advice that local authority officers provide can sometimes fall on deaf ears and result in few or no changes to the proposal as it moves further downstream.

> "Sometimes we do go through the preapplication process, we do give the general place-making advice of all these different components of how the development should work and sometimes we're just routinely ignored. They'll just come in with the development that they want to put on the ground, rather than a development that we've advised might be a bit more successful"
>
> **East Lothian 1 Planning Officer P2 interview**

In Wales, community engagement occurs at the pre-application stage. This typically means that the design of a new housing development is mostly fixed quite far upstream in the planning, design and development process so the community can see what the development will look like. One of the local authority officers we spoke to in Bridgend argued that the pre-application consultation process often occurs too fast meaning that the housebuilder tends to have spent their design budget before the local authority reviews the scheme. This limits opportunities for dialogue further downstream with either the local authority or the community on the merits of the proposal (Bridgend 3 Planning Officer interview). A more general problem mentioned by some of our participants was that pre-application discussions on design matters can sometimes be undermined by contradictory advice given by different local authority officers (see 5.6).

As we have mentioned elsewhere, the two housing developments we examined in Northern Ireland were assessed around the time that most planning decision-making powers were being devolved from the Department of the Environment to local authorities. The new system requires developers to undertake pre-application consultation and produce a Design and Access Statement (as required as part of a planning application in the other three UK nations). Planning officers are also required to give a more detailed justification for their recommendations to the planning committee. One of the participants we interviewed in Northern Ireland noted that, at the time of the application for the Peter Pan Complex, pre-application discussions were not subject to fees and, as a result, were given less priority than the formal planning application processes that follow. One of the architects we spoke to explained that the changes put in place in Northern Ireland are part of a wider effort to 'front load' key decisions and engage more directly on issues like urban design.

6.5 Engaging with local people

Depending on the size and complexity of a housing development, engagement with local people can occur before and during the pre-application process (as mentioned above) and/or as part of the outline and full planning permission processes that occur midstream in the wider planning, design and development journey. Many of the participants we spoke to downplayed the role of community engagement in shaping design outcomes. In one instance, a participant suggested that engagement tends to be relatively light touch. In another case, a participant stated that engagement events are used to provide 'information' rather than offer local people an opportunity to take part in the design process, suggesting that engagement with local communities is largely 'top-down', tokenistic and occurs too far downstream in the planning, design and development process. When the scheme this particular participant was involved in later went forward for outline planning permission, there were nevertheless 879 representations from various individual community members and some community groups (South Oxfordshire District Council, 2006). These focused on the impact that the new community might have on walking and cycling, public transport, housing density and mix, location of greenspace and the provision of infrastructure.

In East Lothian, a land promoter we interviewed also downplayed the role of local people in shaping design outcomes, suggesting that community views were given short shrift in the wider design process: "we did the usual community consultation meetings, and community councils had a say…, and various other amenity groups…had a say, but that was on a fairly generic level" (East Lothian 9 Land Promoter interview). He added that the "…key debate on design was between us, or our architect on our behalf, and the planning officers. So, they were really….the sole voice in terms of quality of design" (East Lothian 9 Land Promoter interview).

Another land promoter we spoke to, this time in South Oxfordshire, referred to the widely accepted view that local communities tend to be 'anti-development' or, to use the familiar adage, 'NIMBY' (not-in-my-backyard). In his opinion, "they [local people] just don't want development next door. So, they are not really interested in design" (S. Oxfordshire 7 Land Promoter interview), he added that local people often don't realise that new housing development can be well-designed and look attractive in the landscape. Reflecting on the approach of the wider housebuilding industry, and also justifying his decision to set up his own housebuilding firm, an architect-developer we spoke to in Rotherham stated that elements of the housebuilding industry remain hostile to community engagement.

> "I've worked with developers who don't care anything about the local economy. They don't care about the local community, they don't care about anything like that, they just want to build their product, make the profit and disappear, and that's very common"
>
> **Rotherham 3 Housebuilder Designer interview**

One of the local councillors we interviewed in Bridgend noted that it is often left to elected representatives to translate the design principles of a scheme for the local community and complained that there was little effort by planning officers to engage with members of the public about a planning application beyond placing notices in the local newspaper. A community activist we spoke to in Bridgend added that any objections that councillors may have about a scheme often have little impact on whether a housing development is granted or refused planning permission. This observation was supported by the reflections of two local councillors we spoke to, both of whom felt under pressure not to make objections to planning applications for new housing. There was no evidence that the local authorities or housebuilders involved in the housing developments we researched were engaged in co-design or other forms of innovative, bottom-up engagement with communities upstream in the planning, design and development process.

6.6 Outline planning permission

In many instances housing developments tend to be large enough to require 'outline planning permission' ('planning-permission-in-principle' in Scotland and on certain housing sites in England after 2017 (Ministry of Housing, Communities and Local Government, 2017)). It sits midstream in the process of planning, designing and developing new homes. A successful outline planning permission establishes the principle of development on a site and, among other things, describes the anticipated design language of the proposed scheme. Permission will typically be subject to a series of conditions or financial obligations and one or more 'reserved matters' applications will be required before development can commence further downstream (see 6.8).

Statutory consultees play an important role in shaping design outcomes during both the outline planning application stage and in later stages of the approval process. The number and type of consultees that are approached by a local authority varies but they typically offer 'direct' opinions on specific matters associated with the design of the scheme including urban design, landscape and highways/roads which, as we discussed in 5.6, have a particularly influential role in determining parking arrangements, street design and the types of streets that local authorities will adopt. Stakeholders such as community councils, the Environment Agency and other national equivalent bodies in the devolved nations, police and other government agencies are also consulted.

Outline planning permission for new housing is also increasingly sought by land promoters who, as we described in 6.3, prepare sites for development before selling them to housebuilders, often at a significant profit. This happened on a number of the housing developments we examined and meant that, in some instances, housebuilders pay over the odds for land with outline permission, and the actors involved in securing outline planning permission were not involved in taking the project through to reserved matters or a full planning application. This tended to mean that the design ambitions for the site were altered or 'value engineered', typically for the worse, by the time the application was reviewed in full further downstream (see 6.8).

As we previously mentioned, outline planning permission was granted for the larger schemes at Great Western Park (South Oxfordshire) and Waverley New Community (Rotherham) on the condition that a site masterplan and phasing plan were completed midstream in the planning and design process and in advance of any subsequent downstream reserved matters application(s). This was also the case for the Parc Derwen development in Bridgend (Barton Wilmore Partnership, 2005).

The alteration or 'value engineering' of design ambitions downstream is easier to avoid on larger sites where formal design governance tools like a masterplan have been required, although the quality, extent and formality of the masterplanning process can differ widely. In South Oxfordshire, the requirement for a masterplan and associated design frameworks at Great Western Park meant that the development consortium who owned the site produced detailed site-specific plans. These documents contained much more information than the local authority's local plan and existing supplementary planning guidance and established a clear design vision for the site, as well as design guidance on land use, density, movement, connectivity and open space, detailed framework plans for 'character areas' of approximately 1,000 homes, and a phasing strategy (Taylor Wimpey, 2010). The masterplanning documents were, however, produced by a firm of urban design consultants on behalf of the developer meaning the local authority's design governance oversight role was diminished to some extent.

A phased masterplan and design strategy was also a means of delivering design value at the Waverley New Community in Rotherham. Rather like Great Western Park, the masterplanning documents were produced by a consultant urban designer working on behalf of the landowner. The site was split into various 'character areas' that were then phased over a number of years and, as each character area has been brought forward for development, a character area design code has been produced that updates the basic design parameters and takes into account the prevailing market conditions. Both a local authority officer and the landowner explained that this has allowed for some helpful flexibility.

> "…the masterplans and the design codes and the frameworks need to be very flexible, certainly…we have changed the Waverley masterplan, not fundamentally, but we have changed it probably about seven or eight times in the last ten years. And that is to reflect market demands; to reflect changing demand for different types of housing,...changes on the ground and different ways of thinking. So, for me, the masterplan has to be very flexible and the planning consent has to allow the masterplan to change over time"
>
> **Rotherham 4 Landowner interview**

Another tool used by local authorities to establish the design parameters of a housing development site is a 'design brief'. On small- or medium-sized sites, where a full masterplanning process is not necessary, a design brief provides a basic overview of the anticipated form and scale of development. In the example of the Ysgol Bryn Castel development in Bridgend, the use of a very limited design brief rather than a masterplan led to a two-phased development that was produced by different housebuilders and designed without much thought to the relationship between the two phases. As we describe in 4.4.2, this meant that any potential opportunities for an interconnected neighbourhood were lost.

In contrast, one of the local authority officers we interviewed in East Lothian explained that design briefs can play an important role in establishing a minimum standard for development and ensure that housebuilders are clear what their obligations will be if they develop the site. The planning officer noted, however, that East Lothian only produces design briefs for sites that have been allocated upstream in the local plan. Numerous other sites, including the two we examined, were brought forward by developers on a speculative basis and thus did not have a design brief. This makes it harder for the local authority to insist on particular design standards.

6.7 Planning obligations

Planning obligations are a formal design governance tool and are attached as conditions to both outline (midstream) and full (downstream) planning permission. They are used to ensure that new development provides wider public benefits and contributes towards the functioning of the surrounding area by funding affordable housing, new highways infrastructure and various community amenities. As previously discussed in 2.2, developers enter into an agreement with the local authority under Section 106 of the planning acts in England and Wales, Section 75 in Scotland and Section 76 in Northern Ireland. In England and Wales, a new Community Infrastructure Levy or 'CIL' was introduced in 2014 as a further means to fund local infrastructure (Ministry of Housing, Communities and Local Government, 2019c). Land value capture through planning obligations is one of the main methods local authorities use to deliver public good through the planning and design governance process.

For larger masterplanned sites, like Great Western Park, Waverley New Community and Parc Derwen, the list of Section 106 obligations can often be extensive. At Great Western Park, for example, the obligations attached to the outline planning permission for Site 2a were very wide ranging and included contributions for affordable housing (30% of units, including 27% as social rent), transport and highways, schooling facilities, open space, a doctor's surgery and public art (South Oxfordshire District Council, 2006). A land promoter we spoke to about this particular site felt that the local authority was misusing the planning obligations in an attempt to 'squeeze' the housebuilder for as many contributions as possible, particularly for affordable housing.

On these larger phased schemes, planning obligation agreements can also be altered over the lifecycle of a development as priorities or market conditions change. For example, at Parc Derwen in Bridgend, the Section 106 agreement was changed so that a larger school could be provided with associated community facilities. Negotiation with the developer on this issue meant that an extra 15 housing units were permitted in exchange for the contribution. A local councillor we spoke to in Bridgend noted that the Section 106 process lacked transparency. Although planning obligations are finalised downstream in the planning, design and development process, participants noted that negotiations can begin much further upstream. The councillor mentioned above told us that *quid pro quo* negotiations often occur very early in the pre-application or outline planning permission stage, taking place behind closed doors between local authority officers and the developer. Noting his frustration with this approach, the councillor stated that "there's no discussion between planners and the local elected councillors prior to when an application comes in" and, as a result, councillors are prevented from offering a community perspective on the negotiations (Bridgend 7 Local Councillor interview). In this councillor's view, more opportunities were needed for communities to play a role in the detailed stages of the planning process.

6.8 Full planning permission and reserved matters

Our research participants had differing views on the extent to which design value was influenced by the final, downstream stages of the planning process and the conclusion of any reserved matters following the granting of the outline permission. The main distinction we identified was that issues of urban design (site layout, connectivity, integration, etc.) are usually finalised midstream as part of outline planning permission/ planning-permission-in-principle process, while more detail-orientated design decisions, such as house typologies, material palette choices and landscaping, tend to be downstream 'reserved matters'. Many of these detailed design governance considerations are nevertheless fundamental to design value and significant changes do still occur between outline permission and reserved matters which can impact design value.

These changes can happen because there is a change of landowner (e.g. from a land promoter to a housebuilder) and thus a different viability assessment of the site that is influenced by the amount the housebuilder paid for the land with outline permission. An example of this in our research was the Sycamore Rise scheme in Thame, South Oxfordshire. Here, the land promoter applied for outline permission and produced an award-winning design brief, design guidelines and a pattern book. Although the local authority intended to translate these documents into supplementary planning guidance this did not fully occur. When the site was subsequently purchased by a volume housebuilder, some of the award-winning design was compromised, however, many of the changes they proposed were also rejected. A similar process occurred on the Gateside West site we looked at in East Lothian. In this case, key design principles were established in a site masterplan during the planning-permission-in-principle stage but, when the site was sold to a housebuilder, the design was significantly alerted by the developer's in-house design team. One of the architects we spoke to noted, with some frustration, that the housebuilder was keen to adjust the design to suit their target market, to the detriment of the surrounding neighbourhood.

The curse of 'value engineering', mentioned earlier in our discussion about development viability (see 6.3), also has a significant impact on design in the latter downstream stages of planning. A local authority officer we spoke to in Bridgend remarked that it can prove difficult to refuse changes sought at the reserve matters stage because, oftentimes, the housebuilder has stated that the development would not be 'economically feasible' without the changes. In the case of Parc Derwen, for example, this resulted in a revised road format and a different mix of house types, both of which negatively impacted the overall design of the site. A local authority officer we spoke to noted that the authority did not ask the housebuilder to provide evidence that their revised assessment of the market made the original design undeliverable. A further challenge faced in Bridgend was that issues like the material palette are not deemed important enough 'material considerations' to refuse permission downstream at the reserved matters stage. These seemingly small changes nevertheless chip away at the overall design value of a housing development.

Local authority officers working in development management can sometimes be under considerable pressure from elected councillors and senior officials to approve a scheme, even if it is poorly designed. This can place significant pressure on the wider processes of design governance. Some of our participants also suggested that a general focus on expediting the delivery of affordable housing can mean that it receives limited design scrutiny. On the Portland 88 scheme in Belfast, the local authority officers faced a different dilemma. In this case, a previous proposal for housing development on the site had been approved centrally by the Department of Environment a few years before. Despite the significant changes that were made to the planning system in the intervening years, the local authority officers in Belfast felt bound by the precedent set by the previous decision and, despite some considerable concerns about the design, determined that a refusal would be overturned on appeal. It is anticipated, however, that precedents from the previous planning regime will become less significant with time.

This example nevertheless speaks to the significant influence that an appeal, or the possibility of one, can have on the delivery of design value. A local authority officer we spoke to in Bridgend admitted that the general assumption was that the Planning Inspectorate would likely overturn a decision made primarily on design grounds. Similarly, in East Lothian, the fact that the local authority's 2008 *Local Plan* had failed to allocate sufficient land for housing development upstream in the plan-making process meant that schemes like the Dovecot development were indeed successful on appeal. The knock-on effect of this particular decision, and others like it, was that housing schemes such as the Gateside West project were granted consent by the elected planning committee, despite the local authority officer recommending refusal.

6.9 Construction

With full planning permission secured, a housing development moves into its final stages and construction begins. Although most of the strategic design governance decisions have been made by this point, there are still numerous decisions taken on site on a day-to-day basis that impact design value. These tend to be taken by project managers and/or site managers working on site, or by design teams that have been contracted to produce construction drawings. As a result, there can often be limited design oversight and the parties involved might only have a partial understanding of the wider design vision for the neighbourhood established further upstream in the planning and design process. This challenge is invariably amplified on large or complex sites that involve multiple design and construction teams.

> "Decisions will be [taken] by the developer and a construction team and the engineers and architects will still be involved. I think it's quite interesting in a scheme like [Great Western Park] how there are several sets of architects involved. There's one specific architect who does the layout, but they don't do the detailed design in the construction drawings. Then there comes another [architect] after they have got their planning consent, [and then] another set of architects come in who only focus on actually making it work. So there's a kind of split there….because the architects who are [doing the] planning might think to a certain level of detail but might not actually look at the sub-level changes….I think on a development like this, there are so many parties involved, that it is really tricky"
>
> **S. Oxfordshire 10 Design Consultant P2 interview)**

In these situations, architects known for their 'design flair' tend to lead on the planning permission (upstream) while other, usually cheaper and less design savvy, firms work on the delivery of the scheme (downstream). The aforementioned issue of 'value engineering' also impacts design value during the final phases of construction and landscaping. A planning consultant we spoke to noted that there is often 'a dilution of the design' just before or even after planning consent has been granted meaning that materials choices, surface treatments and landscaping specifications are pared back as the project moves downstream and on site. One of the housebuilders we spoke to about Great Western Park in South Oxfordshire explained that, where possible, they try and avoid making any significant design decisions after the conclusion of reserved matters, unless a specific problem arises. The main exception tends to be changes to materials, which mostly occur because of unanticipated supply shortages and can thus be agreed as a non-material amendment with the local authority.

The size and complexity of Great Western Park in South Oxfordshire meant that substantial changes did nevertheless arise on site and led to downstream value engineering. For example, a number of participants we interviewed mentioned that the high-quality landscape plan for the project, which was envisaged by a prestigious firm of landscape architects, was later reworked to reduce costs and resulted in the local authority having to push the developer to replace a number of trees that died. At the Waverley New Community in Rotherham, access to skilled labour and high-quality materials was also highlighted as a problem. The local authority officer we spoke to noted that, in one case, the developer had faced trouble securing the correct bricks and had to be asked to make changes to better reflect the planning drawings. Such oversight does not always occur, however, and a number of the participants we interviewed in South Oxfordshire admitted that limited local authority resources meant that enforcement of their decisions was not always consistent.

Maintenance issues can often persist long after a new neighbourhood is occupied, meaning that issues of design value extend well beyond the completion of a housing development. In the case of the Waverley New Community in Rotherham, a stewardship Land Trust was established by the landowner to maintain the landscaping and infrastructure within the neighbourhood, for which residents pay a service charge. The local authority and the developer have also agreed that any trees that perish in the first five years of the development will be replaced. The process of 'adoption', whereby the public areas of a new housing development (roads, pavements, etc.) become publicly owned and maintained by the local authority, can also impact long-term design value. In Bridgend we found that the local authority officers were frustrated by a lack of clarity about the adoption process and its lack of integration into design governance. One officer we spoke to stated that there can be a reluctance to include green spaces or playgrounds in new housing developments because local authorities may not have the funds to adopt and maintain them.

6.10 Post-occupancy evaluation

Noticeable for its absence was much of any mention of systematic post-occupancy evaluation on the various housing schemes we examined. Most of our respondents did not refer to post-occupancy evaluation and we found only four examples where it had occurred and only one instance where a local authority or housebuilder proactively undertook a post-occupancy evaluation, and that was a housing association. In the first example, at the Sycamore Rise development in Thame, a post-occupancy evaluation only occurred because the original urban designer of the scheme, appointed by the land promoter, chose to undertake an independent assessment. Interestingly, he concluded that the site achieved a number of the design objectives envisaged midstream in the outline planning application process but was let down by the housebuilder's use of standard house types. In the second example, at Peter Pan development in Belfast, Radius Housing Association proactively conducted an evaluation a year after completion. A total 29 households participated. Responses were generally positive, although, echoing our interviews, there were some concerns over anti-social behaviour and poor or insufficient communal space. In the other two examples, Parc Derwen in Bridgend and Portland 88 in Belfast, post-occupancy evaluations were conducted independently by the Quality of Life Foundation as part of a wider study undertaken in the wake of the community lockdowns in 2020 introduced to curb the transmission of Covid-19. The results of these assessments are mentioned in 4.4.1 and 4.5.2 and in more detail in the Foundation's report (Mosteanu, 2020). Our participants did not refer to monitoring design outcomes or feeding back lessons into upstream plan-making processes.

6.11 Delivering design value: the critical points of intervention

In Figure 36 we have mapped the process of planning, design and development on a typical housing development, as described in this chapter. Employing the aforementioned metaphor of a meandering river, we have identified the 'critical points of intervention' for delivering design value. The diagram therefore highlights where 'upstream', 'midstream' and 'downstream' decisions about the planning, design and development process make a significant difference to the enduring quality of new homes and neighbourhoods.

NATIONAL POLICY & LEGISLATION

Goal: National policies can play a critical role in setting a 'design benchmark' for local authorities to follow.

Barriers to design value:
National policies that support well-designed places are easily overlooked and housing delivery targets often take precedence over design.

DEVELOPMENT VIABILITY

Goal: To establish whether a housing development is viable on a particular piece of land.

Barriers to design value:
Housebuilders are very focused on profitability and often exhibit little interest in design. This can be difficult to overcome, especially if local authority officers have a limited understanding of property markets.

ENGAGING LOCAL PEOPLE

Goal: To collect general feedback from local people on both the vision and intention of planning policy and detailed feedback on the scope of proposed development.

Barriers to design value:
Community engagement typically occurs too late in the planning process for new housing and few opportunities are offered for 'bottom up' decision-making or co-design.

PLANNING OBLIGATIONS

Goal: Planning obligations are used to ensure that new development provides wider public benefits and contributes towards the functioning of the surrounding area.

Barriers to design value:
Negotiations between local authorities and housebuilders about the scope and value of planning obligations can occur with limited transparency.

CONSTRUCTION

Goal: Completion of a housing development on time and within budget.

Barriers to design value:
Day-to-day design decisions made during construction are sometimes taken with limited design oversight and there is often a lack of post-permission scrutiny by local authorities.

LOCAL PLANS & GUIDANCE

Goal: Local plans and guidance can be used to 'set the tone' for discussions and negotiations with housebuilders about a proposed development.

Barriers to design value:
Local authority officers can be overwhelmed by the plans and guidance they are expected to enact and sometimes offer conflicting advice to housebuilders. This is exacerbated by the fact that many local authorities have limited resources.

PRE-APPLICATION DISCUSSION

Goal: Discussions before a planning application is submitted allow housebuilders and local authorities to explore what a viable scheme might look like and can lead to a series of shared design priorities.

Barriers to design value:
The advice offered to housebuilders during pre-application discussions can sometimes fall on deaf ears or occur after a housebuilder has already determined the scope and viability of a proposed development.

OUTLINE PERMISSION & SITE MASTERPLANNING

Goal: Outline permission is used to establish the basic design principles for a development. The production of a design masterplan can be made a condition of permission (especially on larger sites).

Barriers to design value:
Outline permission is often awarded to poorly designed schemes in a bid to stop housebuilders choosing to develop elsewhere or to avoid a planning appeal. Masterplan can often be poorly enforced or altered significantly.

FULL PERMISSION & RESERVED MATTERS

Goal: If awarded, full permission or reserved matters establishes the detailed design parameters of a housing development (i.e. house types and materials).

Barriers to design value:
Local authorities often lack the confidence to refuse a planning application on design grounds. This sends a message to supply-side actors in the housebuilding industry that delivering design value is a low policy priority.

POST-OCCUPANCY EVALUATION

Goal: An opportunity to collect the views of new residents and evaluate the design quality of a new development.

Barriers to design value:
Post-occupancy evaluation is rarely used to critically assess new housing developments and the outcomes are rarely monitored or fed back to earlier stages of the planning process.

OPPORTUNITY FOR FEEDBACK

Figure 36: Delivering design value: critical points of intervention

Download a high resolution version of this image from: "custon

6.12 Summary

In this chapter we presented the second part of our research findings, identifying and mapping the points in the planning, design and development process for new housing where decisions directly or indirectly impact design value (see Figure 36). To summarise:

- National planning policies in the four nations, local authority planning policy, and local design guidance have an important role to play in shaping design value upstream. To be effective, policies must be high quality and up-to-date and, even then, they are not always followed or implemented because of the pressure to deliver new housing.
- Local supplementary planning guidance was highlighted as an important tool for establishing detailed design expectations, such as the massing and frontages of buildings, etc.
- The perceived viability of a housing development can overshadow wider decisions about design value, and housebuilders' upstream calculations of viability are rarely transparent.
- The location of a housing development impacts the way developers calculate viability and, by extension, how much they are prepared to invest in design. This has a particular (and often negative) impact on areas with lower land values.
- Decisions that impact design value start early, and upstream pre-application discussions between local authorities and housebuilders play a particularly important role in shaping how the planning, design and development process subsequently evolves.
- In our case studies, communities had a very limited role in influencing design and there were differing views as to whether community engagement was prioritised by local authorities.
- Our participants widely acknowledged that outline planning permission was a critical midstream stage in the design value timeline because it establishes the principle of development and the anticipated design language of the scheme.
- 'Value engineering', which tends to happen a lot, is easier to avoid on larger sites where formal design governance tools like a masterplan are used.
- Planning obligations play a major role in the negotiation of design value between developers and local authorities.
- Urban design principles are usually finalised midstream during outline planning permission, while more detail-orientated design decisions, such as house typologies and material choices, tend to be made downstream in preparation for full planning permission or 'reserved matters'.
- The quality of construction is often overlooked but has a significant impact on long-term design value.
- The lack of post-occupancy evaluation of UK housing is troubling, and the wider monitoring of outcomes is rarely practiced.

Chapter 7
Recommendations and conclusions

In this concluding chapter we reflect on our research findings and consider the ways in which the *status quo* might be changed and how the *housing design quality conundrum* might be addressed. We highlight our headline findings, pinpoint the significant barriers to delivering design value, before ending with a series of 12 recommendations for policy and practice.

7.1 Headline findings

- **The design quality of new homes and neighbourhoods across the UK remains stubbornly low:** New homes and neighbourhoods fail to meet the aspirations of the national planning policy statements in England, Scotland, Wales and Northern Ireland.
- **The responsibility for delivering design value is shared:** The four UK governments, local authorities, housebuilders, and their consultants, are all accountable, in different ways, for allowing poorly designed places to be created.
- **Despite differences in emphasis and articulation, the four planning systems in the UK do not deliver better (or worse) design outcomes than each other:** Housing and neighbourhood design is undervalued across the UK and, more often than not, planning decisions are driven by the need to achieve housing targets or to make a planning decision quickly and efficiently.
- **The barriers to design value are wide-ranging:** These encompass the ways in which the four national governments plan for new housing, the extent to which local authorities are prepared to foreground design as an issue of genuine local concern, as well as an endemic culture of deprioritising design in the housebuilding industry.

7.2 Significant barriers to 'design value'

As our headline findings confirms, we identified a series of barriers that prevent the delivery of consistent well-designed housing. We have characterised these barriers as the 'leaky bucket of design value' to illustrate where social, economic and environmental design value is lost in Figure 37. Ultimately, a wide gulf exists between the commitments to design value set out in national planning policy across the four nations and the quality of new homes and neighbourhoods that receive planning permission and eventually get built.

Some of the barriers to delivering design value we have identified corroborate existing anecdotal evidence, yet they nevertheless highlight the potential for both formal and informal design governance tools (Carmona, 2017) to play an influential role in the planning and development process. The challenge is to identify the right tools and to employ them at the points in the planning and development process where they will have the maximum impact.

In summary, the most significant barriers to design value we identified are as follows:

- Policies at the national and local level that support the delivery of well-designed places in the four nations are frequently overlooked by regulatory actors in local authorities because other policy objectives, especially housing delivery targets, tend to take precedence over design governance. The absence of environmental design value and the use of sustainable design principles in the case studies we researched was especially troubling. Although many local authority officers and local councillors appreciate the value of design, they often lack the confidence to refuse a planning application on design grounds. This sends a message to supply-side actors in the housebuilding industry that delivering design value is a low policy priority.
- A chronic lack of resourcing and a scarcity of skilled designers in local authority planning departments means that design governance is severely restricted and design policy and guidance is not always enforced. This makes it very difficult for local authorities to meet their own design policy ambitions, let alone those set by the four national governments. As a result, potentially effective design governance tools, such as independent peer design review and post-occupancy evaluation, are rarely used to critically assess new housing developments.
- Design priorities vary between local authority officers, and 'siloed' organisational decision-making limits the ability of local authorities to make decisions that prioritise design value. This can lead to 'turf wars' between experts with differing professional competencies. As a result, local authority officers and local councillors alike can feel overwhelmed by the policies and guidance they are expected to enact and sometimes offer conflicting advice. This precipitates risk averse policy implementation, particularly on the issue of highways, where conflicting interpretations of safety and risk impede design governance and innovative placemaking. Informal design governance tools like skills training and peer design review could address these challenges, but they are not always available (often because of funding) or are not prioritised due to workload pressures.

- The planning, design and development process for new housing is mostly 'top down' and there are precious few opportunities for genuine community engagement that supports 'bottom up' decision-making or co-design. In most of our case studies, engagement with local communities tended to be poorly implemented by local authorities and the housebuilding industry alike, and the regulatory and supply-side actors involved were typically all too aware of this failing. This reinforces the view that engagement is merely tokenistic. The positive impacts of community participation in new housing development were also under appreciated and poorly understood. This helps precipitate the 'battlefield' mentality (Bentley, 1999) of the planning, design and development process characterised by adversarial relationships between different regulatory, supply-side and demand-side actors. One exception in our research was the example of the neighbourhood planning process in Thame, South Oxfordshire.
- Housebuilders producing 'everyday' housing in the UK have a razor-sharp focus on profitability and exhibit a limited interest in delivering design value. Some small- and medium-sized developers and housing associations are more committed to producing high quality places, but the volume housebuilders are largely driven by profit maximisation which does not normally allow for the prioritisation of design value. These dominant players in the market do not typically believe in a 'design dividend' and often invest the least amount of money in design possible to gain planning consent and sell houses.
- Housebuilders are rarely prepared to make design investments in areas where land values are low. They often restrict higher quality materials and bespoke house types to more affluent parts of the country where they are more likely to recover the additional costs. This leads to a culture of low expectations in local authorities where land values are below average. Local authorities invariably relinquish their 'opportunity space' (Tiesdell and Adams, 2011a) to housebuilders and often award poorly designed schemes planning permission in a bid to stop housebuilders choosing to develop elsewhere or to avoid a planning appeal.
- Masterplans and other formal design governance tools such as design codes can help to deliver design value, but they are often poorly enforced or altered to such a degree during the planning process that they become ineffective. On small- and medium-sized sites, masterplans often offer nothing more than a basic site layout and, as a result, tend to be inward-looking. In contrast, masterplans for larger sites (urban extensions, etc.) are typically more holistic and detail-orientated. Nevertheless, the degree of flexibility awarded to housebuilders within the context of a masterplan has to be carefully managed through design governance to avoid the dilution of the original vision.
- Due to resourcing challenges, there is often a lack of scrutiny by local authorities over decisions taken on-site after planning permission has been granted to a housebuilder. Design value can therefore be lost due to poor procurement choices and 'value engineering', leading to compromised site layouts, the use of lower quality materials, and more limited soft and hard landscaping choices. Formal downstream design governance tools like enforcement action are not afforded the same attention by regulatory actors as upstream tools that are associated with awarding planning permission.
- Post-occupancy evaluations of new housing developments are rarely conducted in the UK. Local authorities do not have the resources to adequately monitor design outcomes against the plans that were approved for a scheme nor has there been a history of using post-occupancy evaluation as a tool of design governance. As a result, there is very little evidence-based evaluation or scrutiny of housebuilding practices and limited opportunities for tackling the inertia at the heart of the housebuilding process, challenging mediocrity, or testing innovative design ideas.

Figure 37: The leaky bucket of design value

7.3 12 recommendations for practice

We have made 12 recommendations for practice in response to the myriad design value challenges identified in our research. Some of these recommendations are drawn from examples in our research where local authorities, housebuilders and other stakeholders, often working against the odds, found ways to deliver design value. Others are based on our analysis of the design and housebuilding examples we encountered and our knowledge of existing literature and practice. Our principle recommendation, which we describe in more detail below, is that the four UK governments should consider adopting 'design value standards' that would establish the basic principles of successful housing design and neighbourhood form in regulation and become the precept for a design-led response to the climate emergency.

Our full list of 12 recommendations are as follows:

1. **Housing and neighbourhood design principles should be regulated by the four UK governments in 'design value standards':** The four national governments should consider enforcing neighbourhood urban form principles and layout parameters upstream in the planning, design and development process for new housing by adopting 'design value standards' that embeded the economic, social and environmental value of design at the heart of housebuilding and design governance. Design value standards in each of the four UK nations should mirror the status of building standards, but should be simple, concise and readily translatable into detailed design policies that champion design creativity and diversity[13]. It is crucial, however, that design value standards are limited in scope and do not stray into prescribing the external architectural appearance of new homes. Local authority officers must still be able to judge matters of local context and fit using locally appropriate design governance tools alongside any new standard (see Recommendations 7 and 8 for further details). Ultimately, design value standards in the four UK nations should become the precept for future housing and neighbourhood design policymaking that is focused on addressing the climate emergency through sustainable and enduring placemaking.
2. **Creating well-designed places should be a core national planning objective in each of the four nations:** The four nations of the UK have slightly different housing design policy objectives but broadly agree on the need to encourage high quality and well-designed neighbourhoods. While this is welcomed, it is rarely achieved in practice. Design should be more strongly foregrounded upstream in national planning policy in the four nations, with better acknowledgement of its social, economic and, especially, its environmental value. Too many local authorities understand design quality to be an 'optional extra' that is trumped by housing delivery targets and other economic development goals. Ministerial leadership and a change in policy emphasis that embeds the implementation of good design is crucial. This change in emphasis must also influence the way appeal decisions are determined so that local authorities feel empowered to act on design matters and refuse poorly designed places. Without these changes, local authorities will continue to feel under pressure to limit design governance, leaving housebuilders with little incentive to alter their behaviour and change their business models.

[13] Existing standards for neighbourhood design, such as the most recent iteration of 'Building for Life 12' (Birbeck and Kruczkowski, 2015), '*Building for a Healthy Life*' (Birbeck et al., 2020), could be used as a blueprint for design value standards in each of the four nations.

3. **Volume housebuilders should be held to account on design matters:** The current housebuilding industry is dominated by publicly listed volume housebuilders that only demonstrate a limited interest in delivering design value. Volume housebuilders should be encouraged to find ways to deliver profit for their shareholders while also achieving high quality design. To facilitate this culture change, government ministers and UK-level organisations, such as the Royal Town Planning Institute and the Royal Institute of British Architects, should do more to hold volume housebuilders to account. They must be more fervent in their criticism of poorly designed housing development and the complicit roles that planning consultants, architects and other built environment professionals play in facilitating this practice. Delivering design value should be seen as a core responsibility of all the producers of new housing, and their consultants, whatever their wider commercial or social objectives might be.
4. **The four UK governments should encourage and support a more diverse housebuilding industry:** Tax incentives, government-backed loans and other measures should be used to limit the power of volume housebuilders and encourage a more diverse group of housebuilders to enter into the marketplace, including SMEs, housing associations, community land trusts, community-led partnerships, and other innovative delivery models. One way to create a more diverse housebuilding industry could be to require a minimum number of small- or medium-sized developers on larger multi-developer sites. Local authorities should also be encouraged and supported to either purchase or work with landowners to assemble and prepare sites for development upstream in the planning and development process so they can assume long-term stewardship over larger housing sites.
5. **Housing land allocations should be based on sustainable development principles and prioritise brownfield development:** Access to affordable land is a major problem for small developers and self-builders. Local authorities should allocate a wide range and mix of housing sites in their local plans, at different sizes and scales, and in different locations to achieve a balance of tenures and dwelling types[14]. Brownfield land should be prioritised and the assessment of appropriate sites (i.e. technical impact assessments) should be completed during the local plan process, rather than as part of site-specific planning applications further downstream (see for further information: Wright and Tolson, 2020). Too often local authorities allocate large out-of-town greenfield sites because it is the simplest route to meeting housing delivery targets. Increased diversity, and the inclusion of a greater number of smaller sites, could support entry by SMEs and other housing providers into the housing market.
6. **Design governance leadership should be championed in local authorities:** The value of design is often poorly understood in local authorities and tends not to be championed by senior council executives or integrated into decisions about allied issues like health and social services, where good design can make a positive difference to the long-term wellbeing of communities. To ensure better design decisions are made during the planning application process, local authorities should ensure that the creation of well-designed places has status and is upheld and, therefore, worthy of funding and support. This could lead to more integrated teamwork among council experts and a greater emphasis on training local authority decision-makers about the value of design and the way in which design informs decision-making in the housebuilding sector. At the same time, the championing of design at a corporate level would give local authority officers the confidence to make bolder decisions when exercising design discretion. In this respect, the statutory role of the 'chief planning officer' that was recently introduced as part of wider reforms to the Scottish planning system (The Scottish Parliament, 2019) and the current proposal in the English planning White Paper to have a 'chief officer for design' in English local authorities (Ministry of Housing, Communities and Local Government, 2020a), represent steps in the right direction.

[14] A similar recommendation on the delivery of more diverse housing was made in the *Independent review of build out: final report* by Oliver Letwin (2018), albeit with a specific focus on speeding up the supply of new housing.

7. **Local plans should be more place-based and outcome-focused:** Local plans and supporting supplementary design guidance on design and housing often lacks specificity and tend towards generalities rather than establishing area-based design objectives and masterplans. Development briefs, in particular, often fail to set clear design standards that can be monitored further downstream in the planning process. National level design value standards should be translated by local authorities into local plans that are more definitively 'design-led' and which set out a clear design vision for the authority as a whole and incorporate district design frameworks and detailed masterplans for sites allocated for housing (see below). Local authorities should then be required to commit to delivering their plans and monitoring the outcomes.
8. **Masterplans should be produced and enforced for larger housing sites:** Masterplanning should not be treated as a theoretical or abstract exercise and should be consistently employed as a formal regulatory mechanism for creating well-designed places based on the precepts of the design value standards we recommend. Local authorities should, as a matter of course, establish a design vision and masterplan for allocated housing sites, even if the technical work is undertaken by external consultants, and should engage widely on its contents with both local people and development stakeholders, including housebuilders. It is crucial that their masterplans are not based solely on housebuilders' viability calculations, but there should nevertheless be some degree of flexibility as a masterplan is implemented. Challenging issues, such as site layout, highway design design and adoption, the location of parks and open space, and the amount and location of affordable housing, should be prescribed early in the masterplanning process and not left open for future negotiation. Local authorities should assign a planning or design officer in a stewardship role to manage and coordinate their various masterplanned housing sites.
9. **Genuine community engagement should be undertaken early in the planning and design process where it can have the most influence:** While an analysis of community engagement practice was beyond the aims and objectives of this report, it was nevertheless clear from our research that it requires a radical overhaul. In many places, engagement with local people is unnecessarily combative and often occurs much too far downstream in the planning process. Community engagement should be prioritised during the local plan-making process and could be directly funded through planning application fees or planning obligations. Bottom-up decision-making processes that support co-design should also be prioritised and local authorities should not, as often happens, rely on housebuilders and their consultants to conduct it. Site-specific engagement and co-design should start very early in the planning process, beginning during or before pre-application discussions with the housebuilder. Technology should be used to offer new, cost effective and inclusive formats for engagement and support community-led initiatives. At the same time, more opportunities should be identified for involving local people – and not just the development industry and their well-paid consultants – in the housing allocation process that occurs when local plans are under consultation. For example, local citizen's panels could be used to counter the fact that a large number of people rarely engage in planning consultations. The Midlothian Citizens' Panel in Scotland of 1,000 randomly selected local people that was convened to consult on the authority's Community Planning Partnership (Midlothian Council, 2020) stands as a useful case study of this approach.

10. **Design and construction procurement decisions should be more design driven:** Housing developments are often subject to 'value engineering' downstream in the development process meaning the quality of a scheme given planning permission 'on paper' is not reflected when the project is constructed and sold. To address this problem, housebuilders should be required to place greater emphasis on design quality when they rank contractors and make procurement decisions. This would go some way to ensuring that design is considered, not just during upstream planning processes, but throughout all the various stages of technical design and construction further downstream. As a condition of planning permission, housebuilders should also be required to identify a single person who is responsible for overseeing the design of a scheme from start to finish and making sure that the housebuilder's construction partners are aware of their role in delivering design value.
11. **Post occupancy analysis and development monitoring should be used much more widely:** In this research we often found it very difficult to track down basic information on completed housing developments in the five local authorities we examined, let alone any monitoring of the outcomes. With this in mind, a selected sample of housing developments over a certain size (e.g. 25 dwellings) in every UK local authority should be subject to post-occupancy evaluation and site monitoring so that lessons can be learned about the quality of new homes and neighbourhoods and fed back into future upstream planning and design governance practices. The onus should be on the four national governments to guarantee that local authorities have the necessary funds to undertake analysis and use standard assessment criteria nationwide (e.g. *Building for Life 12*). Local authorities should also feel confident to enforce post-completion changes if certain design principles have been misinterpreted or ignored during construction. Introducing this longer-term focus might encourage greater stewardship over new places by local authorities and thus a wider appreciation of design value.
12. **The four UK governments should provide more direct funding for design governance, especially at the local level:** It should be a key priority of the four UK governments to better fund design governance capacity in local authorities. These funds should directly support the initiatives proposed in our other recommendations, including design-led plan-making, masterplanning, improved community engagement and leadership positions within local authorities. Local authorities should also look for new and innovative ways to build design capacity within their organisations and, in particular, find ways for local authority officers to gain easy access to design expertise. There are various ways of achieving this, including: sharing specialist resources with neighbouring local authorities, charging higher fees for more comprehensive pre-application discussions with design officers, using planning permission conditions to fund a design officer's time on larger projects, and establishing a design review panel composed of expert panellists based in the local area who volunteer their time for free. Increased funding for design governance should ultimately be understood as a critical route to making better planning decisions in the context of the housing crisis, the climate emergency and the impacts of the 2020 Covid-19 pandemic. A more efficient and certain planning process with better design outcomes benefits everyone.

7.4 Concluding remarks

In this report we considered our *housing design quality conundrum* by asking why the quality of new-build housing in the UK remains poor, despite policies across for the four UK nations that support the creation of well-designed places and a wealth of evidence which shows that well-designed places can have a positive impact on health and wellbeing (Jackson, 2003; Kleinert and Horton, 2016; Royal Town Planning Institute, 2020; Scott, 2020; White et al., 2013), strengthen local economic development by attracting investment (Royal Institution of Chartered Surveyors, 2016; Savills, 2016), and support environmental sustainability by reducing car use and encouraging walking (Carmona, 2019; Frumpkin et al., 2004; Hong et al., 2014).

Our report has considered the ways in which housing design value is (and isn't) delivered in the four nations of the UK by examining a series of ten housing developments in five local authorities – two in England (South Oxfordshire and Rotherham), and one in Scotland (East Lothian), Wales (Bridgend) and Northern Ireland (Belfast). As we stated in our headline findings at the start of Chapter 7, we found little evidence to suggest that the four planning systems in the UK deliver better (or worse) design outcomes than each other, despite a significant divergence of planning policy across the UK's devolved nations in recent decades and the emergence of increasingly sophisticated national design policy, particularly in Scotland and Wales.

The result is that standardised, placeless and unsustainable housing development continues to be permitted across the UK. This problem is pervasive in areas with lower land values but is also widespread in more affluent places too. Furthermore, many of the actors involved in regulating new housing development are well-aware of its persistent design failings, yet continue to award it planning permission. Delivering housing design value must therefore be understood as a critical component of the wider and increasingly divergent strategies that the four UK governments are adopting in response to the climate emergency and the 2020 Covid-19 pandemic.

It is our view that the housebuilding industry must stop receiving a 'free pass' on design and be held to better account by the planning systems in the four nations. Good design should be understood as a crucial public good and, as we have already emphasised, the responsibility to deliver well-designed places must be a shared responsibility between the public and private sector. Future planning reforms should put design at their heart and the four UK governments must do more to translate positive policy rhetoric on design into actionable, measurable and well-funded design governance solutions.

As we set out in our 12 recommendations, addressing the *housing design quality conundrum* requires housing design outcomes to be more directly regulated upstream in the planning process through 'design value standards' in the four nations. Furthermore, the downstream outcomes of the housebuilding process need to be proactively monitored, and local authorities need to be given the power and resources, financial and otherwise, to deploy design governance tools and mechanisms at the local level. Moreover, the four UK governments must also look for ways to encourage and support a more diverse range of housebuilders to gain a foothold in the marketplace. Without these changes, the volume housebuilders' current stranglehold over neighbourhood design will continue to strengthen and the limited power that local authorities have to shape well-designed and resilient places that address the climate emergency and support health and wellbeing will be further diluted.

Bibliography

Adams, D., (2004). The changing regulatory environment for speculative house builders and the construction of core competences for brownfield development. *Environment and Planning A: Economy and Space*, 36 (4), pp. 601–624. https://doi.org/10.1068/a3557

Adams, D., Croudace, R., and Tiesdell, S. (2011). Design codes, opportunity space, and the marketability of new housing. *Environment and Planning B: Planning and* Design, 38 (2), pp. 289–306. https://doi.org/10.1068/b36055

Adams, D. and Payne, S. (2011). 'Business as Usual' - Exploring the Design Response of UK Speculative Housebuilders to the Brownfield Development Challenge. In: Tiesdell, S. and Adams, D. (eds.), *Urban Design in the Real Estate Development Process*. Chichester: Wiley-Blackwell, pp. 199-218.

Adams, D. and Tiesdell, S., (2013). *Shaping Places, Urban Planning, Design and Development.* Abingdon, Oxon: Routledge.

Adams, D. and Tiesdell, S. (2010). Planners as Market Actors: Rethinking State–Market Relations in Land and Property. *Planning Theory & Practice,* 11 (2), pp. 187-207. https://doi.org/10.1080/14649351003759631

Adams, D., Tiesdell, S., and White, J.T. (2013). Smart Parcelization and Place Diversity: Reconciling Real Estate and Urban Design Priorities. *Journal of Urban Design*, 18 (4), pp. 459–477. https://doi.org/10.1080/13574809.2013.824367

Adams, D. and Tolson, S. (2019). Valuation in the dark: constructing perceptions of normality in failing markets. *Town Planning Review*, 90 (5), pp. 383-407. https://doi.org/10.3828/tpr.2019.26

Aitchison, M. (2018). *Prefab Housing and the Future of Building: Product to Process*. London: Lund Humphries Publishers Ltd, London.

Anderson, Bell + Christie (2013). *The Implementation of Designing Streets Policy Across Scotland.* Scottish Government, available online: https://www.gov.scot/publications/implementation-of-designing-streets-policy-research-report/ (Accessed 21st October 2020).

Archer, T. and Cole, I. (2016). *Profits before Volume? Major housebuilders and the crisis of housing supply.* Centre for Regional and Economic and Social Research, Sheffield Hallam University, available online: https://www4.shu.ac.uk/research/cresr/sites/shu.ac.uk/files/profits-before-volume-housebuilders-crisis-housing-supply.pdf (Accessed 21 st October 2020).

Architecture and Design Scotland, NHS Scotland and Scottish Government (2015). *Place Standard: How Good is Our Place?* Place Standard, available online: https://www.placestandard.scot (Accessed 28th October 2020).

Asbri Planning Limited (2015a). *Design and Access Statement: Ysgol Bryn Castell Phase I Bridgend.* Asbri Planning Limited, available online via Bridgend County Borough Council as part of Planning Application P/15/25/FUL: http://planning.bridgend.gov.uk/Planning/Display?applicationNumber=P%2F15%2F25%2FFUL (Accessed 11th September 2020).

Asbri Planning Limited (2015b). *Planning Statement: Ysgol Bryn Castell Phase I Bridgend*. Cardiff: Asbri Planning Limited, available online via Bridgend County Borough Council as part of Planning Application P/15/25/FUL: http://planning.bridgend.gov.uk/Planning/Display?applicationNumber=P%2F15%2F25%2FFUL (Accessed 11th September 2020).

Ball, M. (2017). *Housing Policy and Economic Power: The Political Economy of Owner Occupation*. Abingdon, Oxon: Routledge.

Ball, M. (2012). Housebuilding and Housing Supply. In: Clapham, D.F., Clark, W.A.V., and Gibb, K. (eds.), *The SAGE Handbook of Housing Studies*. London: Sage Publications Ltd, pp. 27–46.

Barker, N., 2020. Government insists planning reregulation measures will lead to more affordable homes. News, *Inside Housing*, 10th July 2020, available online: https://www.insidehousing.co.uk/news/news/government-insists-planning-deregulation-measures-will-lead-to-more-affordable-homes-67092 (Accessed 17th September 2020).

Barnett Developments (2020). Home: Barnett Developments. *Barnett Developments*, available online: https://www.barnettdevelopments.com (Accessed 17th August 2020).

Barton Wilmore Partnership (2005). *Parc Derwen Bridgend: Detailed Design Code and Design Guidance: June 2005*. Barton Willmore Partnership, available online via Bridgend County Borough Council: https://www.bridgend.gov.uk/media/1858/parc-derwen-detailed-design-code-and-design-guidance.pdf (Accessed 13th September 2020).

Barwise, S., Olley, J. and Thomson-Jones, W. (2019). *Findings of the Independent Review*. Persimmon Homes plc, available online: https://www.persimmonhomes.com/corporate/media/397416/findings-of-the-independent-review.pdf (Accessed 21st August 2020).

Bayliss, S., Bergin, R. (2020). *The Modular Housing Handbook*. London: RIBA Publishing.

Belfast City Council (2017). *Local Development Plan 2020-2035: Preferred Options Paper (January 2017)*. Belfast City Council, available online: https://www.belfastcity.gov.uk/getmedia/e0a5593c-3e8c-4804-8d51-fe530381753d/POP001_POP.pdf (Accessed 4th September 2020).

Belfast City Council (2016a). *Development Management Officer Report Committee Application: LA04/2016/0967/F. Proposal: Proposed erection of a seven story residential development comprising 88 apartments with car parking, amenity space and associated site works*. Belfast City Council, available online via Planning Portal NI as part of Planning Application LA04/2016/0967/F: http://epicpublic.planningni.gov.uk/publicaccess/applicationDetails.do?keyVal=O7DNFCSV30000&activeTab=summary (Accessed 23rd September 2020).

Belfast City Council (2016b). *Planning Agreement under section 76 of the Planning Act (Northern Ireland) 2011 relating to Lands at 55-71 Ormeau Road, Belfast, BT7 1EB*. Belfast City Council, available online via Planning Portal NI as part of Planning Application LA04/2016/0967/F: http://epicpublic.planningni.gov.uk/publicaccess/applicationDetails.do?keyVal=O7DNFCSV30000&activeTab=summary (Accessed 23rd September 2020).

Belfast City Council (2015). *Development Management Officer Report Committee Application Z/2014/1665/F. Proposal: Demolition of existing buildings and erection of 2 no. commercial units (re-instatement of existing bookmakers and 1 no. retail unit) and 90 no. affordable housing units (48 no. dwellings and 42 no. apartments) with associated parking, landscaping site and access works.* Belfast City Council, available online via Planning Portal NI as part of Planning Application Z/2014/1665/F: http://epicpublic.planningni.gov.uk/publicaccess/applicationDetails.do?keyVal=NGDIZCSV30000&activeTab=summary (Accessed 15th September 2020).

Bentley, I. (1999). *Urban Transformations: Power, People and Urban Design*. Abingdon, Oxon: Routledge.

Birbeck, D., Kruczkowski, S., Jones, P., Singleton, D. and McGlynn, S. (2020). *Building for a Healthy Life: A Design Toolkit for neighbourhoods, streets, homes and public spaces,* Homes England, available online via Urban Design Group: https://www.udg.org.uk/sites/default/files/publications/files/14JULY20%20BFL%202020%20Brochure_3.pdf (Accessed 28th October 2020).

Birbeck, D. and Kruczkowski, S. (2015). *Building for Life 12: The sign for a good place to live.* CADBE for the Building for Life Partnership, Nottingham Trent University, available online: http://www.builtforlifehomes.org/downloads/BfL12_2018.pdf (Accessed 8th August 2020).

Bloom, J. (2020). *Coronavirus may have huge impact on property markers*. BBC News, available online: https://www.bbc.co.uk/news/business-52977890 (Accessed 7th October 2020).

Booth, R. (2019). Million homes could be built on English brownfield sites. Housing, *The Guardian*, 25th March 2019, available online: https://www.theguardian.com/society/2019/mar/25/million-homes-could-be-built-on-english-brownfield-sites (Accessed 30th August 2020).

Bridgend County Borough Council (2020). *Planning Application: P/18/1006/FUL*. Bridgend. County Borough Council, available online: http://planning.bridgend.gov.uk/Planning/Display?applicationNumber=P%2F18%2F1006%2FFUL (Accessed 14th August 2020).

Bridgend County Borough Council (2019a). *Report to Development Control Committee: Joint Housing Land Availability Study 2019*. Bridgend County Borough Council, available online: https://www.bridgend.gov.uk/media/6461/joint-housing-land-availability-study-2019.pdf (Accessed 3rd September 2020).

Bridgend County Borough Council (2019b). *Report to the Development Control Committee: 2019 Annual Monitoring Report (AMR) for the Bridgend Local Development Plan (LDP) 2006-2021*. Bridgend County Borough Council, available online: https://democratic.bridgend.gov.uk/documents/s20752/AMR%202019%20appx.pdf?LLL=0 (Accessed 21st October 2020).

Bridgend County Borough Council (2018a). *Bridgend County Borough Profile - 2018*. Bridgend County Borough Council, available online: https://www.bridgend.gov.uk/media/6227/bridgend-county-borough-profile-2018.pdf (Accessed 15th September 2020).

Bridgend County Borough Council (2018b). *Officer Report. Ref: P/18/1006/FUL. Applicant: Persimmon Homes West Wales. Proposal: Residential development of 127 dwellings and associated infrastructure.* Bridgend County Borough Council, available online: https://democratic.bridgend.gov.uk/documents/s19799/2.%20P181006FUL.pdf (Accessed 15th September 2020).

Bridgend County Borough Council (2017). *Officer Report. Reference: P/17/398/RES. Parcel R19 Parc Derwen, Coity. Proposal: Reserved matters for residential development of 77 dwellings*. Bridgend County Borough Council, available online as part of Planning Application P/17/398/RES: http://planning.bridgend.gov.uk/Planning/Display?applicationNumber=P%2F17%2F398%2FRES (Accessed 13th September 2020).

Bridgend County Borough Council (2015). *Officer Report. Recommendation: Section 106. Reference: P/15/25/FUL. Proposal: Erection of 67 Dwellings, New Access, Car Parking, Open Space, Landscaping & Associated Works*. Bridgend County Borough Council, available online: https://democratic.bridgend.gov.uk/documents/s5864/ITEM%209%20P%2015%2025%20FUL.pdf (Accessed 16th September 2020).

Bridgend County Borough Council (2013). *Bridgend Local Development Plan, 2006-2021 (Adopted Plan, September 2013)*. Bridgend County Borough Council, available online: https://www.bridgend.gov.uk/media/8184/ldp_text.pdf (Accessed 14th September 2020).

Bridgend County Borough Council (2011a). *PLA3 (1) Parc Derwen, Bridgend*. Bridgend County Borough Council, available online: https://www.bridgend.gov.uk/media/1317/pla3-1.pdf (Accessed 14th September 2020).

Bridgend County Borough Council (2011b). *COM2 (7) Ysgol Bryn Castell: Residential 150 Units (30 Affordable)*. Bridgend County Borough Council, available online: https://www.bridgend.gov.uk/media/1284/com2-7.pdf (Accessed 15th September 2020).

Bridgend County Borough Council (2009). *Development Control Committee Meeting - 15th January 2009. Item 18: P/00/288/OUT Residential Development, District Centre, Primary School, Community Facilities & Open Space, Parc Derwen, Bridgend*. Bridgend: Bridgend County Borough Council.

Bridgend County Borough Council (2008). *SPG08: Residential Development*. Bridgend County Borough Council, available online: https://www.bridgend.gov.uk/media/1847/spg_8_-_residential_development.pdf (Accessed 13th September 2020).

Bryman, A. (2016). *Social Research Methods*. Oxford: Oxford University Press.

Building (2017). Top 20 housebuilders 2017. *Building*, 26th July 2017, available online: https://www.building.co.uk/data/top-20-housebuilders-2017/5088919.article (Accessed 15th March 2018).

Building Better, Building Beautiful Commission (2020). *Living with Beauty: Promoting health, well-being and sustainable growth: The report of the Building Better, Building Beautiful Commission*. Ministry of Housing, Communities & Local Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/861832/Living_with_beauty_BBBBC_report.pdf (Accessed 15th August 2020).

Carmona, M. (2019). Place value: place quality and its impact on health, social, economic and environmental outcomes, *Journal of Urban Design* (24) 1, pp. 1–48. https://doi.org/10.1080/13574809.2018.1472523

Carmona, M. (2017). The formal and informal tools of design governance. *Journal of Urban Design*, 22 (1), pp. 1–36. https://doi.org/10.1080/13574809.2016.1234338

Carmona, M. (2016). Design governance: theorizing an urban design sub-field. *Journal of Urban Design*, 21 (6), pp. 705–730. https://doi.org/10.1080/13574809.2016.1234337

Carmona, M., Giordano, V., Nayyar, G, Kurland, J. and Buddle, C. (2020). *Home Comforts: How the design of our homes and neighbourhoods effected our experience of the Covid-19 lockdown and what we can learn for the future*. Place Alliance, available online http://placealliance.org.uk/wp-content/uploads/2020/10/Place-Alliance-Homes-and-Covid-Report_2020.pdf (Accessed 26th October 2020).

Carmona, M. and Giordano, V. (2017). *Design skills in England local authorities*. Urban Design Group and the Place Alliance, available online: https://indd.adobe.com/view/f2dce345-a265-4c28-9ab3-223ac41110b6 (Accessed 27th October 2020).

Carmona, M., Magalhães, C.D. and Edwards, M. (2002). Stakeholder Views on Value and Urban Design. *Journal of Urban Design*, 7 (2), pp. 145–169. https://doi.org/10.1080/1357480022000012212

Chatterton, P. (2013). Towards an Agenda for Post-carbon Cities: Lessons from Lilac, the UK's First Ecological, Affordable Cohousing Community. I*nternational Journal of Urban and Regional Research*, 37 (5), pp. 1654–1674. https://doi.org/10.1111/1468-2427.12009

CIRIA (2018). *A guide to small brownfield sites and land contamination (RR15)*. NHBC Foundation, available online: https://www.nhbcfoundation.org/publication/small-brownfield-sites-land-contamination/ (Accessed 20th July 2020).

Civic Studio (2013). *Land West of Thame Park Road: Design & Access Statement/Design Brief*. Civic Studio, available online via South Oxfordshire Council as part of Planning Application: P15/S2166/RM https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P15/S2166/RM#exactline (Accessed 18th August 2020).

CODA Planning (2017). *Land to the North of Lescar Road, Waverley: Planning Statement*. CODA Planning, available online via Rotherham Metropolitan Borough Council as part of Planning Application RB2017/0933: https://rotherham.planportal.co.uk/?id=RB2017/0933 (Accessed 19th August 2020).

Cole, J. (2019). Quality control demands architects return to site. *Architects' Journal*, 7th May 2019, available online: https://www.ribaj.com/intelligence/safer-construction-architects-role-oxgangs-wall-collapse-john-cole (Accessed 8th February 2019).

Committee on Climate Change (2019). *UK housing: Fit for the future?* Committee on Climate, available online: https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/ (Accessed 22nd September 2020).

Communities and Local Government Committee (2017). *Capacity in the homebuilding industry: Tenth Report of Session 2016-17*. House of Commons Communities and Local Government Committee, UK Parliament, available online: https://publications.parliament.uk/pa/cm201617/cmselect/cmcomloc/46/46.pdf (Accessed 11th September 2020).

Communities and Local Government Committee (2016). *Housing associations and the Right to Buy. Second Report of Session 2015-16*. House of Commons Communities and Local Government Committee, UK Parliament, available online: https://publications.parliament.uk/pa/cm201516/cmselect/cmcomloc/370/370.pdf (12th September 2020).

CQSA (2020). *Procurement guide – management contracting*. CQSA, available online: https://www.cqsa.co.uk/node/55 (Accessed 8th October 2020).

Crosby, N. (2019). Development viability assessment and the provision of affordable housing: a game of 'pass the parcel'? *Town Planning Review*, 90 (4), pp. 407-429. https://doi.org/10.3828/tpr.2019.27

Crook, A., Hennebury, J. and Whitehead, C. (2016). *Planning Gain: Providing Infrastructure and Affordable Housing*. London: Wiley-Blackwell.

Davern, M., Giles-Corti, B., Badland, H. and Gunn, L. (2020). Coronavirus reminds us how liveable neighbourhoods matter for our well-being. *The Conversation*, 21st April 2020, available online: https://theconversation.com/coronavirus-reminds-us-how-liveable-neighbourhoods-matter-for-our-well-being-135806 (Accessed 7th October 2020).

Davies, A. (2018). *Modern Methods of Construction: A forward-thinking solution to the housing crisis?* Royal Institution of Chartered Surveyors, available online: https://www.rics.org/globalassets/rics-website/media/news/news--opinion/modern-methods-of-construction-paper-rics.pdf (Accessed 29th September 2020)

Davis, J.E., Algoed, L. and Hernandez-Torrales, M.E. (Eds.), 2020. *On Common Ground: International Perspective on the Community Land Trust*. Madison, Wisconsin: Terra Nostra Press.

Department for Communities (2009). *The Housing Association Guide*. Northern Ireland Executive, available online: https://www.communities-ni.gov.uk/collections/housing-association-guide (Accessed 10th September 2020).

Department for Communities and Local Government (2017). *Fixing our broken housing market*. HM Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/590464/Fixing_our_broken_housing_market_-_print_ready_version.pdf (Accessed 10th September 2020).

Department for Infrastructure (2014). *Living Places: An Urban Stewardship and Design Guide for Northern Ireland*. Northern Ireland Executive, available online: https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/Living%20Places%20-%20An%20Urban%20Stewardship%20and%20Design%20Guide%20for%20Northern%20Ireland_1.pdf (Accessed 10th September 2020).

Department for Regional Development (2010). *Regional Development Strategy (RDS 2035): Building a Better Future*. Northern Ireland Executive, available online: https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/regional-development-strategy-2035.pdf (Accessed 11th September 2020).

Department of Finance (2019). *New dwelling statistics*. Northern Ireland Executive, available online: https://www.finance-ni.gov.uk/topics/statistics-and-research/new-dwelling-statistics (Accessed 18th August 2020).

Department of the Environment (2015a). *Strategic Planning Policy Statement for Northern Ireland (SPPS): Planning for Sustainable Development*. Northern Ireland Executive, available online: https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/SPPS.pdf (Accessed 10th September 2020).

Department of the Environment (2015b). *Belfast Metropolitan Area Plan 2015: Plan Strategy and Framework (Volume 1)*. The Public Record Office of Northern Ireland, available online:

https://wayback.archive-it.org/11112/20190702183555/https://www.planningni.gov.uk/index/policy/development_plans/devplans_az/volume_1_-_plan_strategy___framework-2.pdf (Accessed 23rd August 2020).

Department of the Environment (2014). *Guidance on Planning Element of Councillors' Code of Conduct*. Northern Ireland Executive, available online: https://www.infrastructure-ni.gov.uk/publications/guidance-planning-elements-councillors-code-conduct (Accessed 9th September 2020).

Department of the Environment and Department for Regional Development (2000). *Creating Places: Achieving quality in residential developments*. Northern Ireland Executive, available online: https://www.infrastructure-ni.gov.uk/publications/creating-places-achieving-quality-residential-environments (Accessed 9th September 2020).

Devlin, A., McKay, K. and Russell, R. (2018). *Multiple Deprivation in Northern Ireland*. Northern Ireland Assembly Research and Information Service, available online: http://www.niassembly.gov.uk/globalassets/documents/raise/publications/2017-2022/2018/0118.pdf (Accessed 8th September 2020).

Directorate for Planning and Environmental Appeals (2014). *Appeal Decision Notice. Decision by R W Maslin, a Reporter appointed by the Scottish Ministers. Planning appeal reference: PPA-210-2037.* Directorate of Planning and Environmental Appeals, http://www.dpea.scotland.gov.uk/Document.aspx?id=180752 (Accessed 18th September 2020).

Dixon, T. (2006). Integrating Sustainability into Brownfield Regeneration: Rhetoric or Reality? - An Analysis of the UK Development Industry. *Journal of Property Research*, 23, (3), pp. 237–267. https://doi.org/10.1080/09599910600933889

East Lothian Council (2018a*). East Lothian Local Development Plan 2018*. East Lothian Council, available online: https://www.eastlothian.gov.uk/downloads/file/27791/local_development_plan_2018_adopted_270918 (Accessed 13th August 2020).

East Lothian Council (2018b). *Design Standards for New Housing Areas. Supplementary Planning Guidance Consultative Draft October 2018.* East Lothian Council, available online: https://eastlothianconsultations.co.uk/housing-environment/ldp-design-standards-spg/supporting_documents/Design%20Standards%20for%20New%20Housing%20Areas%20SPG.pdf (Accessed 13th August 2020).

East Lothian Council (2016). *East Lothian Council Decision Notice. App No. 15/00686/PM*. East Lothian Council, available online as part of Planning Application 15/00686/PM: https://pa.eastlothian.gov.uk/online-applications/simpleSearchResults.do?action=firstPage (Accessed 14th August 2020).

East Lothian Council (2015a). *Officer Report 17/07/15. App No. 14/00731/AMM. Proposal: Approval of matters specified in conditions of planning-permission-in-principle 13/00071/ppm - Erection of 109 houses, 4 flats and associated works*. East Lothian Council, available online as part of Planning Application 14/00731/AMM: https://pa.eastlothian.gov.uk/online-applications/applicationDetails.do?keyVal=NBBABTGN7T000&activeTab=summary (Accessed 14th August 2020).

East Lothian Council (2015b). *Officer Report. App. No. 15/00686/PM. Proposal: Erection of 97 houses and associated works*. East Lothian Council, available online as part of Planning Application 15/00686/PM: https://pa.eastlothian.gov.uk/online-applications/simpleSearchResults.do?action=firstPage (Accessed 15th August 2020).

East Lothian Council (2014a). *Officer Report. App. No. 14/00219/PM. Erection of 112 houses, industrial units (Class 4 use), pub/restaurant and associated works.* East Lothian Council, available online as part of Planning Application 14/00219/PM: https://pa.eastlothian.gov.uk/online-applications/simpleSearchResults.do?action=firstPage (Accessed 15th August 2020).

East Lothian Council (2014b). *Extract from Minutes of the Meeting of East Lothian Council, Tuesday 28th October 2014.* East Lothian Council, available online: https://www.eastlothian.gov.uk/download/meetings/id/16054/east_lothian_council_minute_28_10_14 (Accessed 17th August 2020).

East Lothian Council (2013). *Report to Cabinet: Housing Land Supply: Interim Planning Guidance*. East Lothian Council, available online: https://www.eastlothian.gov.uk/download/meetings/id/15037/02_housing_land_supply_interim_planning_guidance (Accessed 19th August 2020).

East Lothian Council (2011). D*evelopment Framework for Site at Letham Mains, Haddington*. East Lothian Council, available online: https://www.eastlothian.gov.uk/downloads/file/24443/letham_mains_haddington_df (Accessed 15th August 2020).

East Lothian Council (2008a). *The East Lothian Local Plan 2008: Written Statement and Plan*. East Lothian Council, Haddington.

East Lothian Council (2008b). *East Lothian Local Plan 2008: Supplementary Planning Guidance 3: Design Standards for New Housing Areas.* East Lothian Council, Haddington.

East Lothian Partnership (2016). *East Lothian by Numbers: A Statistical Profile of East Lothian.* East Lothian Council, available online: https://www.eastlothian.gov.uk/download/downloads/id/23534/east_lothian_by_numbers_-_economy_and_income.pdf (Accessed 23rd September 2020).

East Lothian Partnership Connected Economy Group (2018). *East Lothian Economic Development Strategy Review and Refresh*. East Lothian Council, available online: https://www.eastlothian.gov.uk/download/downloads/id/28074/east_lothian_economic_development_strategy_2012-2022.pdf (Accessed 23rd September 2020).

EHA Group (2020). *Springfield Road*. EHA Group, available online: https://www.ehagroup.co.uk/project/springfield-road/ (Accessed 17th August 2020).

EMA and PLOT (Haddington) LLP (2014). *Gateside Park West, West Road, Haddington: Design and Access Statement*. PLOT (Haddington) LLP, available online via East Lothian Council as part of Planning Application 14/00219/PM: https://pa.eastlothian.gov.uk/online-applications/simpleSearchResults.do?action=firstPage (Accessed 15th August 2020).

Evans, G. (2018). Inclusive and Sustainable Design in the Built Environment: Regulation or Human-Centred? *Built Environment*, 44 (1), pp. 105–119. https://doi.org/10.2148/benv.44.1.105

Federation of Master Builders (2019). *Federation of Master Builders' Home Builders' Survey 2019*. Federation of Master Builders', available online: https://www.fmb.org.uk/about-the-fmb/publications/house-builders-survey-2019/ (Accessed 11th August 2020).

Frumpkin, H., Lawrence, F. and Jackson, R. (2004). *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Washington, DC: Island Press.

Future Generations Commissioner for Wales (2020). *Well-being of Future Generations (Wales) Act 2015*. Welsh Government, available online: https://www.futuregenerations.wales/about-us/future-generations-act/ (Accessed 23rd September 2020).

Geddes Consulting (2015). *Dovecot Farm, Haddington: Assessment of the Housing Land Supply*. Edinburgh: Geddes Consulting.

Gibb, K. (1999). Regional Differentiation and the Scottish Private Housebuilding Sector. *Housing Studies*, 14 (1), pp. 43–56. https://doi.org/10.1080/02673039982993

Gulliver, S., Tolson, S. (2014). *Delivering Great Places to Live: 10 Propositions aimed at Transforming Placemaking in Scotland*. University of Glasgow and RICS, available online via Architecture and Design Scotland: https://www.ads.org.uk/wp-content/uploads/1384257756Creating-and-Delivering-Great-Places-to-Live.pdf (Accessed 12th July 2020).

GVA (2016). *Ysgol Bryn Castell, Bridgend: Development and Planning Brief - Phase 2, Bridgend County Borough Council*. GVA, available online via Bridgend County Borough Council as Appendix 1 to Report to Development Control Committee, 1st September 2016, Ysgol Bryn Castell, Bridgend Phase 2 Development and Planning Brief: https://democratic.bridgend.gov.uk/documents/s9858/YBC%20report%20and%20appx.pdf (Accessed 12th August 2020).

GVA (2013). *Ysgol Bryn Castell, Bridgend: Development and Planning Brief, Bridgend County Borough Council*. GVA, available online via Bridgend County Borough Council: https://democratic.bridgend.gov.uk/Data/Development%20Control%20Committee/201305021400/Agenda/107842.pdf (Accessed 12th August 2020).

Hackett, P. (2017). *Delivering the renaissance in council-built homes: the rise of local housing companies*. The Smith Institute, available online: http://www.smith-institute.org.uk/book/delivering-renaissance-council-built-homes-rise-local-housing-companies/ (Accessed 14th August 2020).

Hall, T. (2011). Proactive Engagement in Urban Design – The Case of Chelmsford. In: Tiesdell, S. and Adams, D. (eds.), *Urban Design in the Real Estate Development Process*. Chichester: Wiley-Blackwell, pp. 74–91.

Haran, M., Berry, J., Davis, P., Lo, D., MacIntyre, S. and McCord, M. (2019). *Creating a more effective and sustainable housing development model for Northern Ireland*. Forum for a Better Housing Market, available online via Ulster University: https://www.ulster.ac.uk/__data/assets/pdf_file/0007/476701/Forum-for-a-Better-Housing-Market-NI-Report.pdf (Accessed 12th September 2020).

Harworth Group (2020). *Waverley: Overview & Vision*. Harworth Group, available online: https://harworthgroup.com/projects/waverley/ (Accessed 11th August 2020).

Hay, R., Samuel, F., Watson, K.J. and Bradbury, S. (2018). Post-occupancy evaluation in architecture: experiences and perspectives from UK practice. *Building Research & Information*, 46 (6), pp. 698–710. https://doi.org/10.1080/09613218.2017.1314692

Henneberry, J., Lange, E., Moore, S., Morgan, E. and Zhao, N. (2011). Physical-Financial Modelling as an Aid to Developers' Decision Making. In: Tiesdell, S. and Adams, D. (eds.), *Urban Design in the Real Estate Development Process*. Chichester: Wiley-Blackwell, pp. 219–235.

HM Government (2016). *Cardiff Capital Region City Deal*. HM Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/508268/Cardiff_Capital_Region_City_Deal.pdf (Accessed 17th August 2020).

HM Land Registry (2019). *National Statistics UK House Price Index summary: January 2019*. HM Land Registry, available online: https://www.gov.uk/government/publications/uk-house-price-index-summary-january-2019/uk-house-price-index-summary-january-2019 (Accessed 2nd December 2020).

Home Builders Federation (2017). *Reversing the decline of small housebuilders: Reinvigorating entrepreneurialism and building more homes*. Home Builders Federation, available online: https://www.hbf.co.uk/documents/6879/HBF_SME_Report_2017_Web.pdf (Accessed 6th October 2020).

Homes for Scotland (2018). *Delivering More Homes for Scotland: Barriers and Solutions*. Homes for Scotland, available online: https://homesforscotland.com/wp-content/uploads/2020/08/Delivering-More-Homes-barriers-and-solutions-FINAL.pdf (Accessed 9th September 2020).

Hong, J., Shen, Q., Zhang, L. (2014). How do built-environment factors affect travel behavior? A spatial analysis at different geographic scales. *Transportation*, 41 (3), pp. 419-440. https://doi.org/10.1007/s11116-013-9462-9

Hooper, A. and Nicol, C. (2000). Design practice and volume production in speculative housebuilding. *Construction Management and Economics*, 18 (3), pp. 295–310. https://doi.org/10.1080/014461900370663

Hooper, A. and Nicol, C., (1999). The Design and Planning of Residential Development: Standard House Types in the Speculative Housebuilding Industry. *Environment and Planning B: Planning and Design*, 26 (6), pp. 793–803. https://doi.org/10.1068%2Fb260793

Housing and Social Justice Directorate (2019). *Housing statistics quarterly update: September 2019. New Build Housing – All Sectors – up to end March 2019.* Scottish Government, available online: https://www.gov.scot/publications/housing-statistics-quarterly-update-september-2019/pages/3/ (Accessed 28th November 2020).

Hudson, N. (2018). *The Value and Cost of Land*. Residential Analysts, available online: http://resi-analysts.com/2018/04/11/the-value-and-cost-of-land/ (Accessed 10th September 2020).

Iuorio, O., Wallace, A. and Simpson, K. (2019). Prefabs in the North of England: Technological, Environmental and Social Innovations. *Sustainability*, 11 (14), p. 3884. https://doi.org/10.3390/su11143884

Jackson, L. (2003). The relationship of urban design to human health and condition. *Landscape and Urban Planning*, 64 (4), pp. 191-200. https://doi.org/10.1016/S0169-2046(02)00230-X

James, G. and Tolson, S. (2020). *Delivering More Homes and Better Places: Lessons from policy and practice in Scotland*. Collaborative Centre for Housing Evidence, available online: https://housingevidence.ac.uk/wp-content/uploads/2020/10/201005-Delivering-More-Homes-and-Better-Places-October-2020.pdf (Accessed 20th October 2020).

Jenrick, R. (2019). *Planning Update: Written statement - HCWS1840*. UK Parliament, available online: https://questions-statements.parliament.uk/written-statements/detail/2019-10-01/HCWS1840 (Accessed 20th August 2020).

John R Paley Associates (2011). *Phase 1a, Waverley New Community. Design and Access Statement October 2011*. John R Paley Associates, available online via Rotherham Metropolitan Borough Council as part of Planning Application RB2011/1521: https://rotherham.planportal.co.uk/?id=RB2011/1521 (Accessed 5th September 2020).

Jones, P., Marshall, S. and Boujenko, N. (2008). Creating more people-friendly streets through "link and place" street planning and design. *IATSS Research*, 32 (1), pp. 14–25. https://doi.org/10.1016/S0386-1112(14)60196-5

Klienert and Horton (2016). Urban design: an important future force for health and wellbeing. *The Lancet,* 388 (10062), pp. 2848-2850. https://doi.org/10.1016/S0140-6736(16)31578-1

LDA Design and Harworth Estates (2009a). *Design & Access Statement, Harworth Estates (Waverley Prince) Ltd., Project Waverley: New Community Outline Planning Application*. London: LDA Design.

LDA Design and Harworth Estates (2009b). *Masterplan*. London: LDA Design.

Leger, C., Balch, C. and Essex, S. (2016). Understanding the Planning Challenges of Brownfield Development in Coastal Urban Areas of England. *Planning Practice and Research*, 31 (2), pp. 119–131. https://doi.org/10.1080/02697459.2016.1146428

Letwin, Oliver (2018). *Independent Review of Build Out: Final Report*. Ministry of Housing, Communities and Local Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752124/Letwin_review_web_version.pdf (Accessed 29th October 2020).

Linovski, O. (2019). Shifting Agenda: Private Consultants and Public Planning Policy. *Urban Affairs Review*, 55 (6), pp. 1666–1701. https://doi.org/10.1177%2F1078087417752475

Llewelyn-Davies (2001). *Parc Derwen, Bridgend: Development Brief, November 2001*.

Llewelyn-Davies, available online via Bridgend County Borough Council: https://www.bridgend.gov.uk/media/1859/parc-derwen-development-brief.pdf (Accessed 14th August 2020).

Lord, A. and Tewdwr-Jones, M. (2014). Is Planning "Under Attack"? Chronicling the Deregulation of Urban and Environmental Planning in England. *European Planning Studies*, 22 (2), pp. 345–361. https://doi.org/10.1080/09654313.2012.741574

MacAlister, P. (2019). The taxing problems of land value capture, planning obligations and viability tests: some reasonable models? *Town Planning Review,* 90 (40), pp. 429-452. https://doi.org/10.3828/tpr.2019.28

Marsh, A. (2018). *Social housing governance: An overview of the issues and evidence*. Social Housing Policy Working Group, Collaborative Centre for Housing Evidence, available online: http://housingevidence.ac.uk/wp-content/uploads/2018/10/R0218_SHPWG_03_Governance_Alex_Marsh.pdf (Accessed 16th September 2020).

Meen, G., Nygaard, A. (2010). *Housing and Regional Economic Disparities: Economics paper 5*. Department for Communities and Local Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/6354/1774894.pdf (Accessed 13th September 2020).

Midlothian Council (2020). *Community Planning in Midlothian: Citizens' Panel*. Midlothian Council, available online: https://www.midlothian.gov.uk/info/200284/your_community/214/community_planning_in_midlothian/5 (Accessed 10th September 2020).

Ministry of Housing, Communities and Local Government (2020a). *Statistical data set: Live tables on house building: new build dwellings*. HM Government, available online: https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building (Accessed 7th September 2020).

Ministry of Housing, Communities and Local Government (2020b). *Planning for the future*. HM Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907647/MHCLG-Planning-Consultation.pdf (Accessed 15th September 2020).

Ministry of Housing, Communities and Local Government (2019a). *National Design Guide: Planning practice guidance for beautiful, enduring and successful places*. HM Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/843468/National_Design_Guide.pdf (Accessed 13th September 2020).

Ministry of Housing, Communities and Local Government (2019b). *National Planning Policy Framework*. HM Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf (Accessed 13th September 2020).

Ministry of Housing, Communities and Local Government (2019c). *Guidance: Community Infrastructure Levy*. HM Government, available online: https://www.gov.uk/guidance/community-infrastructure-levy#introduction (Accessed 9th February 2019).

Ministry of Housing, Communities and Local Government (2017). *Guidance: Permission in Principle*. HM Government, available online: https://www.gov.uk/guidance/permission-in-principle (Accessed 26th August 2020).

Morphet, J. and Clifford, B. (2019). *Local Authority Direct Delivery of Housing: 2019 Continuation Research, Summary Report*. Royal Town Planning Institute, available online: https://www.rtpi.org.uk/media/1976/localauthoritydirectdeliveryofhousingsummary2019.pdf (Accessed 7th August 2020).

Morphet, J., Clifford, B. (2017). *Local authority direct provision of housing*. National Planning Forum and Royal Town Planning Institute, available online: https://www.rtpi.org.uk/media/1891/localauthoritydirectprovisionofhousing2017.pdf (Accessed 9th August 2020).

Morris, N. (2018). *Help your client to help yourself: How fee deferrals and risk-sharing agreements help one practice achieve fair fees and avoid disputes*. Royal Institute of British Architects, available online: https://www.architecture.com/knowledge-and-resources/knowledge-landing-page/help-your-client-to-help-yourself (Accessed 2nd August 2020).

Mosteanu, O. (2020). *Quality of Life at Home: Exploring people's perceptions of where they live before and during lockdown*. Quality of Life Foundation, available online: https://www.qolf.org/wp-content/uploads/2020/08/QOL_QualityOfLifeAtHome_August2020_5MB.pdf (Accessed 30th September 2020).

National Custom and Self Build Association (2020). *About Us: The National Custom and Self Build Association (NACSBA)*. National Custom Self-Build Association, available online: https://nacsba.org.uk/about-nacsba/ (Accessed 16th July 2020).

National Community Land Trust Network (2020). *About CLTs*. National Community Land Trust Network, available online: http://www.communitylandtrusts.org.uk/what-is-a-clt/about-clts (Accessed 16th July 2020).

Office for National Statistics (2020). *Coronavirus and homeworking in the UK: April 2020*. HM Government, available online: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/coronavirusandhomeworkingintheuk/april2020 (Accessed 15th July 2020).

Office for National Statistics (2013). *Table P04UK 2011 Census: Population density, local authorities in the United Kingdom*. HM Government, available online: https://www.ons.gov.uk/ (Accessed 18th July 2020).

Open Council Data UK (2020). *Open Council Data UK*. Open Council Data UK, available online: http://opencouncildata.co.uk (Accessed 29th October 2020).

Oxfordshire County Council (1998). *Oxfordshire Structure Plan 2011*. Oxfordshire County Council, available online: http://mycouncil.oxfordshire.gov.uk/Data/Environment%20Scrutiny%20Committee/20030516/Agenda/ES160503-04dd.doc (Accessed 5th August 2020).

Oxfordshire Growth Board (2020). *Housing and Growth Deal – Housing*. Oxfordshire Growth Board, available online: https://www.oxfordshiregrowthboard.org/housing-and-growth-deal-housing (Accessed 10th August 2020).

Partridge, S. (2019). Reopening the Housing Revenue Account - is it actually an option? Comment, *Social Housing*, 9th October 2019, available online: https://www.socialhousing.co.uk/comment/comment/reopening-the-housing-revenue-account--is-it-actually-an-option-63624 (Accessed 14th September 2020).

Parker, G., Street, E. and Wargent, M. (2018). The Rise of the Private Sector in Fragmentary Planning in England. *Planning Theory & Practice*, 19 (5), pp. 734-750. https://doi.org/10.1080/14649357.2018.1532529

Payne, S. (2016). *Examining Housebuilder Behaviour in a Recovering Housing Market: Recommendations for Improving Britain's Housing Supply*. University of Sheffield and the British Academy, available online at the University of Sheffield: https://www.sheffield.ac.uk/polopoly_fs/1.595281!/file/Examining_Housebuilder_Behaviour.pdf (Accessed 24th September 2020).

Payne, S. (2013). Pioneers, pragmatists and sceptics: speculative housebuilders and brownfield development in the early twenty-first century. *Town Planning Review*, 84 (1), pp. 37–62. https://doi.org/10.3828/tpr.2013.3

Payne, S. and Barker, A. (2018). Carbon regulation and pathways for institutional transition in market-led housing systems: A case study of English housebuilders and zero carbon housing policy. *Environment and Planning E: Nature and Space*, 1 (4), pp. 470–493. https://doi.org/10.1177%2F2514848618784282

Payne, S., Serin, B., James, G. and Adams, D. (2019). *How does the land supply system affect the business of UK speculative housebuilding: An evidence review*. Collaborative Centre for Housing Evidence, available online: https://housingevidence.ac.uk/wp-content/uploads/2019/02/190228-How-does-the-land-supply-system-affect-the-business-of-UK-speculative-housebuilding.pdf (Accessed 22nd September 2020).

Pediaditi, K., Wehrmeyer, W. and Chenoweth, J. (2005). Brownfield redevelopment, integrating sustainability and risk management. In: Brebbia, C.A., Popov, V. and Fayzieva, D. (eds.), *Environmental Health Risk III*. Southampton: WIT Press, pp. 21–30.

Pegasus Group (2015). *Thame Specific Dwelling Mix Strategy (on behalf of Persimmon Homes (North London))*. Pegasus Group, available online at South Oxfordshire District Council as part of Planning Application P15/S2166/RM: https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P15/S2166/RM#exactline (Accessed 11th August 2020).

Persimmon Homes (2020). *Sycamore Rise*. Persimmon Homes, available online: https://www.persimmonhomes.com/sycamore-rise-10508 (Accessed 11th August 2020).

Persimmon Homes West Wales (2016). *Bryn Castell, Phase 2 – Planning Layout*. Persimmon Homes West Wales, available online via Bridgend County Borough Council as part of Planning Application P/18/1006/FUL: http://eplandocs.bridgend.gov.uk/PublicAccess_Live/SearchResult/RunThirdPartySearch?FileSystemId=PC&FOLDER1_REF=P/18/1006/FUL (Accessed 20th August 2020).

Place Alliance, University College London and CPRE (2020). *A Housing Design Audit for England*. Place Alliance, available at: http://placealliance.org.uk/research/national-housing-audit/ (Accessed 18th July 2020).

Place Design Wiki (2020). *Economy*. Place Design Wiki, https://sites.google.com/view/place-value-wiki/economy?authuser=0 (Accessed 9th October 2020).

Planning Service (DOE) (2002). *Development Control Advice Note 8: Housing in Existing Urban Areas*. Northern Ireland Executive, available online: https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/DCAN%208%20-%20Housing%20in%20Existing%20Urban%20Areas_0.pdf (Accessed 17th August 2020).

Planning Service (DOE) (2001). *PPS 7: Quality Residential Environments (Planning Policy)*. Northern Ireland Executive, available online: https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/PPS07%20Residential%20Environments.pdf (Accessed 17th August 2020).

Preece, J., Crawford, J., McKee, K., Flint, J. and Robinson, D. (2019). Understanding changing housing aspirations: a review of the evidence. *Housing Studies*, 35 (1), pp. 87–106. https://doi.org/10.1080/02673037.2019.1584665

PRP Architects Ltd. (2005). *Great Western Park, Didcot: Design Statement*. PRP Architects Ltd, available online via South Oxfordshire District Council as part of Planning Application P02/W0848/O: https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P02/W0848/O#exactline (Accessed 15th August 2020).

Punter, J. (2015). Design Review in Wales: *The experience of the Design Commission for Wales' Design Review Panel 2012-2015*. Design Commission for Wales, available online: http://dcfw.org/wp-content/uploads/2015/12/DesignReview_2015_online.pdf (Accessed 13th August 2020).

Punter, J. (2010). Reflecting on urban design achievements in a decade of urban renaissance. In: Punter, J. (ed.), *Urban Design and the British Urban Renaissance*. Abingdon, Oxon: Routledge, pp. 323–352.

Punter, J. (2007). Developing Urban Design as Public Policy: Best Practice Principles for Design Review and Development Management. *Journal of Urban Design*, 12 (2), pp. 167–202. https://doi.org/10.1080/13574800701306195

Punter, J. and Carmona, M. (1997). *The Design Dimension of Planning: Theory, content and best practice for design policies*. London: E and F N Spon.

Ramsey, P. (2013). "A Pleasingly Blank Canvas": Urban Regeneration in Northern Ireland and the Case of the Titanic Quarter. *Space Polity*, 17 (2), pp. 164–179. https://doi.org/10.1080/13562576.2013.817513

Raynsford, N. (2018). *Planning 2020: Raynsford Review of Planning in England: Final Report*. Town and Country Planning Association, available online: https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=30864427-d8dc-4b0b-88ed-c6e0f08c0edd (Accessed 19th September 2020).

Red Kite Community Housing (2020). *Buy a home: Shared ownership*. Red Kite Community Housing, available online: https://redkitehousing.org.uk/our-services-to-you/buy-a-home (Accessed 11th August 2020).

Rhodes, C. (2019). *Construction industry: statistics and policy (Briefing Paper No. 01432)*. House of Commons Committee of Public Accounts, UK Parliament, available online: https://commonslibrary.parliament.uk/research-briefings/sn01432/ (Accessed 23rd August 2020).

Ritchie, C. (2016). Work on long-awaited Letham Mains housing development in Haddington could start in the new year. News, *East Lothian Courier*, 22nd September 2016, available online: https://www.eastlothiancourier.com/news/14759389.work-on-long-awaited-letham-mains-housing-development-in-haddington-could-start-in-the-new-year/ (Accessed 23rd August 2020).

Rotherham Metropolitan Borough Council (2018). *Rotherham Local Plan: Sites and Policies*. Rotherham Metropolitan Borough Council, available online: https://www.rotherham.gov.uk/downloads/file/478/sites-and-policies-document (Accessed 15th September 2020).

Rotherham Metropolitan Borough Council (2017). *Rotherham Metropolitan Borough Council Decision Notice Summary: Ref RB2017/0933*. Rotherham Metropolitan Borough Council, available online: http://planning.rotherham.gov.uk/fastweblive/decision.asp?AltRef=RB2017/0933&ApplicationNumber=RB2017%2F0933&AddressPrefix=&submit2=Go (Accessed 13th September 2020).

Rotherham Metropolitan Borough Council (2015). *Rotherham Growth Plan 2015 - 2025*. Rotherham Metropolitan Borough Council, available online: https://moderngov.rotherham.gov.uk/documents/s98142/Growth%20Plan%20consultation%20apdxA.pdf (Accessed 14th September 2020).

Rotherham Metropolitan Borough Council (2014). *Rotherham Local Plan: Core Strategy 2013-2028*. Rotherham Metropolitan Borough Council, available online: https://www.rotherham.gov.uk/downloads/file/307/adopted-rotherham-core-strategy (Accessed 11th September 2020).

Rotherham Metropolitan Borough Council (2013). *Rotherham Metropolitan Borough Council Decision Notice Summary. Reference: RB2013/0362*. Rotherham Metropolitan Borough Council, available online: http://planning.rotherham.gov.uk/fastweblive/decision.asp?AltRef=RB2013/0362&ApplicationNumber=RB2013%2F0362&AddressPrefix=&submit2=Go (Accessed 11th September 2020).

Rotherham Metropolitan Borough Council (2011a). *Rotherham Metropolitan Borough Council Online Planning – Full Details. Planning Application Number: RB2008/1372*. Rotherham Metropolitan Borough Council, available online: http://planning.rotherham.gov.uk/fastweblive/fulldetail.asp?AltRef=RB2008/1372&ApplicationNumber=RB2008%2F1372&AddressPrefix=&submit2=Go (Accessed 11th August 2020).

Rotherham Metropolitan Borough Council (2011b). *Rotherham Metropolitan Borough Council Decision Notice Reference RB2011/1521*. Rotherham Metropolitan Borough Council, available online: http://planning.rotherham.gov.uk/fastweblive/decision.asp?AltRef=RB2011/1521&ApplicationNumber=RB2011%2F1521&AddressPrefix=&submit2=Go (Accessed 13th September 2020).

Royal Institute of British Architects (2020). *RIBA Plan of Work: Overview*. Royal Institute of British Architects, available online: https://www.architecture.com/-/media/GatherContent/Test-resources-page/Additional-Documents/2020RIBAPlanofWorkoverviewpdf.pdf (Accessed 20th September 2020)

Royal Town Planning Institute (2020). *Enabling Healthy Placemaking: Overcoming barriers and investing in best practices*. Royal Town Planning Institute, available online: https://www.rtpi.org.uk/media/5777/enabling-healthy-placemaking.pdf (Accessed 26th October 2020).

Royal Institution of Chartered Surveyors (2016). *Placemaking and value*. Royal Institution of Chartered Surveyors, available online: https://www.rics.org/globalassets/rics-website/media/upholding-professional-standards/sector-standards/land/placemaking_and_value_1st_edition.pdf (Accessed 29th October 2020).

RPS Planning & Development (2011). *Great Western Park, Didcot. Design and Access Statement: To accompany Phase 2a Reserved Matters Application*. RPS Planning & Development available online via South Oxfordshire District Council Planning Application P11/W0938/RM: https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P11/W0938/RM#exactline (Accessed 15th August 2020).

Ryden LLP (2014). *Planning Statement on behalf of Applicants PLOT (Haddington) LLP: Application for planning permission for mixed use development, erection of houses, Class 4 employment units, pub/restaurant, access roads and landscaping at Gateside Park West, West Road, Haddington.* Ryden LLP, available online via East Lothian Council as part of Planning Application 14/00219/PM: https://pa.eastlothian.gov.uk/online-applications/simpleSearchResults.do?action=firstPage (Accessed 12th August 2020).

Savills (2017). *Residential Development Margin: Competitive Return to a Willing Developer.* Savills, available online via City of London: https://www.london.gov.uk/sites/default/files/app17_savills_residential_development_margin.pdf (Accessed 29th October 2020).

Savills (2016). *Raising the Game: Early investment creates better places and delivers higher returns.* Savills, available online: https://pdf.euro.savills.co.uk/uk/residential---other/spotlight-the-value-of-placemaking-2016.pdf (Accessed 29th October 2020).

Scanlon, K., and Fernandez-Arrigoitia, M. (2015). Development of new cohousing: lessons from a London scheme for the over-50s. *Urban Research and Practice*, 8 (1), pp. 106–121. http://doi.org/10.1080/17535069.2015.1011430

Scanlon, K., Whitehead, C. and Blanc, F. (2017). *The future social housing provider.* Flagship Group and The London School of Economics and Political Science, available online at London School of Economics and Pollical Science: https://www.lse.ac.uk/geography-and-environment/research/lse-london/documents/Reports/The-future-social-housing-provider-full-report.pdf (Accessed 29th August 2020).

Scott, M. (2020). Covid-19, Place-making and Health. *Planning, Theory and Practice*, 21 (3), pp. 343–348. https://doi.org/10.1080/14649357.2020.1781445

Scottish Environment Protection Agency (2010). *Land Use Planning System: SEPA Guidance Note 2: Planning advice on Sustainable Drainage Systems (SUDS).* Scottish Environment Protection Agency, available online: https://www.sepa.org.uk/media/143195/lups-gu2-planning-guidance-on-sustainable-drainage-systems-suds.pdf (Accessed 23rd August 2020).

Scottish Executive (2001). *Designing Places: A Policy Statement for Scotland.* Edinburgh: Scottish Executive.

Scottish Executive (2000). *Policy on Architecture for Scotland.* Edinburgh: Scottish Executive.

Scottish Government (2020a). *Protecting Scotland, Renewing Scotland: The Governments Programme for Scotland 2020-2021.* Scottish Government, available online: https://www.gov.scot/publications/protecting-scotland-renewing-scotland-governments-programme-scotland-2020-2021/ (Accessed 2nd November 2020).

Scottish Government (2020b). *Scottish Planning Policy and Housing: Technical Consultation on Proposed Policy Amendments*. Scottish Government, available online: https://consult.gov.scot/planning-architecture/proposed-policy-amendments/ (Accessed 5th October 2020).

Scottish Government (2019). *National Planning Framework 4 – The Essentials!* Scottish Government, available online: https://blogs.gov.scot/planning-architecture/2019/10/08/national-planning-framework-4-the-essentials/ (Accessed 17th September 2020).

Scottish Government (2014a). *Scottish Planning Policy*. Scottish Government, available online: https://www.gov.scot/publications/scottish-planning-policy/ (Accessed 17th September 2020).

Scottish Government (2014b). *National Planning Framework 3*. Scottish Government, available online: https://www.gov.scot/publications/national-planning-framework-3/ (Accessed 18th September 2020).

Scottish Government (2013). *Creating Places: a policy statement on architecture and place in Scotland*. Scottish Government, available online: https://www.gov.scot/publications/creating-places-policy-statement-architecture-place-scotland/ (Accessed 18th September 2020).

Scottish Government (2011). *Designing Streets: A Policy Statement for Scotland*. Scottish Government, available online: https://www.gov.scot/publications/designing-streets-policy-statement-scotland/ (Accessed 18th September 2020).

Scottish Land Commission (2020). *Transforming Vacant and Derelict Land*. Scottish Land Commission, available online: https://landcommission.gov.scot/our-work/housing-development/vacant-and-derelict-land (Accessed 28th October 2020).

Scottish Parliament, The (2019). *Planning (Scotland) Act 2019, 2019 asp 13*. Scottish Parliament, available online via HM Government: https://www.legislation.gov.uk/asp/2019/13/contents/enacted (Accessed 25th July 2020).

Serin, B, Kenny, T., White, J., and Samuel, F. (2018). *Design value at the neighbourhood scale: what does it mean and how do we measure it?* UK Collaborative Centre for Housing Evidence, available online: https://housingevidence.ac.uk/wp-content/uploads/2018/11/R2018_04_01_Design-Value.pdf (Accessed 17th July 2020).

Serin, B., Kintrea, K., Gibb, K. (2018). *Social Housing in Scotland*. Social Housing Policy Working Group, Collaborative Centre for Housing Evidence, available online: https://housingevidence.ac.uk/wp-content/uploads/2018/11/R2018_SHPWG_Scotland.pdf (Accessed 15th August 2020).

Sky-House Urban Living (2020). *Sky-House*. Sky-House Urban Living, available online: https://sky-house.co (Accessed 12th August 2020).

Slade, D., Gunn, S. and Schoneboom, A. (2019). *Serving the public interest? The reorganisation of UK planning services in an era of reluctant outsourcing*. Royal Town Planning Institute, available online: https://www.rtpi.org.uk/media/2005/servingthepublicinterest2019.pdf (Accessed 13th July 2020).

South Oxfordshire District Council (2019). *South Oxfordshire Local Plan 2011-2035 (Planning Policy)*. South Oxfordshire District Council, available online: https://www.southoxon.gov.uk/wp-content/uploads/sites/2/2019/01/2013-05-01-Core-Strategy-for-Website-final_0.pdf (Accessed 10th August 2020).

South Oxfordshire District Council (2017). *South Oxfordshire Data Pack (latest update: 04/08/17)*. South Oxfordshire District Council, available online at Thame Town Council: https://www.thametowncouncil.gov.uk/wp-content/uploads/2020/05/South-Oxon-Data-Pack-2017.pdf (Accessed 3rd August 2020).

South Oxfordshire District Council (2016). *Approval of Reserved Matters. Application No. P15/S2166/RM.* South Oxfordshire District Council, available online as part of Planning Application P15/S2166/RM: https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P15/S2166/RM#exactline (Accessed 15th August 2020).

South Oxfordshire District Council (2014). *Outline Planning Permission. Application No.: P13/S2330/O.* South Oxfordshire District Council, available online as part of Planning Application P13/S2330/O: https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P13/S2330/O (Accessed 15th August 2020).

South Oxfordshire District Council (2013). *South Oxfordshire District Council - Planning Committee - 13 November 2013: Development Application Reports, Application No.P13/S2330/O.* South Oxfordshire District Council, available online: http://democratic.southoxon.gov.uk/documents/s2712/P13S2330O%20Land%20west%20of%20Thame%20Park%20Road%20Thame.pdf (Accessed 15th August 2020).

South Oxfordshire District Council (2011). *Approval of Reserved Matters. Application No: P11/W0938/RM.* South Oxfordshire District Council, available online as part of Planning Application P11/W0938/RM: https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P11/W0938/RM (Accessed 16th August 2020).

South Oxfordshire District Council (2006). *South Oxfordshire District Council - Planning Committee - 19 July 2006. Application No. P02/W0848/O & P02/W0849/O. Application Type: Outline Application.* South Oxfordshire District Council, available online as part of Planning Application P02/W0848/O: https://data.southoxon.gov.uk/ccm/support/Main.jsp?MODULE=ApplicationDetails&REF=P02/W0848/O (Accessed 15th August 2020).

StatsWales (2019). *New dwellings completed by area, dwelling type and number of bedrooms*. Welsh Government, available online: https://statswales.gov.wales/Catalogue/Housing/New-House-Building/newdwellingscompleted-by-area-dwellingtype-numberofbedrooms (Accessed 8th September 2020).

Stevenson, F. (2019). *Housing Fit for Purpose: Performance, Feedback and Learning*. London: RIBA Publishing.

Studio Partington (2019). *House building: a century of innovation (NF85): Technical advances in conventional construction.* NHBC Foundation, available online: https://www.nhbcfoundation.org/publication/house-building-a-century-of-innovation/ (Accessed 20th August 2020).

Strategic Development Planning Authority for Edinburgh and South East Scotland (2013). *SESplan: Strategic Development Plan*. The Strategic Development Planning Authority for Edinburgh and South East Scotland, available online: https://www.sesplan.gov.uk/assets/files/docs/290813/SESplan%20Strategic%20Development%20Plan%20Approved%2027%20June%202013.pdf (Accessed 20th September 2020).

Syms, P. (2002). *Land Development and Land*. Oxford: Blackwell Publishing Ltd.

Taylor Wimpey (2010). *Great Western Park Northern Neighbourhood Framework Plan*. Taylor Wimpey, available online via Great Western Park: https://www.gw-park.co.uk/development-plans/framework-plans/ (Accessed 23rd August 2020).

Taylor Wimpey, Miller Homes, Bellway, David Wilson Homes, McCarthy & Stone, Persimmon (2020). *Contact us for more information*. Great Western Park, available online: https://www.gw-park.co.uk/contact/

Thame Town Council (2013). *Thame Neighbourhood Plan*. Thame Town Council, available online: https://www.thametowncouncil.gov.uk/wp-content/uploads/2016/04/5343-Thame-Plan-post-Exam-prn-110313-lo-res.pdf (Accessed 8th September 2020).

Tiesdell, S. and Adams, D. (2011a). Real Estate Development, Urban Design and the Tools Approach to Public Policy. In: Tiesdell, S. and Adams (eds.), *Urban Design in the Real Estate Development Process*. Chichester: Wiley-Blackwell, pp. 1–29.

Tiesdell, S. and Adams, D. (2011b). Connecting Urban Design to Real Estate Development. In: Tiesdell, S. and Adams, D. (eds.), *Urban Design in the Real Estate Development Process*. Chichester: Wiley-Blackwell, pp. 282–298.

Tiesdell, S. and Adams, D. (2004). Design matters: major house builders and the design challenge of brownfield development contexts. *Journal of Urban Design*, 9 (1), pp. 23–45. https://doi.org/10.1080/1357480042000187695

Tiesdell, S. and Macfarlane, G. (2007). The Part and the Whole: Implementing Masterplans in Glasgow's New Gorbals. *Journal of Urban Design*, 12 (3) pp. 407–433. https://doi.org/10.1080/13574800701602544

Wright N. and Tolson, S. (2020). *The Value of Early Engagement in Planning: Evidence of the benefits of early engagement in the development process*. Scottish Land Commission, available online: https://landcommission.gov.scot/downloads/5ee1fa960b190_20200611%20SLC%20REPORT%20Value%20of%20Early%20Engagement%20in%20Planning.pdf (Accessed 27th October 2020).

Transport for New Homes (2018). *Transport for New Homes: Project Summary and Recommendations, July 2018*. Transport for New Homes, available online: https://www.transportfornewhomes.org.uk/wp-content/uploads/2018/07/transport-for-new-homes-summary-web.pdf (Accessed 14th October 2020).

TSA Planning (2014). *Design Concept & Supporting Planning Statement: Peter Pan Complex, Springfield Road, Belfast (December 2014)*. TSA Planning, available online via Planning Portal NI as part of Planning Application Z/2014/1665/F: http://epicpublic.planningni.gov.uk/publicaccess/applicationDetails.do?keyVal=NGDIZCSV30000&activeTab=summary (Accessed 15th September 2020).

Tunstall, G. (2006). *Managing the Building Design Process (2nd ed.)*. Oxford: Elsevier.

Turley (2016). *Design & Access Statement, 55-71 Ormeau Road Belfast*. Turley, available online via Planning Portal NI as part of Planning Application LA04/2016/0967/F: http://epicpublic.planningni.gov.uk/publicaccess/applicationDetails.do?keyVal=O7DNFCSV30000&activeTab=summary (Accessed 23rd September 2020).

UK Green Building Council (2020). *Climate Change: UKGBC's vision for a sustainable built environment is one that mitigates and adapts to climate change*. UK Green Building Council, available online: https://www.ukgbc.org/climate-change/ (Accessed 5th October 2020).

Wainwright, O. (2019a). Meet the councils quietly building a housing revolution. *The Guardian*, 20th October 2019, available online: https://www.theguardian.com/cities/2019/oct/28/meet-the-councils-quietly-building-a-housing-revolution (Accessed 15th August 2020).

Wainwright, O. (2019b). "A masterpiece": Norwich council houses win Stirling architecture prize. Architecture, *The Guardian*, 8th October 2019, available online: https://www.theguardian.com/artanddesign/2019/oct/08/stirling-prize-architecture-goldsmith-street-norwich-council-houses?page=with:img-2 (Accessed 15th August 2020).

Wargent, M., Parker, G. and Street, E. (2020). Public-private entanglements: consultant use by local planning authorities in England. *European Planning Studies*, 28 (1), pp. 192- 210. https://doi.org/10.1080/09654313.2019.1677565

Warwick-Ching, L. (2007). Wimpey and Woodrow agree merge. *Financial Times,* March 26th 2007, available online: https://www.ft.com/content/97c85246-dafe-11db-ba4d-000b5df10621 (Accessed 29th October 2020).

Welsh Assembly Government, Department for Communities and Local Government, Department for Transport (2007). *Manual for Streets*. HM Government, available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/341513/pdfmanforstreets.pdf (Accessed 23rd August 2020).

Welsh Government (2019). *Sustainable Drainage (SuDS) Statutory Guidance*. Welsh Government, available online: https://gov.wales/sites/default/files/publications/2019-06/statutory-guidance.pdf (Accessed 25th August 2020).

Welsh Government, 2018. *Planning Policy Wales: Edition 10 (Planning Policy)*. Welsh Government, available online: https://gov.wales/sites/default/files/publications/2018-12/planning-policy-wales-edition-10.pdf (Accessed 24th August 2020).

Welsh Government (2016a). *Technical Advice Note 12: Design*. Welsh Government, available online: https://gov.wales/technical-advice-note-tan-12-design (Accessed 25th August 2020).

Welsh Government (2016b). *Written Statement - How to measure a nation's progress? - The national well-being indicators for Wales*. Welsh Government, available online: https://gov.wales/written-statement-how-measure-nations-progress-national-well-being-indicators-wales (Accessed 24th August 2020).

Welsh Government and Design Commission for Wales (2020). *Placemaking Wales Charter.* Welsh Government and Design Commission for Wales, available online via Design Commission for Wales: http://dcfw.org/placemaking/placemaking-charter/. (Accessed 2nd November 2020).

White, J.T. (2019). What Once was Old is New Again: Placemaking and Transformational Regeneration in Glasgow. In: Kintrea, K. and Madgin, R. (eds.), *Transforming Glasgow: Beyond the Post-Industrial City*. Bristol: Policy Press, pp. 201-220.

White, J.T. (2015). Future Directions in Urban Design as Public Policy: Reassessing Best Practice Principles for Design Review and Development Management. *Journal of Urban Design*, 20 (3), pp. 325–348. https://doi.org/10.1080/13574809.2015.1031212

White, M.P., Alcock, I., Wheeler, B.W., Depledge, M.H. (2013). Would you be happier living in a greener urban area? A fixed-effects analysis of panel data. *Psychological Science*, 24 (6), pp. 920- 928. https://doi.org/10.1177/0956797612464659

Wilson, W. (2017). *Briefing Paper: Self-build and custom build housing (England)*. House of Commons, UK Parliament, available online: https://commonslibrary.parliament.uk/research-briefings/sn06784/ (Accessed 10th August 2020).

Wilson, W. and Barton, C. (2020). *Briefing Paper: Tackling the under-supply of housing in England*. House of Commons Committee of Public Accounts, UK Parliament, available online: https://commonslibrary.parliament.uk/research-briefings/cbp-7671/ (Accessed 5th August 2020).

Yin, R.K. (2003). *Case Study Research: Design and Methods (3rd Edition)*. Newbury Park, CA: Sage.

Appendices

Appendix 1: Key stages in the housing development process with mapped interview questions

STAGES	ACTIONS BY DEVELOPER (e.g. housebuilder or development consortium) (titling adapted from Syms, 2002)	ACTIONS BY DESIGNER(S) (e.g. architect, urban designer) (titling and concepts adapted from Royal Institute of British Architects, 2020; Tunstall, 2006)	ACTIONS BY DESIGN REGULATOR (e.g. local authority) (Concepts adapted from Punter, 2007; White, 2015)
STAGE 1 Pre-development	**Land banking** ■ Has the housebuilder historically 'banked' land in the local authority area? ■ Has the housebuilder lobbied for sites in the local authority area to be allocated for housing (incl. the one in question)? ■ By what means has the housebuilder identified and purchased sites in the local area (auction, private sales, etc.)?	■ No direct designer actions identified during the pre-development stage.	**Housing land allocation** ■ Historically, how has the local authority allocated land for housing? ■ To what extent do housebuilders influence housing allocations during the local development plan process? ■ To what extent do housing land allocations promote sustainable development? (i.e. brownfield quotas, connections to existing/new transport networks, etc.) ■ How involved have members of the local community been in the process of housing allocation?
	Market appraisal ■ Has the housebuilder appraised the local housing market and, if so, what did this reveal? ■ To what extent did any market appraisals conducted by the housebuilder influence the tendering process for a designer?		**Local development plan process** ■ To what extent are design principles foregrounded in the local authority's local development plan, and how robust are these principles in the context of national planning policy and advice in the four nations? ■ Does the local development plan include an explicit statement on housing design and site layout and, if so, what does it say? ■ To what extent were members of the local community involved in articulating an urban design visioning for their local area during the plan-making process?
	Site acquisition and assembly ■ Did the housebuilder develop one self-contained site or play a coordination role alongside other housebuilders and/or the local authority/public sector?		**Strategic land assembly** ■ Was the local authority involved in coordinating land assembly or was it a joint venture partner? ■ Was there any evidence of 'smart parcelisation' or the use any similar design-based tools to encourage good design early in the planning process?

STAGES	ACTIONS BY DEVELOPER (e.g. housebuilder or development consortium) (titling adapted from Syms, 2002)	ACTIONS BY DESIGNER(S) (e.g. architect, urban designer) (titling and concepts adapted from Royal Institute of British Architects, 2020; Tunstall, 2006)	ACTIONS BY DESIGN REGULATOR (e.g. local authority) (Concepts adapted from Punter, 2007; White, 2015)
STAGE 2 Development preparation	**Project inception** ■ Was the housing development taken forward by one housebuilder, or as a joint-venture? ■ What was the housebuilder's 'vision' for the development, and to what extent was the vision defined in design terms?	**Receiving client's design brief** ■ Was design work tendered to outside design consultants (e.g. architects or urban designers) or completed in-house? ■ Was an urban designer appointed to deliver a site masterplan?	**Masterplanning process** ■ Did the local authority produce site-specific design briefs for the site in question and, if so, what form did this advice take (e.g. broad principles, explicit codes and zoning, etc.?) ■ Did the local authority draw up a visual masterplan for the site? ■ Did the local authority work with the landowner/housebuilder to produce a masterplan?
		Feasibility (formulating a design brief) ■ To what extent did the site design brief respond to local design policies? ■ Were standard house types and site layouts used, if not, why?	**Pre-application discussion** ■ To what extent did the developer's design team engage in discussions about the site design with the local authority? ■ If pre-application discussions did not take place, what was the reason for this? ■ Does the local authority have expert urban designers on its staff that can advise housebuilders and their designers? ■ Were any site-specific design briefs, masterplans or other documents produced by the governing authority influential during pre-application discussions with the housebuilder?
	Risk analysis and feasibility studies ■ What factors were assessed during the risk analysis and feasibility studies?	**Outline site design proposals** ■ To what extent did the design team seek to influence the design of the site beyond any basic parameters established by their client? ■ Did pre-application discussions with the local authority influence the design, layout, density (or other design-related factors) of the outline proposal?	**Design review** ■ Does the local authority have a 'design review panel' and, if so, did it review the housing development in question?
	Detailed design commissioned ■ Did the housebuilder continue to work with the design team hired for the design brief stage or did it change designer(s)? ■ If there was a change in designer, why was this decision made?	**Final scheme design for planning approval** ■ Was the final design changed in response to the housebuilder's risk analysis and feasibility studies? ■ Were any design changes made following design review (if conducted by the local authority)? ■ Did any particular changes impact the overall quality of the proposal?	

STAGES	ACTIONS BY DEVELOPER (e.g. housebuilder or development consortium) (titling adapted from Syms, 2002)	ACTIONS BY DESIGNER(S) (e.g. architect, urban designer) (titling and concepts adapted from Royal Institute of British Architects, 2020; Tunstall, 2006)	ACTIONS BY DESIGN REGULATOR (e.g. local authority) (Concepts adapted from Punter, 2007; White, 2015)
STAGE 3 Formal planning application processes	**Submission of planning application** ■ To what extent did the submitted planning application reflect any pre-application discussions/design review processes?		**Development management process** ■ To what extent did the development management decision making process focus on design matters? ■ What design advice was sought by the local authority officer(s) during the development management process, and what impact (if any) did this have on the scheme? ■ To what extent did letters of support/objection received from the local community influence the development management decision making process? ■ Were there any particular consultations during the development management process that had a negative/positive impact on the design of the scheme (e.g. highways/roads/housing, etc.).
			Planning gain negotiations ■ What planning gain negotiations took place with respect to this application? ■ To what extent did planning gain discussion focus on design matters? ■ Did any planning gain conditions have a positive impact on the design of the scheme and the surrounding area (e.g. access to public space, funding for infrastructure, integration of social housing, etc.)?
	Planning appeal/resubmissions ■ If the planning application was refused, on what grounds was it refused, and was 'design' a significant factor in the refusal? ■ If the application was refused, did the developer appeal the decision? ■ If appealed, what was the outcome and did the inspector comment on the scheme's design? ■ Did the housebuilder resubmit their planning application and, if so, what design changes (if any) were made?	**Resubmission of final scheme (if appropriate)** ■ If the scheme was resubmitted, were the original design team involved? ■ What factors influenced any resubmitted applications? ■ Was design a major factor in any resubmissions made to the authority?	**Planning permission or refusal** ■ To what extent was the final decision on the planning application influenced by the authority's design policy/masterplan/vision for the site? ■ Was the final decision taken by the planning committee also recommended by the local authority officer? ■ If the scheme was permitted, what explicit conditions relating to design were including in the permission notice (e.g. material palettes, landscaping, drainage, etc.)?

STAGES	ACTIONS BY DEVELOPER (e.g. housebuilder or development consortium) (titling adapted from Syms, 2002)	ACTIONS BY DESIGNER(S) (e.g. architect, urban designer) (titling and concepts adapted from Royal Institute of British Architects, 2020; Tunstall, 2006)	ACTIONS BY DESIGN REGULATOR (e.g. local authority) (Concepts adapted from Punter, 2007; White, 2015)
STAGE 4 Financing and final design	**Land and development finance** ■ How was the project financed? Were any government grants or other public funding mechanisms used as part of the financing package? ■ Were changes to the scheme's design/ layout made after planning permission was secured (e.g. as a result of new market information and/or funding challenges)?	**Detailed design, construction drawings and BofQ** ■ To what extent were the design team that secured planning permission for the scheme involved in the detailed design work (if the work was not completed in house)? ■ Did the design team make any amendments to the planning application after permission had been granted? ■ If amendments were made, to what extent were these on design grounds, and how did they influence the final detailed design?	
	Tendering ■ What tendering process did the housebuilder employ?	**Tendering arrangements and pre-contract planning** ■ What role did the design team play in shaping the tendering process and agreeing the preferred construction bidders?	
STAGE 5 Development construction and completion	**Construction** ■ Did the housebuilder use 'off site' construction techniques or complete the project as a traditional 'on-site' build?	**Construction on site** ■ To what extent was the design team involved in overseeing the project during construction?	**Planning enforcement** ■ Were there any design issues that required enforcement action during construction or soon thereafter? If so, how was this handled by the local authority?
			Adoption ■ Were the public areas of the housing development (roads, parks, etc.) adopted by the local authority or retained under the ownership of residents/housebuilder? ■ If roads and other public infrastructure was adopted by the local authority, were any design changes required in advance of adoption?
	Sales and marketing ■ To what extent, and in what explicit ways, was 'design' highlighted in the sales and marketing material for the development?		
STAGE 6 Post-development	**Post-occupancy evaluation** ■ Did the housebuilder conduct a post-occupancy evaluation of the site? ■ If a post-occupancy was conducted what did it reveal?		**Assessment and monitoring of outcomes** ■ Did the local authority conduct any explicit analysis or monitoring of the approved scheme after its completion and, if so, what did this reveal?
	Awards ■ Did the housebuilder receive any design awards for the scheme and, if so, what did these commend?	**Awards** ■ Did the designers receive any design awards for the scheme and, if so, what did these commend?	**Awards** ■ Did the local authority receive any design awards for the scheme and, if so, what did these commend?

Appendix 2: Semi-structured interview schedule

This is a simplified template of the interview schedule that the research team used to interview research participants recruited in the five case studies.

1. **Interviewee background:** organisation they work for and their role, plus any other personal information that is pertinent to discussing design value in new housing development.
2. **Understanding of design value in new housing development:**
    a. What attributes does a well-designed neighbourhood have?
    b. At what points in the development and planning process is design value and design outcomes considered?
    c. Which stakeholders make the most important decisions relating to design value and at what stages in the process?
    d. How important is urban design relative to other considerations? (e.g. development viability; housing delivery targets; project marketability, etc.).
3. **Local context for delivering design in case study:**
    a. Awareness of and opinions on design policy (e.g. NPPF, local plan, design code, *Design Statements*).
    b. Impact of local housing market context (e.g. land and house prices).
    c. Impact of site-specific context (e.g. need for remediation, location, greenfield/ brownfield, etc.).
    d. Procurement process (e.g. type of contract, who was in charge of building).
4. **Interviewee involvement in the design process for the case study:**
    a. Specific tools/ techniques for delivering good design (e.g. housing typologies, material palettes, design guidelines, contextual analysis, development viability/ market analysis, design review, specific guides, *Design and Access Statement*, design review panels).
    b. What went wrong and what went well?
    c. Did it create a well-designed neighbourhood? How did it match original vision? What types of design value did it deliver?
    d. In a perfect world what would have made this a better designed place? (e.g. operation of key stakeholders/ better market context, skills, time)
    e. How can the policies and practices that currently generate new housing encourage the creation of higher quality homes and places?

Appendix 3: Anonymised interview codes

This table contains a list of the interviews that we conducted for each of the five case study local authorities. Pursuant with the ethical approval that was granted for this research by the University of Glasgow, the interviews were anonymised and assigned codes that denote the participants' professional responsibilities but do not reveal their name or their specific job title. We have also chosen not to specify which housing development we spoke to each participant about as this would significantly increase the chance that the participant would be identifiable. Some of the interviews we conducted were with two participants, in such instances we have used 'P1' (Participant 1) and 'P2' (Participant 2) to distinguish the speaker. In each of these instances the two participants had similar professional responsibilities.

Local authority	Interview code (role(s) and type of organisation
South Oxfordshire District Council	S. Oxfordshire 1 Planning Officer P1 or P2
	S. Oxfordshire 2 Housebuilder
	S. Oxfordshire 3 Planning Officer
	S. Oxfordshire 4 Planning Consultant
	S. Oxfordshire 5 Local Councillor
	S. Oxfordshire 6 Town Council Official
	S. Oxfordshire 7 Land Promoter
	S. Oxfordshire 8 Design Officer
	S. Oxfordshire 9 Housebuilder P1 or P2
	S. Oxfordshire 10 Design Consultant P1 or P2
	S. Oxfordshire 11 Design Officer
	S. Oxfordshire 12 Design Consultant
Rotherham Metropolitan Borough Council	Rotherham 1 Planning Officer
	Rotherham 2 Planning Officer
	Rotherham 3 Housebuilder Designer
	Rotherham 4 Landowner
	Rotherham 5 Planning Officer
	Rotherham 6 Housebuilder
East Lothian Council	East Lothian 1 Planning Officer P1 or P2
	East Lothian 2 Planning Consultant
	East Lothian 3 Housebuilder
	East Lothian 4 Housebuilder
	East Lothian 5 Housebuilder
	East Lothian 6 Planning Consultant
	East Lothian 7 Housebuilder
	East Lothian 8 Architect
	East Lothian 9 Land Promoter

Local authority	Interview code (role(s) and type of organisation
Bridgend Metropolitan Borough Council	Bridgend 1 Planning Officer P1 or P2
	Bridgend 2 Local Councillor
	Bridgend 3 Planning Officer
	Bridgend 4 Housebuilder
	Bridgend 5 Planning Officer P1 or P2
	Bridgend 6 Planning Officer
	Bridgend 7 Local Councillor
	Bridgend 8 Local Councillor
	Bridgend 9 Planning Consultant
	Bridgend 10 Community Activist
	Bridgend 11 Planning Officer
Belfast City Council	Belfast 1 Planning Officer
	Belfast 2 Housing Association Officer
	Belfast 3 Planning Officer
	Belfast 4 Architect
	Belfast 5 Housing Association Officer
	Belfast 6 Design Officer
	Belfast 7 Planning Consultant
	Belfast 8 Planning Officer
	Belfast 9 Housebuilder
	Belfast 10 Housing Association Officer

Appendix 4: Raw data analysis framework

This document was designed for the first phase of data analysis. It roughly copies a typical step-by-step housing development and planning process, with the exception of the first section, which provided an opportunity to input general feedback on design, and the final section, which was used to summarise information on the key actors involved in the design process and their respective roles.

The research team copied and pasted raw data into the framework for each housing development using the following conventions:

- In bold at the beginning of a new paragraph highlight any / all professional groupings it refers to (e.g. policymakers, landowners, funders, agents and promoters, developers / house builders, local authority teams, facilities managers, occupants, community and representatives etc.).
- List the data source at the end of every paragraph in brackets with a page number from the transcript (source, broad profession, page). This should also be done for archives and documents (e.g. local plan, p. n). Where possible include a hyperlink to source or notes.
- Include quotes highlighted in yellow.
- If something is relevant to two sub-themes include it in both. There will certainly be overlap, for example between 'initial design' and 'outline planning'.
- For author notes write your initials and make text red to distinguish from raw data or findings.

Framework

- **General views on design**
  - What is good design?
  - What are the most important stages and who is involved in each?
  - Value of design in relation to other things
  - General recommendations for improving design
  - Other general reflections on design (not site-specific)
- **Legislation and policy**
  - Legislation (different in each of the four nations)
  - National policy and guidance (different in each of the four nations)
  - Local development plans
  - Planning guidance and design codes
  - Local authority culture / processes
  - Building standards
  - Highways regulations
  - Site specific requirements (e.g. masterplans, neighbourhood plans)
  - Other discussion of policy / local authority context

- **Development preparation (up to formal discussion of planning permission)**
  - Market appraisal (incl. land valuation & risk analysis and feasibility)
  - Development financing
  - Site assembly (including acquisition, strategic land assembly, and land banks)
  - Site constraints
  - Developer design brief
  - Initial design process (e.g. tools used, debates, influences)
  - Other
- **Changes to design during planning process**
  - Pre-application discussions
  - Community engagement
  - Negotiation and content of outline planning permission
  - Negotiation and content of final planning permission
  - Design review (if appropriate)
  - Planning appeal (if appropriate)
  - Resubmitted planning application (if appropriate)
  - Other
- **Construction & landscaping**
  - Frameworks, tendering and pre-contract planning
  - Landscaping
  - Construction process
  - Planning enforcement
  - Adoption
  - Sales and marketing
  - Post-completion
  - Reflections on design process/success
  - Other
- **Summary of who involved in design and when**
  - Policymakers
  - Landowners
  - Agents and promoters
  - Funders
  - Developers/housebuilders
  - Local authority teams
  - Facilities managers
  - Community and representatives
  - Occupants
  - Other key players in design
- **Other key factors and decisions relating to the design of the case study site**
  - [Sub-themes be added in as they emerge]

Appendix 5: Thematic data analysis framework

Summary sheets were used as the basis for reporting the final results emerging from the research case studies. The research team populated each heading/subheading of the summary sheet for each housing development with bullet points summarising their analysis. The following instructions were given:

- We are most interested in capturing your reflections on the data, as such each summary sheet should try and go beyond the coded extractions contained in the analysis framework reports.
- Please complete one summary sheet per site (i.e. two per local authority). Please try and limit the amount of data provided to six written pages per case study site.
- The summary sheet should be completed using data from both the interviews you have conducted and relevant documents/reports you have collected.
- To ensure that the interview data is easily cross-referenced and kept anonymised, please use the unique identifiers assigned to each participant every time the data is drawn from an interview, either directly or if paraphrased (e.g.(wales011)). The unique identifiers can be found in the excel spreadsheet that catalogue the interviews for each project (these will be resent to each researcher).
- When a document, policy, or other archival materials are used please cite in text as you would in a journal article or report (e.g. South Oxfordshire Council, 2019) and provide a reference at the end of the summary sheet. If the document is available online, please provide a hyperlink in the reference list for ease of access.
- We would like to include figures in the report so if there are any relevant photographs, tables, figures from planning documents, architectural plans, etc please place these at the end of the summary sheet with a full reference and hyperlink so they can be easily traced.

Case study site

[Name]

Headline information on the case study site

The aim of this section is to capture the basic information about the case study site. We are particularly looking for information contained in planning documentation supplemented by information collected during interviews. This will be used to write a section before the thematic presentation of the results that details the facts and figures of the various case study sites.

- Who is the developer?
- What 'type' of developer are they?
- Small and medium housebuilder
- Housing association
- Local authority
- Community-led developer
- Self-build
- Where is the site located?
- How was the site chosen?
- How large is the site?
- Is the site 'brownfield' or 'greenfield'?
- Is the site part of a wider masterplan/development or is it a stand-alone project?
- How many housing units does the site contain?
- What %-age of the housing units are designated 'affordable' (if any)?
- Is this a mixed-use development?
- When was the site granted planning permission (incl. multiple dates if more than one app)?
- When was the site fully completed and occupied?

Thematic results

Stakeholder actors' understandings of the nature and value of 'good design'

The aim of this section is to develop a better understanding of how the stakeholders (planners, developers, architects, engineers, etc.) involved in the case study site define urban design and the extent to which they value it in the context of other planning considerations.

Responsibility for delivering 'design value' in the house building process

The aim of this theme is to identify the points in the planning and development where particular stakeholders/actors have responsibility for or opportunities (even if unfulfilled) to deliver design value. This theme really doubles-down on the 'golden thread' of design value. Typical key stages are listed below to ease data inputting and cross-referencing. Please add any stages that might be missed if something pertinent is revealed in the data:

- National policymaking and legislation (different in each of the four nations)
- Local authority plan making
- Land come forward for development
- Site allocations
- Viability/scoping
- Financing
- Initial community engagement
- Pre-application discussions
- Outline Permission
- Site resale/broken up
- Final planning permission
- Construction (e.g. value engineer, change in design team, material downgrades, etc.)
- Post-completion (e.g. adoption, care and maintenance)

Investment in the planning and development of new housing

The aim of this theme is to identify what financial factors make it easier or more difficult to deliver design value. The data here might focus on land values, viability assessments, economic conditions, material costs, local authority skills, grants and other financial method, Sec. 106 agreements, and equivalents etc.)

The cultivation of design cultures

The aim of this theme is, on the one hand, to get a better sense of the cultural conditions that underpin design governance/design decision making in local authorities studied and, on the other hand, to understand the extent to which developers have a corporate culture that foregrounds design value. We are particularly interested in how these two key stakeholders exercise their design culture (e.g. through policy, relationships with designers, hiring of particular design consultants, investment, etc.), but also what role other stakeholders (such as the community) place in fostering a local design culture.

Exercising design skills and expertise

The aim of this theme is to understand what skills and expertise are needed by local authorities and developers to cultivate a design culture. We are particularly interested in the skills and expertise that is currently employed (and its effectiveness) and where skills and expertise gaps exist. This might include, for example, commentary on innovative policy mechanism, staff limitations at the local authority, use of architects by developers, etc.

Lessons for the Future (1): Where does design investment have the greatest impact:

The aim of this theme is to pinpoint the points in the 'golden thread' of design where attention to design can have the biggest impact on outcomes. This could be on either side of the 'planning' (local authority) or 'developer' (house builder) divide. In this theme we are particularly interested in where policy, guidance, partnerships, or development culture, etc. Can make a real and positive difference.

Lessons for the Future (2): What are the most significant barriers to 'design value'?

The aim of this theme is to critically reflect on the barriers to design value as found in the case studies. We are particularly interested in identifying where similar problems persist across the UK or if there are key regional differences and, in so doing, try to understand why these problems might be unresolved and what can be done about them.

Figures, Illustrations or helpful Photographs

Please include a focused series of figures, illustration or photos that will help in giving readers a sense of the case study site and/or the process of design decision making and its outcomes. Please reference and provide a hyperlink where you can.

References

Please include a list of all the references in the case study summary sheet, remembering to include hyperlinks.

UK COLLABORATIVE CENTRE FOR HOUSING EVIDENCE

housingevidence.ac.uk