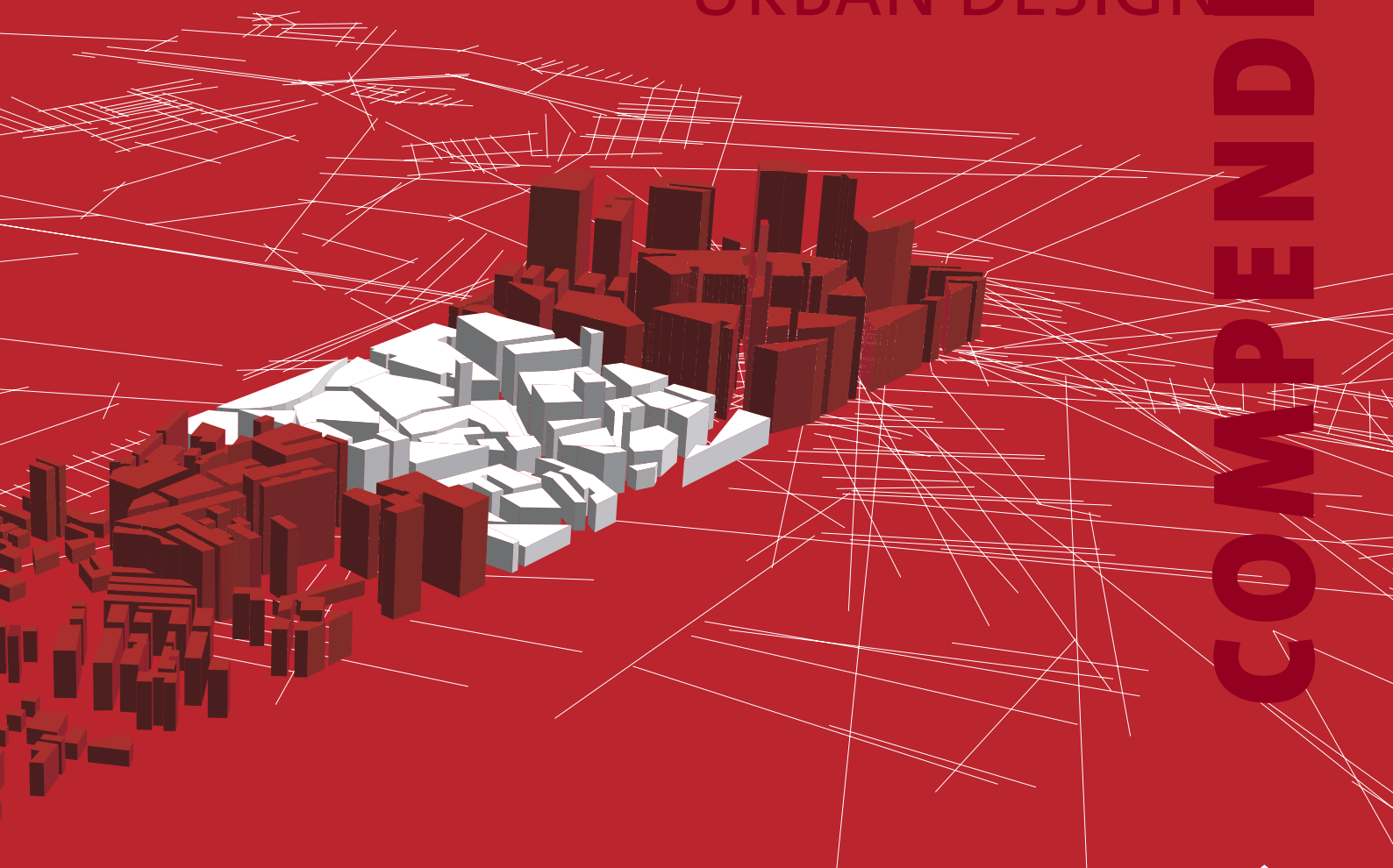


DELIVERING QUALITY PLACES

URBAN DESIGN

COMPENDIUM 2





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DELIVERING QUALITY PLACES
URBAN DESIGN COMPENDIUM 2

ENGLISH PARTNERSHIPS
THE HOUSING CORPORATION

ROGER EVANS ASSOCIATES



ENGLISH PARTNERSHIPS

English Partnerships is the national force for regeneration and development. Our aim is to deliver high-quality, well-designed, sustainable places for people to live, work and enjoy. English Partnerships firmly believes in the importance of good urban design and environmental sustainability. Through policy developments we encourage: sustainable approaches to living throughout our developments, a mix of uses and tenures to create lively places to live and work, and innovation in design and construction of the built environment. Through collaborative design workshops new developments will enjoy vibrant but safe streets and places, and high-quality public realm. By encouraging an inclusive approach to design, we can create environments that can meet the needs of all users. In this way, English Partnerships can continue to play an important role in promoting best practice in design quality and sustainability in the regeneration and development industry.



THE HOUSING CORPORATION

The Housing Corporation regulates Registered Social Landlords (RSLs) in England and invests in the new housing that they provide. The Corporation’s role and strategy reflect the rapid growth of the RSL sector. This is a result of both the transfer of local authority housing to new or existing RSLs and of new development and regeneration, supported with a mix of public and private funding. In all aspects of RSLs’ work, the Corporation encourages quality in design and service standards and recognises the need for close cooperation with residents and other agencies. This is to ensure that resources are used to best effect to create sustainable communities.



Urban Design Alliance: Message of Support

The Urban Design Alliance (UDAL) is delighted to support English Partnerships and the Housing Corporation in the second edition of the Urban Design Compendium 1 and the new publication of Urban Design Compendium 2. UDAL brings together professional and membership organisations committed to improving the quality of urban life through urban design, aiming to foster greater awareness and higher standards. Urban Design Compendium 2, like the first volume, will make a significant contribution to achieving these goals, helping developers and other practitioners achieve good design through best practice and creative thinking. The Compendium is an important document for developers, urban designers, planners, architects, surveyors, landscape architects, engineers, building conservationists and a wide range of other people concerned with improving the built environment.

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AIMING HIGHER

The quality of the places we live in has an impact on all aspects of life. How well they are designed will influence how safe we feel, how easy it is to walk round, whether we have shops, community facilities and schools nearby, whether our children have safe places to play. It will also effect whether there is good access to public transport and a good choice of homes in which to live. It is essential that the places we create and improve embody the principles of good urban design.

Good urban design is essential to deliver places which are sustainable on all counts: **places that create social, environmental and economic value**. Ensuring that places are **well designed** should be a priority of everyone involved in shaping and maintaining the built environment.

001

Learning from the past

Brunswick Town, Hove

Brunswick Town in Hove is one of the best examples of Regency planning and urban design in the country. It was developed between 1824 and 1840 as a mini town, with a range of housing types and a mix of uses to cater for the wealthy upper and middle classes and those who would supply the goods and services they needed. The clear hierarchy of streets comprises a formal square with prestigious housing, smaller homes along the secondary streets and mews housing for artisans. Housing was accompanied by a market, police station, fire station, hotel, a public house, semi-private open space and a new public park.

The continued success of the area can be attributed to the quality and adaptability of the built-form. The spacious houses have enabled adaptation into flats and commercial use as needs have changed and the old market has housed several uses over

the years including a riding school. It is currently a venue for the arts, education and the community. The square and public park ensures that the high density and lack of private open space are not problematic. Effective integration into Brighton's wider urban structure means that people are encouraged to walk to other facilities nearby. The development remains one of the city's most popular locations.

The development also demonstrates what can be achieved through good design, planning and management. This speculative development was carefully coordinated by the architect Charles Augustin Busby who insisted that all facades follow his design and that buildings were constructed to specified standards. Ongoing management was provided for the town in terms of commissioners and an Act of Parliament, which is still in force, ensures that facades must be repainted every five years to preserve a unity of appearance.



The design of public open space in Brunswick Town ensures that high density and a lack of private open space are not problematic by providing spaces such as Brunswick Square for all the community.

The rising significance of urban design

The past decade has seen almost unprecedented support for good urban design. The Urban Task Force's call for exemplars in innovation, sustainability and high-quality urban design has received support at many levels.

Initially, this was evident in the publications that explained the principles of urban design, including the original Urban Design Compendium¹. This was published by English Partnerships and the Housing Corporation in 2000 to help those delivering projects achieve and assess the quality of urban design in developing and restoring places. The Compendium has achieved far wider application and influence than could have been hoped for, with more than 25,000 copies distributed. It has become an established textbook for urban design courses worldwide. The transferability of the principles has been demonstrated by translations into Chinese, Serbian and Korean.

The success of the original Compendium has been accompanied by strong government support for the principles of well-designed, compact, mixed-use, inclusive, sustainable places. Along with publications such as *By Design*², invaluable guidance has been provided which sets out how the principles of urban design can be incorporated into the planning process. It has resulted in strong and effective planning policies developed to help deliver good design. In particular, Planning Policy Guidance Note 3 (PPG3)³ on housing introduced targets to promote higher-density, brownfield development. The success of these policies in promoting the more efficient use of land through increased densities with good design demonstrated the impact planning policy can have. Well-designed schemes have led to a rediscovery of how enjoyable towns, cities and neighbourhoods can be, and to a resurgence in urban living. Residential schemes in town centres that would not have been viable ten years ago are increasingly successful. The need for a range of services and facilities within walkable neighbourhoods is now generally understood.

Good design is now at the heart of planning. Planning Policy Statement 1 states that *'high quality and inclusive design*

should be the aim of all those involved in the development process'.⁴ Planning Policy Statement 3 on housing has put design at the top of the agenda.⁵

Government support for creating places of high quality was reflected in the establishment of CABE (Commission for Architecture and the Built Environment), which has had a remarkable impact. Funded by central government but with an independent voice and a dynamic outlook, CABE has championed urban design through publications such as *Creating Successful Masterplans*.⁶ Its network of expert enablers drawn from private practice helps local government to improve quality of urban design being delivered. This has been supported by the growing number of design champions, regional centres of excellence and design panels.

The level of urban design skills is increasing. The number of students receiving urban design education has risen steadily over the past 20 years, and short courses, summer schools and conferences have done much to cultivate a broad appreciation of urban design principles. Where once there was a lack of urban designers, now the problem is the lack of experienced urban designers.

An understanding of the importance of urban design has already spread much further than just urban design students and practitioners. The strong links between quality of place and quality of life are widely recognised. Social, environmental and therefore long-term economic benefits are derived from well-designed places. Launched in 2007 the *Manual for Streets*⁷, for example, provides guidance on how urban design is a vital component in the design of streets.

The past decade has seen a greater understanding of how community life is influenced by the way in which places are designed and managed. Well-designed and well-managed communal spaces are essential for communities to flourish. The community ownership of assets can help create a sense of belonging, and promote social cohesion and interaction. Places must be designed to maximise these benefits.

002

An award-winning new neighbourhood Greenwich Millennium Village, London

Greenwich Millennium Village (GMV), an award-winning new neighbourhood in London, has delivered high sustainability and design standards across the development.

The first of English Partnerships' Millennium Communities the project has transformed a former gas works into a thriving, 21st century community grouped around a village green and newly created lake. The project is an ambitious mixed use development which will comprise over 1,300 homes, community facilities and commercial space.

Contemporary architecture and high-quality public realm are designed to suit the local microclimate. Materials have been selected for green credentials and the latest technology ensures the construction of an environmentally sustainable village. GMV was the first development in the UK to achieve EcoHomes excellent. Homes benefit from large, high-performance windows,

thermal insulation standards and non-polluting paint. The Combined Heat and Power system reduces CO₂ emissions by producing heat through energy generation.

Creating an inclusive, sustainable community has been key to this development. This has been promoted through early provision of community facilities and a community website, development of a village trust to enable residents to influence their surroundings and a mix of housing types and tenures. The sense of community is enhanced through a design which places homes around garden squares and links neighbourhoods with tree-lined streets. Excellent public transport links help to make this a highly practical place to live.

This project demonstrates what can be achieved through a partnership between public and private-sector partners, GMV Ltd (a joint venture between Countryside and Taylor Woodrow) which is committed to delivering quality.



High sustainability and design standards have been achieved at Greenwich Millennium Village, the first of English Partnerships' Millennium Communities.

The pressing need to reduce our impact on the environment has required us fundamentally to question the way in which we live. It is clear that we cannot continue to build developments without regard to the consumption of resources. Urban design has to be accountable, not just to immediate clients and occupiers, but to future generations. Those planning future developments have had to consider how places can be sustainable and how urban design can achieve this. Policy development and legislation on building regulations provide strong support for this.

The Royal Commission on Environmental Pollution's report on The Urban Environment⁸ called on the Government to look at the quality of the urban environment and the quality of life in an integrated way. Its report rightly noted that we are far from understanding the nature and extent of all the connections. But urban design, the art of shaping the interaction between people, places, urban form and nature, and influencing the processes which lead to successful villages, towns and cities, can play a critical role in understanding these relationships and integrating solutions. Urban design can coordinate policy and practice, and raise aspirations.

We are learning how to create places that are safe and pleasant to walk around, that have facilities to walk to, that are well integrated into wider transport networks, and that have a range of housing types and tenures which are inclusive and well managed. Such places will become valuable both for the present generation and as a legacy of successful neighbourhoods and cities for centuries to come.

The challenge

Despite the almost unprecedented support for designing places, evidence shows that we are not doing enough. Development of high quality is not the norm. In early 2007, the national housing audit⁹ found only five per cent of developments, in some regions, could be classed as 'very good' quality urban design. Only 13 per cent were 'good'. More worryingly, 29 per cent were so poor that they should not have been given planning permission. It is clear that

despite increasing support and skills expectations are not being met. 'Poor', 'average' and 'good' are simply not acceptable. To deliver places we can be proud of, places that will last, we need all developments to be 'very good'.

This Compendium is intended to explain what the challenges are, and assembles advice and best practice to help those who are shaping places to achieve the quality they aspire to. Nobody wants to build poor schemes. This Compendium considers how challenges can be met and barriers can be overcome for each of the key issues facing anyone planning a new development. It dispels the myths that so often block the creation of high-quality places. This Compendium aims to narrow the gap between aspirations and achievement by bringing together valuable experiences from successful projects. It shares best practice to provide exemplars for innovation in sustainable and high-quality urban design.

Understanding what works – what are we aiming for? 001 002 003 004

To understand what quality can be, it is helpful to look back at places that have worked and continue to be successful. The planned developments of the Georgian era can teach us much. Such developments as Brunswick Town in Hove, Grainger Town in Newcastle or Edinburgh New Town provide a clear urban structure with a hierarchy of streets, providing a range of housing types in both town houses and mews. The layout of the buildings, spacious internal dimensions and free floor plates have enabled these buildings to be adapted over the centuries into anything from smaller residential units, shops, offices and doctors surgeries to educational and recreational facilities as needs have changed.

Such places accommodate a mix of uses and users in thriving places. They demonstrate how high densities can work well where there is good urban design and the materials are of high quality. Plenty of public open space and shared communal space makes these places feel spacious. A combination of wide streets and mews courts ensures that parking is accommodated yet does not

dominate the street scene. Large windows provide good natural light and ventilation, and allow good surveillance.

While the environmental performance of such places may not meet current requirements, they do deliver well-connected and legible places that people enjoy walking around. By creating places which last, they reduce the need for demolition and replacement. By combining these well-established principles of urban design with a growing understanding of new technologies we can deliver even better places for future generations.

Some recently designed schemes show evidence of holistic thinking. Greenwich Millennium Village, Hammarby Sjöstad and Newhall are all beacons of what we can achieve with commitment to design quality. They are inspiring places that deliver in terms of environmental, social and economic viability, and are places that people enjoy. They combine the best of the past in terms of urban form and character with new opportunities made available due to advances in technology and a greater understanding of sustainable place-making.

At Greenwich Millennium Village, Ralph Erskine's masterplan has built on lessons learnt from London squares, combined with contemporary architecture and an environmental consciousness that create a neighbourhood worthy of heralding a new millennium. At Newhall, Roger Evans has evolved a masterplan and accompanying design code

which guides development with confidence and clarity whilst bringing long-term value to both the landowners and those who will live and work there. Hammarby Sjöstad illustrates what can be achieved when sustainable place-making is supported at all levels and delivered through an integrated approach.

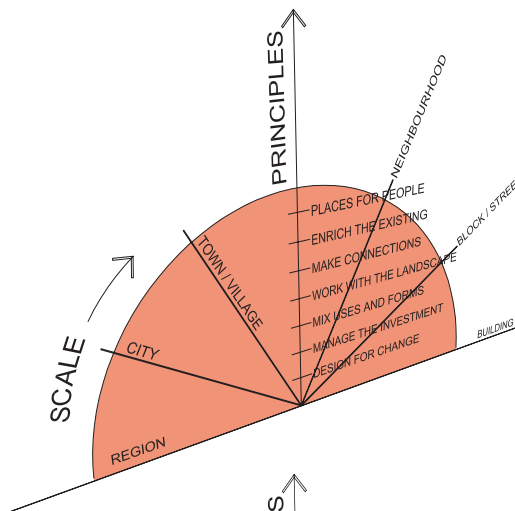
What does this Compendium do?

Most people want to play a part in making better places but they need to be shown that it is achievable and how they can play an active role. This Compendium reduces the risk by providing guidance and examples of how problems can be overcome. Where the original Compendium provided guidance on the principles of urban design and how to apply them, this Compendium provides guidance on the processes which lead to successful villages, towns and cities. As illustrated in the diagram '**Principles, Scale and Process**' this Compendium builds on the guidance set out in Compendium 1, it does not replace it. The first sets out the principles, which apply at all scale of place, whilst the second describes the processes needed to achieve them. It explains how the decisions made during delivery can help to create quality places.

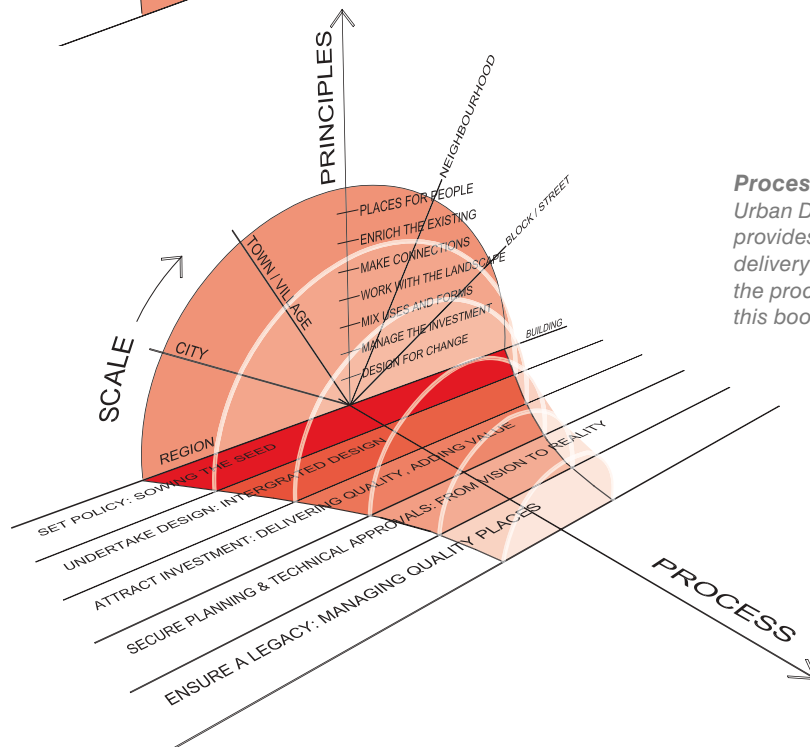
A summary of the information in both documents is available on the Urban Design Compendium website, www.urbandesigncompendium.co.uk



Principles of urban design from the Urban Design Compendium



Urban design principles apply to all scales of place



Process: Urban Design Compendium 2 provides a third dimension – the delivery process. Each stage of the process forms a chapter in this book.

Principles, Scale and Process: How the Urban Design Compendium 2 builds on the principles of the original Compendium.

Looking at the process

This Compendium provides practical guidance on the steps that can be taken in the development process to improve the quality of place. It looks in turn at policy, design, economics, technical approvals and long-term management. For each of these steps, the Compendium identifies potential obstacles to good design and provides advice on how perceived barriers can be overcome.

The **Five Steps to Delivery** diagram sets out each section within Urban Design Compendium 2.

This Compendium's structure broadly corresponds to the timeline of a project. But urban design is not a simple linear process, so a wide range of issues need to be considered at the design stage. The issues in each section cover all scales, from national, regional and local down to neighbourhood, block, street and building design.

This Compendium offers practical guidance on how to integrate social, environmental and economic requirements. It explains how places which embody timeless principles of urban design can be sustainable, socially, environmentally and economically.

Sharing best practice

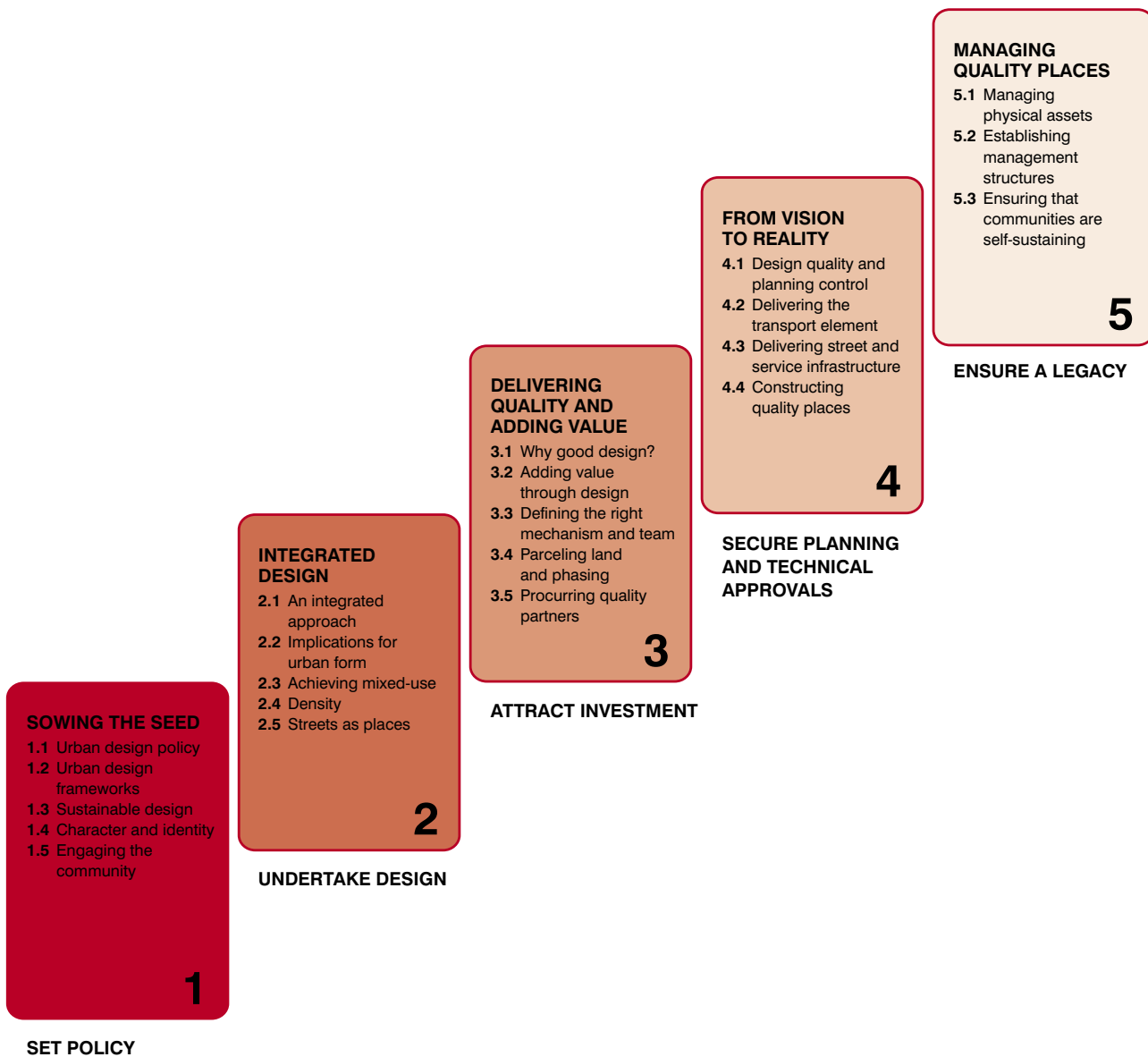
An increasing number of exciting schemes are showing what can work and why we can be confident of aiming higher. The case studies draw on the hard won practical experiences of English Partnerships, the Housing Corporation and the team producing this Compendium.

This includes lessons learnt from groundbreaking initiatives such as English Partnerships' Millennium Communities Programme and Design for Manufacture competition along with the use of tools such as Enquiry by Design and design codes. These experiences are accompanied by other projects from both the public and private sector where innovation and determination have helped to overcome some of the barriers to delivering quality places.

The case studies have been chosen to highlight projects that have been successful in overcoming specific problems. Each case study has been numbered so it is clear how they relate to specific issues in the advice text. A project that has been successful in several areas may feature more than once. It should not be assumed that simply copying all aspects of the case studies will lead to good urban design.

Urban design principles apply to all scale and types of development, putting people first. Many of the lessons from town centre sites, in terms of ensuring that the density is appropriate to sustain the level of services and businesses, will apply equally to villages and local neighbourhood centres. But some may not, so this Compendium uses case studies from a range of different places. The case studies include villages, towns, neighbourhoods and city centre locations.

This document is only able to capture a snapshot of each case study. Further details, images and project information can be found on the Urban Design Compendium website (www.urbandesigncompendium.co.uk). Weblinks for each case study are listed at the back of this Compendium.



Five Steps to Delivery: Each chapter contains detailed guidance on the key issues which will support the delivery of quality places

Who is this Compendium aimed at and how should they use it?

There are many players in the development process. They include planners, developers, builders, urban designers, architects, registered social landlords, community groups, highways engineers and policy makers. Each of them will make decisions that affect the quality of places. This Compendium aims to provide guidance to all of them, promoting an understanding of how the best projects deliver quality.

This Compendium is structured to follow the delivery process so that those involved in specific issues can find the guidance they need. By reading the Compendium as a whole, however, we hope that each player will be able to understand the bigger picture. It should help those developing design policy and design control to recognise where in the process they best exert influence and to decide where to focus resources.

The guidance and case studies in this Compendium provide a starting point for readers to identify potential issues that may need to be addressed in the projects they are developing. The case studies provide examples of how

specific barriers have been overcome in delivering good urban design. It is hoped that these examples will inspire others to aim higher.

It should not be assumed that all case studies do everything well – note the reasons why each case study is being offered as a best-practice example. Readers therefore need to use this information in the context within which they are working and develop their own solutions to suit each situation. This Compendium encourages a collaborative and integrated approach to development; it is critical that users look beyond their specific role and understand how actions and decisions will affect others in the delivery process.

The case studies included here are by no means exhaustive. There are other, existing and emerging examples of individuals, projects and organisations, who through determination and commitment to quality, have also found innovative ways to overcome barriers to delivery. The accompanying website (www.urbandesigncompendium.co.uk) is planned as a dynamic two-way resource for learning from, and sharing, national and international best practice. We welcome your views and feedback, via the website, on ways to deliver quality places.

003

A new neighbourhood for Harlow Newhall, Harlow

Newhall is a new neighbourhood in Harlow with a planned residential population of 6,000 with mixed-uses including employment, shops, services, schools, community and leisure facilities. Urban design considerations have been key to the project and many aspects of the original masterplan and delivery mechanisms are now endorsed by government policy. At the heart of the project is a belief that good design is vital to achieving good values and that a long-term commitment is essential from the promoters of the project, the design team and the planning authorities.

Covering 110 ha, the masterplan sets aside some 40% of land for habitat creation and leisure uses. This requires that development areas be built at higher than average densities. Careful design of the public realm and striving to achieve exemplar buildings has been essential to delivering the necessary quality of environment.

The masterplan is subdivided into development parcels ranging from around 100 homes down to individual building plots. Different architects are employed on each development parcel. Co-ordination is achieved through the use of design codes and an ongoing dialogue between architects and masterplanners. Each phase of development has received national design awards.

A residents' trust was established at the outset which has a role in the management of the neighbourhood including ownership of landscape and street trees that could not be adopted. Energy standards in substantially excess of legal requirements have been achieved through the design code and future phases are set to further minimise resource use. A large number of homes are designed for live-work use or home-working which, combined with small-scale employment developments, will ensure that there is a resident community present throughout the working day. Newhall has succeeded in creating an exceptional place with a distinctive character and identity.



Urban design considerations at Newhall have been pivotal to the project and have led to the creation of a place with distinct identity and character such as The Chase.

004

Inspiring sustainable development Hammarby Sjöstad, Stockholm, Sweden

Hammarby Sjöstad means ‘city surrounding Hammarby Lake’. This 200 ha brownfield development was conceived to expand the inner city with a focus on the water while converting an old industrial and harbour area into a modern, sustainable neighbourhood. Originally planned as part of Stockholm’s sustainable bid for the 2004 Olympics, the development has retained a strong emphasis on ecology and environmental sustainability.

The project delivered homes for almost 10,000 people in a neighbourhood and will deliver 9,000 homes and 10,000 jobs by 2015. The scheme has already attracted international acclaim for the quality of place created and convinced many, that carbon neutral development does not require lifestyle changes. Many places are now learning from this model.

The development successfully reflects inner city Stockholm through a contemporary adoption of the inner city street dimensions, block lengths, building heights, density and mix of uses to deliver a quality neighbourhood. Use of glass as a core material maximises sunlight and views of the water and green spaces. The scheme works successfully with the historic landscape with aquatic areas, which act as storm water drainage, encouraging biodiversity, the creation of new habitats, informal amenity areas and formal areas of public open space.

Sustainability is maximised across the development through the use of green roofs, solar panels, and eco-friendly construction products. It has a fully integrated underground waste collection system, its own ecosystem, known as the Hammarby Model. The ‘Glashuset’, Hammarby Sjöstad’s environmental information centre disseminates knowledge to residents and visitors via study trips, exhibitions and demonstrations of new environmental technologies.

Provision of infrastructure has been key in linking this development into Stockholm’s existing networks. An integrated movement network of trams, cycle lanes, ferry links and pedestrian routes between neighbourhoods, was delivered in advance of development. Alongside these the provision of a car pool and priority car pool parking has successfully reduced car dependency across the area.

Flexibility and ability to adapt over time has been built in. Almost all the ground floor units along the boulevard have been designed flexibly to accommodate community, leisure and commercial uses. These complement other facilities including schools, health centres, shops, library, a theatre, concert hall and athletics centre.



Hammarby Sjöstad successfully integrates sustainable principles, contemporary architecture and the historic landscape to create a high-quality environment focused on the water.

What do we need to do?

This Compendium provides specific guidance on a range of issues. It is clear that there are several ingredients that are keys to creating high-quality places. These should be considered by all players at each stage in the process.

Commitment and leadership

Creating successful places requires commitment and leadership to overcome complex problems. Issues will be easier to resolve where there is clear commitment to quality and strong leadership. It is vital that someone keeps an eye on the vision to steer and inspire the team.

Integrated approach

A sustainable urban development will be based on interlocking principles. These will relate to community, resources, built form, landscape, ecology and materials. Urban design can help to deliver schemes that achieve all of these in a way that does more than tick boxes. It can help create places where people want to be.

Working collaboratively

Creating successful places requires input from many players. This can include skills, resources, knowledge and enthusiasm. For all players to contribute fully, there needs to be understanding from the outset of a project's objectives, how and when these will be delivered, and what resources are available. Each player needs to be clear about what they can bring to the team, and to be confident that their input will be valued.

Long-term involvement

Creating places requires long-term involvement to ensure that the original vision is not diluted. The urban designer and masterplanner should not disappear after outline consent is granted. Long-term involvement in a project will enable funders to generate maximum value from high-quality schemes.

Legacy and management

Designing and delivering quality is only the start. Places that people will cherish for generations need looking after. This will ensure that they function in the long term and provide a good quality of life for current and future occupiers. Giving occupiers control over their environment can be an effective way of doing this. How areas will be governed and managed must influence design decisions.

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SOWING THE SEED

Urban design is now embedded in UK national planning policy. The challenge is to interpret and apply this policy at the local level. Design policy is an essential tool for making sustainable places.

Some outstanding projects are brought about through the efforts of a handful of people in the public, private or voluntary sectors. But neighbourhoods, towns and cities that achieve long-term improvements do so because they have political leadership, appropriate policies and a sustained determination to raise standards. Their authorities look to the long-term view. They demonstrate a commitment to urban design,

understanding what is special about the town or region which needs to be cherished.

Good urban design **requires political will, leadership, appropriate policies and a sustained determination** to raise standards. It also requires a long-term view, typically over a generation.

Effective policies need to provide support for urban design at every level, from the strategic to the local.

Those determining planning applications must be given the **confidence and skills** to evaluate proposals and demand quality.

-
- 1.1 URBAN DESIGN POLICY
 - 1.2 URBAN DESIGN FRAMEWORKS
 - 1.3 SUSTAINABLE DESIGN
 - 1.4 CHARACTER AND IDENTITY
 - 1.5 ENGAGING THE COMMUNITY
-



1.1

URBAN DESIGN POLICY

1.1.1 Good planning is good urban design

1.1.2 Writing design policies

1.1.3 Achieving integration

1.1.4 Beyond policy

Well-conceived urban design policy is essential if the planning process is to raise design standards. Effective local authority action depends on strategic planning policy, local policy and urban design guidance, prepared and implemented by a strongly motivated and coordinated team of officers and members with the necessary resources and support. Long-term commitment to maintaining high standards depends on political support for urban design policy.

Urban design policy is concerned with more than just the architectural quality of development. It helps to shape the place as a whole, and all its economic, social and environmental impacts. To bring about fundamental change, urban design policy needs to define a vision which will be realised over a time span – sometimes as long as a generation – and achieved through a series of staged objectives focusing on short-term goals.

Coordination and collaborative working between local government departments (planning, transportation, property, etc) is a pre-requisite for successful urban design, which is intrinsically inter-disciplinary.

1.1.1 Good planning is good urban design

Incorporate design thinking into strategic policy

Planning, urban design and sustainable development are responses to the same challenge: how to make successful places in a responsible way, making the most of what the market can deliver.

It is now mandatory, as stated in Planning Policy Statement PPS1¹ and PPS3², for the planning process to incorporate urban design principles (relating to place-making and the physical form of development) at every level, from the strategic to the local.

PPS1 notes that: *‘Good design ensures attractive, usable, durable and adaptable places and is a key element in achieving sustainable development. Good design is indivisible from good planning.’*

Policy and scale

Design policies can relate to a range of scales. Table 1.1 sets out the types of urban design issues that are likely to be most important at each level of planning policy. Together these documents provide the means of implementing policy at every scale and in every sort of circumstance.

1.1.2 Writing design policies

Principles and structure

Urban design policy should be based on clear analysis of environmental, social and economic issues, and on the local authority’s considered view as to what qualities development should achieve.

Design policies should be clear, specific, measurable or testable, and technically feasible. Each policy should provide: first, a design objective and second, an explanation of how a solution might fulfil that objective.

An example of a clear specific policy is the following:

‘Development should incorporate the retention or provision of important routes and linkages which contribute to the permeability of an area. Development which results in the unacceptable loss of existing links will not be permitted.’

Design objective: permeability

Explanation of criteria for solution: *incorporate or retain and avoid loss of important routes and linkages.’*³

Policy document	Status	Purpose	Level of detail
Planning Policy Statements (PPS)	Statutory guidance	Establishes the link between spatial planning and urban design	
Regional spatial strategy Sub-regional strategy	Statutory document produced by the regional assembly (subject to sustainability audit)	Regional spatial coordination of development and regeneration. A spatial framework to inform the preparation of local development documents, local transport plans and regional and sub-regional strategies, and programmes that have a bearing on land-use activities	Strategic directions for growth or regeneration; relation to strategic transport; amount of housing and employment, location and physical conceptions of development (for example, city-region, new town or town extension), social and economic role of development
Development plan documents	Statutory documents produced by the local authority (subject to sustainability audit)	Local spatial coordination of development and regeneration: 'a long-term spatial vision working towards delivery of the community strategy, setting out its spatial aspects that relate to the development and use of land'	
Core strategy	Statutory documents produced by the local authority (subject to sustainability audit)	Design priorities, fundamental principles and non-development control design policies	Inclusion of design policies Coordination with local transport plans and strategies for the economy, housing, education, health, social inclusion, waste, biodiversity, recycling and environmental protection
Specific sites (proposals map)	Statutory documents produced by the local authority (subject to sustainability audit)	Policies setting out broad design principles for allocated sites	Identification of specific areas or sites for development and regeneration, urban design considerations and implications for the selection of specific sites (most importantly movement)
Area action plan (extended area, multiple sites or large single area of land)	Can combine different kinds of framework produced by or for the local authority (subject to sustainability audit)	Sets out physical visions, policies and objectives for specific areas and sites within the local development framework	May take the form of an area development framework, urban design framework, generic design code or masterplan, with or without design codes
SPD (covering anything from local authority area to individual sites)	Written policy or drawn framework on which is conferred legal status by adoption (may be subject to sustainability audit)	Expands policies set out in a development plan document or provides additional detail	May take the form of an area development framework, urban design framework, development brief, masterplan, design code or design guide

Table 1.1 Urban design content of planning policy documents

005

Integrating urban design in local planning policy Sheffield City Council

The City of Sheffield is currently undergoing a period of major development and regeneration. Recognising the opportunities that this offers in terms of achieving high-quality urban design, the City Council has put in place measures to embed design in the local planning process.

In 2004 Sheffield City Council launched the Sheffield City Centre Urban Design Compendium which identifies urban design principles for the city, as well as detailed area-specific guidance for the different quarters. It informs policies in the Sheffield Development Framework as well as the new City Centre Design Guide, a supplementary planning document. The Compendium is also taken into account as a consideration when determining

planning applications and provides those preparing applications with design guidance.

Sheffield City Council also set up an Urban Design Review Panel in line with national guidance from CABI. The purpose of the Panel is to review major pre-application development schemes and ensure early engagement with architects and developers. A wide range of expert advisors drawn from the fields of urban design, architecture, sustainable planning and development make up the Panel, representing both the public and private sectors. The Panel is chaired independently from the Council and its advice is used as a material consideration in the determination of planning applications.



Sheffield City Council's commitment to quality has led to an integrated approach to design that is supporting the delivery of high-quality projects such as Sheaf Square, which have helped rejuvenate the city centre.

Categories and content

The key aspects of urban design as set out in the original Compendium have proved to be a useful framework to structure policies and guides. The likely categories and content of a typical set of design policies could therefore reflect:

- **Appreciating the context** (local character and distinctiveness, and heritage)
- **Creating the urban structure** (neighbourhood structure, land use, landscape, biodiversity, green infrastructure and surface water drainage)
- **Making the connections** (connection, movement and transport)
- **Detailing the place** (public realm and open space, access and adaptability)
- **Implementation and delivery** (management and governance)

As regional and spatial strategies will be increasingly required to respond to climate change, policy also needs to address issues of energy, resources and utilities.

Ensuring policies are effective 005

CABE has identified five ways of making design policies effective³. These relate to all types of policy-making by a local authority in the new structure of spatial planning:

- Embed design concerns, in all aspects of the local development framework's policy hierarchy and beyond to the community strategy.
- Treat design as a cross-cutting issue that infuses all other policy areas.
- Base policies on a deep understanding of local context and the design process.
- Use design policy at different geographical scales, from individual sites to large areas, to help achieve the local development framework's objectives.
- Ensure that design policy relates to social issues and the effective use of resources, as well as visual and functional matters.

1.1.3 Achieving integration 006

Urban design is concerned with how places work, and it is essential that design policies are developed with consideration of the full spectrum of issues involved in shaping and managing a place. We need to consider how urban design can help support policies on environmental sustainability, crime and safety, health and education.

Partnerships and teams

Probably the most effective means of integrating the various aspects of urban design into planning policy is to establish inter- and multi-disciplinary spatial planning teams or partnerships to produce policy documents. This avoids a narrow, single-issue approach, with different authorities, agencies and departments pursuing separate and uncoordinated programmes and initiatives. Policy can be more consistent, more transparent and more accessible to community involvement.

With such a coordinated, inter-disciplinary approach, design issues will become integral to the decision-making process.

This approach will be most effective where there is high-level support and commitment to design quality. Clear leadership and coordination will be required to ensure that teams work cooperatively.

Regional coordination

Local authorities should work with neighbouring authorities to ensure that they have common aspirations. Where coordination is not possible, developers can be encouraged to work in areas with high standards if the process for obtaining planning approvals is effective and transparent.

Consideration should also be given to how local policies can support and deliver policies and initiatives at regional and sub-regional levels.

1.1.4 Beyond policy

To be effective, policies need adequate resources, skills and support. There are a number of ways, in addition to planning policy, in which city, regional and local authorities can improve the chances of improving standards of urban design at a more strategic level.

Training and education

A basic understanding of the principles of urban design is essential for everyone involved in policy making and development control. This will complement the detailed urban design expertise that is also required, providing a wide range of people with the confidence to engage in discussions relating to urban design issues.

Training in the principles of urban design is an effective use of resources. It should be provided for all new members. The training should cover the basics of urban design and ensure all members understand the scope of their role and how they can influence good urban design. SEEDA have produced a guide⁵ which provides further details on how this can be achieved.

006

Raising design awareness

Essex Design Initiative

The Essex Design Initiative (EDI) is a high profile campaign launched by Essex County Council. The EDI provides design guidance on how to plan, build and maintain sustainable urban developments. It helps policy-makers and practitioners successfully accommodate housing growth and improve the public realm in an environmentally responsible way.

Integrating expertise from urban design, landscape design, conservation and public art, the EDI offers:

- The Essex Design Guide: Urban Place Supplement (UPS), a supplementary planning document set to influence the quality of higher-density developments
- Cross-disciplinary events to promote collaborative working

- A professional development programme including best practice study tours
- Design review services
- Online resources at www.the-edi.co.uk
- The Essex Design Champions Network

The success of the EDI can be attributed to the Council's longstanding expertise in urban design, as exemplified by the internationally renowned Essex Design Guide. The UPS is a demanding document that builds on this achievement for urban areas. As Councillor Jeremy Lucas, Essex Design Champion, states 'Never has a concern for the sustainability of our actions been better understood. The UPS enables local authorities and the development industry to work together.'



Essex Design Initiative (EDI) has helped support policy-makers and improve the design and delivery of new developments within the area.

007

Running a regional design panel

South East Regional Design Panel

Since its inception in 2002, the South East Regional Design Panel (SERDP) has delivered tangible benefits in terms of time saved during the planning process and improved design quality, successfully overcoming initial reluctance of developers to use the Panel.

Local authorities with their own advisory panels are also using SERDP due to increased development pressures. A regional panel brings additional benefit. SERDP has helped overcome local conflicts of interest by giving independent views based on its understanding of the region's performance.

Funded by the South East England Development Agency, SERDP champions design excellence and sustainability in the region. Made up of 33 design and development professionals, it provides a free design review service to public and private organisations. Projects are submitted to the panel on a voluntary basis. It is managed by Kent Architecture Centre, an independent company that also provides, amongst other things, specialist advice, and training to local authorities.

SERDP complements the CABE Design Review.

The review process includes a site visit and meeting to consider the application and a subsequent write-up. SERDP works at three stages of the development process:

- **Early:** Encourages consultation with the planning authority prior to the formal planning process and provides advice on initial briefs.
- **Mid-term:** Comments on design work at early stages; from assessments of initial concepts through to a 'health check' prior to planning submission.
- **Late:** Assesses design quality of planning applications. Occasionally it also gives evidence at Public Inquiries.

'It's not about being argumentative, but about making the system work better.' Barry Shaw, Chief Executive of Kent Architecture Centre, on South East Regional Development Panel's approach towards developers.



In addition to providing design advice the South East Regional Design Panel raises design awareness through initiatives such as 'Shaping Places', an educational programme aimed at helping 14-year old pupils to understand the process of housing development.

008

Setting the standard

Building for Life

Made up of 20 criteria the Building for Life standard provides a framework for assessing the quality of new housing and neighbourhoods and ensuring they are sustainable, attractive and fit for purpose. This national standard is led by CABI and the Home Builders Federation in association with English Partnerships, the Housing Corporation, Design for Homes and the Civic Trust.

The standard was originally launched as an award to promote design excellence and best practice in the house building industry. The award is given to new housing projects that demonstrate commitment to high design standards, good place making and sustainable development.

Schemes are assessed against four key categories: character; roads, parking and pedestrianisation; design and construction; and environment and community. Each

category has five questions. Projects scoring over 14 points receive the silver standard and those scoring over 16 receive the gold standard.

The clear guidance and breadth of issues covered has led to the criteria being used as a benchmark of design quality on three levels; as an award, as an assessment tool (as used in CABI's Housing Audits) and as a predictive tool to assess the quality of development proposals (as used by English Partnerships).

English Partnerships introduced Building for Life as a quality standard in September 2005. All design proposals must demonstrate that their designs will meet the silver standard. CABI recommend that this approach be adopted by every local authority as a mechanism to raise the quality of proposals that are brought to planning committees and to enforce these standards once planning permission has been secured.



Building for Life winners (clockwise from top left) Angell Town, Chapel, Butts Green and Charter Quays demonstrate how schemes that address all four key assessment categories can deliver successful places which are sustainable, attractive and fit for purpose.

Training should also be made available to a wide range of officers across a council. This will help those working in other departments to understand how they can support good design.

Training may be specially arranged in-house, through attendance at summer schools or urban design conferences, or through discussion groups. When outside design review panels are brought in, members can become involved to learn from the process. Organising study visits to schemes that demonstrate best practice, such as Building for Life award winners, can also inspire people and help them understand urban design issues. Such visits can provide invaluable points of reference when reviewing policy and planning applications.

Design champions

A design champion can provide important support for a particular project or across the board. Design champions are increasingly being appointed by both public sector and commercial organisations, to demonstrate their commitment to raising design quality.

It is essential to find a person with both the skills and perseverance required. The champion could be a political member or officer, someone co-opted from the local area, or an expert who can bring an outside perspective. The personal energy and commitment of such individuals can be a great help in raising awareness of urban design issues, and gathering and sustaining support for longer-term urban design projects. Executive support for the creation of the role is vital if the champion is to have an appropriate remit. Design champions can also be supported at a regional level through networking events that share best practice.

KEY MESSAGES FOR SECTION 1.1

- 1. Well-conceived urban design policy is essential if the planning process is to raise design standards.**
- 2. Urban design is intrinsically inter-disciplinary. It requires coordination and collaborative working between local government departments.**
- 3. Urban design policies will be more effective if they are backed by efforts to promote a wider understanding of urban design principles and the benefits of urban design.**

Design review panels 007

Design review panels can provide an additional check and positive incentive for improving the quality of urban design. They should be staffed by acknowledged, independent experts from a range of backgrounds. Panels can operate at a local, regional or national level. They should be run in a consistent manner, handling all projects equally fairly. Examples include CABE's Design Review Panel and panels run by regional architecture centres.

Local authorities should advise potential planning applicants early on if it is intended to use an external design review panel. They should make it clear the purpose of the review and how the recommendations will be used in the planning process. A design review should be undertaken in the knowledge that design changes may be requested. Time will be required to undertake this prior to submitting a planning application. A good scheme, underpinned by a clear rationale for the design decisions made, will benefit from a positive review when submitted for planning approval.

Initiatives and awards 008

In many places higher standards of urban design have been successfully promoted through awards and other design initiatives. Putting effort and resources into these sends a clear signal to the development industry and the wider public that design matters. The Essex Design Initiative, for example, runs workshops, sponsors courses and issues publications. National award schemes such as the Housing Design Awards and Building for Life Standards have brought media attention to design issues. Increasing numbers of local authorities also run design awards.

Awards should set benchmarks in quality which can help raise standards throughout the area. Award-winning schemes should be celebrated, not just as exceptions, but as evidence of what is possible in that place and used as benchmarks.

REFERENCES

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4. Making Design Policy Work: How to deliver good design through your local development framework. 2005. CABE
5. Making Places: Working together for effective delivery. 2007. SEEDA

1.2

URBAN DESIGN FRAMEWORKS

1.2.1 The right tool for the job

1.2.2 Developing a framework

1.2.3 What to include

An urban design framework is the bridge between policy and implementation.

A framework describes and illustrates how planning and design policies, and principles, should be implemented in an area where there is a need to control, guide and promote change. They can help deliver change across a wide area by coordinating more detailed development briefs and masterplans for separate sites.

Frameworks can give the confidence to residents and investors that public and other private funds are being harnessed to a common goal.

1.2.1 The right tool for the job

Frameworks 009 010

There are different types of framework plan. Their content will depend on the specific circumstances of each site. Frameworks are strategic plans which are produced by (or adopted by) local authorities. They can transcend land ownership and may embrace components with different timescales.

Frameworks can cover a range of scales from a whole town to a particular site. It is important to explain in each case what the particular document is intended to achieve, and how much assessment and analysis has gone in to its preparation.

Frameworks sit above masterplans, design codes and site briefs. A framework sets out key principles, allowing flexibility for subsequent masterplans to develop ideas in three-dimensional form and with greater precision.

Masterplans

A masterplan is a detailed, three-dimensional plan which sets out the intended layout of an area. It presents proposals for buildings, spaces, movement and land use in three-dimensional, and matches all of these to an implementation strategy.

A masterplan is usually commissioned by the person or organisation controlling the land intended for development. Further guidance on preparing and using masterplans can be found in CABE's 'Creating successful masterplans: a guide for clients'.¹

Design codes

A design code is a set of illustrated design rules and requirements for the physical development of a site or area. The graphic and written components of the code are detailed and precise. They build on a design vision such as a masterplan. It is not normally possible to produce a design code without a masterplan first being in place. However, in some circumstances a design code can express general design guidance (on matters such as building heights) across a wider area and be attached to an urban design framework. Further guidance on design codes is provided in section 3.4 and in the CLG practice guide.²

Site briefs

A site brief sets out the specific requirements for each site within a framework, masterplan or code. The brief can highlight specific opportunities and constraints for the identified area.

1.2.2 Developing a framework

Responsibilities and skills

It is usually the responsibility of the local authority to produce an urban design framework. However, consultants for the landowner or developer (including government agencies) may work with the local authority to produce the document jointly.

The skills required will usually include planning, urban design, highway engineering, economic development, property, ecology and resources. Strong and inclusive leadership are the key to success. It is important to identify and collaborate with stakeholders at the right time, ideally with adequate time and resources. Community involvement is required in the preparation of the framework, preferably through collaborative design workshops (see section 1.5).

Type of framework	Status	Purpose	Level of detail
<p>Area development framework</p> <p>Scale may be town-wide, growth area or a regeneration strategy. Will cover multiple land ownerships and timescales</p>	Local authority initiative, often in association with redevelopment agency or housing market renewal partners	Brings together an agreed set of prioritised projects for an area, often broken down into themes and indicating responsibilities and potential sources of funding or partners. May constitute or form part of an area action plan or supplementary planning document	Indicative strategy identifying a range of projects that are to be developed in more detail in terms of design, technical viability, economic viability and community involvement
<p>Urban design framework</p> <p>Neighbourhood scale or may just cover a number of inter-related sites</p>	Area action plan or supplementary planning document; or a proposal by an agency, landowner or developer, in some cases adopted by the local planning authority	Sets out a vision and proposals for an urban extension or new neighbourhood centre, district or neighbourhood regeneration; or the promotion of a centre or area and its opportunity sites. Requires development briefs or masterplans to be subsequently prepared	Indicative strategy for a specified area or site, involving urban design concepts and informed by preliminary technical appraisals and viability testing
<p>Development brief</p> <p>For a large or small site which is typically in a single ownership or control N.B. This is not the same as a site brief</p>	<p>Likely to be adopted as a supplementary planning document</p> <p>In some cases a proposal by an agency, landowner or developer which is then adopted by the local planning authority</p>	Sets out a vision and specific requirements for development of a site. On large sites a development brief may be similar to an urban design framework. Should set out exactly what is required in order to be granted a planning consent	Specific selected requirements for development proposals on the identified site with reference to relevant development plan policies

Table 1.2 Types of framework

Start collaboration with the brief

Cooperation and coordination between a local authority, its departments and any relevant outside agencies are essential if the urban design framework is to be implemented successfully. The first steps are to write the brief for the job of preparing the framework, to identify the skills necessary for the core client and working teams, and to then decide the roles of the participants.

A brief for the work of preparing an urban design framework should:

- State the context, issues and objectives, and vision
- Define the area
- Explain how the framework will fit into the planning system, and what status it will have
- Explain how the framework will relate to other plans and initiatives, and in particular its role in coordinating them
- Identify the main stakeholders
- Set out the contents of the framework
- Set out the process to be followed in preparing the framework
- List the outputs that the framework is to achieve

Stages in the preparation process

These are likely to include:

- Refine the brief
- Gather information
- Undertake appraisals
- Involve local communities
- Formulate options
- Carry out technical and financial testing
- Select the preferred option
- Refine the preferred option
- Prepare final outputs

An urban design framework will typically consider some or all of the elements set out in the following sections.

1.2.3 What to include**Appreciating the context**

- **Archaeology and heritage**

A study of past uses of the land may reveal patterns which can inform frameworks and masterplans today. Places which grew incrementally often reveal local conditions that can influence development today.

- **Public realm and the open space network**

Review what is required of the network of streets, squares, parkland and incidental open spaces which form the public realm.

- **National, regional and local policy**

Identify current and up and coming policies which may impact on likely development.

Creating the structure

- **Neighbourhood structure and centres**

Subdivide large urban extensions into neighbourhoods based on walking distance and centres for convenience shopping and services.

- **Land use and mix**

Identify the optimum locations for the different land uses required. This may include residential, employment, schools, health and community facilities, shopping and services, leisure, sports and recreation, and other open spaces. Be prepared to designate mixed-use areas where this can generate vitality. Consider residential densities and capacity, and the potential mix of tenures.

- **Character areas**

Subdivide sites into areas of different character, where appropriate. If the characteristics are stated clearly, they can influence subsequent design decisions. Characteristics may relate to such matters as materials, built form, density, building typology or landscape character.

- **Energy, resources and waste**

Land use will have a fundamental effect on energy and resource consumption and waste management.

- **Density and mix**

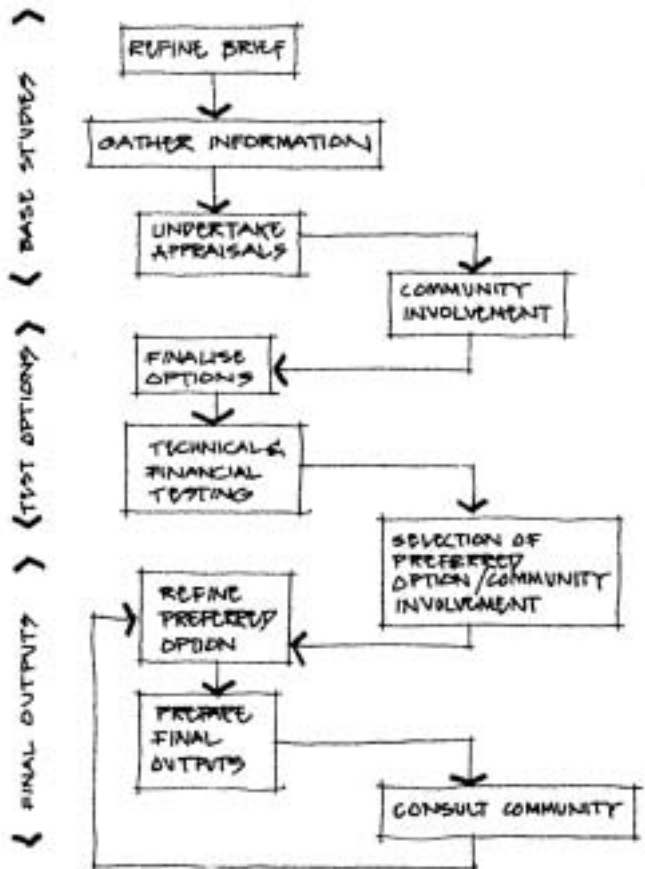
Estimate the likely development densities, so that technical and financial consideration can be given to the opportunities and constraints identified by the brief.

- Retained landscape**
 Trees, hedgerows, species-rich grassland, water features and all actively used habitats should be considered for retention.
- New landscape**
 New planting should be seen potentially as part of the public realm. It may also connect isolated elements of the retained landscape and create possible habitat corridors.
- Surface drainage strategy**
 Urbanisation increases the rate of water run-off, which can be potentially damaging to water courses and contribute to flooding. Depending on the size of the site, consider design initiatives which:
 - Increase the permeability of ground materials
 - Create a series of water courses which matches the street hierarchy, using features such as swales, streams and rills
 - Create balancing lakes to attenuate the flow of rain water from the site, and create new habitats and amenities

Always try to expose water courses in a way that expresses the natural topography.
- Habitat conservation and creation**
 Development should seek not just to conserve existing assets but to create new habitats. Previously developed sites often contain a greater diversity of species and habitats than greenfield sites which have been used for intensive agriculture.
- Aspect and prospect**
 Define important views out of the site (prospect) and the places from where there are the most important views into the site (aspect). Mark these on the plan and indicate what design response is required.
- Legibility**
 Consider how a framework can aid legibility (the quality of a place being welcoming, understood easily by its users, easy for visitors to orientate themselves, and presenting a clear image to the wider world) by identifying potential landmarks, nodal points, edges, gateways and thresholds on the plan.

Making the connections

- Access strategy**
 An access strategy will show how new infrastructure can release land by providing vehicular access, including that for servicing and emergency services.



Typical programme for an urban design framework showing three rounds of community involvement

It is preferable for drainage and utilities to follow street corridors; this may influence the position of access points.

- Route structure and place hierarchy**
 Establish a clear hierarchy of movement routes, with the best connected routes at the top of the hierarchy and the least well-connected at the bottom. Locate major public spaces at the intersection of the most important routes.
- Walking and cycling**
 Establish the principal pedestrian and cycle routes, taking account of walking distances to the main amenities and public transport stops.

009

Regional strategy for design quality Renaissance Towns and Cities Programme

The Yorkshire Forward Renaissance Towns and Cities Programme (RTCP) was launched in 2001. Since then the RTCP has worked with local communities across 15 programmes in 27 towns and the city of Leeds. Each programme incorporates a 25-year vision for the renaissance of the particular town.

An initiative for Yorkshire & Humber, the RTCP aims to ensure that towns and cities are places where people want to invest, work and live. Together with communities, partners and stakeholders, the RTCP ensures that towns are strong and competitive by being well designed, well managed, connected and accessible for people. The multi-disciplinary Renaissance Towns and Cities Team use the expertise of an international panel of experts who work with

'town teams' (locally based community groups representing amenity, business and political interest), local authorities and other interested parties to re-think the purpose and physical form of their towns and develop a shared vision for the future.

The towns – home to nearly a fifth of the region's population – have all completed their visions and masterplans. Implementation plans are now in place that include a portfolio of prioritised projects with delivery mechanisms and timescales to realise the vision of each town. These projects are now at various stages from development to completion.

Yorkshire Forward will next invest around £170m into the RTCP over a four-year period. The initiative is now embedded within its integrated corporate planning framework.



Yorkshire Forward Renaissance Towns and Cities Programme has helped to establish partnerships between local authorities to establish visions and deliver new infrastructure in towns and cities such as Barnsley Transport Interchange.

010

Creating a responsive development framework Ashford Local Development Framework (LDF)

The Ashford Local Development Framework, a spatial planning strategy for the town and its surroundings, has delivered a range of benefits. It has set out a clear plan for development, including the identification of key locations, transport infrastructure requirements, environmental infrastructure and the housing and population densities necessary to sustain viable levels of social and commercial infrastructure. It has also proposed a logical programme for development.

The benefits will be shortened negotiation, better products as a result of negotiation between different stakeholders, greater understanding by key local decision makers and an ability to make informed comments on planning applications for major development and reduced uncertainty due to political support. As a result, the development industry has embraced the principles of the framework on key sites.

The Framework is informed by spatial considerations alongside related technical studies on transport, water environment (supply, waste and flooding) and the economy. These were all focused around the aspect of 'capacity' i.e. extent of growth possible within acceptable environmental, economic and social limits.

The framework was developed at various scales. For example, the overall development framework, a strategic design code for major strategic sites, a town centre framework and key transport corridor frameworks. Each level was informed by design workshops involving key stakeholders from all sectors – political, service providers, local people and groups and developers.

The application of the framework is now feeding into the Borough's Local Development Framework, core strategies and plans for:

- Taming the ring road and creating two-way streets
- Site planning at the larger scale
- Setting design parameters in more specific studies for corridors and the town centre

'The key lesson learnt is the ability to achieve consensus on really very large challenges and the trust this engenders.' Richard Alderton, the Strategic Planning Manager at Ashford Borough Council, on the benefits of a town-wide spatial strategy for the growth area (identified in the Regional Planning Guidance (RPG9)).



The Ashford Local Development Framework bridges policy and spatial planning and sets a clear vision for the future that will inform planning applications, major developments and reduce political uncertainty.

011

Gaining political support for a framework Yeovil Urban Development Framework

The Yeovil Urban Development Framework was commissioned to find physical solutions to deliver the aspirations of the 'Yeovil Vision', a strategic agenda for the future vitality and prosperity of the town. Regular (monthly) series of press releases, launches, member briefings and community events ensured that from start to finish the scope and purpose of the framework was clear to the local community, politicians, and the local property market.

This was further enhanced by the strength of the 'Yeovil Vision' campaign itself. Presentations and briefings were highly graphic and were tailored to the various audiences, avoiding jargon.

Regular contact was maintained throughout with policy focus groups covering public services, transportation and highways, civic design and public art, landscape, recreation and the draft Local Development Framework. This minimised policy conflicts and helped forge closer ties and a common point of reference for various policy areas. It also informed the phasing programme, with information on investment programmes and policy priorities in the key areas. An additional property and investment focus group ensured the feasibility of the proposals and paved the way for public/private partnerships and land assembly.

A strong custodianship at officer level was essential for garnering political support and penetrating local networks.



The Yeovil Urban Development Framework established a promotional tool for future investment in the town centre.

- **Public transport**

Identify public transport opportunities. Consider optimum routes that will serve new development without causing delays to services that also serve other neighbourhoods.

- **Car parking**

Assess what parking provision would be appropriate, given the location and intended uses on the site, and consider how this can be accommodated in the built form. (See English Partnerships' 'Car Parking: what works where').³

Detailing the place

- **Plot and building type**

Consider how plots can best be subdivided, and how this will relate to the building types used.

- **Implementation and delivery**

- **Management and maintenance strategy**

Consider how the development might be managed and maintained, and how the design should take account of this (see also chapter 5).

- **Technical and financial realism**

Frameworks of all kinds depend on a good understanding of local conditions: not only physical, social and environmental conditions, but also the economic and market conditions that will determine what types of development are likely to be viable. Also consider if the framework lends itself to a logical phasing plan (see also section 3.4, Parceling land and phasing).

- **Sustainability appraisals**

Specific regulations set out what sort of environmental assessments will be needed in the case of a particular plan, framework or development proposal. A sustainability appraisal assesses activities, projects, programmes, plans and policies according to social, economic and environmental criteria. The appraisal may involve identifying sustainable development indicators (SDI) so that the long-term effects of the plan or proposal can be monitored. Its broad analysis may be presented in the form of a checklist. It should be an integral part of the process of formulating an urban design framework, and the brief and team should reflect this.

- **Using the framework as a promotional tool** 011

An urban design framework can serve as a promotional or marketing tool, perhaps for an area that is likely to be developed in several phases and by several developers. The framework's vision can communicate the wider intentions for the area, highlighting its full potential. If this is to be one of the framework's roles, that should be made clear in the brief from the outset. The full programme should also set out the tasks that should be carried out to communicate and promote the vision. If the role of the framework is principally or solely as an aspirational and marketing tool, all parties should be aware of that from the start, to avoid raising false expectations (see also chapter 3, Delivering Quality and Adding Value).

KEY MESSAGES FOR SECTION 1.2

1. **Urban design frameworks provide a spatial expression to urban design policies. They can coordinate more detailed site briefs, codes and masterplans.**
2. **Cooperation and coordination between a local authority, its departments and outside agencies**

- is essential if the urban design framework is to be implemented successfully.
3. **Frameworks can give confidence to residents and investors that public and private funds are being harnessed to a common goal.**

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1. Creating Successful Masterplans: A Guide for Clients. 2004. CABI
2. Preparing Design Codes: A Practice Manual. 2006. CLG
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1.3 SUSTAINABLE DESIGN

1.3.1 What is sustainability?

1.3.2 Sustainable development at the national level

1.3.3 Sustainable development at the regional level

1.3.4 Sustainable development at the local level

Designing a successful place involves bringing together the environmental, social and economic elements that are necessary for it to be truly sustainable.

National, regional and local policies have a crucial role to play in demanding greater sustainability from future developments. Ideally, this would mean establishing clear and measurable targets for each aspect of sustainability. We have started to do this for environmental sustainability as our understanding of the technologies has become more sophisticated. But not all aspects of sustainability are as easy to quantify.

Our understanding of how to use policies, targets and standards has developed greatly over the past few years. Existing practice can help us realise the often aspirational objectives.

1.3.1 What is sustainability?

Before we can set targets and policies, we need to understand the full spectrum of issues that sustainability covers. Although it is useful to talk of the 'triple bottom line' of economic, social and environmental sustainability, more detail is required to develop effective policies and targets.

CLG's definition of sustainable communities¹ is a useful starting point. This says that a sustainable community is:

- **Active, inclusive and safe** – fair, tolerant and cohesive with a strong local culture and other shared community activities.
- **Well run** – with effective and inclusive participation, representation and leadership.
- **Environmentally sensitive** – providing places for people to live that are considerate of the environment.

- **Well designed and built** – featuring quality built and natural environment.
- **Well connected** – with good transport services and communication linking people to jobs, schools, health and other services.
- **Thriving** – with a flourishing and diverse local economy.
- **Well served** – with public, private, community and voluntary services that are appropriate to people's needs and accessible to all.
- **Fair for everyone** – including those in other communities, now and in the future.

Since this definition was published, our understanding of how to make communities genuinely sustainable has grown. The following ten One Planet Living Principles can be used to guide sustainable design:

- Zero carbon – reducing energy use and supplying energy sustainably
- Zero waste
- Sustainable transport
- Local and sustainable materials
- Local and sustainable food
- Sustainable water
- Natural habitats and wildlife
- Culture and heritage
- Equity and fair trade
- Health and happiness

The design process can help to ensure that there is no conflict between aims of economic growth, housing need and affordability, and environmental sustainability. Policies and targets will need to relate to more than one aspect of sustainability.

Avoiding dangerous climate change (mitigation) and adapting to its inevitable impacts has emerged as a central aspect of sustainable development. We now know more about how to tackle this. Policies and targets are being developed to reduce carbon emissions. Targets for reducing carbon emissions, waste and water use, are easy to measure. The sections below set out policies and targets currently being used to tackle climate change.

Many of the other elements of sustainability, such as those relating to design quality, culture, community and management, are more difficult to quantify and to set targets for. Although there is some consensus on what sorts of results and places we want to achieve, it can be difficult to assess the contribution made by a specific development. Where good standards and measures do exist, they are detailed in the sections below. [012](#)

1.3.2 Sustainable development at the national level

Sustainable development is now at the heart of national policy and decision-making. Much of the inspiration for this has come from beyond the UK, for example from the Kyoto Protocol, which obliges the UK to cut greenhouse gas emissions, the EU Energy Performance in Buildings Directive², which will require buildings to display energy performance certificates, and the Strategic Environmental Assessment (SEA) Directive.³

Planning policy

In England, control over development is governed by the planning system. National policy on specific aspects of planning is set out in a series of Planning Policy Statements. PPS1⁴ explains that sustainable development is 'the core principle underpinning planning'. Specific PPSs and supplements deal with issues such as climate change, flood risk, housing, waste management, renewable energy and pollution.

PPSs also set out how the regional spatial strategies (RSS) and local development frameworks (LDF) should be produced to ensure that decisions on development are drawn-up with community involvement, to develop a shared vision of how areas can develop sustainably. They also require local authorities to prepare a delivery plan for the sustainable community strategy (SCS). This offers important opportunities for coordinating local action on sustainable development.

In addition to planning policy statements, central government can promote sustainability through the use of national initiatives and regulations.

Targets and standards to measure a wider range of elements of sustainability have also been developed by national organisations such as English Partnerships and the Housing Corporation.

Performance standards [013](#)

A number of standards exist at different scales. These show how different elements of sustainability can be delivered through development. For example:

- The Code for Sustainable Homes⁵ is a national sustainability standard for new homes. The code has six levels, with level six being zero carbon. It includes standards on water, energy, materials, surface water run-off, waste, pollution, health and well-being, management and ecology.

The code is currently voluntary, but the government has proposed a timetable for integrating code standards into the statutory building regulations so that all homes will be zero-carbon by 2016. Since April 2007 all homes funded by English Partnerships and the Housing Corporation have been required to meet level three of the code. English Partnerships will step up requirements ahead of building regulations and will be trialling level six on its Carbon Challenge sites.

- Building for Life is the national benchmark for well-designed housing and neighbourhoods in England. The standard promotes design excellence, celebrating best practice in the house-building industry. The award is given to new housing projects that demonstrate a commitment to high-design standards and good place-making. It recognises that high-quality design is an essential part of a sustainable community, leading to improved social well-being and quality of life by reducing crime, improving public health and easing transport problems. Good design can also increase property values.

In addition, a range of private sector standards have been developed. Often these are set by the landowner. Both English Partnerships and the Housing Corporation have developed quality standards to be met for all projects funded by them.

012

Creating a web-based tool to deliver sustainable communities Inspire East Excellence Framework - www.inspire-east.org.uk

Inspire East is a Regional Centre of Excellence for Sustainable Communities in the East of England. Its aim is to deliver the knowledge, skills and advice that will inspire the use and application of best practice in the development of sustainable communities.

Working with the Building Research Establishment, Inspire East has created an excellence framework, a web-based tool, which provides guidance on achieving excellence in sustainable communities in the East of England.

The excellence framework is based on eight components which are required in order to plan, deliver and maintain sustainable communities: social and cultural, governance, transport and connectivity, services, environmental, equity, economy, and housing and built environment. For each of these, there is a

checklist of basic considerations projects should address. Depending on local circumstances, there might be a trade-off in the short-term of the priority given to different components, but in the longer term all components must be addressed to ensure that a community is sustainable.

The Inspire East Excellence Framework has been tested by a number of organisations including the Building Research Establishment. It is intended to be used in the following ways:

- As a signposting tool for advice and information
- To look for minimum and excellent standards, case studies and best practice
- To appraise the quality of projects
- To evaluate the success of projects



Inspire East Excellence Framework found at www.inspire-east.org.uk was established as a tool to provide advice and information, case studies and best practice information and an appraisal and evaluation process. It sets out eight components that are intended to assist with the planning, delivery and maintenance of sustainable communities.

013

Developing standards as a tool to delivery

English Partnerships / the Housing Corporation Design Quality Standards

English Partnerships and the Housing Corporation have developed a clear and unequivocal set of nationally recognised Quality Standards which they require for all projects. They have worked together to develop a consistent approach where possible, defining some of the key ingredients of sustainable place making. Projects that fail to meet any of the minimum criteria set out by each agency are not seen as a compliant bid or eligible for funding.

As sponsored bodies of Communities and Local Government (CLG), both English Partnerships and Housing Corporation need to demonstrate how projects which they fund or enable, support high-quality sustainable growth, and how they directly relate to Public Service Agreements (PSAs) set by Government for CLG. English Partnerships have required Quality Standards for all projects briefed since September 2005, using existing standards validated by others such as the Code for Sustainable Homes, Secured by Design or Building for Life.

English Partnerships has set 16 objective standards and four qualitative measures including:

- Site specific design issues
- Community engagement
- Long-term management
- Deliverability

This approach brings clarity and consistency to all projects whilst rewarding innovation. English Partnerships recognises that good place-making cannot be totally prescribed; it is a mixture of objective and qualitative measures. As developers become familiar with objective standards they can optimise design and supply chain efficiencies through better planning and partnering allowing them to focus greater resources on the qualitative elements on a site-by-site basis. Qualitative elements however will be assessed in a consistent manner.

The Housing Corporation sets minimum standards and then incentivises bidders through a set of Housing Quality Indicators (HQIs) which encourage them to maximise the potential quality of new homes on each site.



The Summit House at Allerton Bywater was one of the first projects to be built to English Partnerships' Quality Standards.

1.3.3 Sustainable development at the regional level

Understanding baselines

Building up a picture of key baselines, such as carbon dioxide emissions and vulnerabilities, will provide robust data to inform policy.

Sustainable development policies

The regional spatial strategy has a key role to play in developing the sustainable development framework and integrating it into strategic planning policies, relating to housing, regeneration, energy supply and economic development.

Planning tools and guidance

The regional spatial strategy can be used to establish a framework of tools and guidance, informing local planning policy and facilitating the assessment and monitoring of planning applications. The draft South West Regional Spatial Strategy for example, sets targets to reduce greenhouse gas emissions along with policies on sustainable construction and renewable energy generation. Regional sustainability checklists are being developed for all regions which cover all scales of development. These are particularly effective if linked to individual sustainable development targets.

1.3.4 Sustainable development at the local level

Action at the local level is a crucial part of creating sustainable communities. While national and regional policy should guide place-making, some local authorities have recently been leading central government in raising standards.

Planning policy ⁰¹⁴

A strong planning framework is needed at district level to secure sustainable development from housing and associated energy infrastructure. County councils have the potential to play a strategic role, including providing guidance to districts and boroughs. Robust links to the local strategic partnership and sustainable communities strategy will be needed to secure delivery.

Core strategies and development plan documents should be used to set out policy priorities. They form the starting point for establishing specific sustainability requirements. For example, policies establish frameworks for energy, addressing issues of density, layout, and the creation of community heat and power networks. They can also coordinate other action aimed at delivering sustainable communities, relating to issues such as accessibility, retail, community facilities, affordable housing and employment.

014

Setting measurable standards Edinburgh Standards For Sustainable Building

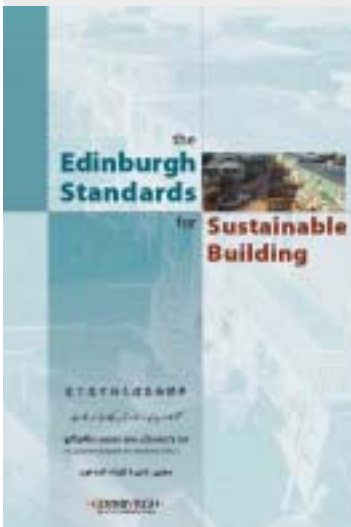
Edinburgh City Council have adopted the Edinburgh Standards for Sustainable Building, one element of the Edinburgh Standards suite, as supplementary planning guidance which is required for all major planning applications (over 100m² gross floor area, 10 residential units or sites 0.5ha and above).

The Standards cover energy efficiency, renewables, waste, materials and design. The standards are set out within six principles:

- Quality in layout, building and landscaping design
- Design inclusive, health and safe environments
- Reduce climate change impacts and increase renewable energy generation

- Encourage use of sustainable resources and materials
- Reduce pollution and encourage recycling
- Encourage sustainable construction and operation

Each section has precise targets to be met, details of how these can be measured and case study examples of successful precedents. Applicants provide details of how standards are met within a table, which clearly identifies the specific items that makes up each of the six principles, along with the scores associated with their achievement. This must be accompanied by a Sustainability Statement detailing the factors considered. All schemes must meet the overall score for each principle. In achieving this, buildings will qualify for the councils proposed Sustainable Building Award Scheme.



Edinburgh City Council's Standards for Sustainable Building will ensure new developments reflect the design quality and sustainability of Slate Green, an award winning mixed tenure development in the city.

015

Establishing national consensus on policy

The Merton Rule

The London Borough of Merton was the first local authority in the UK to include a policy in its Unitary Development Plan requiring 'all new non-residential development above a threshold of 1,000m²...to incorporate renewable energy production equipment to provide at least 10% of predicted energy requirements'.

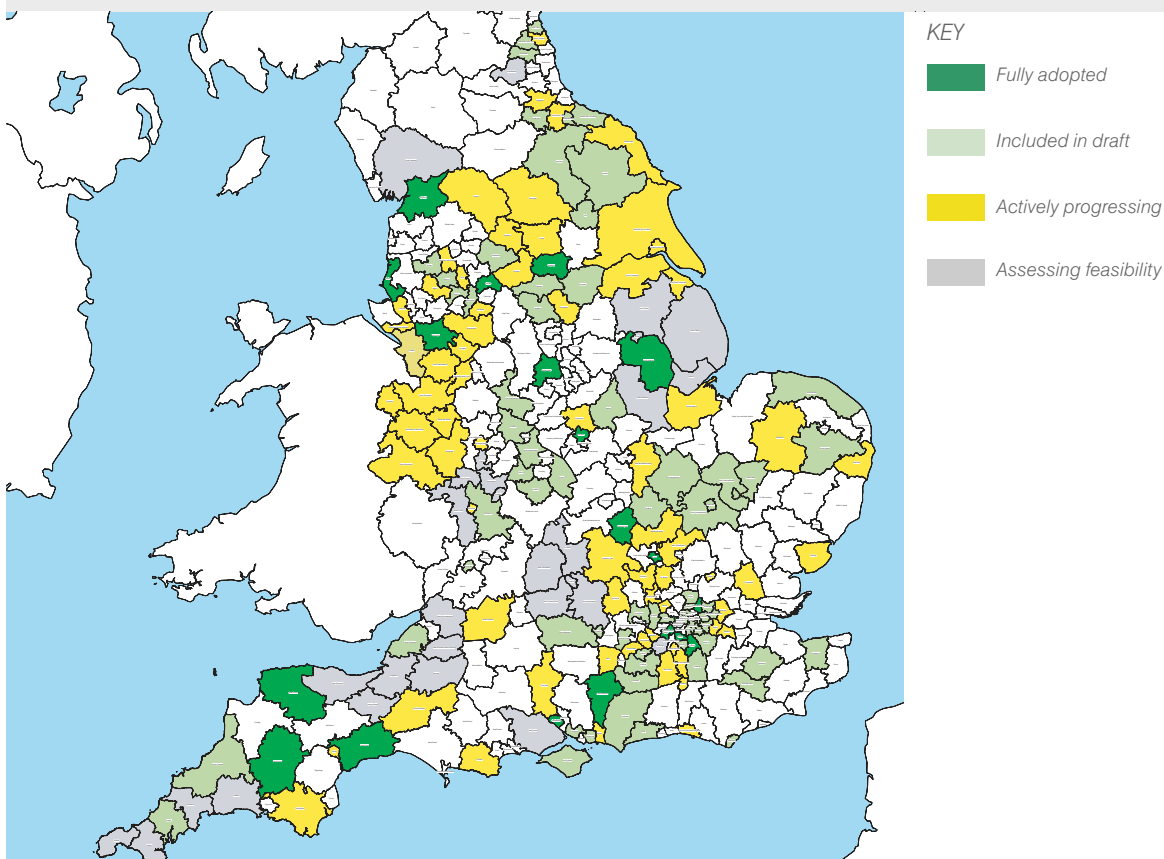
Recognising that a one size fits all policy is not the answer Merton is developing a guidance matrix (as part of an SPD on sustainable design and construction) that will act as an advice document for interpreting the 'at least 10%' section of the policy. It will be subdivide into percentage targets for different types of development, linked to increasing annual targets (non-compound). Merton has now revised the policy for their draft LDF to so that all development over 75m² of one or more residential units will have to meet the policy. The policy requires the use of renewable energy to cut predicted CO₂ emissions by at least 10%, rather than to generate 10% of energy use.

There was initial opposition to the policy from Government

Office London and the ODPM over concerns about its legalities under the Town and Country Planning Act and enforcement of renewables through Building Regulations. Merton formed an alliance with environmental and other organisations to explain the benefits of the policy and was instrumental in persuading the Government to confirm in Planning Policy Statement 22, both the legality of such policies, and its desire to see other boroughs emulate them.

This radical policy has ensured that similar renewable energy policies have become embedded into the mainstream and demonstrated the power of local governments.

'The key to the nation wide success of the policy was its timing. It was easily replicable and answered the frustration of many younger generation planners across the country who have been wanting to bring about similar change in the policy'. Adrian Hewitt, the Climate Change Strategy and Project Manager at London Borough of Merton, on the Merton Rule.



This map highlights those local authorities that have adopted, or are in the process of adopting similar policies to the Merton Rule.

Policies should be described in more detail in associated development plan documents, including supplementary planning documents or area action plans. Dedicated development plan documents on aspects of sustainable communities should establish the planning framework in greater detail. This will provide planning officers with the powers to implement policies and strategies, and offer detailed guidance for those implementing policies through development.

Local authorities across England are currently beginning to introduce a range of planning policy requirements. These include:

- Carbon reductions from on-site renewables (the Merton Rule)
- Compulsory connections to district heat or power networks
- Minimum Code for Sustainable Homes (or BREEAM) scores
- Minimum scores using regional sustainability checklists
- Minimum percentages of affordable homes
- Minimum Building for Life score
- Secured by Design accreditation
- Lifetime Homes accreditation
- Green Flag accreditation for parks and urban green spaces
- Policies aimed at reducing the need to travel by unsustainable modes

Rather than reinventing the wheel, local authorities should use existing standards where possible, agreeing adaptations where necessary to fit with regional and local context.

Area action plans provide the opportunity to set additional targets for specific sites, which can be tailored to the site conditions and local aspirations. These can focus attention on the relationships between different aspects of sustainable development and help to address any conflicts – between climate change mitigation, adaptation, space and recreation, and biodiversity, for example.

Leadership 015

Strong political commitment at the local level can demonstrate leadership and reinforce the need for action across communities. Leadership should be demonstrated through a sustainable development policy framework, adopted at the highest level. One way of doing this is to bring council leaders together to sign the local authority up to the Nottingham Declaration on Climate Change. This sets out headline targets, a vision and a strategy for action. It will also be possible to broaden a declaration to cover other elements of sustainable place-making. The Energy Saving Trust has created an online pack to help authorities wishing to sign up. (See www.energysavingtrust.org.uk)

KEY MESSAGES FOR SECTION 1.3

- 1 Good design can help create places which bring together all elements of sustainability.**
- 2 Some aspects of sustainability can be hard to measure. That does not mean they should be dismissed.**
- 3 Many valid standards exist. These should be incorporated at national, regional and local levels to demand more from development.**

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1. Sustainable Communities: Building for the Future. 2003. ODPM
2. Directive on the energy performance of buildings. 2002. European Parliament
3. Directive on strategic environmental assessment. 2004. European Parliament
4. Policy Planning Statement 1: Delivering Sustainable Development. 2005. ODPM
5. Code for Sustainable Homes. 2006. CLG

1.4

CHARACTER AND IDENTITY

1.4.1 The roots of character

1.4.2 Building and identity

1.4.3 Town centres

1.4.4 Corporate and local identity

Places that grow true to their locality are likely to be sustainable, enjoyable and to attract investment – intellectual, cultural and financial. An appreciation of local climate, urban form, culture, topography, building types and materials is necessary to nurture local distinctiveness.

Policies should not promote pastiche developments. They should provide an understanding of what has come before and, based on this, what is likely to be appropriate in the future.

At a time when many places are beginning to look alike, effective urban design policies and strategies have the potential to reinforce local character and create places with a real sense of identity. It is possible to identify those assets worth protecting and build this into policy, even if neighbourhoods cannot always be saved from unwanted change.

1.4.1 The roots of character

More than aesthetic dressing 016

New development achieves local distinctiveness, character and identity too rarely. Creating a distinctive character is often thought of as an aesthetic dressing, reduced to a limited range of vernacular building types, local materials and colours, draped over a structure of cul-de-sacs and loop roads that is alien to the locality. Table 1.4 sets out the most useful tools for reinforcing identity.

Urban structure

Success in delivering new development with a strong sense of local identity is much more likely if the roots of character are recognised in the urban structure: the relationship between landscape, settlement and movement. Movement patterns form the framework for our experience of place.

Character and sustainability

There is a direct link between local character and sustainable development. Local identity and sustainable

development are both achieved by making full use of the resources immediately at hand: reducing, reusing and recycling.

Movement and character

If movement and the resulting pattern of routes is basic to our experience of place, retaining or creating the character of a place should be based on the characteristics of the movement pattern: its connections, its hierarchies, its geometry and its relation to topography.

Retaining existing features

Retaining existing features on a site, either in substance, position or alignment, is often far more effective in creating a tangible sense of character than a pastiche design (drawing on parts of other works, or elements of various local styles) would be. Features to be taken into consideration include existing uses and buildings, topography, watercourses, routes, boundaries and trees.

Knowing what to retain and how to make best use of it will depend on careful appraisal work to determine the benefits likely to be achieved and the resources required. A sustainability appraisal may help in striking the balance.

Reconnecting to the hinterland

Adapting landscapes and finding multiple uses for them can help make a place that is both locally distinctive and sustainable. Local ecologies will be an important part of character. Landscape and countryside, the hinterlands of urban areas, are not merely visual assets but, in the wider sense, the basis for urban development. They have a role in recreation, open space, producing food and energy, providing habitats, managing surface water, and screening and buffering development.

Site appraisals should examine the potential for all these functions, and appropriate proposals should be incorporated into a green infrastructure strategy.

Scale	Tool	Purpose
Regional or sub-regional	Character study	A promotional tool which can be used to provide vision and guidance on how new development can retain unique aspects of local character
Regional or sub-regional	Design guide or initiative	Promotes high design quality and standards. Potential for adoption at local level as a supplementary planning document (SPD)
Local	Tall buildings policy and guidance	Identifies appropriate location for tall buildings and appropriate scale and mix of uses. Enables protection of historic environments
Local (supplementary planning document, SPD)	Public art policy and guidance	Guidance on how public arts can promote local character and identity by creating a sense of place and engaging local communities
Local (SPD)	Shopfronts policy and guidance	Guidance on how shopfronts can reinforce the character of town centres
Local (SPD)	Industrial, retail, commercial policy and guidance	Guidance on how development can make a positive contribution to local environment
Local (SPD)	Policy and guidance on house extensions	Guidance on how house extensions can reflect local character
Village	Village design guide	Produced by local communities to identify local character and set out design guidance for new development. They usually focus on landscape, settlement shape and buildings
Neighbourhood	Conservation area	Protects and enhances the quality of the environment through controls on demolition, new development, trees and satellite dishes. Can also limit permitted development
Site	Design code	Can reinforce site characteristics through use of specified colours, materials and species

Table 1.4 Policy tools for protecting character and identity

016

Creating a spatial strategy for a sub-region

A Guide to the Future Thames Gateway

New things happen: a guide to the future Thames Gateway is unique in its attempt to identify the character of the largest growth area in the southeast. Through a year-long research study, detail characteristics of places throughout the Gateway were examined. Its findings will inform planning policies, design decisions, and investment strategies for the area.

Commissioned by CLG to inform the Thames Gateway Interim Plan: Policy Framework (Nov 2006), and led by CABE, the study mapped the landscape and urban character of the area. In addition, it was informed by consultation with professionals engaged in changing the sub-region, workshops in Kent, Essex and London, and interviews with people interested in the Gateway's future.

These ideas will be implemented by CABE through a range of projects over 2007/08 ensuring that CLG's commitments

to raising design quality as set out in the Interim Plan are delivered. CLG's three commitments are:

- **Thames Gateway Design Pact** – the Pact sets out exactly what commitment is needed from all local authorities to ensure that all new development is of high quality and in line with the character of the area and will invite them to sign up to it.
- **Housing Audits** – to check on progress and provide an independent view of quality, CABE will do repeat Housing Audits. The aspiration is that in 2010, no scheme will be assessed as 'poor' and at least 50% of schemes should be 'good' or 'very good'. By 2015, 100% should be rated 'good' or 'very good'.
- **Thames Gateway Parklands** – the findings will also feed into the Parklands Strategy, the key spatial framework for delivering the vision for Thames Gateway.



People's relationship with the river was a key aspect in assessing the roots of character in the Thames Gateway.

017

Understanding the context of the site Newhall, Harlow

The masterplan for Newhall, a new neighbourhood for 6,000 people in Harlow, responds to specific characteristics and features of the site, demonstrating that the intrinsic differences of every site can inform new development and create distinctive places.

Existing features such as woodlands, hedgerows, trees and species-rich grassland are retained and existing drainage courses have been made part of a comprehensive SUDS scheme. The hierarchical street layout is based on a lattice structure, stretched to suit the topography and where possible, streets run alongside existing vegetation to ensure that this can be retained within the public realm.

The masterplan demonstrates in particular how high-quality contemporary architecture located within a site that responds to its context can create an identity for the neighbourhood. To

achieve this, the Newhall Design Code stipulates a colour and materials palette to be used to create contemporary architecture. This is based on the belief that every settlement can be distinct by virtue of its mineral setting. A detailed study of the materials and colours used in local traditional architecture in the area informed four palettes which are used to describe facades, roofs, paintwork and floorscape. Quality materials include hand-made bricks, Welsh slates, and granite setts and kerbs for street details.

Newhall demonstrates that the intrinsic differences of every site can inform development proposals to create distinct places that have a character and identity of their own. It also illustrates that you don't need fake elements and pastiche to make a place identifiable; high-quality contemporary architecture located within a site that responds to its context can create highly successful identifiable places.



The unique colour and materials palette for Newhall uses the mineral setting of the site to determine the character and identity of the neighbourhood.

1.4.2 Building and identity

Reinterpretation and invention 017

There are often good reasons why local building forms have developed in a particular way. They might, for example, be concerned with modifying microclimate or making use of locally available materials. Many towns have a colour signature which derives from their mineral setting. Buildings which draw on these origins and interpret them, where appropriate, in ways which respond to contemporary needs are likely to be more successful than an uncritical reproduction of a local vernacular.

Attention to detail

Attention to detail is a key to the successful design of both buildings and places. There are details at all levels of scale, from the pattern of centres in a city region to the texture of building materials.

Some basic questions should be asked of any development proposal, whether it is for a town centre, an urban extension, or an individual street or building:

- What role will it play within larger physical, social and economic structures?
- What will be its overall presence, in terms of form, shape and size?
- How are its component parts designed and arranged, and how will it work internally?

1.4.3 Town centres

Urban form, activity and character

The character and identity of a town centre will be rooted in its urban structure, and its patterns of movement and activity. That character will be expressed through the form of urban blocks, and the scale and size of the buildings that compose them. Inappropriate scales, such as large retail buildings or shopping centres, often occupying an entire block or more, can threaten the character and identity of an existing town centre.

Shopping streets and the big box 018

Creating shopping streets rather than shopping centres can be a key to making a place with character. Here are some ways of achieving it:

- Develop smaller urban blocks.
- Make use of changes in ground level.
- Create outward-facing frontages.

018

Understanding and protecting character Stratford-on-Avon District Design Guide

In the late 1990s, prior to full revision of their Local Plan, Stratford-on-Avon District Council members felt the need to address issues of local distinctiveness and sustainability. To that end they supported a resolution that, for planning purposes, all development should be local, equitable and sustainable. This resolution was the foundation for the Stratford-on-Avon District Design Guide (2001).

The guide works on the premise that the existing built environment should be seen as a design resource. Characteristic patterns at different levels of scale from the landscape down through settlements, streets, highways and open space, plot series, plots, buildings, materials and details provide a framework within which new development can accommodate both continuity and change.

Since its foundation, the guide has been successful in helping to deliver a wide range of schemes across the District which respond to the characteristics of the area, yet are contemporary and innovative. This includes a number of schemes which have been short-listed for the council's Design Award.



The Stratford-on-Avon District Design Guide has assisted in delivering contemporary schemes which respond to the characteristics of the area.

019

Retaining character through a rental scheme Marylebone High Street

Over the last decade, Marylebone High Street has transformed from a fading shopping street with 51 empty shops to a street that is thriving. Since the 1990s the landowners, Howard de Walden Estates, have initiated a strategic process of transformation, to ensure a mix of boutiques and small but useful shops on the high street.

The aim is to 'maximise the village atmosphere and not swamp it with multi-national retailers so it is indistinguishable from any other high street', explains Steven Hudson of Howard de Walden Estates. He adds, 'It is essential to maintain a diverse and interesting retail mix offering good quality products, and this concept is continually reviewed.' Tenants are chosen to add to the quality of the high street, and the landlords do not simply

accept the highest offers from big chains. Waitrose, however, was specifically targeted as an anchor tenant.

Today, Marylebone High Street has a diverse mix of shops, cafés and restaurants, making it not only a popular destination but also an area with a distinct identity. Traffic and parking strategies have also been aligned to work for the social and economic benefit of the shopping street. The single ownership of Howard de Walden Estates has made the regeneration of Marylebone High Street easier. However, long-term thinking, a clear strategy and planning in the right mix of uses along a street can achieve similar results elsewhere. Andrew Ashenden, Chief Executive of Howard de Walden Estates at the time of the project, identifies the economic imperatives for a successful high street – 'Shoppers must have variety, owners have to have growth and tenants have to do well.'



Marylebone High Street has retained its character by encouraging independent retailers and minimising the number of multi-national retailers.

020

Extracting and emphasising character

Five Arts Cities In Oxford

A small highly graphic guide book to Oxford's hidden gems, produced as part of a year's multi-media event, identifies and pinpoints residents insights into the integral elements making up the character of their city for all to discover.

Consultation with local people revealed the particular places that were felt integral to the character of the Oxford they knew from the perspective of their day-to-day lives in the city. The places were divided into the following headings: 'five places to stop and stare', 'five cafés with character', 'five places for quiet reflection', 'five ways to charm the children', 'five cultural interludes', 'five things we couldn't live without', 'five first dates' and 'five good reasons to look upwards'.

The brochure was dispatched free of charge and acted to introduce something of the real character and nature of Oxford life to visitors and residents alike, crystallising another reality of the city's character and adding another layer to its identity.

Five Arts Cities, a joint venture between Arts Council England and Five TV to encourage participation and engagement with the arts, focussed its attention on Oxford through a year-long multi-media event. Oxford was the third city to be recipient of this focus of attention, with Liverpool and Newcastle/Gateshead addressed in former years. Over the year, Five TV broadcast a series of programmes on Oxford's particular contribution to the arts scene and these were supported by various events such as exhibitions, artists talks and education. A website also provided details of events.



Five Arts Cities, helped to promote Oxford's arts scene through the production of a guide book, exhibitions, education and a website – www.five.tv/fiveartscities.

- Encourage a mix of uses, especially ones that will be active in the evening
- Bring scattered civic uses back into the town centre.
- Make sure that the public realm is publicly owned
- Provide for local shops and services, by cross-subsidy if necessary
- Make the place adaptable in small stages over time
- Let different architects design different buildings
- Set a limit to the proportion of the town centre that can be roofed-in

Increasingly, local communities are challenging the purported benefits of large-scale retail development and setting limits on the size of big-box retail buildings.

1.4.4 Corporate and local identity

Maintaining character 019

There is also a growing resistance to what are now commonly referred to as 'clone towns'. The multiples or chain stores are accused of holding corporate identity higher than local identity and making a significant contribution to the loss of character in town centres (as well as at edge-of-centre locations).

In response to this erosion of character, groups and communities in the USA and the UK are taking action to retain local distinctiveness. There are now many examples of planning ordinances in the USA limiting the number and size of formula retail outlets within an area. Similarly, a growing

number of planning appeal decisions is limiting the size and spread of the multiple retailers.

In some cases, as in the example of Marylebone High Street in London, multiples are controlled through land ownership and lease agreements. Smaller shops and local traders can be supported through planning policy and section 106 agreements. Specific retail uses can be encouraged through upfront subsidies.

An effective way of supporting the diversity and individuality of local shops is for individuals to patronise valued traders and avoid those that do not make a positive contribution to the locality. The community ownership of shops is another means of retaining local control and character.

Branding 020

Many local authorities use the marketing tools of retailers in promoting the character and identity of a town or city as a place to visit, live and work. The aim is to attract tourists, investment and a more skilled labour pool. Branding can also promote community cohesion and civic pride.

The branding will need to fit with spatial and economic planning. Masterplans, the management of public realm, and the types of businesses and institutions encouraged to a place, all have a significant impact on how a place is perceived. The most successful branding campaigns do not create an identity in a vacuum but build on locally distinctive features: the fabric of the town, its history and activities, and its neighbourhoods and their communities.

KEY MESSAGES FOR SECTION 1.4

1. **Places that grow true to their locality are likely to be sustainable, enjoyable and to attract investment – intellectual, cultural and financial.**
2. **At a time when many places are beginning to look alike, effective urban design policies have the potential to reinforce local character and create places with a real sense of identity.**
3. **Policies based on an appreciation of the local climate, culture, topography, building solutions and materials can help ensure that the right buildings are in the right places.**

1.5 ENGAGING THE COMMUNITY

1.5.1 Contributing to place-making

1.5.2 When to engage

1.5.3 The guiding principles

In most successful developments the process of change involves the people who live and work there, who understand the area and who are committed to making good things happen. People may share a common concern for the area but have different priorities and concerns. Involving the community is not just a matter of consulting people. It can also be a process of raising the profile of planning in communities and helping to create a consensus so that planning applications can be processed more smoothly. It can help to integrate new and existing communities.

Development may be seen as a threat to the identity of an area, and community involvement as an opportunity to lobby for a particular cause rather than to shape development. To people undertaking development, involving communities can be seen as costly and time consuming. When undertaken effectively, though, community involvement can help to overcome both of these concerns. The issues and opportunities facing an area can be identified and ways can be found to resolve potential conflicts.

Resolving conflicts and making the most of the contribution of local people depends on providing the means for the community to become involved, being clear about the objectives of the engagement process, and ensuring that events are appropriate to the scale and stage of development. If carried out successfully, the process of engagement can improve design proposals, speed the planning process and help to engender a feeling of ownership among the local community.

1.5.1 Contributing to place-making

The right to participate

Creating successful neighbourhoods depends on understanding the human as well as the physical context of a place and appreciating the dynamics of the local community, including local attitudes, initiatives, history and customs.

Community involvement in planning is part of people's right to participate in decisions that affect their lives. Many statutory processes require such involvement. Many grant-funding organisations prefer, or even require, local people to have been involved before giving financial assistance. Involvement can allow proposals to be tested and refined before adoption, resulting in the use of resources in a way that is in tune with what is needed and wanted.

When a community gains a better understanding of the options that are realistically available, it can be constructive in shaping proposals. The planning process can reduce time wasting conflicts, and trade-offs can be negotiated between different interest groups to secure mutually compatible solutions.

1.5.2 When to engage

Influencing policy

Helping people to shape their surroundings is an essential part of creating sustainable communities through planning and development. There are a number of ways in which community groups or individuals can influence planning policy at local or regional levels, and those developing new neighbourhoods or allocating sites for development can find out the views of local people.

At a national level, stakeholders are able to become involved in the preparation of draft policy statements and guidance through public consultation. At a regional level, stakeholders are able to influence Regional Spatial Strategies through formal representations to the Secretary of State on draft documents. At a local level, stakeholders are able to influence Local Development Documents and planning applications through formal representations, which are required to comply with a local authority's Statement of Community Involvement. This sets out the standards to be achieved by a local authority in involving the community in the preparation, alteration and continuing review of all documents. Further information on influencing policy can be found in The Planning Pack¹ and on the Community Planning Website (www.communityplanning.net).

Identifying options 021

Engaging the local community and stakeholders (such as landowners, planning officers, highways officers, statutory consultees, local interest groups, designers and developers) in the development of a masterplan can significantly improve the design's workability. Identifying the constraints and opportunities for the site at an early stage means that time may not be wasted on unviable options. It also provides those involved with a forum in which to explore each others' concerns and to understand what is required to overcome any potential barriers. This collaborative process can deliver a set of ground rules and vision for a site which all stakeholders can agree on. Developing this consensus early on can improve the design of the project and ease its passage through the development process.

Existing and new communities 022

Community involvement procedures and techniques have been developed largely for existing towns and neighbourhoods. The people consulted are those who would be directly affected by the proposals. Where a new neighbourhood is proposed, it can be difficult or impossible to engage with those who will ultimately live there. In this situation, neighbouring communities may see development primarily in terms of how they themselves are affected. To gain a balanced view, it can be helpful to invite a wider range of organisations (such as local registered social landlords, community groups and welfare officers) to speak on behalf of those they represent. As initial phases are built, their new residents should be engaged in the process of making decisions about the area's future development.

1.5.3 The guiding principles

The following principles for finding out about community concerns and aspirations are likely to apply in all situations:

Get started early

Opportunities should be provided for people to participate in identifying issues and debating options from the earliest stages. People should become involved at a point when they have the potential to make a difference. It may take time to build their capacity for this. It is important to be aware of what other community involvement processes are also underway in the area, so that steps can be taken to avoid overloading people.

Clarify aims and objectives

When clarifying aims and objectives, it is important to consider such questions as:

- What can community engagement add to the process?
- What are the aims of the engagement activities?
- Who are the project partners and what can they add?
- What legacy does a developer intend to leave?
- What community involvement will continue after the project?
- What outcomes are expected?
- How will they be measured?

Involve the right people 023

Carrying out a community profile will help to identify the communities to which a project relates and the sorts of people who live in the area. This will help in choosing the most appropriate community involvement techniques, in identifying important organisations and establishing some of the area's significant characteristics.

It may be useful to use mediation techniques if there are problems with community cohesion.

Involving stakeholders such as highway authorities, the Environment Agency, planning authorities and utility companies at the start of a project can help to establish the site's constraints and opportunities.

Where partners are involved, it is important that time is provided to develop capacity and understanding of the project vision. In many cases as much time will need to be spent in developing the partners as to working with the community itself.

Managing expectations

Setting out the ground rules is vital to achieving realistic targets and avoiding unrealistic expectations. The following issues should be clear to everyone:

- What process is the community being asked to become involved in?
- How will its input be used?
- What will be the extent of the community's influence?
- How will decisions be made?
- What sort of time commitments will be involved?
- Will training be provided?
- What is the potential for people to remain involved in the long term?

021

Playing games to identify growth areas The Ashford Game

As part of the community engagement process in Ashford, a board game was developed to help the local community and key stakeholders test a range of scenarios against the vision. Using an aerial photograph of the town and development tiles, the game allows stakeholders to make strategic choices about the density and location of future development and to identify the consequences this would have for place-making and sustaining local services. Key considerations are where development should be, what form it should take and what the implications are. The main output of this process was to determine an agreed set of objectives for the sustainable growth of Ashford.

Players worked together to place tiles representing 25 ha of different development types: residential neighbourhood, living quarter, town centre, office precinct, industrial estate, regional parks, lakes and reservoirs.

The game requires good facilitation to ensure all issues are understood, weighed appropriately and considered when making key decisions. It also enables the game to be focused on specific issues such as infrastructure, facility as appropriate.

The simplicity of the game has enabled it to also be used as a training tool on master planning with a variety of audiences, from central government economists, local government bodies and development staff.



Playing the Ashford Game assisted the local community and stakeholders to make strategic choices about the density and location of development.

	Set policy	Undertake design	Approved investment	Secure planning and technical approvals	A legacy
Action Planning Event	●	●			
Art workshop					●
Award schemes					●
Community planning forum		●	●	●	●
Ideas competition		●			
Neighbourhood planning office			●	●	●
Newspapers and newsletters	●	●	●	●	●
Open house event/exhibition				●	
Open space workshop	●	●	●	●	●
Planning days	●	●	●	●	●
Reconnaissance trips	●	●			
Street stall		●			

Table 1.5 An example of how different community engagement tools can be mapped against the development process

022

Establishing community facilities through developer contributions

Allerton Bywater Millennium Community

The Allerton Bywater Millennium Community developer contributions were used to rejuvenate the former infant school, Miners' Welfare Hall and bowling green adjacent to the planned development. Allotments and a new skatepark have also been developed. The community today plays an active role in managing these facilities and organising events and functions for the neighbourhood.

Provision of these facilities prior to the delivery of the new development not only benefited the existing population but also provided a platform to integrate the new and existing communities. Allerton Bywater Millennium Community has successfully reinvigorated and expanded a former mining community south-east of Leeds. Early and continued consultation with the people living in the village and the wider community has helped deliver a range of specific and need-based facilities and benefits to the area.



The provision of a skate park prior to the delivery of development at Allerton Bywater Millennium Community has benefited the existing population and helped to integrate new and existing communities.

023

Involving the community to inform detailed design Charlton Kings

Extensive consultation and collaboration with the local community was a cornerstone of public realm improvements at Charlton Kings (near Cheltenham), the subject of a Placecheck Initiative with £500,000 funding from central government.

The Charlton Kings Local Regeneration Partnership representing the Borough, County and Parish Councils, CK2000 residents group, local schools, shopkeepers and a diverse range of other local interests formed a steering group. Initial funding was targeted at public realm improvements to the village centre

with a high quality and ambitious 'early win' project. A specially designed workshop to work with local children helped design the mosaics in the central water body feature.

The scheme is part of larger long-term proposals that include the development of an extensive and high quality open space system providing new connections between the town and countryside, new areas of habitat creation, public arts strategies for use as local educational resources, areas of new infill residential and retail development overlooking the improved open spaces. A comprehensive implementation programme identifies funding and delivery mechanisms.



Consultation and collaboration with the local community and a workshop with local children helped design the mosaics in Charlton Kings Town Centre water feature.

Be realistic

Starting the involvement process early and establishing clear responsibility for the various tasks among the partners will help to avoid delays. Community engagement can require considerable resources. Developing a delivery plan can help everyone understand how much time and what level of skill will be needed, and how these will be provided.

Use appropriate tools

Community engagement can be organised in a number of different ways. There is no standard model that fits all circumstances. Collaborative design workshops should be used where possible to improve the design of proposed development.

One collaborative tool, Enquiry by Design, was pioneered by English Partnerships and the Prince's Foundation at Upton and Lawley. It brings together stakeholders to collaborate in producing a masterplan. Putting in resources at an early stage in this way can avoid problems later in the process that might cause delays or additional costs. The principles of this approach can be applied to other collaborative approaches and to projects where there is consensus for good design.

Once decisions are made about the objectives of engagement, the boundaries of the area, and the programme and funding, an appropriate method should be developed to meet the needs of the various participants.

Table 1.5 sets out a number of different activities and their suitability to different types of development. These are by no means exhaustive.

Provide effective facilitation

Providing independent facilitators can help to reduce conflict if they have the right skills and expertise to manage the process of engagement and facilitate events. They can create a better understanding of the outputs and the process, particularly where the views of particular individuals or interest groups might otherwise dominate events.

Provide skills and training

Resources should be made available for capacity building to enable communities and stakeholders to engage fully in the process. Depending on the level of community engagement and existing skills, the capacity-building process may take the form of a short workshop, best practice study trips or support for community members to study for appropriate qualifications. The last option may be particularly appropriate where there are opportunities for community members to take on long-term management roles.

Keep it going

The process should allow communities to see how ideas have developed at various stages, with effective feedback. This ensures that everyone is aware of how consultation and involvement can help to maintain good relations, encourage further engagement and result in more positive outcomes. There should be clear, formal stages in the process. These should be based on statutory requirements where appropriate. The stages should be part of a continuous programme, not a series of disjointed steps. Community involvement is not simply a process to be ticked off a list.

KEY MESSAGES FOR SECTION 1.5

1. **Do not underestimate the value of public involvement.**
2. **Start early, involve the right people, create partnerships and identify boundaries at an early stage. Be clear from the outset what the agenda for involvement is, who is involved, what roles people play and what the process will be.**
3. **Ensure that appropriate facilitation skills and resources are in place. Recognise that different methods and techniques will be appropriate for different types of project.**

REFERENCE

1. The Planning Pack. 2006. CLG and RTP1



INTEGRATED DESIGN

Urban design has to be accountable not just to immediate clients, occupiers and neighbours but also to future generations. Good urban design is sustainable – in its use of resources, and its contribution to the stability of communities and their economic viability. Successful schemes embody a design approach that seeks to bring together solutions to wide-ranging issues.

Integrated design requires interdisciplinary working and an understanding of how design decisions in one discipline can have impacts in other areas.

Creating places that meet all aspects of the sustainability agenda can appear daunting. Designers can struggle to integrate good urban design with issues such as orientation

for solar gain, higher density and the conflicting needs of a mix of users. But there are many historic examples of towns that continue to be successful, sustainable places with an appropriate mix of uses and densities – such places offer lessons for the future.

Good urban design is sustainable design. It is not about a matter of changing the way places look but about making places work better.

Good design **begins with an understanding of movement patterns, within which appropriate uses can be located and then suitable densities determined.**

An integrated approach has implications for how design teams work, whether in creating new neighbourhoods or remodelling existing settlements.

-
- 2.1 AN INTEGRATED APPROACH
 - 2.2 IMPLICATIONS FOR URBAN FORM
 - 2.3 ACHIEVING MIXED-USE
 - 2.4 DENSITY
 - 2.5 STREETS AS PLACES
-



2.1 AN INTEGRATED APPROACH

2.1.1 What is an integrated approach?

2.1.2 Goals and performance

2.1.3 Orchestration of the design team

Good urban design can help to create thriving places which are well designed, well built, inclusive and safe, well run, well connected, well served, environmentally sensitive and have the potential to improve life chances. These aspects are often interrelated. For example, design and management will have an impact on safety, and well-connected places are more likely to be thriving and active. Urban design has to be based on a thorough understanding of the relationships between the diverse components and functions of the built environment and, where possible, an ability to quantify those interconnections.

Today urban design practice is developing an integrated approach to a wide range of factors including resources, emissions, health, people, culture and habitat, and how the relationships between them can shape urban form. Although this agenda may seem complex, common sense application of urban design principles and collaborative working can deliver quality places.

2.1.1 What is an integrated approach?

Interconnections [024](#)

Assessing and developing interconnections needs to be more than simply adding a few green features to a scheme. Some green roofs or a few wind turbines by themselves are unlikely to make the most of the opportunities and efficiencies that are possible at the scales at which urban design operates.

The objective of an integrated process is to create places that are physically, socially and economically responsible. This does not necessarily mean changing how we make things look, but it does mean changing how they work.

Virtuous cycles [025](#)

One of the ways of revealing these interdependencies and relationships is by establishing virtuous cycles. For example, connected streets encourage walking, which improves health, creates active streets, and reduces pollution and

energy consumption. Likewise, green spaces can provide leisure facilities, and landscape can modify microclimate as well as creating wildlife corridors. Design responses to objectives such as better health, higher productivity and lower emissions can overlap, becoming mutually supportive.

The relationships between the elements of the built environment are complex. The initial task at the design stage is to identify the most important relationships for a particular situation. These should be considered in the masterplanning process. There are a number of new ways of modelling energy and resources. Spreadsheets and computer models are being developed to help this process.

2.1.2 Goals and performance

Setting objectives

Virtuous cycles can be identified at a range of scales and densities, from high density urban development to rural infill. Although there will be common issues, such as carbon reduction, the objectives and priorities will vary with the location and nature of the project. The design strategies, different for each place, should be based on an understanding of factors such as local needs, culture, climate and the availability of resources.

Setting the objectives for a project needs to be undertaken through a process of stakeholder negotiation. Workshop sessions at the beginning of a project can help to identify important issues and decide priorities. The brief that sets the context for developing these issues must be a process of integration.

Long life, loose fit

It is important that the limits and flexibility of each variable are understood at the outset. Some variables will be flexible throughout the masterplanning and design stage, while others will not. The most resilient parts of a masterplan should be the streets and related infrastructure. These are based on long-term design decisions which should allow for sufficient capacity and flexibility to last for generations.

024

Taking an integrated approach Hammarby Sjöstad, Stockholm, Sweden

This new city neighbourhood has delivered an attractive place to live and work which is also a world class example of how new developments can minimise their environmental impact and enhance its setting through careful planning, joined up thinking and strong leadership.

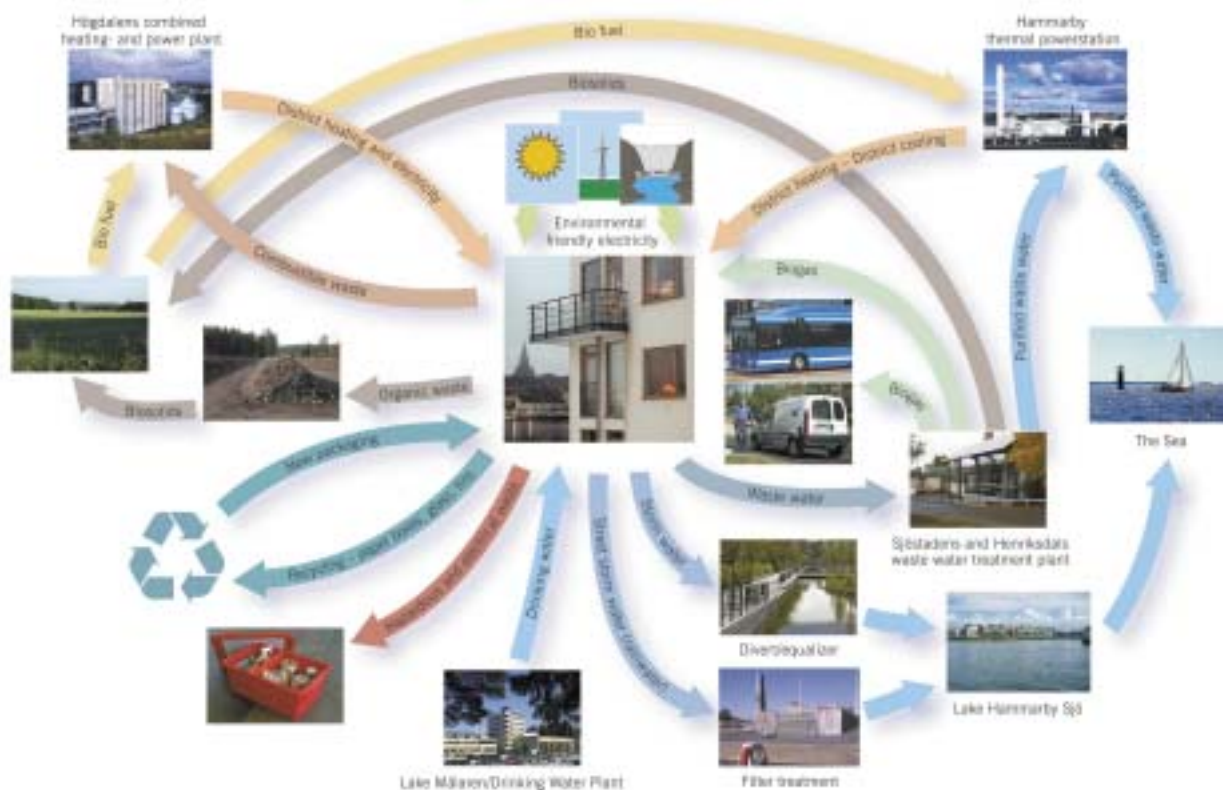
At Hammarby Sjöstad, the environmental programme was an integral element of the masterplan. This clearly set out key objectives and requirements which had to be addressed at both the planning and implementation stages of development. By having clearly stated objectives from the outset, these requirements informed the detailed design discussions between the plot developers, architects and city planning team.

Clear environmental objectives also enabled development of the Hammarby Model, which shows how the relationship between sewage processing, energy provision and waste handling in this local eco system can be structured to deliver wider social and environmental benefits.

Key features of the local ecosystem are:

- Refuse is piped to the renewable fuel-fired district heating plant in the area. Combustible waste is recycled as heat and food waste is composted into soil.
- Wastewater is treated nearby at the on-site sewage plant with heat recovered for household heating and silt converted into biogas.
- Pilot of an experimental on-site sewage works which will employ new technologies to extract nutrients from sewage and waste water for use on farmland. Surface water is treated locally to avoid overloading the sewage works.

Hammarby recognises that environmental performance is not just about design, the development also needs to influence how people use places. An environmental centre – has been established at the centre of Hammarby to promote understanding of how residents can help in achieving the city's environmental aspirations.



The Hammarby Model illustrates how sustainability initiatives have been integrated holistically.

Within this infrastructure, buildings may be replaced over time, either incrementally or on a wider scale. Buildings capable of accommodating changing uses make more efficient use of resources. An approach to building for a long life and loose fit is more responsible than building for the short term.

Some variables will be fixed by policies and by the requirements of the site. It is important to consider both current and probable future requirements, especially those related to the sustainable use of energy.

Measuring performance 026

Clear objectives will enable the effectiveness of different design scenarios to be measured. How concise that measurement is, will depend on the techniques, data and resources available. The most important aspect for the designer is to understand the nature of the relationships between different components of a plan and how design modifications can affect the desired outcomes.

It is important to measure both the extent to which the project's objectives have been achieved and also the wider impact (in terms of projected carbon emissions per square metre of development, the total carbon footprint, environmental impacts and the use of scarce resources, for example).

Demonstrating performance

A development that aims to achieve, say, a 50 per cent reduction in carbon dioxide should demonstrate this at the design stage by estimating energy consumption in the proposed development and applying carbon dioxide emissions factors to achieve this, given the proposed energy systems. The same principles can be applied to transport, taking the number and length of journeys and the expected modal split. Models can thus be built of resources and emissions to inform the design stages of a project.

2.1.3 Orchestration of the design team

An integrated project team

With the need to achieve a highly integrated design approach to complex plans, there comes a need for the project team to be equally well integrated. Such a process departs from leaving each discipline to develop and sign-off its own area and requires many more iterations of a design until the optimum solution is arrived at.

Orchestration

Coordination of the design team requires orchestration with a single person responsible for updating the masterplan. This requires comprehensive understanding of the synergy between the various components of a plan. Urban design will need to be an iterative process with continuous appraisal of how design is functioning and whether it delivers the desired outcomes.

025

Using an integrated resource management model Dongtan New Town, Shanghai, China

At Dongtan an integrated design approach is being adopted to enable delivery of a major sustainable city. The model identifies how the wide ranging technical inputs (transport, waste management, energy supply) can be optimised to deliver the desired sustainability performance objectives.

Arups Integrated Resource Management (IRM) model was used to support the design decision-making process. The IRM approach enables multi-disciplinary design parameters that have the potential to influence sustainability key performance indicators (KPIs) to be input into a common data model. The model acts as an interface between the sustainability framework and the design, and by referencing underlying data inventories, can rapidly appraise a multi-disciplinary masterplan. Its real benefit is in using the model iteratively initially to compare different options and scenarios, and subsequently to optimise a selected design by a process of design-evaluate-refine.

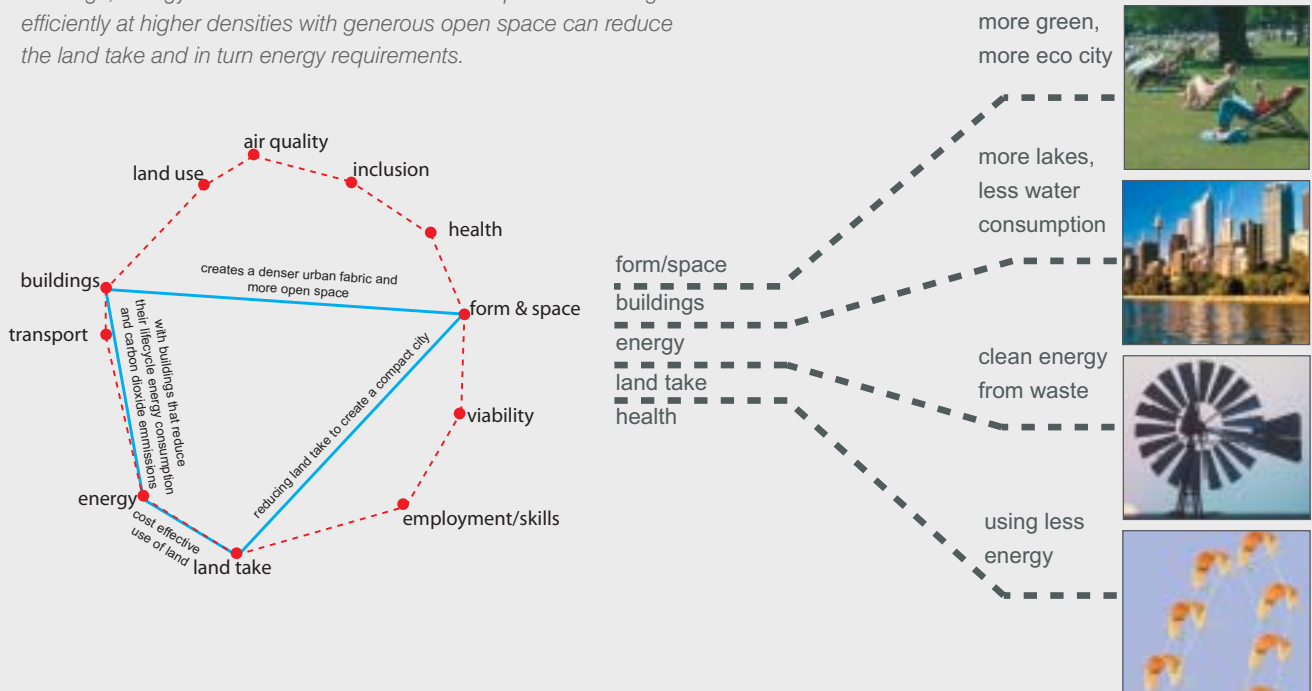
Using the model includes:

- Development of a sustainability appraisal framework comprising a set of objectives, KPIs and targets
- Establishing targets that cover aspects of sustainability management – social, economic, environmental and natural resources

Dongtan is intended to deliver the world's first zero carbon city. Using the model, the team were able to test different design scenarios to derive a zero carbon solution taking into account all significant contributions to greenhouse gas emissions. This involved, for example, design measures to dramatically reduce energy use in buildings and employing mixed use and density scenarios to reduce the need to travel.

Compact City

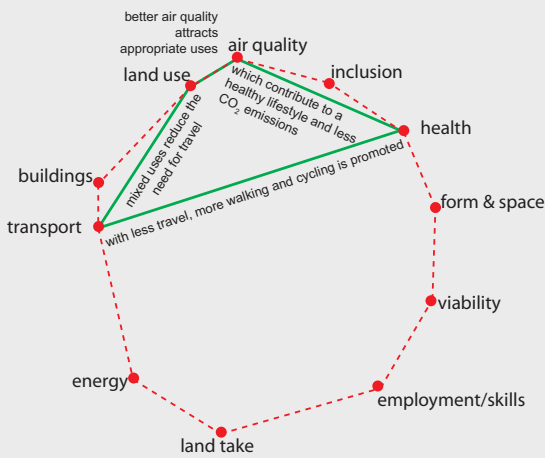
This cycle highlights the key relationships between form and space, buildings, energy and land take. It shows for example that building efficiently at higher densities with generous open space can reduce the land take and in turn energy requirements.



The Integrated Resource Model for Dongtan New Town illustrates how design parameters such as built form, environment and social issues have influenced sustainability.

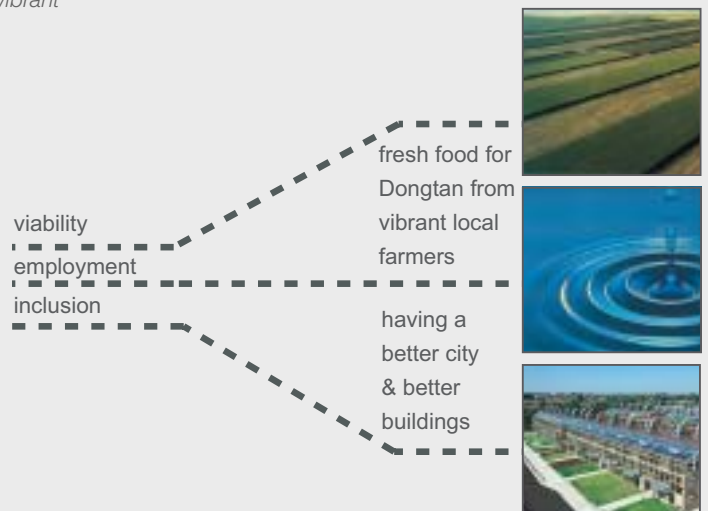
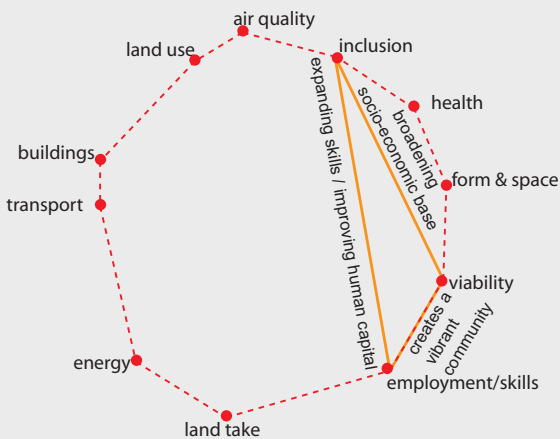
Liveable City

This cycle highlights the relationships between transport, land-use, air quality and health. It shows for example that mixing land uses reduces need for people to travel significant distances as they can walk or cycle to a range of facilities. This in turn improves health and air quality.



Socio-Economic Balance

This cycle highlights the relationships between inclusion, viability and employment / skills. It shows for example that having an inclusive place with a broad socio economic base would improve viability through the workforce's wide range of skills. This in turn promotes a vibrant community with opportunities for all to improve.



026

Delivering a zero carbon development Gallions Park, Albert Dock Basin, London

Gallions Park is a 1.24 ha site located in the Albert Dock Basin in the Thames Gateway which is set to deliver one of London's first zero carbon developments. A feasibility study was undertaken to assess how a low or zero carbon development could be delivered on this site. It also looked at whether a replicable delivery mechanism could be developed, which could be achieved at close to standard cost and act as a catalyst for the future delivery of low/zero carbon on a much bigger scale.

An Integrated Resource Management (IRM) modelling approach was used to support the assessment of different feasibility scenarios. To meet the project's objectives the study focussed specifically on CO₂ and other non-CO₂ greenhouse gas emissions arising from different contributions to energy demand.

The principle focus of the strategy was directed towards achieving targets for building energy use carbon emissions, however the IRM model was used to provide a more holistic view by assessing the relative importance of emissions associated with other aspects such as the building by its residents, embodied energy of construction materials, supply chains, transport patterns etc.

In addition to assessing the relative sustainability performance of different scenarios, the study also demonstrated that the 'true' greenhouse gas emissions of developments (based on a more representative per capita measure) are significantly higher than suggested by a more traditional assessment of energy use in buildings only. The information will inform both the developer brief specification and the assessment of detailed designs.



The 'One Gallions' consortia's winning scheme will deliver approximately 200 quality mixed tenure homes built to the highest environmental standards along with community facilities.

KEY MESSAGES FOR SECTION 2.1

- 1. Creating successful places depends on good urban design and a concern for sustainability – each depends on the other.**
 - 2. Integrated urban design is a matter of making a whole that is greater than the sum of its parts. An integrated**
 - 3. The design process is inter-disciplinary and requires coordination to be raised to a level of 'orchestration'.**
- approach is essential to reduce the environmental impact of development in new settlements and existing urban areas.**

2.2

IMPLICATIONS FOR URBAN FORM

2.2.1 Movement

2.2.2 Modifying climate

2.2.3 Energy

2.2.4 Water

2.2.5 Waste

Urban form has a major influence on climate change. Almost 30 per cent of carbon emissions come from buildings and a further 25 per cent from transport.¹ We can design places to help minimise the use of energy and scarce resources, and to adapt to predicted climate change.

Coping with climate change calls for more than just token wind turbines or solar panels. It requires an understanding of how design decisions about matters such as location, movement, connections, orientation and biodiversity make a place more or less sustainable. Much can be achieved at the neighbourhood and building scale. Developments should be designed to influence the microclimate, minimise the use of energy, and maximise energy efficiency through local supply and the use of renewables. Consideration should also be given to factors such as water use and waste management.

Creative design can conserve resources and improve habitats while also creating places that work successfully.

2.2.1 Movement

Pattern and location

Movement is perhaps the most significant aspect of urban form. Historic places have shown that patterns of movement that have been established over a long time to accommodate human behaviour are often capable of meeting changing needs. Cities are produced by the design of the built environment in response to social and economic pressures. New urban forms, developed to meet the challenge of sustainability, can be informed by an understanding of historic towns which often made efficient use of resources out of necessity.

Integrate local and wider movement networks

While there has been some success in creating permeable networks of connected streets within developments, too

often the local network remains an isolated development pod, with minimal linkages to the wider network. As a result, many developments are not an integrated part of a wider settlement. It is then difficult to achieve accessibility, security, vitality and effective mixed uses. The selection of growth areas or urban extensions need to take account of how well connected the settlement would be at the macro scale.

Opportunities should be provided for new connections to be made as a place develops. Growth should be seen as an opportunity to integrate improvements to the movement and public transport networks with an extension of the capacity and viability of the region or settlement as a whole.

Identifying areas for growth

In many cases, the location and circumstances of the sites selected will make it impossible to deliver regional growth, or to build town extensions that are integrated with settlements by connected streets. An important criterion for selection in any sequential or comparative test should be the ability to use or create routes through potential sites with direct connections on both ends to the wider movement network for all modes of transport. The selection of a site should also be based on an assessment of its relative accessibility from main routes, and the accessibility of important services from the site. Connections through routes to main routes in the wider network are the most effective way to achieve accessibility.

Creating through routes that are integral to development

Delivering growth with an integrated network of through routes requires looking not only outward to the wider network but also inward to the design of the through routes. Urban design is the context for highway design and engineering. To be successful, such routes must fulfil several different roles, accommodating transport, vehicular traffic, pedestrians and cyclists, and achieving the wider aims of urban design. It is essential to engage in early partnership working between the urban design, planning, highway engineering and transport providers to coordinate efforts, and achieve a balanced and effective solution.

The aim of the partnership working should be to find ways of accommodating appropriate volumes of traffic and public transport, orienting development with active fronts on to the main routes, giving access to development, reducing and mitigating traffic speed and noise, accommodating parking, accommodating pedestrian and cycle movement and crossing; and creating a safe and comfortable environment. Through routes are best when relatively straight. Use a street-place hierarchy rather than vehicle-flow hierarchy. Allow for frontage access as appropriate to the type of route type and position in that hierarchy.

2.2.2 Modifying climate

Creating microclimate 027

Buildings and cities should be designed in response to local climate conditions. Considering topography, street layout, landscape, building massing and the choice of materials can help to avoid heat islands, modify summer peak temperatures and reduce energy loads on buildings.

Urban design can significantly reduce the energy consumption of buildings through shelter and by providing opportunities for passive solar architecture, while also helping create a comfortable public realm. The combined effects of solar radiation, convection, thermal capacity, albedo (the extent to which an object reflects light) and wind can cause microclimates to differ by as much as 15°C in different parts of a city.

Minimising traffic fumes and using appropriate building forms can make passive ventilation of buildings an option and avoid mechanical air conditioning.

Slope analysis

Slope is a major factor in determining the ground temperature of a site. The closer a site is to lying perpendicular to the sun's rays, the more solar radiation it receives. A site in Aberdeen sloping south with a one in 10 gradient receives the same direct radiant heat as a flat site in Southampton, for example. Each 10 per cent southerly gradient corresponds to a latitude six degrees further south.

Frost pockets are caused as a layer of air immediately above the ground cools and becomes heavier. This layer of air slides down slopes until it is contained by mounding, vegetation or buildings which prevent it escaping. Such potential frost pockets can be identified by an experienced eye from a contour map, or more easily by an early morning walk over a site on a winter's day. Frost pockets can be reduced by damming the channels along which the cold air flows by buildings or planting.

Humidity

Planting, lakes and ponds will increase humidity while evaporation will reduce temperatures. Vegetation will moderate and stabilise conditions more than large expanses of hard surfaces. Appropriate design decisions need to be taken according to location.

027

Responding to Microclimate

Bo01, Malmö, Sweden

The Bo01 development in Malmö has delivered a distinctive, resource efficient and liveable place with 500 homes, commercial and community facilities. The high quality design was achieved through the ‘quality programme’, a steering instrument for planning and building.

“Prepared as a joint venture document in collaboration with developers and the city of Malmö prior to land transfers, the shared goals and vision of the Quality Programme was critical for Bo01’s success”, explains Eva Dalman, Architect with Malmö Stadsbyggnadskontor.

Its design outcomes include a street grid distorted to gain shelter from wind. Five-storey blocks front the sea, further protecting inner buildings while reinforcing the character of the sea-front promenade. Varied forms of on-plot vegetation such as green walls and roofs reduce surface water and create identifiable locations within the development. An advanced sustainable urban drainage system creates an ecological, recreational

and visual resource. Together these emphasise the varying hierarchical character of streets and public open spaces in Bo01.

A 100% local renewable energy approach adopted in the development has been successful. Orientation of building facades and roof forms maximise solar gain. In addition, solar thermal panels, wind turbines and photovoltaics help minimise energy use while maintaining the overall integrity of the architectural and urban form. Bo01 residents are encouraged to regularly monitor their energy consumption using information technology installed in their homes.

‘There were no sanctions or incentives for producing good technical solutions... the signing of the agreement was a moral commitment on the part of developers’

Tor Fossum, city of Malmö, environmental department, environmental strategy unit on the implementation of the Quality Programme.



Five-storey apartment buildings along the seafront at Bo01 respond to their microclimate by creating sheltered public spaces and protecting inner buildings with their critical mass.

028

Combining environmental standards and innovative design Oxley Woods, Milton Keynes

The Design for Manufacture competition challenged the development industry to build high-quality sustainable homes to a construction cost of £60,000 or £784 per m². Within the strict cost parameters, homes were required to meet all of English Partnerships' Quality Standards, whilst creating successful neighbourhoods that maximise the potential of each site.

Consortia were encouraged to develop construction efficiencies by working collaboratively with all the key players in the supply chain in order to maximise the potential quality and environmental performance of new homes. The competition's success is reflected through the quality of homes currently under construction.

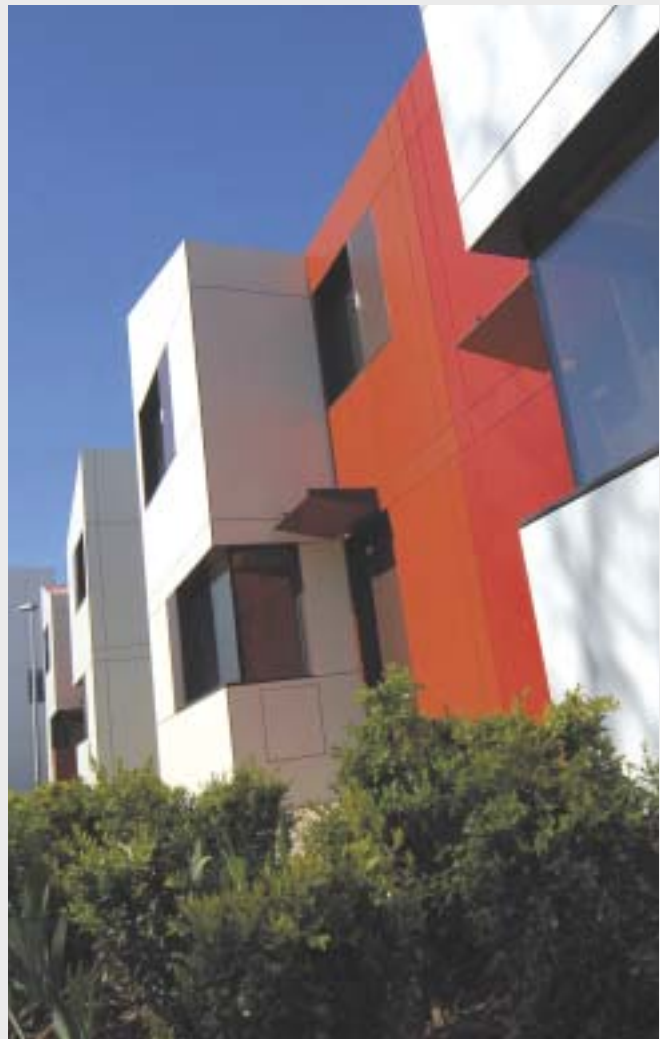
At Oxley Woods, Milton Keynes, Taylor Wimpey with the Richard Rogers Partnerships are delivering 145 innovative and imaginative homes which demonstrate that rigorous environmental and quality standards can help generate an exciting urban design response; creating homes that function well internally and contribute positively to the surrounding streetscape.

The homes have been conceived with two distinct zones, services and living spaces. Walls, floors, ceilings, stairs, heating and ventilation systems are all prefabricated in a controlled factory environment, reducing on-site construction costs whilst ensuring the quality of the finished product.

Homes are designed to maximise 'free' features such as volume and light. An 'Ecohat' acts as a new generation chimney stack, creating interest to the streetscape, whilst filtering fresh air and recirculating hot air. The 'Ecohat' can easily be adapted to incorporate photovoltaics and solar hot water, achieving a 50% reduction in carbon emissions.

The Education Centre at Oxley Woods explains the social, economic and environmental advantages of the homes, helping to raise the understanding and aspirations of potential homeowners, and act as a practical demonstration to other housebuilders – how to achieve design quality and high environmental standards within reasonable construction costs.

'We're proud of what we have come up with. By taking an exciting step outside our comfort zone, we've also taken house building a big step forward.' Ian Sutcliffe,
Chief Executive, Taylor Wimpey



Designs for homes at Oxley Woods, Milton Keynes have shown how rigorous environmental standards can help to generate exciting designs through off-site prefabrication, reduced on-site construction costs and features such as an 'Ecohat' for ventilation, photovoltaics and solar thermal heating.

The public realm

- **Albedo** – A material with a high albedo, such as a light-coloured or polished surface, reflects radiant heat, while one with a low albedo absorbs it. The colour and texture of buildings and ground cover can be used to control how much radiant heat is reflected. Hard landscape materials such as concrete (high albedo) become uncomfortably hot in summer. Mown grass (low albedo) absorbs heat into the ground, cooling a layer of air a few inches immediately above the surface. Walls will be warmer in winter if they face east or west rather than directly south, receiving a greater amount of direct radiation due to the low angle of the morning or afternoon sun.
- **Wind** – Warm summer winds can be exploited by aligning streets with their prevalent direction. Recurrent storm winds from another direction can be minimised by aligning streets across them. A wind rose, indicating prevailing wind conditions, is a useful design tool.
- **Sunlight** – In temperate climates people generally prefer to walk on the sunny side of the street. However, global warming and increasingly hot summers may now require us to plant street trees to provide shelter from summer sun. If summer shade is required, this might be best provided by deciduous trees which are able to provide shade by virtue of their summer foliage, and yet allow sunlight to filter through their branches in winter.

Buildings 028 029 030

- **Passive solar** – Opportunities for passive solar design should always be considered before other energy sources. Sunlight comes free, with no carbon emissions. The amount of heat gained from sunlight is calculated in degree-days over the heating period. Even dull days contribute to heating spaces. With legislation requiring increasingly high building insulation standards, passive solar design can provide so much energy that only minimal supplementary space heating is needed.
Masterplans which create streets within 30 degrees of an east-west orientation create plots suitable for passive solar architecture, with heat gains on front and rear elevations. North-south orientated streets are more suitable for detached buildings, or where storey heights change, allowing solar access to south-facing walls.
- **Thermal mass** – Buildings constructed of massive materials have the ability to store heat on a hot day, cooling the air, and releasing heat to warm the air at night. Conversely, developments with a low thermal capacity exaggerate extremes of temperature.
High winds greatly increase heat loss from buildings. It has been estimated that when the temperature is around freezing, reducing a wind from 12mph to 30mph would halve the heat loss from a building in the wind's path. High-rise buildings, with no shelter, suffer extreme exposure.

2.2.3 Energy

Energy supply strategy

An energy supply strategy should be formulated for all new development and, where possible, renewal programmes before masterplanning begins. New methods of energy production based on local supply have implications for urban form.

Developments should be founded on energy supply systems designed to meet demand from low-carbon (efficient and renewable) sources. As well as preventing wastage in transmission, these local energy systems can also be more easily upgraded to the state of the art, as technology develops.

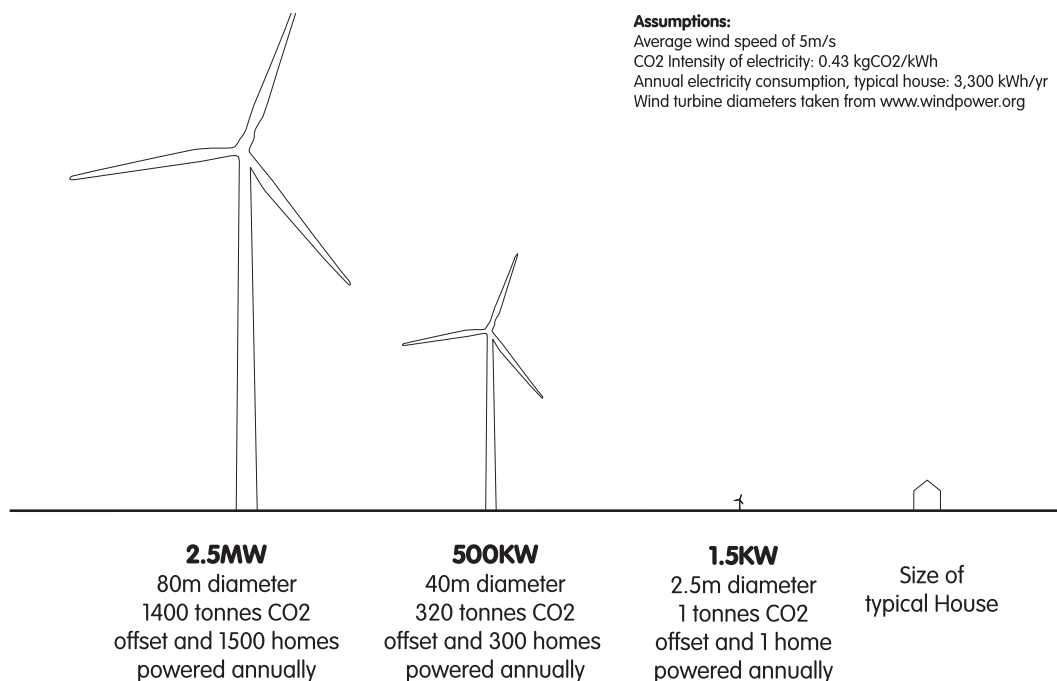
If an energy service company (ESCO) or multi-utility services company (MUSCO) is to be established, this should be decided at an early design stage. The company will need to be involved in discussions about how the services will be integrated into the scheme.

Cogeneration

Cogeneration is the production of electrical energy and another form of useful thermal energy (such as heat or steam) from the same source (either a fuel or waste heat). It is also called combined heat and power (CHP) or combined heat, chilling and power (CHCP). The UK has one of the lowest levels of community heating proportionate to the domestic heating market in Europe. Local area energy supply using cogeneration achieves considerable savings in carbon dioxide emissions (typically 25 per cent) often by using waste heat which is otherwise lost at a central power station as illustrated in the diagram on page 73. Over the lifetime of the equipment cogeneration will be one of the most cost-effective ways to reduce carbon dioxide emissions.

A local area supply system will be much more future-proof than current dwelling-based systems. As fuel availability and pricing change, the systems can be amended by converting a single plant room rather than several thousand boilers.

The best value CHP uses electricity on site, replacing the consumer electricity price and commanding a much higher value than energy generated remotely. Within the current UK regulatory regime, this requires the creation of private wire networks.



Carbon offset and power generation by wind turbines

029

Creating energy efficiency on smaller sites

Selwyn Street, Coppice, Oldham

Selwyn Street, a part of the Oldham Rochdale Housing Market Pathfinder Project, demonstrates how environmental principles can be applied to smaller sites. A development of 18 new terraced homes, the layout of the site and architecture seek to modify their microclimate.

Terraces are formed to avoid overshadowing in rear gardens. Monopitched roofs are designed to face southeast, perpendicular to the main orientation of the buildings, to maximize the potential of attached solar panels. The solar thermal panels are connected directly to all hot water tanks,

which are topped up by condensing gas boilers when required. It is estimated that this will provide 90% of hot water in summer and 60% in winter, reducing average energy bills by up to 60%. Wind turbines have been positioned on roofs of higher houses and provide up to 1kw of power. Water butts are installed in back gardens for rainwater collection.

Selwyn Street has also successfully adapted the street pattern of the 19th century and addressed the changing demographics of the area by replacing houses and flats built in the mid 1980s with larger family homes. It has effectively reversed problems of accessibility, security and low rate of rentals faced by the area.



Terraces along Selwyn Street are orientated to avoid overshadowing in rear gardens and monopitched roofs are designed to face south east to maximise solar gain.

030

Engaging the street with environmental design Rowan Road, Merton

There is a common misconception that a conflict exists between the principles of good urban design as set out in UDC1 and an optimal approach to environmental sustainability in terms of orientation, size of windows, materials or visual attractiveness.

Crest Nicholson, Kingspan and Sheppard Robson Architects came together as consortia in the Design for Manufacture competition to explore ways of delivering high quality, environmentally sustainable homes, in unique and identifiable places.

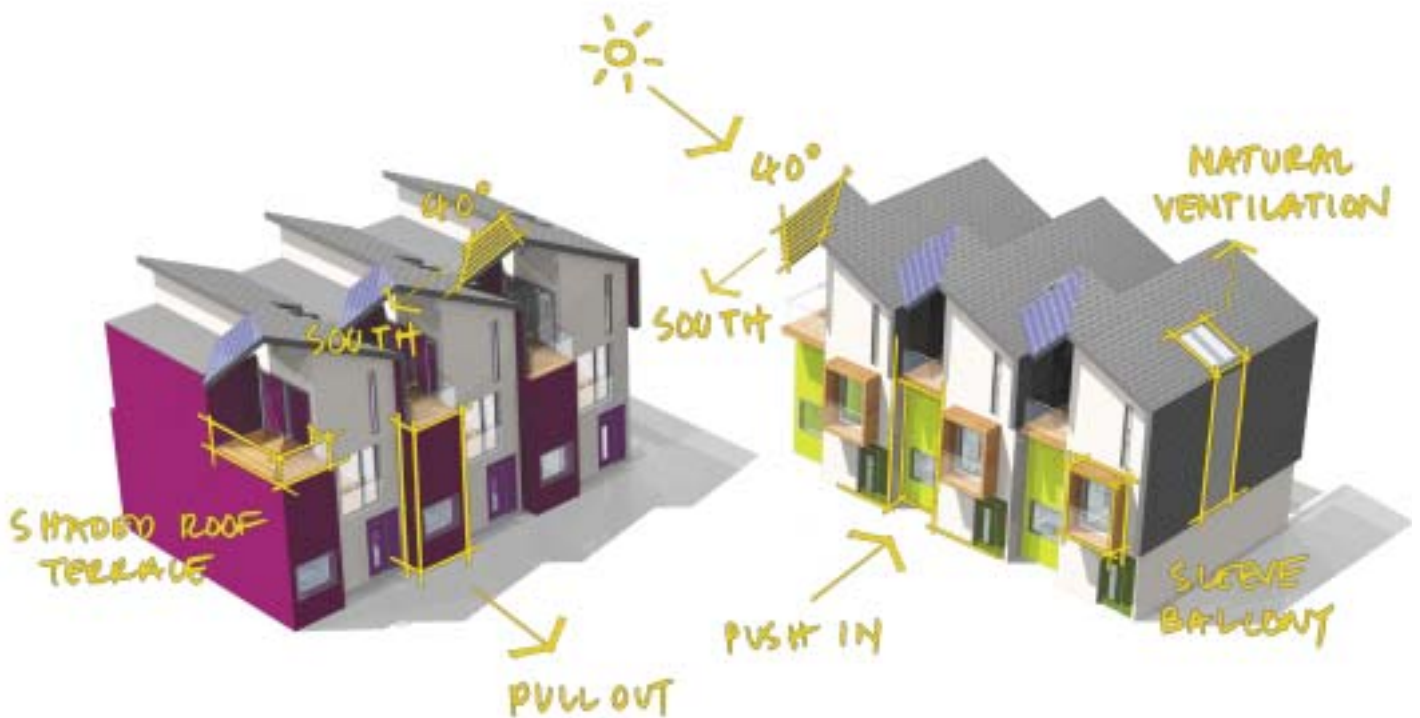
The consortia secured three of the 10 competition sites, gaining a better understanding of the potential of their product and its contribution to place-making with each response. At Rowan Road, Merton, their innovative proposals clearly illustrate how homes can be designed to high environmental performance, with maximum internal comfort, whilst contributing positively to the streetscape.

Many of the homes incorporate photovoltaic (PV) panels that partially form the roof structure. The efficiency of the PV panels

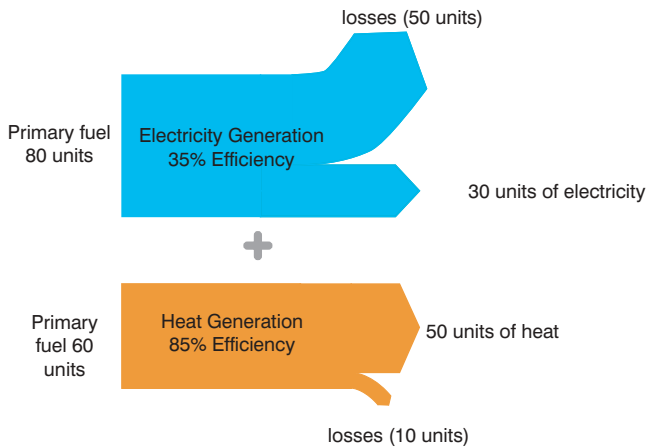
is maximized by the PV roof's independence from the building form, setting them apart by the introduction of a roof terrace below. This enables solar orientation to be optimised whilst building fronts engage with the street as required to provide strong frontages and urban spaces.

The innovative design of the roof lantern to many of the homes allows natural day lighting and ventilation to the centre of the dwelling. The day lighting achieved through the lantern means that south-facing windows can be rationalised, reducing solar heat gain without detriment to the internal space. The facades have been adapted, utilising 'pushed out' bays on the north and east facades to maximise winter sun and 'pushed in' bays on the south and west for shade. This helps create visual interest and variety to the street.

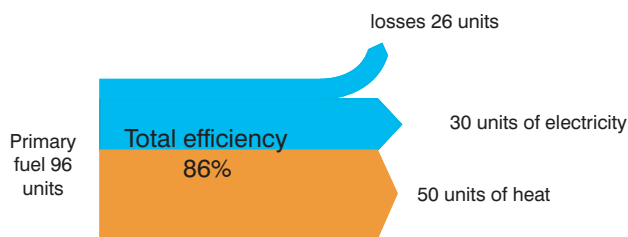
Connectivity between the occupied open-plan space, the stairwell and the roof lantern during the day ensures optimum ventilation in warm, still, summer conditions. The inherent qualities of the roof lantern mean that housing types can be used at any orientation across a site with no negative effect on the internal day lighting and passive environmental system.



Environmental strategies at Rowan Road are incorporated into the building design.



Conventional Energy Network



Community heating and CHP

CHP produces the same amount of energy from less resources

Renewable energy sources

There is a variety of renewable energy sources which can be used where appropriate, and often in combination. These, and their implications for urban form, are summarised below.

Energy from waste

Energy recovery from waste provides a double benefit. Waste is diverted from landfill and the recovery of energy can displace fossil fuel alternatives. A variety of technologies are now being commercialised. Landfill gas is widespread and proven. New gasification and pyrolysis technologies offer high conversion rates and very low emissions.

Wind

Wind can be converted to zero-carbon electricity using wind turbines. These are available at a huge variety of scales, relatively cost-effectively. Wind speeds vary greatly, however, so turbines need careful placement. Computer programs can assess open countryside as a wind resource, and methods are in development for similar assessment of urban areas.

The height of turbines has a large impact on wind speed: generally the higher the better as illustrated in the diagram. This must be balanced against the visual impact. Smaller turbines on and near buildings must be correctly located to take advantage of building height and the speed-up effect over buildings. Here turbulence means that vertical-axis turbines are expected to outperform conventional types.

Biomass

Biomass is considered to be low carbon if new plant matter is growing in place of that harvested, absorbing its carbon dioxide. Most biomass used at present comes from waste streams (waste and low-value wood and sawdust, and agricultural waste streams).

While a biomass unit (pellet or wood stoves, or boilers) can be installed in each house in a development, it will probably be more cost-effective to build a community heating distribution system. Ideally, the plant should be centrally located to diminish the potential for heat loss in the distribution network. This location also allows for the choice between radial and closed loop layouts.

Fuel will need to be stored near the energy centre or plant room. Fuel storage volumes will depend on the type of fuel and the number of deliveries that are acceptable. For example, a community of 3,000 homes (each 80m²) receiving weekly fuel deliveries will require 1,100m³ of wood chips or 300m³ of wood pellets to be stored. Consideration should be given to the need for vehicle movements and the potential air quality effect of chimneys.

Technology	SCALE			
	Building	Street or block	Neighbourhood	City
Cogeneration (CHP)	●	●	●	●
Energy from waste	●	●	●	●
Wind turbines	●	●	●	●
Biomass	●	●	●	●
Solar thermal	●	●	●	●
Photovoltaic	●	●	●	●
Ground source energy	●	●	●	●
Sustainable Urban Drainage (SUDS)	●	●	●	●
Grey water recycling	●	●	●	●
Waste separation and collection	●	●	●	●
Piped refuse systems	●	●	●	●

●	●	●
Unsuitable at this scale	Possible at this scale dependent on location, layout and resources	Suitable at this scale

Table 2.2 Appropriate technologies – what works where

Solar thermal and solar photovoltaic

For optimum efficiency solar thermal and solar photovoltaic technologies require roofs facing between southeast or southwest, and a 10-40 degree slope. But they can also be installed on flat roofs and facades, with a drop in output of 10 per cent. The orientation of roofs should therefore not be the main determinant of site layout. Imaginative thinking on varying roof and porch angles can often provide alternative locations. Four square metres of solar thermal panels will typically provide 50-60 per cent of the hot water demand over the year. Between 25-35m² of high-efficiency photovoltaics will meet a typical home’s annual electricity demand.

Ground source energy

Ground source energy uses the earth’s temperature stability at around 12-14°C and heat pumps to produce usable heat. The pumps either operate from boreholes drilled in the ground or from trenched systems. Heat pumps require electricity, so the amount of carbon emissions saved will depend on the source of the electricity.

Both borehole and aquifer heating and cooling systems work by absorbing coolness from one side of the system and depositing heat on the other side in summer. The process is reverted in winter to reuse that heat. In low-density areas, heat pumps will use coils laid in gardens in two metre deep trenches. In higher-density construction, piles can be used to reach the ground heat.

Aquifer cooling and heating is only feasible in areas with ground water resources. It offers high efficiencies and has low space requirements. Capital costs are high but there is good payback. It is ideal for large, mixed-use developments with high cooling loads.

031

Designing a SUDS scheme Upton, Northampton

Dealing effectively with water was a key priority for the urban extension at Upton following the floods in Northampton in 1998. English Partnerships recognised the importance of implementing a SUDS scheme early in the design process to control surface water runoff at source. The strategy was to limit and control surface water runoff through:

- Water butts, green roofs and permeable paving within courtyards, with restricted discharge into the public surface water drainage system
- A pipe and swale system that provide attenuation and transfer of surface water through the system
- Linked storage ponds constructed at the end of the system, around playing fields, prior to controlled discharge

The site's relatively steep gradient (approximately 1:30) presented a challenge in terms of creation and utilisation of

storage volume. Where possible, swales were aligned parallel to contour lines to maximise storage and surface area for infiltration. Where this was not possible, they were aligned to follow the slope and weirs were designed at intervals to retain the surface water, increase storage volume and also enable easy maintenance.

The drainage schemes have enhanced the high quality open green spaces provided with the swale and pond network providing green fingers extending from the country park into the public realm, enhancing the local biodiversity.

Health and safety has been a prioritisation, with early and continuous involvement of the Planning Supervisor during the design process. A management strategy of improving public awareness and understanding of the risks of surface water within the public realm has been implemented, rather than erecting impenetrable barriers across the site.



The biodiversity and the public realm at Upton have been enhanced through the use of a series of ponds and swales that extend green space from the countryside into development.

2.2.4 Water

Rainwater 031

The increasingly frequent heavy rains caused by climate change pose a challenge for drainage and floodwater management systems. With climate change also making summer droughts more frequent, it is more important to use water efficiently and recycle it. The use of sustainable urban drainage systems (SUDS) and natural bodies of water bodies can attenuate water runoff into rivers while also benefiting biodiversity.

When designing SUDS consideration should be given to how site topography can be utilised to maximum effectiveness, how the SUDS can enhance landscape design and how maintenance requirements are integrated into design.

Green roofs can also help to manage rainwater. They can also bring benefits of reducing building heat loss in winter and heat gain in summer, reducing air pollution and creating habitats.

Grey water

Grey water systems can involve using waste water from baths, showers and hand-basins for flushing toilets, and using surface water from roofs for watering communal gardens. Filtration and disinfection mechanisms will be

needed. It is currently doubtful whether grey water systems are currently viable at the scale of an individual building. However, neighbourhood scale local treatment of grey water for use in landscape is straightforward.

2.2.5 Waste

Separation and collection systems

Waste separation and collection systems are essential to allow the higher rates of recycling that are now being targeted by government and local authorities. The space and organisation needed for this (at the scale of both the home and the street) need careful thought.

Piped refuse systems

The use of piped underground refuse collections systems can have a major impact on the design of a development. It removes the need to store refuse in bins and for dustcarts to enter neighbourhoods to collect most of the waste. They can serve entire neighbourhoods, sorting various categories of waste using a common underground duct which can be transferred direct to a combined heat and power facility. Such systems have been used in several countries throughout Europe. They are economical to install in new residential areas at densities above 30 dwellings per hectare and are also being installed in dense city centres to eliminate the need for dustcarts.

KEY MESSAGES FOR SECTION 2.2

1. **Sustainable design involves looking at issues more widely than just bolt-on technologies**
2. **Urban design and sustainability considerations are not new. Buildings have always been required to modify microclimate.**
3. **The use and management of resources must inform the design process.**

REFERENCES

1. Building a Greener Future: Towards Zero Carbon Development. 2006. CLG

2.3 ACHIEVING MIXED-USE

2.3.1 Locating uses

2.3.2 Mixed-use centres

2.3.3 Making mixed-use centres work

2.3.4 Employment in mixed-use areas

Cities formed to allow a variety of people to come together to trade, to meet and to interact. Good urban design creates an environment that attracts a variety of users to interact with a variety of uses in a vibrant place that is successful socially, economically and environmentally.

A stream of different users throughout the day and evening help to make bustling, diverse, safe places. Locating a mix of uses within a neighbourhood can promote sustainability through encouraging walking to shops and facilities, providing a critical mass of customers for local businesses, creating opportunities for people to work locally, and making places for a wide range of people to participate in activities and meet each other.

Mixed-use neighbourhoods have become the default, and city centre living has become acceptable and desirable. Despite this, there remains a need for a wider understanding of how mixed-use developments can be designed, promoted and managed effectively. To be successful, mixed-use centres must be in the right place, with the right connections. They should be designed in the light of the needs of all users in accessing and using the services. Flexibility of use should be built in so that buildings can adapt as needs change. ⁰³²

These principles apply at a range of scales from mixed-use buildings and neighbourhood centres to multi-functional landscapes.

2.3.1 Locating uses

Movement and land use ⁰³³

Traditionally, towns and villages evolved at the most accessible locations such as river crossings and road junctions. Their form was often dictated by the dominant route. When designing new places, we should locate uses which require the most footfall (such as retail) in locations which are the best connected to the surrounding street structure. Connectivity is different to centrality. A site may

be central, but if it is not well connected it will not have high footfall unless a 'destination' attraction is contrived. Other uses will gravitate to locations that are less well connected. These might include some residential development which seeks to offer seclusion.

Multi-use centres

Multi-use centres must be easily accessible and served by well-designed public spaces. To achieve this they should be:

- At the junctions of movement routes, or on a route to another destination
- Served by public transport
- Orientated towards the street and visible from it
- Easy to access and pleasant to use
- Adjacent to a community facilities, if possible
- Convenient for parking, unless in a city centre location

Multi-functional neighbourhoods

Most neighbourhoods will need a residential component if they are to be safe and secure throughout a 24 hour day. Other uses are overlaid on this residential base and, in central locations, may dominate. Districts may therefore be characterised by uses such as shopping, local services, business or entertainment but also need to function as residential communities.

The uses within a neighbourhood are layered. The best urban design interventions identify and foster the different layers at which the neighbourhood works. We need to identify uses which are complementary and those which may have contrasting needs, and locate them in the most appropriate locations.

Multi-functional landscapes

Landscapes can simultaneously serve a number of functions which may benefit from their overlap. A landscape may provide habitats, resources such as water or food production, and recreational amenity.

2.3.2 Mixed-use centres

Community facilities

Try and establish meeting places for the community at the heart of the scheme, preferably at an early stage. Where the residential population is growing, temporary accommodation might be provided, such as a small shop unit, which could revert to its intended use as the neighbourhood grows.

Convenience shops and services

Special consideration is needed to deliver mixed-use centres in new neighbourhoods where phasing and investment on return need to be addressed. Residential density needs to be appropriate to make mixed uses viable. Table 2.3 sets out thresholds for viability for key facilities. Convenience shops and services require sufficient population within a five to ten minute walk (400 to 800 metres). Residential areas can support a significant floor area of convenience goods and services. Every effort should be made to retain as many of these uses as possible within the neighbourhood. This can be aided by ensuring that densities are compact, the quality of the services, and both the quality and convenience of the built environment, are right.

The provision of a mixed-use centre can reduce car use and make it possible to provide live/work homes in the immediate area.

2.3.3 Making mixed-use centres work

In a new neighbourhood, the range of facilities ultimately needed is unlikely to be viable at the early stages of the project. Here it will be necessary to consider how a mixed-use centre can begin to be provided early on. Avoid leaving premises empty and plan for both short- and long-term occupation. Increasing the number of facilities or opportunities available and accessible to potential occupiers or users in a new development will increase how they perceive the quality of life that the place offers. A high-quality environment will enhance property values and may lead to the place becoming a destination attracting people from outside the area. They, in turn, will make the mixed uses increasingly viable.

Rentals and cross-funding

An initial financial appraisal may suggest eliminating low or non-revenue producing uses to increase profitability. However, providing facilities such as convenience shops, services and cafés can considerably increase the attractiveness of a location. The cost of including small commercial units at low rentals, or with rentals related to

turnover for the first few years, might be cross-funded from the enhanced values of surrounding residential or office development. Specific occupiers might be targeted to kick-start a centre.

Essential facilities may need to be secured by section 106 agreements which require the developer to provide them at agreed trigger points such as building completion. There are, however, major benefits for both developer and community in promoting mixed uses. Planning obligations should be seen as only part of the solution.

Buildings with flexible uses 034

Live-work units which permit business or residential uses on the ground floor may help to accommodate mixed uses at a later stage if there is sufficient demand initially. This avoids the risk that ground floor commercial spaces may remain empty. A solution is to design townhouses with first floor living rooms and ground floors which have planning consent for both residential and business use. Provided that the ground floor is designed so that residential or commercial uses can be accommodated equally well, the scheme will retain the capacity for ground floors to switch to commercial use over time as the centre becomes established and footfall rises. Design considerations include:

- Floor-to-ceiling heights above three metres at ground level
- Generous unit sizes, with flexible floor plates
- Construction systems that allow larger window and door openings to be inserted at a later date
- Threshold relationships that allow visual openness or privacy depending on the dominant use

Buildings designed to fit a wide range of uses are likely to have a longer lifespan as they provide opportunities for incremental renewal. If flexible planning permissions are secured for these properties, the live-work designation can be sold as a positive attribute of the property, not as a constraint.

Centres should be designed to be adaptable to changing demands. Flexible buildings will be capable of accommodating different uses over time.

Linking uses

Think about which uses depend on others. For example, a doctors' surgery may make a pharmacy feasible, or a primary school may attract a nursery school. Developments may point to the opportunity for a specialist cluster of activities that are independent yet related, benefiting from close proximity to one another or sharing facilities. Such uses may be encouraged by providing the shared amenities and the opportunity to interact.

032

Creating a new mixed-use neighbourhood Devonport

The masterplan aims to create a new piece of town at the heart of Devonport with places to live, work, shop and relax in a high quality, attractive neighbourhood that is easy to walk around.

The plan uses perimeter blocks to separate public space from private space, and well connected streets to link the development back into the urban structure of the rest of Devonport. The plan, created with extensive engagement with local people, positions most of the mixed uses, including offices, shops, and a police station, along the main road through

Devonport, to ensure that they benefit from high visibility and passing trade. The housing is set one block back in quieter, less trafficked streets with on-street parking and a new, public park overlooked by new homes. The market and affordable housing is mixed and is indistinguishable from the street and 60% of the homes are houses with gardens whilst the rest are flats. The plan also incorporates the important listed Market Hall with a high quality new square to improve its setting, and includes managed workspace units for local employment and an Extra Care facility with over 40 bedrooms.



The masterplan for South Yard Enclave in Devonport, successfully combines over 450 high-quality homes, a community healthcare centre, new supermarket and shops, public open space, offices, managed workspace and the retention of the historic Market Hall.

033

Revitalising a village centre Tarpорley

Many people in the UK perceive the village typology, with moderate densities and scale, mixed use and easy access to countryside to represent the potential for the highest quality of life. Often however this is a romanticised view, as competition from neighbouring towns and their inevitable supermarkets force traditional facilities and amenities to close down in villages leaving few opportunities to interact and meet your neighbours.

Tarpорley in Cheshire grew up along the A49, the main route through the county to London, and developed a rich tapestry of facilities in a linear form along its high street. Like many similar villages and small towns, its bypass in the late 1980s improved travel times and road safety, and in doing so removed passing trade, making many of its businesses unviable heralding a significant decline in the quality and number of amenities in the village.

From the 1990s on, Vale Royal Council took the brave move of permitting new development in the village, often in the face

of public objection. New golf facilities and a number of new housing projects of an appropriate scale, character and quality were approved. One developer, Bell Meadow Pulford Ltd, have successfully redeveloped the fading commercial centre in this conservation area.

The range and diversity of styles, and the quality of materials and detailing, have created an environment that is both authentic and carefully considered across the 82 homes and seven commercial premises. A mix of housing opportunities ranging from two bed duplex apartments over retail units to five bed roomed detached homes has helped sustain village life and increase the local population.

The success of revitalising the village centre has helped sustain original facilities such as independent clothes shops, butchers and bakers, and attract new facilities such as coffee shops and restaurants making Tarpорley a destination village and one of the most desirable locations to live in Cheshire.



New development in Tarpорley has helped to sustain independent retailers and attract new investment to the village.

034

Creating buildings for flexible use Allerton Bywater Millennium Community

The Millennium Community at Allerton Bywater has been designed to provide opportunities for a mix of both uses and users whilst appreciating the limitations in demand for mixed use due to the rural/village location and the modest 520 new homes proposed.

The new development on a former coalfield site aims to stitch the community back together by bringing existing buildings back into use as community facilities and by providing flexible new building typologies that can be adapted for use to reflect changing social and economic trends as the neighbourhood grows and evolves.

A range of approaches have been taken to encourage flexible living and foster opportunities for employment and enterprise. Buildings fronting the village square have been designed with high floor to ceiling heights, and flexible floor plates to allow easy adaptation for commercial uses as demand increases.

The design code sets out a number of specific building typologies including one which marries a three storey townhouse facing public open space with an atelier unit to the rear facing onto the homezone. The atelier may house a garage, cycle parking, refuse and includes a flexible space on the first floor which can be used as a playroom, office, gym or workshop depending on the needs of the residents. The atelier typology plays a similar role as a Georgian mews, and provides natural surveillance to car parking areas. These units have proved so successful that Miller Homes are revisiting their standard house types to include the Millennium Community homes as part of their portfolio.

The development also provides 16 award winning workspace units (all fully let and operational), live-work units at ground level and areas for future office/employment use, all within a compact well connected urban form.



Buildings fronting the village square at Allerton Bywater Millennium Community have been designed with high floor to ceiling heights for easy adaption to commercial uses and atelier units provide flexible living space.

Parking

Adequate parking spaces are likely to be necessary to make a mixed-use centre work. The amount of land allocated to parking can be minimised by sharing parking between business and shopping (mostly in the daytime) and residential (full allocation needed in the evening). Parking should be convenient, but should not be allowed to dominate the street. Well designed, on-street parking which is integrated to the street and broken up with landscape and street furniture can help encourage use of the street and liveliness at all times of the day. Pedestrian-only streets can be underused and may be perceived as being unsafe in some locations.

Marketing

Put the sales and marketing strategy in place early in the project. Make early contact with traders and operators, and ensure that appropriate maintenance regimes are in place. Mixed-use developments should sell the concept and benefits of the lifestyle they are proposing and the high quality of life envisaged. Setting the scene for this lifestyle by providing facilities at an early stage may enhance long-term value.

Reserving sites

Where ownership permits, sites may need to be reserved for specific future uses to ensure the right mix. They should be located where they will not leave a gap, if possible. In some cases it may be possible for buildings simply to change use over time.

2.3.4 Employment in mixed-use areas

The majority of employment in mixed-use areas will be in offices and commercial outlets which can be located within mixed-use buildings or adjacent to other uses. But with careful design, even some types of factory can be accommodated in primarily residential areas.

Work from home

In some industries, information technology has made home working possible. Increasing numbers of people work from home either full-time or for part of the week. In determining the amount of employment land provided by working from home, the following equivalent land calculation should be used.

If five per cent of homes are true live-work units and a further 10 per cent facilitate working from home for two days a week, the average number of people working from such a residential area will be 90 per 1,000 households at any one

Uses and facilities	Illustrative catchments based on number of people	Indicative site area (ha)
EDUCATION		
Nursery school	2,000	0.5
Primary school (two-form entry)	4,000	0.9
HEALTH & COMMUNITY		
Doctors' surgery	4,000	0.08
Pharmacy	5,000	0.01
Community centre	4,000	1
RETAIL		
Neighbourhood centre		0.15
Local centre		0.07
Pub	6,000	0.06
Post office	5,000	0.06
Sport or leisure centre	24,000	1.00
TRANSPORT		
Bus interchange		0.07
Station development		0.07

Table 2.3 Thresholds for viability

time. Assuming an equivalent B1 gross floorspace of 20m² per worker, and a plot ratio of 0.4, this is equivalent to an employment site of about a 0.5 ha. In view of current trends for more flexible working patterns, this is a conservative estimate.

Mixed-use buildings 035

Mixed-use buildings or blocks can bring vitality and so raise values on certain sites. Considerations in fine-grained, mixed-use development include:

- Potential for shared facilities, including parking
- The need for a high quality public realm and effective management of those spaces
- Managing the needs of different users

Buildings are having to work harder to be profitable and, on central sites, mixed-uses in plan, mixed-uses in section and more flexible terms of tenure can make for development which is both responsive to market conditions and raises values by creating a more diverse and stimulating location.

035

Mixing uses within a building

Oxo Tower Wharf, London

Oxo Tower Wharf, a successful mixed-use building on South Bank, demonstrates how potential conflicts between different users can be minimised through design.

The 15,000m² Oxo Tower Wharf is home to shops, cafés, craft workshops/retail spaces, an exhibition/event space, 78 homes for Coin Street Secondary Housing Association and two successful restaurants. The challenge was to minimise potential conflicts between these different user groups and ensure successful co-existence of residential tenants, workshop owners/users and the many visitors. This was achieved through building layout, distribution of uses and access and servicing strategies.

The lower two levels, house shops, cafés and craft workshops/retail spaces. The ground floor also includes the Coin Street Exhibition and a gallery. On the second floor are a food court and 33 further designer workshops. The residential area above consists of five floors and enjoys its own entrance, lifts and parking. The rooftop, also designed to be accessible by all for public viewing, is home to the Oxo Tower Restaurant, Bar and Brasserie.

Creation of three 10-storey cores – a new main core directly below the Oxo Tower and two secondary cores at each end of the building – were critical for managing circulation and services, and reinforcing the visual organisation of the building.

“It’s not an irony that the restaurants are there... Any strategy that is sustainable has got to have something which brings in money and recycles it – it’s a Robin Hood approach!”

Ian Tuckett, Executive Director, Coin Street Community Builders, explains the economic strategy behind Oxo Tower’s success in his interview with journalist Andrew Bibby. Oxo Tower was developed by CSCB independently (instead of a joint venture), to ensure continued control over its commercial lettings.



The Oxo Tower Wharf successfully blends residential, commercial, workspaces and offices on London’s South Bank.

KEY MESSAGES FOR SECTION 2.3

1. A mix of uses is required to make successful places.
2. A mix of uses will attract a mix of users to contribute to vitality.
3. Buildings and streets must be adaptable.

2.4 DENSITY

2.4.1 Density and quality

2.4.2 Density and built-form

2.4.3 Measuring density

2.4.4 Determining appropriate densities

2.4.5 Density and time

Building at higher densities not only makes more efficient use of land but can also deliver higher quality.

Decisions on what density levels are appropriate for a location can be biased by negative perceptions. Some people imagine high density as being tall buildings crammed with small apartments which fail to relate to the local context. A greater understanding is required of how, with careful planning and good design, higher-density schemes can create successful places with a range of housing types, good space standards and an attractive public realm.

Many villages and market towns are widely seen as attractive places in which to live, yet have a compact form and relatively high density. This form and density provides support for shops, services and amenities.

Good design will establish densities which are appropriate for each particular location.

2.4.1 Density and quality

Making efficient use of land

The efficient use of land is an important objective in making development more sustainable. It is embedded in government policy. Compact development not only uses less land, but it also has the potential to create efficiencies in the use of other resources, including energy supply and transportation (see section 2.2).

Benefits of compact neighbourhoods

The compact design of neighbourhoods can bring a number of qualitative benefits:

- **Amenity** – Higher densities support mixed uses and can provide a balanced range of facilities within a 5–10 minute walk.
- **Housing** – The stock can more easily provide a wider range of housing types and tenures.
- **Transportation** – The development provides a customer base for effective public transport, while promoting cycling.

- **Economy** – The development can make local business more viable.
- **Social** – Passive surveillance and opportunities for social use of public spaces are improved.
- **Energy** – There are opportunities for more efficient form of energy supply, including local generation and distribution networks.
- **Landscape** – Countryside is retained and new landscape open space can be provided.

Densities of 50 dwellings per hectare (dph) or more have been found to support local services and make low carbon local energy provision more viable. This figure is below that for high density in the Urban Design Compendium and East Thames Gateway Higher Density Toolkit¹ (both 70dph) and London Housing Federation's Higher Density Housing for Families: a design and specification guide² (80dph). [036](#)

2.4.2 Density and built-form

Perceptions of density [037](#)

Density is just one aspect of built form. Building height, block size and building typology will all affect the character of an area and the perceptions of density.

Height does not necessarily increase density. High buildings can be less efficient in terms of the ratio of net to gross areas. Nor does a building need to be tall to be a landmark. The contribution that a tall building makes to the look of the street will depend on how it meets the ground.

Requirements of higher-density development

Many schemes are perceived to be excessively dense because they struggle to provide a comfortable environment or necessary amenity. To avoid this, higher-density schemes should pay particular consideration to the following:

- **Context** – Density needs to be appropriate to context. This does not mean that density should always be the same as the surrounding area, but new buildings need to respect their neighbours.

036

Creating an attractive high-density development Chatsworth Gardens, Morecambe

Lancaster City Council with English Partnerships commissioned a development competition to fundamentally improve the quality of the housing stock in Morecambe's West End, which suffered a complex set of social issues, including a transient population, high crime rates and benefit dependency based in buildings in multiple occupation; poor quality large properties formerly used as guesthouses.

The project objective was to attract a new population of families and aspiring single persons or couples who are needed to create a more balanced and sustainable community, and for the scheme to act as a catalyst for further regeneration changing perceptions of, and raising the aspirations of the local community.

Places for People with Peter Barber Architects have responded with an innovative solution to this seaside location, which works with the existing street network and tackles the sometimes

difficult interaction between public and private space by taking most of the private space to roof terraces and creating a block pattern of single aspect dwellings. Nearly all properties have a private courtyard which includes services, refuse, storage, and cycle parking, leading to their own front door, spacious home and private roof terrace. All homes have an allocated on-street parking space viewed directly from adjacent, whilst two pocket parks create a community focus and promote social interaction.

The proposed 1.06ha scheme provides for 101 homes at 95dph including 31 two-bedroom houses, 39 three-bedroom houses, 4 four-bedroom houses and 18 one-bedroom apartments. The site is generally two storeys in height, with three-storey elements on the busier streets and a single five-storey dwelling as acting as a landmark. An additional nine homes are proposed as duplex live-work units. All homes achieve English Partnerships' Quality Standards and clearly indicate that high density does not necessitate high rise.



Proposed low rise, high-density development at Chatsworth Gardens has created a strong sense of identity, generous space standards and innovative ways of providing amenity areas on roof terraces and courtyards.

- **Design** – Well designed housing and other buildings with generous space standards and high-quality materials.
- **Quality of the public realm** – A legible, convenient and stimulating public realm.
- **Private outdoor space** – or high-quality communal space.
- **Parking** – Accommodate adequate and appropriate car parking levels to meet the needs of the users without dominating or detracting from the external environment.
- **Management** – Effective management, including the formation of residents' groups as trusts or associations in housing projects (see chapter 5).

Space standards 038

The size of a dwelling is one of the main factors in defining who can live there and how they can use their home. Dwelling size often determines how comfortable people feel within a space and how much privacy the home offers. Good design and creative use of space can achieve both high quality and appropriate densities.

Providing homes with adequate or generous space standards does not conflict with providing appropriate densities. The UK currently has the lowest space standards in Europe, with average homes at 76m². Yet we also build to some of the lowest densities in Europe. In comparison, the Georgian house achieved some of the highest densities in the UK, while providing generous, flexible and adaptable spaces.³

2.4.3 Measuring density

There are many ways of measuring density, each of which provides different information. It is useful to understand what the differences are and what they can help to measure. The most commonly used measures include:

Dwellings per hectare (dph)

This is most commonly used measure by the planning system and developers because it is easy to monitor, with each house completion being registered. It does

not, however, give useful information as to how dense a development will look. Apartments at 60dph may actually have a smaller built volume than larger houses at 30dph with related garaging. Using dwellings per hectare to identify different character areas on a masterplan is not, by itself, reliable.

Although it is usual to multiply housing numbers by an occupancy rate (say between 2-2.2) to give a figure for the size of local population, this is only a rule of thumb.

Square metres per hectare

Measuring the amount of floorspace per hectare will indicate how efficiently land is being used and will give a much better idea of the visual density of a development. While dph indicates residential density, square metres per hectare reveals development intensity. For developers, it provides a key measure of value, with floorspace multiplied by price per square metre showing income generated.

Floor area ratio (FAR) or plot ratio

Floor area ratio and plot ratio are the same. They express the ratio between gross floor area and site area. They indicate the intensity of land use and give some indication of massing volumes. Specifying minimum and maximum values is sometimes useful in development coding.

Bedspaces per hectare

This measure will theoretically provide a more reliable estimate of catchment population in residential areas than dph. But it is an indicator of population capacity rather than actual use, as some dwellings may be under-occupied.

Habitable rooms per hectare

This provides a useful measure of the extent of the building stock in a given area and the efficiency of land use. Both habitable room and bedspace densities will give an indication of resident populations and an accurate calculation of population capacity. This can be helpful in calculating the likely demand for amenities and services such as public transport.

037

Changing perceptions about density Visiting the Best Study Tours

In support of its campaign for better quality new housing design, the Civic Trust along with Design for Homes and English Partnerships, carried out a series of study trips for local planning authorities.

The day tours which showed officers and members a range of housing drawn from Building for Life case studies, aimed to reverse some of the myths about high density housing and demonstrated how schemes across the country have delivered higher densities within successful places. The study trips were planned to help build councillors' confidence and capacity in determining planning applications for higher density housing.

One of the most popular schemes amongst members proved to be Lacuna (58.5dph). A mixed use development of 260 homes

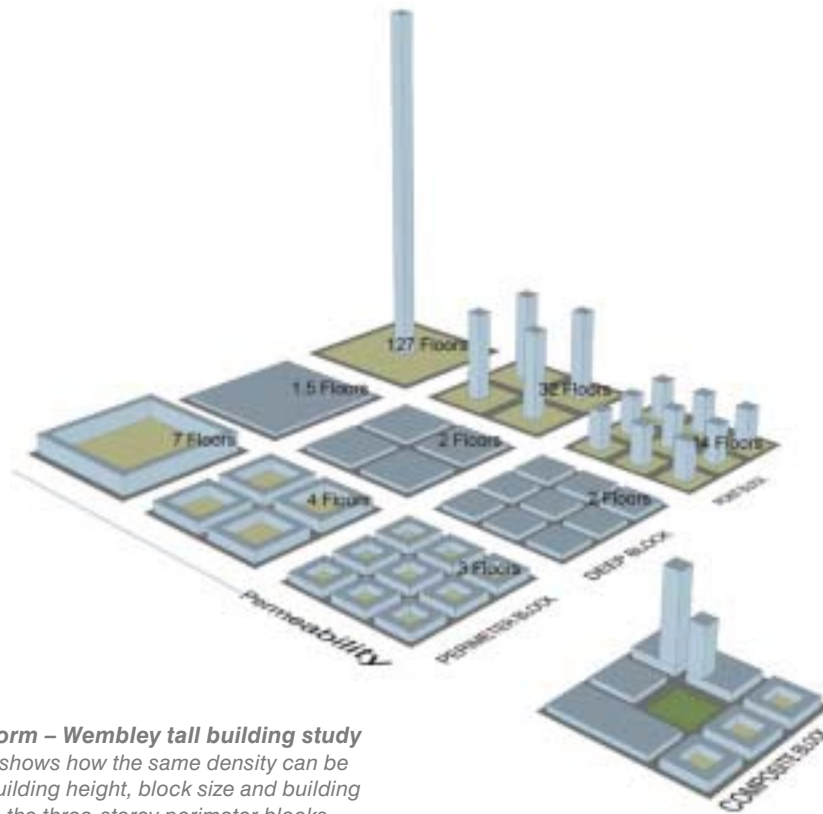
(two, three, four and five-bedroom homes) which are mostly detached. Densities that at the beginning of the day had been deemed inappropriate by delegate for inner urban areas, were looked on as acceptable for suburban areas by the end of the tour.

Delegates feedback demonstrated that 'go see' tours can have an immediate impact with many delegates having more positive views on high density following their trip.

'This has opened my eyes to what high density can be with careful forward planning. Design is very important – there is no space to ever blur mistakes and materials need to be well thought out' quote from delegate.



A study trip to Lacuna, West Malling, Kent helped local authorities to understand how to deliver high-density, successful places.



Density and urban form – Wembley tall building study

This analysis by REAL shows how the same density can be delivered by varying building height, block size and building depth. In this example, the three-storey perimeter blocks deliver the same density as the 22-storey (check) point block (7,200m² / ha).

Economy, health and pathology

All of the above measures concern physical aspects which are under the direct influence of the urban designer. Forecasts of outcomes for new areas or surveys of existing areas might include thematic density maps such as:

- **Children per hectare** – Essential for calculating school provision but also as an indicator of the age profile of an area.
- **Economically active people per hectare** – An indicator of employment needs. Taken with other factors it may also indicate economic success or deprivation.
- **What measures to use: density profiles** – A set of density dimensions is required to understand both the density of built form and socio-economic issues. Select appropriate measures of density for the issues to hand.
- **What areas to include** – Planning Policy Statement 3 (PPS3)⁴ sets out the basis for measuring housing density. It urges local authorities to adopt its

proposed approach to defining net site density. A net density includes only those areas for housing development and directly associated uses.

PPS3 net density would normally include:

- Access roads within the site
- Private garden space
- Car parking areas
- Incidental open space and landscape
- Children’s play areas (where these are to be provided)

PPS3 net density normally excludes:

- Major distributor roads
- Primary schools
- Open spaces serving a wider area
- Significant landscape buffer strips

038

Maintaining amenity and creating high density Accordia, Cambridge

The residential scheme at Accordia, Cambridge sites 378 new high-quality mixed-tenure homes at a density of 47 dwellings per ha. Although local residents initially opposed the proposals as overdevelopment, the successful extension of the character of the surrounding area and landscape has helped create a remarkable setting for this new development.

Individual villas, terraced houses and apartments are set amidst large open areas and mature trees making this higher density development feel unusually green. Generous open space for walking and play add to this character.

A range of house types designed by three different architects creates architectural variety. A clever play of height and massing within the overall landscape structure has made the scheme

highly legible. A rich mix of high-quality materials has been used. Brickwork and garage doors used in the affordable units match those of private housing. Large glazed openings have been used throughout the development to provide views of the surrounding landscaped, high levels of daylight as well as a means of unifying the different architectural parcels.

Most homes are designed to Lifetime Homes standard and can therefore accommodate changing life patterns and future needs. This adaptability is achieved through the adoption of constructional techniques such as party walls with light steel frame infill and moveable partitions. Larger houses can be used for 'live/work' with the addition of cabling or use of rooms above garages. Accordia also scores well in terms of construction quality and building performance.



Large open areas, mature trees and generous open space standards help to make higher-density development at Accordia feel unusually green.

039

Accommodating changing needs Tattenhoe Park, Milton Keynes

A single generation can witness significant swings in terms of social and demographic trends. For homes to be sustainable they must be capable of adapting to the various and changing needs of many generations of uses and users.

At Tattenhoe, a proposed new neighbourhood on the edge of Milton Keynes, the Milton Keynes Partnership has developed a masterplan and design guidance which promotes the concept of Super-flexible Homes. Prospective developers shall be required to demonstrate how their proposed development can be used in different ways to meet different lifestyles and changing circumstances.

New dwellings will need to illustrate how they are building on historic and emerging good practice to incorporate design features that make adaptations and extensions easier than in a standard dwelling by either reducing cost or construction work or both.

A flexible approach to planning approvals is being developed which shall allow buildings to be adapted, extended, sub-

divided, amalgamated or changed in use. This allows residents to adapt their dwellings over time as their families grow and contract, or as their working requirements change. Homes should also be capable of responding to advances in technology.

Super-flexible Homes enable and accommodate an incremental increase in density (both persons per hectare and square meters per hectare) of a neighbourhood. In view of this, amenities such as parks and open spaces at Tattenhoe are provided such that they can cater to a larger population in the future.

The image below gives an indication of the principles being promoted at Tattenhoe; it illustrates a concept developed by HTA Architects on behalf of Barratt Homes, for the Design for Manufacture competition. The proposal illustrates that by avoiding load bearing walls within the centre of homes and using the full volume of the building envelope; homes have the potential to be either flexible free flowing spaces or sub-divided to provide additional rooms as required.



Up to 30% of all dwellings across Tattenhoe Park, Milton Keynes will be designed as Super-flexible Homes to allow for easy extension or adaptation over time.

2.4.4 Determining appropriate densities

Transects

Deciding exactly what counts as high or low density is relative. It depends on location. The transect approach provide a useful context.

A transect is a section drawn through a geographical area, from centre to edge. The term was originally coined by ecologists. The tool has been usefully applied in urban design to examine changing urban characteristics from city centre to edge of town. Few towns are concentric, so various transects for any town are likely to be different.

Mapping density profiles against transects can provide a useful insight into the characteristics of a town and help in setting density targets for new development.

Factors which might determine an appropriate density include:

- **Surrounding built form** – Height massing overlooking tall buildings. A transect approach will place higher densities in central locations and lower densities at the periphery.
- **Capacity of facilities** – The number of people needed to make these work existing capacity public realm.
- **Housing types** – The masterplan is best placed to determine the types of housing. Market considerations can skew housing provision, however. For example, small units are currently most profitable.
- **Need for different types of housing** – Sizes, tenures, types.

- **Density mix** – If the site area is more than half a hectare, density bands showing gradations of density (as opposed to a flat density across the site) will be appropriate. The rationale for density bands is based on street hierarchy (higher densities along principal routes and lower densities along tertiary or minor routes); character areas and neighbourhood centres (a centre on a confluence of routes is likely to be able to support higher densities). If the site area is less than half a hectare, it will be appropriate to select particular types of building appropriate for the scale of the proposed development, based on that of adjoining areas.

2.4.5 Density and time

Evolution 039

Densities should not be fixed for all time. Development should be planned to enable densities to change in response to need. Cumulative densities change as areas evolve and mature. This capacity for change and intensification should be built into both the masterplan and, where possible, the design and construction of individual buildings.

Possible approaches include the concept of Lifetime Homes, where design and construction allow for easy adaptation to reflect users' changing needs. Homes that allow conversion or expansion (through the use of a loft space, the reconfiguration of existing space to create different-sized rooms, or an expansion at the rear, side or upward) are likely to be more responsive to changes in social and demographic trends, and therefore be more sustained in their use. The inclusion of flexible homes which may be subdivided will help to increase densities incrementally.

KEY MESSAGES FOR SECTION 2.4

- 1 **Higher densities can help to create successful places by supporting local businesses, services and facilities.**
- 2 **Higher density does not mean building tall. Good design can enable higher densities to be achieved using a range of building and layout types.**
- 3 **Higher density does not mean building smaller units. Generous space can be accommodated at higher densities through good design and a creative use of volume, light and outdoor space.**

REFERENCES

1. www.east-thames.co.uk/highdensity
2. Higher Density Housing for families: a design and specification guide. 2004 London Housing Federation
3. Unaffordable Housing, Fables and Myths. 2005. Policy Exchange
4. Planning Policy Statement 3: Housing. 2006. CLG

2.5 STREETS AS PLACES

2.5.1 Designing the public realm

2.5.2 Detailing the public realm

2.5.3 Making streets work harder

2.5.4 Designing for sustainable transport options

As the Manual for Streets¹ states, while roads are essentially 'highways whose main function is accommodating the movement of motor traffic', streets have several functions 'of which the place function is the most important'. It is this place function that distinguishes streets from roads. Streets are not just for movement. The quality of this public realm can improve our quality of life and increase our desire to spend time in these places. How successful the public realm is will depend on how it meets a wide variety of users' needs and how it fits with the surrounding area.

Streets also have other functions, principally movement, access and parking. Movement plays an important part in town centres. The traditional high street often accommodates cars, buses and parking, making uses viable while providing an attractive and convenient public realm. Many major new developments have applied lessons learned from the traditional high street to plan new neighbourhoods around such movement corridors, rather than promoting pedestrianised central areas.

Urban design has a major role to play in ensuring that streets are able to deliver each of these functions effectively.

2.5.1 Designing the public realm

Successful place-making 040 041

Particular attention has to be paid to ensuring that the public realm aspirations of a masterplan are successfully delivered. The checks below will predict the qualities of a proposed public space and whether it will be successful:

- **Context** – The position within the movement hierarchy will determine how intensively the space will be used.

- **Activities bordering the space** – Surrounding land uses, plots widths and signs of life within the bordering buildings will affect how much life the space attracts. The edges are usually the most populated parts of a public space, as people seek niches from which to view passing activities.
- **Activities within the space** – Spaces should be designed to accommodate a range of activities at different times of day or year.
- **Microclimate** – People seek out places that are sheltered from the wind and can offer the prospect of sunshine with some shade for the hottest days.
- **Scale** – The scale needs to be appropriate to the intended function of the space. Bigger is not better. Over-sizing will result in a dull place with insufficient activity.
- **Proportion** – The degree of containment will determine how well a space is defined. Any sense of place will be lost if there is too little containment.
- **Objects within the space** – Trees, changes in level and public art provide places around which people can congregate.
- **Management** – Public realm requires coordinated management to ensure that quality is maintained and places feel safe and secure (see section 5.1).

2.5.2 Detailing the public realm

The detail of the public realm will have a significant impact on the quality of the place. Effective coordination is needed from the design stage through to delivery and maintenance. There are currently around 25 agencies in the UK empowered to undertake works on streets, install equipment or give approvals. The challenge is to ensure that their requirements are met without the confusion and clutter that can diminish the sense of place.

040

Rejuvenating a public space Trafalgar Square, London

Through careful research-based design the Trafalgar Square redevelopment has produced a highly successful civic space.

The Trafalgar Square redevelopment is the first phase of Foster and Partners World Squares for All masterplan, the main stated aim of which is to reduce the conflict between people and cars. The design was based on extensive research and consultation, including traffic and pedestrian movement studies, undertaken using Space Syntax's pedestrian movement model. This identified why both Londoners and tourists failed to use the space and informed the development of design solutions. The closure to traffic of the northern edge of the square has linked

the National Gallery with the existing square, transforming it from a traffic island into a major urban space.

After completion the square was soon incorporated into pedestrian movement patterns leading to an increase of 250% in pedestrian movements within the square itself, and an increase of 100% in local movements. There has also been a rise from 1.3% to 9% in people who use the square as a through route. Londoner's identification of the square as a destination has also changed whereas previously 1.9% saw Trafalgar Square as a destination this is now 17%. Since completion the square has hosted numerous public events including the Summer in the Square programme and is now a notable public space within London's urban fabric.



The Trafalgar Square redevelopment has transformed an existing traffic island into a major urban public space with an increase in activity of 250%.

Street furniture

Specification should ensure fitness of function, and minimise clutter. It might also take advantage of sponsorship opportunities. Designers should liaise with bodies which will be responsible for maintaining street furniture to ensure that quality will not be compromised following future repairs.

Many of the items in the street can be dispensed with. Consider quality, not quantity. Essential items can be grouped together. Signage and lighting, in particular, can usually be tidied up by eliminating posts and columns. Street lighting and street signs can be fixed to buildings, if this is planned in advance and appropriate legal covenants are in place before the building is sold. (See section 4.3)

Street trees

Street trees reduce wind speed, clean the air, improve the street's appearance and create habitats. With climate change, their contribution to shading the street will be increasingly valuable. Government-funded studies in the UK and US have established the value of tree-lined streets. They note that mature trees can add up to eighteen per cent to the value of housing². Designers should work with local authorities from an early stage to ensure that problems relating to adoption can be overcome.

Lighting

A coordinated lighting strategy that works with both the public realm and architecture can reduce clutter. Lighting levels can be designed to correspond to the street hierarchy, rather than being of uniform brightness. Avoid light pollution but consider the role that architectural illumination on important buildings can play in helping people to find their way around.

2.5.3 Making streets work harder

Streets used to accommodate a wide range of uses. In the late 20th century priority was given to the movement and parking of vehicles. Today we need to re-establish multi-functional space appropriate to 21st century needs. This rediscovery of the place function of the street is supported by The Manual for Streets¹ which advises that to create places that work for all members of the community, a street should:

- Help to build and strengthen the community it serves
- Meet the needs of all users by embodying the principles of inclusive design
- Form part of a well-connected network
- Be attractive and have its own distinctive identity
- Be cost-effective to construct and maintain
- Be safe

Multi-modal streets 042

Accessibility and ease of use are essential in persuading and enabling people to take to walking, cycling and public transport. Space must be allocated for various modes, and for stops and stations.

Space for different modes should be provided within shared corridors to make efficient use of space, provide choice, and create activity along the streets. This will help to make streets safe. Stops and platforms can be ideal locations for small shops. The detailed design of the corridor should be based on the character and hierarchy of the street.

Multi-modal streets allow different modes to share the same corridor. But simply adding up lane-widths for each mode can result in extremely wide, inhospitable streets. It may be necessary to consider how different modes can share the same space, perhaps at different times of day or on different days of the week. For example, cars can be allowed into an area during the evening or bus lanes can be operated at peak travel times.

041

Creating a successful civic space Sheffield Peace Gardens

Civic gardens located in the right place at the heart of Sheffield City Centre provide a successful green haven for city dwellers.

Designed on the original site of the now demolished St Paul's churchyard, the Peace Gardens have been redeveloped into a popular and thriving destination. Its location at heart of the city, surrounded by a mix of uses has given it the groundings for success. The adjacent Town Hall and Winter Gardens plus the nearby Millennium Galleries also provide the Peace Gardens with much life and activity.

Based on a comprehensive public consultation exercise the gardens incorporate fountains, seating, lawns and planting all set around 1.5m below street level providing containment

and thus adding to the space's haven like nature. This change in level also aids both acoustic and visual separation from the surrounding roads.

Artists were commissioned to produce works that would form an integral part of the gardens and echo Sheffield's cultural heritage of industry and craft. These pieces from stone, metal and ceramic, along with commissioned street furniture, provide people of all ages and abilities with places for congregation or quiet reflection.

The Peace Gardens are part of Sheffield's Heart of the City Project that comprises new urban spaces and new high-quality architecture and have brought about a transformational change in the development of the city centre.



Changes in level to aid acoustic and visual separation from traffic and the use of local artists to create artworks that reflect local heritage and identity have helped Sheffield Peace Gardens become a successful place.

Street hierarchy

When setting out street layouts and designing corridor sections, the following aspects of the movement and visual hierarchy need to be considered:

Movement hierarchy

- Traffic volume
- Number of dwellings served
- Type of vehicles accommodated
- Whether or not there is direct access to individual properties

Visual hierarchy

- Scale (the distance between building fronts)
- Enclosure (as determined by building heights)
- Carriageway and footpath widths
- Street trees which can subdivide a street into different zones

The busiest and best connected streets do not necessarily have the widest corridors. It is common for wide arterial routes to narrow where they become a high street. Street sections need to be appropriate to each segment of a movement corridor.

It is important to identify those streets whose key function is place rather than movement. This will include residential areas and some high streets. For these areas, consideration should be given to how street design can enhance and promote the sense of place.

Modifying driver behaviour through design

Drivers often drive at what they perceive to be a safe speed or what they feel is a reasonable speed for a particular road, even if this conflicts with signed national and local

speed limits. The design of the road layout, townscape and landscape can reduce the disparity between the legal speed limit and the driver's perceived safe limit. Physical design constraints and psychological considerations should be taken into account.

Home Zones use both design speed and physical design constraints to deliver truly multi-functional streets which give equal priority to all users. See section 4.3 for more details.

2.5.4 Designing for sustainable transport options

Regional movement strategies provide the context for new development to tie into existing public transport arteries. Likely travel generation and modal split are not only congestion issues but are also critical for energy use and carbon dioxide emissions.

Density and mix will significantly influence the demand profile for different types of travel. A dedicated public transport route, with a clear and legible space within the streetscape, and a clear and legible route connecting to significant places, will ensure that the system (bus or tram) can operate without congestion and will attract more users.

Making transport routes clear

The plan should make public transport routes clear to users, ideally following the upper levels of a street hierarchy. However, the masterplan should build in flexibility to accommodate potential changes in transport options in the future. A shared corridor for different travel options can enable this to happen.

Delivery considerations for public transport are considered in section 4.2.

042

Designing streets for different uses

New Road, Brighton

The improved New Road, one of Brighton's most important streets, is one of the few shared-surface multi-modal non-residential streets to be adopted. Initiated by Brighton & Hove City Council and led by Gehl Architects and Landscape Projects, designs are informed by a detailed understanding of how people use the site and the historically sensitive surroundings of Brighton's Royal Pavilion and its gardens, where they walk and choose to spend time.

Based on consultation with existing users a broadly accepted vision for new urban life on New Road was achieved. It today incorporates interests of different user groups and encourages sitting, standing and walking activities based on people-focused public space programming. Cars are allowed at all times but the character of the street signals pedestrian priority.

Partnership working and involving road users from the outset has resulted in a good understanding of the scheme and its potential benefits. The people in the street have been positive about the project, even as work has temporarily affected their businesses.

The success of the design has been noticed almost immediately with the street becoming a new social hub, providing a venue for community events and increasing trade for existing pubs and restaurants.

'The scheme did not really suffer from any significant barriers as the required political support that seems to have held back similar schemes that "break from the norm"...was present in Brighton & Hove.'

Jim Mayor, Brighton & Hove City Council Project Manager.



Improvements to the public realm in New Road, Brighton has led to the street becoming a new focus for social activity and an increase in trade for businesses in the area.

Parking	Central (Mostly flats)	Urban (Terraced houses and flats)	Suburban (Detached and linked houses)
	Off Plot		
Multi-storey	●	●	●
Underground	●	●	●
Undercroft	●	●	●
Podium	●	●	●
Mechanical	●	●	●
Front court	●	●	●
Rear court	●	●	●
Mews street	●	●	●
On Street			
Central reservation	●	●	●
Right angled	●	●	●
Angled to pavement	●	●	●
In line with pavement	●	●	●
Housing square	●	●	●
On Plot			
Mews court	●	●	●
Chauffeur unit	●	●	●
Integral garage	●	●	●
Attached garage	●	●	●
Cut out or drive through	●	●	●
Rear court	●	●	●
Car port	●	●	●
Hardstanding	●	●	●
Detached garage	●	●	●
Detached garage to front	●	●	●

● Rarely suitable location
 ● Can work in location when risks are removed
 ● Appropriate location at all times

Table 2.5 Car parking: what works where

Walkable neighbourhoods

The street pattern and level of connectivity, both locally and globally, are critical to making a neighbourhood walkable. Research has shown that people are more likely to walk routes that offer long-distance views of where they are heading. Sense of safety is a key factor determining people's choice of walking and cycling. In order to make safe and secure streets, the following fundamental aspects should be considered when designing for the pedestrian:

- Pedestrian routes should be part of shared corridors and road space
- Building frontages (front doors and windows to habitable rooms) should be along the streets
- Street lighting for night time safety
- Allowing cars into central areas in the evening can create more activity and provide natural surveillance
- Ensure routes are accessible for users of all abilities³

Making cycling an attractive option

Traffic calming can enable cyclists sharing trafficked roads. Sustrans' Making Ways for the Bicycle recommends that *'a policy to promote cycling does need modal share targets for resource allocation as much as monitoring, even if those targets may well need an early upward revision'*.⁴

Accommodating the car

Promoting alternative modes of transport can reduce car use. However, ownership is likely to remain high and space for parking may often still be required within the public realm. How this is accommodated will have a significant impact on the quality and usability of the public realm. If parking is poorly designed, people will often use surrounding public realm which is not designed to accommodate parked cars. Parking should be convenient but not dominate.

Parking with frontage access can overcome many of these issues and provide the most effective and attractive parking solution. People understand how it works, it is convenient, and it can increase the activity and safety of the street.

Designers should consider how on-street parking can be maximised by providing appropriate street widths.

This is not the only solution. Each location requires careful assessment of the balance of what can be provided on street and on plot in order to deliver an effective solution. Table 2.5 illustrates the suitability of car parking treatments to particular residential locations. It is taken from Car Parking: what works where,⁵ English Partnerships and Design for Homes's publication which uses 24 case studies to illustrate appropriate car parking treatments for specific locations.

KEY MESSAGES FOR SECTION 2.5

1. Design of the public realm should create legible, efficient and stimulating environments.
2. Public spaces can accommodate different modes of movement by making streets work harder.
3. Involve all bodies early on to ensure design of public realm is coordinated, without clutter.

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DELIVERING QUALITY AND ADDING VALUE

Good design can add economic value. It can create areas where people want to spend time, helping to transform property markets. Well-designed places do more than add economic value: by creating places people want to live and work in, places people feel safe to walk around, places with good access to open space, public transport, facilities and job opportunities, good design can help to produce a range of social and environmental benefits.

To achieve this requires:

- Commitment to achieving high standards of design
- Understanding of how good design can add value

- Mechanisms to support good design
- The right tools to select developers able and willing to create successful places

Good urban design can translate into higher values.

Applying urban design principles does not necessarily increase costs. Arranging the urban structure, the spaces between buildings, and the landscape thoughtfully does not necessarily cost more.

Creating successful places requires long-term funding and commitment.

-
- 3.1** WHY GOOD DESIGN?
 - 3.2** ADDING VALUE THROUGH DESIGN
 - 3.3** DEFINING THE RIGHT MECHANISM AND TEAM
 - 3.4** PARCELING LAND AND PHASING
 - 3.5** PROCURING QUALITY PARTNERS
-



3.1 WHY GOOD DESIGN?

3.1.1 Financial value

3.1.2 Social and environmental benefits of good urban design

3.1.3 Value for money and Best Consideration

3.1.4 What is the cost of bad design?

Well-designed places where people want to live, spend time and work can generate financial value. Some developers understand this and invest their time and resources in delivering quality to obtain high rewards. The value of places designed on principles of good urban design is much wider than just financial value. Embedding the principles of place-making within a scheme also improves the quality of life for those living there, delivering social and environmental value. It is of interest to all parties – including landowners, house builders, developers, local authorities and other public sector promoters – to understand the principles of good urban design and ensure that they are followed.

The added value of a well-designed place can manifest itself in many ways for the different stakeholders involved. It is important that all stakeholders recognise what they are. Some of the long-term social and environmental benefits are less tangible and can be easily overlooked. Table 3.1 clearly sets out the beneficiaries of value in urban design.

3.1.1 Financial value

The argument for investment in good urban design is simple: it can add value. However, short-term considerations sometimes override long-term benefits. To minimise costs, some developers will look to limit upfront investment in design to the minimum required to obtain planning approval. Others invest more upfront, expecting higher values and receipts that will maintain or improve their overall return on the project.

Evidence shows that good design will increase the financial reward landowners and developers can receive for a scheme. Recent analysis suggests that landowners and promoters who invest in place-making can expect to achieve higher development and land value over the

medium and long term. International research has found that developments based on sound design principles can raise values by 10-15 per cent.¹ Recent work in the UK undertaken by The Prince's Foundation, English Partnerships and Savills confirms the existence of a value premium associated with good urban design.² A 2007 study undertaken by NWDA/RENEW Northwest found that not only could good urban design lead to an increase of 15-20 per cent in rental or capital value, but it would also accelerate lettings and sales rates.³ These studies reinforce the findings of CABE's studies of the value of good design.⁴ [043](#)

Enlightened developers perceive that there is a strong commercial argument for investment in urban design. Sixty-five per cent of the Building for Life gold winners have proceeded with no public-sector subsidy. In these instances the decision to promote high-quality design has been made on commercial grounds. [044](#)

Good urban design can create a sense of place where there was none, and will build on the assets of an inherently well-located site. Designing well can speed planning consents, add value to land (see section 3.2), achieve faster property sales or lettings, and improve developers' reputations and brands. It can provide a competitive edge over other schemes. This can be particularly important in the growth areas, where a number of competing new developments may come on stream at the same time. [045](#)

Good urban design has the capacity to change market perceptions and behaviour. It can help to create and establish markets where none exist. Design has been at the heart of recent initiatives such as the coalfields redevelopment and housing market renewal pathfinders. A fundamental understanding of context, urban structure, connections and investment in details and management have helped to make these once more places where people want to be.

The Beneficiaries of Value in Urban Design		
Stakeholders	Short-term value (social, economic and environmental)	Long-term value (social, economic and environmental)
Landowners	Potential for increased land values	
Funders (short term)	Potential for greater security of investment depending on market	
Developers	Quicker permissions (reduced cost, less uncertainty) Increased public support (less opposition) Higher sales values (profitability) Distinctiveness (greater product differentiation) Increased funding potential (public/private) Allows difficult sites to be tackled	Better reputation (increased confidence/trademark value) Future collaborations more likely
Design professionals	Increased workload and repeat commissions from high quality, stable clients	Enhanced professional reputation
Investors (long term)	Higher rental returns Increased asset value (on which to borrow) Reduced running costs Competitive investment edge	Maintenance of value/income Reduced maintenance costs (over life) Better re-sale values Higher quality longer-term tenants
Management agents		Easy maintenance if high quality materials
Occupiers		Happier workforce (better recruiting and retention) Better productivity Increased business (client) confidence Fewer disruptive moves Greater accessibility to other uses/facilities Reduced security expenditure Increased occupier prestige Reduced running cost (energy usage)
Public interests	Regenerative potential (encouraging other development) Reduced public/private discord	Reduced public expenditure (on crime prevention/urban management/urban maintenance/health) More time for positive planning Increased economic viability for neighbouring uses/development opportunities Increased local tax revenue More sustainable environment
Community interests		Better security and less crime Increased cultural vitality Less pollution (better health) Less stress (better health) Better quality of life More inclusive public space A more equitable/accessible environment Greater civic pride (sense of community) Reinforced sense of place Higher property prices

Table 3.1 The beneficiaries of value in urban design

Source: The Value of Urban Design, CABE/DETR 2001

043

Estimating the value of good design

Port Marine, Portishead, Bristol

In developing large scale projects in areas of low demand, Crest Nicholson has recognised the necessity of creating a sense of place through strong design concepts from the earliest stage of development in order to raise confidence in the project and bring long-term value to both the developers and those people who are going to live there.

At Port Marine, Crest Nicholson has converted a disused contaminated power station site into a mixed-use, mixed-tenure development, providing 3,420 homes, 69,680m² of employment and 60,390m² of retail space when complete. A hierarchy of streets, character areas, public, private and semi-private space, extensive hard and soft landscaping, public art works and varying building types have helped create a sense of location in an otherwise low-value site.

Stephen Stone, Chief Executive of Crest Nicholson explained that they as developers commonly invest 10-20% more in build costs than other developers, and that their build cost is

commonly 50% of the sales price. Crest Nicholson offset costs by increasing density. Planners support increased density based on the quality proposed. They believe that they can generate a 15-20% increase in open market sales value because people want to buy into a good environment. This approach was found to work best on medium to large sites due to an increased opportunity to create location.

Crest Nicholson is committed to using external architects and producing bespoke schemes. Creating places brings value, both in terms of financial return and in building a positive reputation as a developer synonymous with quality.

'It is important to get the right mix of properties within each phase to help speed of sales. Good design can sell property off plan. Rate of sale is as important as £ profit because the turnover is quicker – something that is often overlooked', Stephen Stone sums it up.



The design of high-quality development with a balanced mix of properties at Port Marine, Portishead, Bristol has led to the creation of a prime development location in an otherwise low-value area.

3.1.2 Social and environmental benefits of good urban design

Well-designed places deliver a wide range of social and environmental benefits. These are both positive externalities (such as low carbon emissions) which have a value to society, and whole-life cost savings to the consumer (such as reduced insurance as a result of lower crime).

The NWDA/RENEW Northwest¹ study finds that well-designed neighbourhoods which are well-managed and accommodate a mix of uses and tenures, and generous access to open space, are more likely to display:

- Increased civic pride
- Improved social cohesion
- Reduced fear of crime
- Reduced levels of crime
- Relatively higher levels of physical and mental health
- A more efficient land footprint
- Reduced dependence on the car
- Reduced waste
- Improved sense of well being and belonging
- Vitality

Such developments can deliver environmental savings more widely. The regulatory impact assessment for the Code for Sustainable Homes showed that the environmental and energy-saving benefits to consumers and society as a result of introducing the code were greater than the additional construction costs arising from its introduction.⁵

Mixed-use, higher-density, walkable neighbourhoods encourage local services and community interaction, making safer, healthier, more attractive places.

3.1.3 Value for money and Best Consideration

The way in which the public sector measures value when disposing of land differs from the approach taken by other landowners. The public sector aims to achieve value for money rather than simply the highest financial value for land. This enables it to look at the wider benefits that can be achieved by disposing of land in a way that will promote good urban design.

Central government departments and bodies are required to take account of the social, economic and environmental value for money of investments and disposals. Both the Treasury and the National Audit Office have noted that good design is *'an essential ingredient in achieving value for money... a good building project must contribute to the environment in which it is located, deliver a range of wider social and economic benefits, and be adaptable to accommodate future uses'*.⁶

The Treasury's Green Book⁷ (which provides the framework for appraising policies, programmes and projects for central government) sets out the principle that design quality can be a material non-financial consideration in evaluating the benefit of a project. It notes that value for money must be assessed over the whole lifetime of a project. This includes disposal (either sales proceeds or decommissioning costs), estimating the costs and benefits to society as a whole, not simply those directly relevant to the purchaser. Government Accounting is currently being rewritten and is expected to provide clearer guidance on assessing value for money within the context of the public sector as a whole rather than individual organisations.

Local authorities are required (under the Local Government Act 1972) to get best consideration for the land. However, following the introduction of their social, economic and environmental well-being power, local authorities are able to dispose of land at an undervalue of up to £2 million if wider well-being objectives are being delivered, without the Secretary of State's consent.⁸

044

Creating value through design Brindley Place, Birmingham

'[At Brindley Place] we used a different architect for each of the three key buildings – Porphyrios, Stanton Williams and Sidell Gibson. This attracted three occupiers who fell in love with each building. One building was pre-let and although the other two were built speculatively, the conversations we had had with leading law and accountancy firms gave us the confidence to go ahead'
Roger Madelin, Joint Chief Executive of Argent Group plc explains.

He believes that raising the level of design puts discussions on a positive footing. 'This has started conversations for us; quite often leading to lettings... Good development gives us something to be proud of, even if there is a gap in the letting. People feel it will help their business – "Wow, this is the kind of building we want to be in". Raising efficiency of the business by 1% pays the rent.'

In response to whether one should invest in design, Roger Madelin says, 'Good design has a business benefit. On multi-phased projects we have sometimes chosen to spend more money on a building, perhaps for better materials – this can pay off, not necessarily in the initial rent but in the buildings contribution to the place. The value of the whole can be raised.'

Argent's long-term approach meant that not all the design decisions at Brindley Place were taken to maximise early revenues. Providing amenities such as the gallery required early investment and forgoing some revenues but greatly improved the business location and quality of place. Good regeneration schemes like this not only generate value within the project but also raise values in the long term and in the wider area.

'If you intend to be around for a while (as a business) good design is well worth investing in.' Roger Madelin, Argent Group plc.



Upfront investment in quality public realm and amenities helped establish Brindley Place as a location of choice for new businesses.

045

Attracting creative businesses Holbeck Urban Village, Leeds

In collaboration with public sector partners, Igloo Regeneration invests in well-designed, resource-efficient, mixed-use, creative neighbourhoods on the edge of the top 20 UK city centres. Igloo Regeneration is committed to good design and a socially responsible investment policy.

At Holbeck Urban Village, Igloo has converted a semi-derelict red light district on the edge of Leeds city centre into a new business and residential community, focused on creative and digital media. Completed in December 2004, Phase 1 comprises studio, one- and two-bedroom homes, and restaurant/bar facilities integrated with the award-winning £5 million Round Foundry Media Centre. The Media Centre provides a high specification, serviced office environment attracting companies such as Rockliffe, Moves Recruitment, Branded 3 and New Media Collective. Over the next 10 years a total of 2 million ft² of office space is expected to be generated.

Igloo believes that the quality of environment created within the urban village has enabled the development to become the location of choice for the creative industries. Having a cluster of

similar industries in an interactive location has helped ensure that the development is fully let, and has been successful in helping new enterprises evolve.

Chris Brown, Chief Executive of Igloo Regeneration explains the company's philosophy; 'If we developed 'contractor design' (as we call it), we would just be creating a poor building in an off-centre location, and we could only let it to an average tenant. Instead we commission and deliver great design to attract dynamic, design-led independent creative business occupiers. The Round Foundry in Holbeck Urban Village is a good example of a building which we own and where we are funding developers CTP St. James with the support of Yorkshire Forward and Leeds City Council to create a dynamic and successful new neighbourhood.'

'Creative industries are becoming an engine of economic growth,' Brown says. 'It's important to use design skills to deliver neighbourhoods that can support their growth and compete with similar locations around the world.'



Igloo Regeneration invested in design to attract independent, design-led, creative business occupiers at the Round Foundry, Holbeck Urban Village.

3.1.4 What is the cost of bad design?

For those with a long-term interest in a project, the best justification for investing in design is the potential costs involved in managing and renewing poorly designed places. A report by the construction group Wates looked at a series of examples, good and bad, of investment in growth and regeneration over the past two decades. It concluded that short-term thinking – and in particular an inability to take account of whole-life costs and benefits – tends to lead to the development of unsustainable communities with only short-term benefits and potential for long-run failure.⁹

CABE's publication *The Cost of Bad Design*¹⁰ found that badly designed places imposed costs on their occupiers, neighbours and on society. These included undermining amenities and potentially turning them into liabilities; physical disconnection, making it hard for the less mobile to get about; poor public transport connections, making it difficult to recruit and retain staff, and social value being diminished by poorly designed public spaces.

It's not just a case of the cost of demolishing and replacing poorly designed places. Poor design can have continuing costs for both residents and local authorities in terms of higher levels of public services being required to tackle poor housing, high crime, vandalism and poor health. In 1997, 7.6 per cent of the housing stock was considered to be unfit. This cost £3 billion in health care, £1.8 billion in crime and £120 million for fire services.¹¹

The Crime and Disorder Act 1998 and the Human Rights Act 2000 place a significant moral and legal obligation on authorities responsible for the design of the built environment to take adequate steps to ensure that they consider likely crime and security implications in their design decision-making process. Research by Huddersfield University has shown that designing places in line with Secured by Design principles can help to achieve this, and to achieve significant reductions in crime and the fear of crime.¹² Good urban design will help achieve the principles of well-connected places, well-surveyed streets and clearly defensible private space required by Secured by Design.

KEY MESSAGES FOR SECTION 3.1

1. **Investment in good urban design can add financial value to a place.**
2. **Well-designed places deliver environmental and social benefits.**
3. **Poorly designed places are likely to incur higher costs to individuals and society in the long run.**

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3.2

ADDING VALUE THROUGH DESIGN

3.2.1 Adding value to land

3.2.2 Creating a place

3.2.3 Reducing development costs

3.2.4 Thinking ahead

Urban design requires investment upfront but can add value to a development in a number of ways. Decisions on how buildings, streets and landscapes are arranged can add value by making the best use of land. Good design can transform perceptions of an area and property markets, and create successful places where people want to live, work and spend time. These places can deliver a range of social and environmental benefits too.

3.2.1 Adding value to land [046](#) [047](#)

Recent research by The Prince's Foundation, English Partnerships and Savills¹ indicates that good urban design can produce a more efficient built footprint by making the best use of land and creating value through the appropriate densities, public space, uses and distribution of buildings. By following the principles of the Urban Design Compendium, schemes can create successful places at little or no additional cost.

Good urban design adds value. The same floorspace, streets and landscape can be arranged in ways that create attractive or unattractive places. Achieving a high quality of urban design is likely, however, to require a higher level of spending early in the development process than a conventional development route. Research has found that the added value this investment delivers usually more than outweighs these costs.²

Efficient planning

Good urban design can add value to development through using land highly efficiently, and planning and distributing uses and building types to create a sense of place. Density must be appropriate for the location to avoid undermining quality through site-cramming. Research by CABE has found that increased values achieved for higher-density schemes can be far above the increased costs of building

where schemes were well designed.³ The most successful places are often characterised by density peaks and troughs. Densities should peak in the vicinity of public transport stops or intersections, and around neighbourhood facilities, ensuring that catchment areas have workplaces within walking distance.

The distribution of uses will also have an impact on the values those uses can command. Commercial uses should be located in places where they are accessible. Locating these near main junctions with good public transport connections will improve footfall and viability. Care should be taken to ensure that sites located in places with high footfall are fully exploited.

Good design can help to reduce the amount of hard surface, and to deal imaginatively with requirements for servicing and car parking.

Making the best of of open space

As well as providing a range of social and environmental benefits, amenity spaces such as squares, parks and waterfronts can add considerably to the economic value of neighbouring properties and the wider area. A garden bordering water can increase the price of a house by 11 per cent, while a view of water or having a lake nearby can raise the price by ten per cent and seven per cent respectively. A view of a park can raise prices by eight per cent, while having a park nearby can raise prices by six per cent.⁴

The disposition and type of properties that are allocated to these potentially high-value sites should be carefully considered. An active waterfront including a mix of uses, for example, may be able to create a higher overall site value than a scheme that uses the waterfront sites fully for single-use residential development but where adjoining areas gain little benefit.

046

Offsetting costs to increase values Adelaide Wharf, London

At Adelaide Wharf, Hackney, First Base has been working through the London-Wide Initiative (a partnership between English Partnerships, Housing Corporation, CLG, and the GLA) to deliver a high-quality new urban block next to the Regents Canal. The scheme designed by Allford Hall Monaghan Morris (AHMM) delivers 147 high-quality, sustainable apartments around a central amenity space, including 50% affordable. Adelaide Wharf makes an important contribution to the regeneration of the local area by raising confidence through quality and by creating an active new street front which helps improve perceived safety in the area.

First Base believes that investing in good design and good designers makes economic sense. Ben Denton, Director of Investment and Management at First Base and a CABE enabler is convinced that any additional costs incurred by employing good designers or additional spending on construction, can be

recouped through increased value; 'Great architects generally cost more than average architects; up to 2% more in fee rates. Design fees are calculated on construction works; construction is generally about 40% of total scheme value. To offset the cost of great design we need about 0.8% increase in values.

'Architect-designed buildings may cost more to build, however, with a strong client it is possible to restrain the architect to keep costs within 10% above the normal 40% of total development value; therefore, we need to achieve a 4% increase in total development value to offset this additional cost. In total therefore we are looking at 4.8%, rising to 6.5% (to cover profit and on-costs) increase in value required to offset costs.'

Ben believes the costs can easily be met from quicker rates of sales, higher values per m² and higher overall values per home.

'I have no doubt that good design more than pays, but strong leadership is also required so costs are contained.'



Increasing values at Adelaide Wharf minimised the need for 'off the shelf' solutions and offset the cost of architect-designed buildings.

047

Delivering an integrated approach Didsbury Point, Manchester

Countryside Properties firmly believes in adding value through design rather than maximising profit by reducing costs. The housebuilder has been expanding its portfolio of sites in northern regions based on their philosophy of designing schemes to look like they have been developed on a bespoke basis whilst using standardisation on specifications, components and floor plans to bring economies of scale.

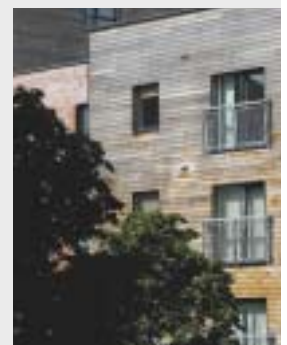
Countryside demonstrated its commitment to quality at Didsbury Point where it set out to deliver an urban extension that was a responsible development, which ensures a lasting and positive legacy for generations to come. This award-winning mixed-use development features highly contemporary buildings with individual attention to detail using standard components, creating a unique and varied street scene. Many homes have large flexible living areas with generous balconies and terraces. The development promotes a range of sustainable travel options and has acted as a beacon of regeneration for this part of Manchester.

Richard Cherry, Deputy Chairman, Countryside Properties reinforces his company's commitment to creating quality places

'People like innovation – something that is a bit different. But design is also about quality of internal spaces/light, sustainable building, and the public realm. Planning puts too much emphasis on just the external aspects of buildings. Future energy consumption is absolutely key. Too often the public realm is left out and the quality of landscape poor. A more integrated approach is needed.'

Countryside shares its philosophy:

- Support developers who add value through design rather than cost cutting
- Restrict scale of buy-to-let if it is affecting design
- Street scene, energy consumption, landscape are as important as elevations
- MMC can be applied intelligently to bring economies of standardisation



These contemporary homes at Didsbury Point have been delivered using standard specifications, components and floor plans.

Value will be maximised where the landscaping is of high quality. It is important that there is a clear management plan for all public open space.

3.2.2 Creating a place

It is important to make the urban design concept visible at an early stage. To maximise values on a large site, the initial phases must demonstrate the quality of the place that will be built. This can be done through the quality of materials used, the quality of the public realm and the detailing. Where a site is of sufficient size to require a new neighbourhood centre, the developer should work closely with the local authority to consider how public transport, shops, services and facilities can be provided at an early stage to meet the needs of residents. This will increase the prices of early phases, as residents will be buying into a place where facilities are becoming established. Consideration should be given to the quality of life for the first residents in terms of such issues as access (see section 3.4).

High-quality materials

High-quality materials will not necessarily add significantly to the overall cost of construction and site purchase. If palettes of materials are to be specified, this should be done at the outset before design work begins. Otherwise the additional cost will be seen as a much higher proportion of profits.

High-quality public realm 048

A well-designed public realm creates places that are legible and pleasant. These places will also be good for business. CABI's research into the value of public space found that well-planned improvements to public space can boost commercial trading by up to 40 per cent.⁴ Another study by CABI found that an improvement in street design quality could add around five per cent to residential prices and retail rents.⁵

Public art can help to reclaim derelict buildings and land, generate pride in an area, increase a sense of local ownership of a town centre, and develop a distinct cultural identity. Investment in public art can influence choices of business location. In a study of how businesses chose buildings, 62 per cent of occupiers recognised that the contribution which public art made to their building was significant and 64 per cent of occupiers agreed or agreed strongly that public art made their building distinctive. Most investors confirmed that public art had an important role to play in helping them choose between competing buildings, and that this facilitated letting and reduced risk.⁶

Branding

Landmark buildings can add value by promoting the image and culture of a place. This can be an important factor for encouraging businesses to locate in an area. It can also boost tourism and visitors who will contribute to the local economy.

3.2.3 Reducing development costs

Swifter planning 049

Delays in obtaining planning approvals can significantly increase development costs. Collaborative working with local authorities and key stakeholders from the outset will provide developers with a clear understanding of what is required from a scheme. Agreeing design principles early on can help avoid delays in the planning process. Investing time and resources upfront can often avoid costly appeals and reworking of designs. Certainty over the required design quality can enable a project to be completed more quickly.

Design codes can give confidence to developers working on each phase that schemes which meet the codes' requirements will obtain planning approval more quickly and that adjoining land parcels will also comply with the same standards.

048

Commissioning public art
Princesshay, Exeter

Land Securities Group plc has a distinguished record of supporting the arts as an integral part of their development projects. In recent years the commitment to public art commissioning as part of their new developments, retail and commercial, has been a priority. This commitment arises not from a gesture towards philanthropy but from a belief in the benefits that public art brings to Land Securities and the communities whom their developments will affect. Commissioning high-quality site-specific artworks creates a unique development, adds to sense of place and gives an extra level of quality and detail to the built environments.

Princesshay, due for completion this year, is a particularly good example of the success of site-specific public art. One of several public art commissions, 'Marking Time' by Patricia MacKinnon-

Day, on the site of the original Almshouses, includes a series of glass doors, which are copies of medieval doors. The doors encapsulate archaeological finds, arranged chronologically with earliest artefacts located at the bottom of the door and the most recent at the top. Additionally, quotations from the Chapter Act records, referring those living in the Almshouses, have been sandblasted into the porphyry stone paving slabs.

Prior to the development, the Almshouses had become a haven for drug users and initial thoughts had been to simply put railings up around the site. However, commissioning of the artwork, lighting scheme and landscape architecture by Land Securities has created a hugely popular destination within Exeter, attracting so many visitors that, in response, a new café has now been opened in Bedford Square, overlooking the Almshouses.



New public art at Princesshay has helped improve the identity of the area, raised the quality of the built environment and attracted new business to the area.

049

Working in partnership Staiths South Bank, Gateshead

Taylor Wimpey is working to change the way in which they do business. Currently the largest housebuilder in the UK, they recognize the value in collaborating with local authorities, building strong relationships with a defined number of authorities, and building more high-quality schemes, delivered with greater speed through the planning system.

By working collaboratively with local authorities, Taylor Wimpey hopes to avoid a tick box approach to planning which often delivers lowest common denominator results. Local authorities often spend their limited resources opposing schemes and then end up with a mediocre result which doesn't serve either party. For the developer, there is delay, high cost and a relatively poor project to market.

At Staiths South Bank (SSB), Taylor Wimpey teamed up with Hemingway Design to prove that the major housebuilders could deliver high-quality new neighbourhoods. SSB provides

varied house types and a hierarchy of public and semi-private spaces. Residents are encouraged to meet and interact with their neighbours in the UK's largest new build Home Zone. The scheme provides a dynamic and contemporary new image of housing both within its context to the River Tyne and as a model for the renaissance of Gateshead.

Where developers work in partnership with local authorities, such as at SSB, there is an opportunity to build something outstanding, avoid costly delays and satisfy far more stakeholders. Gateshead Council will have much greater faith in dealing with future phases of the development if the same partnership approach and commitment to quality is upheld. Taylor Wimpey is promoting this approach to development nationally, with an understanding that local authorities will give priority to securing good development with lesser quality schemes falling to the bottom of the pile. Developers who put effort into collaboration and design rather than confrontation will gain a competitive advantage.



Working in partnership at Staiths South Bank has led to the creation of an award-winning neighbourhood where the first phase of development was sold within four hours.

Developers with a track record of creating successful schemes will often find that they benefit from swifter negotiations, as local authorities are confident of the quality of the place that will be created.

Speed of sale

Well-designed schemes benefit from faster sales and lettings. Such schemes have a competitive edge over other products on the market and will withstand any dips in the property market more robustly.

3.2.4 Thinking ahead

Potential changes in the market, changes in consumer requirements and changes in government policy will generally be considered by the development industry.

One area where this is particularly pressing is the requirements for developments to reduce energy consumption. Although these are led by government policy, consumers are demanding more from their homes. The rise in energy prices and awareness of the impacts of climate change have meant that consumers want energy-efficient homes. With all new houses now requiring an energy rating, developments that respond to the environmental agenda are likely to command a price premium.

Although energy labelling will not be introduced for commercial buildings until 2008, businesses are already requiring premises that are sustainable, with low energy consumption. As well as reducing operational costs, this can enhance corporate identity and attract energy-conscious employees. Many businesses are also thinking ahead to 2009, when a new carbon-reduction commitment is expected to cap their carbon dioxide emissions.

KEY MESSAGES FOR SECTION 3.2

- 1. The efficient use of land will add value.**
- 2. Creating a sense of place will add value.**
- 3. Working with local authorities will help streamline the planning process.**

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3.3

DEFINING THE RIGHT MECHANISM AND TEAM

3.3.1 Establishing the team

3.3.2 Sharing risk

3.3.3 Patient money

3.3.4 Delivery structures

An effective delivery vehicle will be required to achieve successful, high-quality development. The roles and responsibilities of each stakeholder or partner in a project will vary depending on the type of partnership or process for delivery. The most appropriate approach will depend on the scale and objectives of the project, the level of commitment of each partner and the resources available.

Various partners will be involved for different reasons. A public-sector agency may be interested in providing affordable homes, jobs, mixed uses, and long-term economic, social and physical regeneration. Whilst a private-sector partner may support these objectives, they will be more interested in maximising their return in the short- to medium-term, with minimal risk to their shareholders. The public sector may be prohibited by law from developing directly. The private developer may need a partner to share risk or help deliver necessary infrastructure. ^[050]

3.3.1 Establishing the team

For the structure to be effective, there should be clear agreement about the roles and responsibilities of each body. In addition to the landowner, the main players may be the promoter, developer, plot developer (for phased schemes), infrastructure provider and registered social landlord. Consideration needs to be given to the length of each player's involvement in the project, and how the development will be managed in the long term (see section 5.1).

It is important that stakeholders share the objectives and vision for the project. There must be a clear understanding of the resources, skills and commitment required to help achieve these objectives effectively. Success depends on reconciling these objectives and all parties maintaining realistic expectations. Where parties are entering into a joint venture or working arrangement, a conflict resolution process should be agreed from the outset.

Quality is most likely to be maintained on projects where there is clear leadership in achieving the vision and coordinating the stakeholders. This role is often undertaken by the public sector, which is likely to become involved in projects where its involvement will bring added value to the development. This value may be in terms of raising quality standards, providing additional affordable homes or jobs, or speeding up the process. The public sector may also be involved in exemplar projects that show how to achieve sustainable design. This may involve working with private sector to explore issues relating to risk, innovation, efficiencies and supply chains.

The level of coordination required will depend on the size and complexity of the project. The public sector's role can involve undertaking site preparation works (especially on larger sites) such as site assembly and remediation works, masterplanning, design coding, and upfront investment in infrastructure and the public realm.

3.3.2 Sharing risk ^[051]

The promoter of the project must decide how it wants to share risk and returns with its prospective partners. This will determine how the mechanism is structured. The structure may be determined partly by how much long-term control over the quality of development is required.

Where there is strong commitment to high-quality development, a project promoter will usually coordinate site preparation works such as site assembly, remediation, infrastructure works, masterplanning and design coding. This can help to ensure that the work is carried out to a high standard.

Project promoters may pull together a portfolio of sites such that developers are able to spread risk. Developers and investors look for certainty: greater certainty makes land more attractive. Developers are more likely to commit to design quality on sites where risk has been reduced.

For large-scale projects, the sponsors may retain control during development by acting as promoter and releasing phases to plot developers. This will assure the landowner that the development will be of high quality. This requires long-term commitment from the landowner, who is likely to benefit from higher values in later phases.

The further down the route a landowner can proceed on their own resources towards securing a planning permission and making a site ready for development, the higher the values they will achieve, and the lower the risk to a potential development partner. The project sponsor can be confident in securing a higher and more consistent quality of delivery where they remain the coordinating partner. For various reasons it often appears attractive, particularly on a short-term basis, to offload much of a project's initial cost (of infrastructure, for example) to a partner. However, it is important fully to understand the medium- to long-term costs of doing this, in terms of both finance and quality control.

Consideration should be given to the amount of control the project sponsor requires over the design quality, the level of commitment and resources they are willing to commit, and the level of reward they require. Retaining a high level of control over a development will help to achieve high-quality design, but it also requires a high level of resources and commitment, so there is a high degree of risk. However, by lowering the risk to a developer and ensuring quality, the reward at the end should be higher. Where a project sponsor retains minimal control over a development, they will be unable to influence the design quality. Although this approach carries a low level of risk (as the landowner receives a return for the site early on), the return will be lower.

Most mechanisms seek to strike a balance between these two extremes, raising quality by sharing risk. This provides joint control and joint returns.

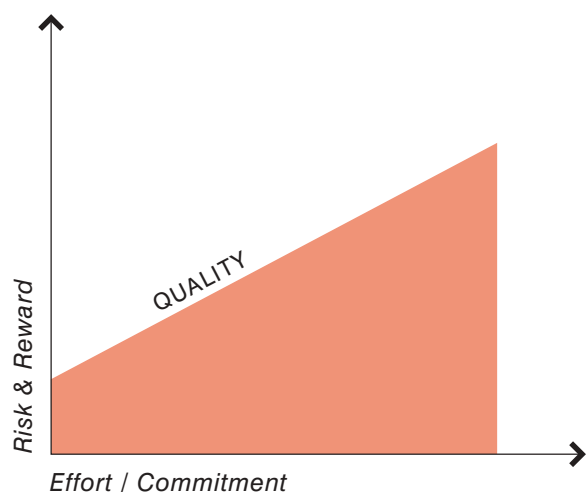
3.3.3 Patient money

The cash flow of a large project will be managed over a long period of time. Remediating a site and providing primary infrastructure may take between five and 10 years. Construction of development may take from three to 25 years. There may be a substantial time lag before the initial capital investment in a scheme can be recouped in part or in full. There is no guarantee of returns, and a development may have to weather a number of development cycles and fluctuations in the interest rate.

Risk can be reduced and financial efficiencies achieved so that the costs and generation of value are aligned as closely as possible. Careful modelling of public and private involvement in a scheme can help to finance elements of a scheme that cannot be commercially justified over a short investment horizon. Careful engineering of the business model will be a key to making a development viable and to delivering on design quality and broader social objectives.

In a multi-phase development project, the value of the development can rise dramatically over time in response to the creation of a place with identity. This is particularly true in regeneration schemes where research by IPD for English Partnerships and Morley Fund Management has found urban regeneration areas have tended to out-perform adjacent areas in many sectors.¹ This requires upfront investment in infrastructure, high-quality public realm and a range of amenities. To capture the value from these later phases requires a different funding model from conventional residential development, as developers must take a long-term view. To obtain maximum returns in the medium and long term requires the investment of 'patient equity' (being willing to wait for returns).

As the diagram below illustrates achieving quality requires effort and commitment, and may involve greater risk initially, but can deliver greater rewards especially in the long term.



050

Involving the right players

Oxford Castle Ltd / Oxfordshire County Council / Oxford Preservation Trust

The involvement of public, private and voluntary sectors in this city centre regeneration project has transformed the disused prison on the historic site of Oxford Castle into a major mixed-use development comprising hotel, restaurants, housing and a visitor attraction around new public spaces.

Having bought the site from Crown Properties when the prison closed in 1996, Oxfordshire County Council (OCC) took the site to market resulting in the appointment of the Trevor Osbourne Property Group as development partner. The developer then set up Oxford Castle Ltd who were given a 200-year lease by landowners OCC, subject to various works being undertaken, through a Development Agreement. Crucially this included restoration and new build works to the ancient buildings. The Oxford Preservation Trust then obtained a grant from the Heritage Lottery Fund that matched the value of this particular element

of the works for non-revenue producing uses. The result was a partnership between the landowners OCC, the developer Oxford Castle Ltd and the Oxford Preservation Trust. The project also received grant funding from sources including SEEDA, English Heritage and Trust for Oxfordshire's Environment.

Part of the site was leased back to OCC who in turn leased it to the Oxford Preservation Trust (OPT) to run the visitor attraction, Learning Centre, and the public space. OPT's continued involvement in the project through the management of these aspects also ensured that high quality would be maintained.

'To develop a mixed-use scheme on this scale required imagination, determination and cooperation', as Debbie Dance of Oxford Preservation Trust clearly states, 'None of us could do it without the other.'



Collaborative working between developers, the local authority and local interest groups has led to the development of an award-winning mixed-use development at Oxford Castle, Oxford.

051

Partnering to maximise available resources and skills

Blueprint

Blueprint, formerly known as the East Midlands Property Investment Fund (EMPIF), is a property regeneration partnership set up to generate social, economic and environmental benefits in the East Midlands within a commercial framework. A 50/50 public/private partnership, comprising East Midlands Development Agency (EMDA) (25%), English Partnerships (25%) and Morley Fund Management's Igloo Regeneration Fund (50%), investment, ownership, risk and profit are shared equally between the partners.

Blueprint's remit is to revitalise deprived neighbourhoods through regenerative, well-designed, mixed-use and environmentally sustainable property development. This includes facilitating

economic transformation with an emphasis on creation of creative/knowledge industries. Blueprint intends to work closely with regional local authorities to assist the goal of becoming one of Europe's top 20 regions.

Blueprint assesses all schemes against their Socially Responsible Investment Policy which covers regeneration, environmental sustainability and urban design.

The structure of Blueprint confers advantage by bringing together, in partnership, significant resources and high level skills from influential public and private sector organisations. The financial structure permits a long-term view with performance judged according to likely outcomes over the whole 10-year life of the vehicle.



One of Blueprint's projects, regeneration of the historic city centre of Derby to create mixed-use residential and office development aims to optimise the attributes of the location while supporting the economic growth of Derby.

Where developers and funders cannot be persuaded to take the chance of such risks occurring, a scheme may need to be de-risked by the public sector subject to state-aid rules. In this situation the public sector will be able to negotiate priority returns to recoup its investment.

3.3.4 Delivery structures

High-quality control ⁰⁵²

Projects which adopt a long-term, high-control structure are usually those led by the public sector where there is a significant task in terms of transforming an area. The most hands-on approach is where a statutory agency such as an urban development corporation is established to deliver the project. Such agencies, requiring central government approval, generally benefit from planning powers for major applications within a specified area. These are most beneficial where significant development is required across a number of sites.

A project sponsor acting as main promoter for the duration of the development will have strong control over the quality of design. This approach provides the project sponsor with the chance to ensure that design quality is maintained across a development. It can also provide opportunities to improve design standards by applying lessons learnt from previous phases. The approach requires considerable resources as it needs continued management of the project and of the main stakeholders, putting each phase out to tender, and establishing management structures. However, the project sponsor can benefit from increased values as later phases come through.

The quality of development can be controlled through development agreements and building under licence. For large or long-term developments, contracts must have sufficient flexibility to allow standards to rise as the schemes progress.

Joint venture partnerships

Where a lesser amount of control is necessary, the landowner may consider entering a joint venture partnership. This can cover a single site or a development portfolio. This arrangement will enable significant long-term control over the site to be retained. Where this approach is taken, there needs to be clear agreement between the parties on the design objectives and requirements, how these will be enforced, and how profit will be shared. This should be set out in a memorandum of understanding. As with development agreements, there must be sufficient

flexibility to allow standards to rise as the schemes progress. Clear contracts are vital to ensure the quality of the development.

Disposal of site with conditions ⁰⁵³

If the landowner is looking to maximise capital receipts or minimise risk exposure to a scheme, it may be more appropriate to seek a straightforward sale. Even where a site is disposed of outright, the landowner can still play an effective role in helping to ensure design quality. This can include developing a masterplan and possibly design codes. Where these are attached to the sale of a site, careful consideration should be given to the resources available to ensure they are adhered to, and to the legal obligations that will guarantee quality.

An alternative approach is to impose specific standards relating to such matters as design quality, environmental performance and community management by placing conditions on the disposal either through the planning process or through the disposal or development agreement. Incentives for developers to take additional development risk can be provided through overage agreements which share profits between promoter and developer. Project sponsors should avoid selling to good bids without legal tie-in to ensure quality.

Partnering

The likelihood of achieving a high-quality scheme can be improved by working with a group of pre-defined partners. These could be organisations which have either passed a selection process on a set of agreed standards or performed well on previous schemes. Negotiated sales could be endorsed where previous partnerships have produced the levels of quality and efficiency that are required for additional phases.

Where the private sector takes the lead, the public sector can use the planning process to ensure that a good place is created (see section 4.1). This will involve agreeing an overall concept, ensuring that a high standard of urban design is met through encouraging good masterplanning, and design coding, and using section 106 negotiations to ensure that public amenities are provided. As with public-sector landowners, the private-sector landowners or master developers can impose conditions on subdevelopers through the use of development agreements and building under licence. Master developers will often want to ensure quality is maintained across the development to protect both their investment and their reputation.

052

Developing a shared agenda Castlefields Regeneration Partnership

Halton Borough Council formed the Castlefields Regeneration Partnership along with English Partnerships, the Housing Corporation, CDS Housing, Northwest Development Agency and Liverpool Housing Trust to deliver a holistic approach to regeneration for this rundown 1970s sink estate. The Partnership was established to deliver a comprehensive regeneration approach.

Regular meetings have enabled the Partnership to develop a shared agenda, draw on the experience and expertise of each organisation and to understand roles and responsibilities.

The Partnership has five main roles:

- Guardian of overall vision and regeneration framework
- Champion the renaissance of the Castlefields estate
- Coordination of initiatives and projects
- Facilitating, coordinating and procuring physical and social programmes

- Ensuring long-term stewardship and management

The Partnership worked with the local community to develop a masterplan which sets a framework for future investment and ensures that the various strands of regeneration knit together. In total, the partners have committed over £45m to delivering this programme.

The Partnership has also produced a Place-making Plan which sets out how partners could work together to raise the quality of the whole environment and enhance its sense of place. This has informed phasing to ensure projects meet community needs and that they complement each other to create a sense of place. A Castlefields Design Palette has also been developed.

Projects delivered to date include the extremely successful Phoenix Park. This is a state of the art youth activity park comprising a new pavilion, a skatepark, climbing boulder and play areas. The design was informed by local people for local people.



A Place-making Plan setting out how partners work together, their aspirations, coordination of initiatives and the long-term stewardship of projects has already helped to deliver Phoenix Park, which is a state of the art activity park.

053

Disposing of a site with conditions Lawley, Telford

Lawley is a groundbreaking urban development, setting standards on how a large sustainable community can be designed, created and integrated with an existing town. The 70 ha brownfield site will deliver 3,300 homes, offices, restaurants, bars, a primary school, parkland and shops.

In 2006, English Partnerships disposed of the entire site to a joint bid from George Wimpey, Persimmon Homes and Barratt Homes who will develop the site and provide infrastructure. The land has been passed to the developer on building licence, with freeholds eventually transferring to the individual freeholders.

To help ensure the development provides good quality urban design English Partnerships worked with the council to develop design codes for the site. These will be used by the local

authority to determine reserve matters. Use of codes will help to ensure the design principles developed collaboratively through an Enquiry by Design process will be delivered on the site.

The code developers, EDAW, were retained by English Partnerships as independent design consultants. This has been crucial in helping to support the local authority in assessing planning applications. It is important to have this ongoing support to ensure that both developers and the local authority are able to understand and respond to the codes effectively.

In addition, the section 106 agreement includes funding for a dedicated officer at the local planning authority to monitor compliance with the codes during construction.



Upfront work in developing the masterplan and design codes with the local authority will help to ensure the development at Lawley delivers good quality urban design.

KEY MESSAGES FOR SECTION 3.3

- 1. Effective coordination of stakeholders can lead to high quality.**
- 2. A high level of control will raise design standards but it requires time and effort.**
- 3. Patient money (being willing to wait for returns) can deliver quality in the long run.**

REFERENCES

1. Urban Regeneration Index. 2007. IPD for English Partnerships and Morley Investment Fund

3.4 PARCELING LAND AND PHASING

3.4.1 Parceling land

3.4.2 Developer considerations

3.4.3 Design codes

3.4.4 Phasing

Large-scale masterplans are often subdivided into development parcels to bring benefits in terms of the speed and value of the development. They can also bring design benefits including variety and diversity. Careful planning is required to ensure that the size and arrangement of these parcels contribute to the masterplan vision and is financially viable.

The phasing of sites is likely to have a significant impact on the success of a scheme. Creating public realm and delivering essential facilities at an early stage can help make a destination and influence patterns of use. For example, providing public transport and community facilities early will help ensure that the first residents are not dependent on cars. However, facilities require a critical mass to make them viable. Decisions need to be made on which facilities are required at the outset, where these should be located, who will provide them and how these will grow with the development.

3.4.1 Parceling land

The benefits of dividing a large scheme into a series of discrete development projects include:

Development benefits

- **Speed** – construction can proceed on several fronts simultaneously.
- **Flexibility** – it can give time for additional land or interests to be acquired.
- **Risk reduction** – the masterplan is implemented through a series of deals, and contractual agreements can evolve according to performance on the preceding land parcel.
- **Value engineering** – the promoter can engineer a business model that can take advantage of higher land values in later phases of the project when the value of the place has been established.

- **Mixed-use** – specialist developers can be brought in to undertake different elements of the scheme, such as retail or leisure facilities.

Urban design benefits

- **Variety** – different designers can work on separate parts of the project.
- **Diversity** – smaller land parcels enable a large project to be opened up to smaller developers and architectural practices.
- **Innovation** – small parcels can encourage innovative approaches to layout and design.
- **Visual interest** – character areas will make the site interesting to move round and can enhance legibility.

This route begins to describe the role of land developer which is beginning to emerge as schemes become more complex. The land developer acts as overall project promoter.

3.4.2 Developer considerations

Establishing the character of a development

On large public-sector regeneration programmes it may be beneficial to bring in a specialist design-led development company to create a bespoke scheme at the outset, establishing the character of the development. The quality of design is vital as the first phase will act as a benchmark for subsequent phases.

If a high standard of design is sought, make sure that in subsequent phases, where greater volumes might be a priority, good design performance remains a condition of participation in the scheme.

Size of development parcel

Developers will typically prefer larger land parcels and a minimum of variety in construction methods and components, for reasons of efficiency, ease, certainty and management. Creative design can make interesting, unique and identifiable places even from standard components.

054

Providing landowner certainty Newhall, Harlow

Design codes have been deployed at Newhall to deliver the vision and are seen as the working drawings of the masterplan. These were developed to provide landowner certainty that design aspirations for the site would be delivered. The codes have been devised to raise quality and hence value without unreasonably increasing costs.

The codes at Newhall work on three levels:

- movement structure and spatial hierarchy
- land use and massing
- architectural and public realm detail

The Newhall code provides clear requirements for shaping and detailing the public realm with mandatory built-to lines,

minimum building heights, parking solutions and construction specifications. The code does, however, allow considerable freedom for architectural expression within these masterplan geometries. There are no controls on elevational appearance other than placement of entrances, the requirement for passive surveillance and, where appropriate, active edges to public spaces. There is reliance on a consistent approach to the public realm, and a colour and materials palette for building, to bring cohesion. Quality materials including hand-made bricks, granite and slate are required and are estimated to only add a quarter per cent to construction costs. A colour palette devised with artist Tom Porter for elevations, roofscape, floorscape and building openings is mandatory but has been enthusiastically endorsed by all.



The design code for Newhall sets out clear requirements for materials, public realm design, building heights, built-to lines, car parking and construction standards whilst allowing freedom for architectural expression on elevations.

055

Achieving variety through codes Upton, Northampton

Design codes were developed to deliver the vision for Upton, a sustainable urban extension on the edge of Northampton. The mixed-use scheme will deliver approximately 1,400 energy efficient homes, a primary school, shops, offices, cafes/restaurants, public house, nursery, interpretation centre, playing fields and a country park. The site uses a sustainable urban drainage system (SUDS) to minimise environmental impact, together with higher densities to reduce land take and integrated infrastructure to link adjoining brownfield developments.

The masterplan was developed in collaboration with key stakeholders and the local community through an Enquiry by Design process, with the design codes being worked up by the project team consisting of the partners and the consultant team. Upton was the first project to link these two tools.

The codes focus on urban form, street types, block principles, boundary treatments, building types and uses, building heights and materials along with SUDS, public realm and environmental standards. By focusing on form rather than detail, the codes have enabled a variety of architectural styles to evolve. These provide visual interest and character whilst ensuring there is harmony between the different phases.

The use of the codes has led to better designs which in turn has helped to speed delivery with detailed applications for the various sites within Upton taking approximately eight weeks to be approved. This has been achieved through significant upfront investment of time and resources from those developing the codes and the development of effective processes for dealing with applications. The codes now provide clear design guidance and instruction for all parties.



The codes have helped deliver a range of architectural styles ranging from traditional town houses and mews to more contemporary homes. Homes designed by Gale and Snowdon Ltd.

In residential development, volume housebuilders will typically seek a completion rate of not less than 50 homes a year on a single development parcel. Sites or parcels of sites offering the potential for 200-400 homes are sought to make development worthwhile, although smaller sites will be considered under special circumstances, such as a high-profile development (and in high-value areas, mainstream developers will consider more constrained development opportunities). Smaller developers may look at sites of 20-50 homes. The two markets are distinct and require appropriate decisions on parcel size and marketing.

Avoid cherry-picking. Allowing developers to build only the most profitable elements of a masterplan will mean that the costly or more difficult parts will be left to the promoter, or deferred indefinitely.

Mixing tenures

Good places usually offer a mix of housing opportunities. Developments should deliver a mix of tenures and housing types across all phases. Houses of different tenures should be indistinguishable when built. In distributing subsidised housing, strike a balance between pepper-potting (scattering it) and creating small groups (ideally six homes or less) for ease of management. Adopting this approach should not reduce land values. Research by the Joseph Rowntree Foundation found that tenure mix affects neither property values nor sales rates.¹

Design considerations

Break down the development into effective parcels. The most important design decisions are how large the parcels should be and where to make the joins. Architectural parcels should be sized according to their position on the street hierarchy. Larger areas should be allocated for low-order streets and smaller parcels for prominent locations to achieve a finer grain. Where a fine architectural grain is required, the number of design parcels defining a public space might be in proportion to its importance within the spatial hierarchy and the scale of the space.

Construction logic

Development parcels may coincide with architectural parcels, or a single development parcel may be divided into several architectural parcels. If the same construction technique is to be used across different architectural parcels (perhaps for economies of construction), this should be made clear from the outset in briefing for the architectural commissions.

Relating the development parcels

To ensure minimal disruption to residents during construction, design or developer parcels can be subdivided along the back of the plot or as seams in the public realm:

- Along the back of the plot for ease of construction on low-order streets.
- Within the public realm at key locations where variety is required.

To ensure consistency, the public realm should be overseen by a single person.

Coordinating infrastructure

Ensuring that the construction of infrastructure and public realm accords with design intentions (and subsequent adoption) can be difficult where land is subdivided into different development packages. The problems can be exacerbated where development parcels join. There are three options to minimize potential disruption and ensure continuity:

- Detailed specifications for infrastructure can be attached to the sale of land and followed by rigorous site inspections.
- The promoter's team (urban design, engineering, landscape) is seconded to each developer.
- The promoter constructs infrastructure in advance, including streets, providing serviced land.

3.4.3 Design codes

PPS3² defines design codes as '*a set of illustrated design rules and requirements which instruct and may advise on the physical development of a site or area. The graphic and written components of the code are detailed and precise, and build upon a design vision such as a masterplan or other design and development framework for a site or area.*'

Design codes should comprise a set of mandatory and discretionary design requirements, and a regulatory plan which sets out where the provisions of the code will apply.

Maintaining design quality [054](#) [055](#)

Design codes have been used to achieve high design quality on many of the larger sites featured as case studies in this Compendium. Examples include: Newhall, Upton, Allerton Bywater and Greenwich Millennium Village. Codes have been developed for each of these projects to help create a coherent sense of place with a variety of architectural styles, and to ensure high design quality across development parcels.

As well as maintaining quality, codes can also produce variety in styles by providing a set of design guidance which can be interpreted in different ways while maintaining common principles.

Research has found that it is sites such as these (large sites where delivery is phased either over time or between different design teams) that benefit most from the use of design codes.³ On such sites, codes help to maintain quality by identifying the elements of the masterplan that are fundamental in creating a sense of place, and translating these into a set of detailed design instructions.

Codes also produce additional benefits for a range of stakeholders (see table 3.4). But codes should only be developed for sites where all stakeholders are committed to raising design quality.

Stakeholder	
Landowner	<ul style="list-style-type: none"> • Can help optimise return from land • Provides certainty on design quality of scheme
Developers	<ul style="list-style-type: none"> • Provides certainty on design requirements at the outset • Planning approvals usually obtained quicker for compliant schemes • Provide assurance that later schemes will be of similar design quality • Can help optimise return from development
Local authority	<ul style="list-style-type: none"> • Ensures that development satisfies community aspirations • Provides certainty on design quality of scheme
Community	<ul style="list-style-type: none"> • Ensures that development achieves the aspirations of the masterplan • Provides certainty on the design quality of the scheme

Table 3.4 Benefits of Design Codes

Content of codes

The content of codes will vary according to the context but, as with frameworks, these can be grouped under the key elements of urban design as set out in the Urban Design Compendium: appreciating the context, creating the urban structure, making the connections, detailing the place and managing the investment. CLG’s ‘Preparing Design Codes: A Practice Guide’ details the possible design elements and provides guidance on how these can be coded.⁴

Roles and responsibilities 056

It is important that there is clear understanding of the roles and responsibilities of the coding team. This should cover areas such as leadership, resources and enforcement. Codes are usually developed by an urban design team on behalf of a landowner, in collaboration with the local authority and technical stakeholders. This helps to develop consensus on what is required, and to ensure that codes are compliant with planning and technical requirements. Codes are then provided to developers for each parcel, often with an accompanying brief to detail specific constraints.

Implementation and enforcement

To ensure that the design quality set out in the codes is delivered on site, careful consideration needs to be given to how they are implemented and enforced. A code can be enforced through a development agreement, or a planning requirement where the code is adopted by the local authority, or both. Which mechanism is most appropriate will depend on how the project is being delivered (see section 3.3), the level of commitment to the project, and the skills and resources available.

Resources and skills

For codes to be effective it is vital that support from skilled staff is available throughout the process. Where possible those involved in development of the codes should be retained to advise developers, landowners and local authority staff as required. This will ensure that designs comply with the codes, and it makes it easier to judge whether suggested amendments will improve the codes.

056

Remaining involved

Borneo Sporenburg, Amsterdam, Netherlands

The masterplan developed by West 8 for Borneo Sporenburg in Amsterdam's Eastern Docklands involved the application of a strict set of design codes. The codes set parameters on a range of criteria including access, parking, private open space, storey height, plot width and building materials. Importantly, the codes also specified that dwellings should be designed by a diversity of architects.

As part of the redevelopment of Borneo Sporenburg, 60 free parcels of land were made available on which private individuals were able to build their own homes under the guidelines provided by the design codes. These individuals consulted with

the architects in organised workshops, challenging them to meet their needs by responding creatively to the design code.

The application of the design codes and the continued role of the principal urban designers in the scheme has ensured the creation of a diverse and innovative, yet harmonious development. It has also allowed the scheme to retain the character of the Amsterdam canal house typology. The experience of Borneo Sporenburg has had a significant impact on Dutch urban planning and free parcels are now often integrated into new planned neighbourhoods in the Netherlands.



The continued role of the urban designers in the development of Borneo Sporenburg has ensured the creation of a diverse and innovative scheme.

3.4.4 Phasing

Phasing plan

Phasing options should be considered both from the outset of the masterplanning process and after the initial site investigations (relating to issues such as land ownership, site conditions and constraints, and title review) have been completed, as this will influence the business planning of the project. The timing of the project and the delivery of its phases must be set out in the masterplan, as certain elements of a development may depend on securing pre-lettings or sales. Phasing should build in flexibility to respond to changing market conditions.

If the project is likely to be delivered by a number of developers, and if amenities will be coming on stream in later phases, it may be necessary to secure planning contributions or tariffs from earlier phases, this should be built into the business model.

There are three main components to a phasing plan:

- Construction sequence and infrastructure/utilities delivery plan
- Delivery of facilities at appropriate thresholds
- Designing development parcel release structure to facilitate early delivery of amenities while optimising

early revenues to offset infrastructure investment, and planned release of later sites to benefit from locational value created

Delivery of facilities at appropriate thresholds

Comprehensive development needs to secure the necessary infrastructure at the right time. This may include early investment in mixed-uses. Schools and other public amenities will usually be scheduled through a section 106 agreement attached to the planning consent.

The business model should be developed in the light of an understanding of the likely impact of these investment thresholds on the cost programme, property and land values, and the speed of sales.

Large projects require considerable investment to achieve a development allocation, and complete the planning and design stages – almost all at high risk. For a project to reduce some of this burden, developers will seek to optimise the revenue-producing uses at an early stage. All parties need to understand this when they are negotiating the timing and nature of planning obligations. The desire to achieve early returns should not be allowed to compromise the quality of the overall project. Short-term gains can be won at the expense of creating value in the medium and long term.

KEY MESSAGES FOR SECTION 3.4

1. **Large-scale masterplans must take account of how the site can be subdivided into development parcels. Such subdivision can help to achieve successful urban design.**
2. **Design codes can help to create a sense of place and ensure high standards of design across development parcels.**
3. **The sequence of a project's delivery can raise its profile, ensure facilities and amenities are provided to its residents at the right time, and help in creating a community.**

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3. Design Coding in Practice: an evaluation. 2006. UCL/ Bartlett School of Planning/Tibbalds
4. Preparing Design Codes: A Practice Manual. 2006. CLG

3.5 PROCURING QUALITY PARTNERS

3.5.1 Choosing an approach

3.5.2 Assessment

In achieving successful, high-quality development, it may be necessary for both the public and private sectors to procure partners to work with them in delivering the project. Procurement in either sector has the same challenge. How does one identify and secure an appropriate partnership with a third party who will share your objectives and vision for the project and has the necessary resources, skill and commitment to help deliver these objectives effectively? The guidance below sets out one approach that can be effective in procuring quality partners. It is important to ensure that the procurement method chosen suits the objectives of the project.

A good procurement process will be designed to maximise confidence that both parties understand each others' objectives, and share an understanding of how the project will be delivered while minimising resources and risk. It is essential that a comprehensive brief is written and agreed by all the stakeholder partners, including a clear methodology for how responses to the brief will be assessed and delivery monitored. Where one of the stakeholder groups may have conflicting interests in the project (such as a local authority's estates department and its planning department), a consensual approach must be agreed before the brief is completed. The financial and legal requirements and obligations of each party must be clearly defined, and all prospective partners should be confident that they are bidding on a fair and level playing field.

3.5.1 Choosing an approach

There are a number of ways of disposing of an interest in land and property: private treaty, auction, informal tender, formal tender, negotiated tender or through a partnership arrangement. If a formal approach to tendering is taken, bidders must clearly illustrate the quality of their proposed bid (submitted with the accompanying financial offer), and they are contracted to achieve this. An informal tender

allows a degree of negotiation before the quality and financial offer are agreed.

Competition 057

Where the achievement of design quality is a material consideration, a tendering process should be adopted in which a developer's design approach is measured alongside other matters such as relevant experience or performance.

A developer competition will require bidders to put forward their potential approach to the development of the site in response to a detailed development brief. A development competition will often comprise of two or more stages, depending on the scale and complexity of the project. Having a phased approach to delivery helps bidders avoid wasted professional fees or internal resources, by trying to identify a smaller group of potential partners most suited to the project before asking for more detailed submissions. This approach, often referred to as pre-qualification, helps to reduce abortive costs. In comparison to a one stage process it keeps the number of developers submitting fully worked up proposals to a limited number.

Stage one, pre-qualification, will seek to establish the capacity (skills and financial resources) of tendering parties to undertake a scheme, their experience of delivering similar projects, and their general approach to development. This may or may not involve some initial design work. More usually it involves bidders submitting examples of previous schemes. Shortlisted developers will be invited to submit a second-stage bid, with a significant amount of design and financial detail. Some project sponsors may use pre-qualification to identify an appropriate shortlist of potential partners to which they will offer development and partnering opportunities exclusively.

The second stage of a development or partnering competition will involve weighting different aspects of a bid and assessing each element of a scheme competitively. The aim is to select a winner that best meets the set of pre-agreed competencies required to deliver the project's objectives.

All bidders must be given access to the same level of information about the site. It may be useful to set up a timetable of site and briefing meetings to manage the information transfer process. In the interests of fairness, any critical points that emerge from conversations with individual bidders should be communicated to all prospective bidders.

Briefing for design quality 058

A good brief should not only describe the development opportunity but also set out the vision for the development. It should outline the detailed technical and financial objectives of the project, and the rules of the competition.

There is a direct correlation between the quality and comprehensiveness of the information provided in the brief and the quality of the bids received. If the project sponsor invests in providing an optimal amount of useful and relevant information to each bidder, they will reduce the risk and cost of bidding and attract a greater degree of interest. The greater the clarity presented, the lower the risk to bidders.

The brief may be accompanied by a masterplan, a design code, or a detailed site layout setting out what is expected of each bidder in design terms. It is often desirable to allow a degree of flexibility or innovation within each bidder's response to the brief. A prescriptive brief is not always the best solution. The degree of prescription and flexibility appropriate for each project will relate directly to the value put on design quality in the procurement process. Generally, the greater value placed on design quality in the assessment criteria threshold, the less design prescription required in the brief.

Guide to producing development briefs

The following is an indicative template for the production of a development brief:

- **Introduction**
Introductory paragraph to the development site and the opportunity presented.
- **Background information**
Broad objectives of project and partners.
- **The vision**
Description and objectives of the proposed scheme, and detail of any specific options for development if relevant.

- **Site location and context**

The site address, ownership, location, description and appropriate maps.

Brief description of the site should include:

- Size of the site
- Site access
- Condition of any existing buildings on the site
- Any listed buildings on the site
- Any appropriate plans or images
- Relationships of the site with other areas

- **Site constraints**

Brief summaries of any assessments carried out on the site. The full assessments should be included in the tender information pack. Brief descriptions of any specific constraints (such as contamination, ecological issues and asbestos).

- **Relevant planning history**

Brief description of any previous planning applications on the site.

Details of any outline planning permission:

- What was the outline planning application submitted for?
- Are any section 106 agreements in place?
- Are there any existing masterplans for the site?

- **Planning policy context**

This section should set the development site in the national, regional and local planning policy context, making reference to:

- Relevant Planning Policy Statements
- Regional Spatial Strategy
- Sub-regional planning documents
- Local planning documents
- Supplementary Planning Documents

057

Obtaining partners through competition Crown Street Regeneration Project, Glasgow

The Crown Street Regeneration Project received outline planning consent on the basis of a masterplan, phasing plan and detailed design codes. Developer-architect teams were then brought on board through a two-stage competition to illustrate; design, build quality deliverability, marketability and ensure that the developer believed it was possible.

In addition, the schemes had to illustrate compliance with the masterplan and design codes. Development agreements and regular assessments by the Steering Group which comprised community members and representatives of the three public partners (Scottish Enterprise Glasgow, Glasgow City Council

and Communities Scotland) as well as representatives from New Gorbals Housing Association, Laurieston Community Council and Hutchesontown Community Council enforced the delivery of the quality each developer-architect team had signed up to. Towards later stages representatives of residents and tenants associations set up within Crown Street were also included.

An empowered steering group, committed project managers and the director of the regeneration project ensure that the ideas and aspirations of architects and masterplanners are taken through to construction. Transparent steering group working methods, absence of political disagreements and most importantly a committed and driven project champion are key to the success of Crown Street.



Developer-architect teams were selected to work on Crown Street Regeneration Project based on their proposed design, build quality, deliverability, marketability and their belief in the principles of the scheme.

- **Design and masterplanning**
 - Any specific guides relevant to the development and any relevant national guides
 - Any site-specific design criteria
 - Any guidelines for the design and layout of future development
 - List the appropriate objective standards required
 - Include details of any specific design or masterplan proposals
 - Detail any existing or proposed community involvement in the design and masterplanning process
- **Legal information**
Issues related to legal title:
 - Registered title of the land offered for development
 - Searches undertaken on the site
 - Details of any matters ancillary to the legal title
 - Any existing agreements for disposal of the site
- **Selecting a development partner**
What is the proposed role of the development partner?
The tender process:
 - Development proposal
 - Financial proposal
- **Evaluating the submission**
Criteria for evaluation – sample headings:
 - Objective requirements
 - Qualitative assessment
 - Financial evaluation criteria
- **Indicative programme**
Indicative outline of the proposed process from the distribution of the development brief until the proposed start on site date.

- **Contact details**

Advise potential developers to discuss proposals with appropriate staff prior to submission.

Submission requirements

The brief should set out detailed submission requirements stating clearly the procedures to be followed at all stages of the process, what content is expected in the submissions, and what form these should take. The brief should set out the information required from the bidders. This could include examples of past work, referees, CVs of key team members, company accounts, project financial information and project report. The brief should be clear about the required number and scale of drawings (where appropriate), and should make clear whether models or computer rendered images are acceptable. Submissions in three dimensions should be encouraged.

Submissions should include a design statement. This should illustrate how the bidder is making the most of the site's potential, and meeting national and site-specific requirements. The brief should ask only for relevant information, being careful not to overstretch the resources of each bidder by calling for a significant amount of high-risk work to be undertaken.

3.5.2 Assessment

Depending on the scale of project and its objective, the approach to assessment may vary. Whichever approach is followed, it should be clearly outlined in the brief, with an explanation of how it will be assessed and by whom. For an optimal approach to balancing design quality with value for money, the assessment should be reviewed in three stages: objective criteria, qualitative assessment and the quality/price balance.

Key objective criteria

Objective criteria should be mandatory for all bids to be deemed compliant. These criteria could cover a range of requirements such as provision of green space or affordable housing units, density considerations, or environmental targets such as the Code for Sustainable Homes. These criteria should be the same for all bids. They will generally be objective: they will not require an individual approach, but rather an acceptance of the project's main objectives and an understanding of how these will be met.

058

Maintaining community input through the selection process

Heart of East Greenwich

The Heart of East Greenwich will deliver London's first major carbon neutral development on a former hospital site. This will be achieved through on-site generation of heat and power using Biomass CHP, ground source heat pumps, thermal storage and photovoltaics, supplemented during peak periods by gas boilers.

The process for selecting the developer at Heart of East Greenwich was very effective in inspiring excellent responses from all of those shortlisted. The winning bid will establish pioneering standards in environmental innovation and create a new, integrated community in a cutting edge development.

The stage one brief set out the vision of creating a new heart for East Greenwich, founded on principles of sustainable, culturally diverse and socially inclusive regeneration. To ensure submissions responded to these effectively they were translated into thirteen SMART (specific, measurable, achievable, realistic and timed) objectives. Accompanying

these were a wide range of assessment criteria. The brief also outlined the likely requirements from bidders at stage two.

The stage two brief pack included mandatory standards, design parameters and an illustrative masterplan. Also included was detailed feedback from previous community consultation events run by English Partnerships which enabled developers to appreciate social context. Developers were required to present their schemes at a public meeting and towards the end of the selection process their ideas were displayed in a public exhibition. This valuable community feedback enabled those assessing the schemes to gain a better insight into how each scheme might work for the communities living there.

This approach enabled bidders to respond effectively to an extensive range of issues, ensured all submissions clearly reflected the project vision and that community input continued throughout the decision-making process.



Detailed feedback from community engagement events ensured First Base's winning scheme addressed the social and environmental aspirations for the site.

Qualitative assessment

Once a bid has been deemed to comply with objective or mandatory criteria, it can be judged qualitatively. At this stage of assessment it is possible to differentiate between the approaches taken by various bids and to judge how well they will meet the project objectives. It gives bidders an opportunity to illustrate how they will deliver them. The qualitative assessment should address at least four issues:

- Site-specific design issues
- Community engagement
- Long-term management
- Delivery and financial capability

All bids must address those areas, and pass a minimum defined threshold score for each. All bidders should have been given an opportunity in the tendering process to discuss their approach to each, and their understanding of the project objectives, with members of the stakeholder group and the assessment panel. Where possible all competitions should be assessed consistently, using established criteria and practices, and with a consistent panel or mix of individuals on the panel. The assessment panel should include representation from the local authority and key stakeholders where possible.

A minimum threshold should be set for each of the qualitative areas. No trade-offs should be permitted. For example, a scheme should not be considered if it greatly exceeds the threshold for design quality but fails on deliverability. The bid must be of a consistent quality in each area.

Flexibility between projects can be provided by adjusting the relative importance of each qualitative area through the agreed minimum threshold score. For example, in a large complex project it may be inappropriate to have detailed designs submitted. The relative importance of each bidder's approach to deliverability and financial capacity may be greater. However, irrespective of the scale of the project, each bidder should be asked to illustrate how they would design a section of the development in order to show their understanding of the project objectives.

If the project (or this specific phase of a project) is seen to be very important and is required to act as a benchmark for future phases, it may be appropriate to set a higher overall average threshold. For example, 60 per cent may be the minimum threshold for each aspect of the qualitative assessment, but an average of 70 per cent overall may be required. This means that each bidder knows that they have to innovate in one or more areas in order to proceed to the next stage of selection. Such an approach should only be used when an exemplar scheme is envisaged and may be deemed too complex for future phases.

Scoring	
1-2	Substantially below expectations
3-4	Below expectations
5-6	Meets expectations
7-8	Above expectations
9-10	Substantially above expectations

Table 3.5 An example of Scoring Guidance

It is important that bidders and assessors have a clear understanding of expectations. Proposals should not be deemed compliant if they do no more than meet expectations in each area, and do not exceed them in some way to aspire toward an optimal solution on each site. All those involved in the assessment process must have a clear understanding of the standard required by each relative threshold. Fifty per cent design quality to one person may mean something very different to another assessor, so it is essential to set clear definitions of expectations and how they relate to scoring.

Financial consideration

After the objective and subjective assessments, the third stage in the process would address the financial status of the bids. At this stage we need to balance the proposed quality of the bid with the relative financial cost or return to the project. It is important that bids are reviewed in a consistent manner and that we review like with like. The brief should clearly highlight how the financial assessment will be undertaken and what key financial targets must be met.

There are a number of options one can consider when making the final selection. Whichever is chosen must be defined at the beginning of the process and followed through. Changing an approach to accommodate a specific bid would undermine the fairness of the process and fail to stand up to scrutiny by either a public sector audit (such as those undertaken by the National Audit Office) or by independent auditors on behalf of private sector shareholders.

A number of possible approaches to final selection are outlined below, together with key advantages and disadvantages. In selecting an optimal approach it is important to balance the quality of proposed development with the relative cost or value to society as a whole.

Define quality, then judge purely on price

This approach involves setting objective measures of quality. Providing all of these are achieved, the successful

partner will be the one offering the highest return or lowest cost to the project sponsor.

This clear and simple approach is likely to achieve efficiencies for partners who bid successively for development opportunities. The sponsor is sure of achieving a minimum quality of development delivered at an efficient cost. But it does not encourage bidders to go beyond the minimum quality specified and so may not maximise the opportunity that the project may offer. Bids may become standardised and not respond to site-specific issues. This approach is also quite inflexible. It may not allow the project sponsor to choose their ideal partner because of the procedures set out.

Define price, then judge purely on quality

If a project sponsor has a minimum financial requirement to make the project viable, they can make this figure known to prospective bidders as a minimum criterion, and then judge bids based on qualitative issues alone.

This approach encourages innovation. It can encourage bids which strive to achieve the best possible solution to the site within the cost parameters. Each bidder has an incentive to illustrate how they will achieve high quality at lowest cost. This may help make the innovations mainstream. The approach makes it easy for the project sponsor to forecast the financial returns from the project.

Within the public sector such an approach may be seen to place too sharp a focus on quality. It may not be seen to offer best value to the public purse, as sufficient quality may have been achieved with a much greater return. This approach also requires significant skills from the assessors to determine the highest quality.

Qualitative assessment weighted against relative price in a variable or fixed proportion

The relative value of quality can be balanced against the potential added value in financial terms in order to get a true representation of true value for money to the project or society as a whole. The relative importance of quality as opposed to price can be weighted equally in terms of a 50 per cent / 50 per cent ratio, or the quality aspect can be given a greater weighting, such as a 70 per cent / 30 per cent ratio for an exemplar project, or to set a benchmark

greater than the market would deliver on its own.

This approach allows a project sponsor to tailor their approach to individual project needs and aspirations. It requires bidders to make a professional judgement to offer the maximum quality possible at the lowest cost within their abilities. The objective of this approach is to attempt to get the best response in terms of both quality and price.

Such an approach may be seen as very high risk by bidders, allowing too many variables and requiring the bidder to interpret the individual aspirations of the assessment panel. One person's interpretation of quality over another's may be very different. Convincing the assessment panel that the bidder has a full understanding of both quality and price issues may be quite costly.

Value judgement and justified recommendation by assessment panel of stakeholder group based on quality/price assessment

This approach, a variation on the other approaches, may include an assessment of objective and qualitative issues. But it relies on a value judgement by the assessment team or stakeholder group, based on information provided, but not to any fixed ratio.

It allows the assessment panel the maximum degree of flexibility to choose the bid that they feel offers the greatest value for money to the project sponsor. Such an approach gives the bidders a strong incentive to provide high-quality, efficient information in their bid in order to convince the assessment panel that their approach offers the best solution.

This approach places a heavy burden on the assessment panel to justify their decision. Some panels may see the responsibility as being too great, and may choose safe rather than innovative schemes in each case. This approach may also be difficult to justify to an audit commission.

Overall

In choosing the right solution for the project in hand, the project team should take due consideration of the skills within their team, the objectives of the project and the value for money requirements of their own organisation.

KEY MESSAGES FOR SECTION 3.5

- 1. The most successful procurement process will help identify the most appropriate project partner through the most effective and efficient use of resources.**
- 2. There is a direct correlation between the quality of the brief and the quality of bids received.**
- 3. An optimal balance between quality and price should seek to maximise best value to the project and society as a whole.**



FROM VISION TO REALITY

Steering a project through its detailed stages to secure planning and technical approvals is a critical stage of delivery. Each project has to secure approvals from many agencies, including the local authority planning and highways services, utility providers, building regulations and construction codes.

Patience and determination are required to secure these approvals in ways that enhance the original design concepts, taking the scheme to new levels of performance rather than compromising and diluting it. The devil is indeed in the detail: many potentially excellent schemes falter at this stage and fail to meet initial expectations.

Wide-ranging negotiations may be necessary on large, complex sites. Resolving conflicts will require a robust project-management process, effective collaborative working and a vision shared by all players. Consultation with all stakeholders at an early stage

– ideally starting at the design stages – is essential, so that everyone is committed to the design concepts by the time detailed technical agreements are required.

The collaborative approach should be continued through the approvals process to **ensure that required changes do not reduce the quality of the design.**

Ensure that **the most important elements of transport, streets and service infrastructure can be provided in ways that will improve quality of life in the short and long terms.**

Concern for quality must extend into the construction period. It must influence on- and off-site construction, the early handover of elements of the scheme on which the emerging community depend, and consideration for how that new community can live alongside construction.

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- 4.1 DESIGN QUALITY AND PLANNING CONTROL
 - 4.2 DELIVERING THE TRANSPORT ELEMENT
 - 4.3 DELIVERING STREET AND SERVICE INFRASTRUCTURE
 - 4.4 CONSTRUCTING QUALITY PLACES
-



4.1

DESIGN QUALITY AND PLANNING CONTROL

4.1.1 Urban design in the planning process

4.1.2 Working within a robust, positive planning process

4.1.3 Design evolution and outcomes for planning

4.1.4 Mechanisms to control design quality

4.1.1 Urban design in the planning process

The planning system aims to ensure that all development delivers places that are of high quality and sustainable. Projects developed collaboratively and based on sound urban design principles should find it easier to obtain planning permission.

Achieving a high-quality outcome will require the support and commitment of many people. Understanding what is required, when and by whom is crucial. Design work must be grounded by sound working practices through a collaborative, well-managed process. It is essential to understand the tools available to protect the design quality of the scheme and to ensure the place created will reflect stakeholders' aspirations. [059](#)

The development control process

The granting of planning permission is an important objective and milestone for any development. All project stakeholders will need to work collectively towards the production of a high-quality and comprehensive planning application, with supporting material that fully complies with legislative requirements and planning advice. Any submitted application material and supporting documentation will need to be sufficiently robust so as not to be vulnerable to any potential legal challenge from third parties on technical or procedural grounds.

Applications may be progressed either in outline or full, or as some form of hybrid of the two. For large complex projects it is likely to be most appropriate to secure in principle acceptability through an outline application to avoid potential abortive detailed work. In all cases, the actual content of any planning application and accompanying material should make clear what is being proposed and provide certainty over the quality of the place.

Stages through development control

The submission of a planning application and its subsequent processing and determination are just part of the planning process. Undertaking pre-application assessment and negotiation will help identify issues early on, preventing delays later in the process which may have a significant impact on staff resources and costs.

It is also important to recognise the need for post-planning decision monitoring to ensure that the design commitments are not compromised over the long term. Key planning stages are set out in table 4.1.

4.1.2 Working within a robust, positive planning process

The following factors must be recognised and addressed:

- Project vision and objectives**
 Establishing a strong vision is vital to build consensus on expectations and understanding what motivates the stakeholders. This might initially be expressed as a set of objectives which become more explicit through design exercises. The concepts might be recorded through an agreed vision statement or an early draft of a design and access statement. Objectives should be developed into explicit design ideas.
- Collaborative working** [060](#)
 Collaborative working will enable all parties to inform and influence the evolution of a project, potentially avoiding abortive work for all parties. The new spatial planning process will help to draw various stakeholders together into a development team, understanding that issues beyond pure physical land-use planning must be addressed through large projects.

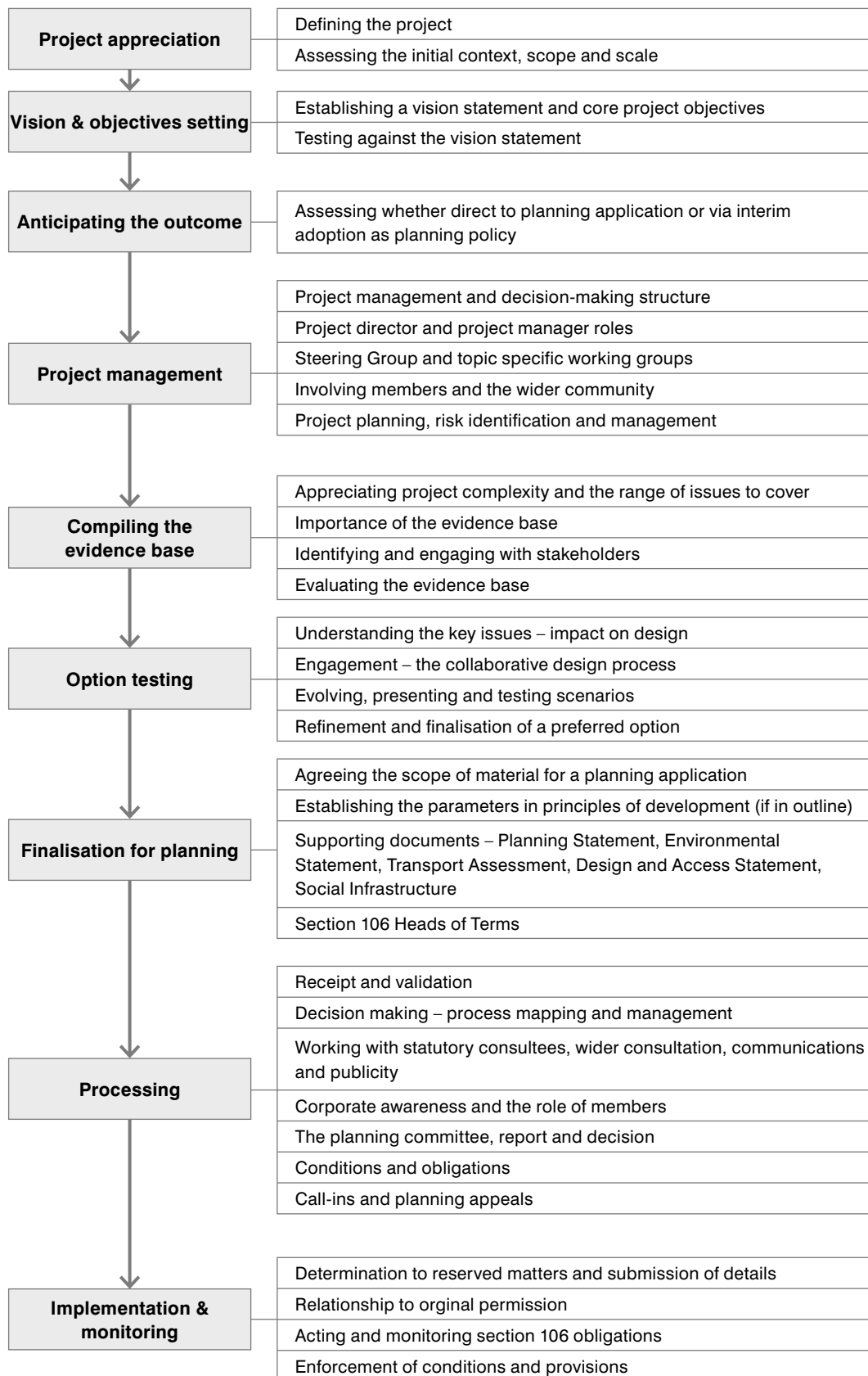


Table 4.1 Key Planning Stages (Source: ATLAS Guide: Planning for Large Scale Development)

059

Assisting large scale developments

The ATLAS Guide - www.atlasplanning.com

The Advisory Team for Large Applications (ATLAS) provides an independent advisory service to Local Planning Authorities and their partners in relation to the evolution and consideration of large-scale development projects.

ATLAS was established to assist those local authorities experiencing the pressures of increased development activity. The success of the team has been seen by its expansion from South East and London focus to cover the whole of the Southern and East regions also. The Barker Review into Land Use Planning recommended expansion to provide nationwide coverage. In addition to providing assistance with the delivery of high-quality sustainable development and speeding up the

planning process, ATLAS has undertaken research work on the Planning Performance Agreements.

Based on its substantial experience, ATLAS has produced a comprehensive guide to taking complex, large-scale development projects through the formal planning process. The guide also provides specific guidance in relation to a number of key topic areas that may need to be addressed to enable projects to come to a successful outcome. The information is being provided through the internet and provides a live and interactive information web-based resource, frequently updated with new policy guidance and the learning from real-life project examples and user experiences.



The ATLAS Guide found at www.atlasplanning.com was established as an independent advisory service to local authorities to assist with determining complex, large-scale projects. The website provides live up-to-date information and lessons learnt from other projects.

060

Working collaboratively through planning Barking Riverside Ltd

Barking Riverside will deliver a sustainable community of 10,800m homes, 25,000 people built over 20 years on the largest brownfield site in London. Barking Riverside Ltd (BRL) is a private joint venture company between English Partnerships and Bellway Homes Ltd set up to deliver this strategic Thames Gateway project.

Design guidelines have been incorporated as a condition on the outline planning consent and these set out the principle design parameters, whilst providing the flexibility that is required for the scale and duration of the project. The planning consent and the section 106 agreement details the significant design criteria and also, as importantly, establishes the design process during the development stages.

BRL agreed a planning protocol with the three planning authorities which will streamline what could have been a very

complex sub-application process. This means in practice that the GLA's Design for London acts on behalf of all three planning authorities in a collaborative way by joining BRL's design teams, who are based on site, thereby being part of the design process delivering the subsequent sub-framework masterplan applications for the next stages of the development. In addition, a Design Advisory Panel comprising design experts from both the public and private sectors including an expert from the off-site manufacturing sector, will be retained, to advise BRL on design elements throughout the lifetime of the project.

BRL will fund and construct the scheme infrastructure to enable serviced sites to be sold to housebuilders and developers who will deliver the site's under lease structures that ensure the design guidelines are adhered to and deliver high-quality family housing to very high sustainable standards.



The planning protocol will streamline the application process with Design for London working with Barking Riverside on behalf of the three planning authorities to ensure that submissions reflect the design parameters.

- **Robust project management**

A robust management structure should be put in place to minimise potential delay and risk. The aim should be to build confidence and consensus in the scheme before an outline application is produced and the scheme enters the formal planning process. This should clarify roles and responsibilities, identify issues and tasks, and evolve a project plan and work programme. The structure should be informed by whatever work has already gone into the project, the expectations of the partners, and any specific local sensitivities or circumstances.

- **The role of planning performance agreements**

The components of the project management structure could be formally embodied within a planning performance agreement (PPA) established between the local authority and the developer or applicant. The PPA's remit is to provide greater certainty in the processes of preparing and assessing planning applications and making decisions. The main focus is on achieving a collaborative, transparent planning process between partners. The PPA will document an agreement for the project's main elements, setting a clear project management process at the start.

A PPA can help to establish a consistent approach in relation to strong project management, commitment of time, resources and political will from the public and private sectors. It should give greater certainty and confidence to the planning process, and improve the quality of development proposals and decisions.

4.1.3 Design evolution and outcomes for planning

Stakeholders should work collectively to produce a comprehensive suite of documents or outputs that comply fully with all of the necessary criteria. Final documents should:

- Clearly establish what is being proposed and where
- Have evolved through a collaborative pre-application process
- Be fully justified and backed up by a robust evidence base
- Demonstrate how a high-quality outcome could and would be achieved
- Contain consistent messages and information
- Enable efficient and effective decision-making through the appropriate due planning processes
- Be written clearly and concisely

A wide range of people, including the general public, will need to understand the proposals. Executive summaries written in plain English should accompany the technical analysis.

Evolving proposals

A comprehensive evidence base is essential in understanding the local issues which will provide the background to robust and effective proposals. Once all the evidence has been assembled, a range of options should be produced. These will draw together background information to form workable spatial planning solutions.

Involving the community and stakeholders

Planning guidance urges that stakeholders and local people should be involved in the process of preparing planning applications of significant size or complexity. This is likely to involve a wide range of local authority representatives and other stakeholders (including local community groups). Each will have a distinct role and may need to be involved in different ways (see section 1.5).

Understanding the planning balance

Every development is different, but common issues needing detailed assessment will include those relating to land-use topics such as housing, employment, social infrastructure, open space, retail and leisure facilities. Assessments will be needed of access and movement, ecology and biodiversity, and heritage, as well as over-arching considerations such as project viability, deliverability, environmental impact and planning obligations.

Establishing design parameters and principles

Small-scale projects are likely to proceed directly to detailed applications. Large development projects are likely to take the outline planning application route, which establishes the principles of development before undertaking detailed technical work.

Design parameters and principles should be established at the outline stage to make clear what is being proposed and what has been assessed as part of the design and access statement, transport assessment and environmental statement. An outline planning application must include a specific set of parameter plans as a formal part of the application material. These parameter plans should be accompanied by a clear statement of (or reference to) the design principles that would guide development. A schedule of development should also be provided to clarify the scope and scale of development proposed.

Providing this level of information need not restrict the flexibility of implementation. For example, setting maximum parameters for building areas and heights would retain the flexibility to evolve detailed design within these approved parameters, without dictating exactly what the final scheme would be. The following structuring elements should be considered:

- **Land use** – The proposed use or uses of the building or site and any distinct developments, neighbourhood zones or phases within the site.
- **Areas of potential built development** – Identifying broad areas of the site within which proposed buildings would be located.
- **Building heights** – Identifying the upper and lower limits for height within the areas of built development.
- **Landscape and open space structure** – Identifying strategic areas of open space, indicating the role and purpose of different spaces and landscapes.
- **Access and movement** – Identifying proposed access points and movement across the site, including strategic highway, pedestrian and cycle routes.
- **Other key structuring elements** – Subject to the nature of the specific proposals, potential additional plans to identify character areas, residential density plans, the parking strategy and the location of nodes and landmarks.

The role of the design and access statement

The submission of a design and access statement is now a formal planning requirement. The statement plays an important role in linking development parameters and principles to final detailed designs.

The scope and size of the design and access statement should be proportionate to the scale and complexity of the project it relates to. With an outline planning application, it is important to ensure consistency in terms of the development parameters and the design principles. The statement should explain both the design process for the submitted scheme, and help to inform the content of subsequent reserved matters or detailed applications.

The design and access statement sets out how inclusive design principles and practice will be incorporated into the development, and subsequently maintained and managed. English Partnerships' Guidance Note on Inclusive Design¹ sets out the topics to be included.

Relationships to other planning application material

It is important to understand the impact of the design process on wider supporting material. This will be particularly important in relation to any environmental statement, which should explain the process of design and option testing, and how environmental impacts have been dealt with through that process. The impact assessment should be based on the design parameters and principles fixed by the application.

4.1.4 Mechanisms to control design quality

A number of additional control mechanisms can be adopted in cases where information has been provided in addition to a formal application, or where additional control is needed.

Specific attention should be given to control mechanisms that relate to quality. For example, those which fix the commitments given or established by design statements, masterplans or design codes, and those which relate to specific matters such as details and the use of materials. If a scheme has special qualities, or if further detailed submissions are required, some additional specific attention to the wording of conditions will be needed. The need for certain mitigation measures or supporting infrastructure should be incorporated within conditions and/or planning obligations.

The justification, negotiation and final drafting of conditions, planning obligations and background reasoning may require significant resources.

Planning conditions

Planning conditions can be an important way of maintaining engagement between the developer and the planning authority after permission has been issued. Used properly, conditions can enhance the quality of development. The conditions should be clearly defined, relevant, enforceable, precise and reasonable.

	Strengths	Weaknesses
Area Action Plan or other DPD	<ul style="list-style-type: none"> • Provides certainty for all parties on design requirements • Code given primacy alongside other DPD policy in determining applications 	<ul style="list-style-type: none"> • Can be difficult and time consuming to update
Supplementary Planning Document	<ul style="list-style-type: none"> • Certainty for all parties on design requirements • Provides opportunity for detail required in codes 	<ul style="list-style-type: none"> • Does not have primacy in determining applications • Can be difficult and time consuming to update
Development control guidelines	<ul style="list-style-type: none"> • Easy to revise as required 	<ul style="list-style-type: none"> • Limited weight unless adopted as DPD
Revised highways standards	<ul style="list-style-type: none"> • Can help overcome adoption issues • Enables inclusion of urban design principles in standards 	<ul style="list-style-type: none"> • Discussions with highways could water down design quality
Planning condition	<ul style="list-style-type: none"> • Certainty for all parties on design requirements • Provides effective control over design quality as easy to enforce • Provides flexibility to amend code 	<ul style="list-style-type: none"> • Code needs to be specific to be enforceable • Local Planning Authority requires commitment, resources and skills to ensure enforced effectively
Planning obligation	<ul style="list-style-type: none"> • Certainty for all parties on design requirements • Can be enforced against successors in title 	<ul style="list-style-type: none"> • Less flexibility to amend code
Development agreement	<ul style="list-style-type: none"> • Enables landowners to set standards on design quality 	<ul style="list-style-type: none"> • Local Planning Authority may disagree on design principles • Landowner requires commitment, resources and skills to enforce effectively
Local Development Order	<ul style="list-style-type: none"> • Ensures quality standards will remain constant across development 	<ul style="list-style-type: none"> • Codes will need to be detailed in terms of design • May be difficult and time consuming to update

Table 4.2 Formalising design codes in planning – key design benefits of each approach

Planning obligations

The legal basis of planning obligations is currently set out in section 106 of the Planning Act 1990 (as amended). Planning obligations can be used to prescribe the nature of development, to secure a contribution from the developer to compensate for any loss or damage caused by a development, or to mitigate a development's wider impact. Obligations run with the land, and so may be enforced against both the original covenantor and against anyone subsequently acquiring an interest in the land.

The Heads of Terms should be established early on. These typically include affordable housing, education, community and institutional facilities, highway improvements, public transport, landscape and public realm. They could also be used to secure certain design proposals or require further design work to be undertaken.

Design codes

One of the most powerful ways of controlling the design content and quality of proposals through the development control process is to require the production of design codes, either by planning condition or obligation. See table 4.2 for options on how to formalise codes in planning. Codes provide a means of agreeing a range of design aspects of a scheme prior to it coming forward for detailed or reserved matters consent. The result can be a smoother, more certain progress through the later stages of development control.

Design codes would be expected not just to deal with design principles but give to specific mandatory requirements against which reserved matters applications can be easily assessed. The content of design codes is discussed in section 3.4.

Post-approval control

The granting of permission, either in outline form or in full, marks a significant milestone in the overall process of dealing with a large development proposal. It should not be seen as the end of the overall process: considerable work will remain to deal with reserved matters, the discharge of conditions, the implementation and monitoring of any section 106 agreements, the delivery of supporting infrastructure, commencement on site and ultimately the completion of the scheme. The project vision and objectives established at the outset must remain at the forefront of collaborative working between the developer, local authority and stakeholders.

A local planning authority must have resources and systems in place to monitor the timely and efficient compliance of section 106 provisions, and any enforcement action where necessary. The authority should be prepared to make clear that compliance with approved plans, conditions and approved details will be expected and actively monitored. The quality of the scheme should be a shared objective.

KEY MESSAGES FOR SECTION 4.1

1. **Understand the fit between the planning and urban design processes, and what needs to be agreed and at what stage.**
2. **Focus on identifying and resolving important planning issues in the pre-application stage, working through a managed, collaborative process.**
3. **Watch out for attempts to dumb down a scheme after outline consent, when technical approval stages and cost reductions may erode urban design quality.**

REFERENCES

1. Inclusive Design. 2007. English Partnerships

4.2

DELIVERING THE TRANSPORT ELEMENT

4.2.1 Testing transport proposals

4.2.2 Influencing choices

4.2.3 Changing perceptions

Places need to be structured and designed in a way that enables people to make sustainable transport choices. At the planning consent stage, transport plans should be appraised to ensure that they are adequate and capable of being implemented. Movement routes, phasing and funding must be assessed. Objectives that will lead to options being used effectively must be agreed.

If the design and densities of the network and streets are right, it should be possible to deliver sustainable transport in the long term. But habits can be hard to break. Support for public transport through early subsidies, promotion and customer incentives can be effective in making sustainable transport work.

4.2.1 Testing transport proposals

Density, mix and transport systems

For smaller projects, the transport strategy will have already been determined at policy or framework level (see section 1.2). However, major strategic developments are better able to take a lead in introducing transportation initiatives. Decisions on urban form (see section 2.2) will influence the split between different modes of transport. Density and mix will be a major influence on needs for and types of travel. A dedicated public transport route, with a clear space within the streetscape and legible connections to significant places will ensure that the system (bus or tram) can operate without congestion and attract more users. It can be efficient and attractive for different modes to share the same corridor (see section 2.5).

Checking the plan

The masterplan needs to be formally appraised at the approvals stage. The following checks must be made:

- **Delivering a walkable neighbourhood**
 - Do streets connect at both local and global levels?
 - Do streets have a clear pattern and a visible hierarchy that aids orientation?

- Do individual streets connect destinations along direct routes?
- Are streets with limited or no vehicular access still safe and secure for pedestrians?

- **Cycling**

- Are routes convenient and safe?
- Do they connect to important destinations without interruption?

Fully off-road routes are attractions in their own right, many of them carry large numbers of walkers and cyclists. This network should be extended and existing routes be better managed. Routes need to be easily accessible, well maintained, and to connect desired destinations.

- **Public transport** 061

- Are the major public transport corridors clearly visible?
- Does the street layout allow alternative routes to be taken if necessary?
- How frequent will the service be during a day or week?
- Does the masterplan include a bus service to be introduced in phases, with turning areas if necessary?

Habits form quickly but can last a lifetime. It is important to introduce public transport in line with the phased development of different parcels of land to reduce car dependency from the outset. The early phases of many developments will not have a large enough population to support a bus service. In these cases a subsidised service may be needed until there are more residents. Alternative means of transport such as taxis, car clubs, car-sharing schemes and voluntary community transport might also be considered. Getting public transport off the ground early can establish sustainable travel habits.

061

Delivering public transport upfront The Village, Caterham-on-the-Hill

Following section 106 negotiations, Linden Homes agreed to the early delivery of public transport by buying and running a bus service for five years to encourage the reduction of car usage across the new development at The Village in Caterham.

The bus service was set up after 50 homes were constructed. The route provided a link between the development, the station and the town centre. The service was purchased by Linden Homes for £490,000 (the cost after revenue was taken into account) and the sides of the bus were used to promote Linden

Homes and the barracks site. During the first week the service provided approximately 500 individual trips daily.

Contributions towards the running of the bus were included in The Village's management fees and to encourage the use of the facility residents, visitors and businesses were provided with travel vouchers. These fees applied to all residents regardless of whether they used the services and contributions were tied to the covenants of properties and the release of the freehold on the sale of individual properties. The Linden Homes funding ended in September 2005. However, due to the strong demand for the service, the shortfall has been picked up by the County Council.



A bus service linking The Village with the town centre and surrounding neighbourhoods was funded by developers to encourage the reduction in car use on the completion of 50 homes.

- **Cars**

- Are traffic flows within acceptable levels for the type and character of each street?
- Does the urban design slow cars to appropriate speeds without relying on signage?

Parking can have a significant impact on how well places function and on the quality of streetscape. Issues relating to the amount of parking and how this will be accommodated should be agreed at the design stage. The solution will depend on the location, topography and market (see section 2.5).

Allocating spaces makes car parking less efficient, as the spaces may be left unused even when there is a demand for them. Consideration needs to be given to how areas (especially ones with a mix of uses) will be used throughout the day and how their parking spaces can be used most efficiently.

The use of car clubs should be promoted on new developments. A car club can help to reduce the need for second cars, reducing demand for parking.

Calculating transport costs 062

Transport requirements should be clearly identified at the design stage, when consideration should be given to how they are funded. Where major infrastructure such as a new railway or tube station, a tram service or bus routes is required, the developer will have to work closely with the transport provider. The developer will support the provider in making a case for providing these and ensure that timescales tie in.

Funding for public transport may be available from the government through such initiatives as the Community Infrastructure Fund (see the website for further details). For smaller schemes it is more likely that funding for public transport will come from the promoter of a development, through a section 106 agreement.

4.2.2 Influencing choices

Changing behaviour patterns

People's choice of transport mode will depend on what is provided, what its quality is perceived to be and how far they are prepared to travel for different modes. Factors that might change perceptions include:

Local transport (buses and railways) 063

- Reliability and frequency of services (especially evening, Sunday and rural services)
- Delays and cancellations (particularly railways)
- Congestion on roads (buses)
- Integration of different transport modes
- Route coverage
- Availability of information about service timings, routes and fares
- Cost of fares (particularly railways)
- The media presenting negative stories, particularly about railways
- Crowding and associated inconvenience
- Personal security
- Hygiene (such as cleanliness)
- Access for disabled people and those with push chairs
- Staff attitudes

Cycling and walking 064

- Mostly not included in what people see as being local transport
- Safety (road accidents and personal security)
- Directness of routes

Car use

- Personal space and comfort
- Door-to-door service, convenience
- Congestion on roads
- Roadworks and traffic management
- Lack of information about improvements

062

Funding strategic transport infrastructure Milton Keynes Tariff

Ensuring provision of adequate transport infrastructure to support the growth of Milton Keynes has been a key requirement of the Prospectus for Growth.

The scale of growth required at Milton Keynes to deliver 15,000 homes by 2016 requires significant investment in local infrastructure, including transport. Milton Keynes Partnership Committee (MKPC) developed a Prospectus for Growth to establish the levels of local and strategic infrastructure required to support growth and how these will be funded. MKPC worked with delivery agencies and the local authority to assess the level of public-sector funding available and the level of developer contributions required through the tariff.

This forward planning has enabled government departments, who are often unable to commit funding more than a few years in advance, to take a longer-term view. MKPC negotiated with

Highways Agency on the prospectus to ensure it obtained their agreement in principle. This work has helped all players understand what will be required and when to ensure the transport elements can be delivered.

A Joint Transport Delivery Team has been established to manage the transport delivery plan, which forms part of the wider five-year Business Plan. Their remit includes identifying improvements required by other parties, identifying potential contributors to highways and transportation improvements, such as future Local Transport Plans settlements, and coordinating bids for opportunity funding such as Communities Infrastructure Fund.

This strategic approach has also enabled contributions to be pooled to fund major transport projects, such as improvements to Junctions 13 and 14 of the M1 which could not have been delivered on a piecemeal basis.



Involving transport bodies in the development of the Prospectus for Growth ensured that the transport infrastructure could be coordinated effectively to support the growth of Milton Keynes. The masterplan above shows projected growth for Central Milton Keynes.

063

Changing travel patterns Nottingham Express Transit

Nottingham Express Transit (NET) is the eighth light rail system in Britain. Direct routes leading to the city centre, shared movement corridors, through ticketing and simple connections to local buses and trains at several locations has made the system highly successful. The system carried 8.4 million passengers in its first year of operation, also increasing park and ride use by 20%.

Mark Fowles from Nottingham City Transport and David Carter from MVA believe that the success of the system's development and operation can be attributed to the need for a good scheme in the right place, clear specification, long-term political support

and a skilled promoter team. Involvement of the private sector, strong presence of operators, early work on utilities and a dual approach to procurement through a grant and PFI have also been key.

Linking main origins and destinations (including park and ride interchanges, which provide a total of 3,140 spaces) and collaborative working with a dominant bus operator, the Nottingham City Transport, to provide feeder services, through ticketing and integrated travel cards has also helped restructure the bus services. Core route frequencies have been reduced on routes parallel to NET, while maintaining and expanding frequencies along other routes.



Long-term political support, a skilled team and a coordinated approach to the delivery of Nottingham Express Transit has reduced car dependency and increased park and ride use by 20%.

064

Establishing a city-wide cycle strategy

Vélo V, Lyon, France

Vélo V is a bicycle rental service run by the city of Lyon, in conjunction with the advertising company JCDecaux. The network consists of almost 200 renting stations, situated in strategic locations across the cities of Lyon and Villeurbanne.

Bikes can be rented and returned to any other station within the network with a Vélo V Card for insurance purposes. Three different price and billing options are available including the choice between pre-paid or post-paid. The first 30 minutes of use are free, encouraging use of cycles for short trips as well. Other incentives include 60 minutes free use to users of the TECELY public transport smartcard.

By September 2005, 23,000 registered users and 2,000 cycles used the network with plans for further growth in the future. Average trip length was 2.8 kilometres for duration of 20 minutes, with increased use during peak hours and near main train and metro stations. The annual cost of operation was about €1,000 per cycle including the rental electronic devices, i.e. €2 million for the whole fleet.

The system is managed by JCDecaux and is included in a global 13-year contract of street furniture funded by Greater Lyon. This relationship allows the city to provide the service on a cost neutral basis for the city and at very low cost to users, in return for providing exclusive advertising rights on bus shelters and the like.



Vélo V bicycles are funded by the city on a cost neutral basis in return for exclusive advertising rights on street furniture.

4.2.3 Changing perceptions

Raising awareness

Simply providing transport is not necessarily enough to ensure good levels of use. Lack of information (particularly about routes, fares, and service and journey times) can deter people from using alternative means of transport. The promotion of transport systems can often be an important part of a delivery agreement. The following are some approaches that might be used:

- **Creating an identity**
Branding displays, information leaflets and vehicles associated with public transport, cycle networks and pedestrian routes can create a consistent graphic style and a recognisable identity.
- **Improving services**
Where buses operate in congested areas, introduce bus lanes to ensure that buses are the fastest form of transport. The lanes can operate at specified times to enable effective traffic management throughout the day.

Users are more likely to use services that are convenient, safe and clean. Ensure that there is sufficient investment in safety measures (such as CCTV and railway staff) as well as continuing maintenance. Providing low-floor buses and accessible bus stops will allow more people to use buses.
- **Making information available and easy to use**
Free and clear information will make people aware of what transport is available. Maps, timetables, and walking and cycling strategies should be targeted to specific neighbourhoods, streets and bus stops.
Real-time updates for trains, trams and buses can encourage use. Real-time timetables can be linked to SMS services (text messaging) and websites to provide quick and easy access to this information.
Flat fares and the use of transferable travel payment such as Oyster cards can encourage people to use buses.
- **Practical encouragement and incentives**
Incentives to encourage the use of a variety of means of transport have had considerable impact on patterns of behaviour. Some such schemes and incentives that could be used are:
 - Need-base permit schemes
 - Discounted fares that apply on either specific routes or to the entire town for a period of at least a month. This can increase users' familiarity with a new mode of transport
 - Special facilities and discounts for cyclists such as repair facilities, discounts at local retailers, and shower and storage facilities
 - Travel plans
 - Provision of gifts to people already using particular means of transport, in recognition of their efforts

KEY MESSAGES FOR SECTION 4.2

1. **Plan for car ownership while planning for less car use.**
2. **Secure adequate arrangement for public transport at the planning consent stage.**
3. **Information, encouragement and incentives are needed to raise awareness of responsible ways to travel.**

4.3 DELIVERING STREET AND SERVICE INFRASTRUCTURE

4.3.1 Adopting grid streets

4.3.2 Quality and safety audit

4.3.3 Adoption process

4.3.4 Why create Home Zones?

4.3.5 Utility infrastructure

Streets need to accommodate a range of functions to work effectively for all their users (see section 2.5). Good urban design can ensure that these add up to making a successful place. As the Manual for Streets¹ states, ‘people need to think creatively about their various roles in the process of delivering streets, breaking away from standardised, prescriptive, risk-averse methods to create high quality places’. It is important to work with highways and utilities throughout the design and approval process to ensure that their requirements can be accommodated without compromising the design.

The Manual for Streets is helping to refocus street design to achieve better places. These principles need to be understood and applied equally to higher-order streets, such as arterial routes and high streets.

4.3.1 Adopting grid streets

Connected streets and junction design

The technical appraisal stage needs to ensure that the public realm (including streets, footpaths, cycleways, tree planting, and foul and surface water infrastructure) meets appropriate standards and can be adopted by public bodies. The two main approvals required are section 38 agreements (for the construction of new streets) and section 278 agreements (which cover works to existing streets, including creating new junctions).

In many cases the intentions of a masterplan to deliver connected streets (which may frequently require crossroads) are not fulfilled, due to technical problems during safety audits and adoption procedures. The reason lies in an earlier era, when cars were given absolute priority over pedestrians and cyclists. Crossroads were thought to contain a large number of potential collision points for moving vehicles, with danger for both motorists and pedestrians. Adopting authorities responded by seeking to eliminate crossroads.

It is now recognised that junctions on lower-order streets can be designed as small, informal squares with pedestrian

priority, calming the traffic. On higher-order city streets, light-controlled junctions (with changes in surface to define pedestrian crossing areas) can become memorable parts of the public realm, defining street corners with landmark buildings.

Access rights before adoption

On larger sites where development is phased, development agreements should establish rights of access to each development parcel during the maintenance period, prior to adoption. This is particularly relevant for the period when the streets are still the responsibility of developers, the streets not yet having been adopted or another management regime has not been established.

Development agreements should include mechanisms to ensure that developers:

- Finish all external works up to a standard appropriate for adoption before leaving the site
- Follow a speedy adoption process
- Maintain the public highways until they are adopted or alternative management structures are put in place
- Give legal rights of access until streets are adopted

4.3.2 Quality and safety audit

Quality audits

A quality audit is required for any proposed street. This will help to ensure that street designs are effective in meeting the objectives and workable in practice. The quality audit addresses all aspects of street design, including qualitative considerations and traffic calming through urban design. Depending on the nature and the scale of the scheme, a quality audit may cover visual quality, road safety, access, walking, cycling, use by non-motorised users, community use and quality of place (using Placecheck).²

The process can be used to shape the scheme’s design and improve the quality of streets most effectively where the quality and safety reviews are carried out together. The Manual for Streets provides useful examples of how this can be done.

065

Overcoming barriers to street improvements Kensington High Street, London

Kensington High Street has undergone a major transformation in order to improve its image and provide a safer, more attractive environment for pedestrians.

Improvements which have been made include:

- Reduction of street clutter by mounting traffic signals and signage on lamp columns
- Removal of guardrails and bollards
- Removal of staggered crossings
- Removal of traffic islands
- Introduction of dropped kerbs
- Reduction in the number of surface materials

Initially there was significant opposition to these changes and the Stage 1 Safety Audit brought attention to a number of safety issues. For example, the proposed removal of the guard-railings and the absence of longitudinal and hatched

centre markings did not accord with Department for Transport design guidance.

To address these issues an evidence-based method was applied during the first phase of the scheme.

During this phase the impact of the changes on the behaviour of pedestrians was carefully monitored using on-site observations, CCTV and representatives from disabled and walking groups. Monitoring also included the use of records of personal injury collisions collated by Transport for London.

The initial results showed that such innovative change together with detailed design and risk assessment could be achieved without negative impact. The changes were therefore retained and the remaining phases built over a period of three years.

The street improvements have not only improved the quality of streetscape but since the changes were introduced pedestrian accidents in the affected area have been reduced by more than 40%.



Reduction in street clutter and removal of barriers has resulted in an improved streetscape and a reduction in pedestrian accidents by 40%.

The safety audit component 065

The road safety audit component is carried out for most new road schemes, improvements to existing roads, traffic management schemes or major maintenance projects. The Institution of Highways and Transportation provides further detail on procedures.³ Most road safety audits are carried out by the local highway authority, but they can also be done by the applicant, with the highway authority's agreement.

Safety audits are carried out on schemes promoted by county councils and developers (the latter as part of the planning control process). A safety audit is carried out at three distinct stages of a project:

- Stage I – feasibility and preliminary (conceptual) design. This should be considered at the masterplanning stage
- Stage II – detailed design
- Stage III – on completion, preferably before being open to traffic

At each stage the findings of the auditors, and any recommendations, are put in a formal report to the client for action. The design team does not have to accept the recommendations but they must provide justification in a written report for any they reject. Agreement must be reached with the auditor before proceeding with the project. The Manual for Streets calls for design teams and the audit team to work closely together to ensure that place-making is not compromised. Such collaboration can help designers to understand the importance of each of the recommendations and enable them to develop effective design responses.

Tracking

The tracking of vehicular movements should be checked at masterplanning stage to establish the viability of layouts, and at highways approval stage to check that vehicles can manoeuvre. Critical movements will be for:

- Refuse lorries, fire and delivery vehicles, and removal vans. (The Manual for Streets much reduces the impact of refuse trucks on layouts, compared to earlier standards)
- Buses, with space for stopping beyond the carriageway
- Emergency services (contact them to find out their access requirements)

Tools and techniques include proprietary software that will automatically check digital plans, and manual checks using known turning and sweep radiuses.

4.3.4 Adoption process

Consideration should be given to the most suitable management option for each part of the public highway. Table 4.3 details the legal requirements and key considerations for public highways and section 5.1 provides guidance on wider management issues.

Where the highways authority is adopting the street, it is important that the highways standards are understood at the design stage. Where schemes are looking to deliver more creative and innovative solutions, discussions with highways should be initiated as early as possible, where appropriate through a collaborative design workshop (see section 1.5). This can help the designers understand the design's parameters. Where existing standards cannot deliver the quality required, designers and scheme promoters should work with highways to develop and adopt new standards, potentially as part of the design codes.

Local authorities can provide certainty in what materials and street furniture they will be able to adopt by developing a limited palette of special materials and street furniture. This can be set in local design guidance or adopted as a supplementary planning document. They can also work closely with design teams on high-quality projects to ensure that designs can be maintained easily and cost effectively. 066

Developers may wish to retain control over the street. This can bring benefits through enabling them to maintain higher-quality materials than highways can afford. In these cases the local authority can seek section 106 funding from the developer to ensure that streets are constructed and maintained effectively. This also benefits developers, exempting them from making advance payments under section 219(4)(e) of the Highways Act, as the highways authority can be certain that streets will not fall into disrepair.

If the local authority is not willing to adopt, a management company or residents' trust can be set up (see section 5.2). A trust can, for example, take ownership of street trees where a highway authority is unwilling to adopt. It is important to know when creating the masterplan whether such management arrangements will be possible.

Buildings and service trenches can be protected from tree roots by simple, inexpensive tree-root barriers. These should satisfy property insurers and adopting authorities, although some persuasion may be necessary.

Lighting

Negotiate adoption agreements to ensure appropriate light quality (particularly for pedestrians and cyclists), minimise light pollution, save energy and reduce clutter. Street lights can be fixed to buildings if planned in advance with suitable legal agreements. This will eliminate the need for posts.

	PUBLIC HIGHWAY (carriageway or footway)
	The public highway generally consists of the road surface (the carriageway and the footway/pavement).
Preferred ownership	Highway authority (adoption)
Legal requirements	<p>Highways Act 1980 (as amended)</p> <p>Section 37 (1): a developer can give notice to the authority that he or she intends to dedicate a street as public highway.</p> <p>Section 38: gives highway authorities the power to adopt new highways by agreement.</p> <p>Section 41: places a duty on highway authorities to maintain adopted highways.</p> <p>Section 278: provides for payment to highway authorities for highway works and their maintenance.</p> <p>Section 219: advance payments code provisions.</p> <p>Section 50: requires any person or organisation (other than a statutory body) wishing to place, retain or thereafter inspect, adjust, repair, alter or renew apparatus, or change its position, including removing it from the highway, to obtain a street works licence.</p>
Key considerations and responsibilities	<p>Application and agreement to open up the highway</p> <p>Public utilities (e.g. gas, electric and water companies) have statutory undertakings to provide services, and may break open and work in the highway under these powers. Permission is required to work in the highway and the work must be completed by an accredited contractor. The contractor will deal with the relevant forms and advise on fees.</p>
	PRIVATE ROADS (and shared private drives)
	A private street is a road that is not maintained at the public expense by the highway authority.
Preferred ownership	Landowner or individual owners of properties abutting the road
Legal requirements	<p>Responsibility for maintenance of a private street is written into the deeds of the street owner's properties or land.</p> <p>A highway authority has no responsibility for the maintenance of private streets but it can take any action 'against encroachments or obstructions where the rights of the general public have been affected' and it can promote traffic regulation orders.</p> <p>Where a private street (including a cul-de-sac, footway, square or alley) is not adequately paved, drained or lit, the county council can decide to execute street works and to charge the cost of them to the owners of properties which front, abut or adjoin the street. The cost of the works is apportioned to each property owner according to the amount of frontage to the street.</p> <p>The making up of private streets to an adoption standard (whereby the county council will assume the future maintenance liability) is covered by legislation contained in Part XI of the Highways Act 1980. The costs of constructing a street to adoption standards must be met by the street owners or residents.</p>
	HOME ZONES
	Home Zones are streets where people and vehicles share the road space safely and on equal terms. Quality of life takes precedence over ease of traffic movement. Home Zones are designed to look different from conventional streets and are announced by the official Home Zone sign at their entrances. Motorists see that they should drive very slowly and give informal priority to other road users. Residents are encouraged to take interest and pride in their upkeep to foster a sense of ownership for the street.
Preferred ownership	Highway authority (adoption)
Legal requirements	<p>A local traffic authority may designate any road for which it is the traffic authority as a quiet lane or a Home Zone.</p> <p>Section 268 of the Transport Act 2000 is the legislative basis for establishing Home Zones in England and Wales. See also The Quiet Lanes and Home Zones (England) Regulations 2006.</p>
Key considerations and responsibilities	A residents' association (which is part of a broader residents' trust) is normally established to influence the upkeep and maintenance of the Home Zone. Areas used by vehicles which have street lighting and main drainage are owned and maintained by the highway authority.

Table 4.3 Management options for public highways

PUBLIC FOOTPATHS	
	<p>Public rights of way comprise footpaths, bridleways, restricted byways and byways open to all traffic. All public rights of way are highways, and are shown on the definitive map held by local highway authorities.</p> <p>Footpath means a highway over which the public have a right of way on foot. Footways are the pedestrian paths alongside a carriageway, and are often referred to as a pavement.</p>
Preferred ownership	Local authority or Trust
Legal requirements	<p>A new footpath can be created under section 25 or 26 of the Highways Act 1980 by the local authority through agreement (a public path creation agreement) or compulsory powers (a public path creation order, which requires confirmation by the secretary of state). The creation of a footpath may require consultation with neighbouring authorities. There is no statutory requirement to consult with user groups, or parish or community councils.</p> <p>The Highways Agency has powers to create new footpaths within an existing trunk road boundary or by extending the highway boundary into land alongside an existing trunk road owned by the Highways Agency. Local authorities have powers to create new footpaths under the Highways Act 1980.</p>
BRIDLEWAYS	
	<p>Bridleways provide a right of way on horseback, foot and bicycle. Bridleways are shown on the definitive map held by local highway authorities. The Countryside Act 1968 gave cyclists the right to use bridleways but they must give way to other users.</p>
Preferred ownership	Local authority or Trust
Legal requirements	<p>A new bridleway can be created under section 25 or 26 of the Highways Act 1980 by the local authority through agreement (a public path creation agreement) or compulsory powers (a public path creation order, which requires confirmation by the secretary of state). The creation of a bridleway may require consultation with neighbouring authorities. There is no statutory requirement to consult with user groups, or parish or community councils.</p> <p>The Highways Agency has powers to create new bridleways within an existing trunk road boundary or by extending the highway boundary into land alongside an existing trunk road owned by the Highways Agency. Local authorities have powers to create new bridleways under the Highways Act 1980.</p>
CYCLEWAYS	
	<p>A cycle track is defined as 'a way constituting or comprised in a highway, which the public have rights of way on pedal cycles with or without a right of way on foot'. Cycle tracks may be created through conversion of a footway or footpath, or newly constructed.</p>
Preferred ownership	Highway authority (adoption) or Sustrans (the sustainable transport charity)
Legal requirements	<p>To convert all or part of a footpath to a cycle track, a footpath conversion order must be made, applying to the appropriate width of the footpath. Footpath conversion orders are made under section 3 of the Cycle Tracks Act 1984 and the Cycle Tracks Regulations 1984 (SI1984/1431).</p> <p>Having obtained the necessary consents where the footpath crosses agricultural land, and having undertaken the required consultation process, a footpath conversion order is made by the local highway authority. If there are unwithdrawn objections, the order has to be confirmed by the secretary of state, if necessary after a public local inquiry. If there are no objections, or the objections are withdrawn, the order can be confirmed by the local highway authority. Section 2 of the Cycle Tracks Act 1984 applies. The adjacent or shared-use track should be clearly signed.</p> <p>The status of footpaths in certain parks and the ability to convert them to cycle use may be determined by local or private acts of Parliament. Local park by laws may also be applicable. A number of London's parks are Royal Parks, where specific statutory procedures apply. Each situation should be examined individually to establish its legal status.</p>

Table 4.3 Management options for public highways (continued)

066

Ensuring quality art can be maintained Bellenden Renewal Area, London

Bellenden Renewal Area in Peckham has become famous for its street furniture designed by Anthony Gormley, Zandra Rhodes, John Latham and others. These have helped transform this area into an award winning place.

Residents were keen that this area-wide renewal project focused environmental funding on improving the streetscape. The scheme to regenerate Bellenden attracted a lot of interest from local residents, businesses and local artists who were commissioned to present their ideas on design options for the regeneration area.

The involvement of the local authority in developing the design options ensured that there was a clear understanding of the

materials and products that could be used. For example, although the new lighting columns have an individual bespoke design, all actual working parts such as the light fittings and casings have been designed and manufactured to work and fit around existing light columns. This enables Southwark's highways division the opportunity to change bulbs, provide ease of maintenance and ensure all parts are of standard Southwark issue. With these maintenance issues in mind, artists were encouraged to use their imagination, resulting in an award-winning public art and street furniture which can be maintained at no extra cost.



Collaboration between artists and the local authority ensured that bespoke artwork and street furniture on Bellenden Road can be easily maintained.

067

Creating a Home Zone Gun Wharf, Plymouth

The provision of a Home Zone has been a key feature of the transformation of Gun Wharf from a derelict 1950s estate to award-winning development with a mix of housing types and tenures.

Streets and squares were designed with the intention of giving pedestrians equal priority to vehicles as part of the Home Zone model. Traffic calming has been provided horizontally so there are no unsightly bumps. As a result vehicles are limited to 12mph, which creates a safe environment around the accommodation. The scheme has delivered an effective shared space which is valued by the residents.

The idea for a Home Zone was supported by residents from the outset. During redevelopment of the estate the residents were temporarily housed in Morice Town. This had a retrofit Home Zone which had been successful in halving average traffic speeds and reducing traffic by 40%, but more importantly it also

increased play and community activity and improved residents' quality of life. The Gun Wharf residents therefore insisted that a proper Home Zone was provided rather than the proposed 'Home Zone type development'. This was because they were able to understand the benefits the shared space provided. The council agreed to this approach as it fitted their aspirations in terms of high-quality build and improving quality of life. The council worked with the developer and community to overcome issues such as inability to build above the tunnels which run below the site and are planning to adopt the street.

Adrian Trim, Team Manager Sustainable Transport, Plymouth City Council agrees that the Home Zone delivers more than can be achieved through traditional street calming **'It's a feeling not something you can engineer. The feeling of not being threatened by traffic when you walk down the middle of the street. You can't achieve that with a 20mph zone.'**



The aspiration of residents and the local authority to design a Home Zone which delivers shared community space has led to the transformation of Gun Wharf into an award-winning scheme.

4.3.4 Why create Home Zones?

Home Zones are residential streets in which the right to use the street is shared between drivers of motor vehicles and other street users. This approach differs from simply creating a 20mph zone: it permits activities other than the passage of vehicles to take place in the streets. This can include children's play and social functions. In addition to improving safety, it can help to foster community interaction and promote a sense of ownership of the street.

Home Zones use a shared surface where possible, with minimal front gardens. The quality of the street reduces the need for a buffer zone. Traffic-calming measures usually include positioning buildings, trees, planting and surface treatments, instead of road humps and chicanes.

Local authorities can designate a Home Zone for any adopted or unadopted right of way. Home Zones have been both successfully retro-fitted and created on new developments in a range of locations, from semi-rural to inner city.

Designers should undertake early discussions with utility providers and highways authority to ensure that services are accommodated effectively, and that planting and street furniture can be adopted. [067](#)

4.3.5 Utility infrastructure

Large sites using grid layouts

On larger sites, development parcels are likely to be plugged into previously developed parcels whose infrastructure must accommodate not just vehicles but also utilities, as well as foul and surface water sewerage. This means that the size of all service infrastructure needs to be worked out at detailed masterplan stage. The correct sizing of each utility must be made a legal requirement of each developer.

Coordinating service layouts

Service runs should ideally be located under adoptable areas, preferably pavements and verges where access will not disrupt traffic. Contractors should be required to provide digital as-built construction records of what has actually been built, so that future works can be carried out efficiently and with minimum disruption. In high-density urban areas, large accessible service ducts under the streets might be considered. Elsewhere, spare service ducts can be laid economically in trenches at street junction intersections.

Shared service trenches and ducts will reduce the potential for digging up pavements by restricting the area under which services run. There are national agreements between utility companies (in the UK, the National Joint Utilities Group), setting out utility positions within a shared trench. In practice each utility must be carefully managed.

Selecting service providers

Service providers can usually be selected on a competitive basis, taking account of the cost to consumer and matters such as the supplier's green credentials. Consumers should be tied into agreements for a fixed period only if this is reasonable.

Refuse collection

The need to recycle has increasingly led to consumers sorting waste into a number of bins for collection by different dustcarts. This requires increased space for storage and manoeuvring space for collection vehicles. In denser, mixed-use areas collections may be noisy and at unsociable hours. Alternative methods of collection are now possible. These include collecting sorted waste through underground ducts, which avoids the need for vehicular collection and virtually eliminates refuse storage problems. Such schemes are being implemented in new urban extensions and retro-fitted in dense urban areas such as the old centre of Barcelona.

KEY MESSAGES FOR SECTION 4.3

1. **Good design can ensure that streets meet required functions and remain successful places.**
2. **Urban design can create safe places but too often risk-averse design creates unattractive places.**
3. **Work collaboratively with utility and waste collection providers throughout the design process, not as an afterthought.**

REFERENCES

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2. www.placecheck.info
3. Institution of Highways and Transportation Road Safety Audits HD 19/94 and HA 42/94

4.4 CONSTRUCTING QUALITY PLACES

4.4.1 Construction quality

4.4.2 Sustainable construction

4.4.3 Living with construction

Getting construction right is vital if the hard work that has gone in to policy, design and planning is to deliver successful places. Ensuring high-quality construction requires resources and commitment in terms of retaining expertise, and providing clear guidance and effective management. Contractors can be encouraged to deliver quality through incentives.

Carrying out new development both economically and at speed is difficult, but not impossible. The construction industry's management techniques and modern methods of construction can greatly improve the efficiency of construction and the quality of what is built.

Constructing places of high quality is about more than just the quality of the finish. How the process is managed will affect both environmental sustainability and the quality of life for the early residents.

4.4.1 Construction quality

Defining and achieving standards 068

Ideally, the promoter of the project should take the lead in ensuring that the quality of construction is thought about before contracts are signed. Reputable firms with good track records should be identified and given accreditation. Best-practice guidance should be followed in all aspects of construction. Those inspecting construction need to have a thorough understanding of what is required by approved designs, inclusive design access statements and design codes. They also need effective enforcement tools to ensure that non-compliant construction can be rectified. The original quality aspirations are more likely to be achieved where the original design team is retained during the construction process.

Giving incentives for quality

Project partners and contractors can be given incentives to deliver schemes of high quality. One of the two main

ways of doing this is by releasing the freehold only after specified standards have been achieved. Many public-sector landowners will incorporate into development agreements a building licence under which the developer builds out designated phases with legal title being transferred either to the developer or occupier on completion of specified milestones. This provides the landowner with an interest in the project which will be released only when agreed quality and construction standards are met. Private-sector landowners need to consider tax implications of retaining freehold. Quality control clauses should be incorporated into contracts when whole sites are sold on to developers (see section 3.3).

The second way is by offering incentives for developers to invest in quality by offering a return on excess profit through overage (taking into account the amount by which the value of a development has grown). Overage agreements can be incorporated in the development agreement to enable the landowner and developer share profits (or super-profit) above an agreed level. This arrangement can enable landowners to sell land at a reduced price in order to encourage the promoter to take risks or try new ideas. An overage agreement will enable the landowner to participate in the added value of successful schemes. This approach can enable landowners to benefit from improved land values where they have invested in infrastructure or public realm but laid off development risk to the private sector.

4.4.2 Sustainable construction

Construction involves many players. Effective organisation can ensure that factors such as site journeys, waste management and energy use are minimised, delivering savings in terms of time and resources. A range of tools is available to coordinate this process.

068

Ensuring construction quality

Ancoats Urban Village, Manchester

High-quality public realm has been delivered in the regeneration of this Manchester conservation area through commitment and leadership of the Ancoats Urban Village Company (AUVV). This body was established to promote Ancoats and facilitate its development as a mixed-use area, maximising potential in terms of its unique heritage as the world's first industrial suburb and location near Manchester city centre.

AUVV set clear benchmarks for design quality in the area-wide Public Realm Strategy and the Conservation Plan for the Public Realm.

Contractors short-listed for the works were asked to demonstrate their experience in similar regeneration or heritage schemes for which the quality of materials and workmanship was assessed. During the construction phase, quality is being ensured by the

continued significant involvement of the AUVV design team, which includes landscape architects and engineers. As the public realm is fully adopted, a Clerk of Works from Manchester City Council also monitors the work being carried out. By considering these issues at the outset of the project AUVV were able to ensure that this continuous monitoring of construction quality could be fully resourced.

Stefan Brzozowski of AUVV says 'This project is effective because there was a clear strategy from the outset that was supported by all key stakeholders in Ancoats including Manchester City Council, North West Regional Development Agency and English Heritage.'

Due for completion in 2008, the project has already won Manchester's Civic Society's City Space of the Year award for the quality of public realm being delivered.



Continuous involvement and monitoring by the design team and Manchester City Council has ensured a high standard of construction quality across the development.

069

Building demonstration houses SMARTLife Housing

The SMARTLife initiative is a not-for-profit partnership between BRE and Cambridgeshire County Council. Its aim is to facilitate the delivery of sustainable growth through community training and education in modern methods of construction (MMC). It operates in Cambridgeshire, Hamburg (Germany) and Malmö (Sweden). In addition to providing best practice, expertise and advice on how innovative building techniques can deliver high-quality buildings which are sustainable and affordable SMARTLife has also developed several demonstration projects to showcase how the principles can be delivered in practice.

The SMARTLife housing project in Fenland will deliver homes built using modern methods of construction alongside those using traditional brick and block. Standard house designs will be used for all systems to enable accurate comparisons. The project will assess performance of each housing type in both construction process and lifetime performance of buildings.

The measures for each system include:

- CaliBRE – a measure of resources

- SMARTAudit – a measure of material waste
- EcoHomes
- Constructing Excellence Key Performance Indicators – cost, build time and health and safety
- Sustainability Key Performance Indicators – energy and water use during construction, waste generated and biodiversity impact

Real-time information enables continual assessment and analysis of these measures. This can then be fed back into the build process and disseminated to improve skills used to deliver MMC.

Interim results taken five months into the build show that average resource input per plot is: 42 man hours for timber frame, 56 for steel frame, 94 for insulated concrete formwork and 150 for traditional construction. It has also highlighted issues such as errors caused by lack of training and lack of communication between design teams and manufacturers.



Homes using the polarwall insulated concrete formwork system are being constructed alongside those using traditional block construction, which enables accurate comparison of construction process and lifetime performance.

Modern methods of construction 069

Modern methods of construction (MMC) is the term used to describe a range of technologies and processes involving various forms of supply chain specifications, prefabrication and off-site assembly. MMC are recognised as delivering benefits in terms of making use of more effective materials, speeding up housebuilding, raising standards of design quality, and reducing resource consumption. They can reduce time spent on site and improve safety.

Although not specific to MMC, English Partnerships' Design for Manufacture competition demonstrated that modern construction methods and pre-fabricated factory-built homes need not result in dull boxes.¹ Modern methods of construction and standardisation can tailor technology to the context. The problem is not standard components, but standard thinking.

Waste management

Modern methods of construction have great potential in minimising the production of waste materials on site and generally improving the quality of the work environment. Less packaging leads to a reduced impact both on the site during construction and on the surrounding area.

Recent research has shown that investment in better waste management could save £150 million each year in the UK.² This can be achieved through on-site recycling, using methods such as SMARTWaste or the National Green Specification's WasteCost Calculator. It is estimated that at Greenwich Millennium Village the planning requirement to reduce construction waste by 50 per cent saved the developer £150,000.³

Apprenticeship and training schemes 070

Local people should be able to benefit from a full range of employment opportunities in all new developments, both during construction and, more importantly, at completion. This will help to give the local community a sense of ownership of the scheme, which will encourage them to take care of it. Section 106 clauses that promote community involvement in construction and management through apprenticeship or training schemes can be formulated for all new developments.

4.4.3 Living with construction**Quality of life during construction**

Construction projects can cause stress and tension to established and growing communities. Quick-win initiatives aimed at improving the local environment and infrastructure before the start of a major project can help to ease the tensions and reduce the project's overall impact. Thought should be given to ways of minimising the disruption caused by site works, through means such as phasing the project carefully, and restricting working hours and deliveries. Modern methods of construction may help. Important issues may include:

- The health and safety of public and contractors
- Noise and working hours
- Dust and pollution
- Separate clean and dirty access
- Phased implementation of bus routes
- Safety and security of materials
- Early handover of completed parts of the public realm
- Providing trees and other landscape elements as soon as possible
- Close liaison with residents
- Ensuring inclusive access
- A considerate contractors scheme

Decisions on how these issues will be dealt with in each phase should be made in the light of the impact on the scheme as a whole. At Allerton Bywater the trees for the entire development were purchased at the same time from a nursery. This not only ensured that they would be consistent height and species when planted, but it also reduced costs.

Phasing and delivery of amenities 071

In new developments in particular, the first wave of residents must be provided with a safe living environment that helps to give them a sense of ownership and belonging. Successive phases can build on this. Community facilities and amenity spaces should be provided as early as possible in the phases of construction. The following are of particular importance in generating a sense of place beyond that of an incomplete building site: trees, areas for play, recreation and sport, community facilities such as nurseries, education and a health centre, convenience shops and services.

070

Committing to high standards Regent's Square, Grappenhall

This award-winning scheme at Regent's Square comprises apartments and three-storey detached, semi-detached and terrace houses which include feature buildings, focal points and node points. With stone and brick exterior walls featuring exceptional detailing and a traditional style that includes traditional sash style windows, this development demanded a high commitment to quality.

Miller Homes delivered the homes under building licence, thereby providing English Partnerships with the certainty that the required standards would be met. Miller Homes were able to execute the project vision through effective supervision and highly skilled workforce.

'An essential starting point is the supervision on site', says Sue Warwick, Managing Director for Miller Homes. At Regent's Square, that standard was set by Bill Hughes, Site Manager.

It was whilst supervising the build on this development that Bill won his hat-trick of Supreme Pride in the Job awards.

'This supports the complementary component in delivering quality: our highly trained craftsmen. We believe our success is solely attributed to the excellence of our people and so invest heavily in training.

'We have been innovators in developing training schemes. Every member of staff is offered the support to progress: indeed it is expected. So our team can produce the incredible quality that our developments are known for.'

'It is the combination of award-winning design, superb supervision and ongoing investment in training that makes the quality of Regent's Square possible.'
concludes Sue.



Commitment to quality, effective supervision and investment in training ensured that the quality standards set out in the development agreement were met at Regent's Square.

071

Delivering amenities early Greenwich Millennium Village, London

A key factor in the success of Greenwich Millennium Village as a city centre family location has been the early provision of the primary school. The Millennium Primary School and Health Centre was delivered by English Partnerships as part of the initial phase in 2001. This community facility which is located in the village centre includes a primary school, an early years centre, a crèche, an all weather sports pitch and a health care centre, offering full range of primary care as well as promoting healthy living and preventative approaches to medicine.

The school has been designed for community use offering a range of adult education classes and training both during the day and evening. The reception is designed to accommodate

a mix of different users with separate access and the hall is a sufficient size to accommodate sports such as badminton or theatre productions.

The staff and pupils transferred from a 1970s building nearby into the state of the art school. The school was built with capacity for double its initial pupil numbers, eventually providing 500 places to accommodate the growing number of families moving into the area.

The school has been successful in helping link the new and existing communities. The community centre will continue to grow as the community develops, eventually providing shops, cafés and bars also.



The early provision of a primary school in Greenwich Millennium Village has helped to link existing and new communities, and acts as a focus for community activity.

KEY MESSAGES FOR SECTION 4.4

- 1. Construction quality will affect the quality of the place. It is important to resource and manage this process effectively.**
- 2. Sustainable construction can deliver environmental, social and economic benefits.**
- 3. Ensure that communities do not suffer from living on a part-completed construction site. Essential facilities should be provided early on.**

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3. Making Money from Sustainable Homes: A Developer's Guide. 2006 Elliot Carter



MANAGING QUALITY PLACES

Design is only the start of quality. Quality of life is partly determined by a person's ability to shape their surroundings. The physical form and management of a place will either encourage or discourage their desire and ability to interact with the place and the people they meet there. Good places that are actively managed and safe will encourage a positive neighbourliness and a sense of belonging.

Successful places are safe, well maintained and well managed. Achieving this depends on managing the physical assets effectively and appropriately.

With the right **management structures, people who live and use the place** will be able to influence what happens there.

The success of developments is sustained by active support and resources that enable them to function effectively.

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- 5.1 MANAGING PHYSICAL ASSETS
 - 5.2 ESTABLISHING A MANAGEMENT STRUCTURE
 - 5.3 ENSURING THAT COMMUNITIES ARE SELF-SUSTAINING
-



5.1

MANAGING PHYSICAL ASSETS

5.1.1 Management issues

5.1.2 Deciding which elements to control

5.1.3 Skills and resources

Delivering a high-quality scheme is only the start of creating a successful place. To succeed now and in the future, places need to be safe, well maintained and well managed. Management issues must be considered from the start of the project. Clear management structures must be identified for each asset in a masterplan. Thinking at an early stage about how and for whom a neighbourhood will be managed opens up the greatest possible range of options and avoids assets becoming liabilities. Working through the design process with stakeholders and capacity building improves the chances of securing a good environment.

The local government white paper¹ sets out a new relationship between local government and its communities, based on trust and devolving power. Local communities are being encouraged to take ownership of many common assets of the places where they live. The aim is to give a community a measure of influence and control over its surroundings. This can promote cohesion by bringing people from different backgrounds together. Management of shared assets can also provide communities with opportunities to generate income to maintain existing services and fund additional community services and facilities.

Developments are also increasingly delivering a mix of uses, tenures and house types, especially apartments. These create a greater range of public- and semi-private spaces. They need careful management if they are to work well and may therefore require more care than local authorities are able to provide. Neighbourhood management companies are an effective option to maintain these areas as they can deliver an agreed level of quality and services for an agreed fee. Such vehicles can be run either by the community or the private sector.

5.1.1 Management issues

Consider management as early as possible

Management options should be considered at the outset to ensure that the design is viable in the long term. Design decisions should be made in full knowledge of how and by whom they will be maintained.

Consider the following questions for each asset:

- Is there a statutory duty for any body to manage the asset?
- Does it require specialist skills to maintain?
- What skills are needed to manage it?
- What is the cost of buying skills?
- What training is required to develop skills?
- What body can accept or assume liability?
- What risks are involved?
- Are the assets a liability?
- What are the maintenance costs?
- Where will the funding come from?
- What benefits does the management of the asset bring?
- Can the asset generate an income stream?
- How long will involvement last?

Consider phasing

Where developments are planned to evolve over a long period of time, consideration should be given to how assets will be transferred sequentially from developers to the community. The development of a site by a single developer can result in assets not being transferred to communities until all projects are complete. That can result in a lack of control over a neighbourhood from the outset.

072

Managing green infrastructure

The Parks Trust, Milton Keynes

The Parks Trust explores new ways to build and manage green infrastructure. Created in 1992 by Milton Keynes Development Corporation, the Trust is responsible for the management of the town's major parks and parkways – 4,500 acres of parkland including river valleys, ancient woodlands, lakeside parks and landscaped areas alongside the main roads.

The management structure was established to ensure that the parks and parkways are managed and protected independently, without having to compete for funds with other council priorities. The Trust is a company limited by guarantee with charitable status.

The Trust has three different types of land under its control:

- Parkland, flood plain, ancient woodland, scheduled monuments – freehold interest donated by the Development Corporation, subject to a 999-year lease in favour of the Parks Trust.

- Transport corridors/parkways – owned by Milton Keynes Council as highway authority, the land within the corridors is leased to the Parks Trust on a 999-year lease subject to considerations of upkeep of pavement and associated installations, verges, roundabouts and central reservations immediately associated with the highway.
- Income-earning assets – properties with relatively low value and high yield which were not attractive to institutional investors, at disposal. At the time of transfer these were valued at around £18 million. They include neighbourhood shopping centres, village or individual local shops, industrial developments, office development and public houses. The commercial property assets are owned freehold by the Trust. The Trust is free to trade these as it thinks fit, providing it complies with all relevant legislation.

Rents from these are used to pay for the Trust's activities, making the Trust self financing – with all income used to maintain the green estate.



The Parks Trust was established to ensure that open space in Milton Keynes was managed and funded independent of other local authority priorities.

5.1.2 Deciding which elements to control

The following paragraphs illustrate some of the key components of a neighbourhood, and the management issues associated with them for local authorities, private organisations or individuals and the community. A summary table 5.1 suggests who should control which assets.

Most assets fulfill a range of other technical functions and to do so must meet technical and statutory requirements.

Streets and roads

Streets make up a large part of people's experience of a place. They are the main location where people interact. They combine their function as a place with their role as part of a movement network for vehicles. This has implications for infrastructure and engineering. A number of elements need to be brought together and coordinated to meet legislation, and the provision of drainage, utilities and lighting. Managing and maintaining streets can be costly and time consuming. It requires expertise. It is advisable for local authorities to adopt as many streets as possible in order to avoid high management fees. Where responsibility is split between different parties, areas should be clearly defined. Duplication of financial contributions should be avoided to prevent a community feeling resentful.

Open space 072

Research in 2001 found that only 18 per cent of parks were considered to be in good condition.² Research shows that parks and green spaces have a range of benefits, including improving mental health and general well-being, and raising the economic value of a neighbourhood indicating that open space can have a significant impact on quality of life.³

The costs and liability involved in maintaining planting, play facilities and street trees within the public realm are relatively low. This means that development trusts (such as residents associations) or private organisations (such as management companies) can be well placed to take on that role. Where communities are involved in managing areas, there is often a greater sense of ownership and pride over public spaces, and more flexibility to adapt spaces to different uses over time.

Allotments and community gardens

The mass transportation of food is responsible for almost a quarter of all heavy goods vehicle activity on UK roads. Allotments and community gardens can help to reduce

this, as well as providing a valued community resource. Land for allotments, community gardens, orchards and city farms is often managed by local authorities, town or parish councils. Development trusts or associations can also take responsibility for letting plots, collecting rents and maintaining the site through a devolved management agreement.

Car parking

How car parking is managed will depend on its location. Where car parking is on the street, and spaces are not allocated to specific owners, it is generally adopted by the highways authority. Where car parking is located on unadopted surfaces, as in the case of communal car parking areas such as undercrofts or multi-storey car parks, or on allocated spaces, it is managed by development trusts or a management company.

Buildings

The uses of community buildings can range from recreation, leisure and sports to crèches, education, health, training and community workspace. The buildings provide a secure base for community organisations to establish a presence, and to develop partnerships with local people and stakeholders. They can also be a local resource to generate income.

Without the benefit of a long leasehold or ownership, community groups are generally unable to raise funds to undertake improvement programmes or raise collateral for loans and long-term mortgages to purchase additional accommodation to expand their activities.

Where the construction of a building is not funded directly by the community, buildings can be transferred through a devolved management agreement. Where this happens, organisations should be confident that their organisations are self-sustaining and that ownership will not present more problems than benefits.

Water 073

Management of water is a key issue, with increasing concerns over flooding and the need to reduce water consumption. Good design and management can turn waste water into an asset. For example, sustainable urban drainage systems (SUDS) can enhance the landscape and canals can be bought back into use to create attractive waterside locations.

073

Managing a SUDS scheme Lightmoor Village, Telford

The Lightmoor Village Development, which will deliver 800 homes, shops, a village centre and primary school in high-quality landscaping, incorporates a sustainable urban drainage system (SUDS) to minimise the negative impact of development on both the existing local hydrology and the downstream watercourse and sewers.

The primary infrastructure, which includes strategic SUDS features, is being installed by the joint venture partners English Partnerships and Bournville Village Trust (BVT). Appointed residential developers will implement infiltration devices within their development phases. Current legislation (Water Industry Act 1991) and funding provisions to Severn Trent Water (STW) from

OFWAT mean there is no formal mechanism that provides the water company with funding to maintain SUDS devices. BVT will retain ownership and maintenance responsibilities of the SUDS features (infiltration devices and ponds) to a standard agreed with STW. Maintenance costs will come from the residents' service charge.

STW have agreed to adopt the pipework of SUDS under section 104 of the Water Industry Act 1991. Until this occurs BVT have become a utility under NSRA to enable adoption of the road infrastructure by the local authority. STW will monitor the system performance and its maintenance costs to consider full adoption in due course.



Maintenance costs for Lightmoor Village SUDS scheme are generated from residents' service charges.

074

Managing a community heating system

Southampton District Energy Scheme, Southampton

The Southampton District Energy Scheme, one of the largest community heating (and cooling) networks in the UK, is run by a project specific company called Southampton Geothermal Heating Company Ltd (SGHC), set up under a Joint Cooperation Agreement between Southampton City Council and the Utilicom Group, an energy management company.

Mike D. Smith, Executive Director, comments, ‘This isn’t a mainstream area of work for local authorities; there isn’t much capital to invest and no chance of subsidising the scheme through council tax, so there was a need

to transfer risk to a private sector company which had necessary finance, skills and experience.’ The Southampton District Energy Scheme is owned by the Utilicom Group which has developed, financed and operated it.

In return, the private sector needed security from the Council – low rent for the Heat Station site, a guarantee that the Council will be their first customer, transfer of EU funding won by the Council to the company and also cooperation in the future joint development of the scheme. Each year the Council shares in the profits from the scheme.



A joint venture between the local authority and an energy management company to establish Southampton District Energy Scheme has led to the development of 11km of connections, the production of 70 million kW hours of energy per annum and an annual saving of 11,000 tonnes of CO₂.

Management arrangements are important. Which arrangement is most appropriate will depend on the type of service being provided. In most cases a combination of local authorities, private companies and development trusts will be involved. Supply of potable water is subject to statutory control and regulation by licensed water undertakers, most often private companies. Grey water recycling is most likely to be managed at the scale of a neighbourhood or building by a private company or individual.

Due to maintenance costs and liability, local authorities generally manage surface water drainage where it forms part of the public highway. Where balancing ponds are used, forming an amenity for residents and part of the open space network, they are more often managed by development trusts or private companies.

Waste

The challenge with waste is to encourage people to reuse and recycle materials. This involves more than just designing convenient places for people to take their recycling. The places need to be safe and clean to visit, and users need information on what they can do.

Management depends on the type of waste. In most cases the process is managed by a combination of local authorities, private companies and development trusts. Sorting materials and composting is generally managed by individuals. Where waste recycling facilities are not integrated into buildings, local authorities or private companies generally take responsibility for managing facilities. This is particularly the case for commercial and neighbourhood-wide facilities.

Where communities have an aspiration to promote more sustainable waste strategies, development trusts are sometimes able to take responsibility for community composting and recycling through a devolved management agreement.

Energy 074

Energy service companies (ESCOs) or multi-utility service companies (MUSCOs) can be set up to create and operate low-carbon, resource-efficient energy. Initial costs in infrastructure will be recouped in time through energy sales. They can be managed by a combination of local authorities, private companies and development trusts. At a domestic scale, where energy is generated on plot through

photovoltaics, small-scale wind turbines, and ground source heat pumps, for example, management and maintenance will be the responsibility of individuals.

Like water, electricity and gas are generally supplied by licensed undertakers under statutory control and regulation. The supply networks are most often managed by private companies. District supply is generally managed by local authorities, agencies or private companies. In some cases where communities have an aspiration to promote more sustainable strategies, development trusts may take responsibility.

Communications

In the majority of cases, private companies provide technology in new developments and continue to manage the system. Where the technology enables a new neighbourhood to set up an intranet site, a development trust often manages and runs the facility.

5.1.3 Skills and resources

Skills

Where assets are handed over to the community, it will be necessary to build local capacity. Groups will need skills in financial planning and governance, as well as other specialist skills. Where a group is contracting for specialists to manage an asset, its members should receive basic training to enable them to do this effectively.

Where significant specialist skills are required, it is usually a more effective use of time and resources to buy them in from an external body. Where minimal training is required to enable assets to be maintained, it may be possible to develop these within the community.

Resources

There are many different ways of generating income to fund management initiatives. Two of the most common and effective are cross subsidy and management fees.

Cross subsidy

Income to pay for management and maintenance can be generated through indirect means. This is most common in the community sector where financial contributions from a number of small-scale initiatives (such as energy generation, car parking or the rental of properties) can fund community facilities such as a crèche, or help to maintain public open space.

075

Generating fees to manage open space New Islington Millennium Community, Manchester

The centre of the New Islington Millennium Community development is a new water park. This creates a heart for the community and links the Ashton and Rochdale canals. It provides 3,000m of new canal side surrounded by 1 million ft² of parks and gardens.

Consideration was given to how this area could be effectively maintained and managed. Following legal advice which looked at risk, liability, funding, ownership, long-term governance and tax status it was decided that a Community Interest Company (CIC) would be the most appropriate management structure. Once the estate charge becomes sufficient to pay for the services required, the CIC will take a lease from English Partnerships, take responsibility for management and receive the estate charge revenues and ground rents from management companies across the development, known as zones.

The decision to use the CIC was made on the basis that:

- It allowed an asset lock to ensure the indefinite existence of the public realm and water park and excluded it from future redevelopment.
- It allowed limited liability but ensured a continuing obligation on the board to ensure it operated in the interest of the community.
- Local representatives from each of the zones would be represented on the board of the management company.
- Long-term governance would be in the hands of the community.

Once all zones are established and the representatives nominated, English Partnerships, Urban Splash and subdevelopers will retire from the board.



Management of New Islington's park by a Community Interest Company will help protect it from future development and ensure the community is involved in its long-term governance.

Physical assets	Local / statutory authority	Development trust (community)	Private (management companies, RSLs etc)
Public highway	●	●	●
Private roads	●	●	●
Home Zones	●	●	●
Bridleways & footpaths	●	●	●
Cycleways & cycle strategies	●	●	●
Bus services & community transport	●	●	●
Car-share schemes	●	●	●
Street trees	●	●	●
Street lighting	●	●	●
Building mounted lighting	●	●	●
Public art & street furniture	●	●	●
Materials	●	●	●
Verges	●	●	●
Play areas, playing fields, parks & greens	●	●	●
Allotments & community gardens / farms	●	●	●
On-street car parking	●	●	●
Off-street car parking	●	●	●
Public car parks	●	●	●
Community buildings	●	●	●
SUDS / Swales / balancing lakes	●	●	●
Grey water	●	●	●
Sewerage	●	●	●
Off plot recycling	●	●	●
Community composting	●	●	●
Waste collection	●	●	●
Combined Heat and Power	●	●	●
Ground source heat pumps	●	●	●
Large scale wind power	●	●	●
Roof mounted wind turbines	●	●	●
Photovoltaics	●	●	●
Solar thermal water heating	●	●	●
Electricity	●	●	●
Gas	●	●	●
ICT infrastructure	●	●	●
Bluetooth / WiFi / WiMax	●	●	●
Community intranet	●	●	●
Telephone	●	●	●

●
Unsuitable management option

●
Possible management option depending on skills available

●
Suitable management option

Table 5.1 Management options for key neighbourhood elements

Management fees 075

Collecting fees from residents is a common source of income for a wide range of initiatives, including the maintenance of open space, communal buildings and streets. In the interests of community cohesion the fee level should be the same across the development. This communal approach to services (such as insurance, window cleaning and gardening) will usually reduce the cost to individuals and ensure quality.

There are various options for how to tie in the payment of management fees by residents and businesses. These include covenants on properties (where failure to pay results in the covenant not being released on sale) or service provision for services such as cable television (where failure to pay will result in the service being stopped).

KEY MESSAGES FOR SECTION 5.1

1. **Successful places are safe with well-maintained and well-managed spaces, green space and good streets. Knowing how a place will be managed informs design options.**
2. **Understand the costs, liabilities and implications of responsibility before deciding on the management structure.**
3. **Ensure that you have the right skills and resources to manage assets for the foreseeable future.**

REFERENCES

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2. Public Park Assessment. 2001. Urban Parks Forum
3. The value of public space. 2004. CABE

5.2

ESTABLISHING A MANAGEMENT STRUCTURE

5.2.1 The right structure

5.2.2 Liabilities, legal structures and powers

Managing assets is a complex and sometimes daunting issue and requires an understanding of the variety of management structures available. Selecting the right management regime is key to creating a successful place. Having considered at the earliest possible opportunity who will manage which assets, it is important to decide on a management structure that meets the objectives of the agreed body and the aspirations for the place. The type of project will always define the legal structure.

Consideration should also be given to the impact a management structure will have on how a community works. A single structure with a standard level of service across all tenures can promote successful integration.

5.2.1 The right structure

Select a management structure that suits your neighbourhood. There are many different management structures that can be used to achieve similar results. No one structure fits a specific model or project. In deciding on the most appropriate legal structure to manage assets, organisations should evaluate matters set out below. In large-scale or more complex projects it may be appropriate to combine a number of different legal structures.

Project objectives 076

What is the management structure intended to achieve? Large schemes and the management of assets into perpetuity can be particularly complex. In some cases, the structure will need to encompass wider activities than simply management. For example, some such structures facilitate matters such as community engagement or community projects and may carry potential liabilities.

Involvement of parties

Who will be involved, and how? Are there skills available to run a management option? How will they be engaged? Will there be a requirement for additional stakeholders to join later, as other elements or phases come on stream?

Decision making

How will decisions be made? In standard management companies set up by developers, shares may pass to occupiers but their voting may not be enfranchised until a trigger is met (for example when 75 per cent of the estate has been sold or let). This can allow developers to influence or control voting while they still hold a financial interest.

Land transfers

Will the management structure enable an active interest in development (whether freehold or leasehold), or will it simply provide services to the landlord? For complex schemes involving the continuing management of assets, the timing of any land transfer will be critical. It will be necessary to consider issues relating to values and to the amount of control that is required during the development period.

Liabilities

What liabilities will the management structure need to consider? For example, there might be statutory liabilities such as leasehold rights or service charges that need to be built into the structure. Have these been budgeted for?

Funding

How will the management of activities be funded? A management structure may be subject to challenge if it wants to make a service charge to provide contingency for future liabilities. It may be possible to impose charges on freehold and leasehold interests, but they are limited in relation to the sums that can be recovered.

Enforcement

How will the structure seek to enforce any rights?

Exit

How will the exit arrangements work, and what will the timing be? Often developers or landowners will want to exit the structure at a particular point in time, when they are certain it is capable of going forward robustly or development has hit a certain trigger.

076

Establishing a management structure to suit your needs

The Pepys Community Forum / London Borough of Lewisham

At Pepys Estate in Lewisham, the local community has been at the forefront of the regeneration process, influencing key decisions and getting involved in the long-term management of assets which has transformed a former problem estate into a Building for Life silver award-winning neighbourhood.

In 1997, Pepys Estate residents got together to find ways to improve the quality of life and services, leading to the formation of the Pepys Community Forum in 1998. It put its own community regeneration bid together, via the London Borough of Lewisham. The bid was successful, and provided funding to deliver community-based services and a Community Development Trust.

An umbrella body, with the legal, constitutional and democratic framework, the Community Development Trust is designed to enable local residents to set up, manage and develop their own services and resources in the area and act as a lever for bringing new money into the area. The Trust is designed to out-live any other funding regime.

The community's appreciation of existing large open spaces and insistence for these to be retained, influenced the layout and design of new buildings in the reconstruction proposals generated by an architectural competition. The Pepys Estate community has not only initiated educational and training programmes for the community but also delivered key social amenities such as the Pepys Community Centre.



The Pepys Community Forum worked with the local authority to secure funding for a Community Development Trust that enables them to manage and develop their own services and resources. Projects include education and programs, an architectural competition and the delivery of a community centre.

077

Establishing a trust Bournville Village Trust

Established by the Cadbury brothers in 1900, Bournville Village Trust (BVT) today develops and administers 1,000 acres, providing homes for 25,000 people. It includes an exceptionally wide range of housing provision, especially new housing with particular emphasis on quality, energy saving, regeneration, special needs and housing for people with disabilities.

BVT's core activities include:

- Management of the Bournville Estate which in total comprises over 7,500 properties and various community facilities
- Management of around 600 properties in other areas of Birmingham, Telford (including Lightmoor) and Redditch
- Provision of architectural management and maintenance services to a number of housing associations and other organisations

BVT is made up of five committees: Housing Services, Estate Management and Scheme committee, Finance and Development, Governance and Agriculture. Its other services include:

- Shops and community venues
- Management of agricultural estates (preserving 3,000 acres of land – some public, some private – for conservation purposes and letting these to dairy farmers)
- Setting up of residents' associations and advisory committees
- Offering individual support in financial management and life skills together with training/educational and employment opportunities to help create sustainable tenancies
- 24 Hour Helpline – A dispersed alarm system fitted to all properties accommodating vulnerable tenants
- A day activity facility for people with learning disabilities



The structure of Bournville Village Trust enables it to manage a diverse portfolio of projects including retail and community facilities, properties, public open space and a residents' association.

5.2.2 Liabilities, legal structures and powers

The following paragraphs illustrate some of the most frequently used management structures; their legal configurations, their powers, when they are most frequently used and some typical scenarios they have been used for. The list is by no means exhaustive. There are many variations within each model that should be fully explored.

Limited company

Advantages

- Protects individuals from liability
- Can involve range of other stakeholders in the company
- Can enter contracts, borrow money and hold property in its own name as a separate legal entity to members
- Companies limited by guarantee are easy for members to enter or exit, and often more appropriate for public-sector involvement
- Companies limited by shares are well recognised by developers for single-building or small-estate management companies
- Regulation and reporting requirements create transparency
- It is possible to create automatic trigger points for exit and voting thresholds

Disadvantages

- Statutory regulation can be onerous for directors who could be subject to personal liability for breach of duties and responsibilities in certain circumstances
- A board with a pre-defined, two-tier structure and shareholders/members

When to use

- Often used as the basis for other management structures such as trusts, community interest companies or commonhold associations
- There are a number of well-recognised company management structures for more standard management arrangements (for example, for single buildings or small estates)
- Good for managing elements of the public realm, off-street car parking, communal buildings and communication infrastructure

Community interest company (CIC)

Advantages

- Clear status for the benefit of the community
- Regulation and disclosure requirements provide transparency
- Surpluses are reinvested for the benefit of the organisation

Disadvantages

- The asset lock may be rigid in its application
- Regulation and reporting requirements may be burdensome

When to use

- For managing assets where there is a direct benefit to the community
- For organisations delivering innovative services at a local level for example environmental improvements, community transport and fair trade
- Good for managing properties to generate high levels of rent, which is used to fund the maintenance of public spaces for the benefit of the community

Trust ⁰⁷⁷

Advantages

- Trust property is usually an independent fund available only for the beneficiaries

Disadvantages

- Decision making can be onerous. Trustees can be personally liable for decisions in certain circumstances
- Trustees are unable to delegate powers. This restricts meaningful use of subcommittees
- Unless formed as a company, a trust is not a separate legal entity and cannot own property in its own right

When to use

- Trusts can be useful where it is necessary to protect assets (although other models can be used)
- Community development trusts are commonly set up to manage assets for the community (although they can often be quasi-trusts)

078

Mixing management structures Coin Street Community Builders

Coin Street, London, a mixed-use scheme that will include housing, a public park, managed workshops, leisure and other retail/commercial activities, a swimming pool and other community facilities when complete, is managed by a combination of a Trust and social enterprise, a management company, and fully-mutual co-operative.

Set up in 1974 by its residents, Coin Street Community Builders (CSCB) works with the South Bank Employers' Group (SBEG) to promote Coin Street and the wider South Bank. Commercial lettings are vetted to ensure quality and an appropriate mix and balance. The profits from these commercial activities plus members' subscriptions (to the SBEG) and grant funding are used to cross-subsidise otherwise unviable activities and services. These include environmental improvements to the area, development of transport links and work with local schools to improve their facilities. The Trust invests over £250,000 a year towards the maintenance of the parks and riverside walkways that it owns.

CSCB has created a wholly owned subsidiary, South Bank Management Services Ltd, which manages the Oxo Tower, Gabriel's Wharf, Bernie Spain Gardens and the river frontage who are responsible for collecting rents and service charges, gardening, litter clearing and marketing services. The Coin Street project employs approximately 35 full-time staff and makes use of professional consultants, such as architects, quantity surveyors, lawyers and project managers.

All four housing developments in the Coin Street area are run by fully-mutual co-operatives. Every adult tenant must become a member of the co-operative after completing a training programme and is expected to take an active part in running it. All decisions in the co-operative are taken by its members on the basis of one member, one vote. The tenants of the co-operative become shareholders in the company that owns the lease on the building and are responsible for maintaining its properties, collecting rents and selecting new tenants.



Gabriel's Wharf is one of the projects managed by Coin Street Community Builders' fully mutual co-operative. Opened in 1988 as a response to the needs of local workers, residents and visitors, its unique art shops, bars and restaurants have helped it become a key attraction on the South Bank.

Commonhold association**Advantages**

- As a company limited by guarantee, members' liability is £1 each

Disadvantages

- Requires buy-in of 100 per cent of all parties in a property
- Limited flexibility in distinguishing between different types of services in Commonhold Community Statement

When to use

- Management of common parts of buildings or estates
- Suitable for both flats and houses

Industrial and provident society (IPS) (co-operative) (BenComm) [078](#)**Advantages**

- As a separate legal entity it may be a contracting body, hold land, sue, etc
- Can undertake a range of activities, including general trading
- Provides limited liability for members

Disadvantages

- The need to prove at registration that the main benefit is to the community at large, rather than specific members, may be difficult and preclude private sector participation
- No member may invest more than £20,000
- Less flexible structure, especially at cessation of the business

When to use

- Housing association or registered social landlord
- Leisure trust

Unincorporated association or contractual relationship**Advantages**

- A flexible contractual arrangement may be adapted to suit the intentions of contracting parties
- There is no statutory basis for constitution, so it can be flexible

Disadvantages

- No separate legal entity
- Cannot own property, contract with third parties, employ individuals, start legal action, borrow money. Designated members must undertake these activities in their own names on behalf of the others
- Easy to create a partnership inadvertently. Members can then be personally jointly and severally liable for the debts of the partnership and actions of other parties
- A contractual arrangement is not a suitable vehicle to seek charitable status or pursue certain funding streams

When to use

- Residents' association or community forum
- Good for managing community facilities and community initiatives such as maintaining open spaces, allotments and community buildings

KEY MESSAGES FOR SECTION 5.2

1. Consider the management options available at the earliest possible opportunity.
2. Select a management structure or combination of structures that suit the type of organisation you are establishing.
3. Ensure the structure supports cohesive and integrated communities.

5.3

ENSURING THAT COMMUNITIES ARE SELF-SUSTAINING

5.3.1 Providing neighbourhood infrastructure

5.3.2 Encouraging community management

5.3.3 Keeping places safe

Good places facilitate social interaction. This can be encouraged and supported by providing neighbourhood infrastructure to empower the community to become autonomous and take responsibility for their environment.

How effective this support will be will depend on how it is provided. Consideration needs to be given to how local people can interact with management companies and be encouraged to maintain the place's quality. Care should be taken to ensure that the legacy left behind can foster opportunities for local people to live, work and socialise in a safe and attractive place.

5.3.1 Providing neighbourhood infrastructure

There are many ways in which developments can encourage communities to function better and engender the growth of a community. Generally, every development of an appropriate scale should encourage a mix of uses and users. Schools, shops, community facilities and homes should support each other. Infrastructure to support this can be provided through a range of measures:

Funding

Providing communities with the finance to buy land or buildings to establish amenities and facilities such as health care provision and schools, or to support community initiatives such as a market, a car-share scheme or waste recycling. This can be done through developer contributions or pre-planning section 106 agreements.

Subsidies

Subsidising the rental of properties, businesses or community initiatives such as crèche facilities, to encourage a diverse range of uses from the early stages of development, when these would normally be sustained only by a larger population.

Providing buildings

Providing physical assets for local use at the start of a development can help to build and develop a community by focusing its activities. It can also provide a base for the local community to establish links with wider communities.

Information 079

Establishing a central point of information to encourage communities to interact through management initiatives, to learn about their environment and, in the case of a long-term project, to remain aware of how a development is evolving. This could be in the form of a community intranet, community radio or information centre. Information packs provided by developers on the sale of properties may also be useful, although their application is limited for the private rented market where it can not be guaranteed that these will be provided to tenants.

It can be useful to locate an office of the management company on site. This can promote a sense of ownership by providing people with an easy way to raise issues, increasing local accountability. It can benefit the management company by highlighting issues before they become a problem and helping to develop good working relations with the community.

Neighbourhood management 080

Where specific objectives for a project have been set, it may be appropriate to consider employing an individual to facilitate activities within a neighbourhood and to encourage interest in certain initiatives, raise awareness and promote aspirations. An example of where this might be appropriate could be setting up a recycling centre and raising sustainability standards.

079

Encouraging social interaction through the internet Ladera Life Community Intranet - www.laderalife.com

Ladera Life, an intranet site for the community living at Ladera Ranch, California, offers a range of services and opportunities to the residents and is a key source of interaction between neighbours, organisations and local businesses.

The site hosts community services, links to local businesses, information on the development and its environs and direct contact with the development's management. The site also contains details for clubs, message boards and online booking for community events, restaurants, sports facilities and medical appointments.

The site is today managed and operated by the Ladera Ranch Community Services (LARCS). LARCS is a non-profit public benefit corporation that coordinates activities, events, formation of clubs, and facilitates distribution of community information to the residents. LARCS is funded by Community Enhancement Fees collected at the original sale and resale of homes (at 0.125% of the house prices) within Ladera Ranch, and business sponsorships.



Ladera Life Community Intranet www.laderalife.com was set up using fees generated from the sale of development. It hosts community links to local businesses, information on the development and messaging facilities.

Selling and letting

People who have a long-term interest in an area are more likely to become involved in community activities and to take responsibility for the area's maintenance. First-time buyers and shared ownership occupiers are likely to have the highest interest in making an area work. Short-term tenants in private rented properties are less likely to feel a strong sense of community. Tenants tend to be more transient than owner-occupiers and less inclined to get involved in community activities. In view of this, it may be sensible to impose agreements that limit the number of properties sold for subsequent private renting, or that limit the number that can be sold to a single buyer. In addition, management and neighbourhood bodies can help to promote cohesion on mixed-tenure developments by working across tenures. Residents from all backgrounds and occupancy types should be given opportunities to become fully involved in community activities. This will help to minimise social exclusion and promote integration.

5.3.2 Encouraging community management

Empower neighbourhoods to plan for the future

Encouraging communities to shape their environment through voluntary sector and service delivery contributions helps to empower neighbourhoods to plan for the future. As well as providing community benefits, this can help individuals gain improved confidence, new skills and training. It can improve their health and help them meet other residents.

Forums and similar organisations give people a voice in expressing their views on local issues. Groups can represent people with disabilities, young people, traders, transport users, senior citizens and many more. Such organisations are usually non-party political. Their executive or management committees make policy and plan events, benefiting from their members' intimate local knowledge.

Local groups are often brought together through shared interests. These can include: taking over a management company, improving the quality of neighbouring developments, and establishing child care facilities, setting up car-sharing schemes, having a bus stop moved nearer a community centre, having a pedestrian crossing provided on a busy road, securing standing representation on matters concerning community care, keeping a local police station open and improving concessionary rates for evening and day classes.

Contribute through residents' associations

One of the most effective forces for change in a neighbourhood is the residents' association. These work with the council and other organisations in promoting positive change. They may become the main representative body for consultation on major projects. In many cases they provide residents with the knowledge and experience to progress to other forms of resident involvement, such as a tenant management organisation. The local authority may be willing to provide grant funding to an association on the basis of the number of members it has and the proportion of residents who have joined. Other funding may come from community events, membership subscriptions and the National Lottery Board.

Examples of issues taken up by residents' associations are: providing local expertise for neighbourhood management, lobbying for change on major issues of concern to the community, providing information to residents about local issues, social and welfare organisations, and raising public support for efforts to tackle vandalism, harassment and anti-social behaviour.

A residents' association or forum can be set up through the following process:

- Bring together interested residents to discuss issues of concern and establish the level of support within the community
- Tell people about the forum or residents' association and encourage people to get involved.
- Organise a meeting for all residents to discuss the issues, and how the forum or residents' association will be organised
- Establish a steering group or residents' panel
- Prepare a constitution
- Hold a launch meeting to elect a committee (with a chairperson, secretary and treasurer) and adopt the constitution

Getting businesses involved 081 082

A Business Improvement District (BID) enables businesses in the area to lead on and develop their own area improvement plans. A BID proposal is developed through research and consultation. The proposal is then voted on and businesses decide whether to pay a levy in order to fund the improvements. This additional levy is ring-fenced for the area to fund the extra services and improvements identified in the proposal. Each BID operates for a maximum of five years before a new vote has to be taken.

081

Getting businesses involved

The Waterloo Quarter Business Alliance (WQBA)

The Waterloo Quarter Business Alliance (WQBA) is the Business Improvement District (BID) based in the historic retail area immediately south of Waterloo Station, separated from the bustling South Bank by victorian railway viaducts and the Grimshaw Eurostar terminal. Once a thriving shopping district with a street market over one mile in length, the area has declined through post war planning that interrupted pedestrian connections, demographic changes and a lack of investment in upkeep of the urban fabric in one of inner London's poorest boroughs.

The BID has set about reversing this decline by strategically focusing investment over a sustained period to enable retailers

to prosper and to help the many offices in Waterloo to retain staff in London's competitive job market. Being based locally means BID staff work well not only with their members, but with other community organisations in Waterloo, ensuring coordinated local action. Physical improvements are being tackled both at surface and at strategic level. Having started with quick wins removing graffiti, cleaning streets, and introducing more greenery, WQBA is now actively engaged in delivering new public open spaces connected by wider pavements, sheep pen style road crossings are being replaced by direct crossings, new squares have been designed with support of the local community and funding for delivery is being found through section 106 funds and borough spending-plan money.



The WQBA BID is leading the work to transform Emma Cons Gardens, a key public space in Waterloo, into a high-quality plaza with improved landscaping, lighting and street furniture.

082

Sustaining quality public realm More London

More London is an exciting new business and leisure district designed by Foster and Partners on the south bank of the River Thames between London Bridge and Tower Bridge. The development comprises a number of new office buildings (including City Hall), a hotel, children's theatre, shops, restaurants and a leisure club tied together with extremely high-quality public realm.

More London is based on the premise that the quality of the external environment and how it is managed is as important as the internal environment in attracting and retaining high-quality tenants and employees. More London provides its own security, maintenance and cleaning services, which ensure that the highest standards are maintained efficiently and economically.

More London has developed a positive relationship with the local community and manages a £35 million Community Investment Programme in partnership with the Pool of London and Southwark Council. The programme focuses on environmental

and socio-economic issues. This includes a Social Inclusion Programme which has secured 400 training opportunities for local residents within the development.

More London has succeeded in transforming and sustaining this once neglected part of Southwark into a vibrant new destination for the occupants, the local community and visitors. An outdoor amphitheatre with capacity for 800 people offers free theatre, cinema and music throughout the summer months and acts as a focus for local community groups and schools throughout the year. Travelling photographic exhibitions have been housed between buildings making public art accessible. An extranet service 'More for Me' and a Quarterly Newsletter 'Know More London' ensure that everyone is aware of the activities offered.

More London has raised confidence in the local area and acted as a catalyst for further regeneration.



The local community, occupiers and tourists have embraced the high-quality public realm and facilities provided, making More London a destination in itself.

BIDs have been shown to add value, encourage investment, improve relations between local businesses and increase footfall to areas. The range of measures they can undertake include physical improvements (including lighting, graffiti removal, greening and cleaning projects, and improvements to open spaces), additional security, public events and profile-raising.

5.3.3 Keeping places safe

Crime and the fear of crime are often the single greatest considerations in determining the quality of life. Well-designed places that foster a sense of safety through maximising natural surveillance, defensible space and community interaction can help, but many areas need additional support. The following initiatives can have a significant impact on how safe a place feels.

Neighbourhood watch

Neighbourhood watch is a partnership in which people come together to make their communities safer. It involves the police, community safety departments of local authorities, other voluntary organisations and, above all, individuals and families who want to make their neighbourhoods better places to live. The activity of neighbourhood watch members can foster a new community spirit and a belief in the community's ability to tackle problems.

Neighbourhood wardens

Neighbourhood wardens provide a highly visible, uniformed, semi-official presence in residential and public spaces, town centres and areas with high levels of crime. The aim is to reduce crime and fear of crime, deter anti-social behaviour, foster social inclusion and care for the environment. The wardens have a number of roles, depending on local needs.

These include:

- Promoting community safety and helping with environmental improvements, tackling problems such as litter, graffiti and dog fouling
- Contributing to community development by providing a link between local residents and agencies such as the local authority and the police
- Keeping the public informed
- Providing a visiting service for vulnerable groups such as elderly and disabled people, and victims of crime

Community support officers

Community support officers are police authority support staff. They contribute to the policing of neighbourhoods, primarily through highly visible patrols whose purpose is to reassure the public, increasing orderliness in public places, and being accessible to communities and partner agencies working at local level. The precise role, and the powers required to fulfil it, will vary from neighbourhood to neighbourhood and between different authorities. Initial funding would come from the Home Office. Other sources would be required to maintain this resource in the long term.

KEY MESSAGES FOR SECTION 5.3

1. **Design is just one aspect of what can make a place work well. Engendering the growth of a community is also likely to be important.**
2. **Ensure that information provided by organisations is clear and sets out how communities can influence their surroundings.**
3. **All users must have opportunities to become involved in neighbourhood initiatives.**



CLOSING THE CIRCLE

In planning and designing the built environment, we need to learn from completed schemes: the quality of the end product, how well it serves its users, and what legacy has been left for its governance and management. We need to be able to recognise good schemes, understand what works and what does not, and feed this back to our working practices. We can build on the successes of the past.

How do we measure success?

It can be easy to measure the success of a scheme in meeting its outputs where clear targets have been set. These can include assessment against Building for Life criteria, environmental performance and other statistical data. These tools can be effective in ensuring that schemes deliver the high standards required but they do not tell the whole story.

Good urban design can create places people will value for generations to come. They can meet the needs of those who live, work and spend time there. They will remain attractive with carefully thought through design solutions and their good management. They will stand the test of time.

We need to take a long-term view. We should focus our attention on developments that have been functioning well for five, 10, 50 or 100 years, as well as new, ground-breaking schemes. What made these places successful? What mistakes were made? These are outcomes that can result when both the principles of urban design and the processes that facilitate its delivery are understood and used appropriately.

This publication, the original Compendium and the website, showcase a number of projects we feel have been successful in delivering particular aspects of urban design. The information available offers a starting point for those delivering projects to understand what has worked elsewhere, and why. In addition, award schemes such as those run by Building for Life, BURA, the Civic Trust and the Academy of Urbanism are increasingly seeking to promote best practice. This is disseminated through websites, seminars and conferences, research and education.

There is no substitute for seeing how a scheme works at first hand. We encourage those using this material to visit some of these schemes themselves.

What can we learn?

To understand fully what has worked, we should talk to those who live and work there. They can highlight the benefits of the location and any practical problems caused

by design and management. Tools such as Placecheck can help us to analyse thoroughly the qualities of a place. The assessment of how a place is working can feed back into an action plan on how to improve the area.

Where possible, we should talk to the people who were involved in delivering the scheme. There may be reasons behind the less successful aspects that could have been overcome if tackled earlier or differently – and it is often the aspects that work most successfully and look simplest to deliver that have taken the hardest work.

Consideration should be given to the wider impacts of good design. This may include analysing local quality-of-life indicators (relating to people and place, economic well-being, culture, environment, community cohesion and involvement, education and life-long learning, housing, community safety, transport and access, and health and social well-being). Good urban design can improve many of these aspects in both the short and long terms.

Sharing best practice

We need to share best practice on new approaches. This can include new technologies in construction (such as the Design for Manufacture Competition), new approaches to the supply chain (such as the Challenge Fund 2 and London-Wide Initiative), advances in environmental sustainability such as the Carbon Challenge), new or rediscovered urban design tools (such as design codes) and community consultation techniques (such as Enquiry by Design). Sharing lessons from these projects enables the main benefits to be understood and implemented within the development industry.

Whilst this Compendium provides a snapshot of current best practice, the website offers the opportunity to take this further with guidance evolving as our understanding grows. By engaging in a two-way dialogue we can learn from each other's experiences and establish a community of Compendium users. We welcome your views on what places are like to live and work in, whether it has inspired you and how it compares to other places you know. Your experiences can help improve our understanding of how we can overcome barriers to the delivery of quality places and identify projects to include in the case study library.

Good urban design can both learn from the past and look forward to the future. It depends on looking at places, understanding what has worked and how these places have interpreted urban design principles, and working together to apply those lessons. Only by learning from our successes and mistakes can we aim higher to create successful places.

LIST OF CASE STUDIES

AIMING HIGHER

001

Learning from the past
Brunswick Town, Hove

2

Project team:

- **Key partners:** Developed between 1824-1840 by the Rev Thomas Scutt and Charles Augustin Busby
- **Image credit:** English Partnerships
- **Weblink:** www.rth.org.uk

002

An award-winning new neighbourhood,
Greenwich Millennium Village, London

4

Project team:

- **Key partners:** English Partnerships
- **Developer:** Greenwich Millennium Village Ltd, JV Countryside, Taylor Woodrow, Moat Housing Group, Ujima
- **Masterplanner:** Tovatt Architects, Erskine
- **Architect:** Tovatt Architects, Broadway Maylan, Proctor and Matthews, Erskine
- **Image credit:** English Partnerships
- **Weblink:** www.greenwich-village.co.uk

003

A new neighbourhood for Harlow
Newhall, Harlow

11

Project team:

- **Key partners:** Newhall Projects Ltd
- **Developer:** Cophorn Homes, Barratt Homes, Moat Housing Group, Newhall Projects Ltd, CALA Homes, Spaceover, Galliford Try
- **Masterplanner:** Roger Evans Associates
- **Architect:** Proctor and Matthews Architects, Robert Hutson Architects, Roger Evans Associates, ECD Architects, Richard Murphy Architects, ORMS Architects, PCKO Architects, Alison Brooks Architects
- **Image credit:** Roger Evans Associates
- **Weblink:** www.newhallproject.co.uk

004

Inspiring sustainable development
Hammarby Sjöstad, Stockholm, Sweden

12

Project team:

- **Key partners:** Exploateringskontoret Stockholm Stad and approx. 20 different proprietors
- **Developer:** Exploateringskontoret in cooperation with approx. 20 different proprietors
- **Masterplanner:** Stadsbyggnadskontoret
- **Architect:** Stadsbyggnadskontoret in cooperation with architects from the approx. 20 different proprietors
- **Image credit:** Roger Evans Associates
- **Weblink:** www.hammarbysjostad.se

1 SOWING THE SEED

- **Chapter images:** Malmö, Sweden
- **Image Credit:** Roger Evans Associates

005

Integrating urban design in local planning policy
Sheffield City Council

19

Project team:

- **Key partners:** Sheffield City Council
- **Masterplanner:** Gillespies
- **Image credit:** English Partnerships
- **Weblink:** www.sheffield.gov.uk

006

Raising design awareness
Essex Design Initiative

21

Project team:

- **Key partners:** Essex County Council, CABE, SEEDA
- **Image credit:** Essex County Council
- **Weblink:** www.the-edi.co.uk

007

Running a regional design panel
South East Regional Design Panel

22

Project team:

- **Key partners:** South East England Delivery Agency and Kent Architecture Centre
- **Image credit:** Shaping Places Programme: Kent Architecture Centre
- **Weblink:** www.serdp.org.uk

008

Setting the standard
Building for Life

23

Project team:

- **Key partners:** CABE, Home Builders Federation, Civic Trust, Design for Homes, English Partnerships, Housing Corporation
- **Image credit:** English Partnerships
- **Weblink:** www.buildingforlife.org

009

Regional strategy for design quality
Renaissance Towns and Cities Programme

29

Project team:

- **Key partners:** Yorkshire Forward, Renaissance Towns and Cities Programme (RTCP)
- **Image credit:** Yorkshire Forward
- **Weblink:** www.yorkshireforward.com

010

Creating a responsive development framework
Ashford Local Development Framework (LDF)

30

Project team:

- **Key partners:** Ashford Borough Council
- **Masterplanner:** Urban Initiatives Ltd, Alan Baxter Associates
- **Image credit:** Urban Initiatives Ltd
- **Weblink:** www.ashford.gov.uk

<p>011 31 Gaining political support for a framework Yeovil Urban Development Framework</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Yeovil Vision / South Somerset District Council • Masterplanner: Roger Evans Associates • Image credit: Roger Evans Associates • Weblink: www.southsomerset.gov.uk 	<p>012 35 Creating a web-based tool to deliver sustainable communities Inspire East Excellence Framework - www.inspire-east.org.uk</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Inspire East and the Building Research Establishment, East of England Development Agency • Image credit: Inspire East • Weblink: www.inspire-east.org.uk 	<p>017 44 Understanding the context of the site Newhall, Harlow</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Newhall Projects Limited • Masterplanner: Roger Evans Associates • Developers: Copthorn Homes, Barratt Homes, Moat Housing Group, Newhall Projects Ltd, CALA Homes, Spaceover, Galliford Try • Architect: Proctor & Matthews Architects, Robert Hutson Architects, Roger Evans Associates, ECD Architects, Richard Murphy Architects, ORMS Architects, PCKO Architects, Alison Brooks Architects • Image credit: Roger Evans Associates • Weblink: www.newhallproject.co.uk
<p>013 36 Developing standards as a tool to delivery English Partnerships / the Housing Corporation Design Quality Standards</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships, Housing Corporation • Image credit: English Partnerships • Weblink: www.englishpartnerships.co.uk www.housingcorp.gov.uk 	<p>018 45 Understanding and protecting character Stratford-on-Avon District Design Guide</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Stratford-on-Avon District Council, Warwickshire County Council • Image credit: Stratford-on-Avon District Council • Weblink: www.stratford.gov.uk 	<p>019 46 Retaining character through a rental scheme Marylebone High Street</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Howard de Walden Estates • Image credit: English Partnerships • Weblink: www.marylebonevillage.com
<p>014 38 Setting measurable standards Edinburgh Standards For Sustainable Building</p> <p>Project team:</p> <ul style="list-style-type: none"> • Developer: City of Edinburgh Council • Masterplanner: City of Edinburgh Council • Image credit: City of Edinburgh Council • Weblink: www.edinburgh.gov.uk 	<p>020 47 Extracting and emphasising character Five Arts Cities In Oxford</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Arts Council England with Five TV and Modern Art Oxford • Image credit: Five TV • Weblink: www.five.tv/fiveartscities 	<p>021 51 Playing games to identify growth areas The Ashford Game</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Ashfords Future, English Partnerships, Ashford Borough Council, Urban Initiatives Ltd • Image credit: Urban Initiatives Ltd • Weblink: www.ashfordsfuture.org
<p>015 39 Establishing national consensus on policy The Merton Rule</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: London Borough of Merton • Image credit: © English Partnerships • Weblink: www.themertonrule.org 	<p>016 43 Creating a spatial strategy for the sub-region A Guide to the Future Thames Gateway</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: CABE, LDA Design, Alan Baxter Associates Communities and Local Government • Image credit: English Partnerships • Weblink: www.cabe.org.uk 	

<p>022 Establishing community facilities through developer contributions Allerton Bywater Millennium Community</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships • Developer: Barratt Homes, Fusion, Miller Homes • Masterplanner: EDAW • Image credit: English Partnerships • Weblink: www.englishpartnerships.co.uk/allertonbywater.htm 	53	<p>026 Delivering a zero carbon development Gallions Park, Albert Dock Basin, London</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: London Development Agency, Arup, Drivers Jonas • Architect: Adams and Sutherland • Image credit: Studio Toni-Yli-Suvanto and Feilden Clegg Bradley Architects • Weblink: www.lda.gov.uk 	64
<p>023 Involving the community to inform detailed design Charlton Kings</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Cheltenham Borough Council/ Charlton Kings Local Regeneration Partnership • Masterplanner: Roger Evans Associates • Landscape Architect: Roger Evans Associates • Developer: Cheltenham Borough Council/ Charlton Kings Local Regeneration Partnership • Image credit: Roger Evans Associates • Weblink: www.cheltenham.gov.uk 	54	<p>027 Responding to Microclimate Bo01, Malmö, Sweden</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: MKB Fastighets AB, Malmö, Sweden, Lars Birve, Ingvar Carlsson, Local government, National government, European Union, Publ.-priv. partnership • Developer: SWECO Projektleddning AB • Architects: Moore Ruble Yudell Architects & Planners; FFNS Arkitekter AB • Image credit: Roger Evans Associates • Weblink: www.malmo.com 	67
<p>2 INTEGRATED DESIGN</p> <ul style="list-style-type: none"> • Chapter images: Newhall • Image credit: Roger Evans Associates 		<p>028 Combining environmental standards and innovative design Oxley Woods, Milton Keynes</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships • Developer: George Wimpey South Midlands • Masterplanner: David Lock Associates • Architect: Richard Rogers Partnership, Roger Stirk Harbour and Partners • Image credit: English Partnerships • Weblink: www.designformanufacture.info 	68
<p>024 Taking an integrated approach Hammarby Sjöstad, Stockholm, Sweden</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Exploateringskontoret Stockholm Stad and app. 20 different proprietors • Developer: Exploateringskontoret in cooperation with app. 20 different proprietors • Masterplanner: Stadsbyggnadskontoret • Architect: Stadsbyggnadskontoret in cooperation with architects from the app. 20 different proprietors • Image credit: Erik Freudenthal • Weblink: www.hammarbysjostad.se 	60	<p>029 Creating energy efficiency on smaller sites Selwyn Street, Coppice, Oldham</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Oldham Rochdale Housing Market Renewal Pathfinder, Great Places Housing Group, Housing Corporation, Oldham SRB • Developer: Great Places Housing Group • Architect: TADW Architects • Landscape Architect: Camlin Lonsdale • Image credit: Daniel Hopkinson • Weblink: www.oldhamrochdalehmr.co.uk 	71
<p>025 Using an integrated resource management model Dongtan New Town, Shanghai, China</p> <p>Project team:</p> <ul style="list-style-type: none"> • Developer: Shanghai Industrial Investment Corporation (SIIC) • Masterplanner: Arup • Image credit: Arup • Weblink: www.dongtan.biz 	62	<p>030 Engaging the street with environmental design Rowan Road, Merton</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships • Developer: SixtyK, Crest Nicholson • Architect: Sheppard Robson • Image credit: Sheppard Robson, Architects for sixtyK consortium • Weblink: www.designformanufacture.info 	72

<p>031 Designing a SUDS scheme Upton, Northampton</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships, The Prince's Foundation, West Northamptonshire Development Corporation, Northampton Borough Council • Masterplanner: EDAW, Alan Baxter, PellFrischmann, Quartet • Architect: Quartet • Image credit: English Partnerships • Weblink: www.englishpartnerships.co.uk/upton.htm 	<p>75</p>	<p>036 Creating an attractive high-density development Chatsworth Gardens, Morecambe</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships, Lancaster City Council, Places for People, Peter Barber Architects • Image credit: Peter Barber Architects • Weblink: www.englishpartnerships.co.uk 	<p>85</p>
<p>032 Creating a new mixed-use neighbourhood Devonport</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships, Devonport Regeneration Community Partnership, Plymouth City Council, South West Regional Development Agency, Housing Corporation • Developer: Redrow Homes South West • Masterplanner: Matrix Partnership • Image credit: English Partnerships • Weblink: www.englishpartnerships.co.uk/southyard.htm 	<p>79</p>	<p>037 Changing perceptions about density Visiting the Best Study Tours</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships, Design for Homes, Civic Trust • Image credit: English Partnerships • Weblink: www.civictrust.org.uk 	<p>87</p>
<p>033 Revitalising a village centre Tarporley</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Vale Royal District Council • Developer: Bell Meadow Ltd • Key partners: M R Jessop • Image credit: English Partnerships • Weblink: www.tarporley.net 	<p>80</p>	<p>038 Maintaining amenity and creating high density Accordia, Cambridge</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Countryside Properties plc, Redeham Homes • Developer: Countryside Properties plc • Masterplanner: Feilden Clegg Bradley Architects • Architect: Feilden Clegg Bradley Architects (Lead Architect), Alison Brooks Architects, Maccreanor Lavington • Image credit: English Partnerships • Weblink: www.accordialiving.co.uk 	<p>89</p>
<p>034 Creating buildings for flexible use Allerton Bywater Millennium Community</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships • Developer: Barratt Homes, Fusion, Miller Homes • Masterplanner: EDAW • Image credit: English Partnerships and Barratt Homes • Weblink: www.englishpartnerships.co.uk/allertonbywater.htm 	<p>81</p>	<p>039 Accommodating changing needs Tattenhoe Park, Milton Keynes</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnership, Milton Keynes Partnership • Masterplanner: Savills, Alan Baxter Associates, PRP Architects (Design Codes) • Image credit: Barratt Homes • Weblink: www.mkweb.co.uk/tattenhoePark 	<p>90</p>
<p>035 Mixing uses within a building Oxo Tower Wharf, London</p> <p>Project team:</p> <ul style="list-style-type: none"> • Developer: Coin Street Community Builders • Architect: Lifschutz Davidson Sandilands • Image credit: English Partnerships • Weblink: www.oxotower.co.uk 	<p>83</p>	<p>040 Rejuvenating a public space Trafalgar Square, London</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: The Mayor's Transport for London plus Heritage Lottery Fund • Masterplanner: Foster and Partners • Architect: Foster and Partners • Spatial Design Consultants: Space Syntax • Developer: Fitzpatrick (works implementation) • Local Authority: London Borough of Westminster set competition to redesign the square. Transport for London (TfL) and the Greater London Authority (GLA) commissioned the post intervention assessment of Trafalgar Square • Image credit: Space Syntax • Weblink: www.spacesyntax.com 	<p>93</p>

<p>041 Creating a successful civic space Sheffield Peace Gardens</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Sheffield City Council • Developer: Tilbury Douglas Construction Ltd – Management • Masterplanner: Sheffield City Council • Architect: Sheffield City Council, City Development Division in collaboration with Sheffield Design and Project Management • Image credit: Roger Evans Associates • Weblink: www.sheffield.gov.uk 	95	<p>046 Offsetting costs to increase values Adelaide Wharf, London</p> <ul style="list-style-type: none"> • Interviewee: Ben Denton, Director, Abros <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: First Base Ltd, Lend Lease • Developer: First Base Ltd • Architect: Allford Hall Monaghan Morris • Image credit: English Partnerships • Weblink: www.adelaidewharf.com 	111
<p>042 Designing streets for different users New Road, Brighton</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Brighton and Hove City Council • Architect: Gehl Architects and Landscape Projects • Engineers: Rambøll Nyvig and Martin Stockley Associates • Image credit: Jan Gehl Architects • Weblink: www.brighton-hove.gov.uk 	97	<p>047 Delivering an integrated approach Didsbury Point, Manchester</p> <ul style="list-style-type: none"> • Interviewee: Richard Cherry, Chairman (Special Projects), Countryside Properties • Image credit: English Partnerships • Weblink: www.countryside-properties.com 	112
<p>3 DELIVERING QUALITY AND ADDING VALUE</p> <ul style="list-style-type: none"> • Chapter images: Brindley Place, Birmingham • Image credit: Argent Group 		<p>048 Commissioning public art Princesshay, Exeter</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: InSite Arts Ltd • Developer: Land Securities Group Plc • Architect: Chapman Taylor Architects, Panter Hudspith Architects, Wilkinson Eyre Architects • Image credit: Land Securities Group Plc • Weblink: www.princesshay.com 	114
<p>043 Estimating the value of good design Port Marine, Portishead, Bristol</p> <ul style="list-style-type: none"> • Interviewee: Stephen Stone, MD, Crest Nicholson <p>Project team:</p> <ul style="list-style-type: none"> • Developer: Crest Nicholson • Masterplanner: Llewelyn Davies • Architect: BBA, Charter Partnership, APG, Austin Smith; Lord • Image credit: Crest Nicholson • Weblink: www.crestnicholson.com 	105	<p>049 Working in partnership Staithe South Bank, Gateshead</p> <ul style="list-style-type: none"> • Interviewee: David Bridges, Strategic Director, George Wimpey <p>Project team:</p> <ul style="list-style-type: none"> • Developer: George Wimpey North East • Masterplanner: Ian Darby Partnership Northern • Architect: Ian Darby Partnership Northern • Image credit: Tim Crocker • Weblink: www.georgewimpey.co.uk 	115
<p>044 Creating value through design Brindley Place, Birmingham</p> <ul style="list-style-type: none"> • Interviewee: Roger Madelin, Argent Group plc <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Argent Development Consortium • Developer: Argent Group plc • Masterplanner: Terry Farrell, John Chatwin • Architect: Porphyrious Associates, Stanton Williams, Sidell Gibson • Image credit: Ray Watkins • Weblink: www.argentgroup.plc.uk 	107	<p>050 Involving the right players Oxford Castle Ltd / Oxfordshire County Council / Oxford Preservation Trust</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Trevor Osbourne, the Osbourne Group, Andrew Ryan • Developer: The Trevor Osbourne Group • Architect: Panter Hudspith, Architects Design Partnership LLP • Image credit: Charlotte Wood • Weblink: www.oxfordcastle.com 	119
<p>045 Attracting creative businesses Holbeck Urban Village, Leeds</p> <ul style="list-style-type: none"> • Interviewee: Chris Brown, Director, Igloo Regeneration • Image credit: English Partnerships • Weblink: www.holbeckurbanvillage.co.uk 	108		

- 051** **Partnering to maximise available resources and skills** **120**
Blueprint
Project team:
- **Key partners:** East Midlands Development Agency (emda), English Partnerships, Morley Fund Management's Igloo Regeneration Fund
 - **Developer:** Blueprint
 - **Masterplanner:** Studio Egret West (SEW)
 - **Architect:** SEW, Hawkins Brown, Grant and Partners
 - **Image credit:** Blueprint and Ash Sakula
 - **Weblink:** www.englishpartnerships.co.uk/blueprint.htm
- 052** **Developing a shared agenda** **122**
Castlefields Regeneration Partnership
Project team:
- **Key partners:** English Partnerships, Halton Borough Council, Housing Corporation, CDS Housing, Northwest Development Agency, Liverpool Housing Trust
 - **Developer:** CDS, Liverpool Housing Trust
 - **Masterplanner:** Taylor Young
 - **Architect:** John McCall Architects
 - **Image credit:** English Partnerships
 - **Weblink:** www.castlefields.info
- 053** **Disposing of a site with conditions** **123**
Lawley, Telford
Project team:
- **Key partners:** English Partnerships, Telford and Wrekin, The Prince's Foundation, Housing Corporation
 - **Developer:** Lawley Developer Group (George Wimpey, Persimmon Homes, Barratt Homes)
 - **Masterplanner:** EDAW, HTA
 - **Architect:** HTA and RPS
 - **Image credit:** Jon Rowland
 - **Weblink:** www.lawley.info
- 054** **Providing land owner certainty** **125**
Newhall, Harlow
Project team:
- **Key partners:** Newhall Projects Ltd
 - **Masterplanner:** Roger Evans Associates
 - **Developers:** Copthorn Homes, Barratt Homes, Moat Housing Group, Newhall Projects Ltd, CALA Homes, Spaceover, Galliford Try
 - **Architect:** Proctor & Matthews Architects, Robert Hutson Architects, Roger Evans Associates, ECD Architects, Richard Murphy Architects, ORMS Architects, PCKO Architects, Alison Brooks Architects
 - **Image credit:** Roger Evans Associates
 - **Weblink:** www.newhallproject.co.uk
- 055** **Achieving variety through codes** **126**
Upton, Northampton
Project team:
- **Key partners:** English Partnerships, The Prince's Foundation, West Northamptonshire Development Corporation, Northampton Borough Council
 - **Developer:** Paul Newman New Homes, Cornhill Estates, Miller Homes, David Wilson Homes
 - **Masterplanner:** EDAW, Alan Baxter, PellFischmann, Quartet for English Partnerships and The Prince's Foundation
 - **Image credit:** English Partnerships and Gale & Snowdon Ltd and Roger Evans Associates
 - **Weblink:** www.englishpartnerships.co.uk/upton.htm
- 056** **Remaining involved** **129**
Borneo Sporenburg, Amsterdam, Netherlands
Project team:
- **Key partners:** New Deal, Amsterdam
 - **Developer:** New Deal b.v.
 - **Masterplanner:** West 8 Urban Design and Landscape Architecture b.v.
 - **Architect:** Over 100 different architects. Sculptural blocks by: de Architecten Cie: "The Whale", Koen van Velsen: "PacMan" Steven Holl (original design) and Kees Christaanse (construction drawings and construction management): "The Fountainhead"
 - **Image credit:** West 8 / photo: Jeroen Musch
 - **Weblink:** www.west8.nl
- 057** **Obtaining partners through competition** **133**
Crown Street Regeneration Project, Glasgow
Project team:
- **Key partners:** Glasgow City Council, Glasgow Development Agency
 - **Masterplanner:** CZWG for Crown Street and Hypostyle Architects for Queen Elizabeth Square
 - **Architect:** each phase was developed by an architect-developer team
 - **Image credit:** Jon Jardine
 - **Weblink:** www.glasgow.gov.uk
- 058** **Maintaining community input through the selection process** **135**
Heart of East Greenwich
Project team:
- **Key partners:** English Partnerships, LB Greenwich, Arup, S&P Architects, Lovejoy
 - **Developer:** First Base Ltd
 - **Masterplanner:** Make, Rick Mather Associates
 - **Architect:** Make
 - **Image credit:** First Base Ltd
 - **Weblink:** www.englishpartnerships.co.uk/hoeg.htm

4 FROM VISION TO REALITY		
<ul style="list-style-type: none"> • Chapter images: Hammarby Sjöstad, Stockholm, Sweden • Image credit: Roger Evans Associates 		
059	143	
Assisting large scale developments The ATLAS Guide - www.atlasplanning.com		
Project team:		
<ul style="list-style-type: none"> • Key partners: English Partnerships, CLG, Planning and Advisory Service, The Advisory Team for Large Applications (ATLAS) • Image credit: ATLAS • Weblink: www.atlasplanning.com 		
060	144	
Working collaboratively through planning Barking Riverside Ltd		
Project team:		
<ul style="list-style-type: none"> • Key partners: English Partnerships, Bellway Homes, LB Barking and Dagenham • Developer: English Partnerships, Bellway Homes, Barking Riverside Ltd • Masterplanner: Maxwan 108 • Architect: Maxwan 108 • Image credit: Barking Riverside Ltd • Weblink: www.barkingriverside.co.uk 		
061	150	
Delivering public transport upfront The Village, Caterham-on-the-Hill		
Project team:		
<ul style="list-style-type: none"> • Developer: Linden Homes South East • Masterplanner: John Thompson and Partners • Architect: John Thompson and Partners • Image credit: English Partnerships and CABA • Weblink: www.metrobus.co.uk 		
062	152	
Funding strategic transport infrastructure Milton Keynes Tariff		
Project team:		
<ul style="list-style-type: none"> • Key partners: English Partnerships, Milton Keynes Partnership Committee (MKPC) • Image credit: English Partnerships and EDAW • Weblink: www.miltonkeynespartnership.info 		
063	153	
Changing travel patterns Nottingham Express Transit		
Project team:		
<ul style="list-style-type: none"> • Key partners: Nottingham City Transport, MVA • Image credit: Peter Courtenay 2004-2005 • Weblink: www.nottinghamexpresstransit.com 		
064	154	
Establishing a city wide cycle strategy Vélo V, Lyon, France		
Project team:		
<ul style="list-style-type: none"> • Key partners: City of Lyon • Image credit: Roger Evans Associates • Weblink: www.velov.grandlyon.com 		
065	157	
Overcoming barriers to street improvements Kensington High Street, London		
Project team:		
<ul style="list-style-type: none"> • Key partners: Royal Borough of Kensington and Chelsea • Image credit: English Partnerships and Roger Evans Associates • Weblink: www.rbkc.gov.uk 		
066	161	
Ensuring quality art can be maintained Bellenden Renewal Area, London		
Project team:		
<ul style="list-style-type: none"> • Key partners: Keegans Regeneration, LB Southwark • Image credit: English Partnerships • Weblink: www.thekeegansgroup.com 		
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Creating a Home Zone Gun Wharf, Plymouth		
Project team:		
<ul style="list-style-type: none"> • Key partners: Devonport Regeneration Community Partnership, Plymouth City Council, South West Regional Development Agency • Developer: Devon and Cornwall Housing Association with Midas Homes • Architect: Lacey Hickie Caley • Image credit: Plymouth City Council • Weblink: www.homezones.org.uk 		
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Ensuring construction quality Ancoats Urban Village, Manchester		
Project team:		
<ul style="list-style-type: none"> • Key partners: Ancoats Urban Village and New East Manchester Ltd • Image credit: English Partnerships • Weblink: www.auvc.co.uk 		
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Project team:		
<ul style="list-style-type: none"> • Key partners: Cambridgeshire County Council, BRE, English Partnerships, Housing Corporation, CLG, Fenland District Council • Developer: Wilmott Dixon • Image credit: English Partnerships • Weblink: www.smartlife-project.net 		
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Project team:		
<ul style="list-style-type: none"> • Key partners: English Partnerships • Developer: Miller Homes NW Ltd • Masterplanner: TEP, Genesis Centre, Birchwood • Architect: PWL Architects • Image credit: English Partnerships • Weblink: www.millerhomes.co.uk 		

<p>071 Delivering amenities early Greenwich Millennium Village, London</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: English Partnerships • Masterplanner: Erskine • Architect: Edward Cullinan Architects Ltd • Image credit: English Partnerships • Weblink: www.greenwich-village.co.uk 	<p>169</p>	<p>076 Establishing a management structure to suit your needs The Pepys Community Forum / London Borough of Lewisham</p> <p>Project team:</p> <ul style="list-style-type: none"> • Key partners: Pepys Community Forum, Local Area Agreement Funds, Esmee Fairbairn, CRED • Image credit: English Partnerships • Weblink: www.mcad.demon.co.uk 	<p>182</p>
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