

Making Places - Supplementary Planning Document



January 2021

Contents

Section 1 - About this Document	Page	Part 2 – Section 7 – Public Spaces	Page
1.1 Purpose of this document	1	7.2 Open Space	24
1.4 Background	1	7.14 Safety of spaces	25
1.7 Status	1	7.16 Accessibility of public spaces	26
		7.19 Public realm	27
Section 2 – Scope of document		7.26 Site Planning	28
2.1 Who is it intended for?	2	7.33 Green Infrastructure	29
2.4 What does it include?	2		
2.10 What is not included?	4	Part 2 – Section 8 – Built Environment	
2.11 How to use it?	4	8.2 Household extensions	32
		8.9 Tall buildings	34
Section 3 – Policy Context		8.21 Historic environment	37
3.1 National Planning Policy Framework	5	8.47 Integrating non-residential uses	42
3.5 National Planning Policy Guidance (including National Design Guide)	5	8.51 Building materials and detailing	43
3.7 Local Planning Policy	5	8.58 Accessibility and security of buildings	44
3.10 Other relevant guidance	5		
		Part 2 – Section 9 – Sustainable Design and Construction	
Part 1 – The Design Process		9.2 Reducing water consumption	45
4.1 The Design Process	8	9.3 BREEAM	46
4.3 Other processes to consider when designing a scheme	8	9.12 Reducing carbon dioxide and nitrogen emissions	47
		9.20 Recycling and waste requirements	49
Part 2 – Section 5 – Natural Environment			
5.2 Biodiversity and biodiversity net gain	9	Part 2 – Section 10 – Adaptable Construction	
5.7 Green Infrastructure	11	10.2 Accessible and adaptable buildings	52
5.10 Flooding/Sustainable Urban Drainage Systems	12	10.10 Space standards	54
5.15 Trees and tree planting	13		
Part 2 – Section 6 - Movement			
6.2 Walking	16		
6.5 Cycling	16		
6.16 Public Transport	19		
6.20 Parking Standards	19		
6.23 Creating a parking space	20		
6.26 Car sharing and car clubs	21		
6.28 EV charging points	22		

Making Places - Introduction

1. About this document

Purpose

1.1 This SPD seeks to promote and secure high-quality sustainable new development. It is aimed at all forms of development, from large strategic developments, public spaces and places, to small extensions to individual homes.

1.2 It sets out detailed guidance for the implementation of the policy requirements set out in the new Local Plan and provides practical advice to help with schemes from single house extensions to strategic sites and their masterplans.

1.3 It also provides good practice examples on how development can go beyond planning policy requirements to create the most sustainable and environmentally friendly development possible.

Background

1.4 All of us have a responsibility to assist in reducing carbon emissions and ensure we are prepared for climate change. The City Council declared a climate and ecological emergency on 16 July 2019. As part of this declaration the City Council agreed a number of resolutions; including the commitment to make the Council's activities net-zero-carbon by 2030 and achieve 100% carbon energy across the Council's full range of functions by 2030.

1.5 The Council is committed to supporting and working with all relevant agencies towards making the City of Chelmsford and surrounding area net-zero-carbon within the same timescale.

1.6 The City Council's, 'Our Chelmsford, Our Plan', sets out the Council's priorities which will improve the lives of residents, making Chelmsford a fairer, greener, safer and better connected place to live, work and visit. The Plan outlines the priorities under four themes which are reflected in this SPD:

- **A fairer and inclusive Chelmsford** – promoting sustainable and environmentally responsible economic growth, a fairer society and ensuring more housing of all types, but especially affordable housing.
- **A safer and greener place** – making Chelmsford Council and the district carbon neutral, promoting Chelmsford's green credentials, ensuring communities are safe and creating a distinctive sense of place.
- **Healthy, active and enjoyable lives** - encouraging people to live well, promoting better health and activity and reducing social isolation, making Chelmsford a happier place to live, work and play.
- **Connected Chelmsford** – bringing people together, empowering local people and working in partnership to build community capacity, stronger communities and to secure investment in the city.

You can read the Plan at www.chelmsford.gov.uk/ourplan

Status

1.7 This Making Places Supplementary Planning Document (SPD) was formally adopted by the Council on 26 January 2021. It replaces the following documents:

- Making Places SPD: Urban site guidance for designers, developers and planners (2008)
- Building for Tomorrow SPD: Guidance on Sustainable Design and Construction (2013)
- Recycling and Waste: Planning Guidance on Storage and Collection of Recycling and Waste (2013)
- Interim residential parking guidance (2015)

Making Places - Introduction

1.8 This SPD is a material consideration in respect of decision making for all relevant planning applications. The document includes best practice guidance and also makes it clear what is a policy requirement and what is to be encouraged but not strictly required by policy.

2. Scope of document

Who is it intended for?

2.1 This SPD sets out the City Council's approach towards the design of all new development. It provides guidance on various types of developments from residential extensions to major strategic sites.

2.2 The guidance contained within the SPD is intended for:

- Developers, designers and builders – to provide practical advice to help with schemes from extensions and single houses to strategic sites and their masterplans
- Property owners (housing associations, businesses and owner occupiers) – to assist with extensions and other householder development, including practical ways to assist with addressing climate change
- Councillors and planning officers - to help assess a schemes merits and compliance with policy
- Statutory and non-statutory consultees – to ensure the implementation of policy requirements are clear for all.

2.3 As part of the Council's adopted Masterplan process the detail as to how relevant strategic sites will satisfy the requirements of the respective site policies in the Local Plan, as well as the aims and objectives of this SPD, will be considered through the iteration, consultation and quality review panel assessment of these sites. This SPD provides guidance but is not intended to stifle innovation and local design solutions identified through masterplans.

What does it include?

2.4 Providing high quality new development creates opportunities and challenges. These include the benefits of mixed use development, pressure to achieve high densities, and minimising impact to the environment. This makes guidance such as this essential to enable the creation of successful new places where people want to live, work and visit.

2.5 This SPD provides detailed guidance to assist in the:

- Implementation of the strategic priorities in the new Local Plan;
- Implementation of specific requirements of new Local Plan policies;
- Effective application of the new Local Plan development standards; and
- Developer going beyond the Local Plan requirements to deliver more sustainable forms of development.

2.6 This will ensure that new development:

- is high quality, attractive, safe and well-connected;
- makes efficient use of resources and addresses climate change; and
- improves resident's quality of life, health and well-being.

2.7 The document should be read alongside the National Design Guide (September 2019) which offers general guidance on achieving high quality places and spaces. This SPD does not seek to duplicate the national guidance. Instead, it offers detailed guidance on achieving the required policy standards within the new Local Plan and sets out local design guidance relevant to Chelmsford. It also includes detailed guidance on how to go beyond the Local Plan policy requirements to encourage development to be future-proofed and be as sustainable and energy efficient as possible, although such elements of the guidance within this SPD are not mandatory and should not be read as a policy requirement.

Making Places - Introduction

2.8 Throughout the document are diagrams and photographs illustrating examples of good design and practical examples to achieving the required standards, and how to go beyond them. It signposts relevant national and county wide guidance to avoid duplicating information.

2.9 The document is set out in themes and includes guidance which relates to residential, mixed uses, small scale development (residential extensions etc), individual homes and larger major development schemes. Within each theme are clear objectives and more detailed guidance on specific topics. It should be noted that not all topics relate to every type of development. To assist in locating which topic areas are relevant to different development types the table below sets out what needs to be considered, dependent on the development type being considered.

Theme/Topic	Development type			
	Residential extensions/ household development	Single dwellings/ small scale development (under 10 dwelling units)	Major development (10 + dwelling units)	Mixed use and non- residential uses
Natural Environment				
Biodiversity and biodiversity net gain		✓	✓	✓
Green Infrastructure		✓	✓	✓
Flooding/SUDS	✓	✓	✓	✓
Trees and tree planting	✓	✓	✓	✓

Theme/Topic	Development type			
	Residential extensions/ household development	Single dwellings/ small scale development (under 10 dwelling units)	Major development (10 + dwelling units)	Mixed use and non- residential uses
Movement				
Walking		✓	✓	✓
Cycling		✓	✓	✓
Public Transport		✓	✓	✓
Parking Standards	✓	✓	✓	✓
Creating a parking space	✓	✓	✓	✓
Car sharing and car clubs			✓	✓
EV charging points		✓	✓	✓
Public Spaces				
Open space		✓	✓	✓
Safety of spaces		✓	✓	✓
Accessibility of public spaces		✓	✓	✓
Public realm		✓	✓	✓
Site planning		✓	✓	✓
Green Infrastructure	✓	✓	✓	✓

Making Places - Introduction

Theme/Topic	Development type			
	Residential extensions/ household development	Single dwellings/ small scale development (under 10 dwelling units)	Major development (10 + dwelling units)	Mixed use and non-residential uses
Built Environment				
Household Extensions	✓			
Tall buildings			✓	✓
Historic Environment	✓	✓	✓	✓
Integrating non-residential uses			✓	✓
Building materials and detailing	✓	✓	✓	✓
Accessibility and security of buildings	✓	✓	✓	✓
Sustainable Design and Construction				
Reduced water consumption		✓	✓	✓
BREEAM		✓	✓	✓
Reducing carbon dioxide and nitrogen emissions	✓	✓	✓	✓
Recycling and waste requirements		✓	✓	✓
Adaptable Construction				
Flexible and adaptable buildings	✓	✓	✓	✓
Space standards	✓	✓	✓	✓

What is not included

2.10 Guidance which is covered by other existing National, Regional and Local policy/guidance is not repeated in this document. Such documents are summarised in Section 3 – Policy Context, of this SPD.

How to use it

2.11 Part 1 of this SPD sets out the policy background and sign-posts the general design processes which should be followed for any development proposal.

2.12 Part 2 includes theme-based chapters. At the beginning of each of these chapters are the overall objectives for the theme and a section which sets out 'What does success look like?' to guide development proposals. Each chapter also includes a table at the beginning which sets out the topics within the chapter and which types/forms of development the guidance is applicable to. This table also includes how the guidance for each topic contributes to fulfilling the Council's objectives.

2.13 Below the topic title is a list of Local Plan policies which the SPD provides further guidance on. Within each topic the SPD sets out what is a policy requirement as well as other good practice guidance which is strongly encouraged to be followed.

2.14 Each topic also contains key bullet points on the principles to be considered for each topic. Photos and diagrams of good examples are included for reference. Where there is conflict with other guidance or policy published after the adoption of the SPD decision makers may give it weight, if appropriate, alongside the provisions of the SPD.

Making Places - Introduction

3 Policy Context

National Planning Policy Framework (2019)

3.1 The National Planning Policy Framework (NPPF) puts a strong emphasis on the design of new developments, as well as guidance on how to meet the challenge of climate change.

3.2 Section 12 seeks to achieve well-designed places and paragraph 124 states that 'The creation of high-quality buildings and places is fundamental to what the planning and development process should achieve'. It goes on to say that 'Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities'.

3.3 Paragraph 127, in summary, states that developments should be:

- Functional over the lifetime of the development
- Visually attractive
- Sympathetic to local character and history, whilst not preventing innovation or change
- Distinctive places to live, work and visit
- Optimising the site's potential to have a mix of uses and support local facilities and transport networks
- Safe, inclusive accessible and promote healthy living.

3.4 *The NPPF (paragraph 130) adds that 'permission should be refused for development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions'.*

National Planning Policy Guidance (including National Design Guide)

3.5 The National Planning Policy Guidance (PPG) has a section devoted to Design. *It states that "Achieving good design is about creating places, buildings, or spaces that work well for everyone, look good, last well, and will adapt to the needs of future generations".*

3.6 The National Design Guide was published in September 2019 and forms part of National Planning Practice Guide (PPG) and should be read against separate PPG on design process and tools. The National Design Guide supports paragraph 130 of NPPF.

Local Planning Policy

3.7 At the heart of this SPD is Chelmsford's new Local Plan to 2036. The Local Plan includes nine strategic priorities for Chelmsford that are addressed through the plan. It also contains strategic and local policies which will be used to assess planning proposals, including the production of masterplans for all Strategic Site Allocations within the Local Plan, as well as for all future planning applications. Appendix B of the Local Plan includes some detailed development standards expected for different types of development.

3.8 Throughout the SPD the relevant policies are noted where guidance is applicable to that policy.

3.9 This SPD sets out further detailed guidance for applicants to assist them in ensuring proposals demonstrate compliance with the relevant policies and standards within the Local Plan to ensure the highest quality in design and sustainability of places.

Other relevant guidance

3.10 The Council's Planning Obligations SPD sets out how some of the requirements in this Making Places SPD will be secured. The two documents should be considered alongside each other.

3.11 There are a number of other relevant standards/benchmarks/strategies which should be considered alongside this SPD. Where there is conflict with these and this SPD, the SPD should take precedence.

Making Places - Introduction

3.12 As part of any proposal the following guidance which cover various standards should be reviewed and followed where relevant. The following guidance is referred to at various places throughout this SPD but a brief summary of the content and key purpose of each is set out below:

The National Design Guide - https://www.gov.uk/government/publications/national-design-guide	
The guidance under these topics in the National Design Guide is not repeated in this SPD but the Council will expect this guidance to be the starting point for all development proposals to follow	Applicable for all forms/scales of development
TCPA Garden City Principles - https://www.tcpa.org.uk/garden-city-Principles	
Principles built around a Garden City being a holistically planned new settlement which enhances the natural environment and offers high-quality affordable housing and locally accessible work in beautiful, healthy and sociable communities	Encouraged for all strategic scale development proposals
Design Codes – https://www.gov.uk/guidance/design	
A set of illustrated design rules and requirements which instruct and may advise on the physical development of a site or area	Encouraged to be submitted as part of planning applications for all strategic scale development proposals
Essex Design Guide - https://www.essexdesignguide.co.uk/	
Good practice design guidance	Encouraged to be followed by all forms/scales of development. This SPD sets out where the City Council have different requirements to those set out in the Essex Design Guide.

Village Design Statements - https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/neighbourhood-plans-and-village-design-statements/	
Informal guidance about the character of a village and its surroundings, offering guidance on how new developments or changes can fit in with the local context.	Applicable to all forms/scales of development within an area which has a Village Design Statement.
Conservation Area Appraisals - https://www.chelmsford.gov.uk/planning-and-building-control/conservation-areas-and-listed-buildings/conservation-areas-in-chelmsford/	
An appraisal of important features for the 25 conservation areas in Chelmsford.	Applicable to all forms/scales of development within a Conservation Area.
Neighbourhood Development Plans - https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/neighbourhood-plans-and-village-design-statements/	
A planning document which sets out policies for development and use of land in a particular neighbourhood area.	Applicable to all forms/scales of development within a Neighbourhood Plan Area.
Chelmsford Green Infrastructure Strategic Plan 2018-2036 - https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/evidence-base/	
Provides a starting point for identifying and targeting gaps in Green Infrastructure provision, providing a framework for new development and determining how existing assets can be used to better effect.	Applicable to all forms/scales of development.

Making Places - Introduction

Landscape Sensitivity and Capacity Assessment 2017 - https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/evidence-base/	
An assessment of landscape sensitivity and capacity of a number of survey locations across Chelmsford.	Applicable to all forms/scales of development within an assessment location.
Chelmsford Town Centre Public Realm Strategy 2001-2021 - https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/existing-local-plans/Future updates - https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/evidence-base/	
Identifies opportunities for when funding arises, including from development schemes, to improve public realm quality within the City Centre.	Applicable to all forms/scales of development within the City Centre.
West End Vision 2017 - https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/evidence-base/	
Identifies opportunities to enhance the area, strengthen its character and address some of the negative aspects of the locality.	Applicable to all forms/scales of development within the West End area of Chelmsford.
Nationally Described Space Standards - https://www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard	
Sets specific internal space standards for rooms in dwellings.	Applicable to all new dwelling units.

Secured by Design - https://www.securedbydesign.com/guidance/design-guides	
A police initiative that improves the security of buildings and their immediate surroundings to provide safe places to live, work, shop and visit.	Applicable to all forms/scales of development.
Sport England and Public Health England's Active Design guidance - https://www.sportengland.org/how-we-can-help/facilities-and-planning/design-and-cost-guidance/active-design	
Represents established guidance on designing to encourage physical activity.	Encouraged for all forms/scales of development.
Livewell - https://www.essexdesignguide.co.uk/	
Livewell is an accreditation scheme which seeks to place health and well-being at the heart of developments.	Encouraged to design a scheme in accordance with the Livewell accreditation for all strategic scale development.

Making Places - PART 1 - The Design Process

4 The Design Process

4.1 This section of the SPD provides guidance on the design process itself. It sets out where to find more information about the processes to follow when designing a development proposal and is applicable to all scales of development.

4.2 The first stage of designing a scheme will always be the site appraisal. The chart below identifies essential steps in the design process from the initial site appraisal to a draft design of a scheme. Further information about this process can be found on the Council's website at:
<https://www.chelmsford.gov.uk/planning-and-building-control/planning-permission-and-applications/how-to-design-a-development-proposal>

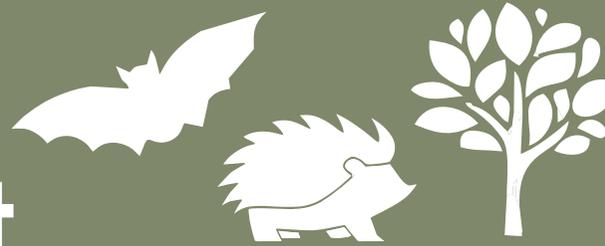
Site Appraisal	
Researching the planning context for the site <ul style="list-style-type: none"> ▪ <i>Relevant Planning policy and guidance</i> ▪ <i>Planning History</i> 	
Carrying out a site and context analysis	
Site Analysis <ul style="list-style-type: none"> ▪ Natural and historic environment <ul style="list-style-type: none"> ▪ land uses ▪ Movement & Accessibility <ul style="list-style-type: none"> ▪ Utilities 	Context Analysis/character of the surrounding area <ul style="list-style-type: none"> ▪ Layout ▪ Built form and style ▪ open space/landscape
Identify opportunities and constraints	
Draft design of scheme	

Other processes to consider when designing a scheme

4.3 As part of any proposal the following processes may also need to be considered for a scheme:

Masterplan Process https://www.chelmsford.gov.uk/planning-and-building-control/masterplans-for-new-developments-in-chelmsford/	Required for all strategic scale development
Pre-Application Process https://www.chelmsford.gov.uk/planning-and-building-control/planning-permission-and-applications/request-planning-advice/	Encouraged for all forms/scales of development
Essex County Council Quality Review Panel https://www.essexdesignguide.co.uk/qualitypanel	Encouraged for strategic scale, major or complex schemes

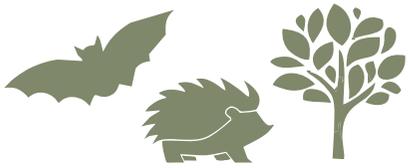
Natural Environment



Creating high-quality natural environments

- 5.1 - Overview
- 5.2 - Biodiversity and Biodiversity net gain
- 5.7 - Green Infrastructure
- 5.10 - Flooding/SUDS
- 5.15 - Trees and tree planting





Natural Environment - Creating high-quality natural environments

Objectives

- Deliver biodiversity net gain and ecological enhancements
- Use Green Infrastructure to assist in reducing Carbon in the atmosphere
- Integrated sustainable drainage
- Create a high-quality network of multi-functional green spaces
- Provide protection and enhancement to the natural environment.

What does success look like

- Multi-functional green spaces that provide attractive and well-connected Green Infrastructure
- Semi-natural areas that offer informal recreation and protection for species and habitats
- Sustainable drainage systems and natural flood defence measures integrated into the built environment that create space for habitat and amenity
- Development that achieves measurable net gains in biodiversity.

Overview

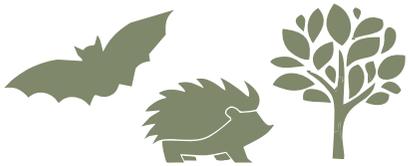
5.1 The term natural environment covers the diversity of both living and non-living features; wildlife, open countryside, rivers, lakes, farmland, woodland and urban green space. It has many different functions which can help to regulate our climate, protect against flooding and includes the essentials for human survival. The natural environment embraces our landscapes and natural heritage and is shaped by how it is managed and maintained. It supports economic growth, health and well-being.

Topic	Development Type				Our Chelmsford, Our Plan objectives			
	Residential extension/ Householder development	Single dwellings/small scale development (under 10 dwelling units)	Major development (10+ dwelling units)	Mixed use and non-residential uses	Safer	Greener	Fairer	Connected
Biodiversity and Biodiversity net gain		✓	✓	✓		✓		
Flooding/SUDS spaced	✓	✓	✓	✓	✓	✓		
Green Infrastructure		✓	✓	✓		✓		✓
Trees and tree Planting	✓	✓	✓	✓		✓		

Biodiversity and biodiversity net gain

DM16 DM17

5.2 The City Council has a Biodiversity Checklist (<https://www.chelmsford.gov.uk/planning-and-building-control/>), which needs to be completed and submitted with all proposals likely to affect protected species, habitats or the features listed in the checklist, and, where necessary, accompanied by an ecological impact assessment when species or habitats have been identified as likely to be affected.



Natural Environment - Creating high-quality natural environments

5.3 Biodiversity net gain is an approach to embed and enhance biodiversity within development, to leave biodiversity in a better state than before, and ensuring no net loss occurs. All types of development that have an impact on biodiversity, are required to deliver biodiversity net gain through an increase in appropriate natural habitat and ecological features over and above those being affected.

5.4 Biodiversity net gain involves the use of the mitigation hierarchy, first avoiding and then minimising biodiversity loss as far as possible. It uses a metric as a proxy for recognising the negative impacts on habitats arising from development and calculating how much new or restored habitat, and of what type is required to deliver measurable net gains. To assist the Chartered Institute of Ecology and Environmental Management (CIEEM), the Construction Industry Research and Information Association (CIRIA) and the Institute of Environmental Management and Assessment (IEMA) have produced 'biodiversity net gain - good practice principles for development – a practical guide' document, available at: https://www.ciria.org/Resources/Biodiversity_Net_Gain

5.5 In some circumstances, residual harm remains after avoidance and mitigation measures. Compensating for biodiversity loss in another location should only be a last resort. In these circumstances, biodiversity net gain is

therefore delivered through habitat banking – working with partners of specialist banking brokers to establish or add to biodiversity projects to provide local habitat banking initiative. In Chelmsford, 'The Habitat Bank' has been created to assist with this, available at: <https://acjecology.co.uk/habitat-bank>

Principles to be considered to incorporate biodiversity net gain and ecological enhancements:

- Apply the mitigation hierarchy, seek biodiversity gain at each stage (not just at the end). Consider whether the design or layout can be amended to facilitate avoidance measures
- Avoid losing irreplaceable habitat and biodiversity that cannot be offset elsewhere, such as aged or veteran trees
- Try and incorporate features of the same or higher biodiversity value as those affected by development. Ensure that lost or damaged features are not replaced by features of lower biodiversity value
- Avoid fragmenting or isolating habitats, instead enhance connections between sites, either through corridors or through 'stepping stones'
- Seek ecological enhancements wherever possible, use native tree and hedge planting, integral bird and bat boxes (see figure 1), create connections and guidance systems to support and protect species movement.

5.6 The following are useful examples of how features can be incorporated into the design of any scheme to enhance the ecological offer of a development:

- Bird nest provision should be placed north to north-east facing, in shade and away from windows. Some species nest in colonies (e.g. Sparrow, Swift, Swallow) so nest provision should be installed in groups

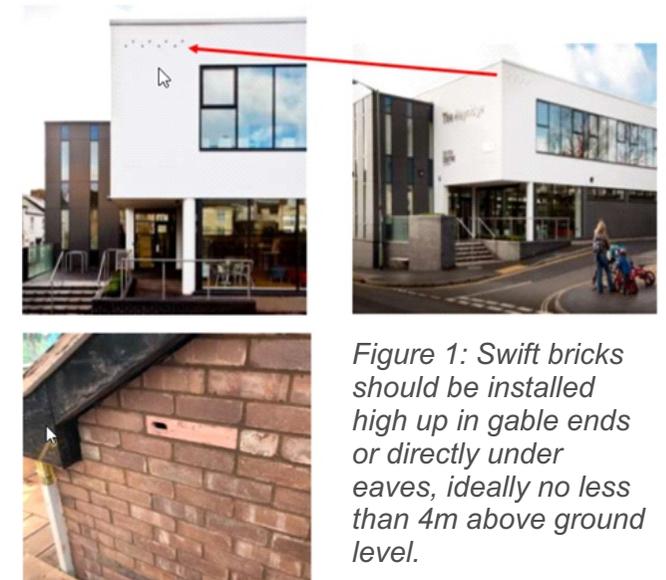
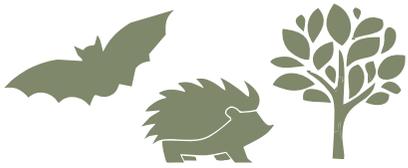


Figure 1: Swift bricks should be installed high up in gable ends or directly under eaves, ideally no less than 4m above ground level.

- Bat boxes should be installed south to south-west facing 3-5 metres high away from direct lighting, adjacent to vegetation (connected, commuting corridor) and free from obstruction.



Natural Environment - Creating high-quality natural environments

- Install guide walls or passageways to prevent access to roadways or use wildlife kerbs to provide a recess around drains to prevent small mammals and amphibians (frogs, toads, newts) falling into gullies and being unable to escape (Figure 2 below). See ACO for more information: <https://aco.co.uk/wildlife>



Figure 2: examples of guidance systems to help protect small mammals and amphibians

- Bee friendly planting and bee hotels offer a haven for bees and encourages pollination of plants
- Hedgehog fencing/crossings/highways can provide safe routes for hedgehogs to pass through development

Green Infrastructure

S9

5.7 Green infrastructure is the living network of green spaces, water and other environmental features in both urban and rural areas. It is multi-faceted and can deliver well-connected networks of healthy ecosystems by creating, enhancing, protecting and restoring habitats and features, increasing biodiversity.

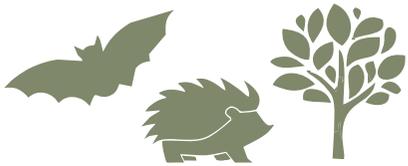
5.8 Urban green space allows for species to move around, within, and between towns and the wider countryside. Green infrastructure can improve public health, well-being and quality of life.

5.9 Lighting within Green Infrastructure should be avoided where possible, but where required for public safety lighting should be kept to a minimum. Low level lights are a preference but higher column lighting is likely to be required for larger cycle and footways in green spaces.

Principles to be considered to assist in contributing to suitable Green Infrastructure:

- Assess existing natural landscape features at the outset and design developments around them

- Important features such as trees and hedges of amenity or ecological value should be celebrated and enhanced
- Seek to retain key green infrastructure features and improve connectivity to them, for example linear corridors such as hedgerows, rivers/streams, and railway lines
- Identify connections to the wider landscape with complementary habitats that provide ecological networks through the site and beyond
- Consider the incorporation of City Greening in all development types, such as green walls and roofs, especially where space is tight for planting on the ground (see figure 3)
- Encourage management and restoration of existing habitats. Look to improve the quality of existing features by better habitat management, such as pond or woodland management
- Minimise the need for lighting in the natural environment but where it is necessary ensure any lighting is of an appropriate form and positioning to minimise disruption to the natural environment
- Consider the future on-going maintenance of Green infrastructure
- Consider appropriate walking/cycle/bridleway access to Green Infrastructure.



Natural Environment - Creating high-quality natural environments



Figure 3: example of a green wall in an urban setting

Flooding/SUDS

DM18

5.10 The principal method of managing surface water is the use of Sustainable Drainage Systems, SuDS for short. Their role is to manage environmental risk and contribute to environmental enhancement. SuDS mimics natural drainage processes aiming to deal with water as close to the source as possible, rather than conveying surface water elsewhere. To do this a series of drainage techniques are required starting with prevention via source control, site control through to regional control of surface water.

5.11 SUDS have added benefits over conventional underground piped systems of being able to enhance both the private and public

realm. They can be a focus point and be multi-functional. As such they make more efficient use of the open space network and provide informal recreational access.

5.12 Industry guidance and best practice is published by CIRIA at <https://www.ciria.org/>, notably the SuDS Manual C753 which covers the planning, design, implementation and maintenance of SuDS. The published BS8582 Code of practice for surface water management for development sites should also be referred to.

5.13 Essex County Council (ECC) as lead Local Flood Authority, is the statutory body for surface water and should be consulted early in the design process. Developments when SuDS are required are:

- 10 or more houses
- A site of over 0.5ha where the number of houses is unknown
- A building greater than 1000sqm
- A site over 1ha.

5.14 ECC has produced a guidance document called 'SuDS design guide 2020', which should be followed and is available from:

<https://www.essexdesignguide.co.uk/suds>

In addition, ECC has produced SuDS Planning Advice. This service can be used at any stage during the planning application process at:

<https://flood.essex.gov.uk/new-development-advice/apply-for-suds-advice/>

Anglian Water should also be consulted at an early stage where SuDs (which meet the legal definition of a sewer)

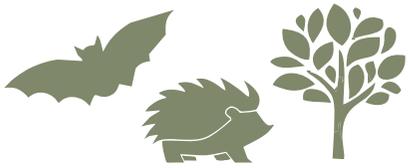
are expected to be adopted by the sewerage company. Further guidance is available on Anglian Water's website:

<https://>

www.anglianwater.co.uk/developers/drainage-services/sustainable-drainage-systems/

Principles to be considered when designing a SuDS scheme:

- Ensure the scheme protects people and property and flood risk is not made worse elsewhere
- Ensure health and safety of a scheme while enhancing their visual impact and providing recreational and sociological benefits for the community
- Form part of an integrated scheme
- Consider how the scheme can prevent and treat pollution in surface water runoff, protecting and enhancing the environment and contributing towards Water Framework Directive objectives
- Maximise the ecological value of a scheme
- Consider the future on-going maintenance of SUDS within a scheme
- Consider multi-functional use of SUDS to enhance the open space/Green Infrastructure networks
- Consider if rainwater harvesting and surface water harvesting can form part of an integrated scheme.



Natural Environment - Creating high-quality natural environments

Trees and tree planting

DM17

5.15 'Soft' landscaping includes trees, hedges, shrubs, herbaceous and ornamental plants, formal and informal grass area, water features and earth modelling. They can enhance the natural environment, provide net gains to biodiversity, support pollinating insects and nesting/foraging birds and mammals. Apart from being attractive and adding character to an area, trees in particular fulfil a large number of ecosystem services. From an urban design point of view, trees can be used for many purposes:

- As a screen to unsightly views
- As a windbreak and to reduce noise
- To filter out air pollution and to provide shade
- As an edge to development to soften it
- As a focal point and to add visual interest
- To provide privacy, and to reinforce an avenue or other linear feature such as a park
- Reducing carbon/adding oxygen in the atmosphere.

5.16 For guidance and advice for selecting the right tree, planting and maintenance please refer to: <https://www.barcham.co.uk/guides-advice/>

5.17 Hedges can be planted in single or double staggered rows either as single or mixed species, and can take up as little as 0.5m in width. Single species hedges generally include either Hornbeam, Beech, Yew, Privet, Holly and Box. Mixed species hedges create greater diversity should include at least five to seven species. Hawthorn should be at least 50% of the mix and can be complemented with Hazel, Blackthorn, Dogwood, Field Maple, Holly, Spindle, Guelder Rose and Dog Rose. Tree and hedge planting should include appropriate native species where possible. In non-urban locations none native species, such as conifers and laurel should be avoided. The level of planting and species selection will be informed by individual site-characteristics and identified as part of the detailed planning application process.

5.18 The Council has an ambition to plant at least one tree for every existing resident and at least three new trees planted for every new home in the Local Plan to assist in the climate and ecological emergency declared by the City Council on 16 July 2019. Green spaces provided in connection with new housing development should, where practicable, include the planting of three trees per net new dwelling.



Figure 4: trees can also be planted for stilted screening (pleached hornbeam hedge).

5.19 Consideration of existing trees, especially protected trees, should be given to ensure the longevity of such trees is not compromised by future development.



Figure 5: Linear Park Beaulieu

Principles to be considered when selecting trees and hedges to plant:

- Consider the ultimate height and spread of a tree. What type of canopy will suit the area: upright, spreading, conical, oval, fastigate? Will it cause shading to a building or spaces in the future or require continual maintenance (pruning) to manage its size
- Avoid planting large trees on a southern boundary due to shading, if necessary, plant trees that provide a light and dappled canopy. Try and avoid selecting trees that drop fruit, seeds and nuts or excrete sap adjacent to parking spaces and footways
- What will the desired effect be? Will it be to create an avenue, impressive and long-lasting results, enhance a theme or simply provide interest
- Do the trees or hedges need to be evergreen, provide all year round interest (bark, fruit, flowers), need to provide a screen

- Understand the soil conditions and the character of the local area when selecting species, is the ground wet or near a river, is it a rural location, are the species surrounding the site native. Street trees should have either a suitable root barrier or be planted with root deflectors to protect against future damage to services, cables and pipes
- Using native species where possible and incorporate measures to enhance biodiversity. To increase diversity include a range of different species to make the landscape resilient to future potential threat from pest and disease. In an urban setting, select species that are appropriate to the location, are pollution tolerant, can tolerate long periods of drought and are resilient to a changing climate
- Avoid plants that are likely to grow high and obstruct sightlines, spread over footpaths or cycle ways etc
- The best time of year to plant is October-March inclusive, as most plants are dormant and will not suffer stress through lack of water or extreme heat
- Ensure a suitable maintenance programme for all trees and hedges is included for any scheme
- Ensure appropriate fire breaks are retained in large scale tree planting schemes
- Where practicable all new housing development should seek to plant three trees per net new dwelling.

Movement



Providing access to a choice of safe, convenient and sustainable modes of travel for all

- 6.1 - Overview
- 6.2 - Walking
- 6.5 - Cycling
- 6.16 - Public Transport
- 6.20 - Parking Standards
- 6.23 - Creating a parking space
- 6.26 - Car sharing and car clubs
- 6.28 - EV Charging points





Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all

Objectives

- Create spaces and places which put walking, cycling, and public transport before the private car
- Ensure safe and accessible cycle and pedestrian routes, and where appropriate bridleways, at the heart of place making
- Provide suitable, well designed and integrated parking spaces for all modes of transport.

Overview

6.1 The provision of spaces and places that can offer improved access to sustainable modes of transport can result in a decrease in traffic congestion which helps to reduce harmful emissions to the environment and all living within it. In addition, high-quality walking and cycling routes that enable and encourage residents and visitors to use them more readily also offers wider health benefits to those choosing to use them.



Figure 6: Cycle routes through open space

What does success look like

- Car free streets/shared surfaces where appropriate by (i) lowering traffic levels to create more community interaction and promote more physical activity, (ii) creating places where through traffic is removed or reduced and (iii) delivering networks of quieter streets where walking and cycling are encouraged, children can play, community interaction is fostered and air pollution is reduced
- Accessible cycle and footpaths with suitable surfaces and lighting to provide year-round safe routes which connect to relevant destination points
- Dedicated bus gates/cycle/pedestrian route to enhance public transport options
- Suitable and convenient bicycle parking and storage for residents and visitors
- Development where car parking is well integrated and does not dominate the street
- Provision of EV charging points for residents and visitors.

Topic	Development Type				Our Chelmsford, Our Plan objectives			
	Residential extension/ Householder development	Single dwellings/small scale development (under 10 dwelling units)	Major development (10+ dwelling units)	Mixed use and non-residential uses	Safer	Greener	Fairer	Connected
Walking		✓	✓	✓	✓	✓	✓	✓
Cycling		✓	✓	✓	✓	✓	✓	✓
Public transport		✓	✓	✓	✓	✓	✓	✓
Parking standards	✓	✓	✓	✓	✓			
Creating a parking space	✓	✓			✓	✓		
Car sharing and car clubs			✓	✓	✓	✓		✓
EV charging points		✓	✓	✓	✓	✓		



Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all

Walking

DM20 DM23 DM24 DM25 DM26 DM27

6.2 All proposals should include walking routes to, from and within the development site. The starting point should be the consideration of existing connections and whether these are the most appropriate routes of if they can be improved.

6.3 Networks of routes for pedestrians, should provide permeability and connectivity, follow obvious desire lines and be designed to create a sense of journey promoting attractive green links where possible, and preserving and enhancing existing ecological assets. All development should ensure routes have good natural surveillance. This includes ensuring



Figure 7: Walking route through development

development does not have an adverse impact on the surveillance of existing routes in and around a site.

6.4 The need for sites to connect to the wider network beyond the site should be considered from the outset. Destination points and the ability to access these through walking routes should be considered, as well as connecting to the wider recreational and leisure routes.

Principles to be considered regarding walking routes

- Routes should be provided with lighting, where this is appropriate and have natural surveillance; unnecessary light pollution should be avoided
- Surface materials require careful consideration; these should have regard to the setting, urban or rural, and be influenced by the character of the spaces they pass through
- A legible hierarchy of routes is necessary within larger sites
- Primary paths should provide direct connections to key destinations within the development eg: neighbourhood centres, schools and community facilities. A uniform surface should be applied to create an identifiable route throughout the development
- Secondary paths can provide recreational routes linking areas of open space; these should be provided with a consistent surface finish, again to aid legibility

- Road crossings should be safe, but not require pedestrians to divert from direct routes, or cause excessive delays to their journeys
- Walking routes should be included within a network of Green Infrastructure, where possible to offer increased well-being and access to green space.

Cycling

DM20 DM23 DM24 DM25 DM26 DM27

6.5 Both new residential and non-residential development should consider the Essex Cycling Strategy, the Chelmsford Cycling Action Plan, and the Local Cycling and Walking Infrastructure Plan in terms of how their proposed development can connect into and enhance the wider cycle network as well as provide improvements to it. In addition, all new development should accommodate cycle storage.

6.6 All major development sites will be required to provide necessary improvements to the wider cycle network to enable more useable connections to destination points relevant to the development's locality. This may be in the form of new routes and plugging missing gaps in existing routes, improved signage, lighting or surfaces to existing routes. On-site network provision and safe and convenient connections to the existing network should also be at the heart of the design of any development.



Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all

6.7 Consideration should be given regarding the type of cycle route and as to whether it is appropriate to be a shared route, with pedestrians, horse riders and other users. In general, cycles must be treated as vehicles and not as pedestrians. On urban streets, cyclists must be physically separated from pedestrians and should not share space. Where cycle routes cross pavements, a physically segregated track should always be provided. At crossings and junctions pedestrians should be provided with a separate parallel route to cyclists. Shared use routes in streets with high pedestrian or cyclist flows should not be used, and distinct tracks for cyclists should be made, using sloping, pedestrian-friendly kerbs and/ or different surfacing. Shared use routes away from streets may be appropriate in locations such as canal towpaths, paths through housing estates, parks and other green spaces. Where cycle routes use such paths in built-up areas attempts should be made to separate them from pedestrians, potentially with levels or a kerb.

6.8 Shared use may be appropriate in some situations, if well-designed and implemented. Some are listed below:

- Alongside interurban and arterial roads where there are few pedestrians;
- At and around junctions where cyclists are generally moving at a slow speed, including in association with Toucan facilities;
- In situations where a length of shared use may be acceptable to achieve continuity of a cycle route; and
- In situations where high cycle and high pedestrian flows occur at different times.

Good examples of multi-user routes include 'Flitch Way' in Braintree District.



Figure 8 : Flitch Way multi user route

6.9 The DfT guidance Cycle Infrastructure Design (LTN 1/20), available at www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120, should be read in conjunction with the 'Highways Technical Manual', which provides specific technical guidance on how to build a layout in compliance with Essex Highways and 'Manual for Streets' standards, which are available at <https://www.essexdesignguide.co.uk/> In addition, if a site is within a conservation area or effects a historic asset then consideration should be given to Historic England's advice 'Streets for All': <https://historicengland.org.uk/images-books/publications/streets-for-all/>

6.10 Cycle storage should be provided for all types of development. The standards for cycle

parking are set out within the Essex County Council Parking Standards Design and Good Practice 2009, or subsequently amended. They are listed within this document as standards by Use Class. The table on page 18 shows the most common types of development.

Non-residential cycle storage

6.11 There are a variety of forms of cycle storage that can be provided. For non-residential uses a communal facility is usually the best. In City Centre locations near transport nodes a multi-tier facility may be the best use of space to maximise usage. Consideration should also be given to the inclusion of cycle storage near to bus stops to provide an enhanced offer to enable cycling to/from a bus stop to home/work. Consideration should be given as to whether such storage is offered as both paid for and free storage. These facilities could be used as 'green roofs' providing wildlife habitats. For example, Green Roof shelters: <https://greenroofshelters.co.uk/green-roof-cycle-shelter/>



Figure 9. A secure commercial cycle store



Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all



Figure 10. Free cycle storage at Chelmsford Train Station

6.12 All communal cycle storage facilities, both residential and non-residential, should be well

designed and in a safe and convenient location, well sign-posted, well light, secure and ideally covered. The convenience of their locality should be above that of the private car.

6.13 Where there is insufficient external space to provide cycle parking internal solutions should be considered.

Residential cycle storage

6.14 Cycle parking for individual houses should be provided in garages or sheds and where possible ensure that they can be accessed without the need to take the bicycle through the house. For flat/apartments, cycle storage should be secure and covered, benefit from natural surveillance and conveniently located and easily accessible. Cycle parking should be integrated into the design of the scheme at an early stage.

6.15 As an example of best practice, cycle parking can be included within the floor space of the building as this offers the most secure and convenient method of storage for residents. As a minimum it is recommended that, a secure and covered area should be provided. This could be attached to the building, within the garden or within underground parking courts.

Principles to be considered regarding cycle provision

- On-site network provision and safe and convenient connections to the existing network should be at the heart of the design of any development
- Consider the **Essex Cycling Strategy** and the **Chelmsford Cycling Action Plan** in terms of how development could feed into and improve the wider cycle network
- Ensure there is signage, lighting or surfaces to all routes
- Cycle storage should be provided for all types of development
- All cycle storage should be well designed, in a safe and convenient location, well sign-posted, well light, secure and ideally covered
- The convenience of the locality of cycle storage should be above that of the private car.

Development type	Minimum provision
Dwelling houses (including flats/apartments)	None if garage or secure area (which can include a private garden) is provided within the curtilage of a dwelling, otherwise 1 secure covered space per dwellings plus 1 space per 8 dwellings for visitors
HMO's	1 Cycle space per bedroom
Retirement developments (e.g warden assisted independent living accommodation)	1 Space per 8 units (for visitors)
Non-residential institutions	1 space per 4 members of staff
Residential institution	1 space per 5 members of staff



Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all

Public Transport

DM20 DM23 DM24 DM25 DM26 DM27

6.16 Through the pre-application/design/masterplan process, major new developments should explore accommodating a bus service, which is attractive to passengers and efficient for the service operator. Routes need to be protected from delays caused by other traffic; this may mean installing on-street parking restrictions. Bus priority measures, such as bus gates may be necessary, in some instances, to achieve preferential routing and faster journey times. Essex County Council Highways and the local bus service operator should be involved in the scheme layout, positioning of bus routes and stops, and level of service at an early stage.

6.17 All new developments should provide bus routes within 400m or a 5 minute walk of all dwellings to meet Essex County Council standards as Highway Authority.

6.18 The location of bus stops should be highly accessible to the footpath and cycle network and key destination points within the development. Bus infrastructure such as bus stops and shelters should be installed as the phases of development are constructed so there is a clear understanding of the proposed bus routes by new residents.

6.19 The scheme layout should acknowledge the presence of bus stops by widening the footway and providing lighting; they should be overlooked and suitably prominent but without being intrusive to the street scene.



Figure 11: Express Bus Service

Principles to be considered regarding public transport provision

- The local bus service operator and ECC should be involved in the bus routes, level of service and positioning of bus stops and other passenger transport infrastructure at an early stage

- The location of bus stops should relate to the footpath network and key destination points within the development
- Footways should be widened, and lighting provided at bus stops and they should be overlooked and suitably prominent but without being intrusive to the street scene
- Bus stops should be provided within a shelter for waiting passengers
- The inclusion of electronic bus timetables is encouraged as part of any new bus infrastructure improvements.

Parking Standards

DM20 DM23 DM24 DM25 DM26 DM27

6.20 All developments should comply with Essex County Council's parking standards. The standards include both design and layout advice for different types of parking solutions and parking standards across the full range of use classes. For further information the parking standards can be found at:

<https://www.essexdesignguide.co.uk/media/1960/essex-parking-standards.pdf>



Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all

6.21 Parking standards may be relaxed in urban locations with high levels of public transport accessibility. In such locations walking, cycling, public transport and car sharing should be encouraged as alternatives to the private car.

- Double garages need to be at least 7m x 6m internally where they will count as two parking spaces
- Garages should be set back from the property boundary by at least 6m or otherwise no more than 0.75m to prevent parked cars overhanging or blocking footways and shared surfaces
- Car ports and car lodges count as parking spaces, provided they measure at least 5.5m by 2.5m internally. An additional 0.5m should be provided where the space is located adjacent to a wall, hedge or supporting pillar
- Preferred car bay size 5.5m x 2.9m (6m for parallel bay).

6.22 On-street parking will only be considered where the development has been designed to incorporate an agreed level of un-allocated on-street parking in the form of parallel or angled parking bays, or parking squares.

Principles to be considered regarding parking standards

- Be safe and secure with good lighting and natural surveillance
- Hard and soft landscaping should be used to control on street parking
- Large parking courts and long stretches of on street parking are to be avoided
- Parking courts are the least preferred option; if they are necessary, they should have direct access to the dwelling they serve and have high levels of natural surveillance. The number of dwellings a parking court serves will be considered on a site-by-site basis but in principle should be limited to avoid large, unattractive and disconnected parking courts
- Streets should not be dominated by parking to the front of houses or large expanses of garage doors
- An allowance should be made for visitor parking as part of the highway design in accordance with ECC/EPOA parking standards to ensure cars can pass and visitors can park

- Parking spaces within parking courts should be delineated by means of numbered plates or a sensitive change in material eg: with a brick paved parking court, by a line of paviors laid in stretcher course at right angles to the main pattern. White lines should not be used so that parking courts read as pleasant hard and soft landscaped spaces when free of cars.



Figure 12: A metal parking bay plaque – Hall Street Chelmsford (Former Essex & Suffolk Water Offices)

Creating a Car Parking Space

DM20 DM23 DM24 DM25 DM26 DM27

6.23 If paving over an area of your garden to create off-road parking consider it should not harm the character of the street, increase flooding or pollute drains. Consider permeable paving and/or a natural runoff such as a soakaway which allows rainfall to be absorbed into the ground. The use of grasscrete or other permeable materials can provide for additional parking without the need for hardstanding.



Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all

6.24 Whether planning permission is required is dependent on the size and type of hardstanding proposed and whether runoff can drain naturally or not. Please refer to the Planning Portal for up-to-date guidance:

<https://www.planningportal.co.uk/>

6.25 For those areas of hardstanding that require planning permission the following principles should be considered:

Principles to be considered for creating an off-road parking space

- Minimise hard surfacing, especially hard, impermeable surfacing
- Minimise the length of dropped kerbs (in accordance with the ECC/EPOA parking standards) in order to retain as much street parking as possible
- Retain as much as possible of any original walls, fences, railing, hedges, shrubs and trees
- Include generous planting where possible
- Fit the car entirely within the front garden without overhanging the pavement
- Allow enough room to get in and out the car without using neighbouring land

- Ensure appropriate visibility splays in both directions
- Seek advice from the City Council before altering a garden at a listed building
- Apply to ECC highways for consent for a new vehicle crossover.

Car sharing and car clubs

DM20 DM23 DM24 DM25 DM26 DM27

6.26 The City Council requires the use of car clubs on some of its larger strategic site allocations and encourages them to be provided



Figure 13. City Park West development car club

in other accessible locations. Car clubs provide a convenient and environmentally sound alternative to car ownership for residents by offering a car for use when you need it on a rental type basis. These are encouraged to serve a wider population. The intention is that in time a cluster of cars will be available in the City Centre for use of both residents and businesses on and off a site.

6.27 The City Park West development in the City Centre, has such a car club which is open to all. For more information on how it functions and if you are interested in using it please visit: www.enterpriseclub.co.uk

Principles to be considered for car sharing and car clubs

- When designing a scheme consideration should be given to ensuring there are sufficient spaces for car club vehicles provided in a convenient and appropriate location within a development scheme to assist in promoting their use.



Movement - Providing access to a choice of safe, convenient and sustainable modes of travel for all

EV Charging points

DM20 DM23 DM24 DM25 DM26 DM27

6.28 The provision of EV charging points assists in encouraging the use of more environmentally friendly modes of travel, which assists in the reduction in emissions. This not only helps in combatting climate change but also offers increased public health benefits as a result of the reduction in harmful pollutants into the air we breathe.

6.29 Mixed use development should consider the inclusion of rapid EV charging/service stations. The UK's first Electric Forecourt delivered by GRIDSERVE near Braintree is an example of this.



Figure 14. Gridserve Electric Forecourt near Braintree

6.30 All new residential properties, including conversions of buildings to residential, should provide EV charging points in accordance with the requirements of Policy DM25. In accordance with Policy DM25 one electric charging space, should be provided for every 10 spaces.



Figure 15. EV charging points

6.31 The provision for additional future electric charging infrastructure is also encouraged in addition to these policy requirements. This means having the necessary servicing infrastructure in place to enable charging points to be readily connected within the development at a later date.

6.32 Extensions or alternations to existing buildings, both residential and non-residential, are encouraged to consider the installation of EV charging points, or as a minimum designed with

flexibility to accommodate EV charging points in the future by including the necessary servicing infrastructure is in place to enable charging points to be readily connected.

6.33 There are three types of electric vehicle chargers; rapid, fast and slow. Slow chargers are best for charging overnight and would be suitable for home use. Fast chargers can fully charge some models in 3-4 hours. Rapid chargers can charge an electric vehicle to 80% in around 30 minutes. Fast and rapid chargers are likely to be more suitable for new non-residential schemes.

6.34 For an interactive map on the location of existing charging points for public use as well as a general guide to EV Charging visit: <https://www.zap-map.com/>

6.35 Further information on EV charging point can be found in the Essex Design Guide at: <https://www.essexdesignguide.co.uk/>

Principles to be considered for the provision of EV charging points

- For all new non-residential buildings electric charging points for vehicles should be clearly signed/demarcated and located close to the main entrance for staff/visitors and on appropriate and attractive pedestrian routes.

Public Spaces



Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

7.1 - Overview

7.2 - Open Space

7.14 - Safety of spaces

7.16 - Accessibility of spaces

7.19 - Public realm

7.26 - Site Planning

7.33 - Green infrastructure





Public Spaces - Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

Objectives

- Create a range of accessible and safe green space for all
- Ensure all public spaces are safe
- Create interest through public realm
- Create well-designed streets for all users
- Provide opportunities to build healthier communities.

What does success look like

- Multi-functional open spaces which combine equipped play and leisure areas for informal and formal sports year round
- Spaces designed to provide natural surveillance and appropriate lighting to reduce crime and fear of crime
- Spaces to be well-connected to local service and facilities
- Public realm to include local art designed into the street to offer interest and/or practical assistance to residents/visitors
- Suitable surfaces to ensure access for all, whilst still highlighting important differences in use of spaces
- Appropriate trees and planting are integrated into the street and feed into the wider Green Infrastructure network

- Appropriate spaces provided to assist with food production and education e.g. community gardens, orchards and allotments
- Integrated sustainable urban drainage
- New public spaces maximise existing natural features such as waterway frontages and they are designed into spaces from the outset.

Overview

7.1 Public spaces are multi-functional and provided for the benefit of all to enjoy. They not only help create attractive, safe and enjoyable spaces to move within but also provide functional space for sports, ecology and general leisure/play uses. Public spaces also offer an important resource to assist in providing a healthy community. Alongside this, public spaces need to respect the environment and offer opportunities to improve the health and well-being of its users.

Topic	Development Type				Our Chelmsford, Our Plan objectives			
	Residential extension/ Householder development	Single dwellings/small scale development (under 10 dwelling units)	Major development (10+ dwelling units)	Mixed use and non-residential uses	Safer	Greener	Fairer	Connected
Open space		✓	✓	✓	✓	✓	✓	✓
Safety of spaces		✓	✓	✓	✓		✓	✓
Accessibility of public spaced		✓	✓	✓	✓	✓	✓	✓
Public realm		✓	✓	✓	✓	✓	✓	✓
Site Planning		✓	✓	✓	✓	✓	✓	✓
Green Infrastructure	✓	✓	✓	✓	✓	✓	✓	✓



Public Spaces – Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

Open space

DM23 DM24

7.2 Open spaces come in many different forms. They can be small green verges which can simply offer a pleasant space and environment around a development, to large multi-functional parks and more formal play and leisure spaces.

7.3 The Local Plan sets out the space standards of open space required by all developments at Appendix B. This provides for all forms of public open space from play spaces, parks, sports pitches and allotments. The provision of all these types of spaces provides for all generations and needs of the community and connects communities together. It is important to consider the needs of different groups in the community. For example, the inclusion of suitable youth shelters within open spaces or dementia friendly spaces are means to address these needs. The Planning Obligations SPD includes detailed information on the management expectations of such spaces.

7.4 It is expected that all strategic open spaces should be accessible to all the community. The inclusion of appropriate routes through and around parks and open spaces should be considered at an early stage of the design process. Where the use of open space means it could be a destination point, e.g. sports pitches, their connection to walking, cycling and public transport routes should be considered and suitable links and access points put in place to

encourage access to spaces via public transport connections.

7.5 The materials used for public routes should be appropriate to their setting, while offering safe and year-round access for all.



Figure 16: Multi-functional green space in Bell Meadow

7.6 Lighting should also be a consideration. Spaces and cycle/footpath routes to them should balance the need for safety as well as minimising lighting pollution. Solar powered lighting or other renewable energy options to power any lights are encouraged to be explored for all public open spaces provided.

7.7 Lighting and other items such as dog waste bins and wayfinding signs should be in place within public open spaces from the early stages of development.

7.8 Where public spaces include waterways within or adjacent to them consideration should

be given as to how to incorporate these into a scheme. Suitable river crossings and safety measures should be considered, and opportunities to enhance the leisure offers available from the waterways is encouraged. These should be balanced alongside the need to protect and enhance the habitats within the waterways.



Figure 17: Green spaces interacting with the rivers and providing suitable river crossings to connect spaces

7.9 To meet the standards expected by the Council strategic green spaces and other green spaces where practicable are strongly encouraged to be designed from the outset to meet the quality mark of the 'Green Flag Award'. For more information on this visit:

<http://www.greenflagaward.org.uk/>

7.10 The use of green spaces for community food production should also be considered. The Essex Design Guide contains useful guidance on how to incorporate food production into development schemes <https://www.essexdesignguide.co.uk/>



Public Spaces – Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

7.11 Sustainable Drainage Systems (SuDS) can be included within open spaces where they can offer ecological interest, enhance both the private and public realm, and be multi-functional. The use of SuDS is covered further in the Natural Environment section of this SPD.

7.12 Consideration should also be given to the planting within all open spaces. Low maintenance plants which offer year-round interest are encouraged. The inclusion of flowering plants which are favoured by bees is encouraged.

7.13 Supporting facilities play a major role in encouraging people to visit open spaces and influence how much time they spend there. This can range from simple measures such as appropriately located seating to allow people to rest or observe views/activities to more significant facilities such as toilets and refreshments (e.g. cafes) in more strategic spaces such as country parks and major urban parks. Further guidance is provided in the 'Appropriate Infrastructure' section of Sport England's Active Design guidance:

<https://www.sportengland.org/how-we-can-help/facilities-and-planning/design-and-cost-guidance/active-design>

Principles to be considered for all spaces:

- Developments should ensure appropriate levels of Open Space are provided in accordance with the City Council's standards
- Ensure all public open spaces are accessible to all and well connected
- How any waterways can be incorporated into spaces
- Consider the appropriate use of materials and lighting for spaces
- Consider incorporating spaces for community food production in development schemes
- Consider the incorporation of Sustainable Drainage Systems within open space
- Ensure landscaping features, including trees, allow for natural surveillance and do not unduly restrict the use of open spaces
- Consider appropriate supporting facilities for all open spaces.

Safety of spaces

DM23 DM24



Figure 18: Homes overlooking open spaces at Beaulieu

7.14 Good places are safe and secure. Policy MP1 of the new Local Plan requires that all new buildings and extensions create safe environments. Safety and security stem from good site planning and careful design of buildings and spaces. Where a scheme impacts a heritage asset specific design consideration as set out in section 8 should also be considered.

7.15 Secured by design (www.securedbydesign.com) offers useful and detailed guidance on security relating to different types of developments. The website includes a series of guidance documents that provide step to step guides on how to include security in development proposals.



Public Spaces – Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

Principles to be considered for all spaces:

- Avoid aggressive security measures that give the impression that an area is particularly susceptible to crime
- Ensure roads, cycle ways and footpaths are comfortable to use, direct, well-lit and overlooked
- Communal spaces are easy to access, overlooked, well lit, attractive and defined by buildings
- Landscaping is well defined and easy to maintain. Street furniture is robust, and its location carefully considered
- There are clear boundaries between public and private space
- There are a mix of uses to ensure activity throughout the day
- Public entrances are well visible.

Accessibility of Public Spaces

DM23 DM24

7.16 An inclusive environment acknowledges diversity and can be accessed and used by everyone, including those with sensory or physical disabilities, families with small children and ethnic minority groups. It encompasses

where people live, the public buildings they use and how they get around.



Figure 19: Public spaces within City Park West development

7.17 Barriers to inclusion should be identified as early as possible within the design process. Proposals should consider the needs of all users of the public realm, in particular at the interface of the public realm and new buildings. The public realm is a term used to include the spaces around and between buildings that are accessible to all such as streets, cycleways, footpaths, squares and parks.

7.18 Large scale developments are encouraged to design a scheme in accordance with the City Council's Livewell accreditation. This scheme has been developed to recognise the wider factors that impact on health and wellbeing. These include access to healthier food, support for local employment and education facilities and inclusive

communities. For more information go to <https://www.essexdesignguide.co.uk/> The following key principles are at the heart of inclusive design and should be considered by all planning proposals:

Principles to be considered for all spaces:

- Include easily accessible public transport connections with bus shelters
- Include safe and convenient footpath and cycleways
- Make routes direct and include seating areas along the route
- Avoid steep gradients and using dropped kerbs where appropriate
- Incorporate ramps as well as or instead of steps if there is a gradient
- Avoid loose surfacing materials Incorporate tactile surfaces in street design
- Avoid clutter and be careful with positioning and visual contrast of street furniture
- Ensure appropriate lighting and good signage is installed
- Use built form or design devices to make places and routes memorable
- Provide Blue Badge parking spaces and drop off spaces close to entrances
- Large scale developments are encouraged to design places to adhere to the City Council's Livewell accreditation.



Public Spaces - Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

Public Realm

DM23 DM24

7.19 The public realm provides the setting for everyday life where people live, work and play. It gives character and identity to a place and also provides an opportunity for using sustainable modes of transport including walking, cycling and public transport.

7.20 The public realm should be designed and managed to enrich people's experience, it should allow for movement and interaction, make people feel safe and comfortable, and it should be easy to maintain. Public realm should be:

- Accessible
- Safe
- Useful
- Attractive and uncluttered
- Long lasting
- Designed to promote healthy living.

7.21 Public art helps create distinctive places and give them character. Public art also provides enjoyment, adds prestige to a development and can provide an educational opportunity, including the opportunity to link to the history of an area.

7.22 Public art can take a variety of different forms and use different mediums. It should be integrated into the architecture or landscape design to complement buildings and spaces. It

can also be used to create areas for people to connect and play.



Figure 20: Basketball court in Frank Whitmore Green, Chelmsford

7.23 Public art is required to form part of major development proposals in accordance with Policy DM24 of the Local Plan. A Public Art Strategy or statement should be included in the planning application for any type of public art. This could form part of the Design and Access Statement. This document should outline the intention of the public art, the medium proposed and potential locations, budget, any consultation carried out and the artist selection process. Artists should be engaged at an early stage in the design of a development and work together with the developer, the architect, landscape designer, the City Council and representatives of the local community. For further information on

commissioning public art visit:
<https://www.chelmsford.gov.uk/planning-and-building-control/developments-and-improvements-in-chelmsford/public-art-in-chelmsford/organisations-wishing-to-commission-public-art/>



Figure 21: Half moon Square in the City Centre

7.24 The City Council works with developers to ensure new public realm is delivered as part of an overall design approach to site development. Essex County Council as Highway Authority may adopt part of the public realm including new roads (dependent on their use), cycle ways, walkways and communal parking spaces. The rest of the public realm will typically be the responsibility of a private management company.



Public Spaces - Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

7.25 The Design and Access Statement should set out the future on-going maintenance of the public realm. This should include the consideration of ensuring the future ease of access to utility services.

Principles to be considered for all public realm:

- Future maintenance of public realm forming part of a development proposal needs to be considered with each aspect of the design
- Ease of maintenance should be considered in the design of all public realm
- Public art should be integrated into the architecture or landscape design to complement buildings and spaces
- Artists should be engaged at an early stage in the design of a development.

Site Planning

DM23 DM24



Figure 22: Development at Channels

7.26 The layout of all schemes should consider the intended function of spaces and streets from the outset. Streets should be designed with the principle of inclusivity with pedestrian and cyclist at the heart of the design. Schemes should encourage healthier lifestyles and ensure that the spaces provide physical accessibility to people of all ages, including those with disabilities.

7.27 How pedestrians and cyclists interact with vehicular traffic will be key to ensuring safe and usable routes for all. The use of materials in the design of streets can assist in making spaces more useable as well as providing attractive spaces and places.

7.28 Care should be given to surface materials to ensure these respond to the built form and character of the area. The materials should unify the space between buildings and be robust enough to withstand continuous use. Consistent materials should be used within the areas of adopted highway within larger developments, across all phases.

7.29 To ensure road crossings are safe for all users and complies with Highway standards, red paving should only be used at controlled crossings; buff paving can be used for all other forms of crossing. Tactile paving may exactly match the surrounding paving, in special areas, as per Conservation Areas, to create character; in these situations, a colour contrast may be achieved by means of a flush kerb at the road edge.

7.30 Boundaries are important in defining the character of a place and the quality of a street, particularly, where private land meets a public street; boundaries should take the form of brick walls, or walls with railings, thick hedges, or special timber fencing. Brick walls, should, where possible, flow from the face of the building in the same material. Timber garden fences normally used to separate private gardens, should not be used on highway edges or visible back of parking courts. Boundary features should be set an appropriate distance from the carriageway shared surface to meet Essex County Council Highway standards, and the margin paved in the same surface material, where practicable, with demarcation markers.



Public Spaces – Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

7.31 Street clutter can have an eroding effect on the appearance of a street. The need for signage, lights, railings and any other equipment, including post boxes should be considered from the outset in the design of spaces to ensure spaces are attractive as well as being safe for all users.

7.32 Feature lighting can be sensitively used to highlight public art works or trails, specific buildings, individual groups of trees or areas of landscaping and elements such as water features.

Principles to be considered for site planning:

- Scheme layouts should consider the function of a street and recognise the importance existing landmarks and the design and scale of new and existing buildings can play in establishing character
- Explore opportunities for introducing a range of activities within spaces to create interesting streets which can encourage walking and cycling. Ensure the spaces provide physical accessibility to people of all ages, including those with disabilities
- The type of road and the nature of pedestrian movement should be considered at road junctions to ensure they are designed for pedestrian priority
- No blister tactile paving should be used on residential side streets

- Tactile paving colours should follow national guidance
- Surface materials should respond to the built form and character of the area
- Permeable paving should be used around trees, such as permeable resin-bound or a metal tree grille
- Boundaries should use suitable materials to appropriately define spaces. The overuse of traffic signage and related equipment, inappropriate use of guard railing and poorly sited street furniture should be avoided
- Street furniture should be high quality, robust and attractive, respond to the character of the space within which it is located and be appropriately positioned to ensure optimum use and benefit
- Lighting should be positioned on buildings, where possible, and designed to enhance the quality of the street and encourage the use of spaces in the evening, as well as during the day
- Lighting in rural areas should be carefully considered to ensure it provides the necessary illumination without compromising the rural character of the locality.

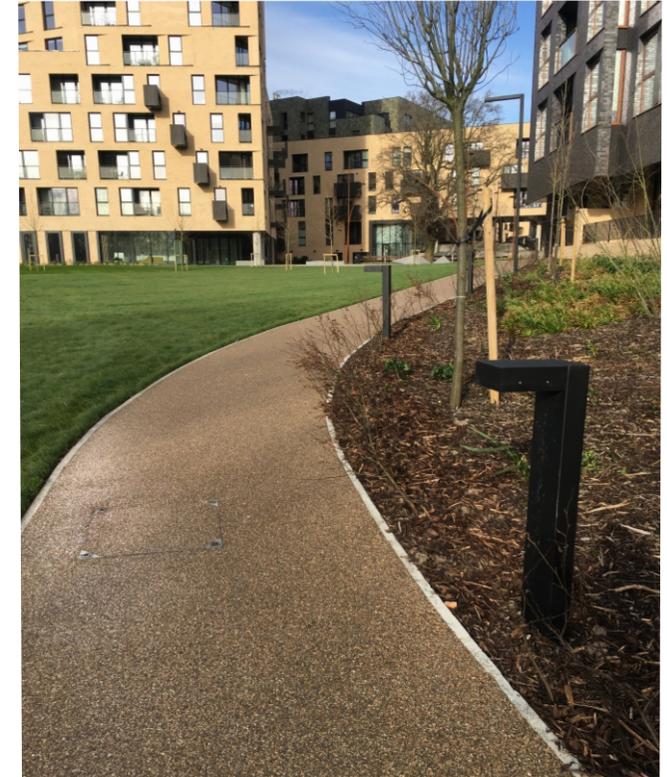


Figure 23: Lighting on a path at City Park West Development

Green Infrastructure

DM23 DM24

7.33 Multi-functionality is central to the Green Infrastructure concept and approach and is viewed as essential to supporting natural and



Public Spaces – Providing a variety of safe, attractive and accessible public spaces that also help enhance the communities health and well-being

achieving sustainable communities. Green infrastructure should thread through all new developments, connecting a scheme with its surroundings, neighbouring areas of parks and gardens, open spaces and existing green corridors. Green spaces can deliver habitat, provide access to nature for all, offer recreational and leisure opportunities which contribute to the community's health and well-being, provide a landscape setting to development, offer flood attenuation and opportunities for water resource management.

7.34 The provision of green infrastructure, at a wider scale, can contribute to local identity and landscape character. 'Building with Nature' is an accreditation scheme which seeks to incorporate green infrastructure into development. This approach is a voluntary approach that enables developers to create places that really deliver for people and wildlife. For more information please visit here:

<https://www.buildingwithnature.org.uk/about>

7.35 Opportunities to retrofit green infrastructure within urban environments should be explored for all development types; in this respect consideration could be given to the use of roof gardens, green roof systems, the integration of swales within streets, tree planting, the management of verges and areas of green space to enhance biodiversity and opportunities to enhance landscape character and biodiversity. More detailed information regarding ways to incorporate Green Infrastructure and how to

ensure development provides links to it view the City Councils Green Infrastructure Strategic Plan which can be found at:

<https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/evidence-base>

The Essex Green Infrastructure Strategy (2020) <https://www.placeservices.co.uk/resources/built-environment/essex-gi-strategy/> also seeks to enhance, protect and create an inclusive and integrated network of high-quality multi-functional green infrastructure in Greater Essex.

Opportunities for delivering and integrating with other green infrastructure set out within this Strategy should be considered.



Figure 24: Multi-functional green infrastructure at ARU Campus

Principles to be considered for Green Infrastructure:

- Does the development protect and enhance existing environmental assets whilst also establishing new ones
- Are there opportunities to strengthen green links between new and existing development and with the surrounding countryside. Are there opportunities to increase ecological connectivity and deliver high quality green space and landscapes which benefit both wildlife and people
- Are there opportunities for green spaces to be used to provide water attenuation benefits and reduce flood risk.

Built Environment



Delivering high quality design

8.1 - Overview

8.2 - Household Extensions

8.9 - Tall Buildings

8.21 - Historic Environment

8.47 - Intergrating non-residential uses

8.51 - Building materials and detailing

8.58 - Accessibility and security of buildings





Built Environment - Delivering high quality design

Objectives

- ❑ Integrate new development with its surroundings and make a positive contribution to the built environment
- ❑ Ensure tall buildings relate to enhance the overall cityscape
- ❑ Ensure Heritage Assets are appropriately protected/enhanced
- ❑ Ensure household development relates to the main building and reflects its locality
- ❑ Create an identity and sense of place in new character areas.

What does success look like

- High quality new development which creates places with character and identity
- High quality form, detailing and materials are used in the construction of all development to complement the surroundings and ensure safety and accessibility for all
- Well shaped cityscape with careful siting, scale and design of tall buildings
- Heritage Assets are protected proportionately to their significance
- Household development follows local design requirements and fits comfortably within the surrounding area.

Overview

8.1 The design and detailing of new development affects the quality of peoples' living environment and the enjoyment and sense of place. This includes the type of materials used, the design of the buildings and the spaces around them. The design and use of both buildings and their surroundings, will impact on their success, as well as the safety and usability of places for all users. In addition, the impact on the historic and natural environment needs to be balanced to ensure it is protected and enhanced.

Topic	Development Type				Our Chelmsford, Our Plan objectives			
	Residential extension/ Householder development	Single dwellings/small scale development (under 10 dwelling units)	Major development (10+ dwelling units)	Mixed use and non-residential uses	Safer	Greener	Fairer	Connected
Household extensions	✓					✓		
Tall buildings			✓	✓	✓			
Historic environment	✓	✓	✓	✓		✓		
Integrating non-residential uses			✓	✓	✓	✓	✓	✓
Building materials and detailing	✓	✓	✓	✓	✓	✓	✓	
Accessibility and security of buildings	✓	✓	✓	✓	✓		✓	✓



Built Environment - Delivering high quality design

Household Extension

DM10 DM11 DM23 DM29

8.2 The vast majority of planning applications submitted to the City Council are for householder developments, where policy DM23 applies. Appendix A - Development Standards in the new Local Plan, covers issues such as privacy and proximity standards. This section gives brief guidance on the two types of common householder developments:

- Side extensions
- Roof extensions

8.3 It should be noted that in more sensitive areas, such as Conservation Areas, stricter controls may apply and pre-application advice from the Councils is encouraged.

Side extensions

8.4 Side extensions can have a significant effect on the external appearance of a property as they usually affect the main public elevation of a house. Cumulatively they can have a considerable impact on the character of an area. Some side extensions, especially single storey side extensions, are considered to be permitted development, hence the development can be carried out without a planning application being required. Please refer to the Planning Portal for up-to-date guidance on what requires planning permission: <https://www.planningportal.co.uk/>

8.5 All extensions, regardless of whether they require planning permission, should follow the principles set out below:

Principles to be considered for side extensions:

- The type of extension should relate well to the host building:
 - extensions should be subservient to the host building. This means they would be visibly modest in size and height in comparison to the building but follow a similar style of detailing. Subservient extensions should appear as a distinct element and not unbalance the building See Fig 25
 - seamless extensions can be appropriate in some circumstances. They should not unbalance the host building, and the overall fenestration (door and window positions) and materials used should match the host buildings
 - extensions, such as cross-wings, which project forward and/or backward of the original building might be acceptable depending on the form and style of the host building and relationship of resulting character to neighbouring buildings and the street
- The roof form and bulk of the extension should relate well to the host building for example by using a ridged roof with a gable where gables are dominant in the main house

- The fenestration, external materials and detailed design of architectural elements of the extension should be sympathetic to the existing building
- The extension should respect the context of the street, preserving gaps between buildings where these are characteristic of the area
- The extension should not unacceptably affect the amenities of residents of neighbouring dwellings
- Where the flank of an extension would face onto a street, the visible faces of the extension shall need to incorporate windows and other detailing to positively address both streets. See Fig 27.

Roof alterations

8.6 Roof alterations can have a significant effect on the external appearance of individual properties and can also have a considerable cumulative impact on the character of an area.

8.7 Some minor roof alterations and modest dormers are considered to be permitted development, hence the development can be carried out without a planning application being required. Please refer to the Planning Portal for up-to-date guidance on volume allowances and other limitations for roof additions: <https://www.planningportal.co.uk/>



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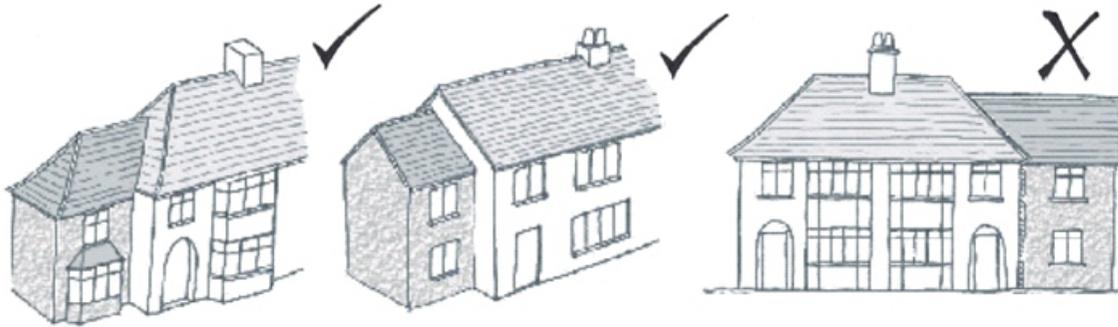


Figure 25: The roof form of the side extension should reflect the roof form of the main house.



Windows different but sympathetic

These windows are not sympathetic

Figure 26: The fenestration and detailing should take its cue from the host building in terms of rhythm, alignment, proportions, etc.

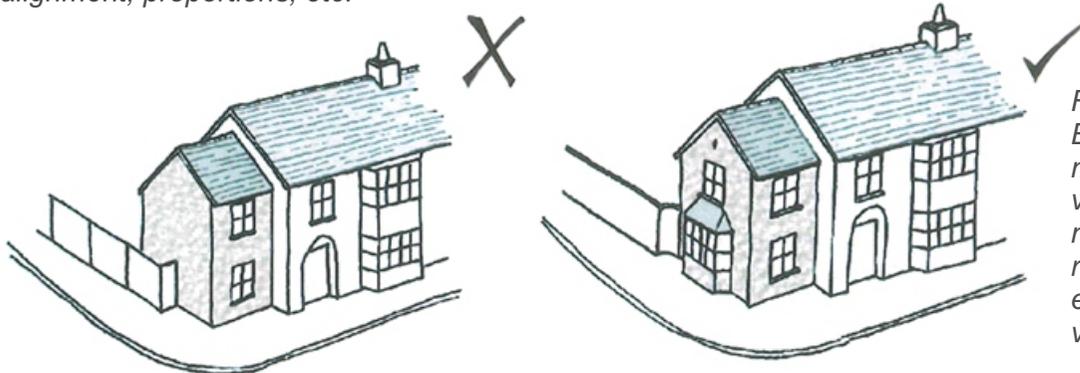


Figure 27: Extensions where multiple faces are visible to the street must be designed to respond effectively to each of those viewpoints.

8.8 All extensions, regardless of whether they require planning permission, should follow the principles set out below:

Principles to be considered for roof alterations:

- The form, size, siting, detailing and materials should relate well to the host building as well as the surrounding area:
 - Roof pitches of gabled/hipped dormers should match those of the main roof
 - Where a roof-slope is visible from a public place, new dormer windows should be positioned so they relate well to the alignment of fenestration on the elevation below
 - Dormers should be sited away from ridges, hips, verges, gables, other dormers and chimneys
 - Dormers should not be over-dominant due to their individual or cumulative size or shape
 - The design of roof alterations should relate to the context of the street scene:
 - Dormer windows should not disrupt the host building's roof form or be introduced in areas with long runs of roofs devoid of dormers
- On the front or other prominent roof slopes, dormer windows should be of a modest size and traditional design providing light rather than headroom or extra floorspace



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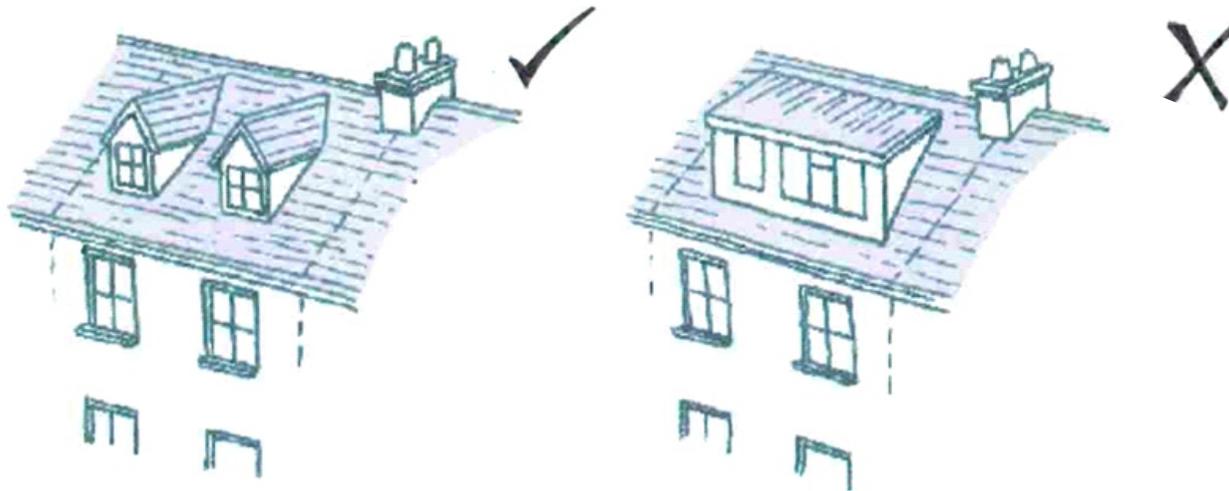


Figure 28: Dormers to the left use a sympathetic form, size, siting, detailing and materials and are vertically aligned with the windows below. If on the front of a dwelling, the dormer to the right dominates the roof, is too bulky and windows and detailing do not respect their context.

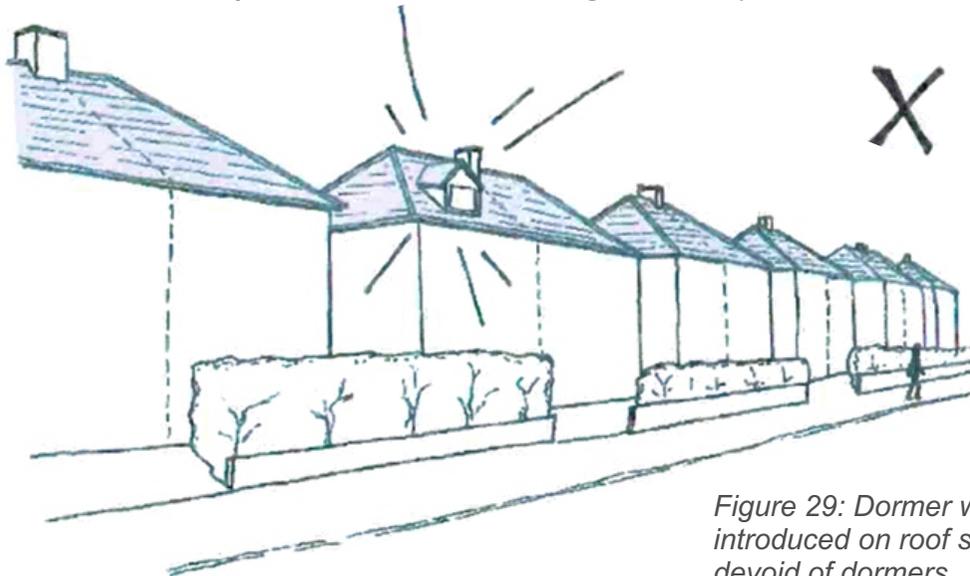


Figure 29: Dormer windows should not be introduced on roof slopes in long runs of roofs devoid of dormers.

- When dormer windows are required to provide additional floor space or headroom, they should be positioned on rear or less prominent roof slopes, and when on glimpsed side or visible rear-slopes they should be set well away from hips, verges, ridge and eaves and other roof features and should not dominate the roof form of the host building
- The privacy of neighbouring occupiers should be protected.

Tall Buildings

DM23 DM24 DM28

8.9 For the purpose of Local Plan policies, tall buildings are those that are above 5 storeys or above 16m high. They are covered by Policy DM28 of the new Local Plan and can be appropriate in parts of Chelmsford City Centre providing the criteria listed in Policy DM28 are met. Although no maximum height is suggested in the policy, developers will always have to give a thorough justification for the height of their proposal. In the right location, with the right design and detailing, tall buildings can make positive contributions to Chelmsford and its skyline and provide recognisable landmarks. They can also add to the legibility of the City. Due to their size and prominence they can also cause harm if in the wrong location or if not designed correctly within the context in which they sit. Outline planning applications for tall



Built Environment - Delivering high quality design

buildings will not be acceptable because sufficient detail must be available to consider the appropriateness of the proposals.

8.10 For any proposal including tall buildings consideration of the following will be required:

Appropriateness and location of tall buildings

8.11 Figure 30 should be used to guide suitable height range within the City Centre in the context of other planning considerations. It should be noted that figure 30 sets out the broad locations for taller buildings in the City Centre which takes into account the provisions of Policy DM28. Taller buildings may be appropriate in other locations providing they meet the requirements of Policy DM28.a

8.12 The base of a tall building should be designed to interact with the street and areas surrounding the building. Active uses, including community uses, are encouraged within the ground floor of tall buildings on the basis that tall buildings would form a focal point of the City Centre.

Contextual scale of tall buildings

8.13 Local scale ranges will indicate whether a tall building is likely to be appropriate. In areas of lesser scale, it is unlikely to be acceptable to introduce a more sudden increase in scale. Where there are already tall buildings in the City

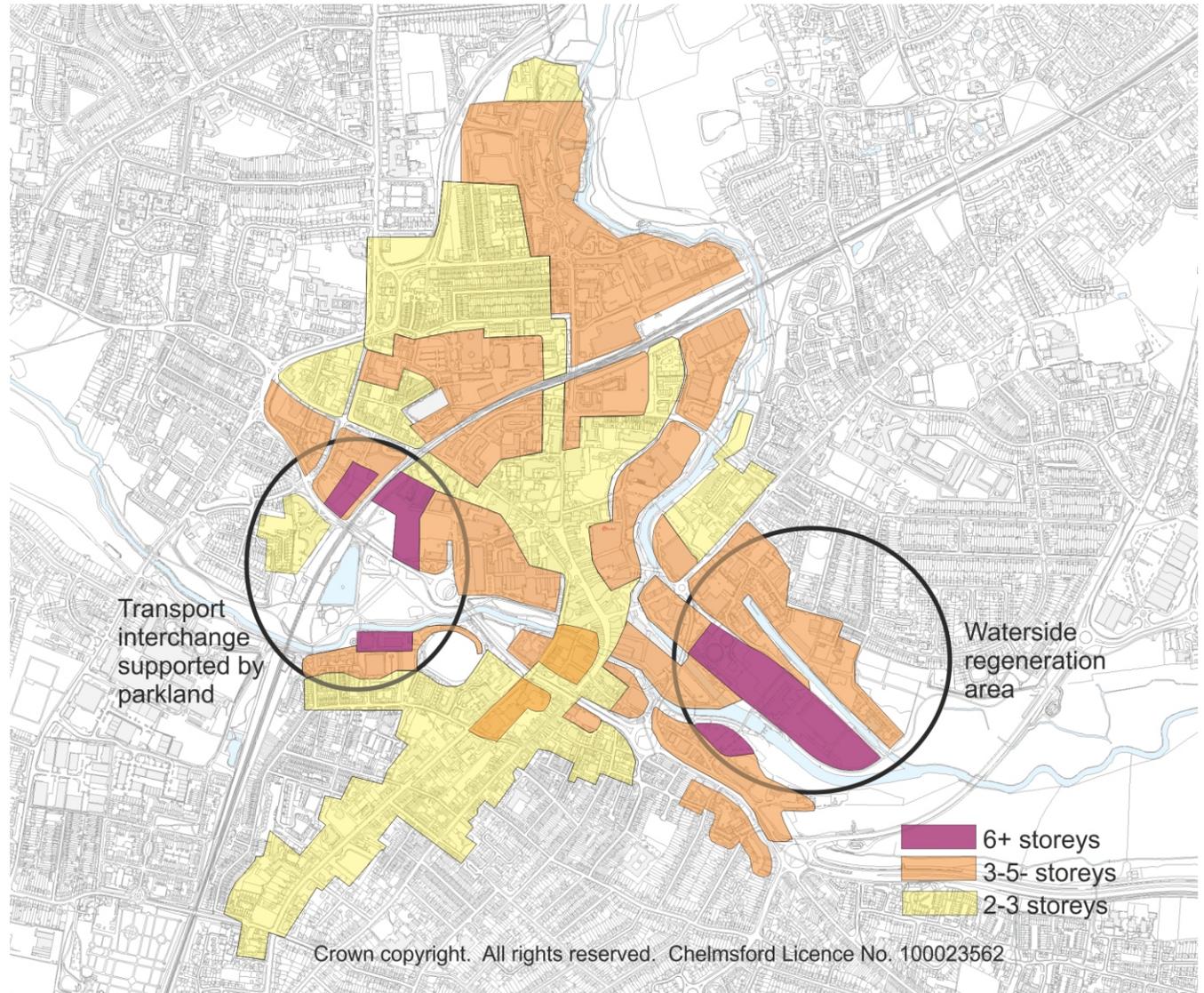


Figure 30: Height guide for City Centre



Built Environment - Delivering high quality design

Centre making a positive contribution to placemaking, contextual scale may provide a suitable setting for other tall buildings, although the presence of tall buildings alone will not necessarily provide justification for new tall buildings in a location. Similarly, the existence of a tall building on a site will not itself justify its replacement with a new tall building on that same site or in that area. Any increase in scale must be logical, justified and must not harm local character or function.

Setting of tall buildings

8.14 Tall buildings must benefit from sufficient space around them to balance the impact experienced at a street level which can otherwise be overbearing owing to the presence of height. Thorough design analysis needs to be given to all areas of a scheme and its surroundings, so includes, for example, careful consideration of relationships to buildings, streets and other public open spaces, residential courtyards and amenity spaces. Excessive shading or other adverse microclimate impacts must be avoided.

8.15 Consideration needs to be given to designated and non-designated heritage assets. Further guidance on this can be found under the Historic Environment section and within Historic England's guidance:

<https://historicengland.org.uk/images-books/publications/tall-buildings-advice-note-4/>

Wider visibility of tall buildings

8.16 The presence of tall buildings can have a significant impact when viewed across or from outside of the City Centre. Buildings must not appear unreasonably alien or visually dominant and must be seen in the context of compatible scale. The overall height of the building, its form such as bodies of water or public open spaces and detailing must not make the building unacceptably visually conspicuous. Medium and longer-range topography will need to be considered in terms of how the structure could be viewed. Taller buildings should always be designed with the assumption of a 360° viewpath, so all sides of the building must exhibit a high-quality of architecture.

8.17 Tall buildings should enhance the shape of the skyline both across the City Centre and from wider views outside the City. Tall buildings may be used to highlight the key transport interchange, or an appropriate community asset, such as bodies of water or public open spaces.

8.18 All proposals for tall buildings should be accompanied by accurate and realistic representations of the appearance of the building. This will require verifiable 360 view analysis to be submitted with any application. Where the applicant can demonstrate it is appropriate a visual analysis via a visual impact assessment may be accepted by the Council. These

representations should show the proposal in all significant views affected (to include near, middle and distant views). Where a tall building is sought to be justified by its relationship to a cluster of existing tall buildings, the proposal should be illustrated in the context of proposed and approved projects where these are known, as well as the existing situation. In addition, a scale model of the development is encouraged to be provided.

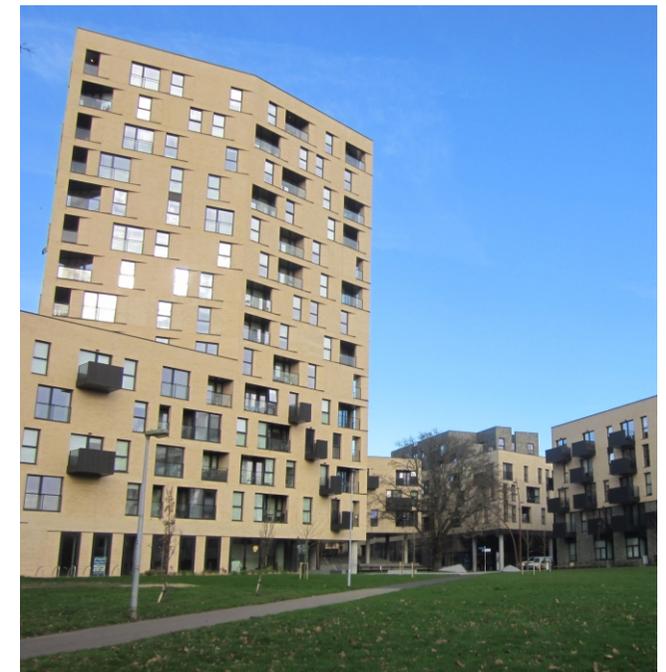


Figure 31: Tall buildings within City Park West development



Built Environment - Delivering high quality design

Microclimate

8.19 All proposals for tall buildings must be accompanied by detailed assessment of impact on streets, adjacent development and open spaces and waterways as a result of shading and other microclimate impacts including wind tunnelling and turbulence. It is essential to consider and try to mitigate the impact a tall building may have on its microclimate.

8.20 Further information on tall buildings can be found at:

<https://www.designcouncil.org.uk/resources/guide/guidance-tall-buildings>

Principles to be considered when relating to Tall Buildings:

- Design the building/s to present excellent quality of architectural form and detailing from all angles
- Avoid bulky buildings with a strong horizontal massing
- Break large buildings down into pedestrian scale elements and use the building to aid legibility
- The appearance of the building and materials used should be acceptable in the context of a range of weather and light conditions including night-time views

- Relate a tower element properly to a street scale block
- Incorporate a satisfactory relationship between height and bulk; towers can be stand alone or rise from a podium building of a similar height to existing buildings, which must not appear heavy and clumsy in relation to the taller building
- Position and design any services and plant equipment to reduce its visual impact and reduce unintentional skyline clutter
- Ensure appropriate service/collection/parking arrangements are designed into the scheme at an early stage
- Consider the historic environment based on a full assessment of significance, including views
- Consider the microclimate generated by the buildings, especially wind speeds around entrances, along key walkways and in open spaces
- Introduce meaningful tree planting within surrounding streets and open spaces to soften the urban character and to assist with mitigating wind speeds around tall buildings
- Make sure the building/s does not adversely overshadow other buildings, walkways or public spaces

- Demonstrate how structural safety, fire protection and means of escape have been addressed by the design.

Historic Environment

DM13 DM14 DM15

8.21 The Historic Environment provides an opportunity to influence new development and create characterful places with local meaning and identity. Historic England promote a number of principles which should be followed when working in an Historic Environment. These can be found at <https://historicengland.org.uk/images-books/publications/conservation-principles-sustainable-management-historic-environment/>

Types of heritage asset

8.22 Heritage assets include 'designated' and 'non-designated' heritage assets. Designated heritage assets include listed buildings, conservation areas, registered parks and gardens and scheduled monuments.

8.23 There are also a large number of non-designated heritage assets across the city, including historic buildings, historic landscapes and archaeological sites which do not have statutory protection (unless within a conservation area). The heritage interest of such assets is, nevertheless, a material consideration in the determination of relevant planning applications.



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Listed buildings

8.24 Listed buildings are those on a national register of buildings of special architectural or historic interest. The register includes a wide range of structures such as milestones, bridges, traditional telephone kiosks etc. which are not buildings. If you are unsure if a building or structure is listed you can search the register at: <https://historicengland.org.uk/listing/the-list/>

8.25 Further information on listing can be found at: <https://historicengland.org.uk/listing/what-is-designation/listed-buildings/> and <https://www.gov.uk/government/publications/principles-of-selection-for-listing-buildings>



Figure 32: 'Generator Building' sympathetically converted within Hall Street development, Old Moulsham, Chelmsford

8.26 Any alteration whether, internal or external, or to a curtilage structure, which affect the character of the listed building requires Listed Building Consent. To undertake works without consent is a criminal offence. Further guidance on appropriate alterations can be found at: <https://historicengland.org.uk/advice/your-home/owning-historic-property/listed-building/> <https://historicengland.org.uk/advice/planning/decision-taking/> <https://historicengland.org.uk/images-books/publications/making-changes-heritage-assets-advice-note-2/>

Principles to be considered relating to Listed Buildings:

- Traditional materials and finishes to match the original should normally be used in any alterations
- Proposals for works to a listed building should demonstrate that they are informed by a thorough evaluation of the significance of the building, which should be undertaken by a suitably qualified and competent professional
- Those commissioning works to a listed building are advised to ensure that professional advisers and contractors employed in relation to such works have appropriate expert knowledge and experience of historic buildings

- The demolition of listed buildings will not normally be permitted
- It is normally desirable to ensure that listed buildings are retained in use or brought back into use, where this is consistent with their conservation and it is recognised that some physical interventions may contribute to achieving that end
- Proposals which have an adverse impact on the significance of a listed building, such as the subdivision of well-proportioned rooms to create en-suite bathrooms, or the loss of historic fabric in buildings which are characterised by small room sizes in order to create open plan living/dining/kitchen areas, are likely to be unacceptable.

Setting of a Heritage Asset

8.27 The setting of a heritage asset will often make an important contribution to its significance. In some cases setting may be extensive, for instance the long-distance views of St Marys Cathedral, or may be more contained, such as building in a street scene. Setting is both visual, but also relates to historic association, land use and many other factors which affect how a heritage asset is both visual, but also relates to historic association, land use and many other factors which affect how a heritage asset is experienced. For instance, a small extension to a listed building is only likely



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to affect the host building and those immediately adjacent, whereas a major development could impact on the setting of heritage assets over a wide area.

8.28 Further guidance on the setting of heritage assets can be found at:

<https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>

Principles to be considered relating to the setting of a Heritage Asset:

- Demonstrate how the setting contributes to the heritage assets significance and what impact the development will have, and where appropriate how to maximise enhancement and avoid or minimise harm
- Consider the setting of heritage assets in a proportionate manner related to the significance of the heritage asset and the scale of the development.

Conservation Areas

8.29 A Local Planning Authority has powers and obligations to designate as conservation areas, 'areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.'

8.30 Conservation areas are a type of 'designated heritage asset': they differ from other

types of designated heritage assets in that they are generally designated at a local rather than a national level.

8.31 There are currently 25 Conservation Areas within the city. These range the historic village centres such as East Hanningfield, Writtle, Pleshey and Stock, and large parts of the city centre, but also include the Chelmer and Blackwater navigation and St John's Hospital.



Figure 33: Conversion of a retained building within the conservation area at the St John's Hospital site, Chelmsford

8.32 Individual architectural features all contribute positively to the character and appearance of a conservation area. The loss of such important, but often seemingly small, features can cumulatively have a serious and adverse impact on the character and appearance of a conservation area and on local

distinctiveness. Materials and finishes are of particular importance in these localities.

8.33 Plans of the Council's conservation areas and the relevant character appraisals can be found at:

<https://www.chelmsford.gov.uk/planning-and-building-control/conservation-areas-and-listed-buildings/conservation-areas-in-chelmsford/>

Principles to be considered relating to conservation areas:

- Avoid the loss of traditional front doors, windows, chimneys, decorative bargeboards and cast iron rainwater goods
- Avoid the addition of unsympathetic additions such:
 - the replacement of traditional features with modern components
 - unsympathetic changes to signage and to traditional shopfronts changes to hard surfacing materials (including tiled or paved paths), kerbs and street furniture
 - loss of boundary walls, railings and gates
 - loss of front gardens
 - the installation of boundary treatments which are out of keeping with the character and appearance of the area



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- the addition of porches which do not make a positive contribution to the streetscene
- the addition of dormer windows which are out of keeping with the character and appearance of the area
- the addition of prominently sited solar panels which are out of keeping with the character and appearance of the area
- the creation of parking areas where this results in the loss of features which make a positive contribution to the character or appearance of the area.

Registered Parks and Gardens

8.34 Parks and gardens may, like buildings, be on a national register, and listed at Grades I, II* or II. However, there is no separate consent regime for parks and gardens on the national Register of Parks and Gardens, and they do not have the same statutory protection afforded to listed buildings. Inclusion of a landscape on the Register is, however, a material consideration in the determination of planning applications and consideration of how a development will affect the landscape will be considered. Parks and gardens on the Register include Hylands Park, listed at Grade II*, designed by Humphrey

Repton. For the full list see the Register at: <https://historicengland.org.uk/listing/what-is-designation/registered-parks-and-gardens/>



Figure 34 : Hylands Park, Chelmsford

Scheduled Monuments

8.35 There are many thousands of archaeological sites in the city, but only minority, such as Pleshey Castle enclosure, are protected as scheduled monuments. In total there are 19 scheduled monuments within the city.

8.36 Scheduled Monument Consent will be required from Historic England, where activities physically affecting a scheduled monument are proposed. Further information can be found at: <https://historicengland.org.uk/listing/what-is-designation/scheduled-monuments/>
<https://www.historicengland.org.uk/advice/hpg/consent/smc/>

Non-Designated Heritage Assets

8.37 There are a large number of heritage assets across the city, including historic buildings, historic landscapes, and archaeological sites, which do not have statutory protection (unless as part of a conservation area). The heritage interest of such assets is, nevertheless, a material planning consideration in the determination of relevant planning applications affecting such assets.

8.38 The Council has a Register of Buildings of Local Value, which identifies buildings and structures based on their architectural and historic interest. There are also lists of designed landscapes and protected lanes which are also features of local character. In addition to these three sources, the council will where necessary identify non designated heritage assets through pre-application and formal application processes at the earliest stage possible.

8.39 Further information on the Local Register can be found at: <https://www.chelmsford.gov.uk/planning-and-building-control/conservation-areas-and-listed-buildings/listed-buildings-in-chelmsford/register-of-buildings-of-local-value/>

Heritage Statements

8.40 The Council will require a heritage statement to support any application for planning permission affecting the significance of a heritage asset or heritage assets or for listed



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building consent. This statement should conform to the requirements of the NPPF paragraph 189. As a minimum 'the historic environment record (HER) should have been consulted': this should be evidenced in the submission. A copy of the list entry will not be sufficient to meet this requirement.

8.41 The HER can be searched at:
<https://www.heritagegateway.org.uk/Gateway/>

8.42 It is important that proposals are informed by an understanding of significance, and thus an early assessment of significance is desirable; the assessment should inform proposals rather than seek to justify those already pre-defined.

8.43 The level of information should be proportionate to the significance of the heritage asset and the works proposed. Where works are proposed to complex heritage assets a detailed assessment of their evolution, including a phasing plan will be required. Whereas a scheme of replacement windows within a listed building will require a brief assessment of the building and the affected windows, and a major development is likely to require an assessment of the setting of all heritage assets within a 1km radius, potential a wider area in certain circumstances.

8.44 Where archaeology is a material consideration it may be appropriate to include the results of field work in the submission, particularly for major developments and sites with known archaeological potential. The scope of such work

should be agreed in advance with the County Archaeologist. Undertaking fieldwork at this early stage decreases the risk of making unexpected archaeological discoveries late in the day. If archaeological discoveries are made at a late stage in the development process, it is harder to make the adaptations to masterplans and programme planning which might be required to mitigate the impact of the development upon archaeology.

8.45 A heritage statement should describe the significance of the archaeological remains and the impact of the proposed development and should propose opportunities for enhancement and for mitigation of impact where relevant. Where the merits of development outweigh the significance of the archaeological remains and will result in the loss of archaeological evidence, it may be appropriate to require archaeological recording of those remains and to secure such recording by means of an archaeological condition attached to any permission.

8.46 Building recording can assist in the understanding of a building and of its significance to inform a heritage statement and/or the preparation of a scheme of conservation, repair or alteration and/or development proposals. It can also be used to document buildings or parts of buildings which will be lost as a result of demolition. The type or 'level' of building recording appropriate to a particular set of circumstances will vary. Commonly, where alterations are proposed to a listed building, a Level 3 record will be appropriate. Guidance is

set out in Historic England's Understanding Historic Buildings: A guide to Good Recording Practice:

<https://historicengland.org.uk/images-books/publications/understanding-historic-buildings/>

Principles to be considered when preparing a Heritage Statements:

- The historic environment record (HER) should be consulted
- The level of information should be proportionate to the significance of the heritage asset and the works proposed
- The impact of proposals on the heritage asset(s) affected should be assessed, and conservation and enhancement opportunities with any mitigation strategies identified as appropriate. The impact on the character and appearance of a conservation area, and/or on the impact on the setting of a heritage asset or assets is addressed
- Where archaeology is a material consideration, relevant information is presented which supports the planning application
- The significance of the archaeological remains and the impact of the proposed development, and should propose opportunities for enhancement and for mitigation of impact where relevant
- An appropriate building recording should be made.



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Integrating non-residential uses

DM20 DM23 DM24

8.47 Non-residential uses are essential for diversity and vibrancy. They make neighbourhoods stronger and more sustainable and are required in most major developments. In appropriate locations there is scope to mix new residential development with compatible uses, such as:

- retail
- service offices
- restaurants and cafes
- offices
- light industrial units
- institutional and community uses.

8.48 Community and service type uses often only require ground floor accommodation. The Council welcomes live-work units as part of new residential and mixed use development. Where mixed uses are proposed, careful design is required to avoid noise, odour and other conflicts between uses. Measures can include:

- Placing noise sensitive rooms away from noise sources
- additional noise insulation
- acoustic lobbies
- acoustic glazing
- baffles around ventilation ducts.

8.49 Additionally, management limitations and planning conditions, on hours of use etc, can be used to reduce the likelihood of conflict. These may be used unless controlled by other legislation such as Licensing.

8.50 In assessing whether a new site is appropriate for a new education facility, the 'ECC Developers' Guide to Infrastructure Contributions (2020)' identifies the issues and matters that should be considered in the Education Site Suitability Checklist provided in Appendix C: Education Site Suitability Checklist. The 'Guide' seeks to ensure that new education facilities fit with, and are complemented by, the rest of the proposed development. Appendix D: Exemplar Layouts for Education and Community Facilities, provides exemplar layouts. The objectives as displayed in the exemplar layouts are to:

- create a sense of place;
- avoid congestion by dispersing school drop off;
- provide a safe environment around school entrances; and
- encourage sustainable travel.



Figure 35: Mixed use development at Beaulieu



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Principles to be considered regarding mixed use and non-residential development:

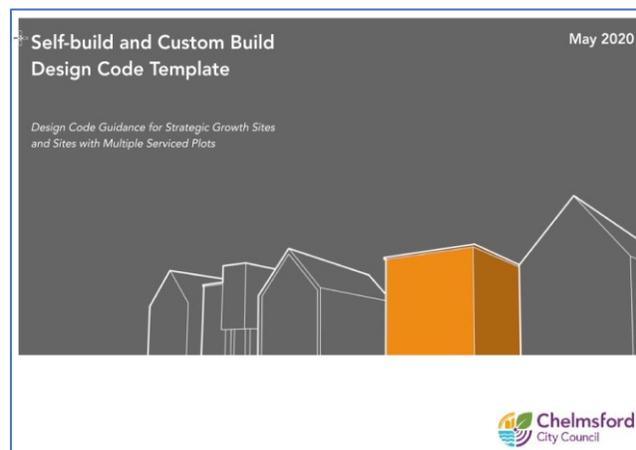
- Consider if it is appropriate to incorporate non-residential uses on the ground floor along main routes and key intersections or where this is not practical provide ground floor units with individual rather than communal entrances
- Non-residential uses should be grouped together where practical to create a centre or neighbourhood focus
- Residential uses should be incorporated above non-residential uses to provide surveillance, optimise the use of the land and ensure the area is not dead out of hours
- Servicing and appropriate waste and recycling provision must be considered at an early stage
- Carefully design a scheme to avoid noise conflict between uses
- On-street servicing is encouraged where feasible as it avoids wasteful service yards (this is dependent upon a street of adequate width or the provision of a suitable lay-by, but should not compromise the streetscape quality)
- High floor to ceiling heights (of around 4m) should be incorporated on lower floors to facilitate flexibility of use.

Building Materials and detailing

DM1 DM23 DM24 DM28

8.51 All buildings and extensions, boundaries and areas of hardstanding should be of a high quality finish and standard, compatible to their surroundings. Given their visual prominence, tall buildings should exhibit an excellent standard of architectural quality, including the use of materials. The Design and Access Statement should be used to explain the rationale for all proposals.

8.52 The Local Plan requires the use of masterplans and encourages design codes for strategic scale developments. Self-build and Custom Build dwellings, as required by Policy DM1, should follow the Council's Self-build and Custom Build Design Code Template.



8.53 Detailing of all buildings, including fenestration positioning should be considered at an early stage to maximise interest in the streetscene and encouraging natural surveillance. Using windows and glazing to maximise solar gain is strongly encouraged.

8.54 The choice of material for all forms of hardstanding should be considered carefully to avoid unnecessary surface water run-off. There are many forms of permeable materials which can be used in the construction of hardstandings, including patios, within gardens which are encouraged to be used. Requirements for driveways are covered under 'creating a parking space' in the Movement section of this SPD.

8.55 Consideration should be given to the most appropriate form of boundary treatment for any development type. Security is a consideration,



Figure 36: Rural boundary with native hedge



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but this does not mean boundaries should be industrial in nature. The use of appropriate species as a hedge can offer suitable security as well as providing ecological and habitat enhancements. The use of high-quality materials for boundaries are of particular importance where they will be publicly viewable or impacts on a conservation area or setting of a Heritage Asset

8.56 The need for outdoor storage should be considered. It is recommended that garages and car ports should provide additional space for storage. Where these are not present garden sheds should be considered for inclusion within the private garden space of dwelling houses.

8.57 The Movement section of this SPD sets out appropriate storage for bicycles for all types of development.

Principles to be considered relating to materials and detailing:

- Place doors and windows in public elevations to encourage a safer, more active and interesting street scene
- Align windows and doors horizontally and vertically and maximise opportunities for passive solar gain, see also Chapter 6 Sustainable Design and Construction
- Break down facades, for example, by using different materials, physical articulation, balconies, deeper and framed windows and door treatments etc

- Use easy to maintain materials that complement the surrounding area and work well together
- Use high quality, long lasting materials with a low environmental impact
- Break up and punctuate long ridge lines e.g. with integrated solid chimneys
- Pay close attention to the location of service intakes and pipes (run these internally where possible), utility cabinets as well as the specification and positioning of solar panels if in public view
- Select a boundary treatment which offers the level of security required while still integrating with the surroundings, providing a positive appearance from streets and other public open spaces
- Consider the inclusion of appropriate outside storage for dwelling houses.

Accessibility and security of buildings

DM23 DM24

8.58 The accessibility of spaces around buildings is considered under section 7. The following are matters to be considered for all buildings to ensure they are accessible and inclusive for all users:

Principles to be considered at the approach to buildings:

- Create clearly defined, level pathways or ramps with a low gradient
- Make entrances easy to find and well lit
- Use level thresholds
- Use automated doors where appropriate.

Principles to be considered to make buildings accessible:

- Make spaces flexible
- Avoid steps
- Add low window sills.

8.59 Policy DM23 of the new Local Plan requires that all new buildings and extensions create safe environments. Safety and security require the careful design of buildings and spaces. Secured by design (www.securedbydesign.com) offers useful and detailed guidance on security relating to different types of developments. The website includes a series of guidance documents that provide step by step guides on how to include security in development proposals.

Sustainable Design and Construction



Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions

- 9.1 - Overview
- 9.2 - Reducing water consumption
- 9.3 - BREEAM
- 9.12 - Reducing Carbon Dioxide and Nitrogen emissions
- 9.20 - Recycling and waste requirements





Sustainable Design and Construction

- Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions

Objectives

- Secure high-quality well-designed sustainable development
- Future proof new development to allow for fast changing technology and building standards
- Reduce the use of non-renewable resources
- Reduce carbon emissions from new buildings
- Ensure appropriate recycling and waste requirements are provided to all developments.

What does success look like

- Attractive buildings and spaces which utilise the sun to provide heat and light to them
- Designs which integrate into, and make best use of their surroundings
- Buildings that can adapt to changing energy technologies needs and are built into the design e.g. solar panels, boiler requirements etc.

Overview

9.1 Policy DM25 sets out the required standards which apply to relevant development types. In addition, this section sets out further guidance on ways in which development can achieve these requirements as well as how to go above and beyond the required standards to achieve a more sustainable development. Not only does this have obvious environmental benefits but there are added cost saving benefits to the home owner.

Topic	Development Type				Our Chelmsford, Our Plan objectives			
	Residential extension/ Householder development	Single dwellings/small scale development (under 10 dwelling units)	Major development (10+ dwelling units)	Mixed use and non-residential uses	Safer	Greener	Fairer	Connected
Reducing water consumption		✓	✓	✓		✓		
BREEAM		✓	✓	✓		✓		
Reducing carbon dioxide and nitrogen emissions	✓	✓	✓	✓	✓	✓		
Recycling and waste requirements		✓	✓	✓	✓	✓		

Reducing water consumption

DM23 DM24 DM25

9.2 All new dwellings are required to meet the Building Regulations optional requirement for water efficiency of 110 Lt per person per day, rather than the standard 125 Lt per person per day. All applications for new dwellings should include details on how this requirement will be achieved. The following are suggested methods for reducing water consumption in dwellings.



Sustainable Design and Construction

- Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions

Principles to be considered for reducing water consumption in dwellings:

- Installing water efficient washing machines and dishwashers
- Using low flush toilets, avoiding power showers and fitting aerated power heads or flow regulators/limiters on all showers
- Using spray taps, tap aerators or flow regulators
- Providing water butts to all homes
- Installing rain water harvesting and grey water recycling schemes for larger schemes if feasible
- Drought resistant or low water use plants in landscaped areas will reduce water demands
- Water meters are standard in new homes but can be added to existing buildings.

BREEAM

DM23 DM24 DM25

9.3 BREEAM is a national scheme that assesses the sustainability performance of non-residential buildings. It has been developed by the Building Research Establishment (BRE). The performance is measured across ten categories and results in a star rating from Pass to Outstanding. Assessments can be done at

various stages, including the design and the construction stage, by a qualified and licenced BREEAM Assessor.

9.4 All new non-residential buildings with a floor area in excess of 500sqm are required to achieve a minimum BREEAM rating (or its successor) of 'Very Good'.

9.5 This requirement applies to extensions but not to conversions. The threshold is intended to exclude smaller stand-alone schemes where viability may be an issue. Buildings with a floorspace smaller than 500sqm, but forming part of a scheme with a floorspace over 500sqm in total, will be encouraged to comply with the requirement.

9.6 Compliance with Policy DM25 will be ensured by means of a planning condition. This will typically include:

- A pre-commencement condition requiring an Interim Certificate or a Summary Score sheet following a formal Design Stage assessment
- A post-completion condition requiring the submission of either the Final Certificate or the Assessor's summary score sheet verifying that the agreed standards have been met before the building is occupied
- If the Final Certificate has not been submitted prior to occupation, this will be required within six months following approval of the summary score sheet.

9.7 BRE has developed a variety of BREEAM standards to assess different types of developments. BREEAM New Construction is used to assess new building developments and includes the following building types by sector:

Sector	Building type and description if applicable
Commercial	Offices, Industrial, Retail
Public	Education, Healthcare, Prisons, Law Courts
Multi-residential accommodation	Residential care homes, sheltered accommodation, halls of residence
Other	Residential institutions such as hotels and guest houses Non-residential institutions such as art galleries, libraries, community centres and places of worship Assembly and leisure Other including transport hubs, research and developments, creches and visitor centres Bespoke - building types not listed above



Sustainable Design and Construction - Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions

9.8 Policy DM25 includes all forms of residential accommodation, including those listed as multi-residential in the table above.

9.9 More information about BREEAM is available at: <https://www.breeam.com/>

9.10 Only where an applicant can demonstrate with evidence, to the satisfaction of the Council, that there are exceptional circumstances which make a development unable to fully comply with the BREEAM requirements, the Council may consider a revised requirement based on the individual circumstances of the scheme.

9.11 Following the Housing Standards Review, councils can no longer require that residential development is built to a specific performance standard. The City Council does however support the use of the Home Quality Mark (HQM). This standard replaces the Code for Sustainable Homes and has been developed by BRE. The Council strongly encourages all residential development to be built to the HQM standard. For more information on the HQM visit <https://www.homequalitymark.com>

Reducing carbon dioxide and nitrogen emissions

DM23 DM24 DM25

9.12 All new residential and non-residential new builds are strongly encouraged to incorporate

sustainable design features that reduced carbon dioxide and nitrogen dioxide emissions and the use of natural resources. Ways of achieving this include the layout, orientation and design of buildings. Further details of these are set out below.

9.13 Nitrogen dioxide is released into the atmosphere when fuels are burned such as petrol or diesel in a car engine or natural gas from domestic central heating boilers. The best way to achieve a reduction in nitrogen dioxide emissions is to install high efficiency, low nitrogen dioxide emission boilers or meet the space and hot water requirements by systems that do not produce any nitrogen dioxide emissions. Condensing boilers are the most efficient and can reach emissions at or below 40mg/kWh. They are also generally the most affordable and practical.

9.14 The following low carbon and renewable energy technologies for electricity and heat generation are commonly available:

- Solar photovoltaic – panels that convert energy from the sun to electricity
- Solar thermal – collectors or tubes that convert energy from the sun for water and space heating
- Wind turbines - harness the wind's energy to generate electricity
- Biomass stoves or boilers – organic matter

- Ground source heat pumps – take heat from the ground for water and space heating
- Air source heat pumps – take heat from the air for water and space heating
- District/community heating – a plant that distributes heat from a central heat source for residential or commercial heating requirements
- Combined heat and power (CHP) – a plant that generates electricity at the point of use and captures heat generated in the process, generally for large mixed use schemes but exists as micro CHP for individual properties.



Figure 37: Domestic solar panels on a roof



Sustainable Design and Construction - Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions

9.15 It is important to remember that depending on where the development is located, e.g. in a conservation area, and what is being installed, it may require planning permission in its own right. For further advice go to:

<https://www.chelmsford.gov.uk/planning-and-building-control/planning-permission-and-applications/check-if-you-need-planning-permission/>

9.16 For designated or non-designated heritage assets or buildings within a conservation area the requirements for energy efficiency should be balanced against preserving the importance of the historic asset, its setting or the wider historic environment. Site-specific guidance should be sought from the Local Planning Authority in such circumstances. Further guidance is also available from Historic England at:

<https://historicengland.org.uk/images-books/publications/energy-efficiency-and-traditional-homes-advice-note-14> and <https://historicengland.org.uk/advice/technical-advice/energy-efficiency-and-historic-buildings/>

9.17 Retrofitting and refurbishment options for historic structures can reduce carbon emissions by 60% compared to other options for redevelopment such as new build. Further information on this is available at:

<https://historicengland.org.uk/research/heritage-counts/2019-carbon-in-built-environment/>

9.18 At new Strategic scale developments over 100 homes, the Council will seek to negotiate Section 106 agreements which secure show homes that incorporate optional sustainable design features to showcase the benefits of including such features in a new build and how to move towards a zero-carbon home.

9.19 All new developments are encouraged to include renewable, low carbon and where possible decentralised energy schemes on site. The provision of energy by renewable sources is subject to large variations due to the intermittent nature of the wind and sun. One way to overcome this is through Battery Energy Storage which evens out the inevitable peaks and troughs of renewable energy supply. A successful example of this can be seen in South Somerset District Council:

<https://www.southsomerset.gov.uk/news/2019/10/battery-energy-storage-site-additional-storage-facility-of-5mw-highlights-commitment-to-the-south-somerset-environment-strategy/>

Principles to be considered to reduce harmful emissions and the use of natural resources:

- Install high efficiency, low nitrogen dioxide emission boilers or install energy systems that do not produce any nitrogen dioxide emissions
- Arrange buildings to avoid overshadowing, allow natural cooling in the summer through circulation of air yet avoid high heat losses created by too high wind speeds
- Make maximum use of daylight while avoiding excessive solar gain
- Provide shelter belts of trees on exposed edges of the site to reduce heat loss from strong wind
- Reduce the exposed surface area of buildings to minimise heat loss
- Adopt a fabric first approach to buildings e.g. use best possible insulation and reduce thermal bridging
- Avoid air leakage from buildings and make best use of thermal mass
- Orientate windows to avoid excessive solar gain and need for ventilation.



Sustainable Design and Construction

- Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions



Figure 38: Highwood Village Hall is built to Passivhaus principles with excellent thermal performance and airtightness. The triple glazed windows are oriented to the south, west and east to maximise natural solar gain and the roof overhang provides shading. Solar panels and an air source heat pump provide electricity and heating.

Recycling and waste requirements

DM26 Appendix B

9.20 All new development is required to provide well designed recycling and waste storage. Appendix B of the Local Plan contains standards for the provision of recycling and waste for houses, flats and apartments in Chelmsford. It also sets out some key design standards covering the location of bin stores and the layout of developments to facilitate collection for both residential and commercial waste.

9.21 Details of Councils waste and recycling collections and protocols can be found at: <https://www.chelmsford.gov.uk/bins-and-recycling/> Consideration should be given to accommodating the size and number of receptacles required by each household. It is recommended that space is provided for these in the kitchen, especially in flats where there is not readily accessible private outside space for storage, or under cover on the plot.

9.22 Appendix B of the Local Plan covers which bins are required dependant on the size and scale of a development. To assist in the design of bin storage the following recycling and waste receptacles are provided by the Council. Receptacle and bin sizes may vary depending on manufacturer but the following offers a guide:



Sustainable Design and Construction

Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions

Standard individual two wheeled Bins (one of each)	180 Litre Bin for residual waste	240 Litre Bin for garden waste	360 Litre Bin (HMO only)
Height	1066mm	1075mm	1100mm
Height lid open	1525mm	1720mm	1690mm
Depth	550mm	725mm	850mm
Width	480mm	580mm	620mm



Individual food caddies (one of each)	7 Litre small food waste caddy	23 Litre medium food waste bin
Height	234mm	406mm
Height lid open	360mm	630mm
Depth	229mm	400mm
Width	252mm	320mm



Green box	55 Litre box
Height	380mm
Depth	390mm
Width	590mm



Bags and Sacks	2x55 Litre reusable white bay (houses)	55 Litre clear bag (houses)	23 Litre square bag (houses)
(all dimensions are approximate when bags are full)			
Height	800mm	700mm	480mm
Depth	450mm	450mm	260mm
Width	450mm	450mm	330mm

Communal 2 wheeled Bin	140 Litre Bin	240 Litre Bin	360 Litre Bin
Height	990mm	1075mm	1090mm
Height Lid open	1510mm	1720mm	1940mm
Depth	540mm	725mm	850mm
Width	480mm	580mm	620mm



Communal 4 wheeled bins	660 Litre Bin	1100 Litre Bin
Height	1165mm	1300mm
Height lid	1370mm	2280mm
Depth	775mm	1070mm
width	1265mm	1265mm





Sustainable Design and Construction

- Securing high-quality sustainable buildings and spaces which contribute to a reduction in Carbon emissions

9.23 Design standards are set out below for individual and communal bin stores respectively.

Principles to be considered for individual bin stores:

- There should be a dedicated storage area on an area of hardstanding
- There should be easy access between the storage area and the collection point
- Storage areas to the front of a site to be integrated and well screened.



Figure 39: Well integrated bin stores to the front of properties

Principles to be considered for communal bin stores:

- Materials should be in keeping with the surrounding development and the store should be screened or integrated with other features such as brick walls
- Detached stores should be covered and should be at least 5m away from flats and houses to minimise noise disturbance to residents during use and collection
- Doors to be double doors and open outwards without causing obstruction
- Doorways and alleyways on the route from storage to collection point should be at least 2m wide to allow for manoeuvrability
- The floor should be hard, level and easy to clean
- Stores should be well ventilated, louvre doors provide suitable ventilation
- The entrance door to be secured, preferable with a lock using F1/F2 keys (fire brigade keys) or electronic key access
- There should be good lighting on motion sensors to allow usage of the store at all times
- Stores should be easily accessible from the adopted highway.

9.24 For all commercial businesses there is a legal duty of care to manage any waste produced correctly. Full details of recycling services, waste

collection and the duty of care can be found at: <https://www.chelmsford.gov.uk/bins-and-recycling/recycling-and-waste-collections-for-business/>

9.25 Any construction site will generate waste. The following are some useful ways which can assist in the successful management of a site to reduce the impact on neighbours and the amenities of the area during the construction period and minimise waste generation. The Minerals Local Plan and Waste Local Plan set out further detailed policies and guidance regarding the re-use and recycling of materials on sites. These can be found at:

<https://www.essex.gov.uk/minerals-waste-planning-policy/minerals-local-plan>

9.26 The Considerate Constructors scheme is a national initiative set up by the construction industry to promote respect for the community, ensure safe building sites, and responsible site management. The Council encourages developers to register with this scheme for all development types. More information on this scheme can be found at: <https://www.ccscheme.org.uk/>

Principles to be considered for managing construction waste:

- Follow the waste hierarchy of reduce, re-use, recycle, recover, disposal to reduce the amount of waste being disposed in landfill
- Consider registering all development types with the considerate constructors scheme.

Adaptable Construction



Creating development which is accessible and can adapt to people's changing needs

10.1 - Overview

10.2 - Accessible and adaptable buildings

10.10 - Space Standards





Adaptable Construction – Creating development which is accessible and can adapt to people's changing needs

Objectives

- Provide homes for life for all
- Create high quality adaptable buildings.

What does success look like

- Homes which can be readily adapted to cater for changes in family members circumstances or needs over time
- Internal spaces providing usable spaces as well as meeting required standards
- Adaptations that do not compromise good design.

Topic	Development Type				Our Chelmsford, Our Plan objectives			
	Residential extension/ Householder development	Single dwellings/small scale development (under 10 dwelling units)	Major development (10+ dwelling units)	Mixed use and non-residential uses	Safer	Greener	Fairer	Connected
Accessible and adaptable buildings	✓	✓	✓	✓	✓		✓	✓
Space standards	✓	✓	✓	✓	✓		✓	✓

Accessible and adaptable buildings

DM1

10.2 Policy DM1 sets the requirement for a minimum of 50% of all new homes to meet Approved Document Part M4(2) of the Building Regulations (2010 onwards). Building homes to this standard means they can accommodate the changing lifetime needs of an occupant by having the ability to readily adapt buildings without the need for major re-building. Although this is a mandatory requirement for a minimum of 50% of new homes within any scheme it is encouraged that all new homes are built to this standard to allow for greater flexibility. For full details of how to achieve the required standard please see the latest Building Regulations: <https://www.gov.uk/building-regulations-approval> and https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/540330/BR_PDF_AD_M1_2015_with_2016_amendments_V3.pdf

10.3 Consideration should also be given to the need to provide homes with the ability for occupiers to readily work from home. This may include suitable space within habitable rooms, or specific rooms for home offices-and includes the need to ensure that new homes have connections to superfast broadband.

Overview

10.1 Creating homes which last a lifetime due to changing family circumstances enables people to stay in their home for longer. To enable this, it is important that all homes are built to minimum space standard, as well as considering how other small adjustments to a building can enable long term adaptability should it be required. All buildings should enable safe and appropriate use and access for all.



Adaptable Construction – Creating development which is accessible and can adapt to people's changing needs

Principles to be considered to achieving accessible and adaptable dwellings:

- There is step free access to the dwelling, or of the building containing the dwelling and to any associated parking space and communal facilities
- There is a step-free access to the WC and other accommodation within the entrance storey, and to any associated private outdoor space directly connected to the entrance storey
- A wide range of people, including older and disabled people and wheelchair users, are able to use the accommodation and its facilities
- Features are provided to enable common adaptations to be carried out in future to increase the accessibility and functionality of the dwelling
- Wall-mounted switches, socket outlets and other controls are reasonably accessible to people who have reduced reach. Consider if new homes have the ability for occupiers to work from home and can be readily connected to superfast broadband.

10.4 Policy DM1 requires a minimum of 5% of new affordable homes to meet Approved Document Part M4(3) of the Building Regulations (2010 onwards). Building homes to this standard

means they are fully accessible for wheelchairs. Although this is a mandatory requirement for a minimum of 5% of affordable new homes within a scheme it is encouraged that all new homes are built to this standard to allow for great flexibility. For full details of how to achieve the required standard please see the latest Building Regulations: <https://www.gov.uk/building-regulations-approval>

Principles to be considered to achieving dwellings that are wheelchair accessible:

- There is step free access to the dwelling, or of the building containing the dwelling, a wheelchair user can approach and gain step-free access to every private entrance to the dwelling and to every associated private outdoor space, parking space and communal facility
- Access to the WC and other accommodation within the entrance storey is step-free and the dwelling is designed to have the potential for step-free access to all other parts
- There is sufficient internal space to make accommodation within the dwelling suitable for a wheelchair user. All doors to and within the dwelling, or of the building containing the dwelling, are of the required width to easily accommodate a wheelchair

- The dwelling is wheelchair adaptable such that key parts of the accommodation, including sanitary facilities and kitchens could be easily altered to meet the needs of a wheelchair user or, where required by a local planning authority, the dwelling is wheelchair accessible meaning those adaptations are provided prior to initial unit completion
- Wall-mounted switches, socket outlets and other controls are accessible to people who have reduced reach.



Figure 40: Accessible entrance at Chelmsford Museum

10.5 For all non-residential buildings it is strongly encouraged that buildings should be accessible to all.



Adaptable Construction – Creating development which is accessible and can adapt to people's changing needs

Principles to be considered to achieving accessibility to all buildings:

- Access to buildings and access within buildings and the use of their facilities, both for visitors and for people who live or work within the building is required for all, regardless of disability, age or gender.

Changes of use

10.6 Where changes of use are classified as permitted development, for example office to residential conversion, works can be undertaken in accordance with the minimum standard of Building Regulation applicable to that category of building work. Where a material change of use or works involved in that conversion mean that planning permission is required, the development as a whole must adhere to relevant planning policy which will mean, in the case of an office to residential conversion for example, a minimum of 50% of new homes are to be designed to meet Approved Document Part M4(2) and where applicable, 5% of affordable housing must be designed to meet Approved Document Part M4(3).

Extensions to buildings

10.7 Where an extension is proposed to a building designed to meet an optional standard of Approved Document Part M, for example where a planning permission has been granted on the basis that a proportion of new homes are

built to Approved Document Part M4(2) or Part M4(3), the extension should be designed to meet the equivalent standard applicable at that time.

Heritage

10.8 For a designated or non-designated heritage assets or buildings within a conservation area the requirements for accessibility should be balanced against preserving the importance of the heritage asset, its setting or the wider historic environment. Site-specific guidance must be sought from the Local Planning Authority in such circumstances. The principles for how to approach considerations of equitable access to heritage assets is set out here:

<https://historicengland.org.uk/advice/hpg/compliantworks/equalityofaccess/>

Retrofitting dwellings

10.9 Works to retrofit a property may on occasion be necessary. Where works are required to be carried out, they will likely be user-specific. Where changes outside of the home are needed, other sections of this document should be followed to ensure the need for works is balanced against local environment considerations.

Space Standards

DM26

10.10 Policy DM26 requires all new dwellings, which includes the conversion of a building into a

dwelling, to adhere to the Nationally Described Space Standards. The current standards are set out in Appendix A of the Local Plan but will be periodically reviewed and may be subject to change. The latest version of these standards can be found at:

[https:](https://www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard)

[//www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard](https://www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard)

10.11 The Nationally Described Space Standards are the minimum standards that must be met for new homes to make them fundamentally adequate for occupation. The benefits of increasing the size of new homes beyond the minimum stipulated standards is greater flexibility for how occupiers live in the home and how households may diversify over a lifetime, more space for pushchairs, mobility aids, pets, etc. which support a range of age groups and needs over a lifetime and generally allow more space to enjoy day-to-day life in the home.

Principles to be considered regarding space standards of new homes:

- Ensure all new dwellings, including conversions/changes of use, meet the Nationally Described Space Standards. Consider going beyond these standards where possible to provide greater flexibility within a home for changing circumstances.

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