guide 3

design and masterplanning
Acknowledgements
The TCPA is grateful for the generous support of the Lady Margaret Patterson Osborn Trust and David Lock Associates. The views expressed in this Practical Guide are based on policy analysis, case studies and feedback given at an expert roundtable and are not necessarily those of the Guide’s sponsors.

The TCPA would also like to thank the practitioners that attended an expert group roundtable to inform this Practical Guide. The Guide aims to reflect the range of opinions expressed at the roundtable, but not every detail contained within it reflects the opinions of all the attendees at the discussion. It should, however, reflect the spirit of constructive collaboration and considered debate. The TCPA would particularly like to thank David Lock for his detailed comments on drafts of this Guide.

Cover photograph of Howard Park, Letchworth Garden City, courtesy of the Letchworth Garden City Heritage Foundation.
guide 3
design and masterplanning

contents

2 The TCPA Practical Guides
3 Summary
4 1 Introduction
   1.1 Overcoming mediocrity
   1.2 ‘Make no little plans’
   1.3 The purpose of this Practical Guide
7 2 The policy context
   2.1 National policy on new Garden Cities
   2.2 National planning policy and guidance on design
   2.3 Place-making versus the viability test
   2.4 An opportunity for ambitious councils and delivery partners
13 3 The Garden City design ethic
   3.1 Innovation and imagination
   3.2 Marrying town and country
   3.3 Co-operation in design and place-making
   3.4 Character, distinctiveness and harmony
   3.5 Room to breathe
16 4 Design principles
   4.1 Basic urban design principles
   4.2 Making it happen – good design
22 5 Making the most of the process
   5.1 Key components of a masterplan
   5.2 How to make the most of the masterplanning process – key principles
   5.3 How to make the most of the masterplanning process – what to expect, what to ask for, and when
25 6 Sources of further information
The Garden City principles

A Garden City is a holistically planned new settlement that enhances the natural environment and offers high-quality affordable housing and locally accessible work in beautiful, healthy and sociable communities. The Garden City principles are an indivisible and interlocking framework for delivery, and include:

- Land value capture for the benefit of the community.
- Strong vision, leadership and community engagement.
- Community ownership of land and long-term stewardship of assets.
- Mixed-tenure homes and housing types that are genuinely affordable.
- A wide range of local jobs in the Garden City within easy commuting distance of homes.
- Beautifully and imaginatively designed homes with gardens, combining the best of town and country to create healthy communities, and including opportunities to grow food.
- Development that enhances the natural environment, providing a comprehensive green infrastructure network and net biodiversity gains, and that uses zero-carbon and energy-positive technology to ensure climate resilience.
- Strong cultural, recreational and shopping facilities in walkable, vibrant, sociable neighbourhoods.
- Integrated and accessible transport systems, with walking, cycling and public transport designed to be the most attractive forms of local transport.

The TCPA has produced an extensive set of policy and practical resources on Garden Cities, which can be found at http://www.tcpa.org.uk/pages/garden-cities.html
Those involved in the design and planning of a new community are taking part in perhaps the most exciting yet challenging place-making endeavour. The Garden City approach provides an opportunity to create innovative, resilient and inclusive places that will stand the test of time. Planning at scale offers the chance to think holistically about how a place will work, and to understand what mechanisms need to be put in place to help turn an ambitious vision into a real place. The term ‘Garden City’ carries with it not just an opportunity but also a responsibility to create exemplar world-class new communities.

Key Garden City design concepts – such as the power of art and nature in the built environment to improve health and wellbeing – are now more relevant than ever. Today, these concepts are essential in tackling contemporary challenges such as planning for climate-resilient cities – for example by providing multi-functional green infrastructure and by reducing freight miles through embracing locally grown food. Action taken on important principles such as long-term stewardship (looking after and paying for community assets over the long term) must be considered at the earliest planning and design stages, and such considerations will affect the physical design and layout of new places.

National policy requires that local authorities consider the role of new Garden Cities and places inspired by the Garden City principles as part of their approach to meeting housing needs. Specific support has been offered through the Locally-Led Garden Villages, Towns and Cities prospectus, which describes what such high-quality developments should entail. But the National Planning Policy Framework’s emphasis on the viability test poses a challenge for local authorities trying to apply good place-making principles, as it often results in societal benefits such as the quantity of genuinely affordable housing and low-carbon buildings being reduced in development proposals. Today, it is up to ambitious councils and delivery partners to set high development standards and create a strong policy framework for creating world-class new developments.

New Garden Cities are unlikely to look like the originals at Letchworth or Welwyn; they should reflect their local context. But the principles underpinning the Garden City idea provide a useful framework for councils and delivery partners today. This Practical Guide brings together elements and standards set out in the other guides in this series. It is not a blueprint or detailed design guide for a new Garden City, but highlights the opportunities open to councils and delivery partners.

This Practical Guide offers the following key messages:

■ There are specific design opportunities and challenges when planning at scale, and each site is unique. The Garden City principles are an indivisible and interlocking framework for creating new places in this context. They should not be used as a blueprint but should be applied in a pioneering spirit of innovation and collaboration.

■ Despite a confused policy environment, it is possible for councils to set high standards and increase expectations of quality in new Garden Cities and to create places to be proud of.

■ A masterplan should be used as a flexible strategic framework on which a new community can grow over time.

■ It is essential to invest in the right team with the right skills from across the disciplines to create exemplar new communities. A holistic approach and a long-term view are the keys to success.
‘It is the lack of beauty, of the amenities of life, more than anything else which obliges us to admit that our work of town building in the last century has not been well done.’
Raymond Unwin: *Town Planning in Practice: An Introduction to the Art of Designing Cities and Suburbs*. T Fisher Unwin, 1909

It is taken for granted that the design of our surroundings has a direct impact on our health, wellbeing, and quality of life. This means that those involved in place-making – the design and creation of those surroundings – have a responsibility to ensure that new development will provide the best possible outcomes for the people who will live, work and play there. Good design and place-making is also fundamental to addressing climate change, by making places more resilient and facilitating low-carbon lifestyles.

There is perhaps no greater place-making endeavour than the creation of a new community. With new Garden Cities there is also, perhaps, no greater opportunity to create innovative, resilient and inclusive places that will stand the test of time. Planning at scale offers the chance to think holistically about how a place will work, and to understand what mechanisms need to be put in place to help turn an ambitious vision into a real place. The term ‘Garden City’ carries with it a not just an opportunity but also a responsibility to create exemplar world-class new communities. The Garden City pioneers understood this, and, being strongly influenced by William Morris, John Ruskin and the Arts and Crafts movement, the early Garden Cities were quite consciously designed to be beautiful places that would lift the spirits of those who lived there. Ebenezer Howard and his design team at Letchworth – the architect Richard Barry Parker and the planner Raymond Unwin – thought very deeply about how best to create homes and places in which people could flourish. They wanted to create beautiful homes in attractive places that were aesthetically, culturally and environmentally rich and stimulating. It is therefore no surprise that the original Garden Cities are places of enduring quality and choice. They have met the lifestyle and housing aspirations of successive generations and remain popular today. The 21st century Garden City needs to be planned, designed, developed and managed to achieve the same long-term success and public appeal.

1.1 Overcoming mediocrity

‘Our standards of design can be so much higher. We are a nation renowned worldwide for creative excellence, yet, at home, confidence in development itself has been eroded by the too frequent experience of mediocrity.’
Greg Clark MP, as (then) Minister for Planning, in *National Planning Policy Framework*. Department for Communities and Local Government, Mar. 2012, p.i (Foreword)

Despite the UK’s world-leading heritage in design leadership, its current default approach to the design of many housing developments is far from innovative. The emphasis on design quality and wellbeing that underpinned the Garden City movement stands in stark contrast to the unimaginative standard housing types and poor-quality design that characterises many modern homes – which are also, on average, the smallest in Europe.¹

Too often new developments are designed without any consideration of the character or vernacular of the locality, resorting to standard house types and street layouts which both encourage car use and result in ‘anywhereville’. This local insensitivity and lack of innovation has contributed to the negative perceptions of development in general, which in turn contribute to public resistance to many new housing developments. Research undertaken by Shelter in 2013 found that 73% of people ‘would support housing developments’ if homes were better designed and in keeping with the local area.² Better design and place-making can both help to rebuild people's trust in the development process and create more resilient communities.

There is currently no national policy framework for good place-making in Britain, and it is up to local authorities to determine policies and standards that lay the foundations for good outcomes in new development. Good planning decisions require strong policy on design and place-making, and people with skills and expertise are needed to interpret plans and champion good design. The task is becoming increasingly difficult as authorities have to cut spending, and as the continued deregulation of planning – including the removal of many building standards and the extension of permitted development rights – further erodes opportunities for good place-making.

Despite this confused policy environment, great things are happening where the necessary skills and resources are available, and there are examples of successful contemporary design and place-making from which valuable lessons can be learned. The Garden City principles provide a framework for creating new communities, and this Practical Guide is designed to help decision-makers and those involved in all stages of place-making to understand what to look out for and what questions to ask to facilitate good place-making and create the kinds of development that will not only stand the test of time but which people will be proud to call home.

1.2 ‘Make no little plans’

One of the most important place-making tools available to councils and delivery partners is the masterplan. It provides the spatial framework for development, setting out the vision and establishing a structure for investment and delivery over many years – a new community is a ‘vast tapestry’ that evolves over time; it is not built in one go. Experience shows that a strong vision of high quality and sustainability, within a framework capable of adapting as the community develops, is essential in delivering places that will stand the test of time and positively influence behaviour and promote healthy lifestyles. A strong masterplan is the result of an inclusive and imaginative process that involves many stakeholders – a process that can be both exciting and challenging.

1.3 The purpose of this Practical Guide

This Practical Guide is intended to provide councils, developers, housebuilders and other interested stakeholders with a flavour of the ambition for great place-making that the Garden City principles embody. It is not a blueprint or detailed design guide for a new Garden City, but aims to highlight the opportunities open to councils and delivery partners by providing:

- a set of key principles that should underpin the masterplanning process for a new Garden City or a place inspired by the Garden City principles;
- a set of outline design ‘standards’ that should apply, as a minimum, to such developments;
- an outline of the key stages of the masterplanning process, and of what councils should expect and should demand at each stage in order to deliver high-quality developments; and
- a selection of real-world examples of developments that have demonstrated best practice in one or more aspects of masterplanning and design.

Further, more detailed information is available from the publications and sources of guidance highlighted in Section 6 of this Practical Guide.
The Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people. It is important to plan positively for the achievement of high quality and inclusive design for all development, including individual buildings, public and private spaces and wider area development schemes.


Although there is widespread recognition of the benefits of ‘good urban design’, at present there is no focused policy foundation for place-making in Britain. This Section draws together the relevant aspects of national policy and touches on the challenges and opportunities for ambitious councils and delivery partners interested in creating better places.

### 2.1 National policy on new Garden Cities

The National Planning Policy Framework (NPPF) highlights the role of new Garden Cities and places that apply the Garden City principles in addressing local growth needs. It does not articulate the Garden City principles or provide guidance on the design or delivery of large-scale development, but states (in para. 52) that:

‘Working with the support of their communities, local planning authorities should consider whether such opportunities provide the best way of achieving sustainable development.’

To support this policy, the government has provided planning support and capacity funding for developments since April 2014 through its ‘Locally-Led Garden Villages, Towns and Cities’ initiative. Councils were invited to submit expressions of interest on a rolling basis for ‘garden towns’ and Garden Cities of 10,000 homes or more, and for ‘garden villages’ of 1,500-10,000 homes up until 31 July 2016. Criteria for assessments are set out in the Locally-Led Garden Villages, Towns and Cities prospectus and the supporting Application Process Guidance. So far, ten ‘garden towns’ and 14 ‘garden villages’ have been supported through the programme. A new prospectus inviting bids to support further projects may be published in autumn 2017.

**Locally-Led Garden Villages, Towns and Cities and design**

The Locally-Led Garden Villages, Towns and Cities prospectus recognises the role of good design and encourages proposals to come forward which reflect this:

‘Good design is essential if we are to create sustainable places where people want to live and be part of the local community. It will be important for expressions of interest to demonstrate how the garden village will be well-designed, built to a high quality, and

---


attractive. Use of qualitative and quantitative research on local public opinion will be welcomed on issues around design and community.\(^6\)

Importantly, the prospectus makes the link between the financial model for the ‘garden towns, cities and villages’ and the opportunity to provide a high level of design quality and long-term stewardship of facilities. It is up to councils and delivery partners to articulate how this will be achieved – further advice is available in the TCPA’s *Finance and Delivery* Practical Guide.\(^7\)

### The Garden City principles – how far will you go?

The reference to Garden City principles in national policy provides an opportunity to work towards creating a positive built environment legacy. ‘Cities, towns and villages’ are different scales of development, with distinct characteristics, but at all scales the principles of Garden Cities can be used to encourage development that councils, delivery partners and, most importantly, local people will be proud of.

#### 2.2 National planning policy and guidance on design

Councils and delivery partners are also guided by the NPPF, which emphasises the important role of good design and contains policies that encourage decision-makers to consider good design and layout in all policies and development management decisions, including planning for healthy communities.

However, the NPPF does not consider the interrelationship between these policies or provide a sense of how these requirements will work together to promote the creation of resilient and healthy places.\(^8\) It is up to local authorities to make these links and express these requirements through Local Plan policies and development management decisions.

**Requiring good design**

The NPPF (in para. 58) encourages local authorities to establish planning policies and decisions which aim to ensure that all developments:

- will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit;
- optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks;
- respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation;
- create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and
- are visually attractive as a result of good architecture and appropriate landscaping.’


\(^8\) This shortfall was recognised by the government in 2013, when Ed Vaizey, Minister for Culture, Communications and the Creative Industries, commissioned Sir Terry Farrell to undertake a national review of architecture and the built environment. The ‘Farrell Review’ recommended changes in five key areas: education, outreach and skills; design quality; cultural heritage; economic benefits; and built environment policy.
The NPPF requires (in para. 64) that ‘Permission should be refused for development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions’; and (in para. 63) that local planning authority decision-making should give ‘great weight to outstanding or innovative designs which help to raise the standard of design more generally in the area’.

**Place-making policies in the NPPF and Planning Practice Guidance**

The NPPF and Planning Practice Guidance contain policies and guidance – albeit fragmented – on specific place-making issues, including the following:

- **Encouraging local distinctiveness:** The NPPF encourages authorities to reinforce local distinctiveness without prescribing architectural styles or tastes or stifling innovation, and, as noted above, to give ‘great weight to outstanding or innovative designs which help raise the standard of design more generally in the area’ when considering planning decisions (para. 63). It cautions against the use of overly prescriptive design codes, which are often onerous and ultimately downgraded at the development stage.

- **Connecting people and places:** The NPPF recognises that high-quality and inclusive design goes beyond aesthetic considerations, stating that ‘planning policies and decisions should address the connections between people and places and the integration of new development into the natural, built and historic environment’ (para. 61). Although NPPF requirements for meaningful community engagement in policy-making and planning decisions could be strengthened, it specifies (in para. 66) that ‘Applicants will be expected to work closely with those directly affected by their proposals to evolve designs that take account of the views of the community. Proposals that can demonstrate this in developing the design of the new development should be looked on more favourably.’

- **Promoting healthy communities:** The NPPF recognises that the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities. It contains a section (in paras 69-78) that sets out how planning policies and decisions can help to facilitate this. Its policies encourage local authorities to take a
collaborative approach to creating Local Plans to ensure that developments meet local needs, particularly in terms of access and facilities. It encourages local authorities to aim to achieve places that encourage social interaction, in safe and accessible public areas.

- **Green Infrastructure**: The NPPF mentions the role of green infrastructure in adapting to climate change and requires local planning authorities to ‘set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure’ (para. 114). It acknowledges the importance of access to high-quality open spaces and recreation as a means to promote health and wellbeing, and sets out how communities can designate local green space through neighbourhood plans. Further guidance is provided in national Planning Practice Guidance, setting out the multi-functional benefits of well planned green infrastructure and the need to consider its long-term management at the beginning of the planning and development process. More detailed advice on green infrastructure is set out in the TCPA’s *Creating Green and Prosperous Places* Practical Guide.

### Planning processes and tools for achieving good design

Planning Practice Guidance identifies ways in which local authorities and delivery partners can help deliver good design through policy formation and development management decisions:

- **In development plans:**
  ‘The promotion of good design should be sought at all stages in the planning process. At the development plan stage this will be carried out through:
  - careful plan and policy formulation;
  - the use of proper consultative and participatory techniques; and
  - where appropriate the preparation of masterplans, briefs and site specific policies.’

- **In planning applications:**
  ‘In the evolution of planning applications and proposals there are established ways in which good design can be achieved. These include:
  - pre-application discussions;
  - design and access statements;
  - design review;
  - design codes;
  - decisions on applications; and
  - the use and implementation of planning conditions and agreements.’

### 2.3 Place-making versus the viability test

National policy holds that any planning obligations on a development – legal agreements attached to planning permissions to raise funds from developers undertaking new building projects in their area in order to mitigate development impacts and create some form of subsidised housing – must be necessary to make that development acceptable, must be directly related to the development, and must be fairly and reasonably related in scale and kind to the development. Some local authorities have decided to make an additional

---


11 ‘Design. Which planning processes and tools can we use to achieve good design?’. *Planning Practice Guidance*. Department for Communities and Local Government, para. 029. [https://www.gov.uk/guidance/design](https://www.gov.uk/guidance/design)

12 ibid.

standard charge for mitigation under the community infrastructure levy (CIL) regulations. Income from CIL can be used to fund a wide range of infrastructure that is needed as a result of development – including new or safer road schemes, flood defences, schools, hospitals and other health and social care facilities, park improvements, green spaces, and leisure centres.\(^{14}\)

One of the challenges facing councils seeking to encourage high standards of design is that current government policy set out in the NPPF allows for a ‘viability test’ which enables these agreements to be moderated to ‘provide a competitive return to willing developers and land owners’\(^{15}\). The practical implication of the viability test is that applicants for planning permission are thus enabled to try to justify lower mitigation requirement – which directly affects good design and place-making – and provide less affordable housing than current local planning policy may require. Furthermore, it can lead to the terms of current mitigation agreements being renegotiated. Research published by the TCPA in March 2015 found that this has led to ‘policy on a series of vital public interest outcomes [being] downgraded or removed, particularly in relation to affordable homes, building standards and green infrastructure.’\(^{16}\)

**How can councils secure good outcomes when faced with the viability test?**

Councils can be reactive or proactive when it comes to securing better outcomes in the face of the viability test. A local planning authority should take expert advice when the viability test is introduced by an applicant or the holder of an existing consent. It is a specialist topic,


\(^{15}\) ‘Viability and plan making’. Planning Practice Guidance. Department for Communities and Local Government, para. 014. [https://www.gov.uk/guidance/viability](https://www.gov.uk/guidance/viability)

and case law and best practice are rapidly evolving. The Planning Inspectorate, District Valuer Services and the Royal Institution of Chartered Surveyors (RICS) provide guidance and recommendations on how to approach the necessary analysis.

The difficult point for the decision-maker is whether, in enabling a ‘competitive return’ for the developer and landowner, the discounting or removal of public benefits and mitigating effects is such as to render the development unacceptable in planning terms. The practical test to apply is whether the renegotiated terms would lead to the development no longer being sustainable development, or being harmful either to the sustainability of the existing receptor community or to that community when enlarged by incoming residents or businesses as the project unfolds. Including the Garden City principles in Local Plan policy could provide useful criteria against which to test the viability of development proposals.

But there is an opportunity for councils to take a more proactive approach. By taking a stake in development proposals – through council-owned development companies or as part of a joint venture delivery vehicle such as a development corporation – councils can have more of a say about the type of development taking place. There are particular opportunities where the joint venture concerned has control of the land and can proactively manage development assets to make even the highest standards of design financially viable. Further details on this issue are set out in the TCPA’s Finance and Delivery Practical Guide.17

2.4 An opportunity for ambitious councils and delivery partners

The fragmented policy in relation to design and place-making, brought together above, should be used by local authorities as a baseline from which to create ambitious policies and influence decisions that will lead to better places. Sources of further detailed guidance on key issues related to place-making such as planning for healthy communities or green infrastructure to support policy development and decision-making are set out in Section 6 of this Practical Guide. The viability test presents a challenge, but there is clear evidence of the value of good place-making (on how designing for healthy living environments can reduce the costs of social care, for example). There is also no doubt that a combination of robust development plan policy and skilled officers is crucial to ensuring that good decisions are made. Councils should not be deterred by the fragmented policy environment and should instead seek to establish policy to provide an opportunity to create a legacy of world-leading new communities once again.

The original Garden Cities of Letchworth and Welwyn have strong design associations, from tree-lined streets to Arts and Crafts architecture, and this is an important factor in their enduring popularity. However, these visual associations almost obscure a deeper philosophy rooted in the pursuit of beauty – embracing everything from co-operative working to connection with the natural world.

New Garden Cities are unlikely to look like Letchworth or Welwyn, but applying the design ethic behind these places is essential to realising the Garden City principles today. The philosophy that should underpin the design approach to new Garden Cities can be considered under five key themes:

- innovation and imagination;
- marrying town and country;
- co-operation in design and place-making;
- character, distinctiveness and harmony; and
- room to breathe.

The Garden City principles provide a framework for the design, creation and stewardship of a place, addressing everything from good architecture to paying for community facilities. The principles are an indivisible and interlocking framework for good place-making, just as the processes of planning, design and delivery are themselves indivisible.

Councils and decision-makers have a responsibility to demand the highest standards of design and place-making in new Garden Cities. The Garden City principles provide a framework for this, but they are not a blueprint. Councils should challenge design and delivery teams to be innovative in their designs and use of materials, making use of the latest technologies and materials while being sensitive to the past and existing local character.
and vernacular. Underpinning the process should be an approach to design and delivery which echoes the sustainability objectives and collaborative spirit of the Garden City movement.

For the Garden City pioneers, high-quality design and innovation meant adhering to the principles of the Arts and Crafts tradition. Twenty-first century Garden City developers can still learn from this tradition – which embodies a sensitivity to the local built heritage and natural environment, a commitment to human scale, an understanding of detail and craftsmanship, and a strong appreciation of the power of art and the natural environment to enhance people’s wellbeing. But the challenge today is to create new places that channel the innovation of places like Letchworth and Welwyn into a 21st century context.

3.2 Marrying town and country

The Garden City pioneers recognised the power of the natural environment to enhance wellbeing and the importance not only of having access to nature, but of ensuring that buildings should be ‘ornaments to nature, not disfigurements of it’. A defining characteristic of the original Garden Cities is their landscape setting of parks, open spaces, tree-lined streets, and homes with gardens. The resulting ‘leafy and green’ character is an important reason for their enduring popularity, but it also offers a number of key benefits in terms of sustainability and climate change resilience. A Garden City’s multi-functional green infrastructure network should provide a wide range of benefits for people and the natural environment, including moderating temperature, mitigating flooding and surface water run-off, supporting biodiversity, promoting human health and wellbeing, and generating locally sourced food. The developers of a new Garden City must consider its implications for the local landscape and historic environment, and should aim to enhance both heritage assets and their settings through the proposed development.

3.3 Co-operation in design and place-making

Active participation from local people in the design and delivery process not only helps to build positive support for a development but can also lead to better outcomes. Once a designation has been secured, the design and operation phase offers much greater opportunities for creative participation. Local people should be encouraged to get involved in the planning and design of a new Garden City as it develops. Such participation should include existing residents, as well as new residents as they move in as part of an evolving design and delivery process that might last 20-30 years. Active involvement in shaping the future of a new Garden City can help to develop social links between existing residents and the people who move into the Garden City as it grows, bringing together a diverse group of people to help create and shape the new place. This will need to be encouraged and facilitated by local leaders.

3.4 Character, distinctiveness and harmony

The creation of a new Garden City provides an opportunity to set a framework for design and development that is both sensitive to local character and creates distinctive neighbourhoods.

---

This means that a Garden City designed for Cornwall is likely to look and feel very different from one designed for Norfolk. Both will reflect the unique materials, designs and landscape of their locality. Garden Cities must be exemplary in high-quality and innovative design, featuring the application of the highest sustainability standards, innovative use of local and sustainable new materials, and high-quality imaginative architecture, making use of expert craftsmanship. They should have ‘postcardability’ – a distinct and recognisable character, with imaginative and varied architecture forming part of a collective and harmonious ‘whole’.

The Garden City pioneers aimed to provide spacious and well planned homes for everyone. One of Raymond Unwin’s most famous rallying cries was ‘Nothing gained by overcrowding!’, with which he took on the deficient layouts of traditional bylaw housing.

New Garden Cities should provide spacious and well planned homes that are designed to achieve the highest possible standards of building fabric efficiency – by, for example, following Passivhaus approaches. All new homes in Garden Cities should have decent space standards, building upon the RIBA (Royal Institute of British Architects) recommendation that national minimum space standards be embedded within the building regulations that set the standards for housing design.

Similarly, providing accessible and sustainable homes in new Garden Cities should not be optional. The London Plan, which is currently being updated to ensure compliance with the government’s standards framework, states that at least 90% of homes should meet building regulation M4(2), ‘accessible and adaptable dwellings’, and at least 10% of new housing should meet building regulation M4(3), ‘wheelchair user dwellings’. As a minimum, new Garden Cities should strive to meet this benchmark.

---

**Box 1**

**Lancaster Cohousing project**

The Lancaster Cohousing project at Forgebank is a certified Passivhaus/Code for Sustainable Homes level 6 (carbon-neutral) and Lifetime Homes-compliant, affordable, community housing scheme. It has provided private homes, community facilities, workshops/offices/studios and shared outdoor space, and there is also a travel plan and car club, a co-operative food store, shared meals, and other shared resources.

The groundbreaking, exemplary owner-occupied (and car-free) eco-housing project benefits from renewable technologies (solar, biomass and hydroelectricity) and has evolved through a participatory design process with the 41 individual householders and Eco Arc architects.

[http://www.lancastercohousing.org.uk/](http://www.lancastercohousing.org.uk/)
While each new Garden City will be different, there are some basic urban design principles that can help to provide a framework for working within the Garden City design ethic:

- ease of movement and connectivity;
- walkable neighbourhoods;
- diversity of housing and employment opportunities;
- designing for art and culture;
- healthy and active communities;
- multi-functional green infrastructure;
- human scale; and
- designing for climate resilience.

4.1 Basic urban design principles

Ease of movement and connectivity

A good range of infrastructure is essential for new Garden Cities – not least a transport network that makes walking, cycling and public transport the most attractive modes; a range of community facilities operated and run by a community-led organisation; and a green infrastructure network which makes full use of its functions (climate resilience, biodiversity, and health, social and cultural services). The masterplan must integrate the Garden City with strategic movement corridors and public transport services so that it is well connected to surrounding settlements and facilities.

A Garden City’s design must enable at least 50% of trips originating in the Garden City to be made by non-car means, with a goal to increase this over time to at least 60%; and the latest best practice in street and transport design should be used as a minimum standard. Public transport nodes and neighbourhood facilities should be a short walk (no more than 10 minutes) away from every home. Homes should be within 800 metres of schools for children under the age of 11.

Walkable neighbourhoods

New Garden Cities should provide a sustainable urban structure of walkable neighbourhoods based around a network of mixed-use town and local centres in which residents can meet most of their day-to-day needs.

Diversity of housing and employment opportunities

New Garden Cities should meet the full range of housing needs and aspirations through a diversity of housing opportunities, having particular regard to the needs of older people and the provision of plots for self-/custom-building. Homes in new Garden Cities must be accessible, flexible and sustainable to meet demographic realities. There must be decent minimum space standards applicable across all tenures. Self-/custom-build homes are an important part of the housing mix in Garden Cities and should be made affordable for people on middle and low incomes. Land should be made available for this purpose, potentially provided as serviced plots. Homes should be designed for flexible working, as well as being located a short distance from a range of employment opportunities and local facilities.
Designing for art and culture

New Garden Cities should be characterised by their social and cultural vibrancy. This calls for a clear and long-term artistic and cultural strategy and a flexible approach to design and delivery, to accommodate changing needs. Other key principles related to planning for culture and the arts in new Garden Cities can be found in the TCPA’s Planning for Culture and the Arts Practical Guide.19

Healthy and active communities

New Garden Cities should foster healthy and active communities by encouraging walking and cycling and by providing a comfortable, stimulating and therapeutic environment, bringing together the best of the urban and natural environments, for people of all ages. Key considerations for active design and a more detailed examination of how to plan for healthy communities in new Garden Cities are set out in the TCPA's Creating Health-Promoting Environments Practical Guide.20

Multi-functional green infrastructure

Using a landscape-led approach, at least 50% of a new Garden City’s total area should be allocated to green infrastructure (of which at least half should be public), consisting of a network of multi-functional, well managed, high-quality open spaces linked to the wider countryside. This figure is ambitious but includes ‘non-green-space’ green infrastructure elements such as green roofs and green walls. Where it is not possible or desirable to provide a private garden with each home, homes should have easy access to shared or community gardens.

A fundamental aspect of Ebenezer Howard’s Garden City model was the provision of an agricultural belt to prevent sprawl and provide a local source of food and resources for the emerging market of the new Garden City. For new communities today, this ‘agricultural belt’ may take a number of different forms, but must be properly managed, with urban and rural land management decision-making systems linked to ensure that it also provides for access for recreation, energy generation, agricultural production, and habitat creation.

**Human scale**

A common misconception is that the Garden City approach to development means low-density living. In fact, while buildings in new Garden Cities should be at a human scale there is no specified density in the model, and a range of densities across different areas would be expected – for example, there would be higher densities around transport hubs and neighbourhood centres.

Lower housing density should not signal areas of higher wealth in new Garden Cities. The proper test is the extent to which the density applied allows for the realisation of the Garden City principles, which include creating walkable neighbourhoods and providing access to sustainable public transport.

**Designing for climate resilience**

Garden Cities must be zero-carbon and energy-positive. Zero-carbon means that, over a year, the net carbon dioxide emissions from all energy use within the buildings in the Garden City are zero or below. To be energy-positive, Garden Cities should aim to produce more energy than they consume, by maximising opportunities for both energy efficiency and the use of renewable energy generated by a Garden City stewardship body. New Garden Cities must be designed to be resilient to up 3°C of global temperature rise over the long term (see the TCPA’s *Planning for Energy and Climate Change* Practical Guide21).

---
There are specific design challenges and opportunities when planning at scale. The project is long term and will evolve over time, and it is likely that almost all the facilities and infrastructure needed for a new place will have to be provided from scratch, and there will be a need to integrate them with any existing uses and communities.22

One of the key challenges in creating new Garden Cities is to maintain high design standards and principles throughout the long and challenging process of delivery. Too often, the reality of new development is a far cry from the beautiful illustrations presented at consultation events. The viability test, designed to ensure that developers are not burdened with onerous planning conditions and contributions that would slow down development (and affect profit margins), can result in reductions in investment in design detailing and in the provision of facilities that contribute to the creation of well designed and vibrant places.

However, there are ways for councils to encourage good design. Design codes have been a very popular way for councils to establish the design characteristics and standards that they

---

22 A useful, more detailed description of these challenges is given in The Design Companion for Planning and Placemaking. Transport for London and Urban Design London. RIBA Publishing, 2017
Built in partnership by the Joseph Rowntree Housing Trust and David Wilson Homes, Derwenthorpe is a modern 540-home development on the outskirts of York. The Trust was keen to pursue the theme of sustainable mixed communities to echo the principles behind New Earswick, developed by the Rowntrees from 1902.

The Trust worked with architects Studio Partington to develop house types that are spacious, provided with gardens, tenure-blind, and low carbon (Code for Sustainable Homes level 4). The design is contemporary while echoing the Arts and Crafts style of New Earswick, with large pitched roofs and painted brickwork. Each house is built to Lifetime Homes standards, meaning they can be easily and more cheaply adapted. The homes are surrounded by mature landscaping, including a large public pond and play areas.

The partnership approach, with the housebuilder operating under licence, enabled strict control on the form and quality of build.

The development is due for completion in 2018 and has won several design awards. Further information is available from the Joseph Rowntree Housing Trust website, at https://www.jrht.org.uk/community/derwenthorpe, and from the Studio Partington website, at http://www.studiopartington.co.uk/uploads/Derwenthorpe.pdf
want to see delivered in new developments. But for years consultants have been employed to create huge and detailed ‘design code’ documents, only for them to be watered down (or, in some cases, ignored completely) by developers. A more practical approach, employed successfully in some developments, lies in the role of town architect, cultivating a sense of place through design and delivery of key public buildings and spaces and having someone physically on site during the build-out to take an overview of what is being delivered and ensure that high standards are maintained (see, for example, Box 2). For smaller areas or sites, this could also involve developing specific house types (see Box 3). Another strategy is to lay down a quality agreement for the whole development (see Box 4).
A masterplan is not a blueprint; it is a strategic framework for development that evolves over time, and is an essential tool for the holistic consideration of all the elements that together make a place. It brings together the evidence, creativity and strategy for implementing the Garden City design and delivery principles set out in this Practical Guide to provide a strategic framework for development. Drawing on information from a number of detailed technical guides on design and masterplanning at scale listed in Section 6, this Section sets out how the masterplanning process works and the right questions to ask at different points in the process.

5.1 Key components of a masterplan

A masterplan comprises many different documents – as shown in Table 1, along with some of the key questions that should be asked as the masterplanning process develops.

<table>
<thead>
<tr>
<th>Table 1  Key components of a masterplan</th>
<th>Key output</th>
<th>Key questions to ask</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic context framework</strong></td>
<td>A statement of aims and objectives for the development that should consider a much wider area than covered by the spatial masterplan. The strategic context framework functions as the brief for the spatial masterplan. It is based on analysis of the baseline data and incorporates potential implementation processes.</td>
<td>Has the right evidence base been used to develop the framework?</td>
</tr>
<tr>
<td><strong>Spatial masterplan</strong></td>
<td>A three-dimensional proposal for development or redevelopment detailing physical, economic, and social factors. It includes plans and written documents describing the proposed design approach and development. Supporting written documents might include: ■ an engagement, social development and stewardship strategy (including governance arrangements); ■ an economic development strategy; ■ an energy strategy; ■ a green infrastructure strategy; ■ a transport strategy; and ■ a cultural strategy.</td>
<td>Has there been meaningful engagement with local people about the spatial masterplan?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Does the spatial masterplan include early consideration of community land ownership and long-term stewardship?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How have the supporting documents, such as the energy strategy, been translated into the spatial masterplan?</td>
</tr>
<tr>
<td><strong>Implementation plan</strong></td>
<td>A written strategy including, where appropriate, cost and programming or development and other proposals relating to the implementation of the masterplan. Even if actual work on site is not imminent, this stage must be started early.</td>
<td>Does the implementation plan include an appropriate approach to community land ownership and long-term stewardship?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What measures have been put in place to ensure that design quality and sustainability objectives will be upheld?</td>
</tr>
</tbody>
</table>

A holistic approach and a long-term view

Masterplanning at a large scale offers a unique opportunity to consider and plan for robust infrastructure that will support the aspirations of a sustainable community, not only in terms of energy demand reduction, energy efficiency, and renewable energy supply, but also in terms of water and waste management, transport, and biodiversity. It also sets the framework for how people might live and the necessary supporting social and cultural infrastructure. All these issues need consideration from the earliest stage and will have a major influence on the masterplan concept. A new Garden City is not built in one go, but ‘grown’ over time. The role of the masterplan is to provide a strong but flexible framework to provide certainty and guide development, while being flexible enough to adapt to changing circumstances and technical evolution.

Understanding context

Each site and location presents its own set of challenges, opportunities and requirements, and a ‘one-size’ approach will not fit all circumstances. The TCPA’s Locating and Consenting New Garden Cities Practical Guide sets out key locational criteria for a development site, including ensuring connectivity, developing an awareness of needs and requirements beyond the local plan boundary, and contributing to achieving sustainable development, all underpinned by a strong evidence base. The masterplanning process requires further and more detailed evidence to underpin decisions on everything from the location of new roads to the number of community centres required. To get these decisions right from the outset, masterplanning teams must have a real understanding of the needs and requirements of the end users – those who will live and work in the new community.

A skilled and dedicated team

Past experience clearly shows that a wide range of skills are required to deliver high-quality Garden Cities, in areas ranging from finance and architecture to health and community development. Creating the right balance of skills and expertise requires investment in a dedicated team that can support delivery over the long term. Local communities will need access to the highest-quality support from both the public and private sectors to enable them to play a full role in the design and governance of a new Garden City. There are many different types of delivery body for new Garden Cities – from councils to development corporations. The TCPA’s Finance and Delivery Practical Guide provides further detail on the importance and practicalities of a dedicated team.

Thinking big, ‘acting small’

Designing at scale sets specific challenges and offers specific opportunities. New communities are developed over a long timescale, and while there are always existing communities to integrate into the project, often all the infrastructure and facilities have to be provided from scratch. This requires consideration of design at a range of scales; there will be a need to think big over the long term and whole site, but ‘act small’ and consider the detail of each part of the development, its design, function, and lived experience. This also applies when it

comes to implementation, when a proactive approach to applying high design standards can help to improve what is delivered, through use of designers and not just design codes but possibly the involvement of a town-wide architect to oversee implementation (see Box 2, on page 19).

5.3 How to make the most of the masterplanning process – what to expect, what to ask for, and when

To be engaged in the design and delivery of a whole new community on the scale of a Garden City is a great privilege – the operating environment should, by definition, be supported by adequate resources, and the task will be driven by the need for things to happen quickly and to a high standard to ensure capital growth and a favourable market response to the unfolding achievement. Professional teams, whether in-house or consultant, therefore need to be proactive, fast working, and wholly committed to the project in hand. Experience suggests that it is preferable for the senior staff actually to live in the unfolding project, experiencing it at first hand and gaining a full understanding of local people’s needs and aspirations.

A large-scale project requires a wide range of skill sets, and there are opportunities to apply current best practice and innovation in every field. Wilful experimentation is not wise – the new place is not a laboratory and its people are precious – so experience suggests that experiments with, for example, unproven building materials should be embarked upon with caution. It is best to build upon the canon of knowledge, and not stride out carelessly to innovate for the sake of it, with risks to real people and the lives they are seeking to lead.

Requirements for the masterplan can change at different stages of the planning process. For councils, it is important to have strong primary policy in place (i.e. embedded in the statutory development plan, tested through examination) to demand certain outcomes. This will inform subsequent policy guidance, which in turn will direct the outline consent stage, which will then inform the processes of full planning consent and delivery. Asking the right questions early on can help to achieve better outcomes at later stages.

The design of a new community evolves over time, and the ‘development phase’ can take over 20 years. Developments come forward in stages, and at each stage there should be a period of review, taking advantage of the opportunity to adjust elements of the plan, such as the educational or healthcare provision in a new community, in line with changed circumstances. It is important to involve the community at the review stages to help them understand what to expect. It is also important that the review stages do not provide space for important assets and standards to be challenged through viability tests.

Table 1 sets out some key questions to ask when assessing the components of a masterplan at all stages, but broad questions to consider throughout the process include:

- How have the Garden City principles been applied?
- What engagement work is going on with the community? How have the outcomes influenced the plans?
- How will be ensured that the housebuilders will build high-quality homes and streets?

It is important to ask the above questions throughout the process. There are perhaps three key demands to make on the process to achieve better place-making:

- Viability should not not compromise design.
- The development should demonstrate its compliance with the site development brief.
- The masterplan should set out how the development will follow the principles and achieve the standards set out in Section 4 of this Practical Guide.
TCPA resources


Garden City Standards for the 21st Century: Practical Guides for Creating Successful New Communities

The TCPA has produced a suite of guidance outlining practical steps for all those interested in making 21st-century Garden Cities a reality. Guidance provides detail and case studies on a wide range of key issues, including planning, investment, land assembly, delivery, and long-term stewardship:

- Guide 5: Homes for All (2016)
- Guide 8: Creating Health-Promoting Environments (2017)

All available at https://www.tcpa.org.uk/guidance-for-delivering-new-garden-cities

Other guidance

- Academy of Urbanism https://www.academyofurbanism.org.uk/
Masterplan review methodology for health and wellbeing

Through NHS England's Healthy New Towns programme, NHS England, Public Health England and the Homes and Communities Agency (which, at the time of preparing this Practical Guide, was expected soon to be re-named Homes England) are developing a review methodology for health and wellbeing in masterplans. It brings together evidence and policy and recommends that area-based policies and masterplans should be informed by health evidence within an agreed framework of monitoring and evaluation. The emphasis is on a ‘place-based, whole-systems, approach’. The review methodology is currently being developed and tested with the planners involved in the Healthy New Towns programme demonstrator sites.

Inspiration from the Garden City pioneers

- Raymond Unwin: *Town Planning in Practice: An Introduction to the Art of Designing Cities and Suburbs*. T Fisher Unwin, 1909
- Ebenezer Howard: *To-Morrow: A Peaceful Path to Real Reform*. Swann Sonnenschein, 1898. Reprinted (with commentary by Peter Hall, Dennis Hardy and Colin Ward) by Routledge, 2003