

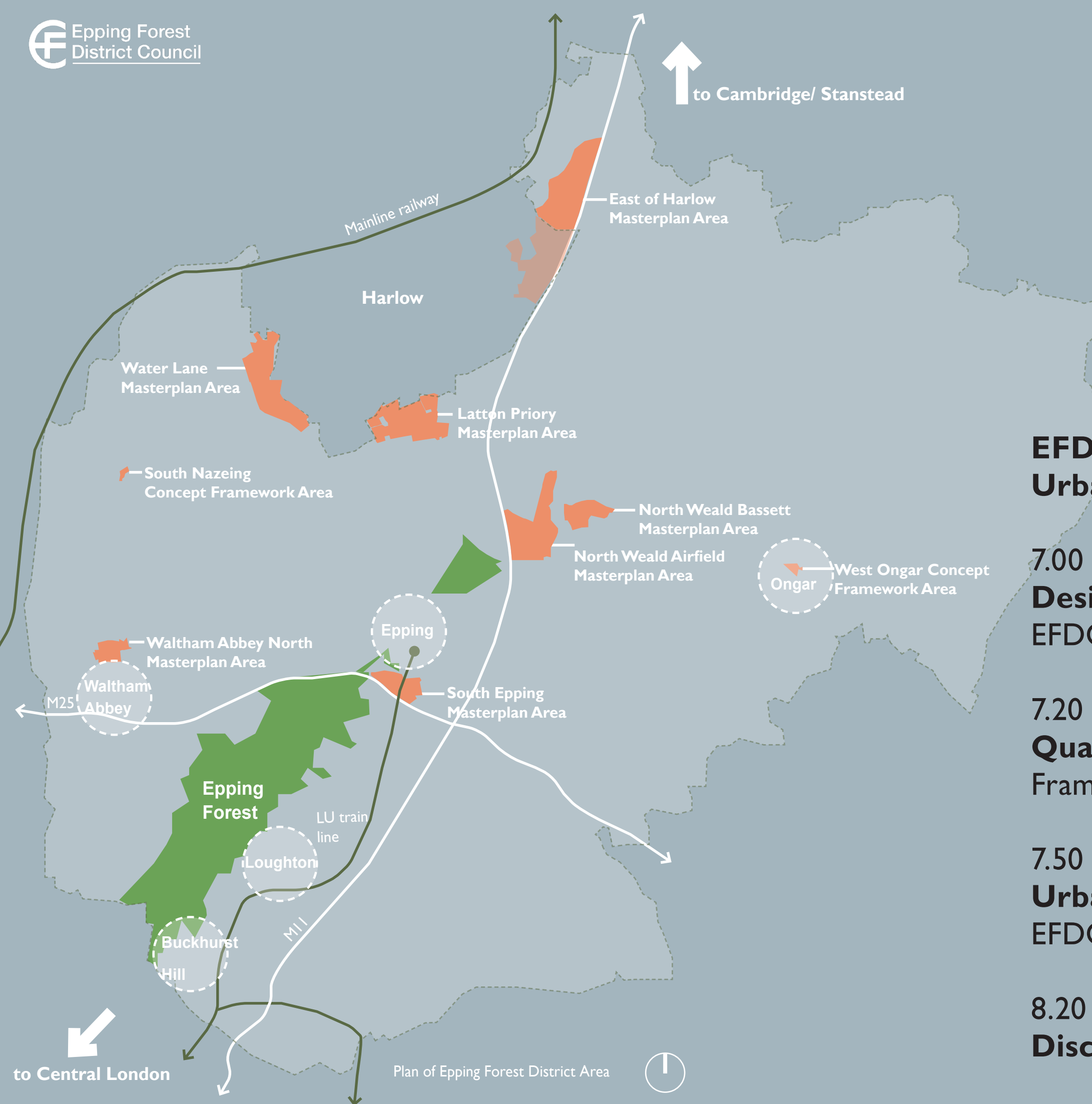


URBAN DESIGN ESSENTIALS

09.04.25

Krishma Shah & Cristina Preciado
Urban Design Officers, EFDC





EFDC Member Training Urban Design Essentials

7.00 - 7.20

Design overview and framework
EFDC

7.20 - 7.50

Quality Review Panel inc. Q&A
Frame Projects

7.50 - 8.20

Urban design themes
EFDC

8.20 - 8.30

Discussions and close

What is good design?

“Good architecture is often invisible,
but it allows whatever is happening in that space
to be the best experience possible.”

Pezo von Ellrichshausen

Good design can:

Fulfill its functions well

Integrate with its surroundings

Make the most of site opportunities

Allow nature to thrive

Make people feel safe

Make people feel comfortable

Promote healthy lifestyles

Promote social connections

Build communities

Be easy to move around and navigate

Be memorable and uplifting

Conserve the earth's finite resources

Wider benefits:

Mental and physical health

Economic benefits

Social cohesion

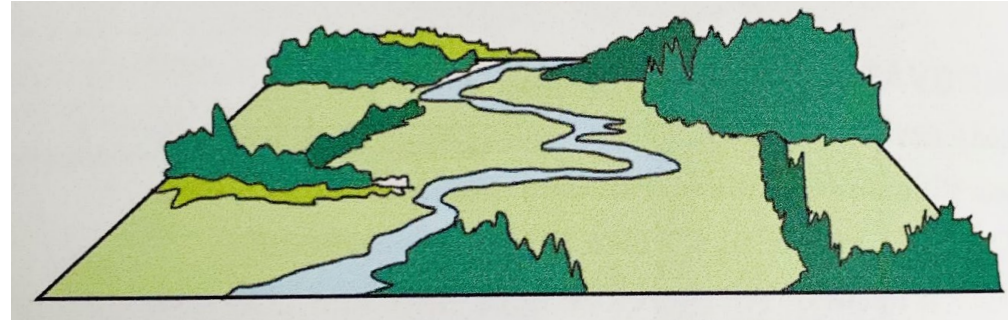
Environmental mitigation

Leads to more good design

Systems and scales of urban design:

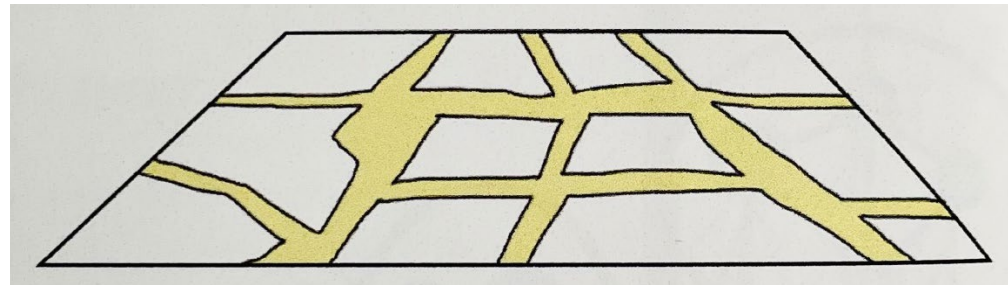
Natural infrastructure

- Ecological time



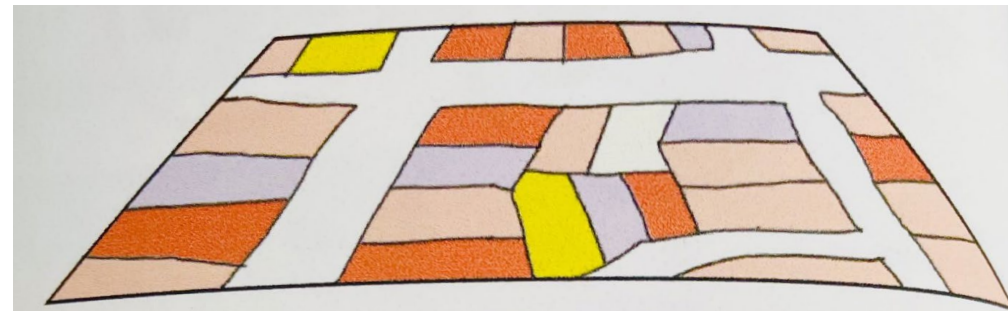
Public space network

- Millenia



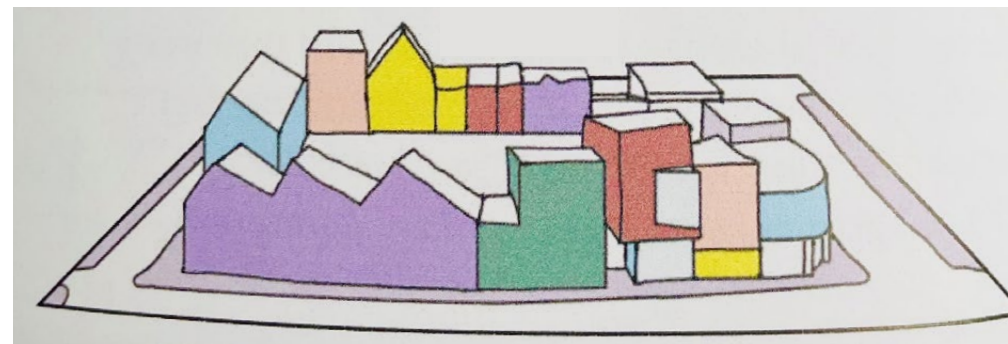
Plots

- Centuries



Buildings

- Decades



Cumulatively experienced as 'places'



(Credit: EcoResponsive Environments,
Ian Bentley, Sue McGlynn, Soham De,
Prachi Rampuria)

Design requirements in planning

Policy

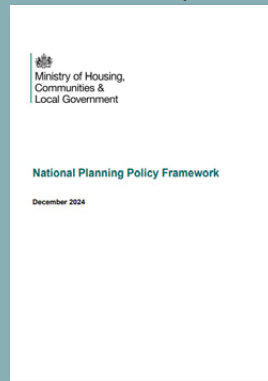
Sets the requirement

Guidance

Adds detail and helps to define good design

National level

National Planning Policy Framework (NPPF)

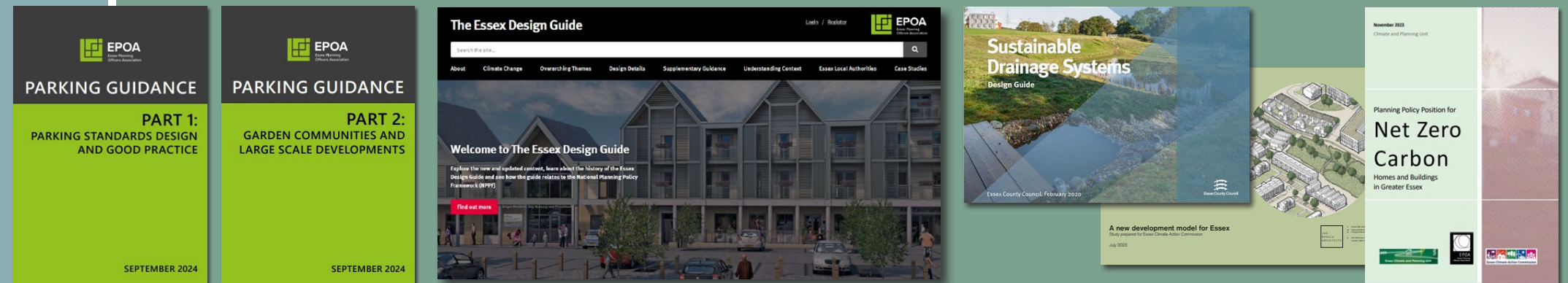


Technical or non-technical and produced by government departments, government agencies or national organisations



Regional level

Includes standards, guidance and research to support local policy and strategic infrastructure



Local level

Local plan Neighbourhood plans



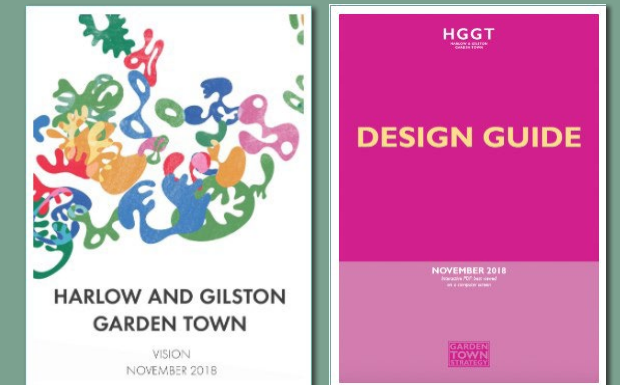
Masterplan frameworks and design codes



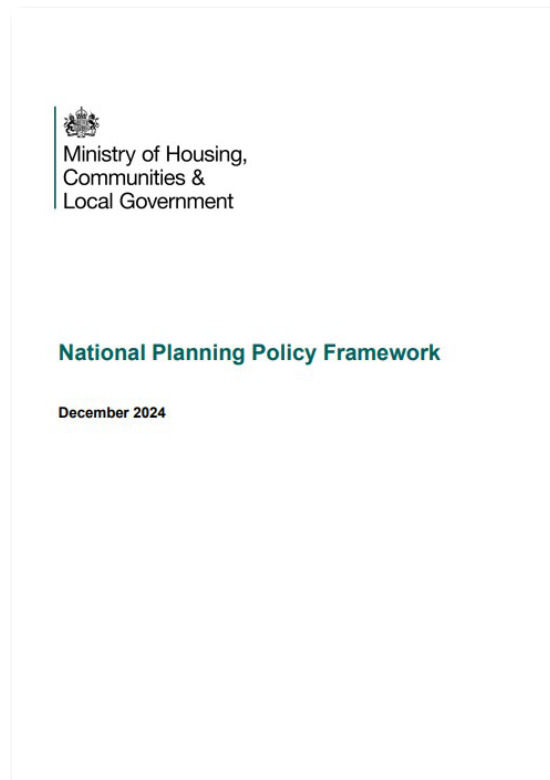
Guidance and checklists



HGGT Guidance



National planning requirements for design:



Para 11

Decision-taking must regard key policies including ‘**making effective use of land**’ and ‘**securing well-designed places**’.

Para 96.

Planning policies and decisions should aim to achieve **healthy, inclusive and safe** places which:

- a) **promote social interaction...** ...for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;
- b) are **safe and accessible...** ...for example through the use of well-designed, clear and legible pedestrian and cycle routes, and high quality public space, which encourage the active and continual use of public areas; and
- c) **enable and support healthy lives...** ...for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.

Para.139

Development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance* on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes.

*Contained in the National Design Guide and National Model Design Code

National planning requirements for design:



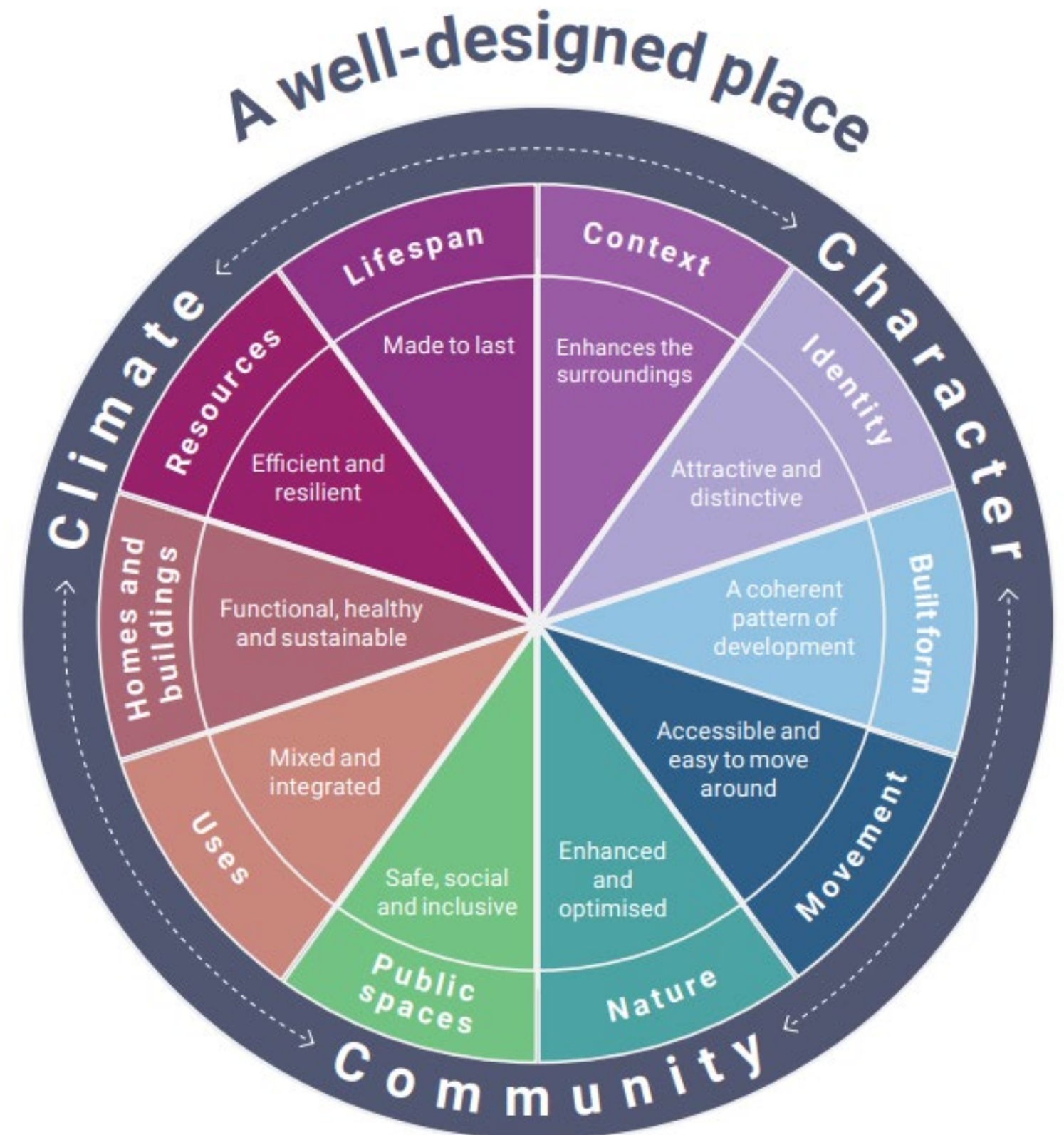
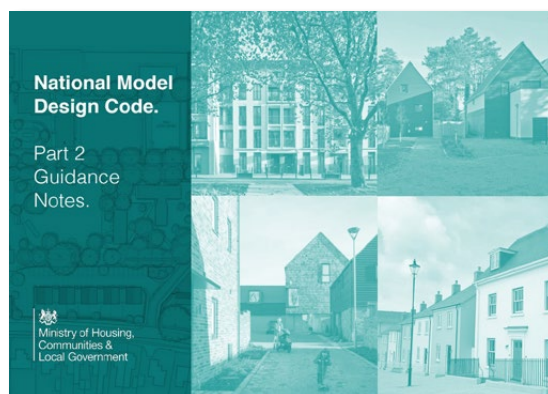
National Design Guide

Sets out the ten characteristics of well-designed places and demonstrates what good design means in practice



National Model Design Code

Provides detailed guidance on the production of design codes, guides and policies to promote successful design, expanding on the ten characteristics of good design.



The ten characteristics of well-designed places

Local planning requirements for design:



Key Strategic Design Policies

SP2 Place Shaping

SP3 Development and Delivery of Garden Communities in the Harlow and Gilston Garden Town

Key Transport Design Policy

TI Sustainable Transport Choices

Key Development Management Design Policies

DM5 Green and Blue Infrastructure

DM9 High Quality Design

DMI0 Housing Design and Quality

Policy DM9

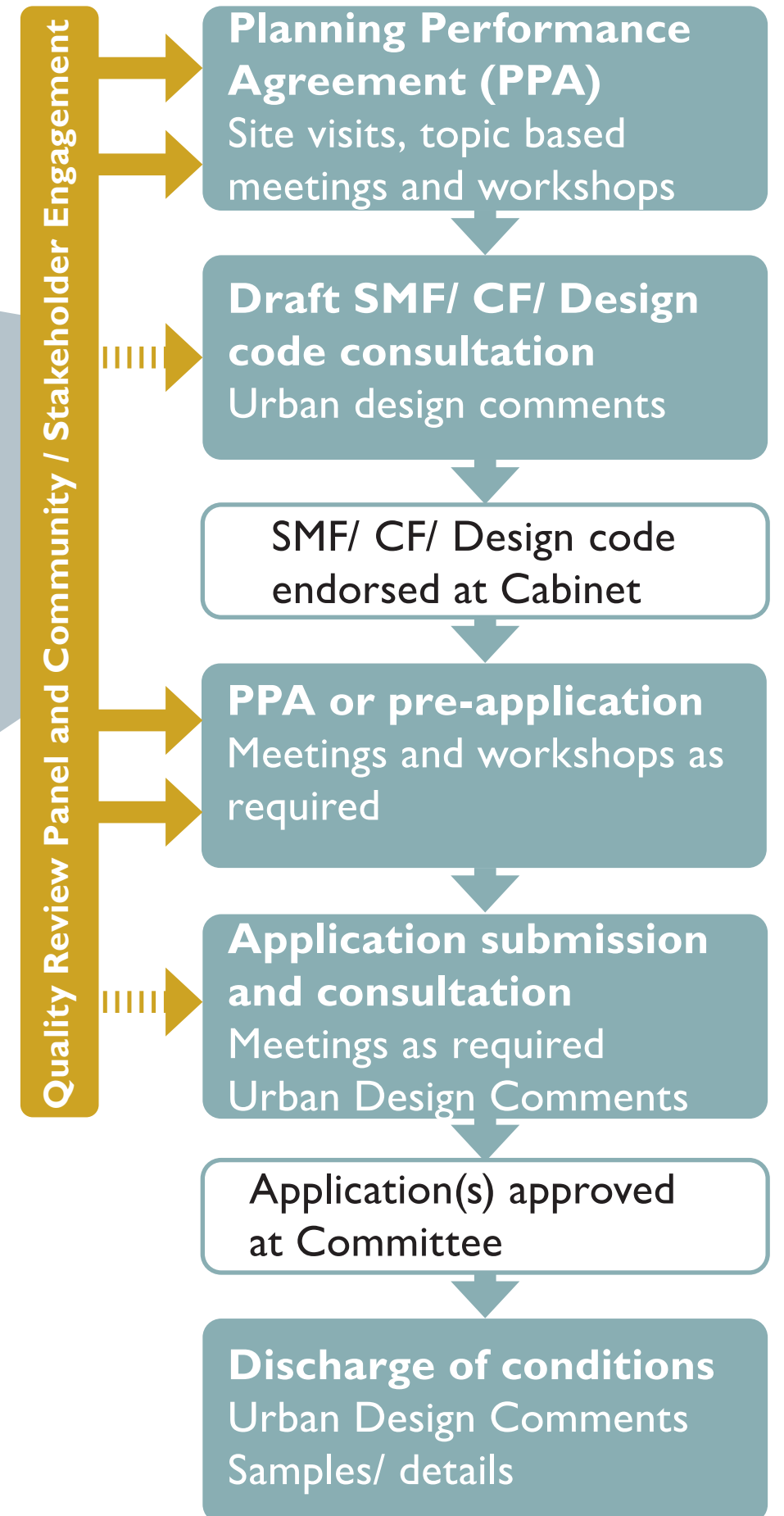
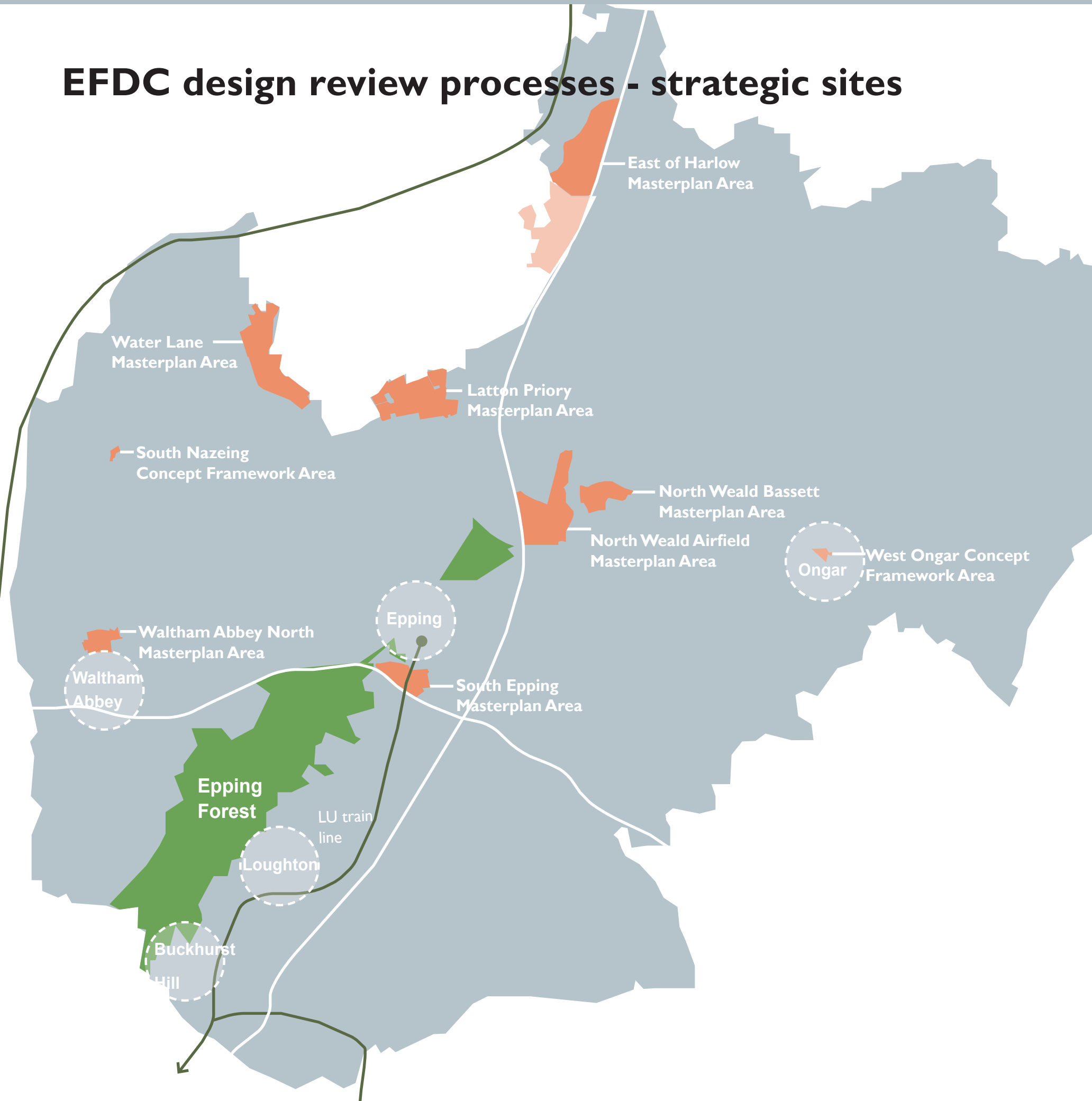
All new development must achieve a **high quality of design** and contribute to the distinctive character and amenity of the local area. The Council will require all development proposals to be design-led and:

- (i) relate positively to their context...
- (ii) make a positive contribution to a place;
- (iii) incorporate sustainable design and construction principles
- (iv) are planned to minimise vulnerability to climate change impacts..
- (v) promote healthy communities and individuals, reduce social exclusion, risk of crime, fear of crime
- (vi) enable/encourage healthy and active lifestyles.

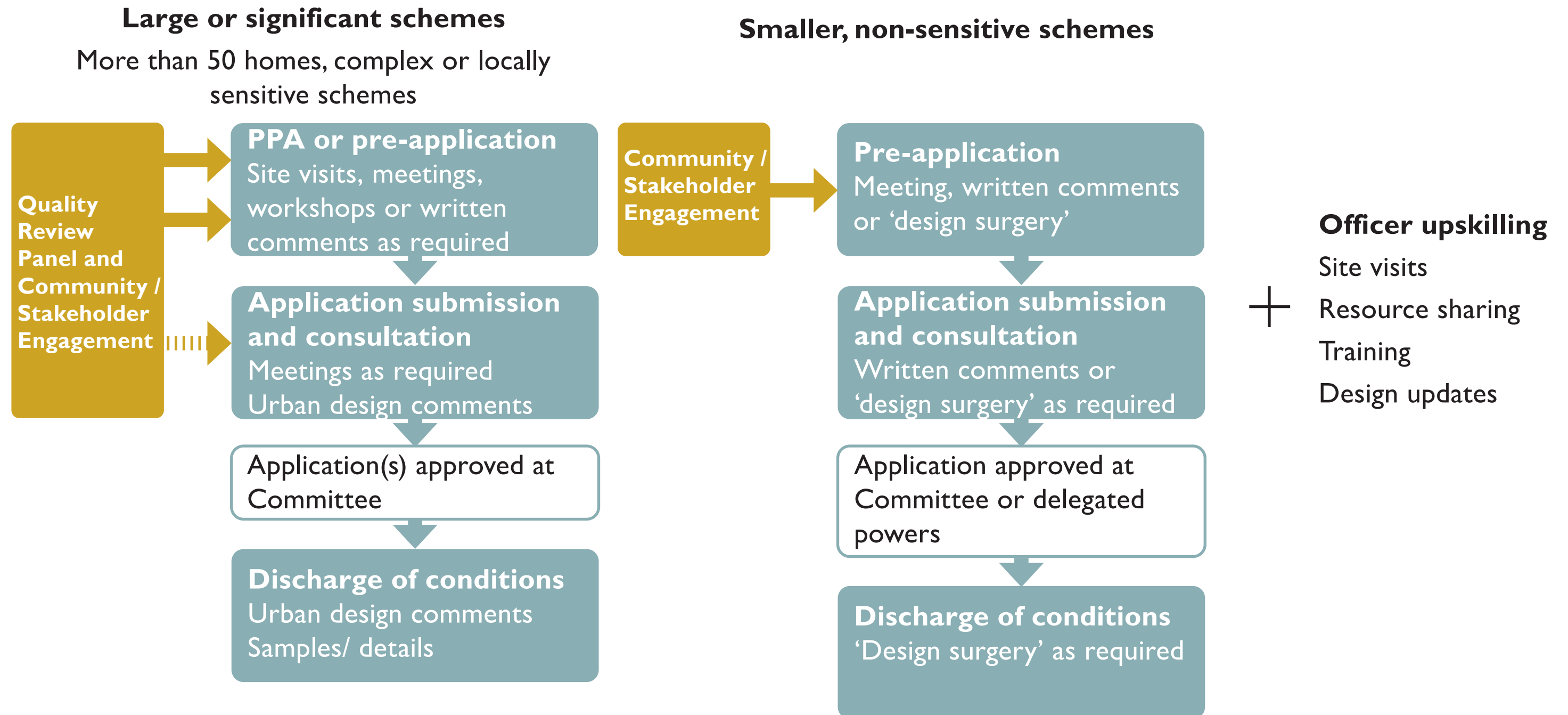


'Key Principles for Healthy Growth' diagram, HGGT Vision (2018)

EFDC design review processes - strategic sites



EFDC design review processes



6 EFDC design policy requirements:

Connectivity and permeability

Landscape-led design

Block structure and typologies

Public realm / street design

Sustainability - climate resilience and climate mitigation

Character and Identity

Connectivity and permeability

Strategic Policy SP2 Place Shaping (A)

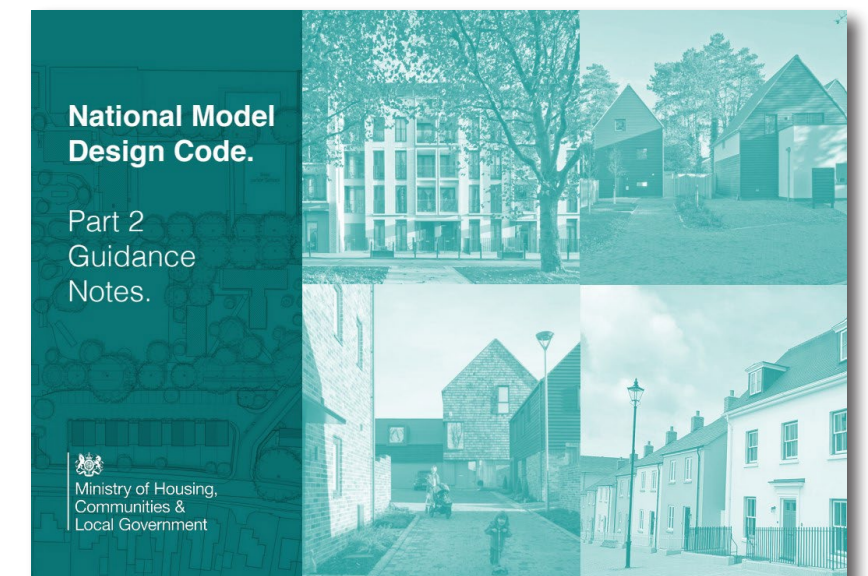
(x) ensure **positive integration and connection** with adjacent rural and urban communities thereby contributing to the revitalisation of existing neighbourhoods;

Development Management Policy DM9 High Quality Design (H)

Development proposals are expected to **maximise connectivity** within, and through the development and links to the surrounding areas including the provision of high quality and safe pedestrian and cycle routes



Building for a healthy life,
Homes England



National Model Design Code Part 2
MHCLG

Connectivity and permeability

- Fundamental to high quality urban design on a town-wide scale
- Avoids segregated neighbourhoods and car-dependancy, improves activity, vibrancy, safety
- Connecting into wider networks - movement, green infrastructure, ecology, play, recreation, social...
- Movement should prioritise walking and cycling - including choice of routes
- Impacts are long-lasting - beyond current residents



Dispersed and car-dependent layout
(Credit: Manual for streets 2)



Traditional, compact and walkable layout
(Credit: Manual for streets 2)

Connectivity and permeability case study - Tudor House, Thornwood



Tudor house context plan from 'Happy Grow Site' DAS



Tudor house layout plan from DAS (Credit: Boehm Lynas)



Street view of neighbouring street



Connectivity at Great Kneighton, Cambridge

Landscape-led design

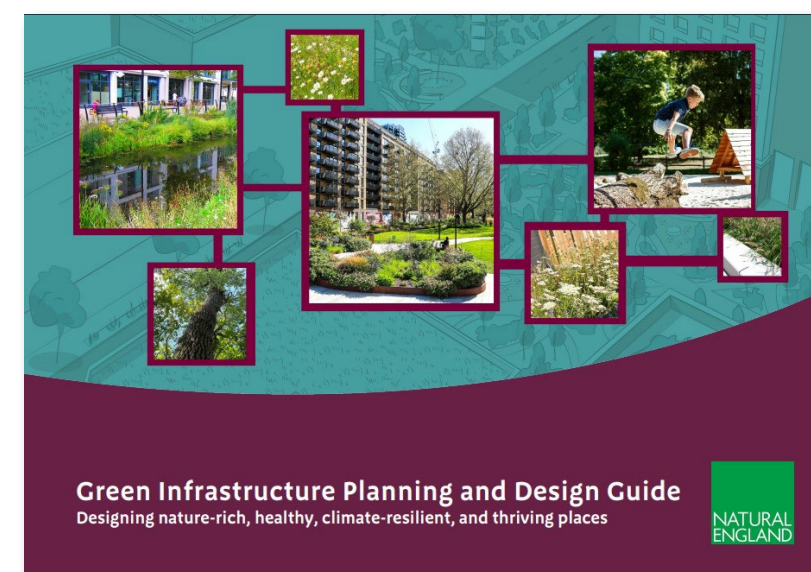
Strategic Policy SP2 Place Shaping (A)

(vii) extend, enhance and reinforce **strategic green and blue infrastructure** assets and the **public realm**;

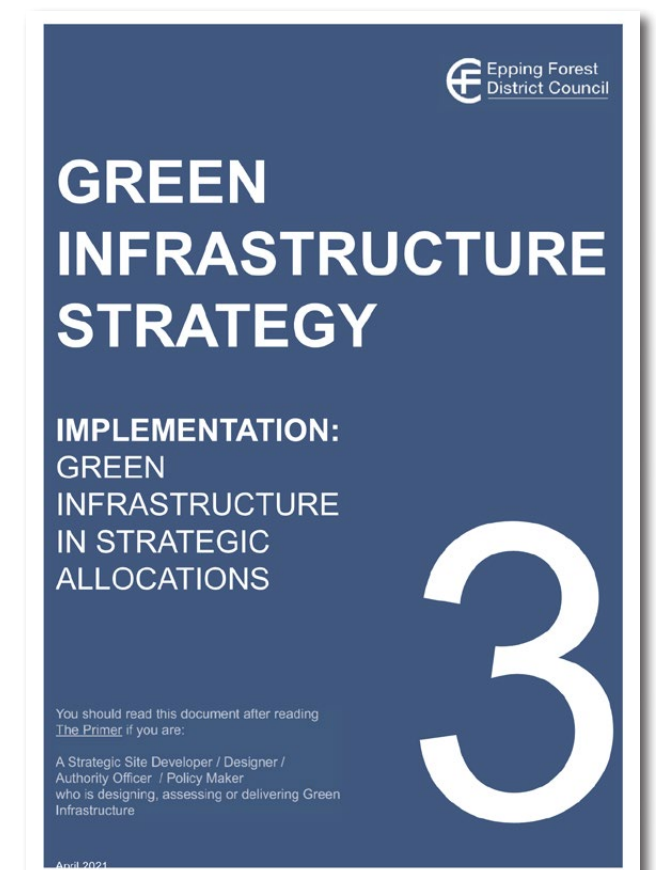
Development Management Policy DM5 Green and Blue Infrastructure (H)

A. Development proposals must demonstrate that they have been designed to:

- (i) retain and where possible **enhance existing green and blue infrastructure assets**, including trees, hedgerows, woods and meadows, green lanes, wetlands, pond and watercourses and **improve connectivity** of habitats;
- (iii) incorporate **appropriate provision of new green and blue infrastructure** assets or space;



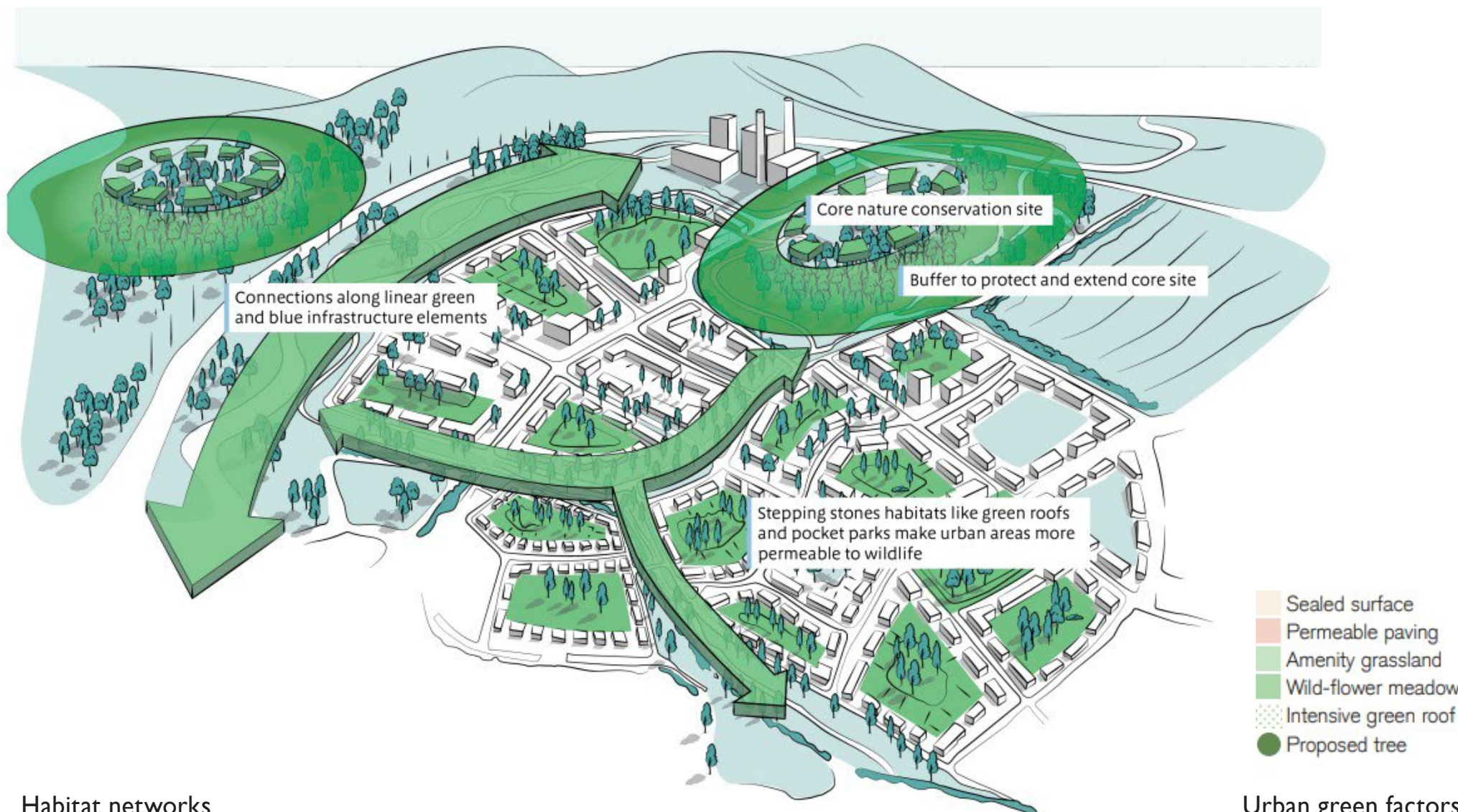
Green Infrastructure planning and design guide,
Natural England



Green Infrastructure Strategy, EFDC

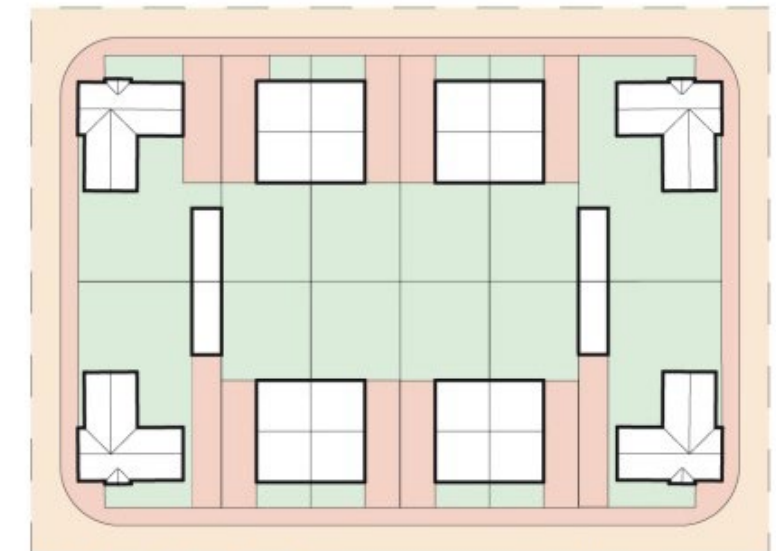
Landscape-led design

- Existing green and blue infrastructure is the starting point
- Requires connected networks.
- Green infrastructure woven into the development provides many benefits and helps inform character
- Should be multi-functional, multi-scale and rich - not all green is equal.
- Public realm green infrastructure should be prioritised, but stewardship needs consideration



Habitat networks

(Credit: Natural England Green Infrastructure Planning and Design Guide)



Urban green factors in conventional vs compact development

(Credit: Jas Bhalla Works: A new development model for Essex, Essex Design Guide)

Landscape-led design case study - Land north of Forest Drive, Theydon Bois



Land north of Forest Drive early layout iteration



Land north of Forest Drive images from DAS following design revisions
(Credit: Tate Hindle)

Block structure and typologies

Strategic Policy SP2 (A)

- (v) provide **high quality and imaginatively designed homes** with gardens or access to usable and accessible amenity space, combining the very best of urban and rural living to **promote healthy and active lifestyles and vibrant communities**;
- (ix) deliver strong local cultural, recreational, social (including health and education where required) and retail facilities to **support day-to-day needs in walkable neighbourhoods**;

Policy DM9 High Quality Design (A)

The Council will require all development proposals to be design-led and:

- (v) incorporate design measures to **promote healthy communities and individuals, reduce social exclusion, the risk of crime**, and the fear of crime;
- (vi) enable/encourage **healthy and active lifestyles**.



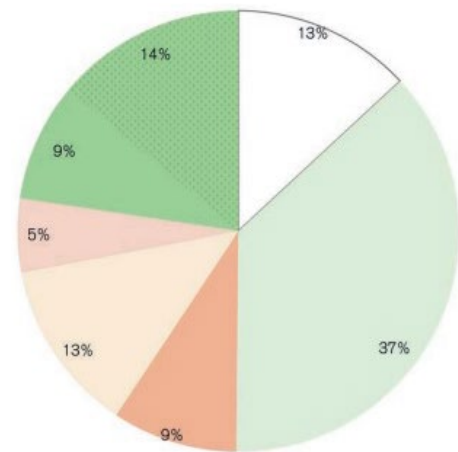
A new development model for Essex,
Essex Design Guide,



Delivering sustainably walkable neighbourhoods,
ARUP

Block structure and typologies

- Optimum density on development sites - benefits beyond housing delivery numbers
- Block size and frontage density - critical to vibrancy, perception of safety, walkability, public realm quality
- Impacts of conventional parking and back-to-back distances
- Principles of gentle density and form factor
- Ways of maximising activity and natural surveillance



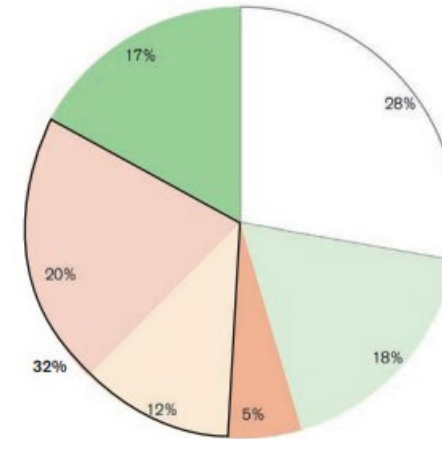
Land budget analysis for Great Bentley
as a conventional development model

Key

	Buildings		Footpaths/cycle lanes
	Private amenity		Green space
	Parking		Green verges
	Roads		Biodiversity

Land budget analysis key

(Credit: Jas Bhalla Works: A new development model for Essex, Essex Design Guide)



Land budget analysis for Goldsmith St
as a conventional development model

Block structure and typologies case study - Chigwell nursery site



Chigwell nursery site early site site layout iteration and developed site layout and street elevation

(Credit: Arcady Architects)

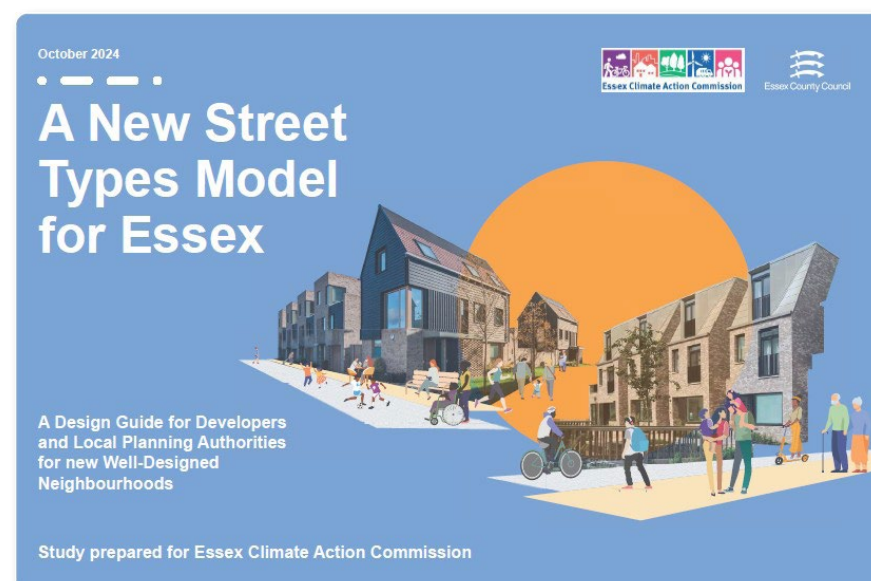
Public realm / street design

Strategic Policy SP2 (A)

(xv) have regard to the **Active Design principles** and support **healthy living** through their design by providing **opportunities for physical activity** and sport, **access to quality open spaces**, and employment opportunities.

Policy DM9 High Quality Design (G)

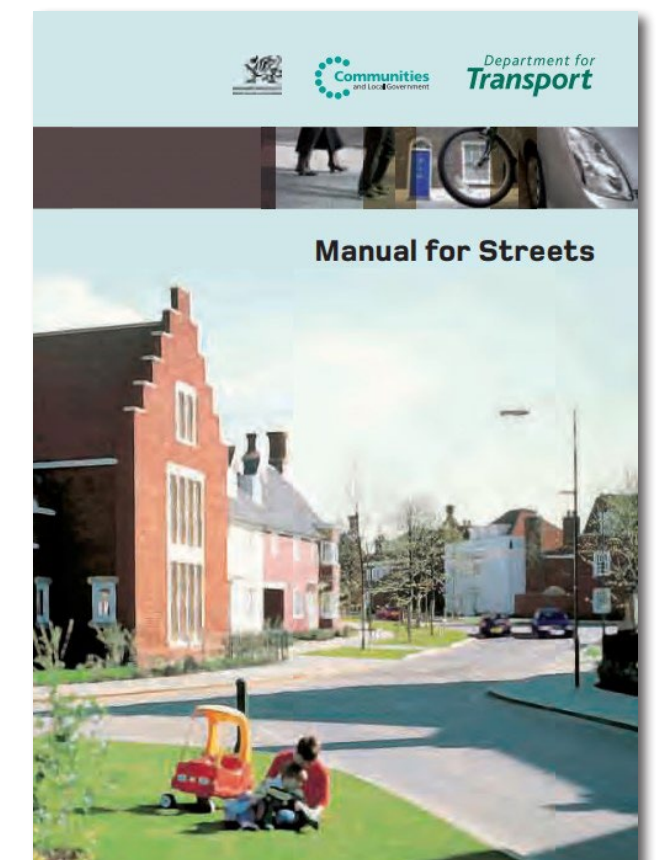
Where appropriate development proposals must **contribute positively to the public realm** and to any public spaces to which it is physically or functionally connected.



A new street types model for Essex (subject to ECC approval) Essex Design Guide



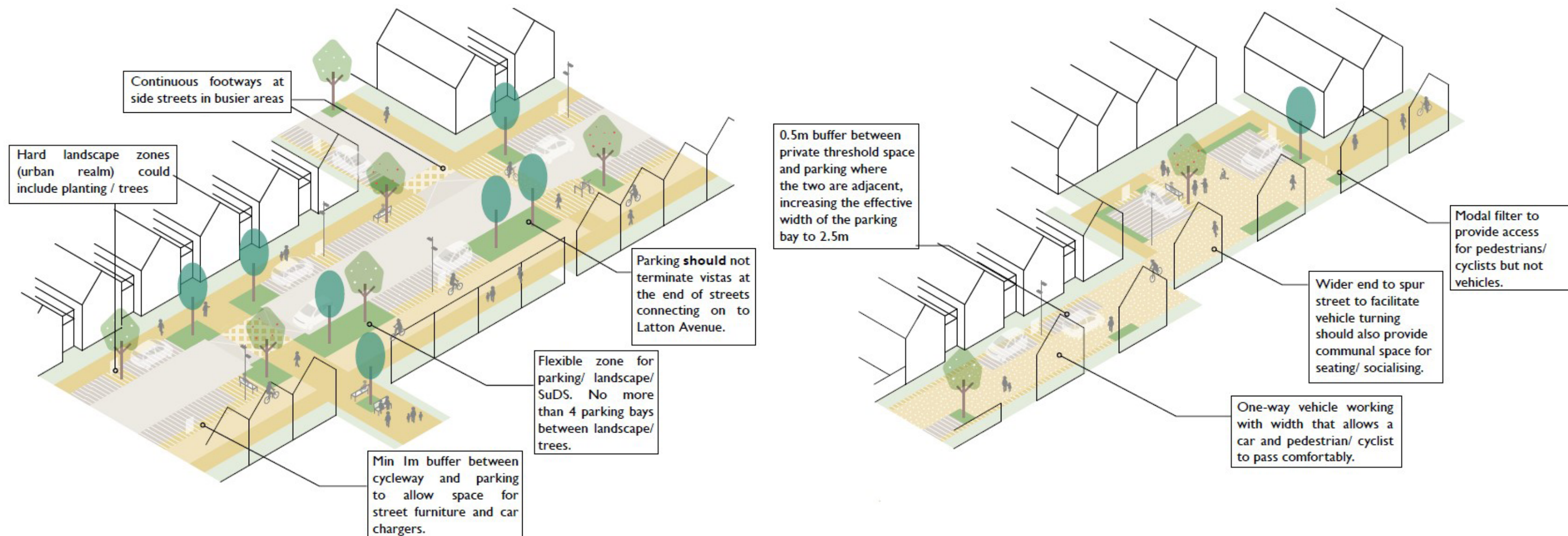
Streets for a healthy life
Homes England



Manual for Streets,
CLG, DfT

Public realm / street design

- Hierarchy and variety in streets and spaces is important and not just movement related
- Green and blue infrastructure - street trees required in the NPPF
- Enclosure ratios and frontage activity impact the character of the place
- Highways standards - required for adoption
- Prioritising pedestrians and cyclists, particularly most vulnerable, in the street design



Two different scales of streets that fulfil different functions
(Credit: Latton Priory Strategic Design Code, EFDC)

Public realm / street design case study - Springwood Grove, Epping



Springwood Grove (Conder site), Epping town centre - site plan, landscape plan and images
(Credit: Corstophine & Wright)

Sustainability - climate resilience and climate mitigation

Policy SP2 (A)

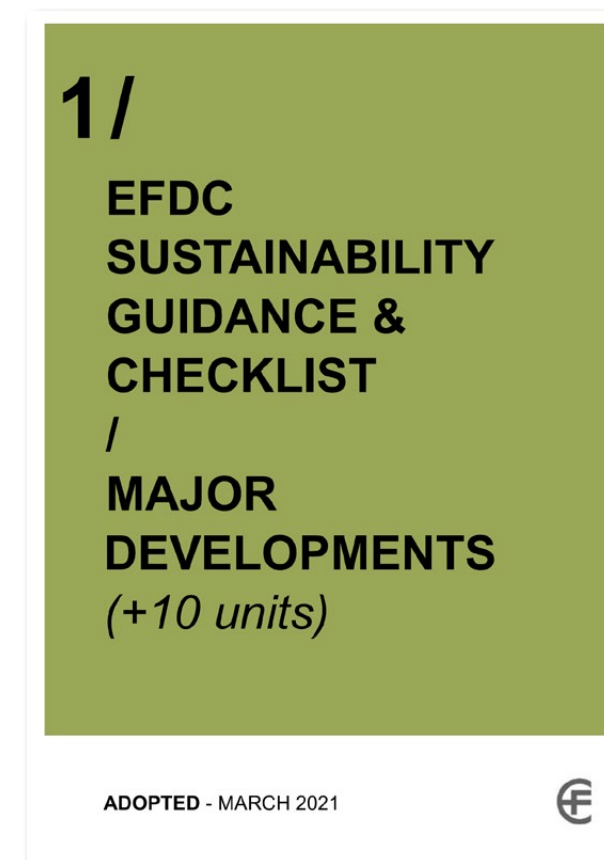
(viii) ensure that development **enhances the natural environment**;

Policy DM9 High Quality Design (A)

The Council will require all development proposals to be design-led and:

(iii) incorporate **sustainable design and construction principles** that integrate adaptation and mitigation measures to address climate change;

(iv) are planned to **minimise vulnerability to climate change** impacts and which will **not exacerbate vulnerability** in other areas;



Sustainability Guidance and Checklist,
EFDC



Climate emergency design guide,
LETI

Sustainability - climate resilience and climate mitigation

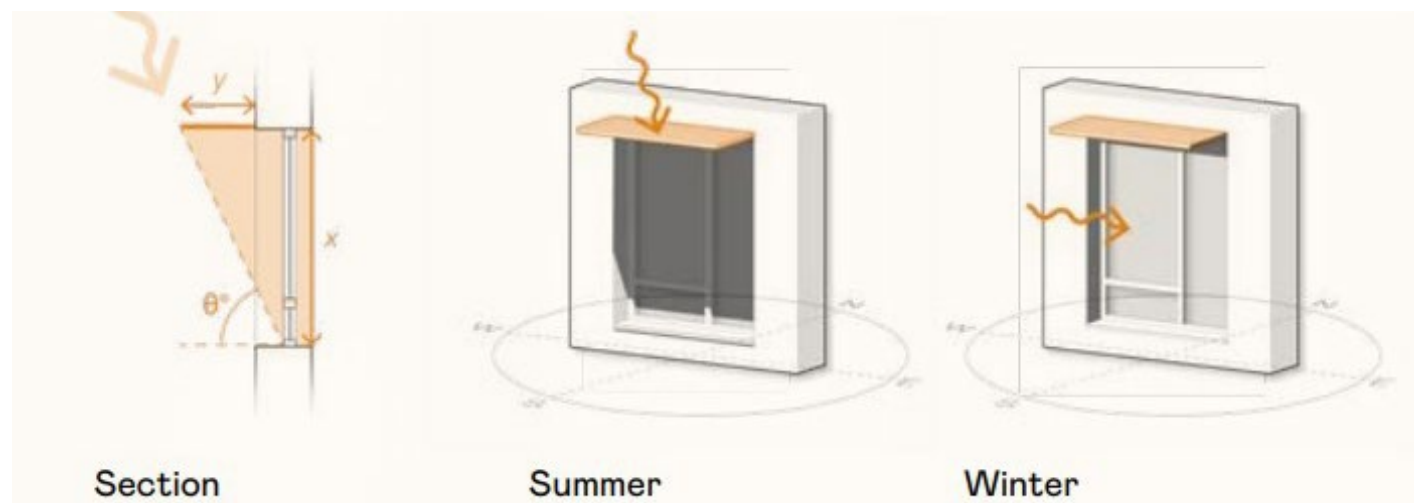
- Climate resilience - withstanding the changing climate
- Climate mitigation - limit the impact of the development on the environment
- Both should be addressed at masterplan scale
- Passive design principles
- More efficient hard infrastructure



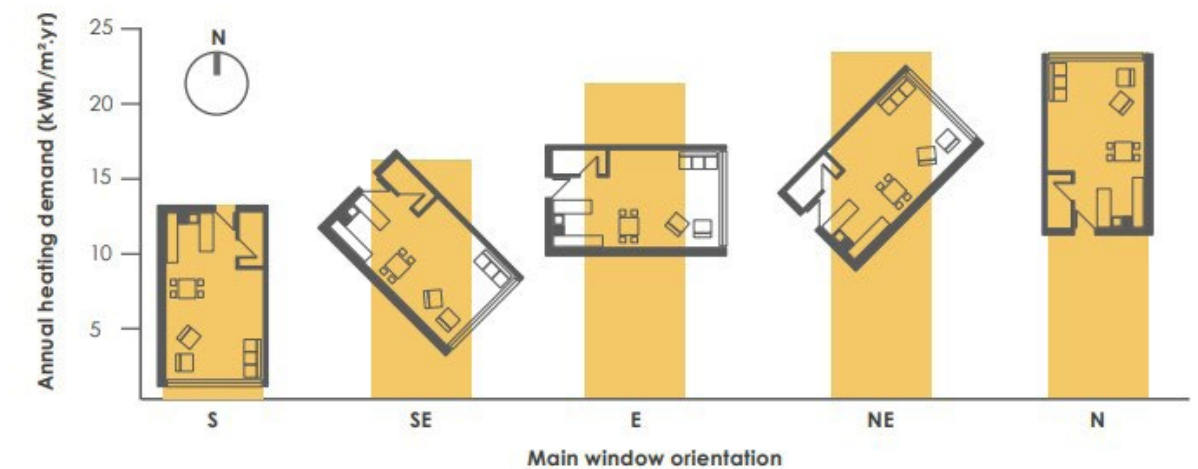
Water attenuation at Barton park
(Credit: Pollard Thomas Edwards)



Trees and shaded seating at Eddington
(Credit: Alison brooks Architects)



Brise soleil shading diagram
(Credit: Shading for Housing - design guide for a changing climate)



Type		Form factor	Efficiency
	Bungalow house	3.0	Least efficient ↓ Most efficient
	Detached house	2.5	
	Semi-detached house	2.1	
	Mid-terrace house	1.7	
	End mid-floor apartment	0.8	

Solar orientation and form factor energy conservation diagrams
(Credit: Climate emergency design guide, LETI)

Sustainability case study - Goldsmith Street, Norwich



Goldsmith Street, Norwich - site plan, site section and images
(Credit: Mikhail Riches)

Character and Identity

Policy SP2 (A)

(xi) maintain and enhance the **important features, character and assets** of existing settlements;

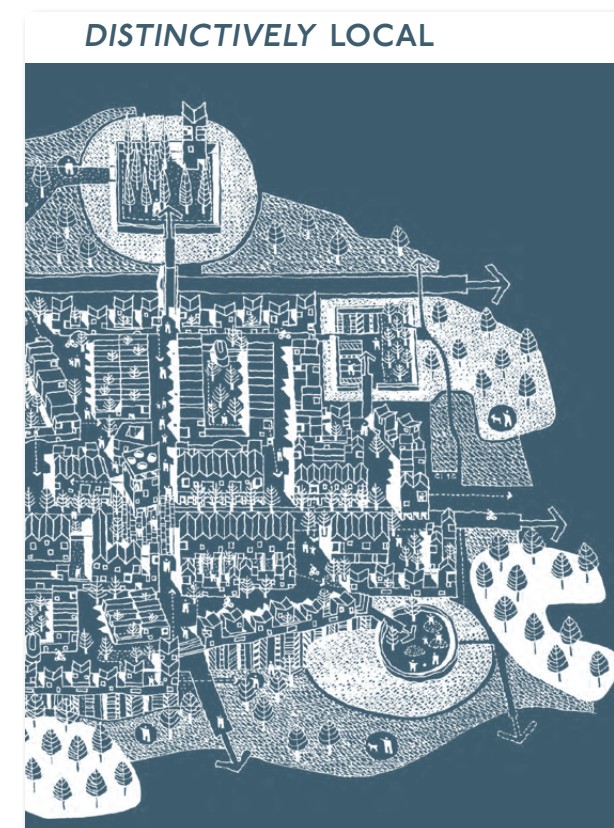
Policy DM9 High Quality Design (A & D)

The Council will require all development proposals to be design-led and:

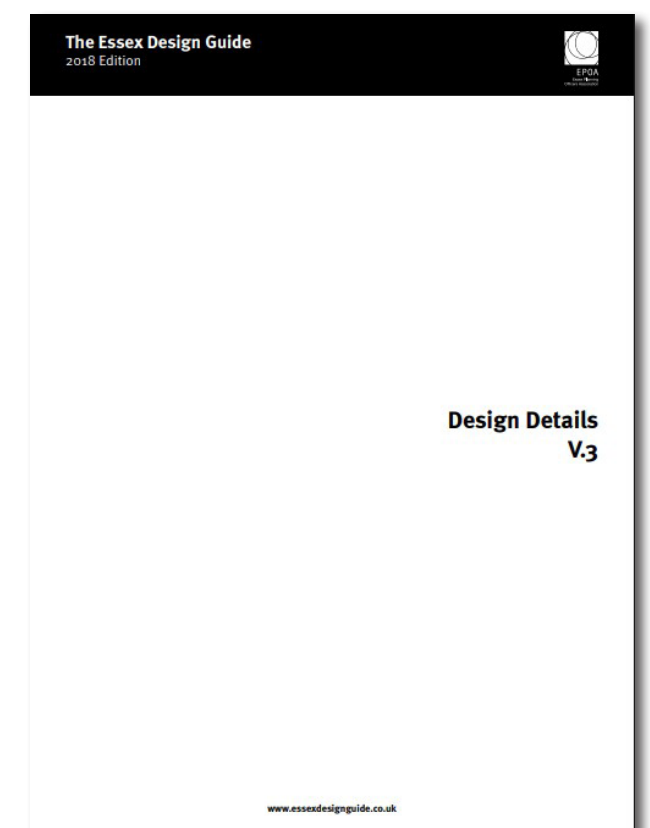
(i) relate positively to their context, **drawing on the local character** and the natural and historic environment;

Development proposals must **relate positively to their locality**, having regard to:

(vi) **distinctive local architectural styles, detailing and materials.**



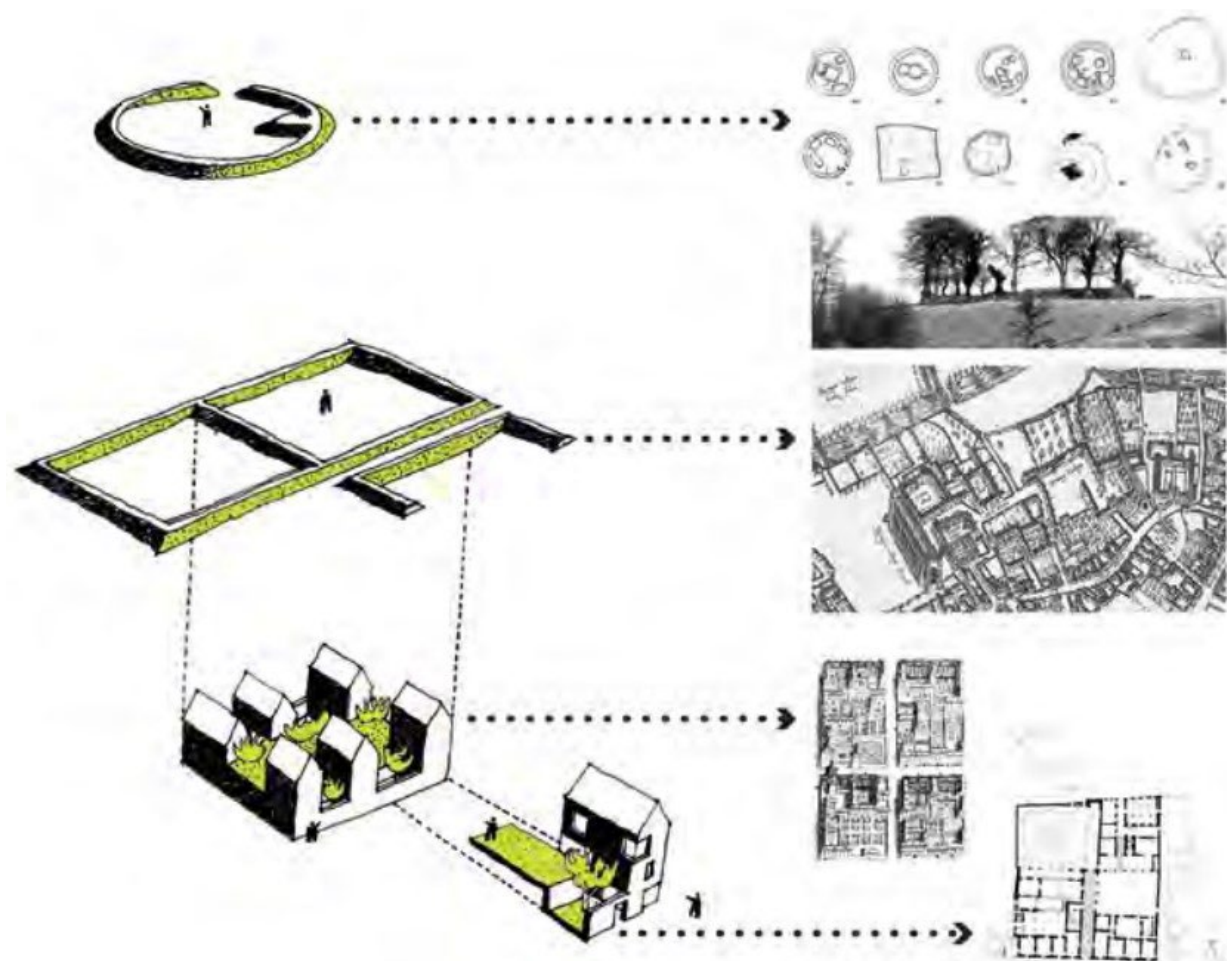
Distinctively Local publication,
Distinctively Local



Design Details v.3, Essex
Design Guide

Character and Identity

- A coherent identity and harmonious with the context
- Requires good context analysis but should not replicate poor design
- Could draw on vernacular built form but also history, topography, geology, sustainability
- More than just a material - rhythm, proportions, layout configurations, details...
- Issue of volume house builders' standard types - scope for further district specific guidance?



Contextual analysis to inform concept for Ridgeway Village
(Credit: Proctor Matthews, Distinctively Local)



Contextual character, The Avenue Saffron Walden
(Credit: Pollard Thomas Edwards Architects)



Incongruous identity and characterless placemaking
(Credit: Buildings for a healthy life, Homes England)

Context analysis informing a coherent character
(Credit: Froghall Lane Design & Access Statement, RCKA Architects)



Summary - some key questions

Connectivity and permeability

Has every opportunity been taken to maximise safe cycling and walking connections?
Does the scheme respond to wider networks inc. movement, landscape, play, amenities?

Landscape-led design

Does the scheme respond to the existing landscape on and around the site?
Is there a connected and multifunctional landscape framework through the site?

Block structure and typologies

Is there sufficient density overall to support vibrancy, walkability and viability of services?
Are the key streets and spaces well overlooked and active through frontage density?

Public realm / street design

Is there a clear hierarchy and variety of streets and spaces?
Are the key streets and spaces appealing and active through frontage density?

Sustainability - resilience and mitigation

Has solar orientation and form-factor been considered in the layout?
Does landscape and built form respond to more extreme temperatures and weather?

Character and Identity

Does the scheme have a coherent and distinctive character?
Does that character respond positively to character of the wider setting?

Possible future topics

Residential quality

Landscape design

Appearance and materials

Built form and massing

Active travel

Car and cycle parking

Density

Housing typologies

Servicing

Stewardship

Non-residential development

Further resources

Urban design learning resources

[Homes England learning programme - YouTube](#)

[Urban Design learning: UDL Design Basics training videos](#)

[Place Alliance: Appealing Design Report](#)

[UDL: Design and planning appeals good practice and advice](#)

National policy and guidance

[National Planning Policy Framework](#)

[National Planning Guidance - Design: process and tools](#)

[National Design Guide \(n.b. update due in 2025\)](#)

[National Model Design Code \(n.b. update due in 2025\)](#)

[Nationally Described Space Standards](#)

[Manual for Streets \(n.b. update due - ETA unknown\)](#)

[Cycle infrastructure design: LTN 1/20](#)

[LETI Climate Emergency Design Guide](#)

[Distinctively local publication](#)

[Natural England Green Infrastructure Planning and Design Guide](#)

Essex guidance

[Essex Design Guide](#)

[A new development model for Essex](#)

[2024 Essex parking guidance](#)

[Essex net zero policy guidance](#)

EFDC policy and guidance

[Local Plan](#)

[Sustainability Guidance and Checklists](#)

[Green Infrastructure Strategy](#)

Harlow and Gilston Garden Town guidance

[HGGT Vision Document](#)

[HGGT Design Guide](#)