
Essex County Council

Foreword

Essex Design Guide
Urban Place Supplement

Work started on the production of this draft document in the winter of 2004. It arose from a concern of officers and Members of both the County Council and district councils that recent, compact urban developments in Essex were not very satisfactory. It was thought that often, new developments were seen as a threat to the liveability and infrastructure of local places, were out of context with their surroundings and were poorly designed. They also seem to have in common an unsatisfactory public realm.

Some of these completed schemes have proven to be unpopular both for the people that inhabit the buildings and for the community that adjoins them. This draft guidance aims to deal with these defects. It is hoped that the final content of this work, following consultation and amendment will be adopted as a Supplementary Planning Document by local authorities and used as a design tool by landowners and developers, thereafter helping to shape the delivery of sustainable communities in Essex.

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Introduction

Viewed from the air, Essex appears to be a very green county yet it is one of the most densely populated regions of the UK. Part of this impression is due to our success in containing urban sprawl and limiting development in rural areas but it is a fragile relationship that needs continuous management. The persistent requirement for further economic and housing growth is adding to the pressure already upon this rural-urban identity.

One purpose of town and country planning is to secure sustainable development. This purpose was made more explicit with the publication of the Sustainable Communities Plan (2003) which was the Government's response to the national shortage of (especially affordable) housing, pressures on the urban edge and neighbourhood renewal. The Plan can also be set against a background of a growing concern over our consumption of natural resources, the polluting effect of growth and the dispiriting quality of urban living in some areas.

The Urban Task Force had already reported in 1999 and recommended actions on the design and management of towns and cities, achieving local regeneration, improving quality of life and local governance for the purpose of achieving an urban renaissance. A review of good practice demonstrated that the quality of urban life in the UK had fallen a long way behind many parts of Europe.

The Essex Design Guide for Residential and Mixed Use Areas was published by the Essex Planning Officers' Association (EPOA) in 1997 and has been an influential document in improving the quality of new residential development in the county. Where it has been applied, development is more responsive to context and the Essex character of places. Materials are used from the local Essex palette, development is more legible, streets are designed to slow traffic and connected to be permeable. Greater emphasis is given to spaces and their containment with continuous frontages a common feature.

Although the Essex Design Guide has successfully influenced the design and layout of housing in Essex it has been less capable in shaping responses to the more complex demands of a broader, urban agenda. The quality of recent, higher density development has been patchy, often compromising the quality of public and private space in the search for extra capacity. Not all of these developments have been well-received by existing communities and not all of them liked by the new occupiers. These developments have been poorly integrated into their urban context.

It is also clear that in Essex, we are currently consuming finite resources at a rate that is unsustainable whilst producing an unacceptably high level of carbon emissions. Buildings are energy inefficient and urban planning discourages use of sustainable transport. Urban development is also often at the expense of nature, yet needn't be so.

This guidance therefore attempts to help deliver a consistently higher standard of environmentally and contextually sensitive design within Essex.

Scope

The Urban Place Supplement (UPS) does not replace the Essex Design Guide (EDG). Whilst the Supplement is more relevant for intensive, urban development the EDG will remain the principle planning guidance for the design of new places in Essex, where adopted by local planning authorities. Nevertheless, the EDG 1997 has been revised to take account of the requirements of Planning Policy Guidance 3: *Housing* on minimum housing density and the opportunity has been taken to also refresh a limited number of sections. The revised document will be known as the Essex Design Guide (2005).

In practice, this Supplement will be applicable to the majority of residential and mixed-use development within urban areas as it provides additional guidance on most potential development scenarios ranging from the largest urban extensions to the development of small, infill plots.

The purpose of the Supplement is to offer guidance for the design and assessment of compact urban development in Essex. It aims to bring about a design and development process that is more collaborative, responds better to meeting local opportunities and needs and delivers high quality environments that produce fewer carbon emissions.

The Supplement does not attempt to reiterate the substantial pool of advice and guidance contained within existing publications on urban design and sustainable development. These documents are essential reading for designers and planning authorities and complement the rationale of the UPS.

The document is organised into 3 principal sections:

Urban context

Influences upon quality

Influences upon sustainability

There are strong overlapping relationships between subject areas and inevitably, there are elements of inter-dependency between objectives. For example, one cannot deliver the proposed new standard of communal open space without reducing the space allocated for car parking at ground level. It is therefore important to regard the guidance as a complete work rather than ‘cherry pick’ individual components which may be difficult to apply in isolation.

For the first time, the guidance proposes minimum and maximum housing densities relative to the location of any site within its urban context. This has been done so as to ensure the full realisation of development potential of sites in the most sustainable locations whilst avoiding high density in places that are not.

Not all of the provisions are able to be adopted as supplementary planning guidance at the present time. The requirement for a very high standard of environmental performance may need the co-operation and agreement of the Office of the Deputy Prime Minister for it to have the same weight as other elements of this guide. This is currently under review.

Nor will it be possible for local planning authorities across Essex to adopt the final version of the UPS at the same time as each district has a different timescale for bringing forward their Local Development Frameworks. However, it is hoped that over time the majority of Essex districts will be able to add this supplementary design guidance to the range of planning tools and advisory notes that are presently available that set out to improve the quality of our towns.

How to use this document

Most of the guidance contained within this document would apply to every development within an urban area. However, the guide avoids a prescriptive menu and instead, relies upon a rigorous appraisal of a location that initially necessitates the determination of the spatial context of the site itself.

The location of a potential development dictates its minimum or maximum density and some aspects of its form. For instance, development opportunities that are close to either a town or neighbourhood centre (either existing or potential) are expected to yield the highest densities and greatest mix of uses.

Descriptions of different spatial context (see page 14) are provided to help decide where in a conurbation a site is placed (**1**) and Diagram 1 can then be used to determine which of 6 possible development forms are most applicable to any given situation (**2**).

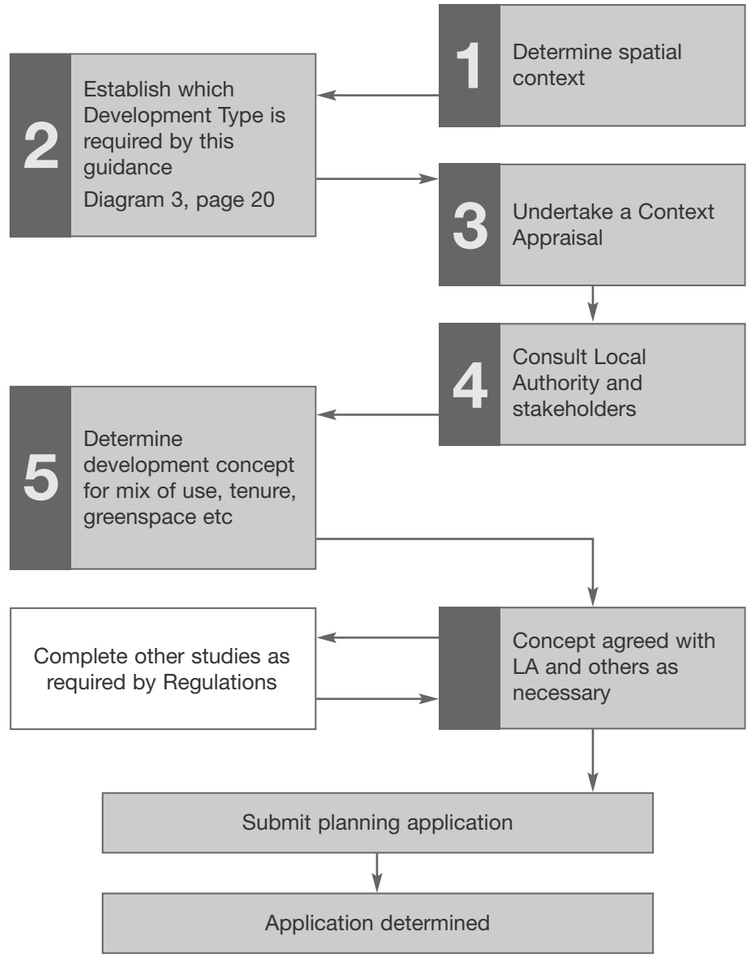
The next stage is to undertake a Context Appraisal (**3**) which should be a collaborative process undertaken in co-operation with the local authority and a variety of agencies (**4**). Section 4 of the guidance sets out the requirements for this work.

The result of this analysis and discussion will be the determination of an appropriate development concept that responds to the specific context of the site location (**5**). The concept should also draw upon the provisions of Section 5, Influences upon quality and Section 6, Influences upon sustainability and other specific studies that may be required by planning regulations.

Importantly, this work should be 'signed-off by the local planning authority, other agencies and the community prior to the submission of any planning application (**6**).

Following this process is required for either Outline or Full planning applications and is also recommended for the production of site development briefs, development frameworks and area masterplans.

Diagram 1: establishing the development form



Urban context

Introduction

The need to better understand the circumstances and performance of urban areas and the communities that inhabit them tends to increase when densities rise. Often, development is either proposed or occurs without first appreciating the complex dynamics of place and the multitude of interests that exist. Seen in this light, is it any wonder that some higher-density, urban schemes are considered by many to be 'out of context'?

Conversely, developers need to be confident that the assessment of planning applications will be consistent and not respond unreasonably to illegitimate pressures for planning gain. Understanding the reasonable demands of a locality very early on in the planning process is generally regarded as helpful to all. The sections below describe a new approach for undertaking an audit of local context that also is able to capture the nature and extent of these demands.

Higher density development above all, needs to be in the right location. There is little point promoting compact development in places that are remote from local jobs, services and public transport. Indeed, it is positively harmful to the sustainability of the environment to do so. Therefore conversely, it is important to concentrate new jobs and housing close to the centre of urban areas and neighbourhoods so that it is possible to reduce our dependency on the car. There are of course, a raft of additional reasons why this makes sense and these are explained in Section 6 Influences upon sustainability (page 106). This Guide therefore establishes rules for determining the minimum density and nature of new urban development.

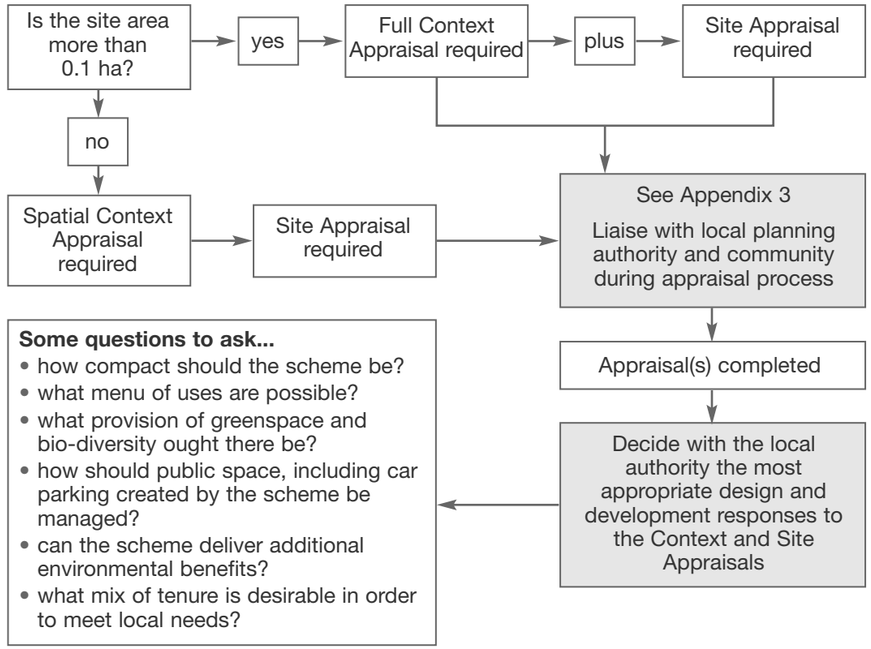
The objective in using this guidance is to follow a process that leads to greater appreciation of needs, aspirations and opportunities that exist with the local context. We call this process a **Context Appraisal**. The exercise will inevitably suggest a suitable range of uses, housing tenure and greenspace needs and should be used as a baseline to inform the right development approach for a site from which to begin initial design work.

It should be undertaken **prior to** the commencement of the design process and would usefully facilitate initial, pre-application discussions with the local authority and the community. It is not a substitute for a masterplan or a site development brief but will contain valuable information that will help the production of either.

Much of the information necessary to complete this work is readily available from local authorities, agencies, health providers although rarely has it been presented as a complete picture of local context.

The requirement for a full Context Appraisal does not apply to sites of less than 0.1 hectare in area. It is considered unreasonable to expect a thorough audit of local need and opportunity when a site will be largely incapable of responding to many of the findings. Nevertheless, a partial appraisal will be necessary (see Diagram 2).

Diagram 2: establishing the requirement for a context appraisal



Spatial Context

Urban areas are invariably most compact, intensive and tall at their centre. This is usually a consequence of land value determining economy and diversity in the deployment of space. Older centres tend to be more diverse and newer centres, less so. Both will contain shops, employment and services in addition to a transport interchange within the larger towns.

The outward spread of urban areas and particularly those parts developed since the 18th century, have created neighbourhoods that also have a centre that mostly coincides with something of transportation significance such as a road junction or an interchange. Whilst these neighbourhood centres are less compact, intensive and tall than the urban centre, they nevertheless have these qualities relative to their immediate surroundings and as such, often contain a few shops serving local needs, some workspace and community buildings. It is here, at either the town centre or neighbourhood centre that development should be most dense and diverse, marking out their economic and symbolic importance.

Importantly, the traditional neighbourhood is nearly always laid out on the basis of convenient, pedestrian accessibility with the edge rarely being more than a 5 minute walk away. Usually, neighbourhoods link up along established transport corridors to form a chain of urbanity that increases in density towards the centre of each neighbourhood. Preserving and reinforcing this hierarchy of density is **the** fundamental bedrock of the Guide. **(Image 1)**

Elsewhere, the relative compactness or dispersal of a town depends upon many factors but locations beyond these centres will almost certainly be recognisably less ‘central’ than the centre itself. Newly imposed, high densities in these areas would invariably be out of context with their surroundings. Therefore within the hinterland beyond the centres there will be a presumption against high densities unless a site is very well served by public transport. In these situations the site must be within 400m of a strategic bus route. **(Image 2)**

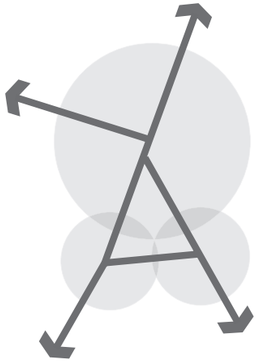


Image 1

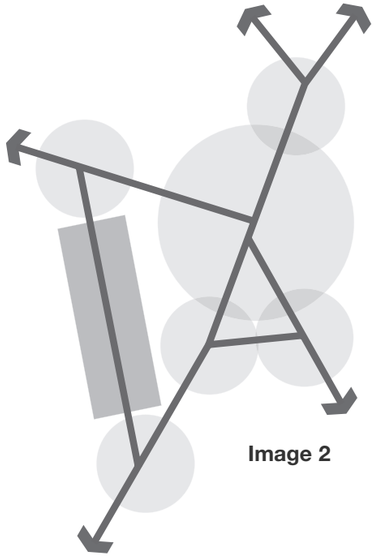


Image 2

1. Neighbourhoods and urban centre
2. Transport corridor

In using this Guide the definition of the Spatial Context for compact, urban development can be summarised as:

Urban Centre which is likely to have the following characteristics:

- Transport interchange
- Walkability 800m (10 mins) for large centre, 400m for small centre (town with population less than 35,000)
- Transport interchange and traffic management
- Range of shops
- Range of services
- Range of employment opportunities
- Building heights occasionally greater than 4–5 storeys

Neighbourhood which is likely to have the following characteristics:

- Strategic transport route
- Walkability 400m (5 mins)
- Range of shops
- Some services
- Some employment
- Building heights rarely more than 3–4 storeys

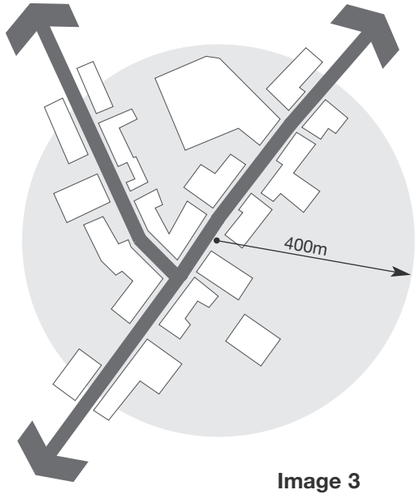


Image 3
Neighbourhood (400m radius)

Transport Corridor which is likely to have the following characteristics:

- Bus route with an existing 15 minute service frequency at peak hours
- Connects one radial street to another and is likely to be a County Road
- Mainly residential buildings

Regeneration Area which is likely to have the following characteristics:

- Policy recognition within Local Development Framework (LDF)
- Brownfield land/buildings in need of repair
- Non-residential buildings
- Loss of some services/facilities
- Higher levels of community deprivation
- Neglected environment/contamination
- Complex, commercial economy

Sustainable Urban Extension (at least 50 hectares) which is currently likely to have the following characteristics:

- Greenfield and occasionally, brownfield
- Adjacent to suburbia/urban edge
- Lack of strong urban character
- Landscape-dominant
- Poorly served by public transport
- Few urban facilities
- Inaccessible/remote

It is possible that an urban extension of 50ha. could contain around 2,000 homes, green space, community uses and 100,000sq m commercial space all within a fabric no higher than 4 storeys.

Large Urban Infill (at least 50ha)

- Surrounding built context, existing urban character
- Probably brownfield and redundant institutional or industrial use
- Probably biologically diverse
- Existing buildings on site; possible re-use
- Few urban facilities
- Reasonably close to public transport routes

Small Urban Infill (0.1ha or less)

- Strong built context, existing urban character
- Strong site constraints
- Probably brownfield or redundant land

Before proceeding, these definitions of spatial context need to be compared against a site proposed for development and that the applicability of this definition is agreed in writing with the local planning authority at the start of the Context Appraisal process. This is important as the permitted minimum density and development characteristics are established by this method.

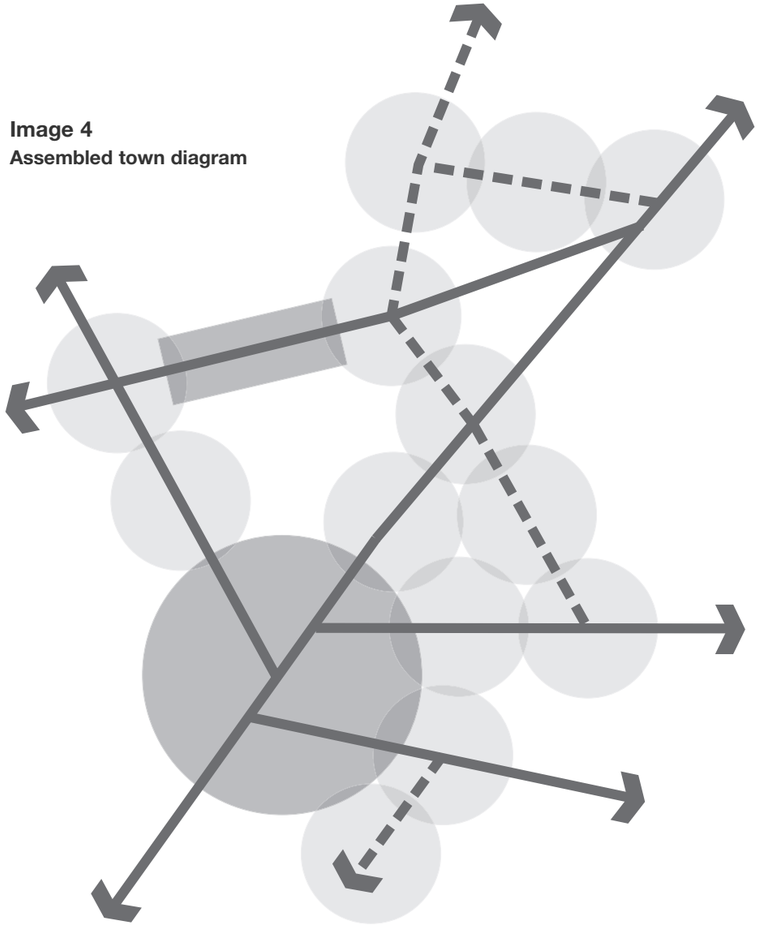


Image 4
Assembled town diagram

Diagram 3: establishing the appropriate density

Built Form Context

The Essex Design Guide (2005) will continue to be the primary source of design advice for residential development within the County. Its impact since publication cannot be over-stated and it has successfully defended the Essex building tradition against bland, inconsiderate design. However, its provisions on architecture and built form do not always translate well for higher density environments and taller buildings. Nor indeed, do they always fit comfortably with the specific circumstances of our Victorian, seaside towns and of our New Towns. These places, and places like them, have a distinct character of their own that is as important to them as our vernacular tradition is to our Market Towns.

It is essential to start with a demonstrable appreciation of this built-form context. This can be collated quite simply from an assemblage of photographs, sketches and map extracts with unambiguous, explanatory text. It is important to examine not only the unit of sustainability the site falls within i.e. Urban Centre, Neighbourhood Centre etc, but also the general nature of the urban area as a whole.

Image 5
Context analysis: Brook Street, Colchester. Stanley-Bragg Architects

In most situations, the general character of an area could be identified and represented on 6–10 sides of A4. More sophisticated analyses may include the recording of a wider variety of visual and other sensory cues that combine to provide the designer with a rich resource for interpretation.

Of course, the vast majority of urban areas have been subject to change over time. They often comprise of a mix of building style, form, height and materials. In very historic centres, these differences may be quite subtle but highly unified urban areas are rare and most are generally diverse. Their evolution gives them the character they have today – not all of this is good, however.

Negative effects can occur when a development has been imposed that breaks too many urban design rules on one site. It is perfectly possible for instance, to place a modern, glass structure between buildings designed in a local, traditional idiom of brick and render if it mirrors the height, proportional arrangement and plot size of its neighbours – if it is 'well-mannered'. Aesthetic tensions invariably occur when this rule of thumb is broken.

When undertaking audits of built form one should therefore be mindful of those situations where buildings are clearly uncomfortable within their surroundings and where it is unwise to follow their precedent. There are of course, always exceptions but they need to be approached with extreme care.

Individual buildings (and where the local character is indeterminate) can be inventive and challenging provided they are well designed. They may be intentionally designed to stand out amongst their neighbours to become a new landmark or they may incorporate materials in an innovative way. **(Image 6)**

However, buildings that incorporate features that assert themselves as becoming new 'landmarks' are often misplaced. They are rarely necessary for navigation around a built environment and, more often than not, are added on the whim of the designer. Used intelligently, landmarks have an important role in establishing a sense of legibility and drama for an area but this always needs to be informed by a rigorous understanding of the surroundings, existing way marking and the relative importance of the building.

Whatever the circumstances and the design approach, the starting point is a review and analysis of the local, built form context.

Image 6

Individual building in an area of indeterminate character
APU Chelmsford, Ashcroft Building

Functional Context

Uses fill space and it is the nature of this relationship that largely determines the vitality and health of urban areas. Whereas planning policy over the last 50 years has had the effect of increasing the separation of functions, our present day objectives for sustainability require us to bring them together. The typical, historic town once supported a wide variety of activities within buildings, streets and public spaces and it was these functions that attracted people to live in an urban dwelling rather than in the countryside. Of course, the nature of towns has evolved markedly and continues to do so but the current trend in Essex is towards the continued impoverishment of urban life.

This guide requires the reinvention of the sustainable, urban form as a unit of liveability. Propagating existing areas with new uses and spaces that are needed or in demand through sensitive urban planning will improve economic and social conditions and repair some of the previous damage done. Most of the Development Scenarios described in Section 7 require new development to bring forward a mixture of uses to assist with this urban renaissance but the Context Appraisal process recognises that variety of use cannot be achieved or sustained simply by prescription.

Image 7

Active public spaces create vibrant urban areas

Understanding the current provision and disposition of uses within buildings and space is an essential prerequisite of planning for its improvement. The Appraisal therefore needs to include an audit of uses within the unit of sustainability the site falls within i.e. Urban Centre, Neighbourhood etc. The survey should identify specific uses rather than just Use Class (T&C Planning Act Use Classes Order 1987) and could usefully be presented as a map with catalogued index. At least two things will become apparent upon completion of this record:

Firstly, it will be possible to identify the commercial 'centres of gravity' within the surroundings and make reasonable assumptions on the intensity of the movement network in proximity to those uses and the routes people take to get there. This will help with the design of site layout in that it will suggest where people are likely to want to get to on a reasonably frequent basis.

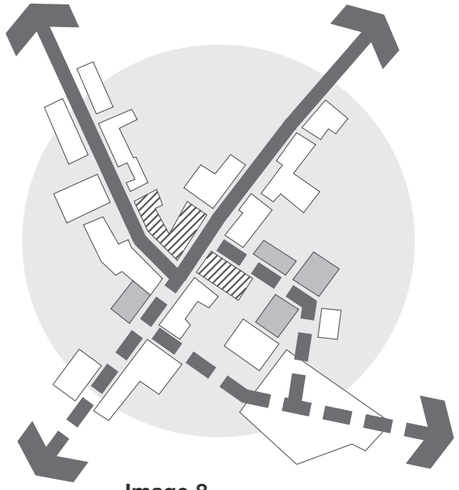


Image 8
Commercial centres of gravity/uses/movement

Secondly, it will provide evidence for what is there and hints to what is missing. For instance, it will show current provision of green space, sports fields and playgrounds making it possible to either plan for making good deficiencies or to counter claims that there is insufficient.

Additional information that is required from this spatial mapping includes areas vulnerable to flooding, bio-diversity structure of the area (a bio-diversity survey of greater detail will be required as part of the Site Appraisal), location of health facilities and the present location and intensity of the movement network. A complete list of required data is contained on page 170.

Although not essential, developers may also find it useful to broadly map property and rental values expressed per square foot or metre.

Operational Context

Recording the existence of infrastructure and facilities tells us little by itself. Importantly, it is necessary to understand how they are used and their capacity to accommodate further demands. Some aspects of an area's operational context require evaluation by the planning application process already, such as transport assessments – others do not. But it is important in the pursuit of sustainable communities that a broader and more methodical approach is taken that captures a better understanding of how an area operates, how much stress it is under and how much potential there is for growth before further investment is required.

This part of the Appraisal needs to examine a selection of the most critical aspects of the operational context of a locality including, public space management (squares, streets and spaces), car parking management, the availability of school and pre-school places, vacancy of floorspace and the capacity of GP surgeries.

Community Context

Creating or maintaining buildings or spaces that are unused (or substantially underused) is pointless and wasteful. Yet there exists in many urban areas a vast resource of such space that is either in the wrong location, of the wrong type or simply under-valued and ignored. The community either does not or cannot envisage a use for such spaces.

But experience has taught us that communities sometimes need guidance in unearthing this potential or in realising the futility of hanging onto space

that is never going to contribute to the life and vitality of their locality. This part of the Context Appraisal seeks to do two things. Firstly, to determine the reasonable and realisable needs and demands for space that exists within an area. Secondly, to associate these demands with the known existence of vacant or under-used space and the potential for creating new space.

Some aspects of this work will be quite straightforward, such as undertaking an audit of housing demand for tenure and type and establishing the capital investment plans of organisations, such as the local Primary Care Trust or Education Authority who may have space needs that are ideally met within a particular locality or place on a street. Other information, such as the demands for specific types of workspace and determining how much of this could or should be provided within the local area, will need careful analysis. It is in the interest of creating sustainable communities to bring demands such as these together in determining the manner in which new development or investment can either accommodate this space or be a vehicle for provision (such as through the use of planning obligation payments).

Of course, the existing residential and business community will have ideas and information of their own and the early collaboration between developer and people living and working in the area will be worthwhile. They may be especially interested in ways to improve environmental black-spots, increasing the provision of children's playspace or reducing crime and anti-social behaviour. Participating in the Context Appraisal enables them to better understand the sometimes competing demands from the various interest groups and therefore better able to agree the priorities.

Completion of the Appraisal enables the design process to begin capturing the intelligence, data and local opinion that will help to shape the character and nature of the development. Usefully, the completed Appraisal can also be used as supporting information for the planning application and a sound rationale for the decision that follows.

Copyright

Context Appraisals will be substantial and important pieces of analysis that draw upon information gathered from a variety of sources. They will be invaluable to many organisations, enabling them to understand with greater clarity the state of urban locations and actions that need to be taken for their improvement and enhanced sustainability.

It would be unhelpful to hold copyright on the completed work which in itself may place limitations on the extent of involvement of individuals and organisations.

It is inevitable that as propositions for development come forward within a location and Appraisals are completed, an overlapping picture will emerge of that place. They will work best through their transfer between sites, passing on evidence and data that is relevant and supplemented by review and updating as necessary. Over time, a comprehensive and complete picture will emerge. They will then become a substantial and important platform for monitoring and assessment of urban conditions that will enable better planning and investment decisions to be taken.

Site Analysis

The Essex Design Guide requires Site Appraisals to be undertaken as part of planning applications. This is in order to demonstrate a clear understanding of a site and its constraints. There is no substitute for this and these appraisals will continue to be required for every development. They need not be lengthy pieces of work but may well identify aspects of particular interest or concern that justifies further analysis. The discovery of a minor watercourse for example, may prompt an assessment of the viability of a sustainable drainage system
that is linked into the adjacent natural and built environments.

Further information on what a Site Analysis should contain can be found within the EDG and on the Essex Design Initiative web site (www.essexcc.gov.uk/edi).

Image 9

New schools as part of sustainable development infrastructure: Chancellor Park Primary School, Chelmsford

Planning Obligation Agreements

Even though the process is a precursor to design, the completed Appraisal will be able to identify elements that should feature in any future planning application, such as additional workspace or a nursery. The most achievable and important elements will be included, agreed by the stakeholders.

Mitigation of the impact of development may fall outside of these initial decisions but would include elements such as payments to increase the frequency of a local bus, highway improvements beyond the site or financial contributions for education infrastructure. The planning application will refine the necessary obligations for some aspects such as provision of affordable housing but the Context Appraisal should have determined priorities beforehand.

It is possible that, with this platform of agreement on both the concept of a development for a site and the substantive areas where planning obligations will be needed, the process of drafting associated, legal agreements could begin. Refined up to the point of determination of the planning application, the Agreement could be available to sign shortly afterwards with a useful avoidance of delay.

Essex County Council are shortly to launch on behalf of the Essex Planning Officers Association, a consultation draft on S106 as it relates to functions and services that are the responsibility of ECC and the results of this work will help inform future Context Appraisals.

Context Appraisal Methodology

Context Appraisal Methodology
(see Appendix 3 – Context Checklist)

Factors that need to be considered in this step-by-step, appraisal process are:

Step 1

spatial context:

Determine where the proposed development site falls within the spatial context of the town. Urban Centres for all the major conurbations in Essex have been plotted and are available on the ECC website (see Appendix 4). Information on how to identify other spatial scenarios can be found on page 20.

- Proximity to urban centre (within 800m of centre point)
- Proximity to neighbourhood centre (within 400m of centre point)
- Proximity to public transport corridor (400m of bus route)
- Sustainable urban extension
- Sustainable urban infill
- Small urban infill
- None of the above

Now go to Appendix 5 for a summary of specific design requirements for each spatial scenario.

Step 2

built-form context:

Undertake a physical and desktop survey of the ‘unit of sustainability’ the site falls within. For urban centres, the Context Appraisal will cover a wide area for it is the dynamics of the centre as a whole that will influence sites within these very central locations. As a minimum, the survey should report on:

- Broad, historical morphology
- Street pattern and spaces
- Building heights, styles and distinctive features
- Materials
- Landmarks (of varying significance)

Step 3

functional context:

Identifying opportunities for diversification

Location and arrangement of different uses and assets within the area

A comprehensive audit of urban diversity will be used to help identify gaps in provision. Most of the information required will be gathered by a combination of field and desktop surveys. Further data and opinion to assist with the audit is available from various local authority and agency sources and these are provided as a checklist in Appendix 3. A number of web links have been provided in Appendix 4 and these are kept up to date on the ECC web site.

Step 4

operational context:

Management and stewardship of locality

The manner in which areas are maintained and managed has a direct bearing upon their success. One might expect the most successful places to be both well managed and to have only a limited amount of accommodation available.

The survey should capture both current arrangements and capacity and any proposals that may alter this picture. In undertaking the work, it will be helpful to note the relative quality or effectiveness of these arrangements as these will undoubtedly be issues of interest within the community and likely to be raised by them at the next stage.

Step 5

community context:

Needs and aspirations

The final step is to consider the drivers for investment. This should be a comprehensive assessment of potential end uses and not limited to commercial opportunities alone. The appraisal may also reveal investment propositions from service providers that can be built into the design of the scheme, such as accommodating a new children's centre, a GP surgery or a community meeting space.

Part of the Context appraisal for a site in Colchester, showing local transport links, public open space and shopping areas. Stanley-Bragg Architects

Influences upon quality

Introduction

In describing the very best urban environments it is impossible to disassociate the quality of architecture with the quality of space and functionality. These places work not only because they stimulate and delight the senses but also because they are fit for purpose. They invariably accommodate change without major adaptation that gives them a lasting quality that we often admire.

Conversely, neglect, abandonment and renewal is both environmentally unsustainable and damaging to civic pride.

This guidance promotes the belief that the quality of the public realm is paramount and that the architecture should be informed by the local context and civic aspiration and all things should be built to last. This requires a concentration of effort on those aspects of the environment that are our legacy to future generations and a fundamental shift in our thinking to help bring this about. House-builders need to become place-makers and Planners, Engineers and Architects should be visionaries.

Design quality is also synonymous with a safe environment and habitation that can easily be adapted if the circumstances of occupants change. It means that design solutions for a site have cognisance of the street, the neighbourhood and the town and that the needs of each are always taken into account.

Good design is reliant upon a number of simple, physical and operational principles. Many of these are expressed in the Essex Design Guide (1997) but their interpretation and the adopted guidance is most relevant to developments of low to medium site density. Where appropriate, these design principles have been reinterpreted in this Supplement so that they are applicable for more compact urban environments. Further, detailed guidance on design quality can be found in other publications and links to recommended references are included on page 174.

This Supplement introduces a change in the way we assess schemes for design quality. The previous emphasis upon the amenity of individual dwellings has been subjugated by a more overwhelming requirement for environmental geniality and sustainability. The guidance introduces new priorities for place-making that is now dependent upon creating more substantial, high quality spaces for communal enjoyment. Its purpose is to put the fabric in place to allow for a more sociable, urban environment within the context of compact, mixed communities.

All urban development shall be planned and designed by professional architects working alongside urban designers, landscape architects, ecologists, engineers, surveyors and community workers.

The process of collaborative design where these project teams engage with agencies and the community is a vital part of achieving quality. The least satisfactory developments occur when this approach is not followed.

Urban Grain

In most towns, the pattern of streets and paths (how people move between places) has evolved over a very long period of time. Even for newer urban areas in Essex that are perhaps as little as 50 years old, the layout of routes and public space and the disposition of uses was conceived for the convenience and accessibility of the pedestrian.

Re-development and road-building has invariably altered this pattern to the point that some places are now severed from their surroundings, commercial and service uses placed away from where people live and the quality of public space compromised by the need to accommodate the car. This has altered what may have been a fine-grained pattern of streets and paths into a coarse-grained pattern. **(Images 10–10a overleaf)**

Despite these changes, the urban grain is likely to be (and needs to be) finest near the centre of a town or neighbourhood. This is where the greatest intensity of movement occurs and thus, where the richest pattern of uses can usually be found. Away from the commercial heart of the town or neighbourhood the grain can be coarser, which reflects the less intense demands on movement and agglomeration.

It is vital that new, more compact development occurs in such a way that its introduction does not alter the fine, urban grain of these central locations and in these areas new development should be designed to imitate the existing pattern. As a minimum, the main streets should be connected to their hinterland by side streets that occur every 100–120m. More frequent connections are often desirable and should be accommodated if at all possible. **(Image 11)**

In those rare circumstances where a town centre or neighbourhood environment is coarse-grained (either by original design or because of alteration), new development that is built in accordance with the guidance within this Supplement will introduce a finer pattern that produces enhanced, environmental sustainability.

The over-riding objective in designing new patterns of movement is to create a **connected grid**. This can have either a regular or a deformed shape but importantly, each end of a street or path must be connected to others. Systems that lead nowhere else will not be permitted.

For large infill sites or urban extensions with an area of at least 50 hectares there is the opportunity to create a cohesive yet varied urban pattern across the new neighbourhood. It may be considered desirable for instance, to develop a fine-grain, orthogonal grid close to the centre and a less formal, deformed grid towards the edge. However, influences on the structure of the development may depend on factors such as the existing landscape character and site topography (see Essex Design Guide). **(Image 12)**

Movement

A well connected urban environment which has convenient and integrated routes for pedestrians, cyclists, cars and public transport will be more able to support a range of viable travel options. The car is likely to be used less often if the journey to the local shops or school is direct, safe and attractive and the streets well maintained. Whilst dependent upon a range of supporting factors, it is desirable to design new developments in such a way that reduces demand for road space and realistically provides the community with more choice.

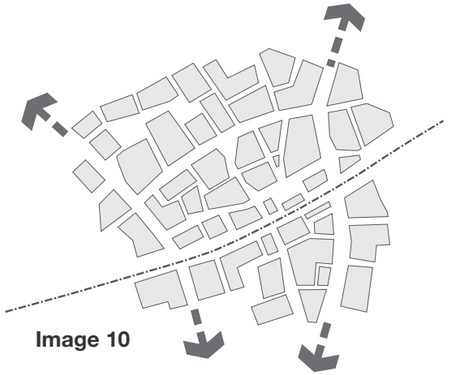


Image 10

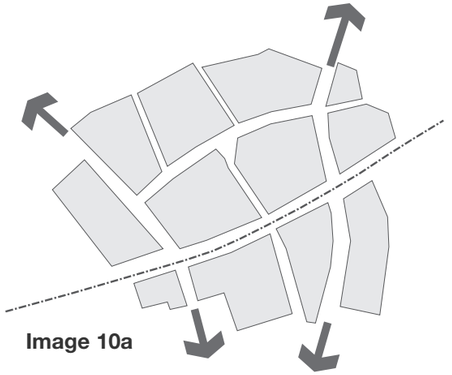


Image 10a

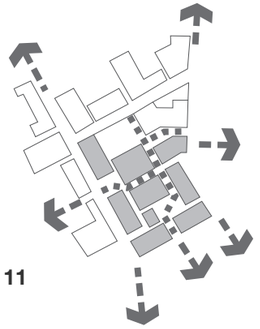


Image 11

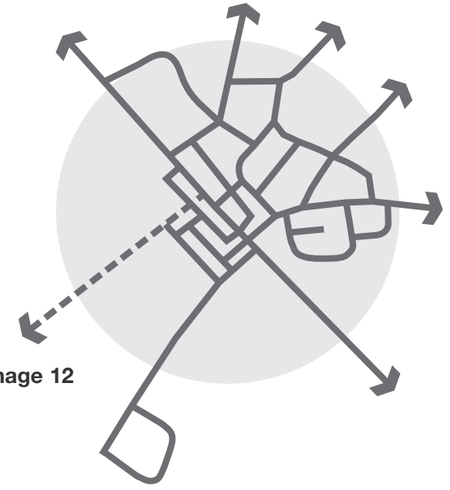


Image 12

10. Fine-grain street pattern

10a. Coarse-grain street pattern

11. New development extending an existing fine-grain street pattern

12. Connected grid

A fine pattern of connected urban streets and spaces produces a variety of benefits:

- Travel distance between origin and destination for local journeys is minimised
- It can encourage the establishment of mixed-use
- It can create a more sociable and safer public realm

An analysis of existing movement patterns, attractors and future development sites will determine approximate desire lines and will identify the potential to improve existing routes and to create new ones. A more rigorous prediction of traffic behaviour within the network arising from any development may be required by the Highway Authority who will make this requirement known at an early stage. Similarly, it is possible to accurately predict pedestrian behaviour using a spatial syntax model, making it possible to design the alignment and shape of the public realm to ensure maximum flows are captured along preferred routes.

Off-street footpaths must be designed to maximise personal safety with adequate lighting together with surveillance from surrounding buildings.

The proposed movement network should not include the use of subways. Surface level crossings and bridges are the only acceptable design alternatives.

Uses

Urban development must enable mixed-use to take hold and to flourish if the circumstances are right. Much depends upon detailed design but location on an accessible street network is critical. Mixing uses can create a diversity of activity within the streets and contribute to the vitality and sustainability of towns and neighbourhoods by providing employment and leisure opportunities as well as services to the local area. Higher density developments located either close to existing services and facilities or on a public transport corridor should support other uses within the building and street blocks.

The extent and range of uses will depend on the needs and demands identified in the Context Appraisal together with District Council regeneration strategies or employment policies. In this regard, the Context Appraisal will add local detail to these policies and identify the opportunities for bringing about new employment, community space and service infrastructure.

Image 13

Retail units, restaurant and offices make the Fulham Island Scheme a successful mixed-use development: see case studies

Major Streets

Notwithstanding the above, at least 50% of the ground floor frontage of development facing the following streets should be allocated for non-residential uses:

- Type 1 Local Distributors
- Type 2 Link Roads
- Existing and new Main Streets (Type 2a)

The type of uses and block design will need careful consideration to minimise the possibility of conflict between uses with satisfactory access arrangements, noise generation and safety issues addressed (see pages 74 and 92).

All new development within a Town-centre, Neighbourhood centre, a Regeneration Area, a Large Urban Infill or a Sustainable Urban Extension will be required to comprise a mixture of uses that are identified by the Context Appraisal as desirable and viable. Elsewhere, the degree to which a location can support non-residential uses will be informed solely by the outcome of the Context Appraisal for specific sites and its proximity to a major street, as defined above.

Public Space

The success and popularity of urban environments relies strongly upon the design and quality of public space. Streets, parks and squares and the relationship of buildings to these dictate the overwhelming character and identity of places – much more than the architecture and detailing of the built form.

The best urban places occur when public space is attractive, inviting, safe and well-maintained. It makes provision for the complex needs of the residential and business community and provides a satisfactory balance between competing interests. A new requirement in this guidance is that public space should also be designed to accommodate bio-diversity.

It is therefore important to move away from considering this matrix of space as separate, functional areas and instead, think of the public realm as one, shared environment. This necessitates a change in the way these places are designed, illustrated and built, for example:

Streets – comprise highway space, meeting space, commercial space, green space, routes for utility and recycling infrastructure and play space. They can also be managed and maintained by a wide variety of organisations.

Green Space – comprise of places for sport, socialising, exercise, playing, nature, water management, cultural activities and entertainment.

The space and activities within an area also connect with the surroundings to be part of a wider, urban system. Its sustainability is dependent upon the whole.

Understanding these local and global spatial and operational relationships is essential and the Context Appraisal methodology is a convenient platform from which to discuss the needs and opportunities for good, collaborative design. **Evidence that this has occurred should be submitted with any future planning application for site development.**

The Context Appraisal process makes it unnecessary to require an arbitrary amount of green space for every home or for every development. The context of a small site adjacent to a main line railway station is quite different from that of a larger site on the edge of a neighbourhood or one close to a public park. The requirement is to provide green space that meets the needs of the new community and contributes to the improvement of the surrounding facilities. So if there is ample green space

already within the vicinity of the site the expectation would be that no additional provision need necessarily be made. However, where green space is provided it must be of a very high quality and meet the design criteria below:

Essential criteria for all public spaces

Part of a wider network, connected internally and to surroundings

Overlooked by building frontages

Well-maintained (see page 59 management and maintenance)

Accessible for all

Biotically diverse

Varied character and functionality, to meet needs

Challenging and cultural

Every development is required to make a positive contribution to the public space system through the provision of quality streets, green space or both tested against the criteria above. **(Image 16)**

Local authorities are required to produce Green Space Strategies and these will provide information on the wider green space provision and needs within an administrative area. However, the strategies are unlikely to include all public space such as urban squares and landscaped streets.

Image 16

Green space network for Chelmsford, Essex
New development should attempt to create a continuous network

Components of urban public space

Streets – the space enclosed by the fronts of buildings.

Squares – visually static spaces suitable for sitting and socialising.

Pocket Parks – small spaces within the urban block structure.

Recreation Grounds – usually a legacy of earlier, open space planning. Provision made for sport.

Open Space – informal recreation. Landscape dominant.

Parks – formal landscape but possibly with open spaces and sports facilities. Provision for a variety of functions, depending on size.

The local public space system will need to be mapped at a neighbourhood level within the Context Appraisal. In discussion with the local authority, the need for additional green space, its type and location, can be set against the baseline green assets previously identified. Every urban development will provide or contribute to public space and bio-diversity and most will incorporate green space as well, linked as best it can to the surrounding system.

Pocket parks for instance, can be very small spaces, knitted into the built fabric of a town, that provide places for sitting and socialising. They are usually too small for ball games but may include public art installations and be predominantly hard-paved. Small areas of grass can be difficult to maintain and should therefore be avoided.

Pocket parks can be established in small, urban gaps that may be awaiting development, thereby providing temporary improvement to the appearance of an area.

Image 19

Image 20

Image 21

19. A Pocket Park incorporating play space, USA

20. Large area of public open space on the fringe of the development, Malmo, Sweden

21. Play streets, Germany

22. New mixed-activity urban square

Image 22

Quality of public space

Nowhere is the quality of the living environment more important than in our urban areas. It is here that the competition for space is fiercest and the density of population and their demands, the greatest. In addition to the technical requirements on the space that enable the urban area to function, we also require public space to be attractive, safe and well-maintained. Achieving this requires considerable resource and co-ordination and the best places are a demonstration of commitment and civic pride. **(Image 23)**

The quality of public space relies on a number of factors:

- Scale
- Enclosure
- Materials
- Detailing
- Continuity
- Workmanship
- Microclimate
- Adoption, management and maintenance
- Public art
- Security and safety (see page 89)

It is important to recognise that quality can only be achieved by adopting the same co-ordinated approach to design and detailing within the public realm as that required for the design of the enclosing buildings. All public space must be designed to be accessible. Schemes which rely upon segregated provision for less mobile members of the community will not be acceptable. **(Image 24)**

Designing new spaces within a development provides a special opportunity to combine a consideration of these elements with a close attention to detail. Pages 21–26 of the Essex Design Guide offer some advice on how this can be done but is supplemented here with additional notes that are of particular relevance to a more urban environment.

Image 23

Public space with a high standard of design, materials and maintenance, Spain

Image 24

Wheelchair and pushchair ramp incorporated with steps, Birmingham

This supplement introduces two new, approved street types for Essex (see page 62):

The designs of these have been developed to take account of the specific needs of an environment where a variety of scales of space are necessary to accommodate a more demanding set of urban, performance criteria. The Mixed-Use Street allows for parking, servicing and landscaping for those places at the heart of a neighbourhood or a large development where residential, commercial and service uses interface. The Play Street introduces the possibility of creating very safe and neighbourly spaces that are a step or two away from the main traffic routes within the spatial system and where homes are the principal land use.

These new street types are illustrated and described in Appendix 6.

Scale

Understanding the power of scale within an urban context is vital. It can be used to create a sense of drama or visual intimacy or it can reflect the functional or symbolic importance of a place. It can be almost imperceptible or it can be striking and it is these contrasts that help to define the character of a town.

Generally, the scale of a space ought to reflect its importance in relation to the town as a whole. Large-scale, enclosed spaces must have a substantial civic meaning for them to make sense and it is unlikely that many towns in Essex will have more than one in its centre. More common, is the hierarchy of smaller-scale spaces that make up the spatial system but even here, the same rule on symbolic importance applies. A mixed-use street for example, needs to be wider and scaled to its functional, commercial role. The space is scaled to accommodate a greater robustness for user demands as are the enclosing buildings. **(Image 25)**

Conversely, the scale of residential streets ought to mirror their place, within the hierarchy, on the spatial system. However, it is important to ensure that these spaces are able to function without undue conflict or inconvenience arising between users, such as enabling convenient access by service vehicles.

Image 25
Café life enhances street vitality, Islington

Enclosure

The pedestrian scaled environment described in the Essex Design Guide relies upon achieving, in part, a degree of spatial enclosure that feels comfortable. It suggests that a relationship of where the width is equal to or less than the height of the enclosing buildings is ideal. In practice, this is difficult to achieve for lower density development but is relatively straightforward as density and building height increases. Higher density therefore offers the potential to design spaces that are more dynamic and visually captivating than in the suburbs.

The enclosure and width of spaces will of course vary according to function and the proposals in this guidance for new street types (page 62) and car parking (page 74) provide the designer with a great deal of flexibility. For instance, it is possible to combine a 14m wide street (measured between building frontages) with on-street parking with 6m wide carriageway and 2m wide pavements to each side. The height to width relationship in this situation for a street containing 4 storey buildings would be 1:1 (see Essex Design Guide 2005).

Image 26a

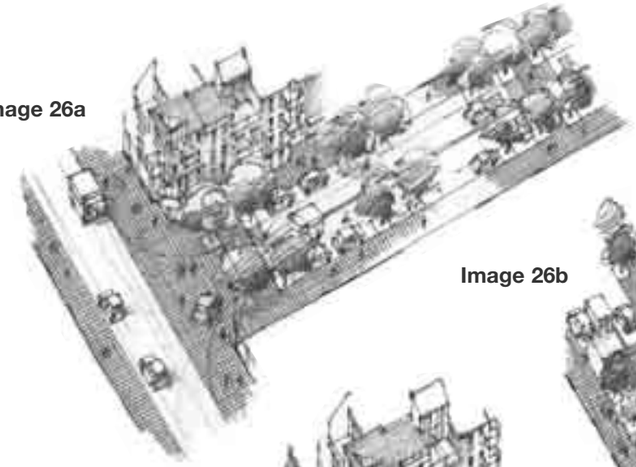


Image 26b

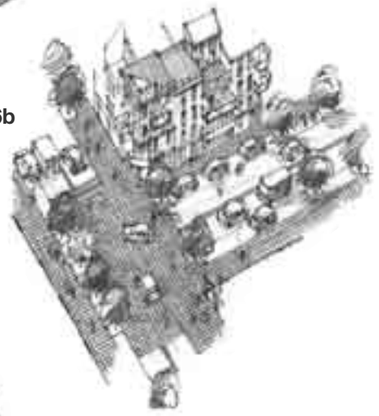
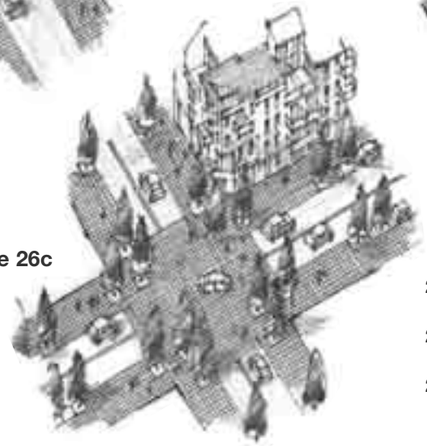


Image 26c



26a. T Junction – mixed-use street into local distributor – Type 1

26b. T Junction – mixed-use street into mixed-use street

26c. Cross roads – mixed-use streets

Very narrow pedestrian spaces that link more important routes could add particular drama to the urban environment but the design of these will need to take account of the need for fire tender access.

Materials

As a general rule the quality of the design of public space is more important than the quality of the materials used. A well designed scheme would not be compromised by the employment of simple, inexpensive materials but a poor scheme would not be lifted by the use of expensive ones. It is therefore more cost-effective to engage competent design teams for public space than to rely upon the specification of elaborate paving.

Hard landscaping materials need to be aesthetically pleasing, reliable, have good weathering properties and easily maintained but imaginatively applied to make places attractive, and detailed so that the surfaces are not easily damaged or discoloured. Different surface materials can be used to subdivide large areas of hard surfacing to create different spatial effects and define routes or areas of different use. However, incidental changes in material or colour to identify land ownership or responsibility for maintenance will not be acceptable.

Generally, the highest quality materials should be reserved for those locations of special significance. For instance, urban or neighbourhood centres and squares which are designed to attract people in numbers should 'show-off' their civic importance through the use of more expensive materials. Elsewhere, a limited and subtle palette of materials, sizes, shades and textures should be used to act as a backdrop to street activity and architecture.

Image 27

Historically, the best paving was always to be found within the most important spaces and outside the most important buildings such as the Town Hall, the bank and the Magistrates Court. Montpellier, France

Paving hierarchy

context	use	units	materials
Urban Centre Neighbourhood Centre (Main street + squares off + side streets to first junction) Type 2a Mixed-Use street	Footways Verge/parking Tree pits Kerbs Carriageway	Flag paving Blocks Setts	Stone Clay Bound gravel Steel and iron Asphalt with stone or clay detailing
Type 1 Local Distributor	Kerbs Footways Carriageway		Concrete Asphalt
Type 2 Link Road	Kerbs Footways Carriageway		Concrete Asphalt
Type 3 Feeder Road	Kerbs Footways Carriageway		Concrete Dressed asphalt
Types 4, 5, 6, 7 and 8	Kerbs Footways Carriageway	Blocks Setts	Concrete Dressed asphalt
Play Street	Shared surface Play areas	Blocks Setts	Clay Concrete Stone Bound gravel

Detailing

The quality of the public realm can be seriously let down by poor attention to detailing. Where this occurs it is invariably because there has been a failure to apply some of the prerequisites of good design such as working in close collaboration with other design disciplines and utility companies. It can also be down to inadequate, on-site supervision of contractors. **(Image 28)**

It is preferable to consider potential aspects of detail as an integral part of public space design which will include thinking about:

- Junctions between materials, kerbs and crossings and changes in direction of paving
- Location and orientation of manhole and access covers
- Columns, poles and ground fixings
- Integration of tactile paving
- Tree pits
- Combining and grouping of signs and street furniture
- Location and design of drainage gullies and grilles
- Design of falls
- Road markings

Image 28

Quality materials and design help to create pedestrian friendly junctions Kensington High Street

Image 29

Street junction demarcation with street trees. Note the continuous footway across the junction Copenhagen

Routes for services should be planned early in the design stage so that manholes and access cover locations can be co-ordinated with surface finishes and aligned with block paving. Where alignment is not possible round covers should be used.

Image 30a

Image 30b

30a. Poor finishing: concrete filled recessed manhole covers

30b. Careful construction: cut paving fills recessed covers. An alternative would be to use cast iron

Where legal adoption boundaries need to be marked on the ground only the use of small, metal studs will be acceptable. These studs can be of any non-ferrous metal fixed at 1m centres secured firmly to the surrounding surface. The maintenance of these boundary indicators will be the responsibility of the developer, landowner or management company.

Studs are also the preferred method of introducing a tactile surface in areas of footway with a paving flag finish. In all situations, tactile studs, blocks or paving should be laid out to avoid the introduction of random and ugly patterns.

Image 30c

Image 31

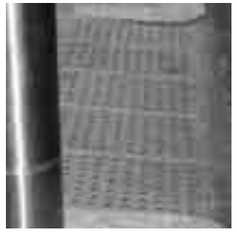


Image 32

Image 33

Image 34

Image 35

Image 36

Image 37

Image 38

30c. Crude utility meter casing on footway

31. Carefully detailed ground fixings

32. Metal studs in place of precast concrete blister units

33. Precast concrete blister units create patchwork footways

34. Benches and other street furniture designed into the scheme

35. Appropriate, well designed drainage gullies

36. Thoughtful detailing helps to integrate existing features

37. Trees can have a high impact in the street

38. Custom designed street furniture could include artist commissions

Continuity

On large sites or in regeneration areas streets may continue through schemes constructed by different developers. In these circumstances it is essential for there to be continuity in design and the use of materials. One way this can be achieved is by adopting design codes for the public realm developed in conjunction with an area master plan. Special consideration should be given to the transition between a new area of public realm and the existing public space network. **(Image 38a)**

Image 38a

What not to do: Plot demarcation by ignoring the existing footway creates disjointed public realm

Workmanship

Good workmanship begins with good design and to be effective it must be carried out through all stages of the project; that is, in the documentation, implementation, site supervision and in the maintenance regime. Also if it is to be finally evident it must be supported by the proper allocation of resources such as the skilled labour, adequate time and a sufficient budget. The care and commitment of all contractors in achieving the highest standards is essential: there is little point establishing a standard of workmanship unless it can be supported by all involved in the process of delivery.

Street Trees

Trees have a vital role in the sustainability of our towns. Species that are appropriate for their location, well planted and maintained can deliver many benefits including shelter, improved air quality, support for wildlife, climate moderation and reduced risk of flooding. They also have the effect of softening and humanising what would otherwise be a hard, urban environment.

Choosing the right tree is vital and the following list has been compiled to suggest trees suitable for specific locations (See also, www.essexcc.gov.uk/edi). These species are generally associated with surviving the sometimes difficult conditions of the urban environment whilst also requiring the minimum of maintenance. The list is not exhaustive and other appropriate species could be considered.

Street trees must have either a suitable root barrier or alternatively, be planted in Amsterdam soil with root deflectors to protect against damage to services, cables and pipes. Barriers are constructed before planting and can incorporate single trees or protect entire tree lined streets. Barriers for single trees are most suitable for planting in existing streets whereas the more flexible system is better suited for new roads and footways. (See EDI website for further information.)

Tree planting should be undertaken by appropriately qualified contractors who understand the technical requirements of pit size, irrigation and staking.

The design of tree guards, grilles/porous gravel should be compatible with the chosen design theme of the space as a whole and submitted for planning permission as part of the public space proposals for any development.

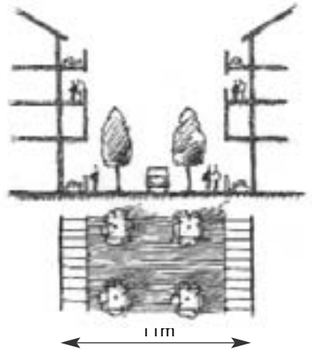


Image 39a

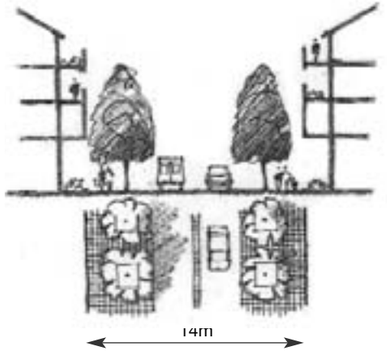


Image 39b

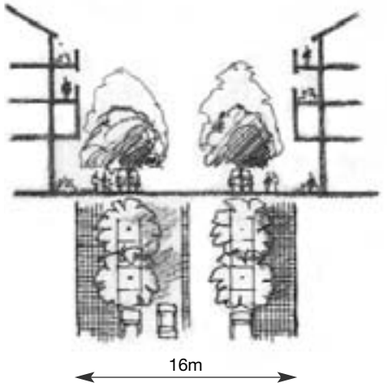


Image 39c

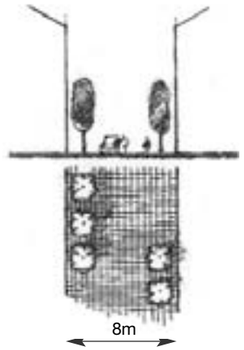


Image 39d

39a. Narrow street/footway: Maple, Birch, Hawthorn, Alder, Pear

39b. Wide street/footway: Oak, London Plane, Rowan, Hornbeam, Dawn Redwood, Ash

39c. Between street parking bays: Maple, Hornbeam, Alder, London Plane

39d. Within close proximity to a building: Maple, Birch, Hawthorn, Alder, Pear

Microclimates

The microclimate refers to the climate of a site or specific location that deviates from the regional climate. Significant climatic differences can exist between two neighbouring areas and small scale variations are the result of local influences that include topography, urban forms, water bodies and vegetation.

Architects should take advantage of favourable microclimate characteristics while mitigating any adverse climatic features. Improvements to poor microclimates can be made by the use of vegetation and areas of open water. These features can be used to encourage cooling, create wind breaks and summer shade. Generally, development proposals need to be designed to enhance local microclimate and planning applications should be able to demonstrate how this is to be achieved.

Image 41

Trees can be used to provide shade from the sun and shelter from wind Montpellier, France

Adoption, management and maintenance

For a long time the public realm has been regarded as the responsibility of local authorities. However, this need not be so and there are an increasing number of examples where special arrangements have been made to entrust the care of the urban environment to special purpose companies, associations and communities. These can have the benefit of being owned or controlled by the users of an area that allows area management to be more responsive to local expectations.

These arrangements are to be encouraged and it will no longer be assumed that highways will be adopted and public space maintained by the local Highway Authority. Whatever arrangement is agreed, public access within the public domain will be an unalterable principle. Gated communities and restricted access to public space at any time will not be contemplated.

Adoption, management and maintenance should be discussed with the Highway Authority at an early stage in the design process so that:

- design specifications for street works can be agreed (but see new, adopted Street Types page 176)
- car parking and commercial vehicle access management arrangements are understood which may necessitate the implementation of a strategy that extends beyond the site itself. Developers will be required to fund any additional controls in the wider environment that are thought to be necessary as a consequence of the development.

Construction standards would need to conform to those required for adoption even if it was decided to dedicate the street as a public highway without adopting it for maintenance purposes. In this case it would have the status of a private street and an advanced payment code (APC) would be required or an exemption issued.(See www.essexcc.gov.uk/edi)

If the Highway Authority agrees to adopt a Play Street it is likely that the adopted area would coincide with the vehicle running track only leaving elements within the street which are the maintenance responsibility of another organisation or company. The demarcation of responsibility should be clearly and legally defined and any demarcation on the ground should be through the use of metal studs.

Further guidance on adoption and maintenance is provided on page 88.

Public art

The pursuit of beauty and sensory stimulation within public space requires the pursuit of public art. Artists are among a number of professionals whose skills can be brought to bear on improving the visual and cultural richness of the environment through a wide variety measures including structural fabric and infrastructure design, landscape and environment management, education and community development.

Image 42

Image 43

42. B of the Bang, Thomas Heatherwick

43. Design for new bridge, Walter Jack

44. Liverpool Theatre photograph – Len Grant

Image 44

The benefit public art brings include:

- making a development distinctive and unique
- increasing building and land values
- positive press and media coverage
- developing good relationships with local people
- improving the environment for staff, tenants and the public
- contributing to the quality and enjoyment of a place

All initiatives in the built environment will benefit from the skills and approach of an artist. These include the identification of local context, opportunities, community collaboration, site appraisals, contributing to design teams, masterplans and other development partnerships.

In every development on sites over 0.1ha the inclusion of artists and artworks will be required and as a guideline it is recommended that 1% of the total development cost (including fees but excluding cost of borrowing) is allocated for art.

To be most effective, artists should be engaged at an early stage in shaping any proposition for development and certainly, in advance of the submission of a planning application. If necessary, the advice of the local authority or Essex County Council should be sought on the process of employing public artists.

Street types

These are the principle components of the urban spatial system. They can be much more than just corridors for movement. They need also to be places where people feel comfortable, safe and enjoy urban living. Demands on their design are complex but not many have received adequate attention beyond the pure functionality of transport and infrastructure.

They should be places that encourage people to be outside. The best streets are designed for public encounter and for business and offer urban users options for recreation, socialising in a pavement café or square or simply for watching other people.

To assist the achievement of a more sustainable and vital, public realm where some or all of these qualities could take root, two new street types have been added to the Essex County Council approved Road Types:

- the Mixed-Use Street
- the Play Street.

Mixed-Use Street – Type 2A

This street type links neighbourhoods in urban areas where commercial or retail use may be mixed with residential and where access may be required for service vehicles over 7.5t to load and unload. This road type may also serve as a bus route. They are designed to be the major street within any urban or neighbourhood centre but can also be used where a development is intended to attract a variety of uses that require more spacious servicing and access arrangements.

The best quality surface materials are reserved for this street.

Variations on the standard street type are possible although differences will need to be discussed with the local highway authority.

Built frontage will be required along the back of the footway. Direct frontage access is allowed to rear parking areas, but egress on to the road must be in forward gear only. 1.5m x 1.5m sight splays are required at egresses and 2.0m x 20m where the egress meets the carriageway.

Image 47
Typical mixed-use street

A carriageway at least 6.5m in width with two footways at least 3.0m in width is required.

Between the footway and the carriageway on either side a zone of maximum width of 2.0m should be incorporated to accommodate car parking, loading bays, bicycle parking or local widening of the footway. Street trees, lighting columns, parking ticket machines and bus shelters should be incorporated within this zone as integrated features of the street design, taking sight line constraints into consideration. Rows of street trees should generally be spaced at a maximum of 13m centres, which would allow two 6m long car parking bays or one 12m loading bay between them. Trees should be set back a minimum of 0.8m from the kerb line.

The design speed is 30kph (20mph). This is to be achieved by raised tables at street junctions, cushions, mini-roundabouts or bends. Road humps should not be used. Speed restraint measures such as cushions and speed tables are required to be located every 60m along the street. As it is likely that side street junctions will occur approximately every 100m, an interim speed restraint measure will be required between these junctions.

This road type may take access from an existing county road, either Type 1 or Type 2. Junctions require a minimum kerb radius of 10.5m. The minimum length of Mixed-Use Street from the junction required to be straight is 22m from the channel of the main road.

Sight lines at junctions need to have a X distance of 2.4m and a Y distance as follows:

Type 1: Y distance required is 90m

Type 2 with a design speed of 30mph: Y distance required is 60m

Other streets with a design speed of less than 20mph: Y distance is 20m.

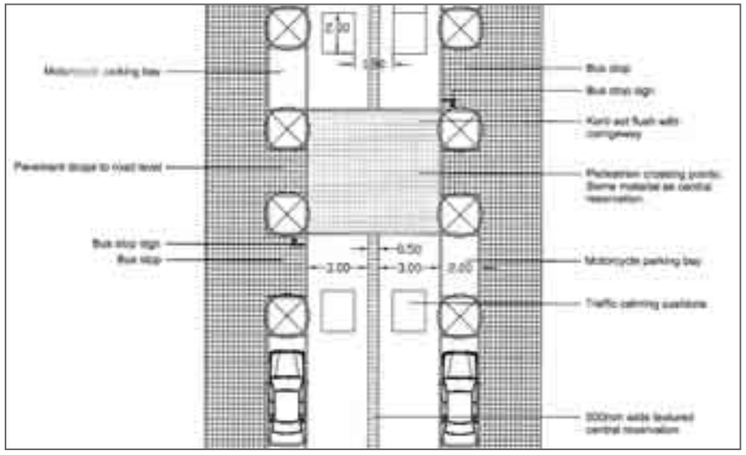


Image 48

Mixed-use street with pedestrian crossing, on-street parking, bus stops, street trees and traffic speed cushions (see also Appendix 6)

Play Street

These are principally, residential streets in which the road space is equitably shared between motor vehicles and other street users. Special regard is paid to the needs of residents (including people who walk and cycle, and children). **(Image 49)**

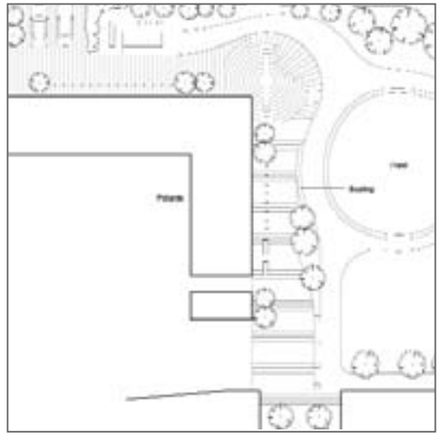


Image 49

Play Street as developed from scenarios (page 144)

Play Streets are appropriate in all types of residential area and for all dwelling types including flats. They can be used in a mixed-use environment provided that the servicing needs of non-residential uses are met without compromising the design and functional performance of the street. Uses that require servicing from vehicles heavier than 7.5T should not be located on a Play Street.

Traffic flow should be low, with no more than 100 vehicles in the afternoon peak hour and little or no through traffic. Although through traffic should be discouraged, the permeability and connectivity of street layouts should be maintained for pedestrians, cyclists and local traffic.

The layout of the Play Street must be such that motorists are compelled to drive very slowly, at 10 mph or less, with speed restricted by physical means such as alignment, public art, play equipment, cycle stands, bollards, trees and planters which must be part of a fully integrated design. These features should not be located so as to cause vehicles to pass closer than 1m to housing which fronts directly onto the street. Vehicles should not have to travel more than 400m along these streets before entering a street with a higher vehicle speed. This distance should be measured from any point along the length of Play Street.

It is possible that the opportunity may be taken to retro-fit a Play Street into an existing urban area that lies adjacent to a development site. In these circumstances it will be a requirement to involve the existing community in the initial decision, the design of the project and its implementation and to obtain the necessary commitments for future maintenance and management.

In new developments, prospective residents will need to be made aware that they are moving into an environment that is designed to turn the street into an active communal space and that users share the whole road space on equal terms. **(Image 50a overleaf)**

The route for vehicles to pass through a Play Street should be as narrow as is practicably possible, with a minimum of 3.1m over a short length. On two-way streets, some sections can be narrowed for one-way 'shuttle' use; however the track should be widened to 4.5m at least every 40m to enable two vehicles to pass. Culs-de-sac and one way streets are not encouraged.

When vehicles enter a Play Street, entry features such as road texture/ colour changes or 'gateway' structures will immediately make drivers aware that they have entered a space where children play. Entry and exit signs, which have been developed by the DTLR for Home Zones must be used.

In locations where it is considered necessary to maintain visibility, a stopping sight distance of 12m should be applied. Longer views will encourage drivers to increase their speeds and should be avoided where possible.

At junctions with other Play Streets sight lines of X distance 2m by Y distance 12m are required. T-Junctions, staggered junctions and cross roads will be the principal types of junction between Play Streets and a priority should not be indicated. For junctions with 20mph roads the X distance will have to increase to 2.4m and the Y to 20m.

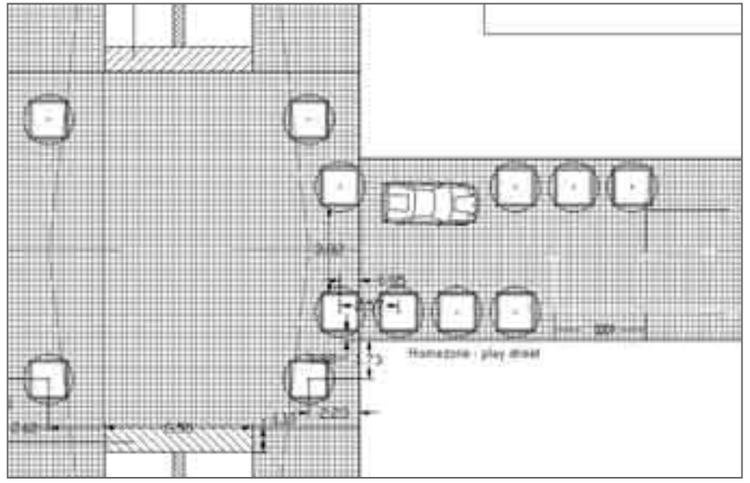


Image 50
Entrance point into Play Street

Image 50a

Illustration of typical Play Street. Vehicle access is possible but purposely made unclear and confusing

Private Space

More compact development necessitates a change in emphasis from the provision of private amenity space to the provision of public space. Schemes within spatially-sustainable locations will look different from those beyond. One feature will be the very small number of houses with private gardens, if a scheme has any at all. Another feature will be the quality and security of communal amenity spaces and the greenness of the public realm.

Every home shall have the benefit of some private or communal amenity space which will be provided either as a balcony or a communal garden. Homes in larger developments will also benefit from access to a generous provision of public space that has been designed to meet the needs of a wide range of people. This guidance applies to homes of all tenures.

Private space can be provided in a variety of ways:

- private gardens
- communal gardens
- roof terraces
- balconies

Design Criteria

Within compact, urban developments the following design criteria will apply:

Houses

As densities rise, fewer houses with private gardens can be accommodated. There are two options for designers. Firstly, houses can be provided without private gardens but with direct access to private communal space from the rear. **(Image 51)**

Secondly, houses could have very small private gardens or yards.

At densities above 50dph a garden size of about 40sq m for a limited number of houses is possible without unduly compromising the quality of the public and communal environment. Unlike previous guidance, this supplement does not dictate a range of garden sizes that escalates with the provision of bedrooms. It allows for the possibility of small, walled outside yards of around 25sq m or private gardens larger than 40sq m that make use of awkward site shapes (if this coincides with the location of housing). However elsewhere, larger gardens should be avoided.

At densities above 60dph an outside space of at least 25sq m would be required for all homes, which can only be provided as part of a shared communal garden. In addition, homes can incorporate balconies but these have to be of a minimum size (see page 73 for design criteria).

For the time being, some Local Authorities may have different standards and applicants should consult the relevant District Council for details of their specific policy.

Planting schemes must respond to the requirements for both existing and proposed ecological habitats.

Image 51

Image 51a

51. Courtyard communal space

51a. Ground floor private space, Malmo, Sweden

Apartments

Apartments or maisonettes will comprise the larger part of any higher density development. Their tenure, size and configuration will depend upon market demand and housing need surveys undertaken as part of the Context Appraisal but all will share communal, private space.

Poorly designed areas of grass to the rear of blocks of flats will no longer be an acceptable way of providing communal gardens. These spaces are rarely private, they are often overshadowed by tall buildings and are invariably fairly unpleasant places to spend any time in. Communal gardens therefore need to be:

- of sufficient size to be useable and inviting
- secure and private
- well-designed and integral to the character of the development

Image 52
Quality communal gardens

Design criteria for private, communal space:

1. sites larger than 0.1 ha require at least 25sq m of private space for each home. Only space that adheres to design criteria 3, 4 and 5 will be taken into account in meeting this provision.
2. apartments adjacent to **and** overlooking a park or other public space of high amenity value could be provided with a smaller, communal space. In this instance, apartments must have balconies of 5sq m.
3. 60% of the communal space should receive direct sunlight for a minimum of 4 hours a day in June.
4. must be enclosed by walls or buildings with no public access possible
5. must be designed as an extension of the built fabric and residential accommodation and contain seating and play areas with a combination of hard and soft landscape features, including trees.

These communal areas should be designed to be the social, outside private living space for the community. Their quality and management must be sufficient to develop a pride of ownership and occupancy.

Private garden areas for ground floor apartments, houses and maisonettes can be provided in certain building arrangements but should be left unfenced. Enclosing these areas with walls or fences creates an unattractive and dead edge to a communal area and compromises the relationship between building and external space. Only a very limited number of enclosed private gardens that back onto communal space will be acceptable in any scheme. **(Image 53)**

The provision of private roof gardens should be considered on all developments and especially where the private, communal and public space standards are difficult to meet. They can be used to help mitigate for loss of greenspace arising from the building footprint and should form part of the bio-diversity strategy of the site that may include the use of Green Roofs (see page 138). **(Image 54)**

Incorporating balconies into residential accommodation is encouraged and will be required where the private, communal space provision does not equate to 25sq m per flat. Balconies contribute to the amenity of dwellings but are not always well-designed. They need to be positioned where they

Image 53

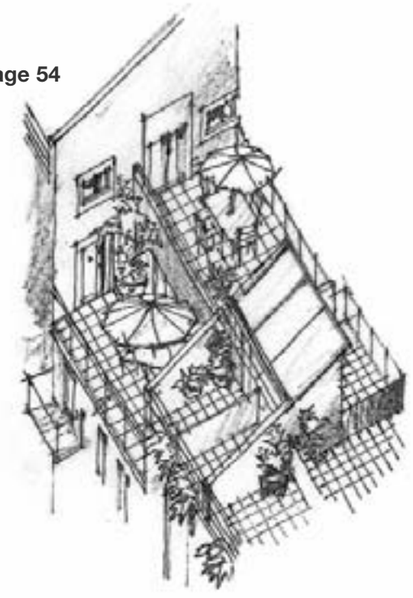


Image 54

53. Ground floor, unfenced gardens
54. Private roof gardens

are comfortable to use and of sufficient size to enable them to be used as outside living space and should all:

- be large enough to accommodate a table and chairs to suit the occupancy of the apartment as well as some additional space for planting.

> A gross floor area per balcony of 5sq m is required for houses or apartments with more than 1 bedroom where communal or private garden size specifications cannot be met.

- preferably have a southerly aspect but in any case receive direct sunlight for part of the day.
- be positioned away from sources of noise and poor quality air that would make them unpleasant to use.

Activity

Sustainability relies upon robust and thoughtful design, particularly if the activities necessary to make it function are poorly conceived or conflict with the desire to achieve a safe and attractive environment. Issues such as site management, deterring crime, car parking and waste recycling are fundamental to good design and radical changes are necessary to the way we have considered these matters in the past. Importantly, dealing with these issues as a part of the development concept and any planning proposal is now a requirement.

Car parking

It is very difficult to provide space for car parking at ground level whilst still achieve an attractive urban living environment at housing densities greater than 50dph. Public space is severely compromised if current parking standards are applied on schemes of greater density. If the public realm and space behind buildings is cluttered with parked cars it gives little scope for creating quality space for socialising and play. **(Image 56)**

Two design solutions are possible. Either the amount of parking has to be substantially reduced or cars need to be accommodated in a way that does not reduce the required provision of public and private space.

Low car parking provision

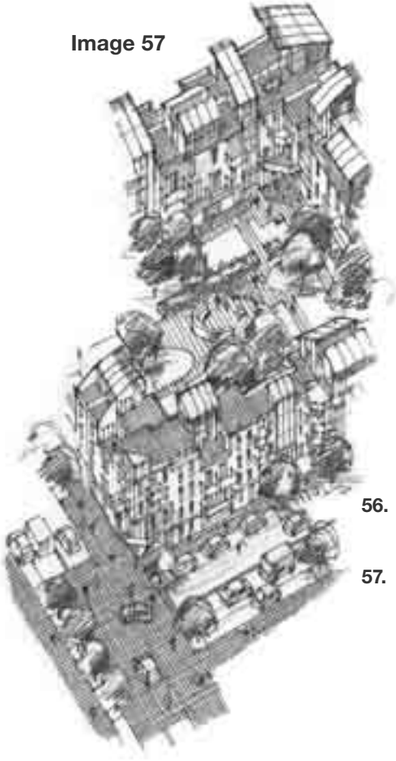
Developments that are very centrally located within urban areas clearly benefit from having the potential to allow site occupants to access jobs, services, public transport and facilities more easily. They offer the potential of a lifestyle that does not rely upon car use and this is especially important for elderly members of the community. However, the current reality is that people use cars to get about. Many facilities and jobs are located on the urban edge or in relatively inaccessible places and public transport infrastructure in Essex is poor.

Urban renaissance and sustainable communities are dependent upon attracting families back to live in inner urban areas. The conditions required to make this possible are complex and numerous but there is currently a clear tension between nurturing this aspiration and the restriction of private car parking.

Whilst proposals for development within sustainable locations that includes car parking provision at less than 100% are encouraged, the proposal must demonstrate the means by which parking will be managed across a wider area so that parking displacement does not occur. These management proposals should be discussed with the neighbouring community and Highway Authority as part of the Context Appraisal process.

Image 56

Image 57



56. Unsatisfactory car parking arrangement

57. Acceptable under deck car parking arrangement including a mixed-use street

Accommodating the car

At densities of less than 50dph parking for residents should be provided either on-plot or in rear parking courts as described in the existing Essex Design Guide. Rear parking courts can have allocated or non-allocated spaces (for example if less than 100% parking is provided). Parking areas should be surfaced in quality materials such as square block paving with dressed asphalt whilst trees with shrub planting will be required to sub-divide each group of 5 spaces.

At densities above 50dph only the following car parking arrangements (together with the exceptions stated below) will be acceptable:

- underground parking
- under deck parking
- remote, multi-storey parking
- under-croft parking
- or a combination of any of the above

Exceptions to these arrangements are exclusively for:

- schemes with a very low provision of parking (see above)
- on-street visitor, customer and other short-stay parking
- surface level parking in a very small area that relates directly with a small cluster of accommodation.

Underground parking

This can be regarded as the optimum solution as the arrangement allows for complete flexibility in the design of buildings and disposition of uses and activity at ground level. The covering of the parking below ground provides a deck for development or landscaping and surrounding buildings can face or back onto this space without constraint upon their configuration or aspect. **(Image 58)**

Some sites lend themselves to underground parking more than others, either because of the value achievable for the completed property or because of site topography where natural slopes can be used to reduce site excavation costs. **(Image 59)**

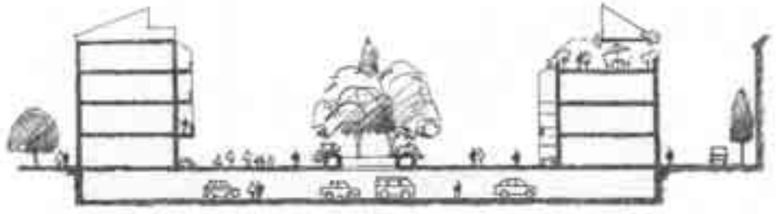


Image 58

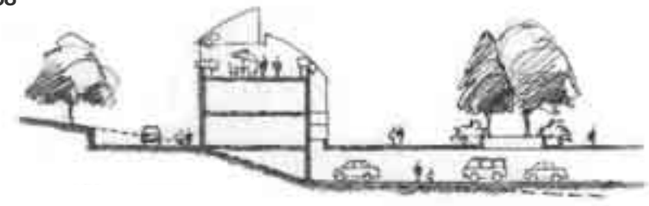


Image 59

58. Underground parking option

59. Underground parking using ground slope

60. Partial underground parking option with raised ground floor

One has to accept that the removal of ground material from a site even when done in conjunction with site decontamination, is not a sustainable operation. However, the benefit in creating a new environment that can deliver the urban qualities set out in this guidance has precedence over this concern.

A variation on this arrangement is possible where the parking is not entirely underground. The depth of excavation can be reduced by raising the deck level above the surrounding site but will only be acceptable in situations where the parking floor is entirely enclosed by buildings. Short flights of steps from the street to the raised, ground floor entrances of the buildings offer the opportunity to introduce some variety in the appearance of the street scene. This design can also enhance the privacy of activity within the ground floors but limits the range of uses possible and requires alternative access arrangements for disabled people. **(Image 60)**

Entrance ramps to underground parking must be located directly off a street and should be designed to be as unobtrusive as possible. They should have a maximum gradient of 1 in 7 and ideally, incorporate under-slab heating to avoid ice in cold weather. All underground car parks must incorporate a lift to a ground level entrance lobby.

A drawing of a hypothetical, development scenario that makes use of underground parking is illustrated on page 148.

Under-deck parking

This arrangement requires less site excavation but imposes constraints upon building design at ground level.

Ground floor uses have only a single aspect towards the street and consequently the amount of daylight penetrating the space through the depth of the building is limited. However, the ground floor in this arrangement is very suitable for commercial uses which can take advantage of the flexible depth the parking area provides to the rear. For retail uses, the Zone 3 space at the back of the shop would be under and ventilated through the deck above. **(Image 61)**

Residential and other uses within these building types must take their pedestrian access directly off the street either via individual front doors serving houses or via common entrance lobbies. Lobbies must link to the parking area to the rear. **(Image 62)**

Occupiers of buildings would find it convenient for there to be an external staircase from the internal, communal courtyard to the parking area below. All under-deck car parks must incorporate a lift to a ground level entrance lobby.

A drawing of a hypothetical, development scenario that makes use of under-deck parking is illustrated on page 147.

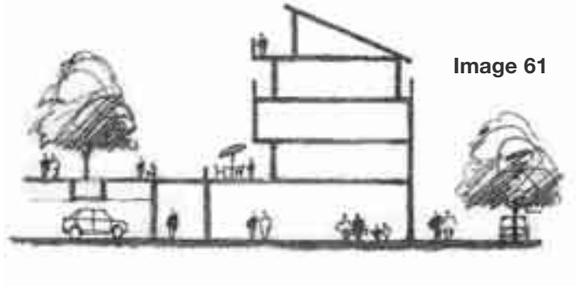
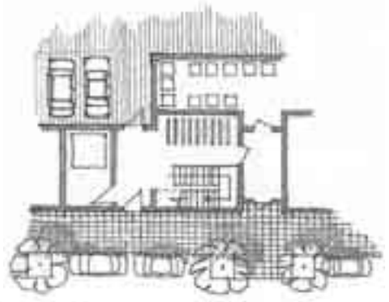


Image 61



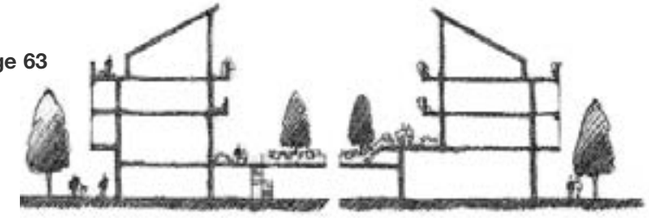
61. Single-aspect ground floor uses with rear, under deck access

62. Sketch of internal lobby with through passage from street to under deck parking

63. Under deck parking with – communal space above

Image 62

Image 63



Remote, multi-storey parking

Another acceptable method of accommodating parking is in a multi-storey facility on the site. This arrangement can produce substantial benefits for the quality and safety of the public realm as cars can be effectively removed from the spaces around buildings. Occasional access is required however for loading and unloading, for service and emergency vehicles and for deliveries but the total vehicular flow can be extremely low.

A robust site management regime is needed for this to be successful (see page 59 Adoption, management and maintenance).

It is important to choose the right site for a multi-storey parking deck to avoid unacceptable impacts upon the development or the location. Access needs may dictate that it is sited close to a street of adequate design capacity pushing the building to a prominent edge of a site. If so positioned it will be necessary to include a ‘veneer’ of single-aspect uses along sensitive elevations.

Good architectural design and landscaping can also ensure that these buildings do not look out of place within their setting.

Under-croft parking

The provision of parking at ground level below buildings is the least satisfactory arrangement for compact urban developments as it tends to sterilise the space facing the parking. The only circumstance where under-croft parking is acceptable is:

- on small developments of 0.1ha or less or,
- as a small part of a larger scheme and,
- where it is served from private space, screened from public view and,
- where no more than 10 under-croft car parking spaces are provided within any courtyard

A drawing of a hypothetical, development scenario that makes use of under-croft parking is illustrated on page 149.

Image 64

64. Under-croft parking creates dead fronts/backs and divorces the building from the activities in the communal area

On-street parking

Many of our most cherished streets include the facility to park cars. Visual quality, traffic flow and pedestrian safety are only compromised when the cars overwhelm the design performance of the street type. Cars inconsiderately parked on pavements or in front of entrances are a symptom of not only inadequate street management but also of unsuitable street types for higher density developments.

This guidance is intended to resolve this issue in a combination of four ways:

- by ensuring that compact development is located in the most accessible locations, making it likely that cars would be used less often
- through the introduction of the new approved street types that are designed to accommodate short-stay parking
- through the requirement to place adequate levels of parking in secure, communal facilities
- through the introduction of private management arrangements for all urban developments

It is also permissible to design new streets to accommodate allocated, on-street car parking spaces. These would be controlled by parking permits as part of a wider strategy for area management and can be provided as part of the overall parking provision for the site.

Some on-street parking must be provided for visitors. This should be limited so as not to dominate the street scene and may be better clustered in small groups at convenient points, 90° to the street. The maximum number of spaces in any group shall be 8 with a suitable tree planted between the 4th and 5th space.

Outside these designated spaces physical constraints and parking management should be employed to make parking elsewhere unlikely.

A minimum of 5% of the total capacity of all parking areas should be designed and allocated for use by disabled people.

If the streets are to be adopted by the Highway Authority, parking restrictions shall be advised through the use of traffic signs at the entrances to the development. Yellow line markings should not be used.

Further guidance on car parking standards on all development can be found in the Vehicle Parking Standards by Essex Planning Officers Association.

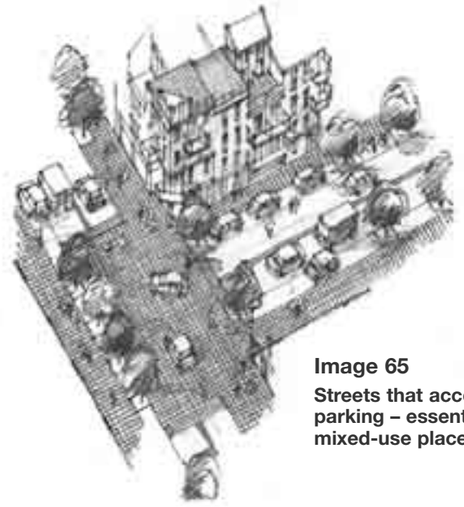


Image 65
Streets that accommodate parking – essential for mixed-use places

Car sharing

The potential for car sharing is not necessarily directly related to the total provision of car parking on any site but it can be an attractive proposition for some people. Not everyone needs use of a car every day of the week and there are clear personal, financial benefits in spreading the cost of car ownership and travel amongst friends, colleagues or neighbours.

Car sharing schemes can be introduced into new developments as part of a package of measures (that includes safe and attractive streets, good lighting and convenient cycle storage) giving residents and employees a realistic and attractive alternative to owning a car.

Schemes are becoming popular and assistance in establishing them is available from a number of organisations and public partnerships within the region.

Car clubs offer a pay-as-you-drive rental arrangement. This is particularly suitable within compact, mixed use developments where there is likely to be sufficient a market to make such a scheme commercially attractive. A development of at least 100 homes is considered to the viable economic threshold although this does not mean that they are unsuitable for smaller developments if the scheme can be extended to the surrounding area. There are various models for these types of scheme and more information can be found by following the web links in Appendix 4.

Cycle parking and storage

Cycling is a carbon-neutral means of transportation and a good form of exercise. Increasing the use of cycles can reduce traffic congestion and pollution; developments must be designed to encourage cycle ownership and use.

To do this, schemes should consider the needs of cyclists in regard to:

- parking facilities at destinations
- routes between destinations
- storage close to home

Parking facilities at destinations

There should be sufficient places to leave a cycle at popular destinations both within new development and within the surroundings. Whilst the adopted Vehicle Parking Standards for Essex specifies the minimum provision required for storage and visitor parking there is an expectation that the minimum standards will be insufficient to meet the future needs of compact, urban development. The requirement is therefore to include the provision of additional, short stay cycle parking wherever this may reasonably considered to be necessary. **(Image 66a)**

For instance, streets must incorporate short stay parking at frequent intervals located close to building entrances. Within a mixed-use street it will be preferable for stands to be sited in small clusters along its length, on each side of the thoroughfare. Within Play Streets, stands should be incorporated into the design for space management possibly acting as traffic calming features or sited to protect fixed play equipment.

Developers may be asked to contribute to the provision of cycle stands at important locations within the immediate area.

Image 66a
Cycle stand, Sweden

Routes between destinations

Connections between home and destination should be as safe as practical possible. The better and more convenient these are the more likely they will be used by cyclists and development must identify opportunities to add new or improve existing routes within the Context Appraisal. The improvement of routes to local schools and between neighbourhoods is of primary importance.

The community also need to be connected to local and structural green space. Development can make this happen by undertaking small, incremental interventions and improvements as opportunities arise that enables a connected, green grid to arise over time.

Storage close to home

Facilities for over-night and longer stay cycle storage can be made in a variety of ways although all stands must be secure and under cover. It can share underground, under deck or undercroft car parking areas or it can be located from a street entrance on the ground floor of a building. In the latter case, it is good practice to position these storage facilities close to the ground floor entrances to apartments, perhaps at the foot of the stair lobby.

Larger developments can consider the potential for more collective, managed arrangements such as concierge parking with cycle hire that sometimes work well in association with a cycle repair workshop. With these alternative arrangements in place, the level of longer stay cycle storage elsewhere on the site could be reduced.

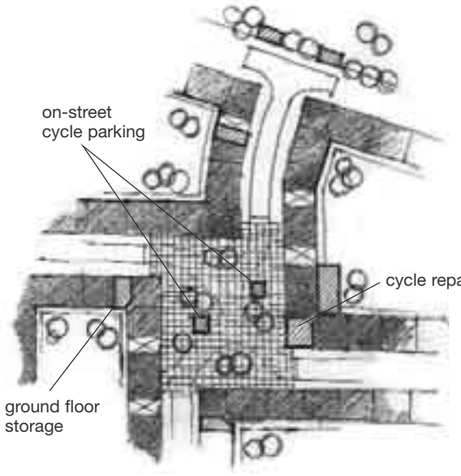


Image 66b
Convenient cycle storage encourages use

Waste recycling

Recycling is the collection and separation of materials from waste and subsequent processing to produce marketable products.

Local authorities are required to manage the waste stream to ensure more material is recycled. Although local arrangements vary, selected waste is collected from individual premises and sent for recycling. As requirements affecting each end of the waste stream change, the nature of storage and treatment will also alter. A guiding principle is to reduce the amount of waste entering the system. This requires the implementation of a number of complementary actions which, for this guidance includes:

- providing facilities within homes for the selection and temporary storage of a variety of waste products
- providing communal storage facilities for selected waste
- providing communal facilities for the composting of green waste

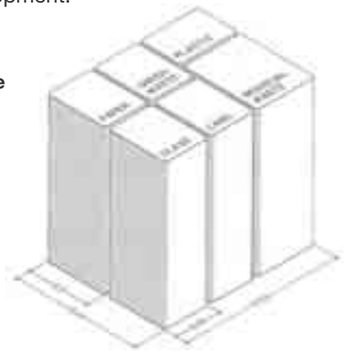
Facilities within homes

Provision should be made **within each home** for the separation and short term storage of organic waste, dry recyclables and any residual waste as follows:

1 bed accommodation	**2 + bed accommodation**
1 box of 10 litres capacity each for: cans glass green waste	1 box of 20 litres capacity each for: cans glass textiles paper green waste
1 box of 20 litres capacity for: paper	1 box of 40 litres capacity for: residual waste
1 box of 20 litres capacity for: residual waste	

These facilities must be designed into the kitchen specification of each home and the boxes provided by the developer. Each box should have a hinged lid and should be designed to be carried to the communal recycling facility within the development.

Image 67
Domestic recycled waste storage within kitchens



Communal waste storage

All developments must provide adequate, communal facilities for the storage of domestic waste prior to collection. These can be arranged and designed in a variety of ways, such as:

- designated communal storage areas on the ground floor of buildings
- chutes into under-ground or under-deck storage facilities **(Image 68)**
- detached, storage buildings **(Image 69)**

The design criteria for these installations is:

- they should not have an adverse visual impact on the public realm.
- convenient access is required for both for users and collection vehicles. The maximum distance that residents should have to carry refuse to a bin store should be no more than 100m. Storage must be within 10m of the nearest place that the collection vehicle can gain access.
- pedestrian entrance doors should be activated by electronic key fobs, that enable lost keys to be de-activated.
- they should have sufficient internal space to accommodate enough 360–1100 litre wheeled bins to serve that part of the development.
- sufficient space should be allowed around the containers for moving and cleaning around them.
- they should be permanently ventilated at high and low level.
- where contained underground the maximum ramp gradient should not exceed 1:12.
- they should contain facilities for the composting of green waste.

Where a bin store is proposed as a separate building, it needs to be designed with the same care and attention to detail as the rest of the development.

Composting of green waste

In order to reduce the amount of waste taken off-site, each development more than 0.1 ha in size should make provision for on-site composting. This is most satisfactorily arranged by the use of an in-vessel composter, which breaks down domestic green waste into an inert fertiliser which can then be used within the development or sold on as a commercial product (see page 88 Management and maintenance).

The incorporation of in-vessel composters will work best where a development has its own management arrangements for common areas and public space. They can be located adjacent to the recycling points and ideally, where these are within detached, storage buildings. **(Image 70)**

Image 68
Domestic waste chutes to underground storage, Malmo

Image 69
Communal waste recycling centre, Malmo

Image 70
Communal composter, Malmo

Commercial waste recycling

Separate facilities must be provided for the storage of commercial waste in containers up to 1100 litres.

A variety of arrangements are possible but separate storage buildings or compounds within public space will not be permitted. Non-residential premises that form part of a scheme that has underground or under-deck parking could use an enclosed area within the car park for the location of bin storage. This could be accessed by personnel direct from the rear of the commercial space or from above but collection would be required from the street **(Images 61–62)**. Storage areas must be provided with wash down facilities and retail units should be provided with cardboard compactors.

Access for collection vehicles

Adequate arrangements must be made for the collection of waste by contractors. Refuse vehicles should not have to reverse more than 25m and access paths must have a construction specification suitable for a gross vehicle weight of 26 tonnes. All streets must be designed and managed to allow collection vehicles to navigate easily along them.

A hardstanding or lay-by must be provided adjacent to communal waste storage areas with smooth paving and switched, additional lighting between it and the storage access point.

Management and maintenance

The quality of the environment created by new development, no matter how well designed initially, must be sustained long after the last unit has been let or sold. To do this requires good management and maintenance which is commonly the responsibility of a variety of bodies and organisations. Their work is rarely adequately responsive, co-ordinated and funded and can easily lead to conflict, clutter, poorly executed and infrequent repairs and general neglect. Ugliness and unease can easily set in.

The degree to which this is a problem is most apparent in more compact, urban areas where the competition for space can be intense.

Consideration should be given to the establishment of private management and maintenance companies for new development as a way of passing on responsibilities to organisations better able to meet local expectations. A variety of models is possible:

- Private companies set up on behalf of site occupants to maintain buildings and grounds
- Resident Associations that act collectively for the interests of the development and its occupants
- Social Enterprise companies
- Commonhold Associations

The transfer of responsibilities need not be limited to the more usual areas of activity and could include:

- Maintenance of all Public Space including new streets, open space, play grounds, sustainable urban drainage systems and external lighting
- Management of parking within communal areas and the public realm
- On-site waste recycling
- Facilities management
- Car clubs and car sharing schemes

Special arrangements need to be made with the local Highway Authority before this could occur to enable it to take over responsibility in the event of the cessation of the local company (see Appendix 5). Any agreement would be conditional upon free and unfettered access across the public realm by all members of the community.

Private communal and common areas will always be managed and maintained through private arrangements and these operations will also need to have responsibility for communal gardens, car parking, cycle storage, refuse storage and composting facilities in addition to sustainable energy infrastructure that will exist on larger developments.

Security and safety

Behaviour is influenced in part by how we feel about a place. Well-designed environments that meet community needs and which are well-managed will tend to be safer than places that are not. Following the guidance within both the Essex Design Guide and this Supplement will help bring this about but ultimately, security and safety relies upon persistent partnership working across sectors.

The **Secured by Design** initiative offers in-depth advice on physical protection of property as part of a broad approach to designing out crime. However, efforts to 'add' measures for crime reduction can be detrimental to the use and appearance of urban space. Too much rigour in implementing security measures can lead to detrimental effects both visually and socially for example;

- Excessive use of security grilles. These measures advertise the impression of danger and heighten the sense of vulnerability.
- Entrances gateways into a development can lead to a siege mentality.
- Over reliance on the physical deterrents to criminal behaviour can lead designers to solutions that are biased toward individual security to the detriment of communal interests.

Attributes that are particularly relevant to the physical aspects of crime prevention are listed in Safer Places – The Planning System and Crime Prevention, ODPM (2004):

- Access and movement
- Structure
- Surveillance
- Ownership
- Physical protection
- Activity
- Management and maintenance

Well-designed public lighting increases the opportunity for surveillance at night and sends out positive messages about the management of an area. Information on street lighting is contained within the Essex Design Guide (2005) and the Essex County Council lighting policy contains standards and requirements relating to the provision within adoptable streets and footpaths.

Much of this guidance places emphasis upon encouraging people to be outside and the new street type, the Play Street is specifically designed as space for children to play outside their house. This, and other features of the guidance such as the provision of open bodies of water for Sustainable Urban Drainage, creates places where young people may be exposed to some risk.

The **Play Safety Forum** are of the view that children seek and benefit from exposure to managed risks and that to attempt to remove risks within the public realm has a negative effect upon their well-being.

The Forum believes that the fear of litigation is leading to a focus on minimising the risk of injury at the expense of other, more fundamental objectives. The effect is to stop children from enjoying a healthy range of play opportunities, limiting their enjoyment and having potentially damaging consequences for their development.

Their Position Statement on managing risk can be found on the EDI website.

Image 71

Challenging environments encourage child development and adventure

Privacy and noise

The privacy of occupation of homes is influenced by:

- overlooking, into habitable rooms and
- the impact of noise from external sources.

Overlooking can be minimised by the requirement of minimum 'back to back' distances between buildings and by careful design. Whereas the Essex Design Guide recommends a minimum back to back distance of 25m, this standard is amended to 20m for compact, urban development.

Privacy can also be achieved by design which can range from the orientation of windows, landscaping and screening and there are measures by which occupants can control the level of overlooking such as with blinds which can be incorporated into the design of the openings.

Noise from neighbouring properties is a source of significant aggravation for urban dwellers and research has revealed that this is considered to be far more invasive than traffic noise and overlooking.

Numerous noise generating appliances are now common in most properties and the activities of the evening economy can create a noise laden environment. Sounds can be either air borne or structure borne and it is normally the poor structure of a property or poor design and detailing which is responsible for intrusive noise. Sound insulation is the main method of controlling the movement of sound within buildings and will determine how much sound is transmitted from the outside or adjoining properties or room to room. For the purpose of achieving compliance with Part E of the Building Regulations developers can use design details approved by Robust Details Ltd or the dwelling will require pre completion sound testing which should help reduce the faults in construction and workmanship. Developers should however consider sound insulation specifications in excess of those detailed in the Approved Document E. The World Health Organisation suggests that bedroom noise level should not exceed 30dBA.

Avoiding noise conflict between users should be taken into account at an early stage of the design process.
PPG 24 makes a number of recommendations on how to mitigate the impact of noise but the full provisions of the UPS should be taken into account when designing out noise.

The conflicts created by noise generated night time activities can be reduced through design measures. Configuring residential units into perimeter blocks around a quiet courtyard can protect the more noise sensitive rooms from the activities of the street. In addition planning authorities can attach conditions to planning consents for mixed-use. These conditions can require the introduction of physical measures to reduce transmission of sound such as acoustic lobbies, acoustic glazing and baffles around ventilation ducts.

Image 72
Careful design can reduce disturbance between uses, Dublin

Buildings

A primary objective of this guidance is to encourage the development of buildings that improve urban conditions. They may simply ‘mend’ an ugly gap in the existing townscape or they may be designed to become a landmark of some significance. They may accommodate an important community use or Key Workers or be designed to also incorporate habitats for endangered species. Whatever their function or importance they must be well-designed, durable, well-built and visually-appropriate.

Preserving the urban character of Essex, where it is derived from the continuous application of local building traditions and materials is important. Many of our most precious historic environments are an exposition of the harmony created where change has been gradual and built form constrained by available technology and architectural taste. But these places are exceptional. Most urban areas are an amalgamation of building styles, forms and scales that do not always co-exist in elegant accord.

The nature of urban areas within the County also differs widely and can range from seaside towns to New Towns to market towns and it is their difference in origin and purpose that gives them a unique identity. In these circumstances it is clearly inappropriate to apply universal rules on aesthetic style. Instead, this guidance requires high quality building design to be informed initially, by a 2 step process:

1. through a comprehensive analysis of the character of the locality via a Context Appraisal (see Section 4, Urban Context) and,
2. through the application of some non-stylistic principles that will apply to all new development which are:

- form and scale
- height and mass
- visual appropriateness
- active frontages
- vertical hierarchy
- variety and unity
- adaptability, durability and accessibility
- visual richness
- materials

Form and scale

New development will need to draw on a large number of references in locations which have a strong visual identity. These need to be interpreted appropriately to reinforce the distinctiveness of place. New architecture should not mimic traditional building styles but provide a contemporary interpretation of the vernacular influences which have contributed to the character of an area **(Image 73 overleaf)**. If a locality has little to distinguish it or the development is a large urban extension or infill there may be few visual cues from which to draw appropriate design inspiration. There will be less to constrain the form of development in these situations although all schemes must comply with the urban design spatial principles of the Essex Design Guide and this Urban Place Supplement.

It is important to scale a building correctly. Scale is most usefully expressed in relation to anthropometrics – the human user. Those that are under-scaled for their function and importance can appear mean and inappropriate whilst those that are over-scaled in relation to their context often appear over-dominant and out of place. Slight variations can make a large difference between a correctly-scaled building and one that is not. Buildings of greater size and mass such as a large block of apartments can benefit greatly by careful attention to use of larger scale on elements such as entrances and stair-wells. Use of a normal, domestic proportion in these situations would make the building appear feeble and unbalanced.

The roof plane of a building is an important element which has a significant impact on the form and silhouette of a building. In areas which are characterised by pitch roof forms and where the roof-scape can be viewed from a distance it will be important for any new proposals to generally continue this character. In those areas where existing roof form does not have a consistent and strong character there will be more scope to introduce new roofs of various design, including flat and mono-pitched. Visible, external plant on roofs will not be allowed.

Whatever the approach, long uninterrupted ridge and eaves lines should be avoided and skyline interest added by varying the roof height and eaves line and articulating the roof planes to define spaces within buildings.

Image 73
Fitting into the existing street scale
Murray Grove, London

Height and mass

The height and massing of buildings is usually greater towards the centre of towns and neighbourhoods, particularly along the primary routes where development tends to be more compact and there is a greater concentration of commercial and civic buildings. New development should seek to reinforce this order and maintain (or establish) the prominence of these urban places as the recognisable, legible centre. **(Image 75)**

All proposals should have regard to the height and mass of adjacent buildings to limit overshadowing and ensure that the privacy of internal space is not compromised.

Generally, for small infill sites with a strong visual identity the height of new development should be similar to that of existing surrounding development. It may however be possible to accommodate buildings which are one and a half times the height of surrounding buildings provided they are fulfilling a particular role in the townscape such as creating a landmark, the length of frontage is no greater than a typical plot division found on the street and building depth is similar to adjacent buildings. **(Image 76)**

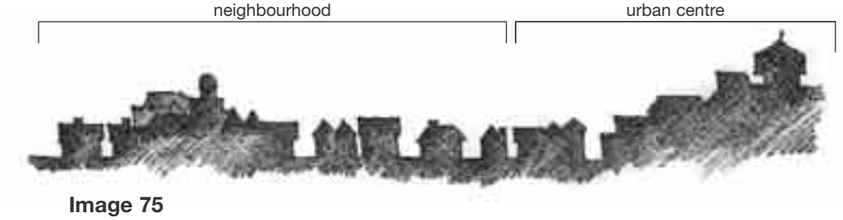


Image 75

There will be more opportunities to have taller buildings in Sustainable Urban Extensions, Large Urban Infill and Regeneration Areas. Here, the urban layout should mimic the pattern of clusters of neighbourhoods supporting an urban centre similar to the traditional town and where building height and mass increase towards the centre of civic and commercial gravity.

Rarely can a building of deep plan width be integrated into existing townscape without it appearing out of place. The towns of Essex are predominantly made up of buildings that have a front and a back with rooms arranged inside that correspond to this linear relationship. The most important, daytime activities took place in the front whilst the least important rooms were reserved for the rear. This organisational alignment ensured a correct and harmonious relationship between building and street and the ability to allocate space for less attractive activities to the rear, beyond the gaze of passers by. The form resulted in buildings of relatively narrow plan and the continuity of the arrangement over many years has produced a unity that has helped to define the character of our urban areas.

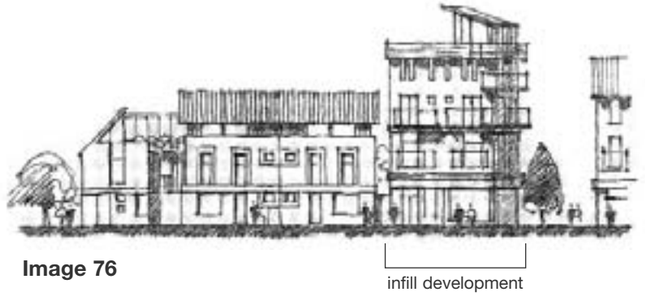


Image 76

Steel and concrete frame construction has made it possible to design with complete freedom and produce buildings of very deep plan width. These tend to be more cost-efficient as they have a higher ratio of accommodation to external envelope. However, they can:

- look bulky and inappropriate when sited close to more traditional buildings
- limit opportunities for passive solar gain and have greater reliance on mechanical ventilation and artificial lighting
- be less flexible than narrow plan buildings in that they are suitable for a more limited number of uses

Plan depths should therefore generally not exceed 10m and may need to be much narrower if they need to fit within an historic urban landscape. If the function of the building requires a deeper plan this may be accommodated through modelling the form provided the mass of the building doesn't have an adverse effect on the character of the area. **(Image 77)**

Even though a few towns in Essex have quite recent origins and contain at their centre mainly deep plan buildings, new development should preferably avoid following this precedent. They should, instead, be constructed to a narrower plan yet designed so that they appear to have a mass greater than they have in order to seem consistent with the surroundings.

Image 77
Building form used to disguise deep-plan building

Image 78
Buildings that look representative of their use, Chelmsford

Visual appropriateness

Buildings need to be designed so that they appear to be what they are. Offices should look like offices and homes need to look like places where people live. This is particularly important as seen from public space where visitors and users need visual cues to help them interpret the environment in order to help them find their way around. A street that is made up of a variety of uses that are accommodated within buildings that all look the same would be very confusing and difficult to interpret. It would be less legible than perhaps the traditional High Street where the variety of building styles suggests the likely use to be found within, such as the bank, the Inn or the department store. **(Image 78)**

By making such buildings distinguishable from their neighbours also adds to the architectural richness and variety of the area and helps to create places of a recognisable character.

Active frontages

Developments that produce pedestrian movement and activity within the public realm are likely to evolve into successful places. The objective is to channel as much human activity onto the street to make them safe, vibrant and interesting. This cannot be done if, for instance, the entrances to buildings are located at the back of the block (see page 78). Ensuring that building access principally occurs from the front captures this movement of people for the benefit of the street and is the best way of promoting the possibility of chance encounters and street life.

Within urban and neighbourhood centres it is also important to ensure ground floor spaces also contain active uses that contribute to the generation of pedestrian movement. Pedestrian footfall within these locations fuels the success of the commercial environment and it is important that every opportunity is taken to activate these ground floor spaces with functions that attract people to the street. Footways need to be of sufficient width to allow uses to spill out into the street so that the edge between building and public space becomes blurred.

Some ground floor uses are sufficiently active or interesting in themselves that they should be laid out so that they offer a degree of ‘theatre’ to passers by.

Any lengths of ‘blind’ walling facing public space undermines the objectives of creating safe and attractive streets and must be avoided wherever possible. **(Images 80a and 80b)**

Image 80a

80a. Mixed-use building
potential for
e frontage
ıced likelyhood
ɜible activity

Vertical hierarchy

Traditional buildings of three storeys or more have a vertical hierarchy of openings or elevation treatment to explain the importance or function of the space beyond. This visual articulation of the façade is part of the language of our building stock and adds interest. Without this hierarchy taller buildings can appear unrelated to the pedestrian scale and monolithic. This problem occurs most frequently in apartment blocks and offices where the accommodation is similar on every floor.

There are various ways that a hierarchy can be introduced:

- Greater ground floor storey height with deeper windows.
- Wall treatment – a change of material between storeys
- Wall treatment – projections/recesses and modulation of surfaces

Image 81
Strong architectural hierarchy. BO 01 Malmo

Variety and unity

Variety of form is important for any urban area as it allows a number of uses to occupy buildings of different types. These uses contribute to urban life in a variety of ways and would be used by different people at various times of the day. Variety enriches the cultural and economic well-being of a community and is essential for its sustainability. **(Image 81a)**

Making the correct choices in regard to scale, mass, height and legibility will result in a varied urban townscape provided also that it retains a variety of buildings of different ages, quality and rents. Development can sweep away existing buildings, uses and the people that occupy them (for commercial reasons). Equally, planners can sometimes strive for 'neatness' in a bid for urban renewal. But a place that lacks the variety that these different kinds of premises provide can be sterile and economically monotonous.

If buildings exist on any site proposed for development, the Context and Site Appraisals should establish the value of both the fabric and the uses in contributing to the desirable economic and social variety of the location.

Left unchecked, a highly varied urban landscape could develop into visual anarchy. A degree of unity is therefore desirable between existing and new and other adjacent developments to provide some coherence and sense of identity. Using a similar palette of materials and picking up the rhythm of visual form are just two devices that can enable a development to integrate comfortably with their surroundings.

However, the monotony of repetitive elevations that lack the subtle and demonstrable differences of buildings constructed by different people at different times should be strenuously avoided. **(Image 82)**

Image 81a

Re-use of older buildings adds variety to urban places

Image 82

Monotonous building forms contribute little

Adaptability, durability and accessibility

To ensure the longevity and equity of our building stock, buildings should be robust and capable of being adapted to different uses or to meet the different needs of future occupants. This should be achieved in the following ways:

- by having raised ceiling heights on the ground floor spaces on development within town and neighbourhood centres (primary routes) and along transport corridors. These should be a minimum of 3.5m high (3m floor to ceiling) and 4m high (3.5m floor to ceiling) for space on street corners, **and**
- by constructing homes to the Lifetime Homes standard (see below), **and**
- by taking account of the potential for home-working, **and**
- by designing the public realm to take account of the potential servicing needs of buildings that may possibly change use in the future.

Lifetime Homes is a set of design standards that adds to the comfort and convenience of the home and supports the changing needs occurring throughout a family's life-cycle. These standards generally exceed the requirements of Part M of the Building Regulations. The features of Lifetime Homes make it possible for people with special mobility needs to occupy any dwelling and improves the potential for building sustainable communities that comprise of people of different ages and needs.

All new development in Essex should be built to meet these standards, with two exceptions:

LtH Standard 1: Parking

It is unlikely that many homes in more compact development will have a place outside its entrance to park a car and to universally provide one would seriously harm the quality of the public realm. This aspect of the Standard is therefore not required to be met. Nevertheless, other requirements within this supplement to provide either an accessible ramp or a lift from the parking areas to the street level does ensure that mobility needs are partly met in alternative ways.

LtH Standard 4: External Entrances

The standard to provide a covered entrance to every home would place an unreasonable design constraint upon higher density development. This aspect of the Standard is therefore not required to be met.

Information on the standards and applying them to high density developments can be found on the Homes for Life website (see Appendix 4).

Visual richness

Many new developments are visually monotonous. The craft that was once an integral part of architecture and design is often missing and such places compare unfavourably with an historic townscape where visual richness can be experienced at every turn. On one level this can mean the way in which buildings produce an interesting or complex skyline. At a smaller scale it can mean the design of a door threshold. It should be something that exists in public space as well as buildings.

Generally, the closer the observer is to the feature or the greater the viewing time, the more important it is to ensure the urban fabric contains visual richness. People's contact with buildings is often most tactile and extensive at entrances and at ground level so these areas especially need a close attention to detail. A building may also be visible from some distance away and from these viewing points it is important that the building rewards the attention of the observer with a richness of form or detail appropriate to its use. Over-elaborate adornment should be avoided although public art does have a place in enriching buildings when used intelligently.

For the public realm also this translates into a necessity to pay greater attention to patterns, materials and detail in locations that specifically are designed to attract pedestrians, such as squares and mixed-use streets.

Materials

The choice of materials in either the construction or cladding of buildings should be a direct response to the need to either complement or contrast with the surroundings. This will primarily be informed by the Context Appraisal.

Making the right choice is important in creating a sense of place and a quality environment. If complementing the surroundings, materials will generally be from the Essex vernacular palette. Further information can be found in the Essex Design Guide. They need not be used in a conventional way or their use necessarily lead to passive architecture.

If contrasting with the surroundings or creating a new environment, contemporary and innovative materials and technologies may be used in conjunction with more traditional materials. The texture, colour, pattern, modular size, durability and weathering properties together with the ability to be recycled are all important considerations which will influence this choice.

Image 83
Abode, New Hall Farm, Harlow

Influences upon sustainability

Introduction

The purpose of this guidance is to help deliver high quality, sustainable development. It establishes a methodology for the process which identifies appropriate development densities, how places are designed and how they should respond to community needs. These requirements are set out in a series of development criteria:

- Spatial criteria
- Building and site criteria
- Community criteria

Sustainability objective	Urban Place Supplement
Spatial criteria	Walkable neighbourhoods Resource efficiency in use of land; Density Improving local services and job opportunities; Mixed-use
Buildings and site criteria	Minimising ecological damage and waste Reducing pollution Sustainable construction, drainage and energy efficiency Water conservation
Community criteria	Mixed communities Social cohesion Neighbourly urban design Safe public places

Spatial Criteria

Development opportunities cannot be looked at in isolation from their ability to contribute to the potential of urban areas to support a more sustainable future.

Preserving the hierarchy of densities within them is fundamental to ensuring that centres, neighbourhoods, urban corridors and extensions all perform to their potential and that elsewhere, areas not well connected to public transport and local services are not ‘over-developed’ in regard to their local context. The most compact developments should therefore occur in the most sustainable locations.

Information and illustrative examples of acceptable development configurations within a variety of spatial situations are contained within Section 7, Applying the Guidance. These consist of six **Development Types** that are likely to be individually or severally applicable within any urban area. Each type contains a menu of required ingredients for any development and a summary diagram (Diagram 4) can be seen on pages 114–115.

Urban Centres

Our urban centres express an investment in their success that has occurred over generations. We have located services and employment there along with cultural facilities and transport infrastructure. Making the most of this investment by ensuring that customers and clients are able to gain easy access to it is not only resource-efficient it also makes sense.

The fact that some of our urban areas are now performing less well than is desirable makes decisions on where we locate new, compact development essential to their future renaissance. This guidance requires the greatest concentration of development potential within 800m of the centre point of these urban centres (see EDI website for maps of each urban centre).

Within Urban Centres, only the following **Development Types** shall apply:

Most Compact Development

Robust Urban Form

Small Infill

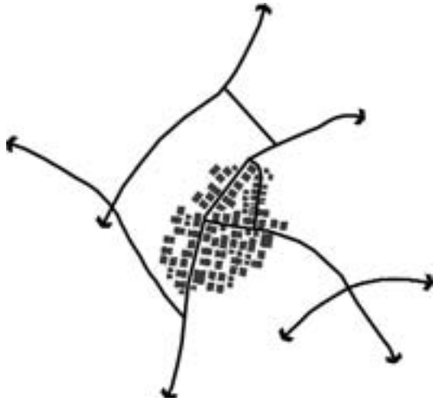


Image 89a
Urban centre

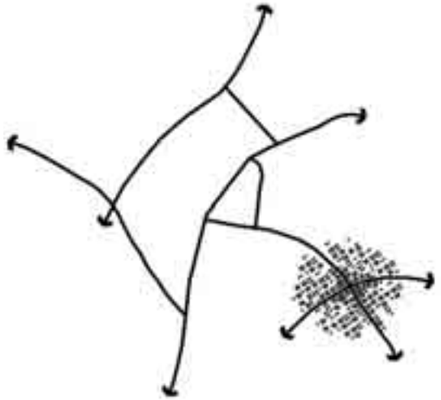


Image 89b
Neighbourhood

Neighbourhoods

Most traditional towns in Essex developed in an outward pattern along the radial, main streets. Suburbs were laid out with walking in mind and frequently combined good access to public transport with close proximity to important services such as schools and shops and a compact, residential catchment nearby. They were, and mainly still represent, a unit of liveability that is a good model of a sustainable community.

A neighbourhood unit can be considered to be around 50 hectares within an area scribed by a circle of 400m radius which represents a 5 minute, comfortable walking distance for most able-bodied people. It should ideally contain a compact and varied housing stock, a variety of greenspace from parks to small squares, shops, health and learning facilities and sufficient choice of employment to satisfy many needs.

Although the 400m and 800m radii represent a 5 minute and 10 minute walk for most people, in practice the street system is likely to make the journey from perimeter to centre longer and convoluted. Nevertheless, the use of a measured radius has the benefit of simplicity and inclusion of all land that has potential for adding to the sustainability of the location.

Neighbourhoods such as these exist in abundance in every town although the degree to which they match the ideal model is dependent upon a number of influences such as decisions to rationalise school and service provision or the loss of a major employer. They also represent a past investment that is capable of being exploited and enhanced in preference to abandonment and re-provision elsewhere. Most neighbourhoods contain deficiencies of one sort or another and new development will provide one opportunity to help remedy this, making them more viable and sustainable in the process (see Context Appraisal on page 31).

Within Neighbourhoods, only the following **Development Types** shall apply:

Most Compact Development

Robust Urban Form

Small Infill

Transport Corridors

Sites beyond urban and neighbourhood centres but close to (within 400m) public transport corridors also offer potential for compact development. They may not already have shops and services within a recognisable centre of gravity but offer some possibilities and potential for sustainable living.

The absence of shops may possibly be due to a poorly-connected street system that makes journeys by foot tortuous and unattractive. The Context Appraisal would identify such weaknesses and offer solutions on how to retro-fit the location for better sustainable access, improving the prospects of business investment taking root.

Within Transport Corridors, only the following **Development Types** shall apply:

Robust Urban Form

Small Infill

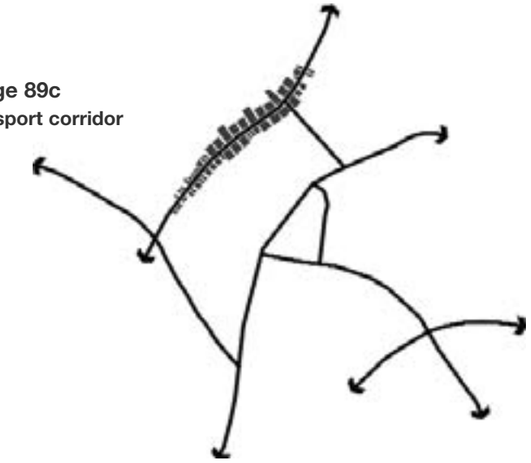


Image 89c
Transport corridor

Regeneration Areas

Local Plans and Local Development Frameworks frequently identify parts of urban areas that require a concerted effort of renewal and community action to bring about local regeneration. These areas may contain tracts of brownfield land and sustainable development can be regarded as a vehicle for achieving physical and social regeneration.

Some may not presently be well-connected to other parts of the town and this would need correcting, but the existence of adequate land for development may enable a new neighbourhood unit of 50 hectares (and multiples thereof) to emerge with sufficient critical mass for it to flourish.

Within Regeneration Areas, only the following **Development Types** shall apply:

Most Compact Development

Compact Development

Robust Urban Form

Small Infill

Small Urban Infill

Opportunities exist within every town to build within small urban gaps that are not required for other purposes. At best, such development completes the continuity of frontage of a street and removes a local eyesore.

The physical limitation of available site area imposes particular challenges for the designer but the provisions of the advice contained within this guidance still apply. For instance, it is still possible for a single building to contain a non-residential use on the ground floor, to incorporate a rainwater/grey water harvesting system with underground storage, to have an excellent environmental performance and to accommodate bio-diversity within the structure.

Within these situations, only the following **Development Type** shall apply:

Small Infill

Image 90
Colne Harbour regeneration area, Colchester

Large Urban Infill

Occasionally, development opportunities arise on large sites within an urban area. These may have once been in institutional use and provided these sites are at least 50ha in size they are capable of being developed as sustainable urban infill containing a mixed-use centre, space for employment, services and schools and a compact residential community. These 50ha plots are referred to as Units of Sustainability in this guidance.

If less than 50ha in area, the development type will be determined by the 'fit' of the site to the other scenarios in Diagram 4.

Like all the spatial criteria scenarios for sustainable development, it is essential for a large urban infill site to be capable of being adequately connected to its surroundings via a network of streets, footpaths, cycleways and green links and that the centre be well-served by public transport.

Within these situations, only the following **Development Type** shall apply:
Sustainable Urban Extension

Sustainable Urban Extensions

Pushing urban boundaries out into the surrounding countryside is a choice of last resort but inevitable as the supply of urban land is exhausted. In the past, these extensions often coincided with land severed from the adjacent landscape by the construction of new highways. In these circumstances the extension is rarely adequately 'plumbed' into the spatial grid of the town as a whole and therefore fails to capture and benefit from the flow of movement in nearby streets. Indeed, they are usually designed to avoid through traffic thereby relegating their function to purely dormitory estates.

Image 91 illustrates how Units of Urban Sustainability can be brought together to construct an urban extension of considerable capacity using the minimum of land. Importantly, such extensions must have additional infrastructure designed into them from the beginning for sustainable transport and power generation.

By locating and designing them so that they also naturally extend the spatial grid Sustainable Urban Extensions will develop into new destinations where service providers and businesses will also wish to locate.

Building beyond the urban edge in smaller units has several disadvantages:

- It can lead to an incremental, outward spread of the urban area that is difficult to orchestrate in a way that does not harm both the countryside and the character of the town.
- Various, small growth points are difficult to serve by public transport.
- Small extensions individually could not bring forward viable additions to important infrastructure or be self sufficient for heat and power.

Within these situations, only the following **Development Type** shall apply:
Sustainable Urban Extension

Sites beyond these locations

It is important not to seek high density development on land that is poorly connected to other places by public transport. Doing so increases the number of unnecessary journeys made by car, adding to local traffic congestion, pollution and carbon emissions. These represent those parts of an urban area that are not, and have the least potential for, becoming sustainable communities. This guidance therefore places a density ceiling upon sites in these locations (see page 115).

Within these situations, only the following **Development Type** shall apply:
None of the above

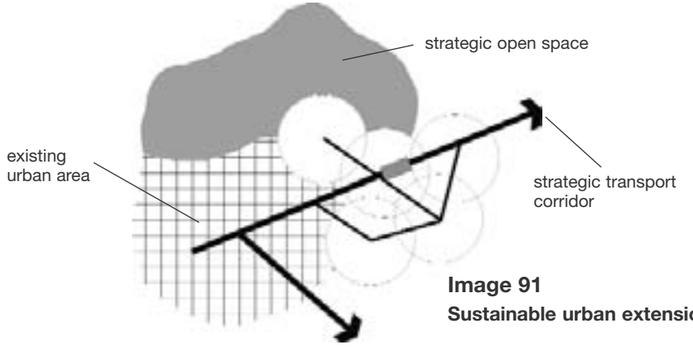
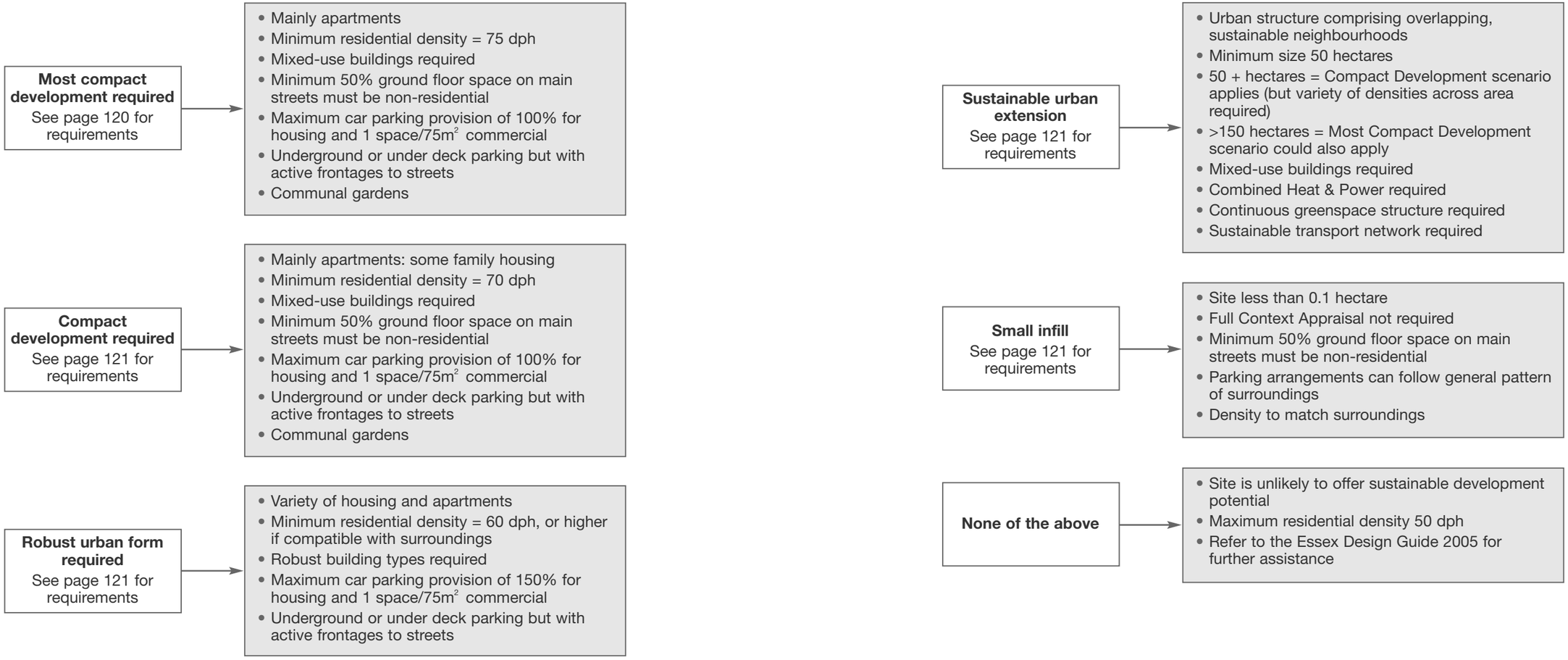


Image 91
Sustainable urban extension (approx 200ha)

Diagram 4: development types



Densities for sustainable development

The existence of a substantial and compact residential and business community within easy walking distance of a centre is **the** principle platform for sustainable development. This catchment (around 5,000 people for a typical, sustainable neighbourhood) can support a bus, a variety of shops and services and can attract other commercial investment. It requires an average neighbourhood density of at least 65 dwellings per hectare with higher density towards the centre of the neighbourhood (or town centre, transport corridor etc.) enabling lower densities to exist towards the margins of the neighbourhood.

Of course, a large number of sites suitable for development occur within existing neighbourhoods that internally comprise a wide range of densities in pockets that may not combine to an average density of 65dph and a population of at least 5,000 people. This will be the case for the majority of urban places in Essex.

In contrast to this, large new urban extensions can be designed to easily reach this density but applying it universally across such a development would not produce the varied environment and housing stock that is ideal.

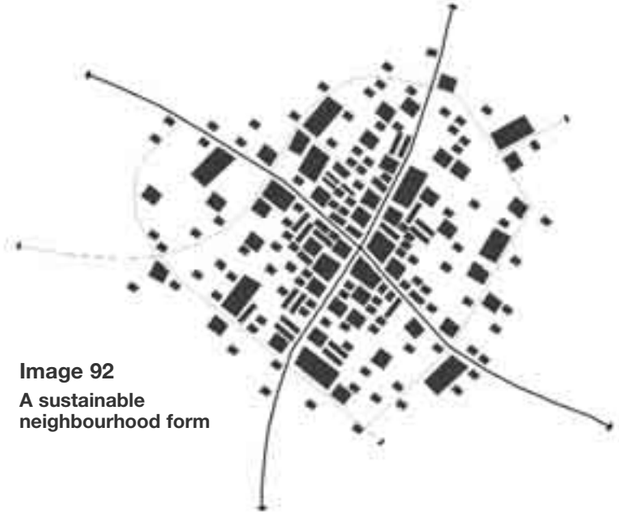


Image 92
A sustainable neighbourhood form

Therefore, this guidance requires a range of minimum development densities that are applicable to the different sustainable Development Types. The most compact development is required in the most sustainable locations with a reducing, minimum density elsewhere. There is no upper density limit within these specific areas. However, the Context Appraisal will help designers and local authorities determine the appropriate density above or at the minimum, base density prescribed in the guidance.

Where large urban infills or extensions are proposed it is important to ensure a range of development types and densities is accommodated to enable a variety of living and working environments to evolve. The spatial model of the urban and neighbourhood centre should be employed that come together into an urban pattern across the site. Development densities will be at their highest towards the centre of these new units of sustainability but reduce towards their boundaries, enabling space for detached houses with gardens at the fringe but still within convenient walking distance of shops, services and public transport. The target population for these developments will be 5,000 people per unit of sustainability – 400m radius and 50 hectares.

Describing density by habitable rooms, plot ratios or people per hectare can provide a textured picture of a development and are particularly suitable for mixed-use scenarios. However, they are terms not widely used by central government or district councils and therefore the definition of density within this document has been expressed as **dwellings per hectare**.

Densities are measured as the **net site area** which includes:

- private and communal open space
- internal streets
- public space intended for principally for the benefit and enjoyment of occupiers of the development and,
- non-residential uses within a mixed-use building that also contains residential accommodation.

Net density excludes public open space, the streets along the boundary of the site that serve a wider area and any non-residential uses that do not have residential accommodation above or below.

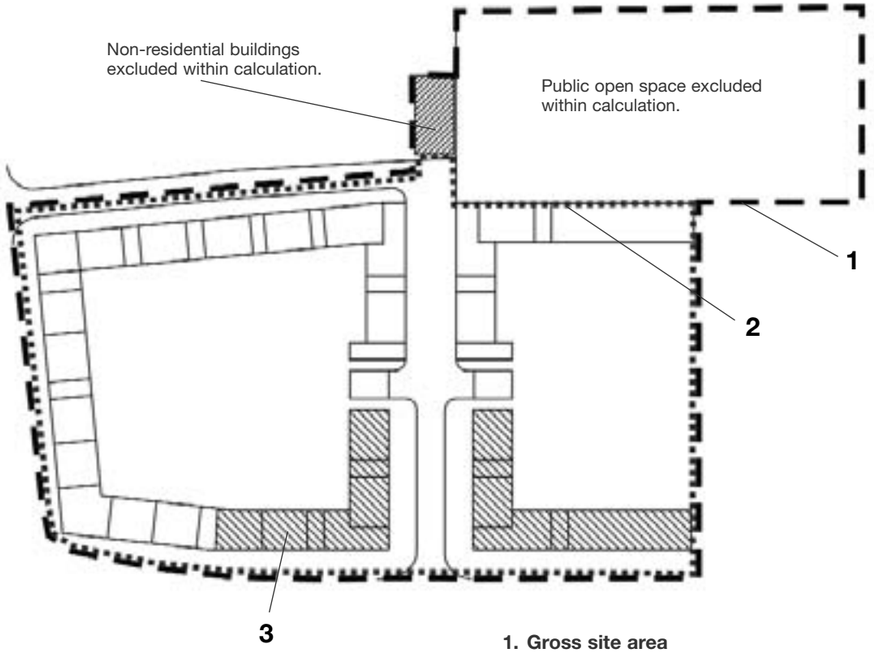
As this guidance requires the attainment of minimum densities for development and the provision of mixed uses there is potentially a negative dynamic between the two by using the **dwellings per hectare** measurement of density. Achieving these minimum density thresholds using the density measure for residential development alone would be incompatible with encouraging a substantial provision of mixed-use and therefore the calculations need to take account of the space taken up by non-residential uses within mixed-use buildings.

To do this, an allowance of the equivalent of 1 dwelling per 75m^2 of non-residential use should be used. A typical calculation and illustrative diagram would be:

example calculation:	
Apartments no.	210
Houses no.	25
Plus, non-residential space with residential use above:	
Community use (150 ÷ 75m^2) =	2
Commercial use (3750 ÷ 75m^2) =	50
Total	**287**
Net site area =	2.5ha
Development density = 115 dwellings per hectare	

The only non-residential space that should be factored into the density calculation is that contained within a mixed-use building that includes residential.

Image 93
How to measure net density for the UPS



1. **Gross site area**
2. **Net site area**
3. **Mixed-use buildings included within calculation**

Development types

The nature of every development will be shaped in part, by its adherence to the guidance contained within this Supplement. These are a collection of large and small complementary influences but fundamental to the strategy for sustainable development is the definition of the six Development Types for urban areas.

These scenarios are self-selecting after having regard to:

- their spatial proximity and therefore their potential for sustainable development, and
- their site area

See pages 20–21.

A comprehensive appreciation of the planning requirements for each type can only be gained by reference to the complete text, but a summary of the major components is given below.

Most Compact
Minimum density of 75dph

These schemes make the most of their central location by being very compact whilst also offering a high quality environment. They must be mixed-use and as a minimum, half the ground floor frontage onto main streets (connectors to adjacent neighbourhoods) must be non-residential. The mix and proportion of uses will be determined by the Context Appraisal.

Buildings and space must be designed to be flexible and as a minimum, the ground floor ceiling height of every building shall be 3.0m or 3.5m if fronting a main street. The potential for home-working must be considered with reference to the advice contained within Appendix 5. The public realm must also be robust, enabling it to accommodate a variety of known, existing and unknown, future demands.

All development must achieve an Eco Home/BREEAM Excellent sustainability rating.

Car parking will be underground, under-deck, under-croft or remote, multi-storey with some short-stay, on-street spaces for visitors and customers. Provision shall be at a maximum of 100% for residential and 1 space/75m^2 for commercial.

Compact Development
Minimum density of 70dph

Requirements for mixed-use, flexible buildings, space, sustainability rating and car parking as Most Compact type.

Robust Urban Form
Minimum density of 60dph, or higher if compatible with the surroundings of the site.

Requirements for flexible buildings, space and sustainability rating as Most Compact type.

Sustainable Urban Extension
Minimum site area 50ha

Minimum, average density across area 65dph with the highest density at the centre of the extension.

These schemes must contribute substantially to the employment needs of the town. They must be largely self-sufficient for all primary services.

Car parking will be arranged to be compatible with the prevailing density of each part of the extension. Remote, multi-storey car park arrangements are particularly suitable at this scale of development.

Projects must include power generation infrastructure to meet 100% of the needs of the development.

All development must achieve an Eco Home/BREEAM Excellent sustainability rating.

Small Infill
Maximum site area 0.1ha

Density to be compatible with surroundings.

Context Appraisal not required.

Mix of use and car parking informed by the surroundings, but a minimum of 50% ground floor frontage on a main street must be non-residential.

Requirements for flexible buildings, space and sustainability rating as Most Compact type.

None of the above
Maximum density 50dph

All development must achieve an Eco Home/BREEAM Excellent sustainability rating.

Refer to Essex Design Guide 2005 for further guidance.

Buildings and Site Criteria

The way in which we construct and use buildings has a critical impact upon the environment. Building them alone accounts for a significant proportion of UK emissions of carbon dioxide, the main 'greenhouse' gas responsible for climate change.

Carbon savings is a primary goal in shaping the objectives of this guidance and the attainment of quality design. This is necessary not only from a global perspective but also because Essex is particularly vulnerable to climate change – from flooding and drought – and therefore must move towards a lower carbon future. It necessitates a variety of targeted actions and the achievement of a high standard of green design across Essex which exceeds the current, minimum standard required by government and funding agencies.

The Context and Site Appraisals should identify the opportunities for achieving a breadth of sustainable design on a particular site such as the potential for capturing solar gain on south-facing land or the ground conditions for Sustainable Urban Drainage (see page 132). A comprehensive approach, using the Eco Home/BREEAM methodology should then identify the most appropriate combination of measures to achieve a high degree of environmental sustainability throughout all aspects of the design.

Image 94

Green buildings: important in creating sustainable developments Vauban, Freiburg, Germany

Sustainable construction

Sustainable construction methods must be used to provide us with attractive high performance buildings while minimising the use of energy and materials, and causing less pollution and waste.

Materials

Choices on the type of materials and their place of origin are important influences on the total embodied energy of a building and therefore its overall environmental impact. Embodied energy is the total amount of energy required to produce a product, but the environmental cost of their transportation to site is equally important. Preference should therefore be given to recycling materials and using those that have been locally manufactured.

Advice on comparing the lifecycle impacts of different construction materials and methods of construction can be found in The Green Guide to Housing Specification and Green Guide to Specification (available from the Building Research Establishment). The guide compares the relative environmental impacts of the typical alternative construction methods for each element of a building (i.e. roof, wall, floor, window frame etc).

Modular building

The terms modular, portable and system built have different meanings and each refer to a different structural type and construction technique. Building types such as these take on a range of appearances. They can look industrialised, domestic or have an appearance that is somewhere between the two. However, the criteria for their design assessment remain the same as any other building type.

Appropriateness of fit will depend on the context. Where the context includes a broad range of styles, it may be possible to be flexible on the outward appearance of these systems.

However, modular, portable and system built structures need to exhibit references to aesthetic cues of their surrounding urban context, i.e. materials, colour, form, texture, scale and urban composition.

The substantial benefits of carbon reduction/savings (due to construction speed and alternative materials) make a strong case for an increased use of these building systems over traditional construction methods.

However, the application of modular construction must be carefully considered; the longevity and value of these relatively new construction techniques in the UK still remains unproven and therefore must be treated with caution.

Measuring the environmental sustainability of development

BREEAM (the Building Research Establishment Environmental Assessment Method) is a flexible tool that allows the developers, designers and occupiers of buildings to design, monitor and improve environmental performance throughout the life of any building type. There are a number of BREEAM methodologies that can be applied to different generic buildings. EcoHomes is the domestic equivalent but the other methodologies will be required in a mixed-use development. BREEAM evaluates the environmental impact of buildings against a number of key environmental indicators resulting in a rating of **pass**, **good**, **very good** and **excellent**. The environmental categories are:

- Energy
- Transport
- Pollution
- Water
- Materials
- Land Use and Ecology
- Health and Well-being
- Management (not applicable to EcoHomes)

All new developments seeking planning permission within Essex must achieve an **Excellent** rating for environmental assessment under EcoHomes or the appropriate BREEAM methodology.

Water and Waste management are priorities within Essex and the **maximum scores** must be achieved in these categories.

Development that is designed in accordance with the guidance contained within the Urban Place Supplement is likely to score well. More detailed information on how to maximise BREEAM and EcoHome ratings through construction and specification is given in a web-based tool available at www.essexcc.gov.uk/edi

Designing for reduced energy use

Compact, mixed-use development in the most spatially sustainable urban places can contribute significantly to carbon saving, for example through reducing the consumption of energy in the construction process or through reducing the necessity to travel by car in these central locations.

It is not the intention of this document to require the introduction of either carbon-neutral or experimental development. However, a variety of technology exists that can bring additional carbon savings to a scheme over and above those generated by being simply well-located. Some of these are required and others are recommended and may be employed as part of a sustainability strategy for any site.

The improved thermal efficiency of buildings is largely achieved by higher standards in construction and specification such as insulation, double glazing, higher thermal mass to retain heat and the specification of energy efficient appliances. Building to higher densities and more compactly also helps to prevent heat loss.

Passive energy savings and natural ventilation

Passive solar design takes advantage of natural light and heat from the sun and uses thermal air movement for ventilation. South-facing glazing, can be used to trap heat which is retained by using high levels of thermal insulation elsewhere in the building fabric.

The design of buildings should utilise solar gain, as part of the energy management of the development. However, achieving a good layout of development is more critical for a raft of community and safety reasons (see Community Criteria on page 141) which should take precedence if these produce conflicting requirements.

Building fabric should be airtight and natural air movement achieved by passive stack ventilation (PSV). The design and location of the 'passivents' should be considered with care, especially their likely impact upon the skyline.

All non-domestic buildings should generally be designed to reduce their cooling requirements through passive means, avoiding the need for or reliance upon air conditioning. This can be achieved by:

- controlling solar gain through the use of external shading
- using blinds within double glazed units
- using solar control glass
- selecting office equipment and lighting with a reduced heat output or separating equipment with high heat loads into rooms which can be specially conditioned.

Image 97
Sun shading incorporated within architecture

In some urban environments other conditions such as noise or air quality may limit the use of natural ventilation. In these cases, mechanical ventilation with acoustic or air quality filters should be used in preference to full air conditioning.

Where full air conditioning is unavoidable, opening windows should be provided so that in future, there is the option to convert to a natural ventilation strategy.

Renewable energy sources

Some renewable energy technologies can be integrated into buildings or neighbourhoods and should be considered as part of the energy strategy for all new development and **must** be incorporated into larger schemes.

All developments above a threshold of 1000sq m or 10 dwellings **must** incorporate infrastructure for renewable heat and power generation so as to provide at least 10% of their predicted energy requirements.

Recommended systems include:

Solar panels

Solar thermal systems or solar hot water systems absorb energy from the sun to heat water passing through the panels. They can typically provide around 50% of a home's hot water requirement.

Photovoltaic panels

Photovoltaic systems convert energy from the sun into electricity through semi-conductor cells. More electricity is produced with more sunlight, but energy can still be produced in overcast or cloudy conditions. They can be mounted in panels on the roofs of buildings or integrated with external cladding or glazing.

Importantly, their use and location should be considered as part of the architectural design.

Wind energy

Wind energy is one of the most cost effective methods of renewable power generation. Small turbines can supply power direct to single users, such as homes, schools and businesses or a single larger turbine can supply a whole development (a large, 1MW generator can supply power for 1000 homes). Noise and visual impact are important considerations in the location of turbines and the suitability of the technology will depend on the site context and space available.

Image 98
Wind turbines
Frankfurt, Germany

Combined Heat and Power (CHP)

Large development projects have both the critical mass and financial ability to procure all of their energy requirements from sustainable sources, on-site. This can be achieved from either a single Heat and Power system or a combination of this and supplementary power generation measures, described above. These systems have an overall efficiency of over 80% compared to 33–40% for conventional power generation.

A CHP system uses either steam or gas to generate power. They can burn bio-mass fuels such as waste wood or short rotation coppice to produce high pressure steam to generate electricity. Alternatively these systems can burn Natural Gas, converting it to heat and power more efficiently than normal suppliers. Steam can be recovered after it has been used to generate power, condensed and piped as hot water to heat buildings.

Alternatively, gas can be derived from the anaerobic digestion of domestic green waste or silage in conjunction with farm slurry. These systems are particularly useful on the edge of urban/rural areas, adjacent to the potential supply of raw materials.

Although these systems produce carbon emissions the total amount is no more than the carbon absorption of the fuel during growth. The processes would therefore be ‘carbon neutral’ were it not for the emissions from transporting the biomass to the plant.

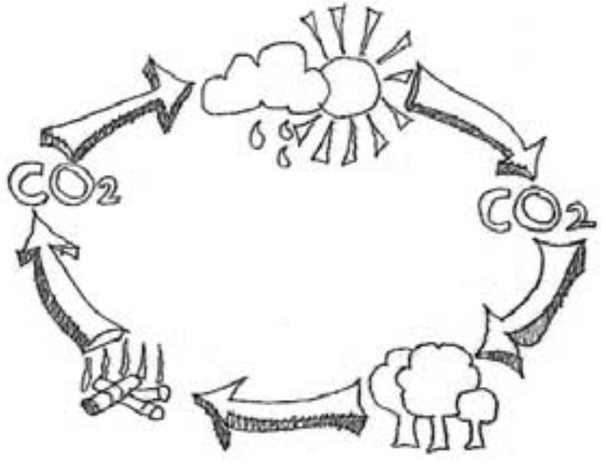


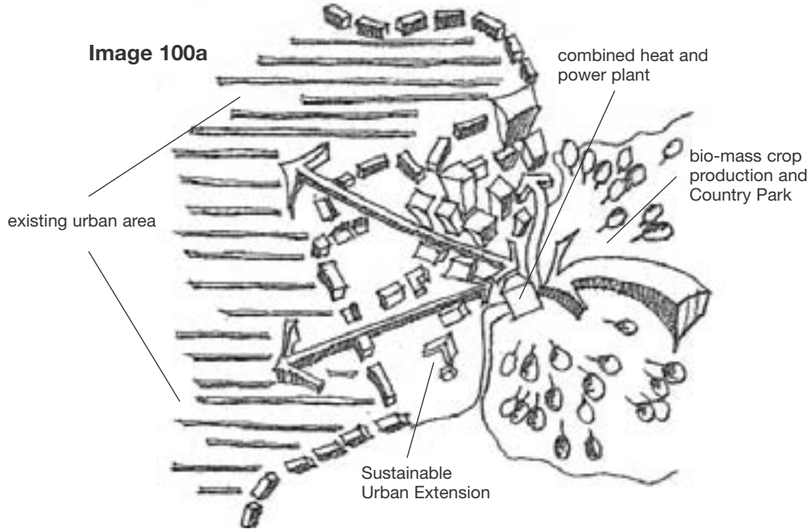
Image 100
Carbon cycle

Ground source heat pumps (GSHP)

Ground warmth can be collected by circulating water through pipes laid horizontally in the ground or down deep bore holes. A heat pump can then take the low temperature heat and upgrade it to a higher, more useful temperature and is often used in conjunction with underfloor heating systems. A geothermal survey would be necessary to assess the suitability of the ground thermal properties for this technology.

The pipe network for a horizontal GSHP system requires a relatively large area of land and would therefore also work well on the edge of an urban/rural area where tracts of agricultural land may be available nearby. The adjacent land could alternatively be used to grow silage or coppice for a CHP system.

Image 100a



All development sites (or combination of adjacent development sites) over 50ha shall incorporate either a Combined Heat and Power plant or Ground Source Heat Pumps, or both. These must be designed to supply 100% of the needs of the development when used either exclusively or in combination with other on-site, largely carbon neutral power generation measures.

Designing to conserve water

Essex is located in one of the driest areas of the country and therefore the conservation of water is a high priority. This can be achieved through the production of a Water Management Strategy for every development that specifies the following:

- The consumption/performance of water appliances in the buildings
- The use of rainwater harvesting
- The use of Sustainable Urban Drainage

Although the consumption of treated water depends a lot on the behaviour of consumers, designers should seek to place as little demand on the network as possible by employing a variety of on-site systems:

Rainwater harvesting

Rainwater that is not absorbed into the ground is invariably piped either directly into a watercourse or a sewerage treatment plant. In times of high rainfall this adds to the risk of local flooding. Harvesting rainwater not only captures run-off before it enters the drainage system but also reduces consumption of treated water from the main supply.

Harvesting systems are linked to the supply system of a building, providing water for landscape irrigation or the flushing of toilets. Although regulations allow for the use of harvested rainwater for all purposes other than for drinking, concerns over potential health risks mean that its use should be limited to only these purposes.

Tanks are usually installed underground, although basement or under-croft car parks are also suitable, and water pumped for use when required. Systems are designed only to draw on treated (mains supply) water when rainwater is not available. The storage capacity required for an individual home in Essex is 200–250 litres and multiples thereof for communal provision for larger developments.

All buildings must incorporate a rainwater harvesting and storage system of adequate capacity either individually or communally as part of a larger development.

All development is required to achieve a maximum BRE Eco-home/ BREEAM score for water conservation. A water conservation strategy must be submitted with any planning application for 1 house or more or any commercial development that demonstrates how this standard is to be reached.

Sustainable Urban Drainage Systems (SUDS)

Whilst a high proportion of rainfall will be directed to on-site storage tanks, once full, excess rainwater will also need to be retained on site. Whereas conventional drainage arrangements are designed to remove water as quickly as possible, Sustainable Urban Drainage Systems are designed to either re-install water into the ground or to hold it and facilitate its evaporation. The principle advantages of SUDS is in regulating the flow of water in times of heavy rainfall (reducing the risk of flooding), reducing the risk of river pollution and creating an amenity for urban dwellers.

Common components of a SUDS are:

- Permeable paving, infiltration trenches and soakaways to reduce surface run-off.
- Filter drains and strips to prevent and reduce pollution.
- Balancing ponds, wetlands, ditches and swales created for the storage of surface run-off.

Image 101

SUDS: water bodies can offer opportunities for quality designed spaces Malmo, Sweden

All development, except very small schemes on sites of less than 0.1ha, shall manage excess rainwater so that it is retained either on-site or within the immediate area via a Sustainable Urban Drainage System.

The SUDS surface water storage measures should be used for enhancing the environment of both the public and private realm. Not only can open areas of water contribute to the variety of plant habitats which encourages bio-diversity, they can also enhance the quality of the living environment. Bringing the natural environment into the heart of urban areas can enrich the quality of life for everyone. **(Image 102)**

Stormwater should be led away at ground level in open channels that lead to open ponds. Water should ideally, be routed through areas of ground vegetation and suitable bio-habitat. Rainwater captured along heavily trafficked streets should feed into the SUDS via oil and contamination separators.

SUDS may also provide unstructured play opportunities for children but this arrangement should only exist where the water is surrounded by occupied building frontages and ideally, a reasonable amount of passing, pedestrian footfall. Ponds should be very shallow with gradually sloping edges to provide habitat for marginal aquatic plants.

Image 102
SUDS can also provide opportunities for play

Ecology and bio-diversity

Living with nature is possible within urban places. Wildlife can contribute substantially to the health and well-being of an urban community, encourage a greater social interaction and be an educational resource for local schools. Vegetation can reduce the risk of flooding, contribute to pollution control, provide shade and reduce the effects of wind created by streets. There are a variety of good reasons why natural habitats should form part of higher density urban developments. They can significantly increase the quality of residential and mixed-use urban areas and, from a developer's perspective, have the potential to contribute to the market value of new development.

Effective protection of the environment is one of the Government's four key sustainable objectives, to be achieved simultaneously with economic growth and employment, social progress and prudent use of natural resources *(A better quality of life: A strategy for sustainable development in the UK. DETR 1999)*. It requires protection of existing species and habitats, as well as management and aftercare of areas that are to be retained, enhanced or created.

All new developments in Essex will therefore be expected to enhance existing bio-diversity and create new habitats.

Developments can provide many opportunities for bio-diversity as part of good design and these should be maximised (PPS9). Furthermore all developments should ensure that networks of habitats are maintained to prevent fragmentation and isolation.

Essex has a great variety of urban wildlife. As well as ancient woodlands, grassland and wetlands, urban sites can provide a refuge for once widespread plants and animals; industrial land, urban commons, gardens and buildings can offer unique habitats which often support uncommon species and unique assemblages of plants (Essex BAP 1999). Parks, cemeteries, allotments, railway sidings and derelict land all make a significant contribution to bio-diversity in urban areas.

Protection of existing habitats and species

Some areas of habitat are statutorily protected and have international or national designations for the particular animals and plants that live there. These reflect the relative importance of the sites or the species. In addition,

non statutory areas exist which are often referred to as County Wildlife Sites. There is a general presumption against development that may harm any site of international or national importance. Development will only be approved on a site with local designation if there is adequate environmental compensation. Statutorily protected plants and species need special consideration but can co-exist with development if adequate site management arrangements are in place.

Green public space

All new development must include measures to encourage bio-diversity by creating varied habitats, and a rich diversity of trees and planting throughout the built environment.

Some areas should be left uncultivated. Within high density urban developments green public space provides one of the main opportunities to incorporate bio-diversity. Water management strategies should consider opportunities for wetland habitat where possible. The Context Appraisal will assess how green spaces and habitats within the locality can be linked to provide corridors for the movement of wildlife.

Image 105

Image 105a

105. Orchids in meadow

105a. Green links connecting green spaces

Buildings and bio-diversity

Various opportunities exist for buildings to support bio-diversity and it is desirable that habitats be integrated into the design of buildings. Consideration should be given to the use of green roofs and planting being allowed to take hold on facades, roof terraces and balconies by providing climbing wires and planters. The popularity of the conservatory suggests that there is a desire to merge internal and external spaces where planting can be brought inside and the garden or balcony used as outdoor living area.

Image 106

Greening buildings provide habitats, Freiburg, Germany

Green roofs can support either large and elaborate vegetation, including trees, using deep soil bases ('intensive' green roofs) or support mainly mosses and sedums using shallow soil layers ('extensive' green roofs). Intensive green roofs are flat and usually require artificial irrigation. The deeper soil layer has structural implications for the building design. Places such as the deck above communal parking in higher density development can be designed for this situation. Extensive green roofs can have a pitch of up to 30°, are lightweight and unsuitable for human use but still provide additional thermal insulation and encourage bio-diversity. **(Image 107)**

Brownfield sites may be heavily contaminated and have poor soils but they can have a high ecological value. **Brown roofs** can be used to recreate this habitat. They can support rare plants and animals that can tolerate the conditions of brownfield sites, using a mix of aggregates as the substrate for natural colonisation by plants. **(Image 108)**

Nesting boxes and other spaces for birds and bats should be provided on buildings or in communal green spaces as part of a comprehensive ecology strategy for the development. Specially designed bricks are available to provide roost sites for Bats.

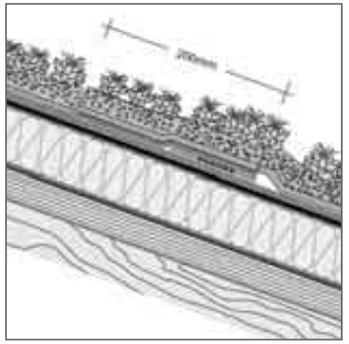


Image 107
Green roof section
Courtesy of Bauder Ltd.

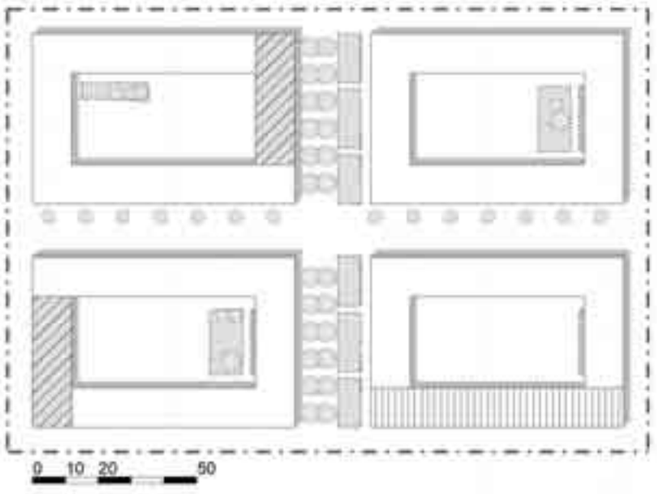
Image 108
Brown roof, Deptford, London

Green Point System

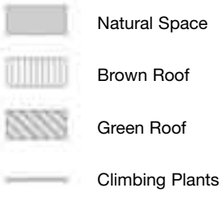
To achieve bio-diversity within new urban areas, this guidance sets out a point score system. Points are awarded for any measure that contributes to the bio-diversity within new development. **Areas to be developed must reach a Green Points Score of at least 100 points per hectare.** This can be achieved in different ways and the designer – with the advice of an appropriately qualified ecologist – can select the preferred mosaic of ecological features that will be part of the Ecology Strategy for the site. The following table sets out the range of options that are available to reach the full score. The kind and combination of measures will depend on the individual conditions and opportunities on each site.

Ingredient	Measure	Green Point Score
Provision of natural space: Enhancement of existing or creation of new protected species habitat Enhancement of existing or creation of BAP species habitat 'Dry gardens' – with plants requiring little water Wetland areas – eg ponds, lakes, reedbeds (with native marginal planting) as part of a SUDS.	Per $10m^2$	1
Green roof	Per $10m^2$	0.5
Brown roof	Per $10m^2$	0.3
Bird boxes or other nesting provisions	Per box	0.2
Bat boxes or other nesting provisions	Per box	0.2
Walls covered with climbing plants	Per $10m^2$	1
Plants with good source of nectar, berries, seeds or nuts (refer to bio-diversity strategy)	Per plant	0.01
Tree planting or retention of trees that are not protected by a TPO	Per tree	1

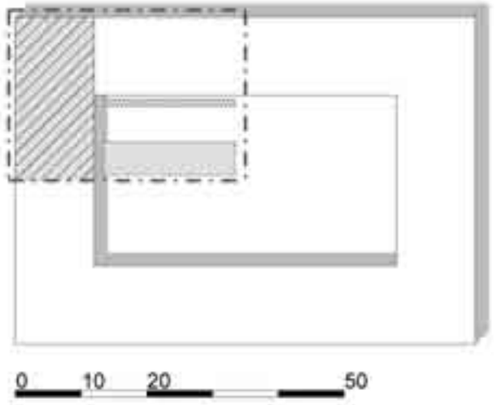
Below, two case studies show how the required green point score can be achieved in different developments. The first example is a 2.6ha development which reaches the required green point score of 260 through incorporating a range of green elements throughout the development. The combination shown in the example is just one way to show how the score can be achieved, with many other combinations possible.



1170m^2 of natural space	117
850m^2 of brown roof	26
960m^2 of green roof	48
180m^2 of climbing plants	18
47 trees	47
10 bird boxes	2
10 bat boxes	2
Total point score	**260**



This example shows a small urban infill site of 0.1 ha. The required 10 points can be reached through either of the shown measures. Again, there are many other ways to achieve the score.



100m^2 of climbing plants	10
or: 100m^2 of natural space	10
or: 200m^2 of green roof	10

Community Criteria

Careful planning and sensitive design of new development can make a significant contribution to the quality of life for existing places and future occupiers. It can be a catalyst for improvement and urban renaissance.

This guidance promotes ways in which sustainable communities can emerge by both addressing existing weaknesses in urban areas and by ensuring new development is designed for a better balance of housing tenure and a finer grain of economic mix from the outset. Concentrated pockets of deprivation may require broader actions to resolve but it is crucial to begin to match local need on housing, employment and services through the opportunities provided from private investment.

Creating places that are adaptable is crucial for long-term robustness. Urban fabric is expensive to alter and it therefore makes sense to ensure that buildings and public spaces are capable of adapting to the various needs and unknown, changing demands of the people that occupy these spaces. Such flexibility will for example, allow people to stay within their own homes (see Lifetime Homes) if their circumstances change or their workspace (see Live-Work) as an enterprise grows. (See www.essexcc.gov.uk/edi)

Through the platform of the Context Appraisal process, communities will be able to refine a vision for their future that is inclusive and sustainable and captures the opportunities arising from new development as a force for positive improvement.

Neighbourly urban design

This guidance is directed at steering a change in the way urban places are designed, maintained and managed; the purpose of which is to improve quality of life through sustainable measures. Existing and new communities are at the heart of these requirements.

The aspiration for good urban design has been expressed throughout this document and in addition to the big things it is often the attention to detail which is most noticeable and appreciated – the meeting place in a sheltered corner with a bench positioned to face a nice view or the street light thoughtfully located opposite a building entrance and the raft of other design features that contribute to a neighbourly environment. A document that prescribed all these things would be very large and ultimately, pointless. Every neighbourhood, street and community is different and every designer an individual. The aim of the Supplement is to assess and celebrate the individuality of different places and respond with design solutions that are appropriate to this context.

Ultimately, it will be the responsibility of everyone to ask ‘How neighbourly is this design?’ and ‘Would I like to live there?’.

Safe public places

Being and feeling safe is a basic need that everyone has yet many urban environments are not designed with safety in mind. Critically, they contain places where buildings have not been regarded as the backdrop for street life. They may face the wrong way or be set too far back or even hide behind walls and fences. All these configurations make places less safe than they could be.

Only by recognising the primacy of the street can progress be made. This principle has existed as planning policy guidance in Essex for the past 30 years and it requires constant attention. It provides the rationale for fronts and backs, for active frontages, for mixed-uses and for traffic calming. It dictates the position of building entrances, requires the avoidance of blank, windowless elevations and generally necessitates the delivery of design quality – for this space is of importance not only to the individual but to the town as a whole.

In many respects, the provisions within this Supplement to the Essex Design Guide all help to create a safe public realm. By re-balancing design effort and capital investment in favour of public space as opposed to private amenity the guidance aims to make all development ‘outward focused’.

Well designed, well managed streets that are occupied by people are inherently safe places to be and every new development in Essex is required to demonstrate how it will contribute to this ambition.

Image 108
Community for both the young and old Freiburg, Germany

Applying the guidance

Development scenarios

Introduction

These drawn examples of possible developments relate to actual sites in Essex and their design has therefore been influenced by a local context. They are intended to demonstrate most of the provisions of the Urban Place Supplement and of course, each scenario illustrates just one possible solution for any site. They have not been subject to a full Context Appraisal process and no implication is intended that these schemes would be acceptable to either stakeholders or the local planning authority.

See the ECC website for further details of these schemes.

Image 109

Vauban Development, Freiburg, Germany

Town Centre

75+ dwellings/hectare

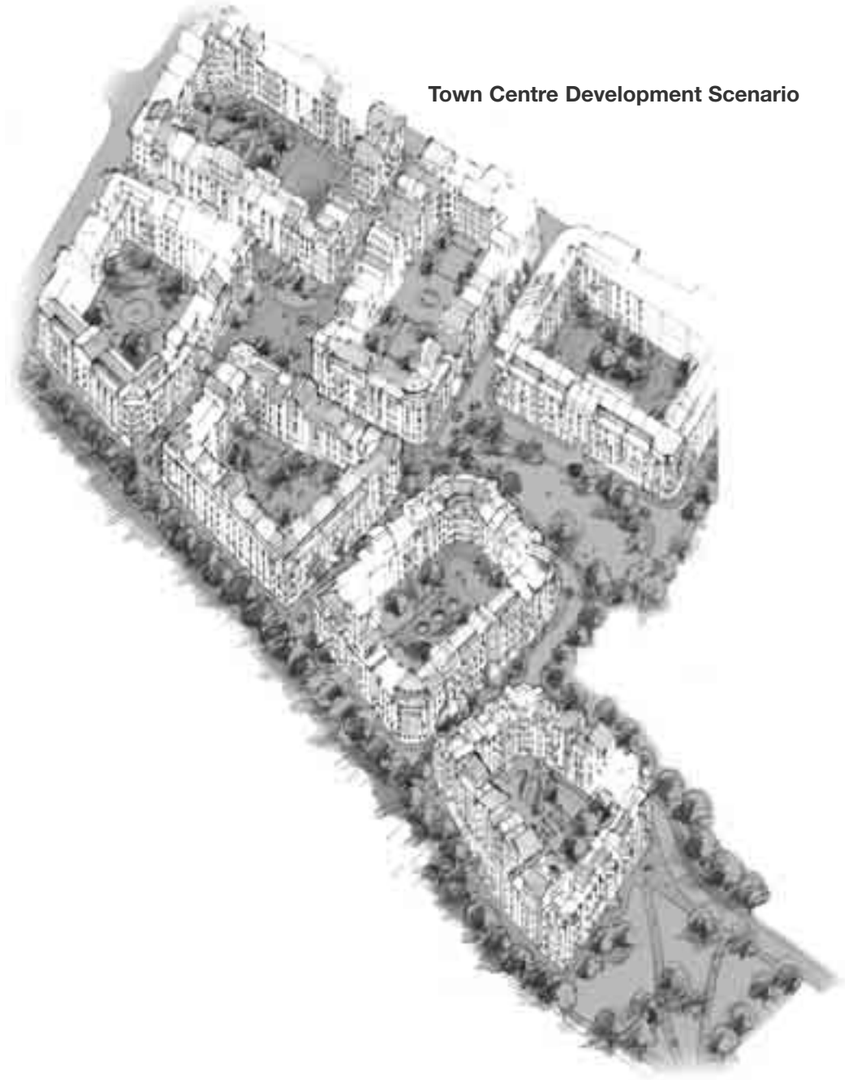
This substantial site is located less than 800m distance of a major town centre. Its short side is adjacent to a busy road and bus route and the site is within a mixed-use environment.

The proposal establishes a scheme of 3 and 4 storey buildings where private car parking is generally placed under decks that have landscaping above, used as private communal gardens. The block structure produces a fine-grained system of public space that improves the permeability of the surroundings, complemented by natural habitat and play space.

Retail and business premises occupy the main street frontage and a small community centre provides facilities for people living nearby. Live-work units and homes occupy the remaining floor space. The new Mixed-Use Street type has been used to retro-fit the existing highway along one boundary and here, buildings along the frontage are designed to allow changes in their use should the demand exist. On-street parking for these potential businesses forms part of the street design.

Site area: 4ha
Net density: 92dph, inc. open space

Town Centre Development Scenario



Neighbourhood

70+ dwellings/hectare

Located on a busy street corner, the site lies within the centre of an established neighbourhood. Taking advantage of a gently sloping site, private car parking has partially been placed underground with the remainder either above ground or under-croft.

A play street unifies the public space created within the development which adjoins an area of open water that is part of the Sustainable Urban Drainage system.

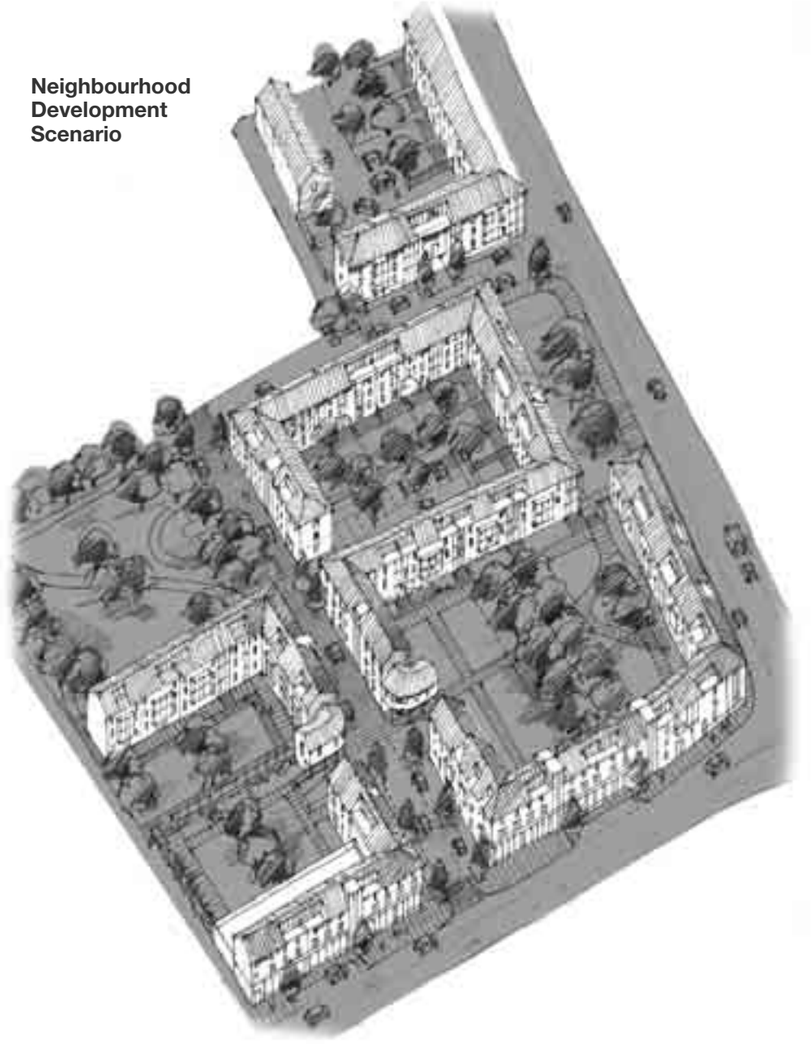
A variety of houses, apartments, business units and shops combine to create a development of mixed tenure, type, value and use. The intensive Green Roofs above the parking decks are sufficiently spacious to allow them to be used for playing games, socialising, growing vegetables or simply sitting outside.

In this scheme, all the houses have private gardens and there are a small number of low cost apartments without private communal space.

Communal waste recycling centres are located at strategic points that allows easy access for collection vehicles.

Site area: 1.5ha
Net density: 84dph, inc. open space

Neighbourhood Development Scenario



Public Transport Corridor

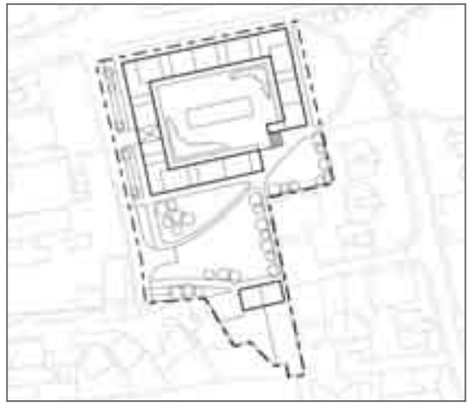
60 dwellings/hectare max., or higher if compatible with surroundings

Within 150m of a major, public transport corridor this small site is in an attractive setting a short bus or cycle ride from the town centre. Built around an under deck car park, the perimeter 3 storey buildings enclose the landscaped, communal space. A pair of semi-detached houses occupy one corner of the site.

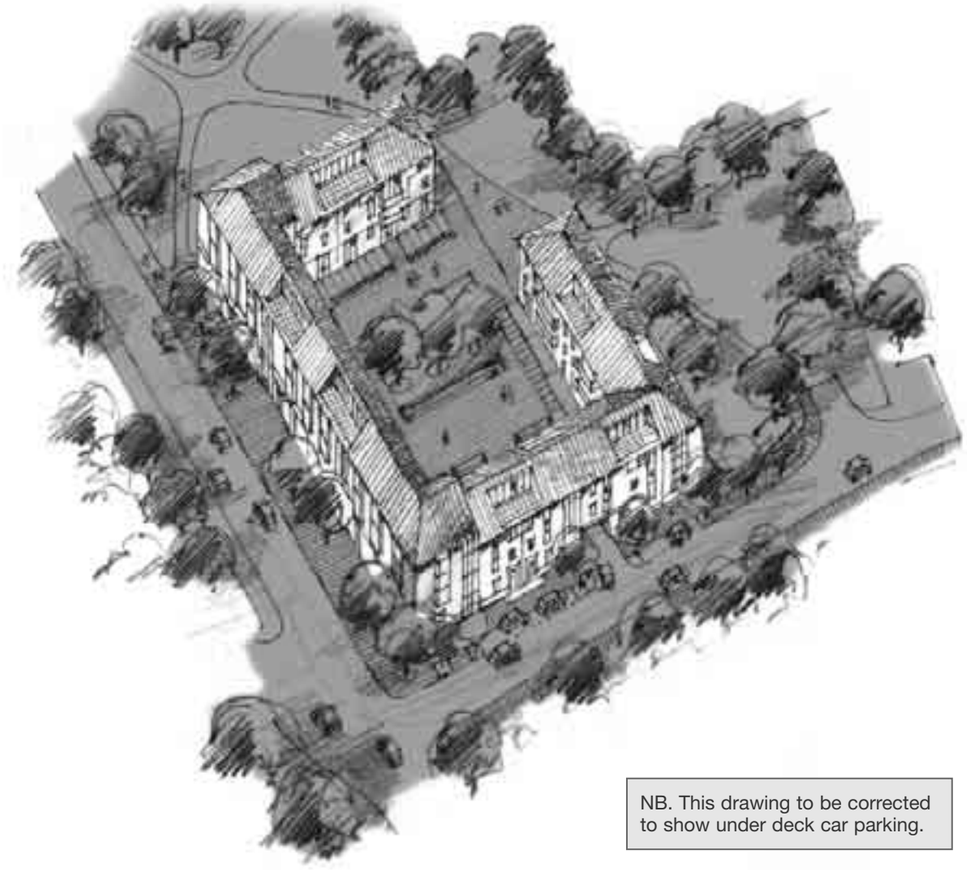
The land adjoins an existing area of public open space and, in response to a Context Appraisal that identified a shortfall in local open space provision, has been extended to one side of the development. The occupiers of existing houses now enjoy the benefit of overlooking and using this extra amenity.

Small business units occupy the ground floor of the street frontage and the number of these can increase or decrease in response to fluctuations in demand because the flexible building fabric and site layout can easily accommodate change.

Site area: 0.56ha
Net density 78dph, excluding open space



Public Transport Corridor Development Scenario



NB. This drawing to be corrected to show under deck car parking.

Case studies

Introduction

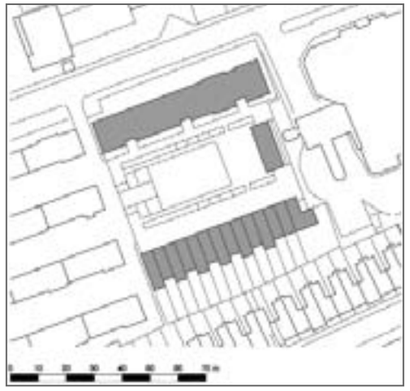
The following section summarises the findings of a selection of study visits to compact urban schemes during 2005. All the developments are different and show a variety of solutions to key issues from car parking provision to tenure. Most of the developments have, in one way or another, received positive reviews and are regarded to be good precedents for high density urban development.

Our assessment of each case study is based on the principles outlined within this document and a site visit. No residential consultation took place and the appraisal of the scheme was undertaken only from external space.

In reviewing high density schemes it is important to gain an appreciation of the context of each development. Studying schemes in metropolitan areas should not be seen as trying to applying the London model to Essex – but to understand the reasons behind each success and failure and ensure lessons are learnt for future developments. These case study sheets will not be included in the final copy of the Urban Place Supplement.

Beaufort Court

Lillie Road, Fulham. Feilden Clegg / Peabody trust



The analysis

Date built:	2003
Project Value:	£7.4 million

The Site

Site Area:	0.53 hectares (131 acres)
Number of bed spaces:	238
Type and mix of dwellings:	houses and flats
Density:	122 dph
Units:	65
Section Type:	28 social rental 14 key worker rental 19 shared ownership 4 rough sleeper initiative

The Building (Beaufort Court)

Building perimeter:	162m
Building depth:	11.6m
Frontage:	63.2m
Retail units:	n/a
Bin store:	caged in front of ground floor flats
Lifts:	none (three stairways)

Space in the home

Typical garden area flat:	9sq.m front 12.5sq.m rear
Typical garden area:	52sq.m
Balcony:	6.4sq.m
Storage area:	1sq.m
Living area:	15sq.m
Small bedroom:	116sq.m
Large bedroom:	129sq.m

Car parking

Spaces per dwelling:	0.67 per dwelling
On street:	n/a
Dedicated off-street bays:	n/a
Garages:	n/a
Deck parking spaces:	44

Overall land budget

Dwellings footprint:	14% flats 14% houses
Private gardens:	6% flats 17% houses
Communal space:	23%
Roads and footpaths:	15%
Landscape:	9%
Other – Tenants meeting rooms:	2%

Other information

Cost per unit: (2003)	£115,230
Postcode:	SW6 1UD

Building for Life Award.

Notes from site visit

Likes

- Crisp design
- Architecture fits in well with surrounding context
- Tenants meeting room

Dislikes

- Communal space is taken up by a fenced sports facility (padlocked at the time of our visit)
- Little additional public open space
- Very poor landscaping
- Front space behind high wall on street may be a missed opportunity
- Deck parking ramp and bin area obtrusive and unsecured

Chronos

Mile End Road, Whitechapel. Proctor Matthews/Copthorn Homes

The analysis

Date built:	2002
Project Value:	£8.0 million
The Site	
Site Area:	0.4 hectares
Number of habitable rooms:	458/ha
Type and mix of dwellings:	flats and townhouses
Density:	162 dph
Units:	65
Section Type:	no social housing allocation
The Building (Flats)	
Building perimeter:	130m
Building depth:	14m
Frontage:	50m
Retail units:	6 including restaurant
Bin store:	shared for town houses communal for flats
Lifts:	1
Space in the home	
Typical garden area flat:	n/a
Typical garden area house:	32sq.m (average)
Balcony:	11sq.m (semi-enclosed)
Storage area:	sq.m
Living area:	sq.m
Small bedroom:	sq.m
Large bedroom:	sq.m
Car parking	
Spaces per dwelling:	per dwelling
On street:	n/a
Dedicated off-street bays:	24
Garages:	n/a
Deck parking spaces:	40 (approx)
Overall land budget	
Dwellings footprint:	17% flats 27% houses
Private gardens:	13%
Dedicated parking bays:	6%
Communal space:	0%
Roads and footpaths:	29%
Landscape:	5%
Other – bin storage:	3%
Other information	
Cost per unit (2003):	£
Postcode:	E1 4TP

Building for Life Award

Notes from site visit

Likes

- Sympathetic architecture with some good detailing
- Mixed-use

Dislikes

- Waste storage bins are located so they cut off blocks from communal space
- Poor communal space – could be avoided if all parking were underground
- High density at expense of quality communal space

Hart Street

Brentwood. Countryside Homes

The analysis

Date built: -
Project Value: £- million

The Site

Site Area: 0.25 hectares
Number of bed spaces: -
Type and mix of dwellings: flats and townhouses
Density: 192 dph
Units: 48
Section Type: flats (2,3,3 bed)

The Building (Hart Street)

Building perimeter: 376m
Building depth: 10m (max)
Frontage: 97m
Retail units: n/a
Bin store: -
Lifts: -

Space in the home

Typical garden area flat: 5.3sq.m (conservatory)
Balcony: -
Storage area: -
Living area: 22sq.m
Small bedroom: 5.28sq.m
Large bedroom: 10.28sq.m

Car parking

Spaces per dwelling: 1.7 per dwelling
On street: n/a
Dedicated off-street bays: n/a
Garages: n/a
Deck parking spaces: 82

Overall land budget

Dwellings footprint: 48%
Private gardens: 2%
Communal space: 26% (8% of which forms two garden areas)
Landscaping: 19%
Other – car park vent: 2%
car park ramp: 3%

Other information

Cost per unit: £-
Postcode: -

Notes from site visit

Likes

- Blends into the conservation area yet provides a high density development
- Uses local materials
- Well designed communal space
- Under-deck parking

Dislikes

- External building envelope lacks ambition

Fulham Island

CZWG / Manhattan Loft Corp. & Osborne Group

The analysis

Date built:	2004
Project Value:	£9.4 million
The Site	
Site Area:	0.6 hectares (1.5 acres)
Number of bed spaces:	-
Type and mix of dwellings:	flats
Density:	60 dph
Units:	22
Section Type:	no affordable homes 20 flats (2 and 3 bedrooms) 2 penthouses 10 flats in refurbished building
The Building (Fulham Island)	
Building perimeter:	243m
Block depth:	46m x 66m
Frontage:	243m
Retail units:	Offices, shops (including 7000sq.ft Marks and Spencer), restaurant.
Bin store:	Basement
Lifts:	Residential lift from reception.
Space in the home	
Balcony:	-sq.m
Storage area:	-sq.m
Living area:	-sq.m
Small bedroom:	-sq.m
Large bedroom:	-sq.m

Car parking	
Spaces per dwelling:	1 per dwelling
On street:	n/a
Dedicated off-street bays:	n/a
Garages:	n/a
Deck parking spaces:	25 (basement level 1)
Overall land budget	
Buildings footprint total:	50%
Communal space:	23%
Roads and footpaths:	22%
Other – On street café space:	4%
Service vents:	1%
Other information	
Cost per unit (2003):	£-
Postcode:	SW6

Notes from site visit

Likes

- Comfortable blend of unity and variety – fitting into the eclectic architecture of surroundings
- Communal courtyard
- Successful mixed-use
- Excellent waste and recycling arrangements
- Good public realm and pedestrian priority of surrounding streets

Dislikes

- No affordable housing

Murray Grove

Hackney, London. Cartwright Pickard Architects/Peabody Trust

The analysis

Date built:	1999
Project Value:	£28 million
The Site	
Site Area:	0.21 hectares
Number of bed spaces:	-
Type and mix of dwellings:	flats
Density:	142 dph
Units:	30
Section Type:	Peabody trust apartments for young singles and couples.
The Building (Murray Grove)	
Building perimeter:	131m
Building depth:	8m
Frontage:	59m
Retail units:	n/a
Bin store:	rear with private courtyard.
Lifts:	1 located in rotunda.
Space in the home	
Balcony:	-sq.m
Storage area:	-sq.m
Living area:	-sq.m
Small bedroom:	-sq.m
Large bedroom:	-sq.m

Car parking	
Spaces per dwelling:	No car parking provision was a condition of planning permission. No bike provision either – 10mins walk for Old Street tube station.
Overall land budget	
Dwellings footprint:	41%
Private gardens:	0%
Communal space:	48%
Roads and footpaths:	11%
Other information	
Cost per unit: (1999)	£-
Postcode:	N1 7QZ

Notes from site visit

Likes

- Courtyard
- Strident design comfortable in it's context

Dislikes

- Longevity/robustness of modular construction for the future
- Deck access and problems with privacy and nuisance
- No bicycle facilities

Appendicies

Appendix 1 – Glossary

Term	Description	Alternative
Active Frontages	Street elevations that are enlivened by visible activity either within or outside the building.	• Responsive Environments (Bentley et al)
Adaptability or 'Robustness'	The ability of places, spaces and buildings to accommodate either permanent or temporary change.	
Bio-diversity	'Bio-diversity' is short for 'biological diversity' and is the term used to describe the variety of all living things and the assemblages of plants, animals and natural materials we call habitats. This includes the processes that occur in these natural systems.	• Essex Bio-diversity Project www.essexbiodiversity.org.uk/
Urban Centre	To be defined by mapping co-ordinated with district councils.	• See EDI website
Density	Dwellings per hectare	• People per hectare • Habitable rooms per hectare • Plot ratio
Intensity	The degree to which a place is used by people. An essential component of successful streets and squares but a by-product of other factors.	• Vitality
Legibility	The ease with which the parts of a town can be recognised and organised into a coherent pattern.	
Neighbourhood Centre	Definition to follow on after public consultation.	

Term	Description	Alternative
Permeability (visual and physical)	A measure of (visual and physical) accessibility into and within an area or space. Degrees of permeability may, in practice, differ between the person with local knowledge and the casual visitor. (NB there is some tension here between the desirability of legible layouts and obvious permeability and variety, where some connections may be slightly hidden or discreet).	• Connectivity
Play Street	Residential streets that are designed for outdoor play and socialisation, where the needs of the car are of secondary importance.	• Home Zone
Private space	Space that is designed for exclusive use and are hidden from view and/or inaccessible from the public realm.	
Public space	Space that is designed for use by the community and where access is open to all. This includes streets, squares and parks.	
Strategic Public Transport Route	Main transport corridor: 15 minute bus frequency in each direction.	
Sustainable communities	Mixed-use Varied (culturally, economically etc) Robust	• See Office of the Deputy Prime Minister
Sustainable development	Development that is located, designed, constructed and used in a manner that minimises energy consumption and waste.	• Rio Earth Summit definition • Balancing of economic, community and ecological needs.

Term	Description	Alternative
Sustainable Urban Drainage Systems (SUDS)	Collective term for a variety of urban drainage structures that replicate the capacity of undeveloped ground to infiltrate, store or attenuate the flow of large quantities of water, while taking into account water quality and amenity value.	• Density
Urban Capacity	The capacity of sites or areas to accommodate new buildings and activities. Usually expressed numerically, but taking into account the potential for mixed-use.	
Urban Centre	Defined by population: urban centre needs to have a population of 35,000 or over.	
Urban Centre small	Has a population of under 35,000	
Urban Grain	The pattern of the arrangement and size of buildings and their plots in a settlement. An area's streets, blocks and pattern of junctions define its urban grain.	
Variety	Of use, occupancy, tenure, value, ownership, and activity occurring over time.	
Visual Richness	The degree to which surface interest and detail is either designed specifically for the benefit of the viewer or is incidentally derived.	
Walkable catchment	The area contained within a 5 or 10 minute walking distance (400 or 800 metres) of principle attractors such as bus routes, railway stations, neighbourhood or town centres.	
Work-homes	Buildings that are specifically designed and used for a combination of living and working with dedicated spaces for each. Each function has direct access from public or semi-private space.	• Live-Work

Appendix 2 – Planning Context

The Draft Regional Spatial Strategy (East of England Plan) identifies broad areas of growth within Essex and provides a strategy for sustainable development. Its policies provide a framework that will support protecting and enhancement of the built and natural environment; minimising the use of resources and environmental impact of travel; delivery of integrated patterns of land use and movement; sustaining vitality and viability of town centres; making use of previously developed land.

Local plans and local development frameworks and plans identify sites and locations appropriate for regeneration and development. These contain policies that require development to be well designed and fit in with their surroundings and which meet the objectives of the RSS and government advice contained in planning policy statements/guidance.

Planning Policy Guidance (PPG) and Planning Policy Statements (PPS) set out the government's land use policies and are material to consideration of planning applications.

PPS1 recognises that good design is a key element in achieving sustainable development. Design should improve the character and quality of an area and be appropriate to its context. It recognises that factors which contribute to achieving high quality environments are the visual appearance of buildings and well planned spaces. It promotes efficient use of resources, energy efficiency and mixed-use developments.

PPG3 introduces an approach to identification of housing land based on principles of sustainability. It encourages environmentally and socially sustaining communities, promotes mixed-use development and tenure, links greater intensity of development to sustainable locations and access to public transport, emphasises the importance of urban design in achieving high quality environments, recognises the legitimacy of contextual considerations and the needs of pedestrians and the role of landscaping in new development.

PPG13 aims to integrate planning and transport. Development should be located in places which are accessible and sustainable to reduce reliance on the car. It recommends that mixed use developments are located in town and district centres, near major public transport and provide local facilities in locations near their clients.

PPG17 covers open spaces, sport and recreation and how these aspects underpin people's quality of life. Well designed and implemented planning policies for open space, sport and recreation are therefore fundamental to delivering broader Government objectives. These include:

- Supporting an urban renaissance
- Promotion of social inclusion and community cohesion
- Health and well-being
- Promoting more sustainable development

Appendix 3 – Context Checklist

Essex Design Guide, Urban Place Supplement (2005)

Information required to inform Context Appraisals:

proximity to town centre	within 800m	ECC website
proximity to neighbourhood centre	within 400m	Survey
proximity to public transport corridor	within 400m	Survey
urban form	Pattern of streets and spaces Morphology Materials Building heights styles and identity Skylines Landmarks	Survey Local Authority Essex County Council Civic Societies
existing pattern of uses	Type Floorspace	Survey LA records
economic development initiatives	Skills training Start-up units Business support	Learning and Skills Council LA Essex Development & Regeneration Agency
doctor surgeries		Primary Care Trust
healthy living centre/clinic		Primary Care Trust
secondary school		ECC
primary school		ECC
pre-school nursery		LA
community centres		LA
library		ECC
public art	installations and strategies	LA ECC
green space	global structure	survey LA
sports fields	global provision	survey LA
play space	diversity of provision	survey LA
bio-diversity structure	global structure local incidents and gaps BAP targets	survey English Nature LA ECC
landscape character	topography	survey LA ECC English Heritage

data	value	source of information
Functional context (continued)		
areas liable to flood		Environment Agency
heritage assets	Sites & Monuments Record Listed buildings Conservation Areas	Survey ECC LA Civic Societies English Heritage
movement	vehicular flows pedestrian flows public transport routes & frequency	ECC LA Survey
Operational context		
car parking management	parking and servicing restrictions resident parking schemes enforcement	LA
public space management and maintenance	programmes & events quality of maintenance delivery mechanism	LA ECC
school place availability		ECC
pre-school places		operators
community centre availability		operators

data	value	source of information
Operational context (continued)		
capacity of GP surgeries		Surgery Primary Care Trust
employment space availability		Agents LA ExDRA
Community context		
community aspirations	additional meeting space recreation space youth facilities environmental improvements etc.	LA (inc. Community Assessments) local councillors Partnerships
employment and business space demands		LA ExDRA
housing need		LA Registered Social Landlords
housing demand		Agents
education investment proposals		ECC LA
PCT delivery priorities and investment proposals		Primary Care Trust

Appendix 4 – Context Appraisal Data Links

ECC Planning data:
http://www.essexcc.gov.uk/

Urban Centre maps with 800m plots:
http://www.edi.gov.uk

ECC Nurseries project:
http://www.essexcc.gov.uk/

Libraries
http://os.essexcc.gov.uk/libraries/library/

Local Authority Arts Development Officers
http://www.essexcc.gov.uk

Heritage Monuments Record
http://unlockingessex.essexcc.gov.uk

Local Authority Sports Officers
http://www.essexcc.gov.uk

Childrens Nurseries
http://www.childcarelink.gov.uk

Schools
http://194.129.26.30/applications/schools/

Primary Care Trusts
http://www.nhs.uk/england/

Local Strategic Partnership: Community Strategies
http://www.goeast.gov.uk/Partnerships/Local_Strategic_Partnerships/

Flood Risk Maps
http://www.environment-agency.gov.uk/

Homes for Life
www.lifetimehomes.org.uk

Car Sharing
www.thamesgateway.carshare.com
www.essexcarshare.com
www.liftshare.com
www.carclubs.org.uk

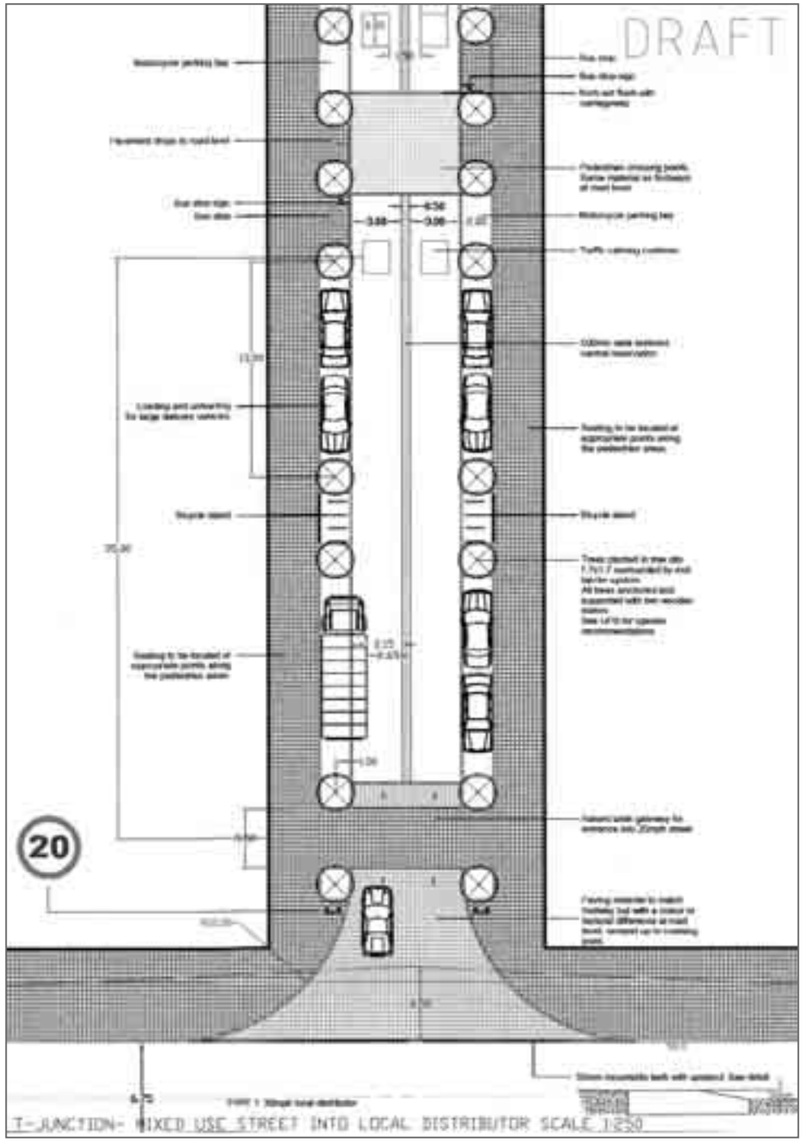
Appendix 5 – Urban Place Supplement

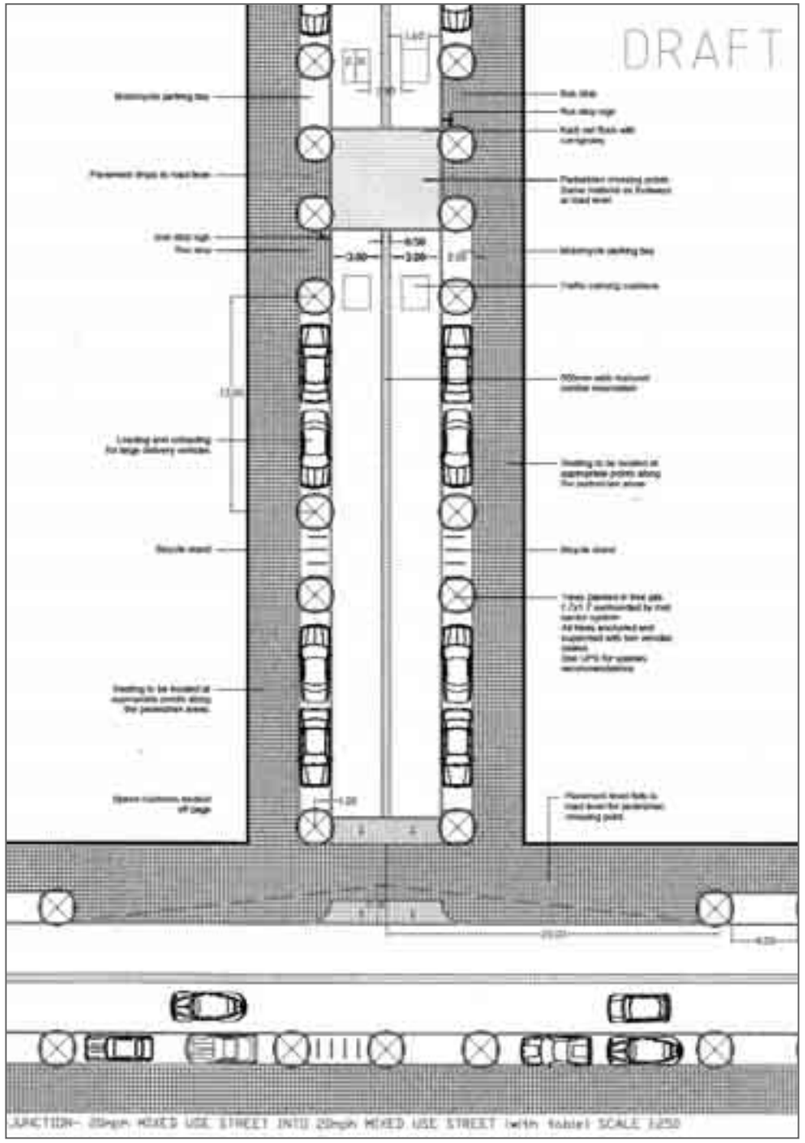
Main policy requirements for spatial development scenarios

scenario	specific requirements	requirements for all development
Town Centre	Min. 75 dph on any site, unless an alternative scenario applies Non-residential use on ground floor of primary frontage	BRE Eco-home/ BEEAM Excellent rating required + maximum score required for Water Conservation and Waste Recycling 10% energy needs met from renewable sources on sites over 1,000m^2 or 10 homes A Water Management Strategy, which must include: • Rainwater harvesting system • Sustainable Urban Drainage System Ecology Strategy required Public Artists shall be engaged on all development projects on sites over 0.1ha Lifetime Homes Standard required
Neighbourhood	Min. 70 dph on any site, unless site is a Small Urban Infill Non-residential use on ground floor of primary frontage	
Small Urban Infill	Imitate density of surroundings	
Regeneration Area	Min. average 65 dph across site but a variety of densities within	
Large Urban Infill	Min. average 65 dph across site but a variety of densities within Combined Heat and Power System required to meet 100% of the needs of the development Sustainable Urban Drainage System with open water	
Sustainable Urban Extension		

Appendix 6 – Road Types

Mixed-Use Street

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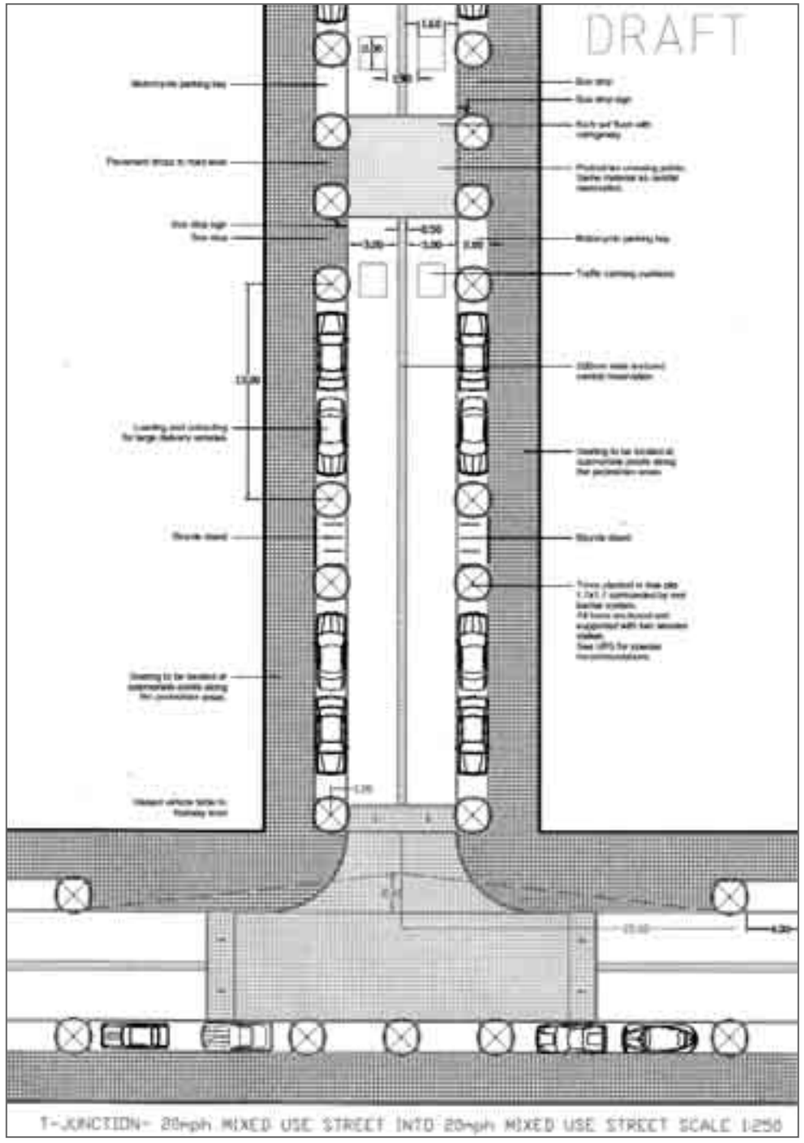
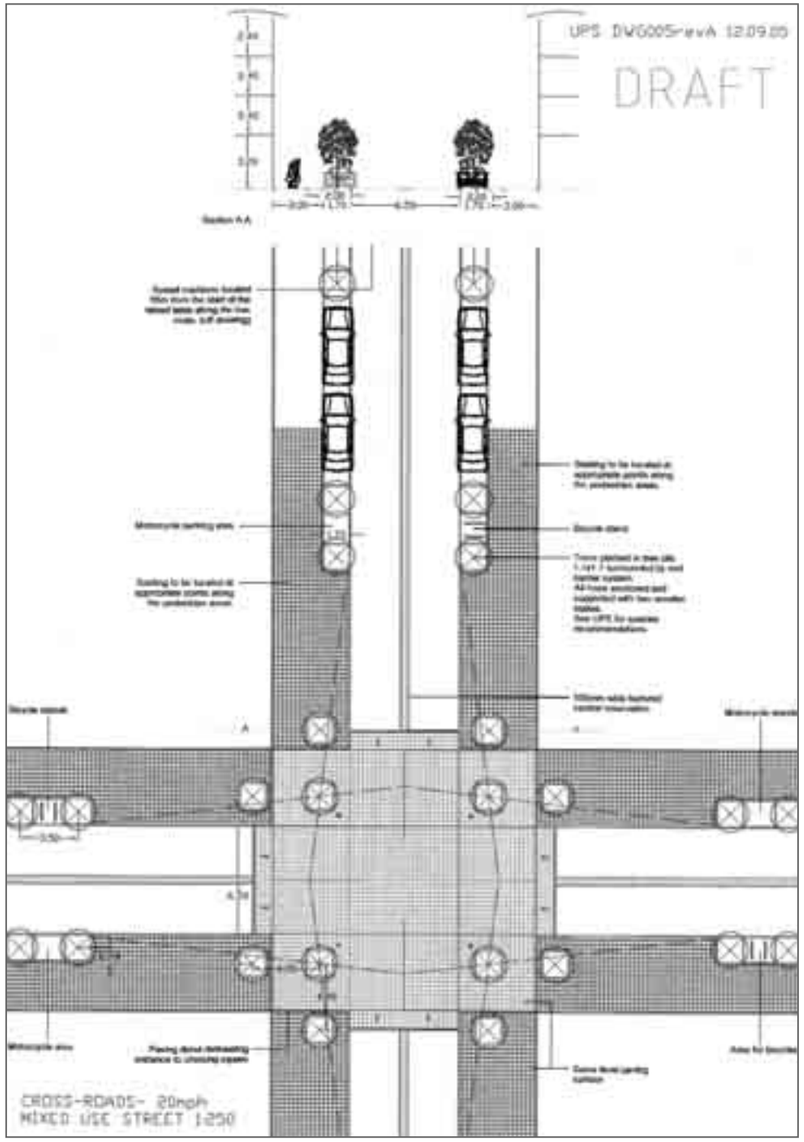
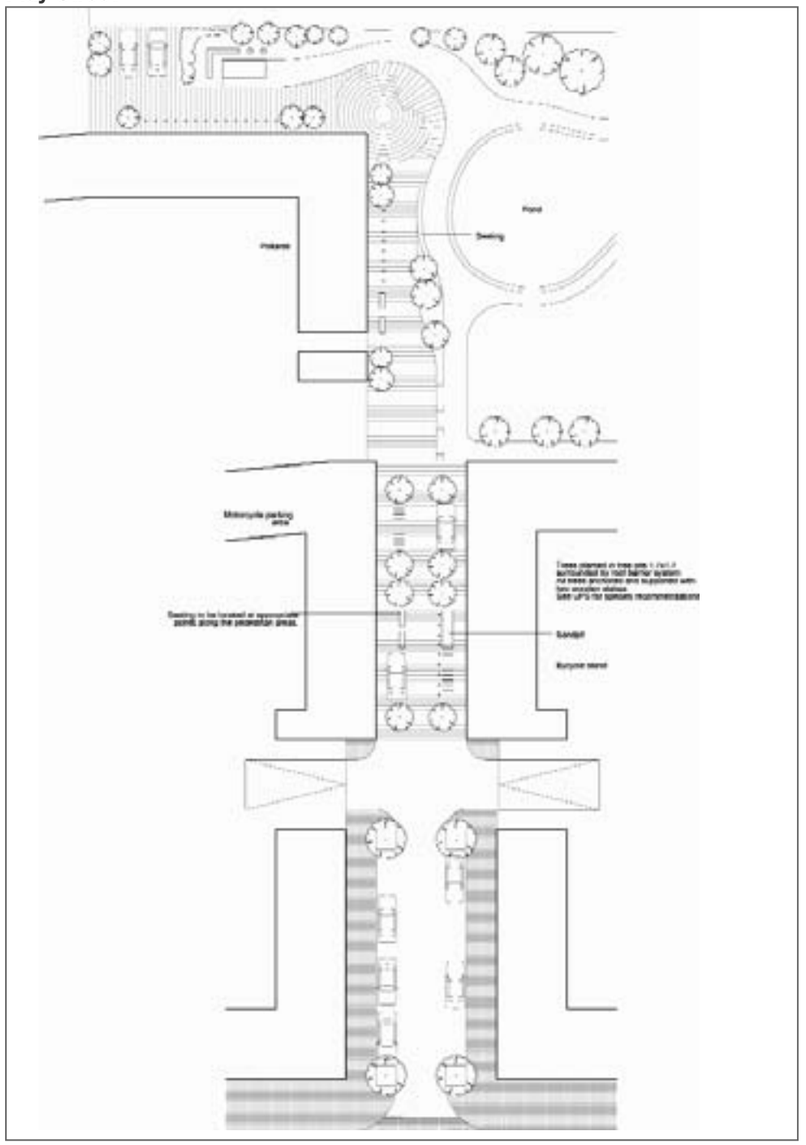
JUNCTION- 20mph MIXED USE STREET INTO 20mph MIXED USE STREET (with table) SCALE 1:250


DRAFT
T-JUNCTION- 20mph MIXED USE STREET INTO 20mph MIXED USE STREET SCALE 1:250

Mixed-Use Street



Play Street



Credits

This draft was written, compiled and edited between December 2004 and September 2005 by a variety of people from both within Essex County Council and from outside the organisation.

It has been informed by several strands of work:

- a series of discussions with colleagues from within ECC and Essex local authorities, who included:

  Richard Button, Colchester Borough Council
  Ian Howes, Colchester Borough Council
  Ian Ward, Colchester Borough Council
  Roger Estop, Chelmsford Borough Council
  Roy Chandler, Chelmsford Borough Council
  Paul Sutton, Epping Forest District Council

  and also,

  Alan Stones, Architect
  Charles Glass, Architect
  Richard Bailey, Essex Development and Regeneration Agency

- Study visits within the UK and to other parts of Europe throughout 2004 and 2005
- 3 workshops attended by a large number of individuals from numerous organisations that were organised on the themes of:

Quality is no Accident	February 2005, Harlow
Development in Context	March 2005, Colchester
Sustainable Development	April 2005, Basildon

A summary brochure of these workshop findings is available as well as transcripts from each event, from www.essexcc.gov.uk/edi

The main body of the UPS text was written by officers of Essex County Council, Built Environment Branch:

● **David Balcombe** ● **Elizabeth Moon** ● **Susan Waldock** ● **Peter Dawson**
● **Isabelle Lines-Slatter** ● **Colin Munsie** ● **Eva Herr**

with valued assistance from:

● **Keith Lawson** ● **Phil Callow** ● **Martin Wakelin** ● **Crispin Downs**
● **Emma Simmonds**

The following consultants were engaged to draft specific contributions to the Urban Place Supplement:

Alan Stones, Architect – development scenarios
Mathew Brundle, WSP – environmental sustainability

Designed by **Terry Coelho** and **Paul Swain**

The Supplement was edited by **David Balcombe** and illustrated by **Ken Philpot**, **Peter Dawson** and **Eva Herr**.