Design Code for South Norfolk Council and Broadland District Council

Draft for consultation

Broadland District Council
Community at heart

South Norfolk Council

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Executive Summary

This design code has been put together to improve the consistency and quality of residential design across both South Norfolk and Broadland Districts, but excluding the areas within the Broads Authority executive area.

It has been prepared in line with the National Model Design Code, and NPPF requirements, prioritising local character and design preferences - see the relevant Architectural and Landscape Character Assessment in Appendix D and E (as outlined on page 3) and local engagement with communities, stakeholders, and technical consultees (as outlined on page 5).

As a Supplementary Planning Document, it will support Local Development Plan policies and be a material consideration in planning decisions for future applications.

It is for all those involved in the development and management of residential development - decision makers, Councillors, applicants and communities.

The design code establishes a set of clear, concise codes that will be used to set parameters and expectations for new residential development. This code focusses on all new residential development between 1 and 500 homes. In accordance with the Local Plan, larger developments are expected to be supported by their own design code and masterplan, which should address the principles set out in this document

It does not contradict or amend any existing policies set out in the Local Plan(s) or Neighbourhood Plans. It does not allocate or identify locations for new housing development or infrastructure development. It is intended as a high quality reference document that helps the Councils and applicants to deliver quality residential development across the districts.

The districts cover large areas that have varied character, unique settlements, and distinct landscapes. The context and location of new development has a significant influence on the appropriate design response. A development on the outskirts of a small village will have different design priorities to a large urban extension at the Norwich Fringe (see p.12-15 for more detail). To help identify the focus for different design responses, we have identified four broad geographic areas:

- Norwich Fringe Settlements
- Main Towns and Key Service Centres
- Villages
- Dispersed Settlements and Countryside

The design code is set out in three chapters: Neighbourhood; Street; and Home.

Applicants will need to refer to all chapters of the document. In some instances, such as for very small scales of development, not all topics will be relevant (for example the provision of public open space and play areas on sites that fall below the required thresholds for provision of these amenities). Different codes apply at different scales of development, and are denoted by the following colour coding:

Codes apply to all schemes

Codes apply to schemes of 10+ dwellings

How to use this code

This design code sets design ‘codes’ - design requirements - for achieving the key design principles that have been identified locally as being important. These have two categories:

- mandatory requirements (**‘musts’**) that must be met
- requirements that are expected to be met (**‘shoulds’**) unless there is a strong justification for not doing so, which must be provided by the applicant

This design code applies a ‘**comply or justify**’ approach. Applicants must demonstrate that they have complied with all the codes unless a strong justification is made to diverge from a particular requirement. The justification must be clearly set out within the application material.

1. Section title
2. Symbols showing design priorities for each section
3. Why is this topic important to the district?
4. What design principle are we aiming to achieve?
5. The codes (for example S2.1) set the requirements for how to meet the design principles.
6. Precedent images
7. Quotes received from people who left feedback during early engagement sessions
8. ‘For example’ boxes are not codes but show how the coding requirements could be achieved
9. Codes apply depending on the scale of development: 1-9 homes (red boxes only); 10-50 homes (red boxes and blue boxes); and 51-500 homes (red boxes and blue boxes).

Codes apply to all schemes

Codes apply to schemes of 10+ dwellings

Contents

Blickling Estate, Norfolk

1 Introduction

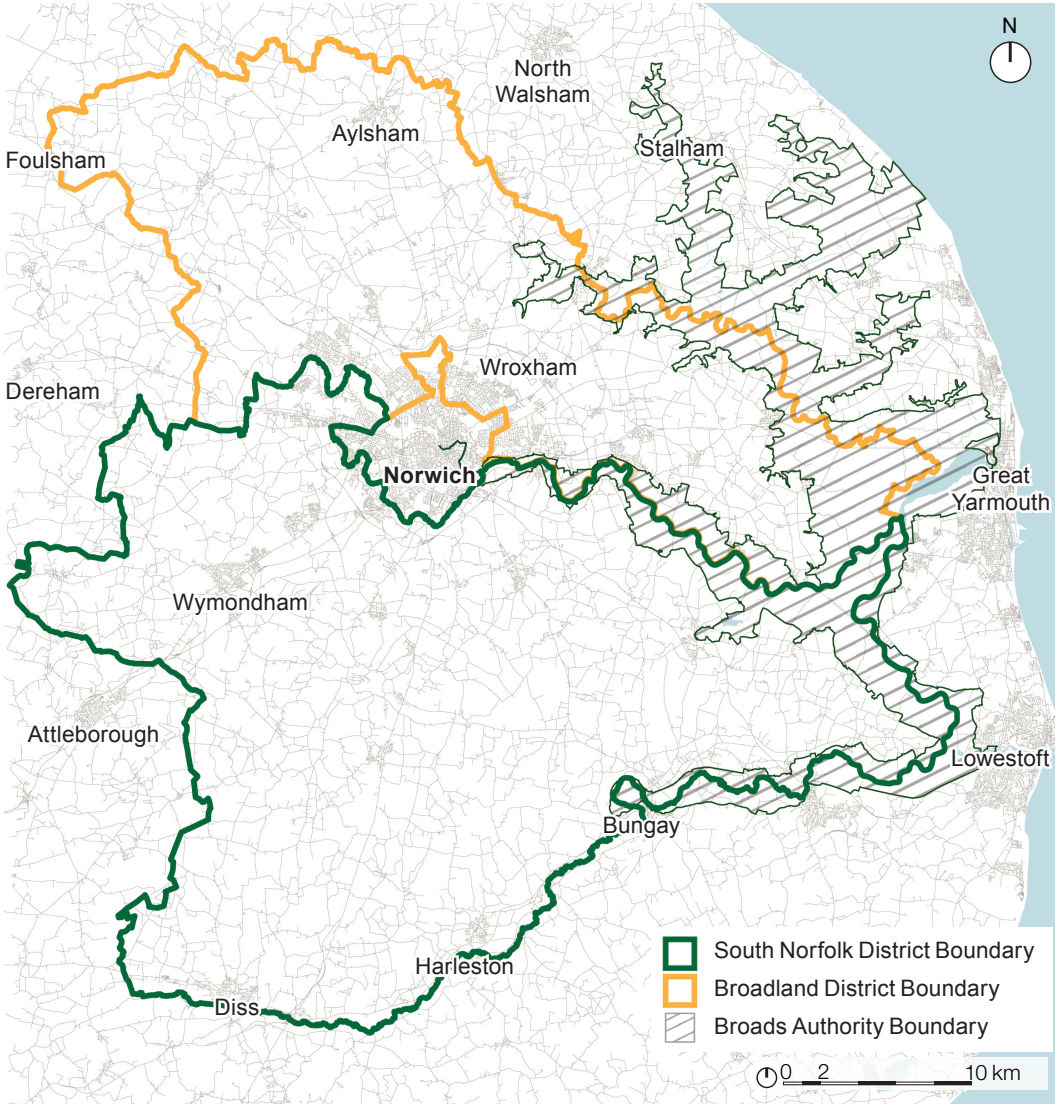
1 Introduction

The Greater Norwich Local Plan sets out its ambition to ensure that the unique areas of Norwich, Broadland and South Norfolk continue to be well-planned, so that growth brings with it benefits for all and provides for a sustainable future. It identifies where high-quality homes with a broad range of new jobs and supporting infrastructure can be provided across the districts. These sites were selected for their long term sustainability and their ability to provide homes for all, from young people looking for their first home through to meeting the needs of an ageing population.

The design code has been produced to raise the design benchmark to ensure that all development from individual houses to larger housing estates meets a required level of design quality and will act as a framework for creating successful places that:

- promote healthy and sustainable ways of life;
- are sympathetic to local character while not preventing or discouraging appropriate innovation or change;
- enshrine climate responsive and nature positive design.

The code is a toolkit that should be used to plan a development, enabling both applicants and officers to have certainty about design expectations. This in turn can expedite the planning process to approval.



Map showing district boundaries. Note the Broads Authority is not considered as part of this document. .

The document suite consists of three components:

- **Design Code.** The core document of the suite, which sets out clear expectations and parameters for design quality across the districts.
- **The Architectural and Landscape Character Assessments of South Norfolk and Broadland (Appendices D and E).** These assessments set out key characteristics of the settlements within each district and identify the Key Design Principles for applicants to respond to in relation to the local landscape and townscape character. The requirements in this design code identify where the Architectural and Landscape Character Assessments must be referred to for further information on how to respond to the site specific qualities and character of a particular location.
- **Assessment Framework (Appendix F).** A compliance checklist for both applicants and officers to use. The framework will be used as a basis for discussion with officers at the pre-application stage for larger schemes, and at the point of application for smaller schemes. It signposts:
  - Where a proposal has complied with the codes set out in this document and where the evidence for this can be located within the application; or
  - If a proposal doesn't comply with a particular code, the applicant must set out the justification for this non-compliance within the framework.

Traditional architecture and brick detailing, Wroxham.

Thatched roofing, Blofield.

Scope, purpose & structure of the document

This design code applies to both districts and has been produced to set the benchmark for design quality for residential schemes and supporting infrastructure for **all schemes between 1 and 500 homes.** This code has been prepared with the needs of design teams and officers in mind. It sets out requirements using clear and direct language and visual guidance through the use of illustrations. Together with precedent images to demonstrate how this quality can be achieved in practice, these requirements set a clear benchmark for the quality of design expected in new development.

This document has been structured to follow the order of a typical design process. This begins with the neighbourhood-level design principles, down to the detailed design of buildings. The following sections provide a 'kit of parts' for applicants to adhere to.

Neighbourhood This section sets parameters for design at the neighbourhood scale. This includes how to relate new development to an existing neighbourhood as well as how to create a new neighbourhood, depending on the scale of site. It includes connections into the surrounding area and hierarchy of routes.

Street This section sets the expectation for design of the space between buildings, including integration of landscaping, drainage and movement.

Home Design expectations for homes, including light and ventilation, elevations, materials and amenity spaces.

Depending on the scale of development being proposed, different sections will take priority. For example, in the case of a larger development of 500 units, the applicant will be required to demonstrate compliance with **all three** sections, as all three apply to the scale of design being undertaken.

Alternatively, for a small development of 5 units, it will be important to integrate into the existing neighbourhood and streets rather than creating a very different character.

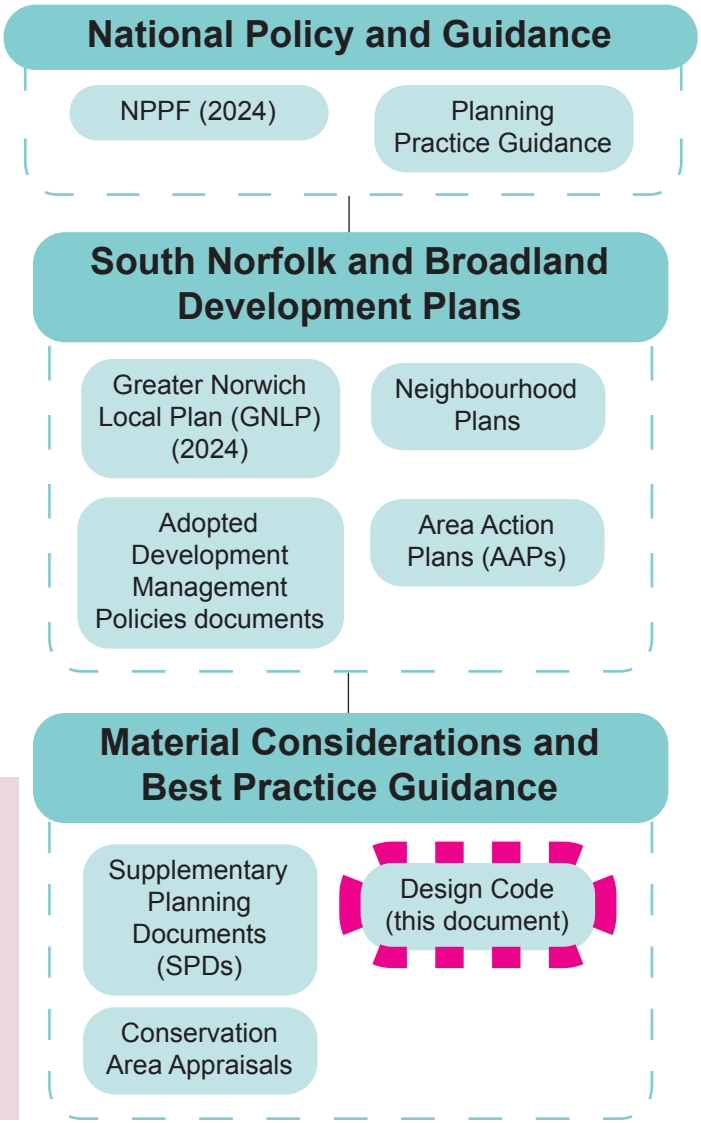
A traditional building set back from the street, in Coltishall.

Open vistas and natural landscapes are common features across the districts, as seen in Reedham.

Policy context

The Design Code is envisaged to be adopted as a Supplementary Planning Document (SPD). It will support the Local Plan policies, and will be a material consideration in the determination of planning applications.

Where the document sits in the hierarchy of national and local policy is shown diagrammatically on the right.



What is the difference between a design guide and a design code?

Design guides provide general advice on how to design in line with best practice whereas design codes are prescriptive in how to achieve this. They set out clear requirements and parameters for the quality of design expected in an area.

Input into the code

This code has evolved through an iterative process of engagement. This engagement ensured that the code responds to locally identified priorities for new development across the districts and helps address any local design challenges.

Three separate stages of engagement were undertaken to identify: the baseline and current design issues across the districts; identify a vision and design priorities; and consultation on a draft document. These were undertaken through online workshops, meetings and via an online engagement platform (Placechangers).

The groups that have been engaged throughout the code development process include:

- The local community (250+ individual respondents via the online Placechangers platform - open for six weeks at a time);
- Officers at South Norfolk and Broadland District Councils (design aspirations and code testing workshops);
- Council Members (two workshops);
- Stakeholders including parish/town councils (two workshops); and
- Local developers, architects and agents.

Throughout the code quotes from the engagement (taken either from the workshops held or the online public engagement website) are shown in blue speech bubbles.

Spill-out space for dining, in Heydon

2
Creating a Place

2 Creating a Place

The vision and priorities for the design code have been developed:

- in response to feedback received from the engagement process (set out on page 21);
- to ensure that they support the ambitions set out in the Local Plan.

The vision and principles have been used to shape this design code and its content, addressing specific local aspirations and challenges whilst promoting good practice in design.

The priorities and their associated symbols are shown on the next two pages. These symbols are clearly stamped throughout the document, on every page where they are being directly addressed by the coding.

Vision

South Norfolk and Broadland will accommodate planned, sustainable growth across a variety of settlement scales: Norwich Fringe Settlements; Main Towns and Key Service Centres; Villages; and (where appropriate) Dispersed Settlements and Countryside. New development will draw from best practice, as well as the rich character and local distinctiveness of the landscape and historic settlements.

Healthy, active and inclusive communities will be created that retain and establish convenient access to the rich landscapes of South Norfolk and Broadland. Neighbourhoods will be people-friendly, climate-responsive, and nature-positive.

Access to high quality open space and nature is important for residents and wildlife alike.

Good development should encourage community and connection.

Design Priorities

Climate resilient, resource efficient design.

Design will conserve water resources whilst reducing the risk of flooding by managing surface water through multifunctional spaces that integrate sustainable drainage (SuDS) features and retain rainwater. Equally, it will consider the effects of sun and wind in matters such as solar gain and shading.

Housing should be designed to be durable, carbon efficient, and flexible enough to adapt to changing needs.

Healthy new homes and neighbourhoods that promote an active way of life.

New homes and neighbourhoods must be designed to address health inequalities, and be well-connected from the outset. Depending on the location of the site, if sustainable travel options such as public transport or cycling are an option, these should be optimised to enable people to make the choice about how to move around.

In sites which are more rural, an active way of life can be encouraged by making sure that a site incorporates a range of spaces that have designated functions, encouraging play, exercise, social interaction, and mental wellbeing for example.

Direct links to public rights of way that lead into the distinctive countryside of the districts must be provided to enable easy access to this hugely important asset.

Distinctive identity that responds to the character of the surrounding area.

The districts have unique and distinctive characters, defined by both their architecture and extensive landscapes. Development must show evidence of how it has been inspired by the positive places that define the district's character, places that have evolved over time.

Responsive and thoughtful design will be inspired by a thorough site assessment to understand the specific local context of a site. This will help to make the new neighbourhoods into places with a strong and defined character.

Climate resilient design, Carrowbreck Road, Hellesdon.

Opportunities for food growing, Mulbarton.

Characterful design, Trowse Newton.

Accessible neighbourhoods that positively integrate a variety of homes and are easy to move around and between.

New and evolving neighbourhoods should be planned to accommodate choice in housing, meeting the varied needs of people across the districts. Development should be designed to create well connected neighbourhoods where people can choose to walk to local amenities, for example open spaces and shops. Parking must be thoughtfully integrated into the design, to ensure it does not provide an obstacle on the streets or around public open spaces.

To achieve a fully accessible neighbourhood, it must be thought about at all levels, from access within the homes, to streets that provide safe spaces for walking and cycling, to access to public transport. This enables anyone living in or visiting the neighbourhood to move around comfortably and with ease.

Direct, safe walking and cycling routes, in Wymondham.

Green, safe and social open spaces and streets that promote recreation and biodiversity.

The design of any development should seek to connect into the surrounding ecosystems and landscapes through comprehensive blue and green infrastructure networks. Through the integration of planting within the streets, to the careful design of a well connected network of green spaces and sustainable drainage systems, wildlife will be encouraged to move through the site alongside people. This will help to sustain biodiversity and encourage people to spend time outdoors in the varied green spaces and streets.

In order to ensure these spaces are safe and social, lighting (where appropriate), opportunities for seating and overlooking should be built into the design of the open space network.

Multifunctional green spaces provide an opportunity for socialising and local play, Goldsmith Street in Norwich.

Inclusive, iterative design process integrating planning, design and community engagement.

Collaborative engagement helps to achieve the best outcomes for everyone. By involving the local communities, the people that know their areas best, developments can be integrated into existing communities both socially and physically.

Engagement strategies should focus on ensuring inclusive and accessible design is achieved, ensuring that all groups are heard (for example teenage girls, parents and caregivers), so that the resulting design is for all.

The level of community engagement expected is dependent on the scale of the site being developed, and should be agreed with the Council, with whom applicants should arrange early pre-application discussions.

Community engagement in Winsford.

Sustainability and Climate Resilience

Climate resilience and sustainability are both core themes that run throughout this document, as well as being key design priorities of the Design Code. All of the codes outlined in this document contribute to creating sustainable and climate resilient development. These core themes must be front and centre in the design and decision making processes.

The Council has an overarching ambition to help deliver a clean, vibrant and sustainable economy, as well as contribute to the Government's net zero 2050 target. This brings into sharp focus the need to reduce the emissions associated with the construction industry, and contribute to wider decarbonisation. Development that is climate responsive and sustainable can also better preserve, enhance and celebrate the distinctive landscapes across the districts.

The districts are seeking to support sustainable design, for example targeting PassivHaus or BREEAM standards, promoting greening and SuDS, and on-site energy generation. SuDS have multifunctional benefits, and help address water management issues, alongside having strong biodiversity and amenity value. Applicants will need to consider how their proposals address and support the principles set out in each district's Environmental Strategy.

This design code has been structured to cover design at the neighbourhood, street and building level. Sustainable design that champions climate resilience should be demonstrated at each of these scales, and should be evidenced through submission documents.

Policies and best practice guidance relating to sustainability are continuously evolving in line with ongoing innovation. All applicants will be expected to refer to the latest policies and guidance in addition to this design code, to ensure that designs are responding to and integrating current thinking and technologies.

> *"The design code should have sustainability at its core, ensuring all buildings are carbon neutral, water efficient and provide a net gain for biodiversity."*
>
> *Local Resident*

Chalk streams and watercourses contribute significantly to the character and biodiversity value of the districts.

Expansive skies, and at night, dark skies, are also important to the context of the districts.

The Coding Map

The coding map shown on this page sets out geographic areas where different design principles might apply. These coding areas are aligned with the existing settlement boundaries, and reflect the hierarchy of settlements identified in the Greater Norwich Local Plan (2024) and the Joint Core Strategy (2014) (in terms of services and amenities available).

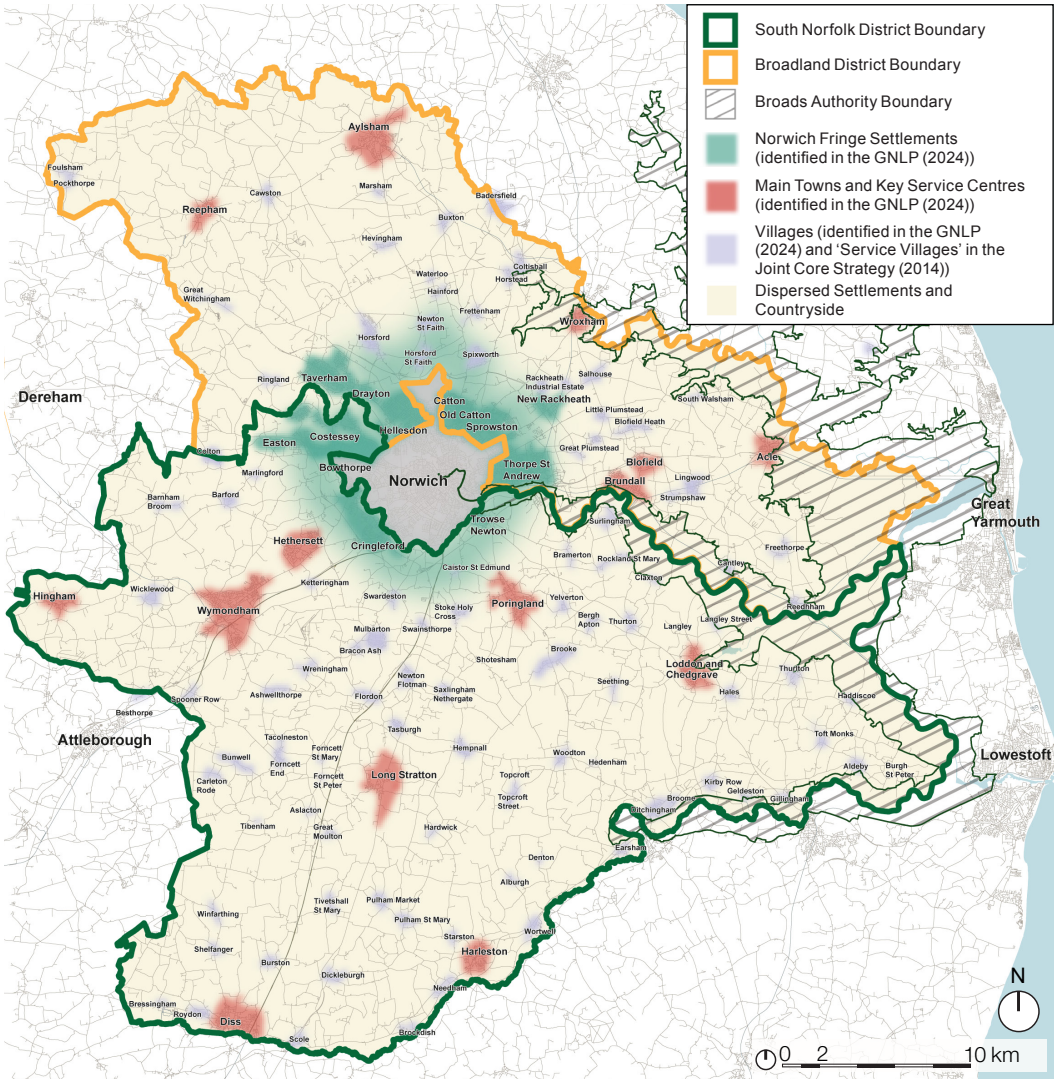
These coding areas do not identify areas for development, they identify areas where different coding principles will take priority. For example, encouraging active travel across the Norwich Fringe Settlements.

Across the area types three approaches to character will be taken:

- Urban;
- Semi-rural;
- Rural.

These approaches to character relate to a site's location and context, and are explained in more detail in code N.5.

The following pages set out what might be expected in each area type, in terms of approach to character, design qualities and scale of development.



Illustrative coding map showing existing settlement areas.

1. Norwich Fringe Settlements

Areas within South Norfolk and Broadland that are adjacent to the city of Norwich and its fringe. This includes settlements such as Cringleford and Costessey.

Development will typically fall within the following ranges (according to settlement size):

- 1-9 homes;
- 10-500 homes.

Character approaches we may expect to see here:

- Urban;
- Semi-rural.

Sample design elements we expect to see in the Norwich Fringe Settlements (not an exhaustive list):

- Strong and consistent building line. 1
- Limited setback from the street providing a sense of enclosure. 2
- Structural planting and SuDS accommodated throughout the development. 3
- Parking limited, provided on plot and within the street.
- Promotion of active travel, with pedestrian and cycle routes provided. 4
- Clear connections to wider facilities and services, including public transport stops. 5
- Predominantly rectilinear street pattern. 6

See Appendix A for full worked example.

2. Main Towns and Key Service Centres

Main Towns and Key Service Centres have a range of facilities enabling them to meet local needs. They are likely to have a centre, which may be either historic or more contemporary. The centre may include a range of shops and services, as well as access to public transport, health and education facilities. This includes settlements such as Wymondham and Aylsham.

Development will typically fall within the following ranges (according to settlement size):

- 1-9 homes;
- 10-500 homes.

Character approaches we may expect to see here:

- Semi-rural;
- Rural.

Sample design elements we expect to see in Main Towns and Key Service Centres (not an exhaustive list):

- Strong building lines with varied sense of enclosure based on street type. 1
- Structural planting and SuDS accommodated throughout the development. 2
- Planting on property boundaries.
- Provision of cycling connections where possible. 3
- Range of parking solutions.
- Clear connections to local facilities and services, including public transport stops. 4

See Appendix A for full worked example.

3. Villages

Smaller settlements with a more limited range of amenities and services. They are likely formed around a historic centre, which may include a green, church or local landmark. This includes settlements such as Swainsthorpe and Cawston.

Development will typically fall within the following ranges (according to settlement size):

- 1-9 homes;
- 10-150 homes.

Character approaches we may expect to see here:

- Semi-rural;
- Rural.

Sample design elements we expect to see in Villages (not an exhaustive list):

- Structural planting, on-plot landscaping, and SuDS accommodated throughout the development.
- Varied building line with larger set backs from the street in some areas. 1
- Varied orientation of buildings and looser settlement grain. 2
- Space between buildings to frame and retain sense of openness and views towards the countryside. 3
- Parking integrated on plot, generally to the side of homes.
- Connections into existing routes, such as public rights of way and on street footpaths. 4

See Appendix A for full worked example.

4. Dispersed Settlements and Countryside

Farmsteads or small settlements that are predominantly rural, as well as open countryside outside of settlement boundaries.

Development will typically fall within the following ranges (according to settlement size):

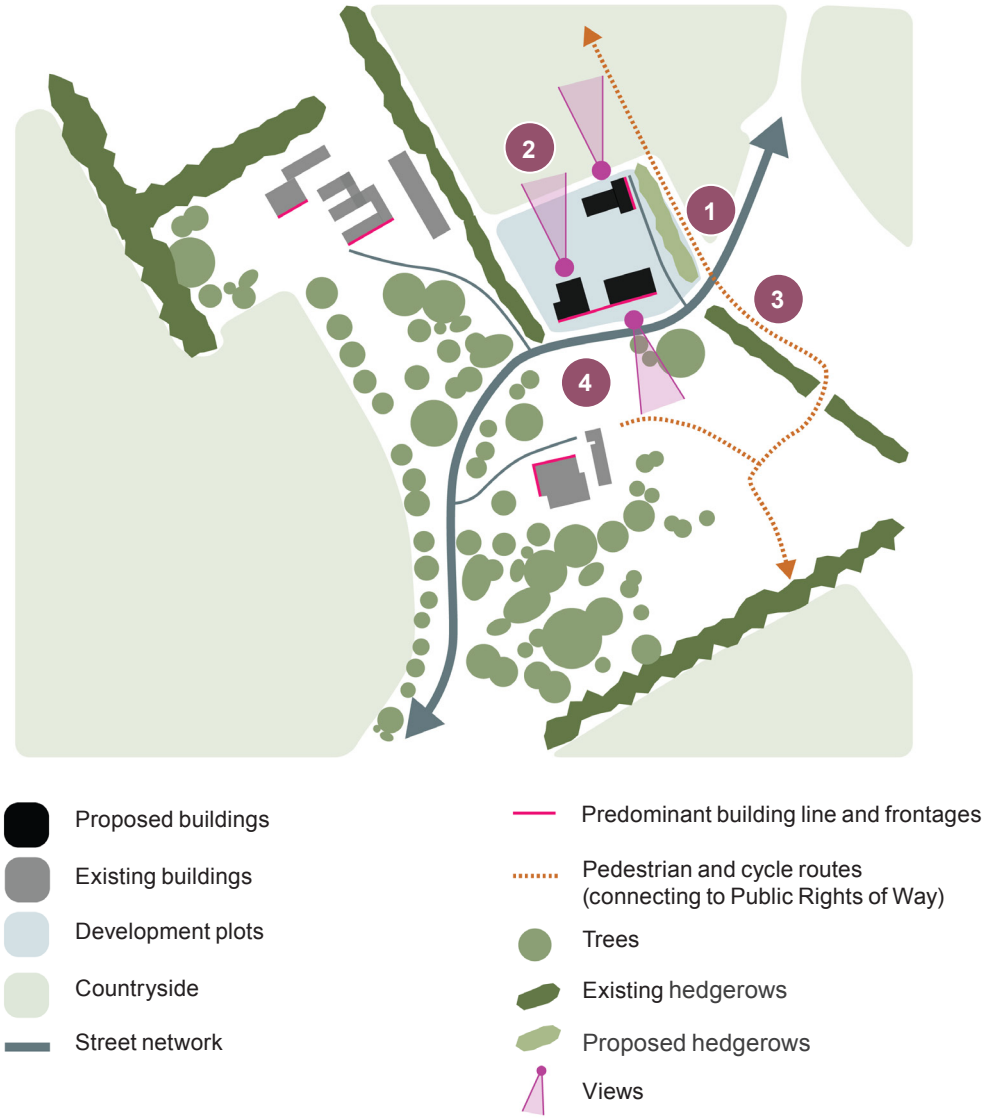
- 1-9 homes.

Character approaches we may expect to see here:

- Rural.

Sample design elements we expect to see in Dispersed Settlements and Countryside (not an exhaustive list):

- Filtered views of new development, with well planted property boundaries. 1
- Development well integrated into the wider landscape setting.
- Views to and from the countryside and any local villages protected. 2
- Connections to nearby cycle and pedestrian networks. 3
- Buildings set back from the road. 4
- Structural planting, on-plot landscaping, and SuDS accommodated throughout the development.



See Appendix A for full worked example.

Process

Getting the process right is fundamental to designing and delivering a high quality new development. The vision and priorities for new development set out within this code (pages 7-9) will need to be read and understood as a starting point, to ensure the design evolves in response to this. This section sets out what is expected at each stage of the design process.

Step 1: Site and Context Analysis

The first important step in the design process is undertaking a thorough site analysis. This must be carried out before any design is started to ensure that a full understanding of the site, its capacity, its assets and sensitivities, and its opportunities and challenges is in place. All applicants must have an understanding of the character of the area that their site lies within. Please refer to the Architectural and Landscape Character Assessments here. This process would identify valuable existing natural or heritage assets (and their setting) that would require retention, protection or enhancement as part of the scheme vision. Not only does this help in managing costs, for example understanding the impact of servicing or surface water management early on, but it also provides an invaluable tool in determining what the character of a place might be. For example, if a site has prominent views to nearby countryside or a distinctive heritage asset, this might form the basis of the structure of the masterplan as a character driver.

The checklist set out on this page establishes a starting point for what to consider when undertaking site analysis. This will vary in depth and extent based on the scale and location of the site.

For larger developments or proposals that may have a more significant impact on their surroundings such as the setting of heritage assets, it may be prudent to consult a planning officer to find out what should be included and the extent of area assessed

Step 2: Define the Vision and Concept

A vision and design concept for the site must be explained within the Design and Access Statement. This may draw on the site analysis, for example to establish what the aim of a site is, and what the approach to character will be (see principle N5). This is important to determine at the outset, as it will inform the design process at all scales, from neighbourhood level down to building level.

Sample checklist - Site Analysis

- Contextual analysis:
  - Built environment and settlement grain;
  - Historical pattern of development;
  - Landscape character, designations and green infrastructure networks;
  - Understanding of local character;
  - Movement networks and Public Right Of Way (PROW);
  - Statutory and non-statutory designated sites;
  - Nearby amenities and services;
  - Public transport opportunities;
  - Local heritage;
  - Local views to and from the site.
- Site:
  - Existing buildings and their potential for retention/reuse;
  - Landscape features and green infrastructure networks;
  - Water bodies and watercourses (including drainage ditches);
  - Ecological features and networks;
  - Site-specific policies and designations;
  - Site access;
  - Boundaries and adjacent uses;
  - Underground/overhead utilities;
  - Ground conditions and topography.

Step 3: Design and Access Statement

Design and Access Statements (DAS) are required for applications that fall into the following categories, as defined in 'Making a Planning Application - Guidance Notes for Non-householder Applications':

- New dwellings or buildings bigger than 100 sq m in a conservation area or site of special scientific interest,
- The proposal affects a listed building (in which case it should also include a Heritage Statement),
- Is for 10 or more dwellings or 1000sq m or more of non residential floorspace.

The level of detail in a Design and Access Statement will vary based on the scale of the project and complexity of the project. An example of how a Design and Access Statement could be structured is set out in the sample checklist on the following page.

Design and Access Statements are an important tool in communicating the narrative behind a design, including how the site analysis and engagement undertaken has led to a particular design approach. It should provide justification for how the resulting proposal has responded to the site itself, its local context, and how it meaningfully creates its own character.

The Design and Access Statement should be illustrated with plans, photographic and visual material (drawings or otherwise) to illustrate and explain how a high-quality of design can be achieved on the site, and how the scheme is in compliance with the requirements set out in this design code.

Applications should include a set of high-quality plans, clearly labelled, and at scale. 3D diagrams and models are also encouraged, particularly to show how buildings relate to the overall street-scene and the relationship to open spaces.

Other requirements:

The DAS will likely need to be supplemented by a range of technical documents. The South Norfolk and Broadland validation checklists (and subsequent updates) should be consulted for a full list of documents. For example:

- Where the development impact on the countryside may be visual, a Landscape (or Townscape) Visual Impact Assessment may be required to identify impacts, and how they can be minimised through design.
- On many sites (even for minor development), a green infrastructure framework (either within a DAS, or a landscape strategy) should be submitted to outline the strategy for the approach to landscaping across a site. This will explain the design process behind the network of green spaces and green connections, which should be designed to be multifunctional, integrating drainage and water management.
- On larger sites (50-500 homes), a separate materials plan, and waste plan, will be required.

Sample checklist - DAS

Introduction and Executive Summary

1 Defining the brief and outlining the design process:

- Site analysis and character assessment;
- Defining the vision and concept;
- Community engagement (might sit in a separate Statement of Community Involvement);
- Prioritising the environment.

2 Creating a neighbourhood:

- Street layout and movement network;
- Establishing an approach to character;
- Responding to local heritage;
- Integrating development into its landscape and townscape context;
- The orientation, compactness and arrangement of the built form;
- Height and scale of development;
- A range of typologies;
- Important views;
- Public open spaces and play;
- Integrating nature and biodiversity;
- Creating key places;
- Housing mix.

3 Creating a street:

- Street design (including provision of SuDS for sustainable surface water management, amenity and biodiversity);
- Streets for walking, cycling and interacting;
- Parking;
- Refuse and servicing.

4 Homes:

- Internal layout;
- Light and ventilation;
- Cycle storage;
- Safety and privacy;
- Outdoor space;
- Building elevations and roof forms;
- Materials and details;
- Climate resilience and energy efficiency.

Engagement

Engaging with local communities is advised for all applicants at the pre-application stage. The extent of engagement with stakeholders, technical consultees, and the community should be proportional to the scale of the site, and this should be agreed with the local authority at the first pre-application meeting. For sites that are likely to impact on a number of people in the local vicinity, engagement with the community is highly encouraged.

Speaking to local communities is an important source of information about how places are used, and function on a day to day basis based on their lived experience. They can also help identify opportunities and challenges that a particular site might face, providing invaluable local knowledge at an early stage to the designers.

Opening these lines of communication early in the design process can help develop a good relationship between applicants and the local communities, who are the people more affected by development local to them. Local Town and Parish councils should be engaged, along with neighbours who live locally.

Establishing a level of trust and honesty between the applicant and local community also proves beneficial to the planning application process. If a good relationship is established, it can help make the process smoother and more certain for the applicant. Conversely, it also helps reassure local communities that developments will aim to address local challenges being faced, where possible, so that they don't feel that development is just being imposed upon them. It can also help explain what is fixed by policy, and as a result of this what is possible and what is not, enabling those engaged to focus on the elements of design and placemaking that they can help inform and shape.

Any engagement that is undertaken should be documented, with key takeaways and how this has fed into the design process explained in the planning application. A 'you said, we did' approach is recommended for this, where applicants set out the feedback received and how they have responded to the key themes and points that have arisen.

Extracts from online engagement workshops, and feedback received.

Delivering quality

As with many other places, there can be challenges to building viable developments on some sites where house and land values might be lower. However, high quality and viable new development can both be achieved through good design, which may include the following:

- Understanding the specifics of a site's opportunities and challenges is the first step to understanding the costs that might be associated with development before design begins to find the most appropriate solutions.
- Using a smaller range of flexible unit types can save costs instead of applying a large range of housing types to a site.
- Prioritise detail and decoration where it matters the most. For all scales of development, attention to detail is particularly important on the ground floor, where people will be experiencing the architecture at eye level. The overall quality of the street will be enhanced by attention to the building materials, windows and bin storage as well as the front gardens and boundary treatments to properties.
- Simple detailing should not be ruled out. For example simple brickwork when carefully designed and delivered to a high-quality can be a valuable tool in improving character, as seen in Horsted Park, Chatham (see image to right).
- Simple building forms and groups can also aid in cost management, reducing the impact on cost that building envelopes with multiple junctions can have.
- Retaining and working with the site's landscape assets reduces the cost of replacement.
- Natural landscape-based solutions to address climate change needs are low cost and good value.

Brick diapering in Horsted Park, Chatham. This brick detailing improves character in a simple yet effective manner.

Dormer windows and porches over the doors bring character to this frontage in Strumpshaw.

A positive example of pargetting seen in Stoke Holy Cross.

Repetition of a simple, compact building form, combined with an open space to create an attractive development in Taverham that is cost -effective to deliver and maintain.

Vernacular housing design, Freethorpe

3

Neighbourhood

How your development contributes to existing or new neighbourhoods

3.1 Creating a safe and connected movement network

Why

Considering how people move around a site and neighbourhood is a fundamental part of the design of any new development. Creating street networks that are connected both within the site, and outside of the site boundary to existing routes, streets, services and facilities helps enable a community to live healthier and more sustainable lifestyles. It also provides opportunities for people to meet their neighbours and integrate socially with the local community, strengthening mental wellbeing.

The movement strategy for a site should be thought about as part of the wider public realm, including open spaces and landscape. Together, these elements make a place attractive, easy and enjoyable to move around.

Key Design Principles

- **N1.** Connect well into its surroundings.
- **N2.** Create a safe network of connected routes for all pedestrians, cyclists and vehicles, prioritising active travel to enable healthier lifestyles.
- **N3.** Provide a clear hierarchy of routes, where each type of route has a specific character and function.

Direct connections to nearby amenities can promote a sense of community and belonging. Community allotment, Weybourne.

Good infrastructure can encourage shorter journeys to be undertaken via active travel modes, Aylsham.

How to achieve this?

N1. Connect well into its surroundings.

To achieve this, the movement strategy:

- **N1.1 Must** connect into existing streets, greenways and Public Rights of Way, taking up all opportunities for access points that connect into existing streets and footpaths.
- **N1.2 Must** enable potential links to any adjacent future sites and their street networks.
- **N1.3 Must** provide or contribute to safe, clear and direct access for pedestrians, cyclists and wheelchair users to any existing local facilities (such as schools), open spaces and public transport services within walkable distance of the site (where available).
- **N1.4 Should** provide multiple access points for pedestrians, wheelchair users and cyclists into the site.

Across the document, the following colour code applies:

Codes apply to all schemes

Codes apply to schemes of 10+ dwellings

Direct pedestrian connections enable access to the countryside, and can be shared by pedestrians and cyclists. New development in Cringleford.

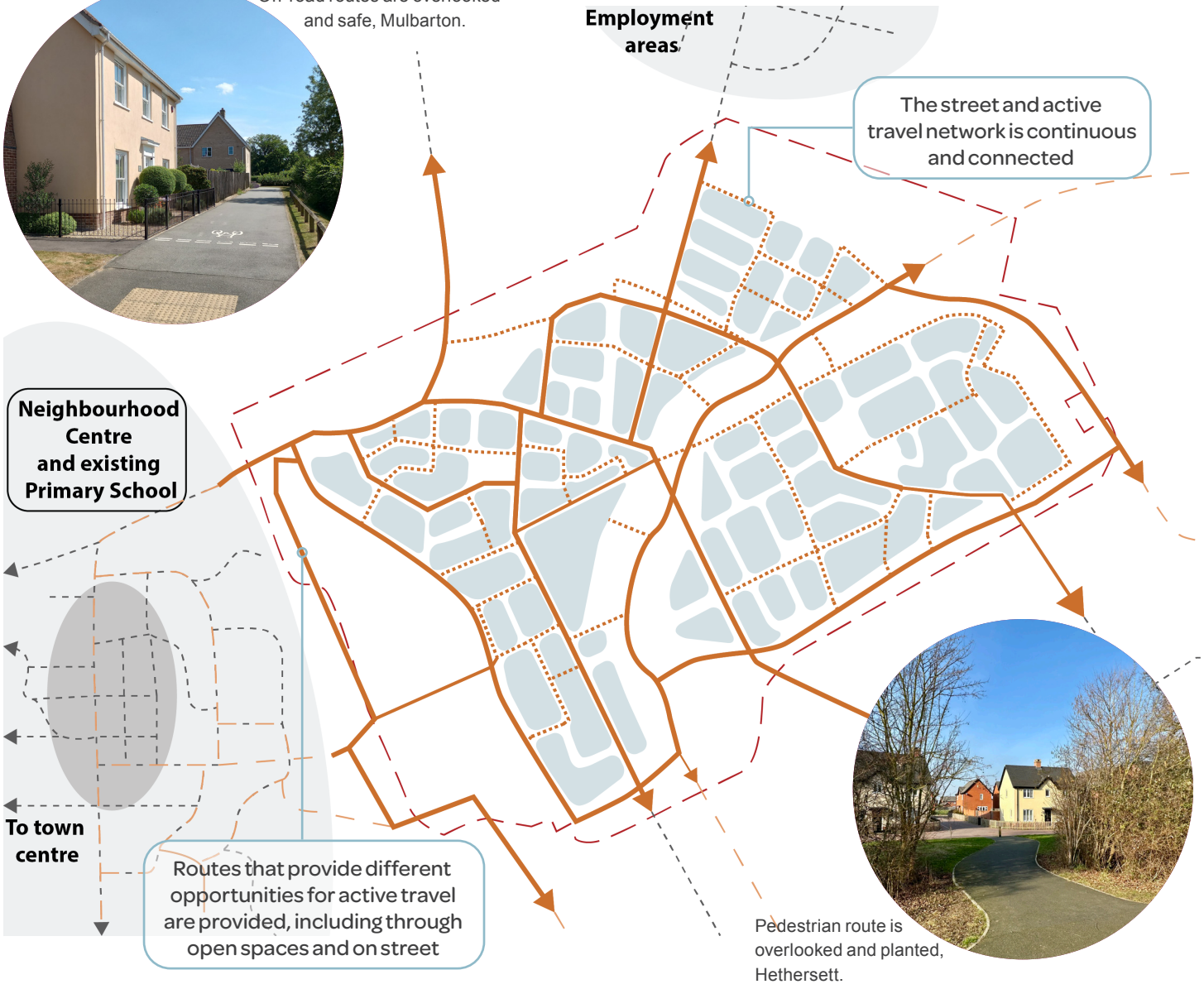
This diagram shows a sample layout of a new development. Over this section, the diagram is used to illustrate the principles, building up to a new complete neighbourhood.

A range of street and route connections means the site is well integrated into its surroundings. Multiple access points for pedestrians and cyclists are provided.

N2. Create a safe network of connected routes for all pedestrians, cyclists and vehicles, prioritising active travel to enable healthier lifestyles.

- **N2.1 Must** develop a simple, safe, clear network of streets that promote active travel, prioritising pedestrians, wheelchair users and cyclists. These active travel modes must be the easiest and most direct methods for short journeys, thereby reducing vehicle dominance.
- **N2.2 Must** take all opportunities to interconnect streets and active travel routes to enable continuous movement, avoiding long cul-de-sacs.
- **N2.3 Must** develop streets and active travel routes that are overlooked and safe to use. This **must** include safe crossing points.
- **N2.4 Should** prepare wayfinding strategies to support active travel, particularly for those with specific mobility needs e.g. including accessible street signage for people with dementia.
- **N2.5 Must** extend the network of traffic-free urban greenways and routes into the site, in line with the Greater Norwich Green Infrastructure Strategy.

Off-road routes are overlooked and safe, Mulbarton.



Pedestrian route is overlooked and planted, Hethersett.

Development plots

Cycling routes (linking to existing networks)

Pedestrian routes

Site boundary

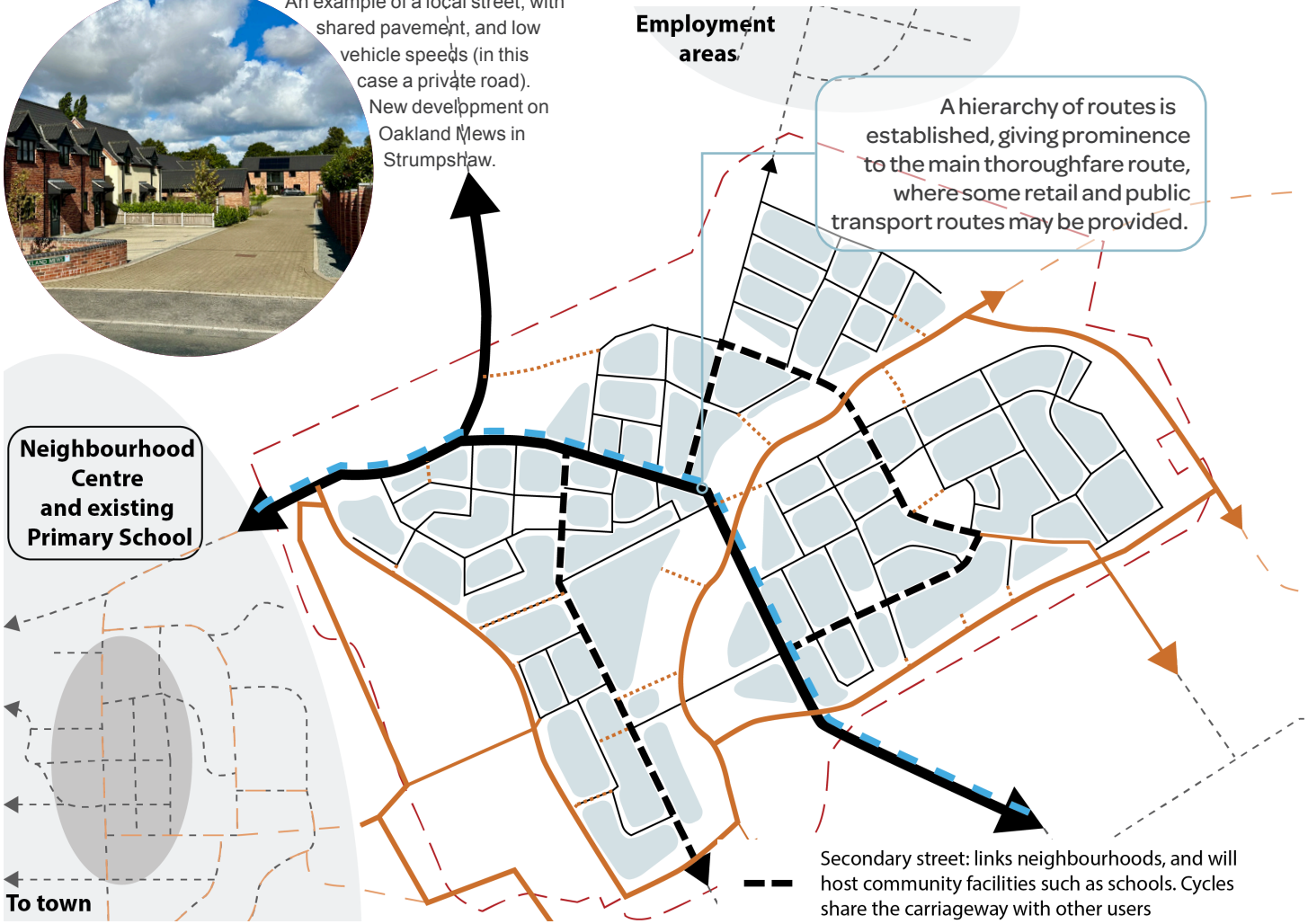
Existing movement networks

N3. Provide a clear hierarchy of routes, where each type of route has a specific character and function

The hierarchy can be established from the character and function of the street, by thinking about which places/destinations it is connecting. In turn, this sets up a framework for the relevant street dimensions and the corresponding scale of buildings and landscape which front it. To establish this baseline, the movement strategy:

- **N3.1 Must** create vehicular routes that are simple, clear, easy to navigate, and that avoid convoluted routes.
- **N3.2 Must** define a clear hierarchy within the site, from major routes down to informal pedestrian routes passing through open spaces.
- **N3.3** Public transport routes **should** follow main routes.
- **N3.4 Must** allow for safe construction vehicle access during the construction period that minimises the potential impact on early occupants of the site.

An example of a local street, with shared pavement, and low vehicle speeds (in this case a private road). New development on Oakland Mews in Strumpshaw.



3.2 Responding to existing local context

Why

South Norfolk and Broadland are distinctive and unique districts; heavily influenced by agricultural history, historic villages and towns, and diverse landscapes. Successful development can only be delivered through a comprehensive understanding and response to the local context. The starting point for this understanding is the Architectural and Landscape Character Assessments for the districts. Positive design responses should seek inspiration from this distinctive character, and not lead to its erosion over time. More specific explanation as to why each principle is important is provided with the coding requirements below.

Examples of historic landscapes are well preserved across the districts, and contribute significantly to the character of these areas, as seen in this example in Old Catton.

Key Design Principles

New development:

- **N4.** Must address the valuable and sensitive elements of the local townscape and landscape character and minimise any negative impacts on them.
- **N5.** New development must establish a character approach that is urban, semi-rural or rural.
- **N6.** Must respect and respond to local heritage.
- **N7.** Development must integrate well into its immediate setting and landscape and townscape context. It must demonstrate how local design and character have influenced design decisions.
- **N8.** Design the orientation, compactness and arrangement of development blocks and buildings, to reinforce and contribute to character, and to maximise sustainability.
- **N9.** Carefully determine the height and scale of new buildings in relation to the existing townscape and surrounding landscape, through visual analysis appropriate to the scale of development.
- **N10.** A careful selection of housing typologies should be used to achieve an appropriate character or variety of character, at the desired density.
- **N11.** Should identify and retain important local views, and create new ones where possible.

How

N4. New development must address the valuable and sensitive elements of the local townscape and landscape character and minimise any negative impacts on them

This section requires applicants to refer to the district Architectural and Landscape Character Assessment and any relevant Neighbourhood Plans to identify locally specific townscape and landscape elements.

- **N4.1 Must** identify key assets and important elements in the local area, through comprehensive site and context analysis, and a review of the Architectural and Landscape Character Assessments and any Neighbourhood Plan.
- **N4.2 Must** determine any negative impacts of the development on these assets through relevant assessments (for example a Landscape Visual Impact Assessment).

Development is shaped around existing established trees and views towards the local church in Old Catton.

N.5 New development must establish a character approach that is urban, semi-rural or rural

- **N5.1** The design approach to character **must** be established early in the design process, informed by a thorough site and context analysis. The character approach **should** be an appropriate reflection of the surrounding context of the development.

Urban character. A formal design approach likely to include: a tighter, more regular street pattern; enclosed by a consistent building line, with buildings set close to the street; more urban housing types, repeated and grouped together; streets with more consistency of elevations, materials and details; high quality urban landscape, with soft landscape focused on SuDS, street trees and front boundaries.

Semi-rural character. A looser (potentially more curved) street network; enclosed by trees and other soft landscape as well as buildings; with buildings set further from the street; more suburban or rural housing types and forms; planting both on-plot and on-street. With a variety of individual buildings in an informal arrangement this is semi-rural, with a formal, more consistent arrangement it is suburban. It relates strongly to its landscape setting of open space or countryside.

Rural character, informally integrating buildings into their village and landscape setting, for instance through irregular streets and spaces; informal building alignment and orientation; locally characteristic individual building forms and groups; buildings with a variety of elevations, materials and details; set in hard and soft landscape (including trees) with rural details. It relates strongly to the positive characteristics of each village and to the countryside setting.

For example...

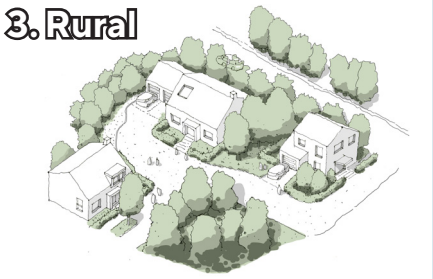
A more compact urban arrangement brings repetition of house types, set closer together. Buildings are closer to the street, with some limited defensible space. Some parking is provided on-street in designated bays.

1. Urban

2. Semi-rural

In this semi-rural case, the building lines vary in relation to the context, with units integrated into the landscape context.

3. Rural



In this rural example, the cluster of new homes are set around a courtyard space.

- **N5.2** Development **must** be designed to create neighbourhoods with a distinctive positive character, regardless of whether or not the immediate context has a strong positive character.
- **N5.3** Development **must** create a collection of new neighbourhoods and landscape spaces with variation between them.
- **N5.4** Development **should** incorporate a transition in character from the existing context and **should** also adopt other measures, such as landscape, to relate it to the surroundings.

For example...

In N5.2, this might include:

- Use of landscape design (see principle N7) to integrate into the context, for example, connect to existing habitat corridors, or retain existing established trees.
- Use of key places and marker buildings (see principles N17 and N18) to create a sense of identity, for example siting a village hall or community centre in a prominent position at the heart of a development.
- Locate amenity spaces and play areas where they will act as focal points for community interactions, and can also serve neighbouring communities.

Character is created through a combination of variation and consistency in the architecture, alongside landscaping. St Michael's, Aylsham.

N6. New development must respect and respond to local heritage

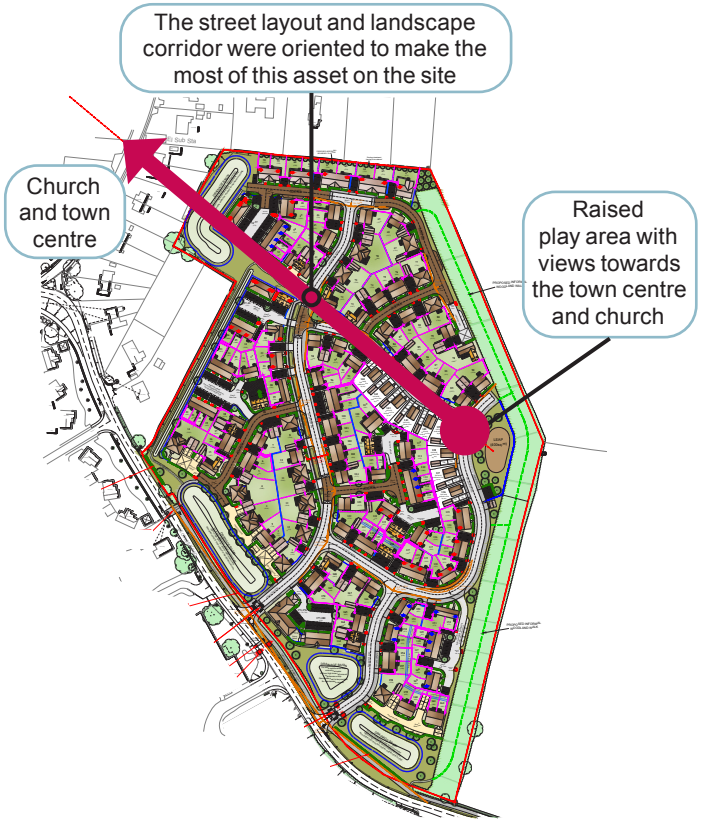
Local heritage refers to designated and non-designated heritage assets and Conservation Areas, as well as Assets of Community Value or important community infrastructure.

In order to achieve this, developments:

- **N6.1 Must** protect, preserve, and incorporate any existing heritage assets on site into schemes in a way that is appropriate to their value.
- **N6.2** Nearby or adjacent heritage assets are a creative opportunity to contribute to the sense of place. They **must** inspire and inform the layout and design of the development, This might include enhancing their setting, or providing direct pedestrian links to them.
- **N6.3 Should** take the opportunity to tell the story of the local context and history. This might include information boards, public art, naming or signage (such as reflecting history in modern street names) to reflect the heritage of a settlement.
- **N6.4** Development that proposes to conserve existing historic character **should not** merely incorporate superficial details that offer only a surface-level variation to a standardised design found across England.

Heydon, Church Farm Barns, conserves the identity of the barns and repurposes them for modern day uses.

Local history and stories are highlighted through this sculptural feature in Diss, which also doubles as seating for visitors.

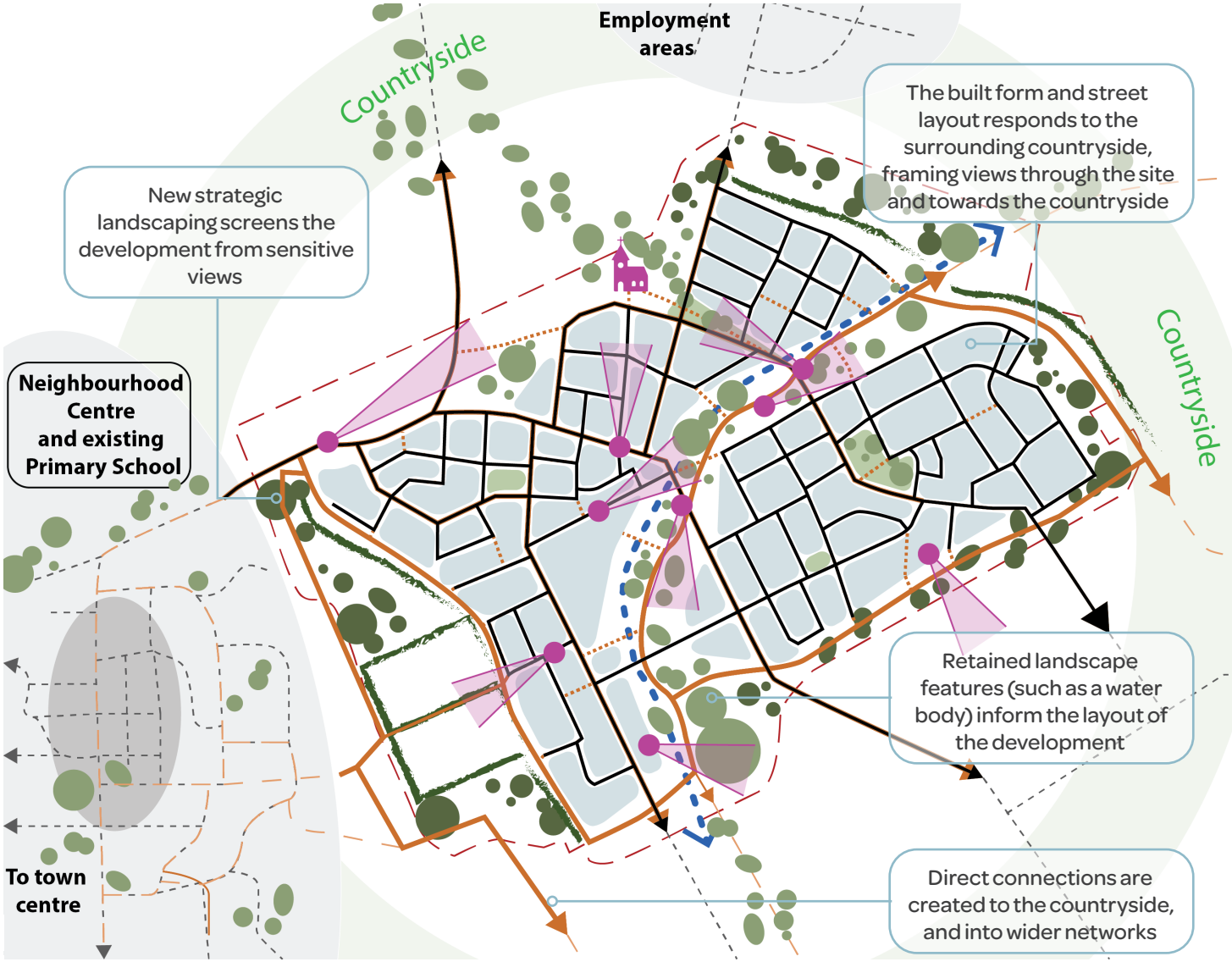


This layout allows for views from open space to the church which contributes to the sense of place and helps to integrate the development with the existing town, in Loddon.

N7. Development must integrate well into its immediate setting and landscape and townscape context. It must demonstrate how local design and character have influenced design decisions.

The rural landscape setting of the districts makes a significant contribution to their distinctiveness and tranquillity. The historic pattern of development has been influenced by the district's landform features (such as water bodies) and topography and their modification over time. New development should seek to do the same.

The openness and quality of the surrounding countryside has been identified as one of the main reasons people appreciate living in the area. So, understanding, responding to and integrating the character and qualities of the landscape into any new development is important to creating neighbourhoods that are rooted in place and context.



To do this, the design of a site:

- **N7.1 Must** retain any valuable landscape or ecological assets within the site boundaries (e.g. established trees, water bodies) and use them to influence the layout and orientation of the development.
- **N7.2 Must** respond to the physical landform of the site, through the size and shape of parcels of development, location of open spaces and sustainable drainage strategies.
- **N7.3 Must** minimise the visual dominance of new development in sensitive views or locations, by designing soft and informal edges that are practicable to be managed as a whole.
- **N7.4 Must** mitigate the effects of any noise or pollution sources near a site by introducing blue/green infrastructure, and/or physical screening, as necessary. Sites **must** also consider their own pollution emissions in terms of light, and noise, to reduce disturbance, particularly in rural areas.
- **N7.5:** Where development proposes to evolve existing local character, designs **must** use more than one design element (layout, landscape, or built) that reflects the positive aspects of existing local character, in a manner that will help to integrate the development into its surroundings (see also principles N8 and N9 below).

Houses are orientated around open spaces to create a soft and informal edge to this scheme in Northrepps.

Mature trees are used as a thread to inform the location of this linear open space, which contributes significantly to the character of this development in Hethersett.

For example...

In N7.5, to help integrate development that takes innovative forms or introduces new aesthetics to evolve local character, might include landscape elements such as:

- an important open space or landscape, such as a village green;
- incorporating existing hedgerows or trees;
- new local landmarks such as village sign, pond, landmark tree, war memorial etc.

It might also include layout elements such as:

- arranging the streets and buildings to protect an important view towards a heritage asset such as a medieval church;
- connecting new homes into a grouped or linked form eg a terrace or courtyard, to reflect a village centre location.

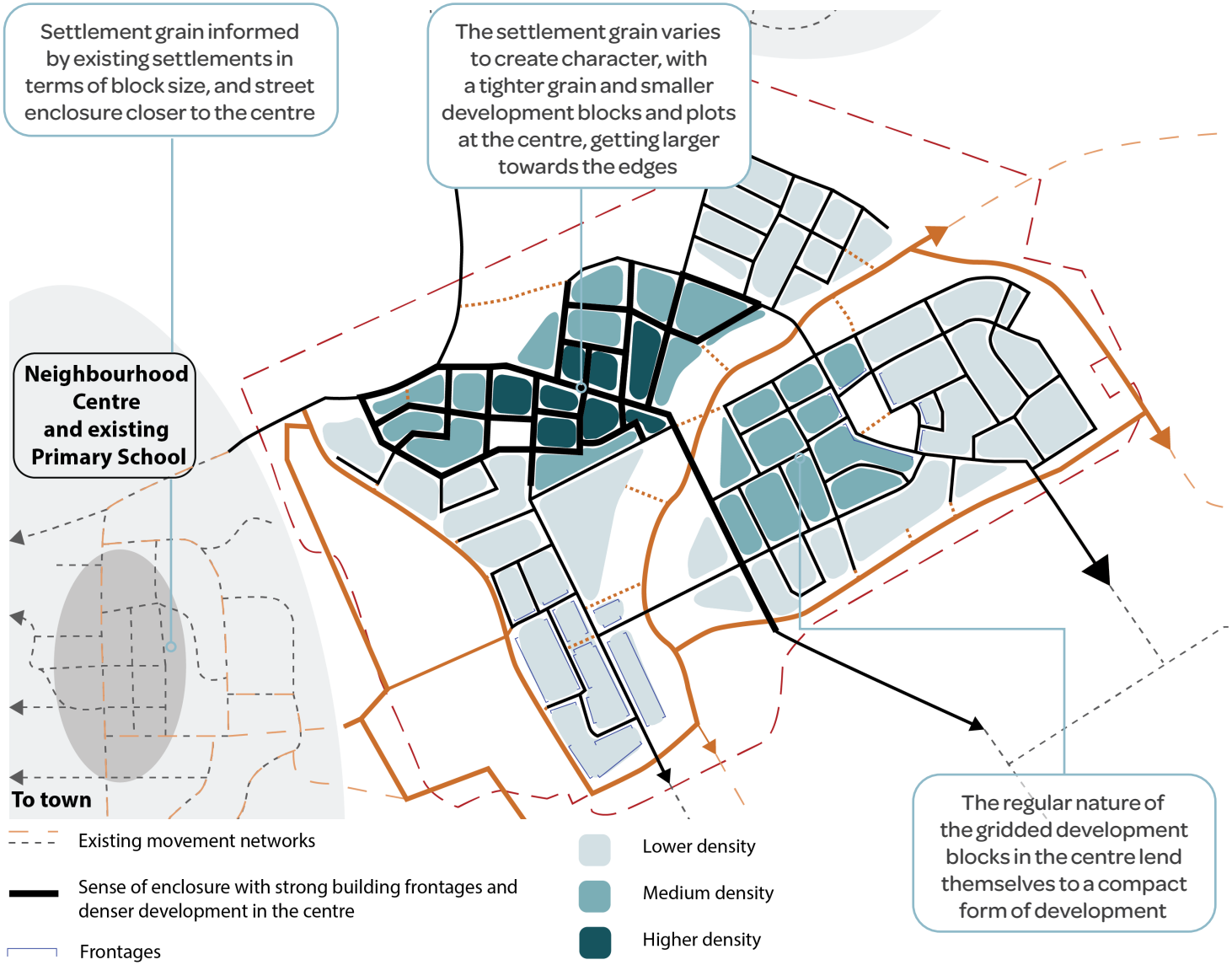
It might also include building elements such as:

- a wide-fronted shallow floor plan that reflects local houses;
- a roof pitch that reflects local pitches;
- the use of materials seen locally, such as roof tiles or bricks; or
- boundary treatment (e.g. brick walls, planting).

N8. Design the orientation, compactness and arrangement of development blocks and buildings, to contribute to character and to maximise sustainability.

These elements of a layout all contribute to the overall character of a place, and can be used to reflect existing distinctive features of the surrounding area. The orientation of buildings, for example, can be a strong character driver that varies between types of settlement. In main towns, buildings are likely to front onto the street, whereas in rural or dispersed settlements, buildings may be arranged at right angles to the street, or around a farmstead courtyard.

In the right locations, compact development can help to create more sustainable places, by providing homes with easy access to local facilities and amenities (new or existing), encouraging people to walk and cycle for shorter day-to-day journeys, so helping to activate the streets within a neighbourhood and increase social interaction between neighbours.



The layout (and supporting evidence in the Design and Access Statement):

- **N8.1 Must** optimise density in a way that is appropriate to the context. This could be achieved by compactness of development, massing and height, or the use of different typologies (see principles N9 and N10).
- **N8.2 Should** deliver a compact form of development that reduces urban sprawl into the countryside and minimises linear development along the approach roads to settlements.
- **N8.3 Must** configure development blocks so that they provide privacy and amenity for new homes (see principles H6 and H7), and ensure that homes and sensitive uses (for example primary schools) are located away from, or have adequate protection from, key sources of pollution.
- **N8.4 Must** demonstrate how the orientation and positioning of the buildings on plots will create a character that will be appropriate to the street's position in the street hierarchy (see principle N3).
- **N8.5 Should** adopt a consistent approach to the building line within a building group.
- **N8.6 Must** demonstrate how the layout of the buildings across the sites has taken solar orientation into account.

This variation in building line creates a positive widening of the street space that also allows for on-street parking spaces, in Trowse.

Generous front gardens set development back from the street edge, but a consistent and continuous building line retains a more urban character suited to Main Towns and Key Service Centres or the Norwich Fringe Settlements. Old Catton.

Development sides on to the street reflecting the historic development pattern, as here in Old Costessey.

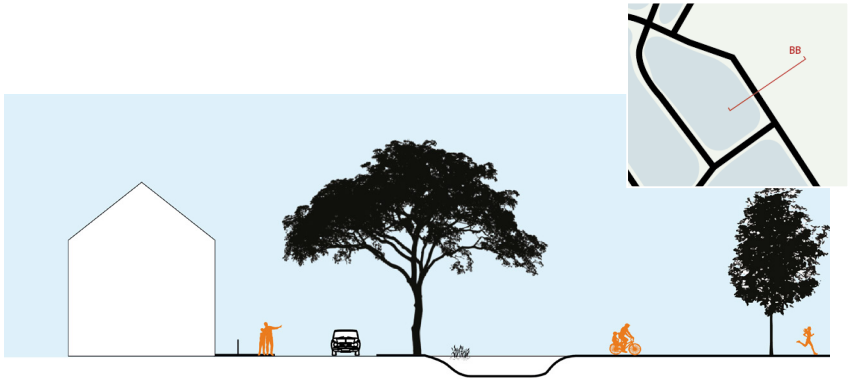
Courtyard building arrangement in Blofield.

N9. Carefully determine the height and scale of new buildings in relation to the existing townscape and surrounding landscape, through visual analysis.

The design approach to building heights will be influenced by the character and visual sensitivity of the surrounding townscape or landscape. It will also be determined by the character that is proposed for the development, by their position within the overall development and in relation to the street hierarchy, and their role in the proposed townscape.

- **N9.1** Building heights **must** relate well to the height of existing buildings in the context. Any change in height of two storeys between adjacent buildings **must** be carefully managed by a means of a transition.
- **N9.2** Building heights **must** respond to the visual sensitivity of the townscape and landscape context.
- **N9.3** In larger developments, the height and massing of buildings **should** vary to create differences in character and create suitable levels of enclosure for different streets and public open spaces.

Taller elements within the centre of the site help define the character of this central open space. Natural surveillance is provided by the buildings, allowing children to play safely in close proximity to homes.



Whereas at the edge of the development, homes that are smaller in scale provide a more informal edge onto the countryside.

Taller buildings mark the entrance to a new neighbourhood, defining the edge of a major highway and buffer space, Cringleford.

N10. A careful selection of housing typologies should be used to achieve an appropriate character or variety of character, at the desired density.

Whilst typically detached and semi-detached homes prevail across the districts, there are several reasons to introduce a variety of typologies. These might include:

- Creating a more compact form of development, normally in a more central area.
- Provision of specialist housing (for example accessible bungalows).
- In response to local housing requirements.
- Contemporary interpretation of local character.

N10.1 Proposals **must** evidence how the housing types within a development have been selected, and how they aid in achieving the vision and design ethos for the new neighbourhood.

"A mix of bungalows, smaller houses together with larger houses will suit families of different sizes together with people who live alone."

Local Resident

This development integrates car ports between a townhouse house type, Barton Park, Oxford.

Accessible bungalows and new typologies are arranged in this bespoke development to provide supported living and enhance local character, in this example in Eastleigh.

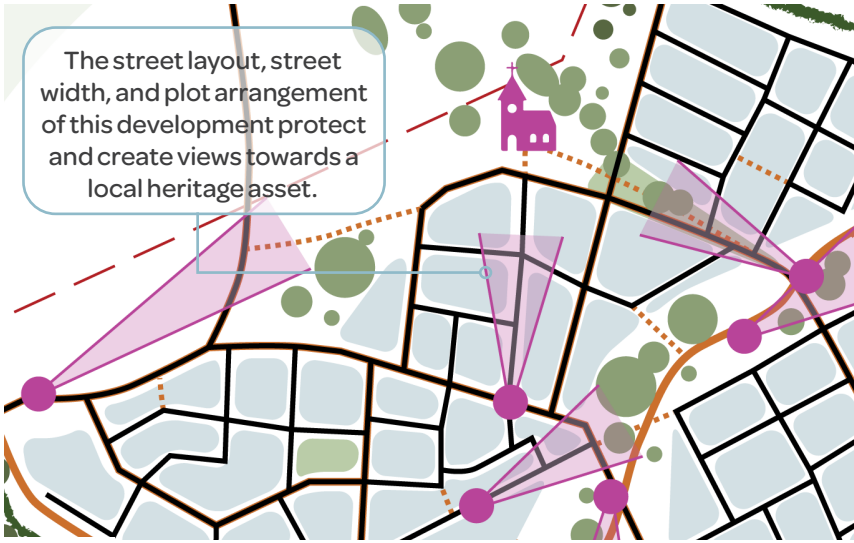
N11. Should identify and retain important local views, and create new ones where possible.

This section requires applicants to refer to the district Architectural and Landscape Character Assessment and any relevant Neighbourhood Plans to identify specific local views.

- **N11.1 Must** reduce the visual dominance of development when viewed from surroundings, particularly sensitive landscape/historic contexts. The height and massing of buildings, roof forms, use of landscaping, and integration of PV panels will contribute to this.
- **N11.2 Should** arrange the built form and open spaces to protect important views towards a variety of existing assets. These might include: heritage assets; Assets of Community Value (ACVs); community assets; areas of important visual and townscape context; local landmarks; or amenity trees.
- **N11.3 Must** visually connect with the surrounding landscape, for example through new or retained views, to create or maintain a sense of openness. This can be achieved through long-range views framed by streets, or glimpsed views between buildings.
- **N11.4 Should** arrange and orientate development and open spaces to create new views across a development, to highlight for example a marker building, important open space or specimen tree.

"Key views of listed buildings should be taken into consideration in the design of developments."

Local Resident



The built form and street layout preserves a view towards the church nearby, in Hingham.

3.3 Public open spaces and play

Why

Access to public open space and play space for children and adults is key to enabling healthy and active communities. These spaces are also critical to provide residents and visitors space to engage with their neighbours, and the wider community.

Wildlife garden provides a valuable natural asset as well as a point of interest for the local community in Trowbridge.

Key Design Principles

- **N12.** Open space and public realm character, role and provision must be considered from the outset, and must integrate into nearby existing green and blue infrastructure networks, both on- and off-site.
- **N13.** New open spaces should serve multiple purposes, improving the environment for both people and wildlife. All parts of the open space and public realm network should be well defined with a clear use and purpose.
- **N14.** Opportunities for play must be explored across all development scales. New developments should support opportunities for a range of formal and informal activities, on people's doorstep, and in the public realm.

Open space retains mature landscaping, and is well overlooked by nearby homes, in this example in Poringland.

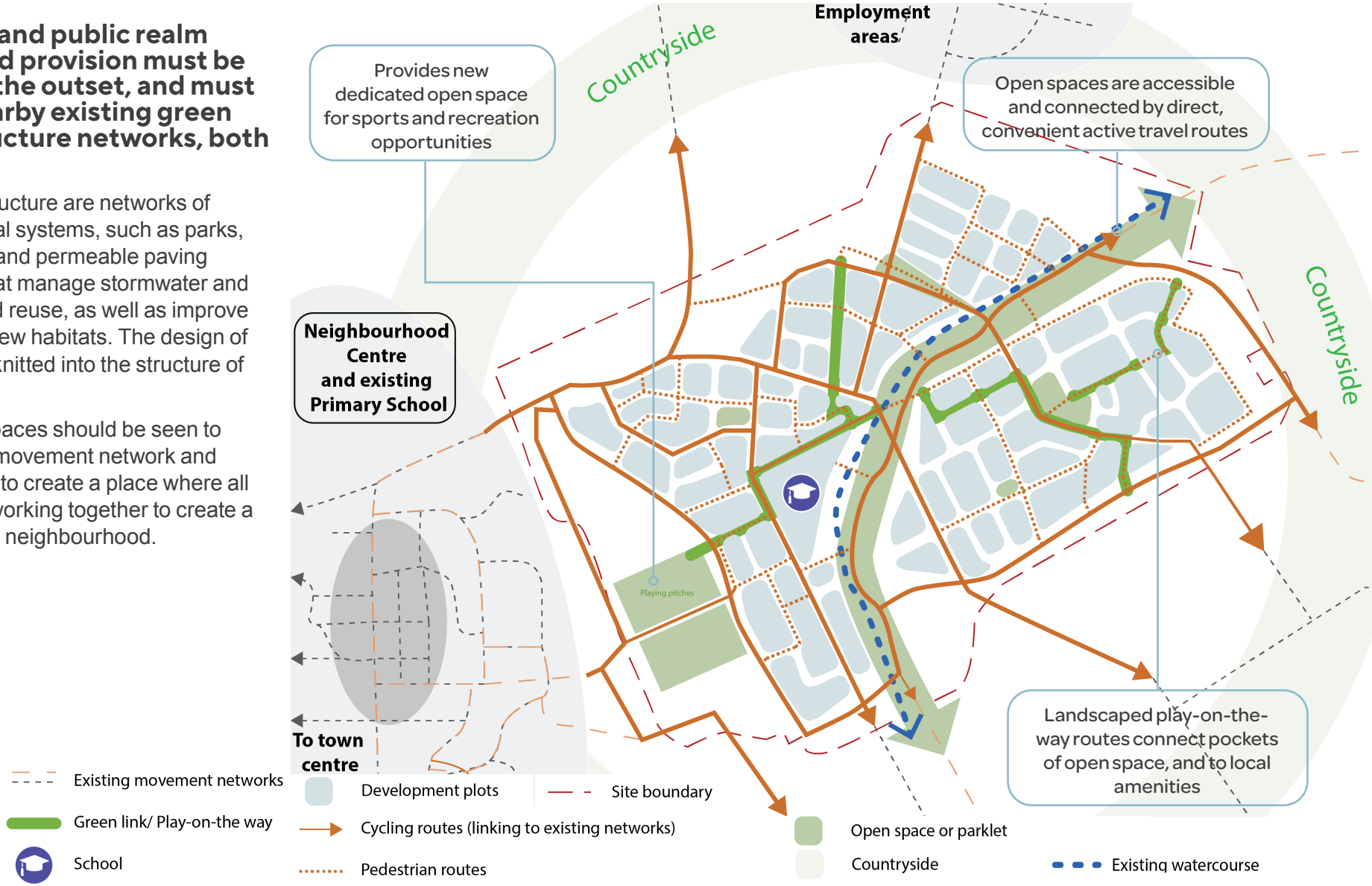
This play opportunity is positioned in a central open space, providing direct access for the residents and encouraging neighbourhood interaction at a local scale.

How

N12. Open space and public realm character, role and provision must be considered from the outset, and must integrate into nearby existing green and blue infrastructure networks, both on and off-site.

Green and blue infrastructure are networks of natural and semi-natural systems, such as parks, wetlands, green roofs, and permeable paving (where appropriate), that manage stormwater and allow water capture and reuse, as well as improve air quality, and create new habitats. The design of these spaces must be knitted into the structure of the neighbourhood.

The network of open spaces should be seen to work together with the movement network and positioning of buildings to create a place where all of its components are working together to create a successful and positive neighbourhood.



The landscape strategy/green and blue infrastructure framework:

- **N12.1 Must** integrate the open space network into the layout from the outset, with early specialist input (for example landscape architecture and ecology advice as appropriate), in line with best practice standards.
- **N12.2 Must** identify whether the site falls within a priority area with identified deficiencies in provision, using the Greater Norwich Green Infrastructure Strategy and Strategic Delivery Plan 2025-2030 (or successor document), and reflect this in the provision made within the development. Green Infrastructure **should** be provided on-site or off-site, proportionate to the scale and type of development.
- **N12.3 Must** provide a quantum of public open space and play provision that is proportionate to the scale of the development, and meets the Council's open space requirements. These can be combined with SuDS features where safe and appropriate.
- **N12.4** Open space and amenities such as play facilities **must** be sited to be easily accessible to residents of all tenures and existing residents where possible, to enable social interaction and cohesion. Open space **should** be overlooked by homes, and fronted on to for natural surveillance.
- **N12.5 Must** demonstrate how the network of open spaces have been designed to be connected both within the site and to adjacent destinations.
- **N12.6 Must** make arrangements for the long-term management, stewardship, and maintenance of these spaces during the design process and in collaboration with local authority officers. This agreement **must** be outlined in a management plan and submitted with any application.

Open space is provided on-site, with direct active travel routes through, at St Giles Park, Cringleford.

A larger open space with play and seating creates a valuable space for residents to gather at a neighbourhood level, in Lyon, France.

N13. New open spaces should serve multiple purposes, improving the environment for both people and wildlife. All parts of the open space and public realm network should be well defined with a clear use and purpose.

Defining the purpose of each space proposed within a masterplan ensures that the appropriate diversity and scale of spaces is provided. It ensures that the needs of wildlife have been considered from the outset and are met in a variety of ways, through the creation of spaces and the corridors that connect them. It also creates a meaningful network that supports the lives of residents and visitors by providing them with options that afford residents and visitors choice in how to use the spaces, be it for recreation (active or passive) or socialising. Local recreational requirements should be used to inform this provision.

The landscape strategy/green and blue infrastructure framework:

- **N13.1 Must** clearly indicate the character, function and purpose of each space within the layout, and avoid leftover space.
- **N13.2 Must** demonstrate how and why different types of structural planting have been accommodated throughout the design, prioritising suitable native species. It **must** also demonstrate that shading from all trees has been considered, including ensuring that private gardens on new developments will not be negatively impacted by existing trees
- **N13.3 Must** be designed to maximise user safety by:
  - ensuring traffic speeds are reduced around public open spaces; and
  - providing a degree of separation between the users of the space and traffic, appropriate to the scale of the street and function of the open space.
- **N13.4 Should** incorporate opportunities for growing food, edible streets and community gardens, orchards or allotments where appropriate.
- **N13.5** Where development proposes a character approach that departs from the local context, the applicant **must** clearly justify their reasoning for this approach in the application.

Open space can have a character that reflects the more rural nature of a development, as seen in Eastleigh.

Larger open space with formal play opportunities and space for informal activities including picnics and ball games. New development in Harleston.

N14. Opportunities for play must be explored across all development scales. New developments should support opportunities for a range of formal and informal activities, on people's doorstep, and in the public realm.

Access and proximity to high quality play opportunities is important for residents of new developments. Play can be encouraged in many forms, from formal equipment like swings in equipped play areas, to more imaginative and informal play features. 'Play-on-the-way' play features can be simple but inviting ways to encourage active journeys, and can include natural features such as boulders or logs, coloured paths, or anything that ignites creativity. Applicants, through submission documents, should outline how they have explored play provision on site, the user accessibility of this, and integration into wider active travel routes.

On larger development, play provision should include diverse forms of play across the development. Play facilities should be fully accessible and inclusive for all users, regardless of age, ability or gender.

Play provision must be in line with local policy.

Play provision:

- **N14.1 Must** demonstrate how the development:
  - Provides appropriate play provision on-site.
  - Incorporates play features that reflect the location and character of the development. In rural areas for example, this might include more natural elements.
  - Includes play equipment and features that are durable, and managed and maintained appropriately.
- **N14.2** Doorstep play, and/or 'play on the way' **must** be overlooked by neighbouring homes, and must not impede other functions of the street e.g. servicing, pedestrian movement
- **N14.3 Must** be designed to be available, accessible and inclusive for all ages and abilities (including individuals with disabilities and support needs) to enable equal social interaction.
- **N14.4 Must** assist in providing other types of recreation, including formal sports pitches, in line with policy requirements.

Play space benefits from natural surveillance from nearby homes, in this example in Hingham.

Natural play elements can make a walk to school an adventure, as seen in this example in Diss.

3.4 Integrating nature and biodiversity

Why

The districts have rich ecosystems and natural environments. Nature must be an integral part of all new developments, carefully designed and incorporated to protect and promote habitat creation. National Biodiversity Net Gain targets should be met, and metrics and delivery mechanisms secured during the design stages. Natural features should also support water management through the use of SUDS, while offering broader environmental and human benefits, such as shade, shelter, improved air quality, and enhanced mental health and wellbeing.

Local flooding has been identified as an issue across the districts, and it is a priority for a number of residents. The design of the nature and biodiversity strategy must be considered in parallel with reflecting the local landscape context and the provision of public open space and play (see section 3.3).

Key Design Principles

- **N15.** New development must protect and enhance existing retained habitats and meet current Biodiversity Net Gain targets.
- **N16.** New residential developments must provide localised flood risk management solutions to improve flood resilience. These should have multifunctional benefits, for water quality, biodiversity and recreation.

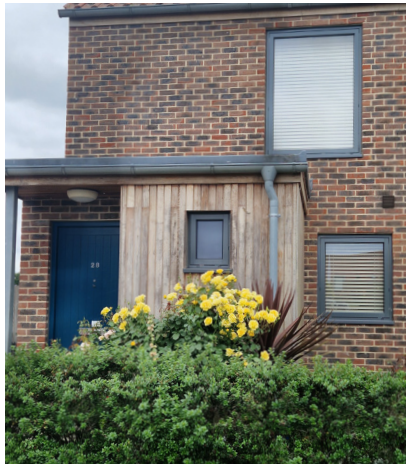
How

N15. New development must protect and enhance existing retained habitats and meet current Biodiversity Net Gain targets.

The landscape strategy or green infrastructure framework:

- **N15.1 Must** retain the best habitats on-site (or around it), and protect and enhance these existing habitats wherever possible
- **N15.2 Must** use a palette of carefully selected species for landscape and drainage features (such as structural planting, SuDS, and street trees), so they are functional, resilient, attractive and nature-friendly, with priority given to local native species resilient to a changing climate. Where planting fails, it **must** be replaced in accordance with the planning permission.
- **N15.3 Should** also include measures to support resident engagement with wildlife (in appropriate locations), such as:
  - Hedgehog holes in fences;
  - Creating or maintaining dark corridors;
  - Integrated bat boxes (or roost features) at the equivalent of 1 box for every 3 homes;
  - Integrated bird boxes at the equivalent of 1 box for every home.
  - Species-specific measures such as bee bricks or pollinator corridors.

Planting along this street provides a buffer between the footpath and the road, at St Giles Park, Cringleford.



Opportunities to install structural planting for biodiversity at the doorstep, in Stoke Holy Cross.

The 'Grey-to-green' scheme in Sheffield combines SuDS with habitat creation - in this case a 'bug hotel'.

N16. New residential developments should provide localised flood risk management solutions to improve flood resilience. These should have multifunctional benefits, for water quality, biodiversity, and recreation.

Following comprehensive site analysis, design teams should have a good understanding of any local flood risk, ground conditions, and surface water flood risk challenges. This is a particularly important consideration across the districts, where the influence of water is acute and there are severe threats from water shortages.

- **N16.1** Sustainable Drainage Systems (SuDS) **must** be integrated into proposals from the outset of the site development.
- **N16.2** All SuDS **must:**
  - Have appropriate management and maintenance agreements in place, and be easily maintained in perpetuity.
  - Not be detrimental to local water quality.
  - Seek opportunities to reuse surface water runoff prior to disposal.
  - Contribute to character, for example more informal SuDS arrangements in rural areas.
- **N16.3** The design of SuDS **must** prioritise natural features over extensive underground attenuation solutions.
- **N16.4** Any nature based SuDS proposed within the development **must**:
  - Be multifunctional, performing flood resilience functions, but also having amenity and biodiversity value, and also a water quality treatment function.
  - Have appropriate management and maintenance agreements in place, and be easily maintained in perpetuity.
  - Balance functionality and safety – in some places, attenuation ponds, when dry, should be accessible to be used rather than fenced-off to residents.
  - Be planted with functional and robust species. SuDS are most successful when delivered early, and planting is given two to three seasons to bed-in.
  - Seek opportunities to improve flood risk management of existing flood risk where appropriate.

"Build in significant allowance for drainage as the climate will change causing far heavier rainfall events and river flooding."

Local Resident

Attenuation basins balance flood resilience functions, and amenity value for residents, St Giles Park, Cringleford.

Biodiverse planting and habitat creation are prominent features in this development in Drayton.

3.5 Key places

Why

Focal points make a place more memorable and give it an identity that helps people feel a sense of belonging. In larger developments they are also important to help people to find their way around. Often, it is a distinctive combination of buildings and space together that creates a key place. They may include buildings or groups of buildings (including marker buildings) and public or open spaces. In larger developments they may be positioned at key locations in the layout, such as:

- important junctions or corners;
- gateways;
- along important movement corridors;
- in the heart of a development;
- at development edges, or at the end of a visual corridor.

In smaller developments (1-9 units) the entire development must be considered as a key place to achieve the variety and sense of place that is required to create a successful scheme.

It is important to note that a building doesn't necessarily need to be taller in order to be prominent. This could be achieved, for example, through deviation in the prevalent building line, change in materiality, form or roof articulation. Key places should be a focus for quality of townscape and landscape design, to create a strong and positive identity that is easily memorable.

These elements require particular design attention, which is covered in this chapter.

Key Design Principles

- **N17.** Proposals should identify key buildings, groups of buildings or open spaces as focal points within a neighbourhood. These should be designed accordingly to aid wayfinding.
- **N18**. Marker buildings should be used to reinforce key places, where appropriate.

This space has been designed to make a feature of the flood management, with buildings orientated to overlook and frame the swale, in Northampton.

This open space is framed by the surrounding houses, giving a 'village green' feel to the neighbourhood, in Poringland.

How

N17. Proposals should identify key buildings, groups of buildings or open spaces as focal points within a neighbourhood. These should be designed accordingly to aid wayfinding.

The development proposal:

- **N17.1 Should** explain how key buildings or spaces will be designed to achieve their place objectives, including use of materiality and form.
- **N17.2 Should** set out how a building or open space is to be memorable. This may be through its design, location and integration within the development, or its function and use e.g. promoting sociability.
- **N17.3 Should** provide an explanation of how key spaces have been designed to be prominent.
- **N17.4 Should** identify and integrate existing key buildings and focal points that may already exist on or near the site (in line with the code requirements of N6 and N11). This might include historical anchors such as a church or a converted agricultural building.
- **N17.5** Key buildings, groups of buildings or open spaces **must** be excellent in quality of design and execution.

N18. Marker buildings should be used to reinforce key places, where appropriate.

In the right location marker buildings can focus activity and help people find their way around, and might be used to highlight local facilities or key places. These functions can also be achieved through combining a collection of buildings to form a marker.

A marker building does not need height to mark it as significant. This can also be achieved through a change in the building line, the use of materials, a distinctive roof form, or a different house type.

Development proposals that include a marker building:

- **N18.1 Must** demonstrate through a design response (for example a change in materiality, form or scale) how it is different to the rest of the development.
- **N18.2 Must** serve a clear function, and be located to enable it to fulfil this function. For example, is it highlighting a key location to help with legibility (towards a community centre for example), or helping to mark the entrance to a site?

The layout of these homes carefully frame this open space, creating a memorable crescent-like key space in Trowse.

In this case, a change in built form, and additional height, marks this prominent corner at Great Kneighton in Cambridge.

3.6 Housing mix

Why

The mix and tenure of new homes should support the Council in providing a mix of affordable housing and specialist housing. The integration of these housing forms should be designed to support the creation of inclusive communities, ensuring that these homes are not segregated from the rest of the development.

Key Design Principles

- **N19.** Developments should integrate affordable housing sensitively to create a place that feels welcoming to all.
- **N20.** Developments should provide a range of housing, including specialised housing and custom/self-build plots, in line with policy requirements.

How

N19. Developments should integrate affordable housing sensitively to create a place that feels welcoming to all.

- **N19.1** Where affordable housing (of all tenures) is included within a development, it **must** be provided in clusters and distributed across a site. It **must not** be concentrated in the most unattractive location such as underneath pylons or next to a busy road.
- **N19.2** The design of new housing **must** be tenure neutral, and buildings and spaces must be of equal quality.
- **N19.3** Affordable homes **must** have equal access (to those in other types of homes) to public spaces, children's play areas, local facilities, amenities and infrastructure.

N20. Developments should provide a range of housing, including specialised housing and custom/ self-build plots, in line with policy requirements.

- **N20.1** Where smaller sites can accommodate custom or self-build development in line with policy (at a settlement edge for example), applicants **should** use plot passports and design codes to promote a cohesive approach to development.
- **N20.2** On larger sites, the requirement for alternative forms of housing (such as custom or self build plots, or specialised housing for older people) **should** be identified as early as possible.
- **N20.3** On larger sites, these plots **must** be integrated into the overall masterplan, and **should** be sited together to benefit from consolidated access routes, servicing, and wider active travel connections (to reduce disruption to the wider development during the construction phase).

The layout and design of this development in Northrepps results in tenure neutral development.

A variety of architectural responses and housing types are provided in this self-build scheme in Bracon Ash.

Local street with strong frontages, Hingham

4

Street

How your development contributes to existing streets, or helps create new ones

4.1 Streets that incorporate planting and drainage

Why

For the purpose of this section, streets are defined as the entire space provided between buildings.

When designed well, streets can perform an important connecting feature between open spaces and habitats, functioning as a corridor that wildlife can use for movement alongside residents and visitors. They can be used to extend valuable ecosystems at a street scale, embedding biodiversity and landscape in the design and character of the place. In turn, the thoughtful planting of a street can make it an attractive space for the residents, encouraging people to walk and cycle and to encourage neighbours to stop and socialise within the space.

Streets must be designed to incorporate multifunctional drainage solutions in line with Principle N16.

Key Design Principles

- **S1.** Streets must be attractive and practical spaces for residents and visitors, and help to support wildlife.

How

S1. Streets must be attractive and practical spaces for residents and visitors, and help to support wildlife.

- **S1.1** New on-street planting **should** be incorporated and provide a function - such as to improve the character or visual identity, or contribute to SuDS features and habitat connectivity.
- **S1.2** Planting **must not** interfere with underground services.
- **S1.3** Planting **should** have long-term maintenance and management commitments. Where planting fails, it **must** be replaced in accordance with the planning permission.
- **S1.4** If new development fronts onto an existing street, front gardens or boundaries **should** incorporate planting.

Rain gardens slow surface run off, and reduce the quantum of impermeable surfaces. They also provide new habitat whilst creating a verdant character for the street in Sheffield.

Planting at this development in Parkside Old Catton complements the retained established trees. The planting is diverse, and contributes to the visual identity, as well as helping to soften the buildings into the backdrop.

4.2 Streets for walking, cycling and interacting

Why

Streets are important areas of public space and must be designed to be safe, inviting and friendly places. Streets need to be designed to support the active movement (walking, cycling) of everyone, including the elderly, families and the mobility-impaired. Ensuring cycling is accessible to all abilities and ages allows people to be able to cycle to school, or to local facilities.

Encouraging people to undertake shorter distance journeys on foot or by bike can help significantly reduce the number of private car journeys, improving people's health and ingraining active travel as a lifestyle choice.

The codes set out below apply to:

- All new residential streets;
- Streets that require highways improvements due to new residential development;
- Streets within existing residential and mixed-use areas that require highways improvements.

Key Design Principles

- **S2.** Streets must be designed to reinforce their position in the wider street hierarchy. This will help create character and make sure that people can easily find their way around.
- **S3.** Streets must be designed to function as high-quality parts of the public realm for social and health benefits.

A space that accommodates a safe and attractive route for people of all ages, as well as opportunities for neighbours to socialise. Great Kneighton, Cambridge.

This primary street has segregated cycle lanes that respond to the importance of it as a main route within the movement hierarchy, in Eddington, Cambridge.

How?

S2. Streets must be designed to reinforce their position in the wider street hierarchy. This will help create character and make sure that people can easily find their way around.

- **S2.1** The design and character of streets **must** vary to reflect their position in the movement hierarchy. This helps people to find their way around larger developments (see principle N8).

For example...

In S2.1, this can be done through:

- **Planting strategies.** For example, more formal or abundant planting might be present on a primary street, compared to wildflower verges or rain gardens along a tertiary street.
- **The integration of pedestrian and cycle routes.** For example, segregated cycle lanes may be provided on a primary street whereas tertiary streets may offer shared vehicular and cycle spaces.
- **Differing boundary treatments** between the street and building (See Principle S7).

S3. Streets must be designed to function as high-quality parts of the public realm for social and health benefits

- **S3.1** Streets **should** be designed as a space to be enjoyed, not just passed through.
- **S3.2** Streets **should** provide pause points with formal and informal seating for social interaction and rest, where the opportunity arises, and it would not result in social nuisance or physical obstruction of movement routes.
- **S3.3** Streets and routes **must** be designed to meet inclusive design standards, ensuring that all users can safely use the environment.

For example...

In S3, this can be done through the integration of:

- Street planting, including trees in pits (which provide shade, surface water management and water quality management, and improve air quality)
- Play on the way elements
- Appropriate street lighting
- Seating (see code S3.2)
- Variation in sensory experiences and opportunities through the planting strategy

Formal seating means furniture like seats and benches with backrests. Informal seating might be multifunctional and able to double up as doorstep play.

Raised table enables pedestrians, cyclists and wheelchair users to continue along a direct route the development in Biggleswade.

Attractive streets at St Giles Park encourage people to use these spaces for exercise and recreation.

4.3 Integrating vehicles

Why

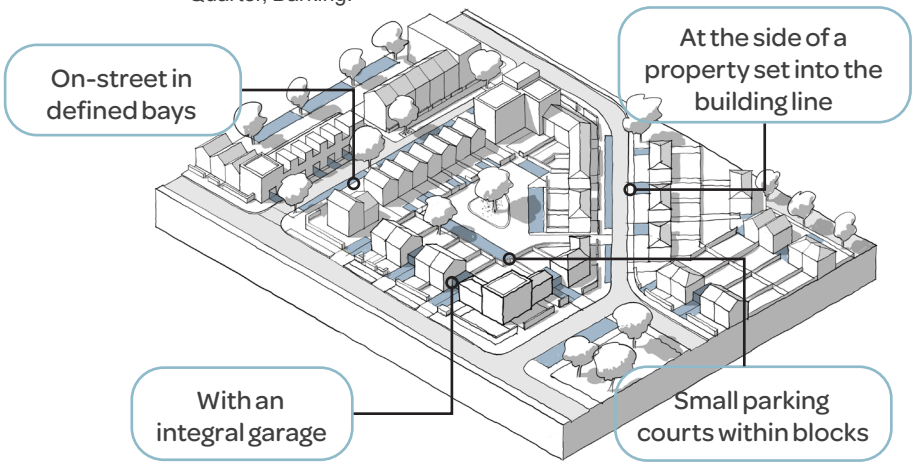
The integration of parking into the public realm and dwelling curtilage is a key factor in determining the usability and appearance of the streetscape. Antisocial parking, such as parking around public open spaces and restricting access on streets and pavements can be an issue in the districts.

The districts are also mostly rural in nature, which heavily influences car ownership rates, and the frequency with which people rely on cars to undertake daily tasks. However, in locations that are more accessible, and in proximity to facilities and public transport, opportunities to reduce car usage (and ownership) exist. As a result, car parking provision and layout will vary based on location and household. Whilst this code does not set the standards for parking, which are defined in local policy, it explains how to integrate the car in a positive way, so that cars do not visually and physically dominate streets and open spaces.

Key Design Principles

- **S4.** Vehicle speeds should be carefully managed through the layout of routes, junctions, and the use of calming measures.
- **S5.** Functional car parking must be sensitively integrated within the public realm or dwelling curtilage to avoid car dominance.

Visitor spaces are accommodated in small clusters along the street. Planted boundary treatments provide a buffer to homes. William Street Quarter, Barking.



Parking options depend on the location and character of an area. A variety of arrangements can be used, ranging from integrated on-plot spaces, to successful parking courts.
Illustration source: National Model Design Code, MHCLG

How?

S4. Vehicle speeds should be carefully managed through the layout of routes, junctions, and the use of calming measures.

The layout of roads, width of carriageways, and forward visibility can all affect the speed of vehicles. Balancing the simplicity and connectivity of routes (see Principle N2.), with traffic speeds should be carefully considered through the design process. Traffic calming measures should be integrated into the street design where necessary (particularly around busy areas such as schools or open spaces). They should respond to the character of the surrounding area and create an attractive environment for people to walk and cycle.

- **S4.1** New developments (with the exception of some spine roads on larger developments) **must** limit vehicle speeds to 20mph. Developments **should** be designed with an appropriate layout to naturally constrain vehicle speed and avoid the need for additional traffic calming features.
- **S4.2** Development of larger sites **must** use modal filters on streets to encourage active journeys, and provide a safe alternative to the use of private motor vehicles (where appropriate).

For example...

Where traffic calming measures are required, these might include:

- SuDS (such as rain gardens);
- Raised crossings (particularly at junctions, and at key pedestrian routes);
- A bend in the carriageway;
- Speed pillows; or
- Design interventions e.g. visual narrowing of carriageways using planting.

"More emphasis on road safety on the edge of villages, and within village boundaries."

Local Resident

Modal filters allow cyclists to take the most direct route, in Southwark, London.

Traffic calming measures are used at this village entrance to slow vehicle speeds, Weybourne.

S5. Functional car parking must be sensitively integrated within the public realm or dwelling curtilage to avoid car dominance.

Parking private motor vehicles will continue to be a necessity across the districts. However, there is a need to balance safe, convenient parking, with encouraging more journeys by active travel and public transport. At the centre of sustainable locations, parking standards may be reduced (this is likely in Norwich Fringe settlements and Main Towns and Service Centres only).

A variety of parking solutions can be deployed, and should directly relate to the location, character and coding area of a development.

- **S5.1** Car parking solutions **must** be selected in response to their location and the intended character of the site.
- **S5.2** Robust landscaping and the positioning and orientation of parking spaces **must** be designed to prevent vehicles being the dominant visual feature of a streetscene.
- **S5.3** Car parking **must** be designed to benefit from natural surveillance so that all arrangements are safe to use.
- **S5.4** Car parking **must** not constrain pedestrian and cyclist movement or emergency access, for example parking across pavements or paths around the edges of open spaces.
- **S5.5** Car parking areas **must** be clearly defined within residential areas to avoid unneighbourly and antisocial car parking which can undermine the quality and usability of the public realm. Where shared driveways access on-plot parking for different dwellings, spaces **should** be clearly marked out and boundaries delineated with a difference in materials.
- **S5.6** Visitor parking on new residential developments **should** be directed to where it is likely to occur, and provided in line with policy requirements. These spaces **should** be provided on-street (usually in lay-bys), or within parking courts as part of unallocated residential parking provision.
- **S5.7** Private parking spaces **must not** be allocated within the highway.
- **S5.8** Electric vehicle charging points (and associated infrastructure) for new homes **must** be provided in line with current requirements, where appropriate.
- **S5.9** Designated spaces for delivery and servicing **should** be made available in lay-bys, where required.

Cars are integrated behind the building line on this street in Harleston.

Car ports and integrated garages can be used positively in compact design solutions, in Trowse. These are likely to be most suitable in highly accessible locations.

4.4 Building and Street Interface

Why

The threshold where buildings meet the street can contribute strongly to the overall character and success of a street scene. This space is often overlooked, and ends up dominated by practical considerations such as parking and servicing. It is important to adopt a design-led approach to:

- grouping of buildings along a street;
- trees and other soft landscape in the space;
- entrances to buildings; and
- the intervening threshold space and property boundary treatments.

This is particularly important within larger developments where different design approaches to these issues must be used to define the character of different streets within the hierarchy, which in turn is essential to legibility.

Key Design Principles

- **S6.** The building line and rhythm should respond to the pattern of existing development. Within larger developments it must be used to create distinct character for different streets.
- **S7.** Boundary treatments should be designed to contribute positively to the character of the area/ street and to the quality of the public realm.

On-plot planting, and a consistent building line create a positive and defined street character in Taverham.

Roof form creates a regular rhythm which creates character along this street in Eastleigh.

How?

S6. The building line and rhythm should respond to the pattern of existing development. Within larger developments it must be used to create distinct character for different streets.

- **S6.1** Proposals **must** demonstrate how an assessment of local character has informed the approach to building rhythm and building line.
- **S6.2** The design **must** evidence how the building line, building rhythm, entrance to buildings and threshold space has been influenced by the street's intended character and how this contributes to its position within the overall movement hierarchy.

For example...

To achieve S6.2, on a more urban or primary street the following approach might be taken:

- Groups of buildings positioned closer to the carriageway creating a sense of enclosure.
- Homes may have direct access onto the pavement.
- Provision of a narrow strip of private space delineated with a boundary treatment that allows for intervisibility between the building and the street, balancing privacy and natural surveillance.

Whereas, on a street that marks the transition between the development and the countryside, the following design approach might be taken:

- Buildings might be set back behind private spaces that incorporate soft landscaping. This allows for the integration of existing vegetation or mature planting to mark the transition between neighbourhood and countryside.
- Boundary treatments might comprise softer vegetation with filtered visibility between the building and the street.

In some locations, homes have entrances directly onto the street, as seen here in Reepham. Modern interpretations of mews streets can be successful as long as the interface is designed with care, and some private space provides a buffer to ground floor windows.

Home has good defensible space with an appropriate boundary treatment (a hedge in this case) which provides privacy for residents, but also some overlooking of the street, as seen here in Mulbarton.

Strong building line and variety of height give a strong sense of enclosure, which contributes to the character of the street. Amersfoort, Vathorst, Holland

S7. Boundary treatments should be designed to contribute positively to the character of the area/street and to the quality of the public realm.

This section requires applicants to refer to the relevant district Architectural and Landscape Character Assessment and any relevant Neighbourhood Plans for an understanding of boundary treatments characteristic of the local area.

- **S7.1** Proposals **must** demonstrate how an assessment of local character has informed the boundary treatment design.
- **S7.2** New planting **should** be incorporated at the building/street threshold to help establish the character and contribute to the 'human scale' of a street.
- **S7.3** A consistent approach to boundary treatments across a street can contribute positively to the character of the street. The design approach (including consistency and variety of boundary treatments) **must** be explained in the context of the overall street hierarchy and approach to character.
- **S7.4** Public and private spaces **must** be clearly defined and differentiated to provide homes with some defensible space (appropriate to the size and character of the dwelling). Where this is a front garden, it **must** be demarcated using a high quality boundary treatment.
- **S7.5** Low fences, planting, and brick walls **should** be used as appropriate boundary treatments. Hostile boundary treatments (such as palisade fencing) must not be used at a street edge.
- **S7.6** Where parking is integrated on plot, planting and landscaping **must** be used to screen this.
- **S7.7** Where boundary treatments are planted, they **should** remain as such. To prevent planting being removed, it should be planted within the public realm, and managed accordingly.

Good natural boundary treatment on-plot in Scole.

Even relatively narrow planted boundary treatments help create a buffer to the public realm, Poringland.

On this side return, windows overlook the street, with planting to provide some privacy, in Poringland.

4.5 Safe and efficient waste and servicing arrangements

Why

Waste collection, servicing and maintenance are consistent factors in any development, and should be considered from the outset, alongside arrangements for ongoing servicing and maintenance.

Applicants must consult the Council's guidance on waste and street cleansing, and should consult with the Council's waste team for detailed requirements.

Key Design Principles

- **S8.** Waste and recycling storage must be safe, accessible and convenient for the intended users and properly integrated into the built design.
- **S9.** Utilities and infrastructure must be accessible and discreetly integrated into the streetscene.

How?

S8. Waste and recycling storage should be safe, accessible and convenient for the intended users and properly integrated into the built design.

- **S8.1** Bins **must** be stored within the curtilage of individual homes, in accessible secure enclosures. Bin storage and bin collection points **must not** be located outside or beneath windows.
- **S8.2** Where communal refuse storage is required, this **should** be enclosed within the building curtilage (and safely accessed by residents).
- **S8.3** Bin collection points **must** be clear of footpaths and highways, and not impact the usability of amenity space.
- **S8.4** Bin collection points **must** be positioned adjacent to the adopted highway so that refuse lorries can avoid manoeuvring across unadopted streets, driveways, or car parks.

S9. Utilities and infrastructure must be accessible and discreetly integrated into the streetscene.

- **S9. 1** Utilities and infrastructure (including manholes) **should** be provided in accessible parts of the public realm, not in private gardens or under buildings.
- **S9.2** Utilities and infrastructure **must not** visually dominate the street scene, clutter dwelling entranceways, or impact the usability of the public realm.
- **S9.3** Where required, substations **must** be sensitively integrated into development with a positive design response. Substations **must not** be sited at street corners or within prominent views, unless site constraints override this (and an appropriate design justification can be made).

High quality solutions that provide secure storage for bins, and utility infrastructure that does not compromise the public realm or homeowner's private spaces.

Vernacular housing design, Acle

5 Homes

How your development creates quality homes

5.1 Internal Layout

Why

We spend a large proportion of our lives inside buildings, and particularly our homes. Their design can directly affect our health and wellbeing and it can also help to encourage more healthy and active lifestyles. This is particularly important as homes and spaces need to meet the requirements of an increasingly aging population.

For homes to work well over the lifetime of their residents, their layouts need to be spacious, comfortable, well-planned, and adaptable, so that they suit a variety of everyday needs, including play, work, cooking, laundry, and relaxation. Applicants must pay particular attention to accessible and adaptable standards for homes, adhering to the latest policy and regulations.

Key Design Principles

- **H1.** The internal layout of buildings should demonstrate adaptability, liveability and comfort.

How

H1. The internal layout of buildings should demonstrate adaptability, liveability and comfort.

- **H1.1** Layouts **should** provide space for residents to work from home. Where appropriate, opportunities **should** be provided to support hybrid working arrangements.
- **H1.2** Internal layouts **should** offer residents flexibility in how they use their accommodation at different stages of their lives (for example through flexible room design that can easily change use or function).
- **H1.3** Design standards **must** be accessible and inclusive to meet the needs of the intended users.

"Future proof properties as people move through life their home can still serve their needs. Homes should meet needs of people's lifetimes."

Local Resident

Homes should be designed to accommodate a variety of activities, including working from home.

Internal spaces should be comfortable and liveable, with a range of spaces to undertake life's activities.

5.2 Light, ventilation and noise

Why

Natural daylight and good ventilation are important for healthy homes. Homes well-lit with natural light provide more inviting spaces, and reduce the need for artificial lighting (so are more energy efficient), leading to healthier and happier occupants.

Overheating and ventilation are addressed in detail through Building Regulations but, in certain situations, resolving these issues may affect the appearance of buildings. Where this is the case, design solutions should be included to mitigate any negative impacts

Poor indoor air quality and external noise can greatly affect health. Ensuring new homes can be effectively ventilated helps reduce the risk of damp, condensation and mould and creates a comfortable internal environment.

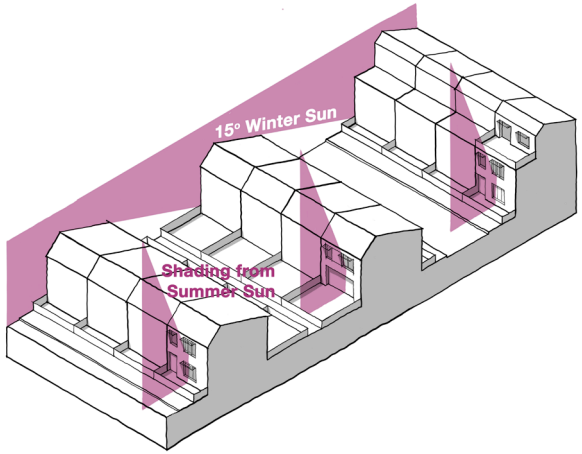
Key Design Principles

- **H2.** The design of homes should optimise natural daylight and sunlight.
- **H3.** Homes must have effective ventilation and acoustic arrangements.

How

H2. The design of homes should optimise natural daylight and sunlight.

- **H2.1** North-facing single aspect units **must** be avoided.
- **H2.2** Development proposals **must** design the placement and size of windows so that all habitable rooms receive good levels of natural light and comply with current BRE daylight and sunlight guidance.
- **H2.3** All new homes **should** demonstrate how heat gain will be managed.
- **H2.4** Living spaces **must** be positioned and orientated to receive sunlight.

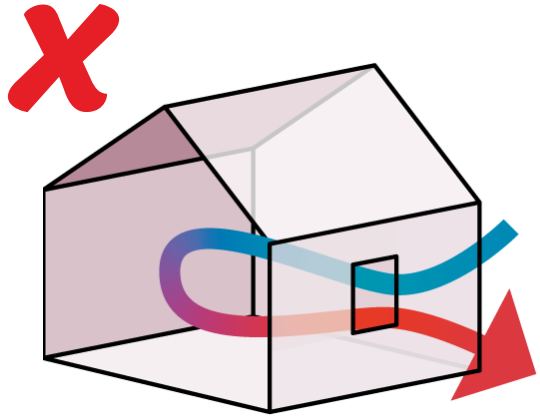


As described in the NMDC, the orientation and passive design of homes can reduce their energy needs, by enabling solar gain in winter and shading it in summer.

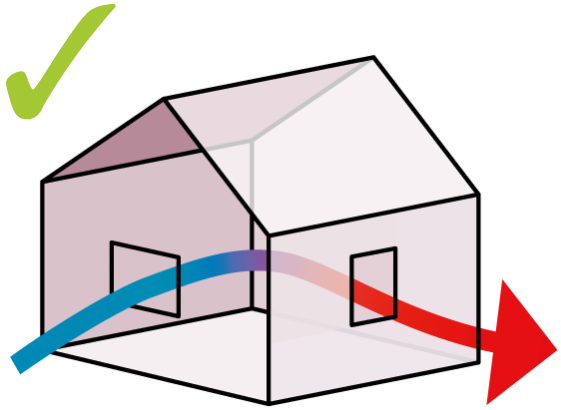
Glazing is optimised in these homes in Strumpshaw, concentrated into large openings that ensure good daylighting of living areas and, at the same time, reflecting the large-scale that is characteristic of barn doors, suitable for rural character.

H3. Homes must have effective ventilation and acoustic arrangements.

- **H3.1** All habitable rooms **must** include a secure openable window.
- **H3.2** The position of openable windows **should** allow cross or stack ventilation from one side of the building to the other.
- **H3.3** The use of any mechanical ventilation systems, such as Mechanical Ventilation and Heat Recovery (MVHR) or Positive Input Ventilation (PIV), **should** be in addition to the above requirements.
- **H3.4** Dual aspect homes **should** be prioritised, unless the applicant can justify why this would be impractical or undesirable to achieve.
- **H3.5** Where a site is affected by noise, habitable rooms **should** be sited on quieter façades, away from the noise source.
- **H3.6** Where uses are sensitive to noise, and in close proximity to noise-generating sources (for example, plant, or a busy road), mitigation **must** be provided to create a comfortable environment for occupants, using acoustic ventilation measures as appropriate.



SINGLE-SIDED VENTILATION



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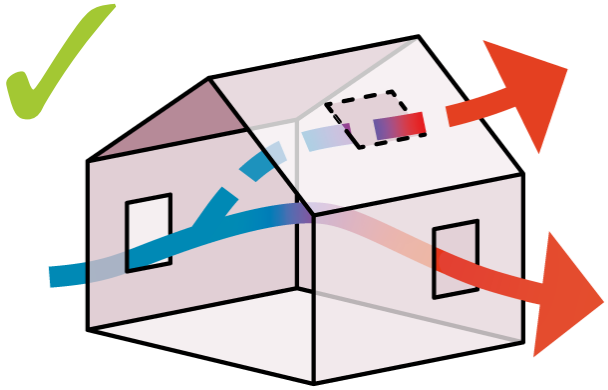
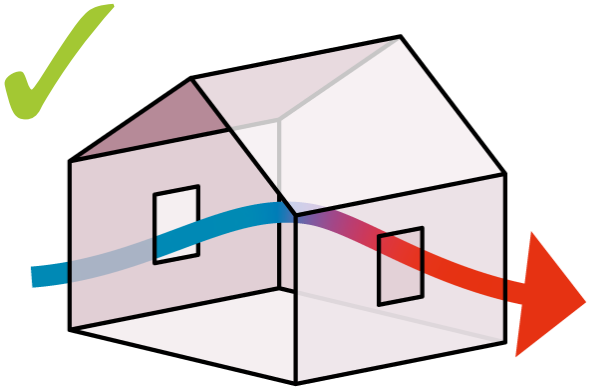


CROSS- AND STACK VENTILATION



CROSS-VENTILATION

Openable windows should be placed on opposite sides of the building to optimise natural ventilation. Reliance on single-sided ventilation should be avoided.

5.3 Cycle storage

Why

Functional and accessible cycle storage is important so that residents find it convenient to use a bike. Well integrated storage allows bicycles to be stored safely and securely, giving peace of mind to residents and reducing clutter.

Key Design Principles

- **H4.** Cycle storage must be secure, overlooked, and convenient to use.

How

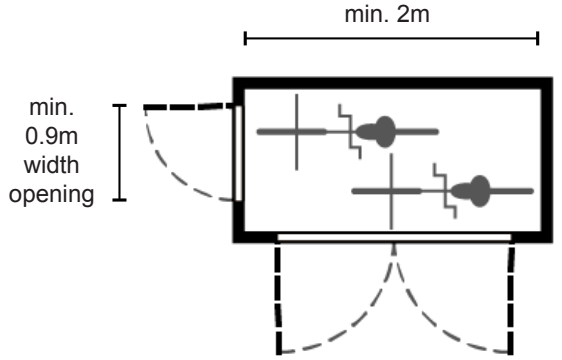
H4. Cycle storage must be secure, overlooked, and convenient to use.

- **H4.1** All houses **should** provide secure on-plot cycle storage in a convenient location, preferably close to the front door.
- **H4.2** In apartment blocks, secure cycle storage areas **should** be included within the building envelope, or in a secure enclosure within the site. A mixture of short and long-term parking **should** be provided.
- **H4.3** Cycle parking **must** be made available in a well-overlooked position for visitors to community facilities and open spaces.

Secure, outdoor cycle storage is highly visible, on Marmalade Lane, Cambridge.

Cycle parking is visible, and directly in front of the entrance to the community centre, in this example in Cambridge.

In this example, suitable for urban character, cycle parking is accessible and convenient, directly in front of an entranceway on Marmalade Lane, Cambridge.



Cycle storage needs to be appropriately dimensioned so that is easy and safe to use.

5.4 Safety and Privacy

Why

It is important that people feel safe in the private spaces of their homes, amenity spaces and in the public realm.

People's homes should feel private, without neighbours intruding into personal space, while also allowing for sociability and interaction.

However, expectations of privacy vary between the front and backs of dwellings, different rooms in a home, and between areas of different character.

The design and arrangement of buildings, amenity spaces and the public realm can contribute to achieving the right balance between these factors for each situation.

Key Design Principles

- **H5.** The layout and design of homes, amenity spaces and boundaries must create a sense of safety and security for all users.
- **H6.** The layout and design of homes, amenity spaces and boundaries must provide a reasonable level of privacy for residents.

Defensible space at the front of these homes provides privacy for residents in Longcroft.

The setback from the street, and topography, create privacy for residents in these homes, despite the large glazing in Reedham.

How

H5. The layout and design of homes, amenity spaces and boundaries must create a sense of safety and security for all users.

- **H5.1** Where buildings define public routes, they **must** be designed with habitable rooms that provide overlooking and natural surveillance of the public realm.
- **H5.2** Buildings **must** ensure that streets have active frontages, with any inactive frontage kept to a minimum and on one side only.
- **H5.3** Private gardens, communal gardens and doorstep play spaces **should** be directly overlooked by the homes they serve.
- **H5.4** External lighting **should** be provided at building entrances.
- **H5.5** Consultation with Secured by Design officers **should** be undertaken where relevant to the scale/type of project.

H6. The layout and design of homes, amenity spaces and boundaries must provide a reasonable level of privacy for residents.

- **H6.1** Layouts **must** be designed to provide a reasonable degree of privacy for residents and neighbours.
- **H6.2** Privacy between new homes and existing properties **should** be achieved through appropriate separation or 'back-to-back' distances between opposing windows.
- **H6.3** Privacy between new homes **should** be achieved either through a distance that reflects the local pattern, or through careful design, including the orientation of windows so they do not look directly into one another.
- **H6.4** In higher-density developments, the placement and orientation of windows and balconies **must** be carefully designed to reduce direct overlooking between homes.

Boundary planting facilitates overlooking onto the street, but also provides a buffer to create privacy for residents in Swaffham.

The location of this balcony and terrace have been arranged to protect residential privacy. Goldsmith Street in Norwich.

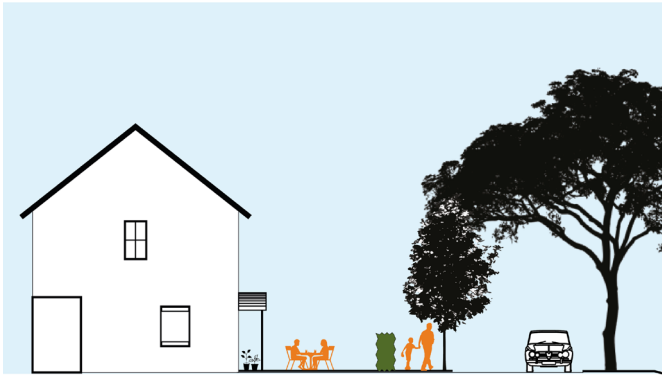
5.5 Outdoor Space

Why

Access to private amenity space is important for residents' physical and mental wellbeing. It allows a connection to nature, space for safe play, and opportunities for food growing.

Key Design Principles

- **H7.** Outdoor private or communal amenity spaces must be comfortable, with a reasonable degree of privacy, along with landscaping.



Private amenity space is screened from the street by a hedge.

How

H7. Outdoor private or communal amenity spaces must be comfortable, with a reasonable degree of privacy, along with landscaping.

- **H7.1** Homes at ground floor level **should** provide private amenity space in the form of a garden. This must be directly accessible from a living area.
- **H7.2** Private gardens **must** be clearly defined and enclosed by boundary treatments (see section 4.4), and avoid enclosed passageways to rear gardens. Where garden boundaries adjoin the public realm or communal areas, the boundary treatment must be deeper and **must** be both robust and attractive e.g. a brick wall or brick plinth with fence above, or incorporating a hedge. Close board fences in this situation are not permitted.
- **H7.3** Gardens **must** be of an appropriate shape and size to be usable for everyone. Family homes **must** have gardens large enough for children to play. Poorly proportioned or angular gardens will not be appropriate.
- **H7.4** Gardens **should** incorporate planting and include habitat measures to encourage residents awareness of biodiversity.
- **H7.5** Homes and garages **should** be orientated to create additional privacy to gardens, and avoid overlooking.

Private amenity space does not need to be extensive. Smaller, well-considered private amenity space with good boundary treatments and space to play can be equally successful, Erpingham..

5.6 Building elevations and roofs

Why

The design of individual buildings and how they are grouped (alongside other sections in this document) contributes significantly to the character of a development and how well it relates to its surroundings. Elevations and roof forms, both individually and collectively, must be high quality and respond to the surrounding context in a way that is appropriate to the approach to character that has been adopted.

Key Design Principles

- **H8.** Elevations must have good proportions, with windows that are sized and arranged to create well-balanced façades.
- **H9.** Entrances should be visible and easy to identify from public spaces and parking spaces, so they provide for safe and attractive arrival.
- **H10**. Roof design should respond to the local built and landscape context and form a harmonious composition across a development.
- **H11.** Roofs should contribute to energy generation and/or biodiversity gain wherever possible.

Simple building forms, elevation treatment, and orientation of homes contribute to a characterful development in Yoxford, Suffolk.


First floor living room with large south-facing windows to overlook the river in Reedham, set back with a deep roof overhang that provides solar shading in summer.


A modern interpretation of a terrace set close to the street at Derwentthorpe, York, with well-sized openings, vertically proportioned and with a planted privacy strip to overlook the public realm without loss of privacy, suitable for urban character.

How

H8. Elevations must have good proportions, with windows that are sized and arranged to create well-balanced façades.

- **H8.1** Elevation design **must** have proportions and a composition that relate to the building's importance and position in the townscape.
- **H8.2** The size and shape of windows on front elevations **should** respond to their proximity to the street, and any front garden boundary treatments, so that they overlook it without compromising the privacy of residents.
- **H8.3** The size and location of windows **should** respond to the orientation of the elevation, with any necessary shading measures fully integrated into the design.
- **H8.4** Where a development proposes to reflect elements of existing architecture, elevations **must** correctly use their local proportions and details and integrate them seamlessly into the overall design to avoid them appearing as "stick-ons".
- **H8.5** Where a development proposes an innovative approach to architecture, the quality and appropriateness of the design **must** be justified.
- **H8.6** Elevation design **must** incorporate ecological measures such as bird/bat nests and bricks (in line with principle N15).

A highly sustainable thatched cottage in Hickling, built in straw bales, correctly using traditional forms and details.

An innovative approach to the architecture of this extension to Hunsett Mill, Stalham, using asymmetric gabled forms, black charred timber and flush glazing to contrast with the restored mill and millkeepers cottage.

A contemporary interpretation of a jettied timber frame house in Wymondham, using elements of traditional timber frame houses together with modern well-proportioned openings, suitable for semi-rural or rural character.

Windows and timber weatherboarding in this case activate this prominent corner plot, in Wymondham.

Well-balanced wide-fronted building form, hipped roof and elevation. Formal symmetry was often used to emphasise the status of important buildings including large homes, found in all area-types. Winfarthing, Diss

Well-balanced, informal composition of wide-fronted building forms, roofs and elevations in Aylsham, suited to semi-rural or rural character. The elevation, roof form (including a parapet), details and materials all emphasise the townscape importance of the space.

Well-balanced terrace form, roof and elevation in Foulsham with repeated pairs of houses, generally urban in character, although short terraces of cottages may also be found in market towns and villages.

The large double fronted building in this case terminates this prominent view at the end of the street in Trowse. The symmetry and scale of the facade helps to contribute to the character of the street.

Well-balanced composition of elevations and roofs arranged informally, suited to semi-rural or rural character, as seen in this example from Mulbarton.

A well-balanced terrace elevation in Millgate Meadow, Trowse, here urban in character, although short terraces may also be suburban or semi-rural in character depending on their details and landscape setting.

H9. Entrances should be visible and easy to identify from public spaces and parking spaces, so they provide for safe and attractive arrival.

- **H9.1** Entrances **should** be designed to be generous, welcoming and with elements of detail or decoration to reflect the fact that people will experience them from close-up.
- **H9.2** Front doors **should** be visible from the street with a secondary entrance provided to a car park where necessary.
- **H9.3** Entrances to homes **should** be easily accessed from public footpaths and car parks, suitable for people using wheelchairs or pushchairs.

For example...

To satisfy code H9.2, you could:

- Include elements of shelter, wider than minimum widths; or
- Make sure that door width and lobby spaces are wider than the minimum standards;
- Introduce colour, texture or decoration such as tiles;
- Provide an external foyer space for people to meet; or
- Use external landscape paving, planting and lighting.

A combination of a porch, and bold signage help to mark this entrance in Stoke Holy Cross.

A generous entrance that provides shelter and is clearly marked by a wide recess that suits the rural or semi-rural character of these barn-like forms in Tacolneston.

A generous porch at the entrance to this house in Pulham Market, also with well-detailed gables and chimney.

A simple modern porch with a coloured front door creates a welcoming entrance with space for residents to personalise. Hingham, Norfolk.

H10. Roof design should respond to the local built and landscape context and form a harmonious composition across a development.

- **H10.1** Roof forms **must** relate well - in terms of bulk and scale - to the floorplan and 3-dimensional form of both an individual building and to any proposed group of buildings.
- **H10.2** The orientation of roofs **should** respond to the positive characteristics of roofs in the townscape setting.
- **H10.3** The design of roofs **must** help to integrate new development into its landscape and townscape setting and it must not appear intrusive in important local views from the wider surroundings or in sensitive landscapes. Where there are potential effects, the visual impact of the scale and design of the roofscape (including photovoltaics) must be assessed.
- **H10.4** Projecting features such as dormer windows and chimneys **must** be proportionate to the size of the roof and designed with careful attention to detail.
- **H10.5** Applicants should introduce a variety of roof pitches and forms across developments to help create visual interest.

For example...

To satisfy codes H10.1-H10.4, the following guidance should be considered:

- Steep roof pitches with gables are associated with shallow spans, while hipped roofs may be more suitable for deeper plan forms.
- To create a well-proportioned building form, the ridge line of a pitched roof should run parallel to the building's longer side.
- A consistent roof form is often more appropriate to urban or suburban character whereas a variety of roof forms and pitches may be more suited to semi-rural or rural character.
- A variety of roof forms and slopes can help to create visual interest and avoid monotony, particularly in larger developments.

A varied roof form, with consistent materials and a consistent pitch used in a contemporary way, to create visual interest and a distinctive character at Parkside, Old Catton.

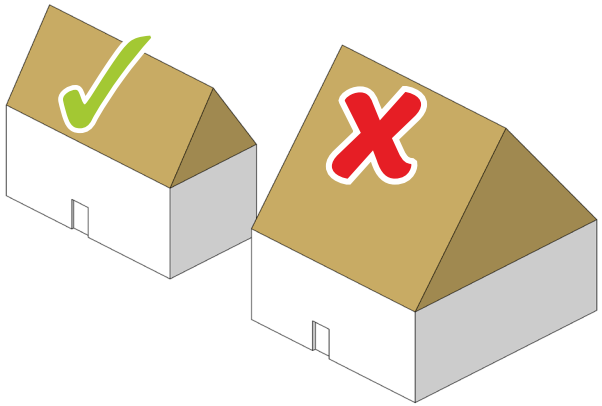
Green roof helps to integrate development into its countryside setting at Easton College, Norwich.

H11. Roofs should contribute to energy generation and/or biodiversity gain wherever possible.

- **H11.1** The aspect, pitch and orientation of roofs **should** be suitable to host photovoltaic panels (PVs) and/or solar hot water systems, and they **should** be provided as part of new development (where appropriate and technically feasible).
- **H11.2** PVs **should** be integrated into the design of new roofs, rather than being added as an afterthought, particularly where the roof will be visually prominent or there will be a colour contrast with the roofing material.
- **H11.3** New development **must** incorporate rainwater collection from roofs, for example via water butts.

Roof form divided into two monopitches so that it fits into the scale of the townscape at Albansfield, Wymondham.

Well-proportioned roof forms with gable ends, and with solar panels integrated into the design at Great Kneighton, Cambridge.



Steep roof pitches on deep floorplans create bulky buildings and roofs that are intrusive in the street scene and a poor reflection of local character.

Photovoltaic tiles can minimise the visual prominence of solar panels.

5.7 Materials and details

Why

The materials used in new development have a strong influence on how well it responds to its context.

Materials found locally in the townscape context should inform design choices. Depending on the context and the approach to character, it may be appropriate to vary or depart from the typical local materials, for example for climate responsive design reasons.

Material choices should be informed by both aesthetic and practical considerations, so they are both attractive and cost-effective in terms of maintenance and repair.

Key Design Principles

- **H12.** Building materials and features must be high quality, and suitable to the character of the surrounding area.
- **H13.** Materials must be durable, long-lasting, and easily maintained.

This section requires applicants to refer to the district Architectural and Landscape Character Assessment and any relevant Neighbourhood Plans for an understanding of the local materials palette.

How

H12. Building materials and features must be high quality, and suitable to the character of the surrounding area.

- **H12.1** Material choices for new development **must** be informed by the Architectural and Landscape Character Assessment for the district.
- **H12.2** In heritage settings and visually prominent locations, development **should** use local materials as identified in the relevant Architectural and Landscape Character Assessment.
- **H12.3** For a character approach that seeks to conserve the existing positive character, new development **must** use traditional materials found locally in the townscape context or those of similar texture and colour.
- **H12.4** Detailing **should** be locally specific, and reflect characteristic features that exist in the local context.

Use of brick for the main part of this infill development in Loddon, with its scale reduced by setting back part of the elevation and cladding it in different materials - timber and standing seam metal roofing.

Coherent materials, strong landscaping, and articulate detailing creates a successful streetscene in this example in Trowse Newton.

- **H12.5** For character approaches that seek to enhance or creatively add to existing character, any new or different materials **must** contribute to creating a positive character for the development.
- **H12.6** The use of low-carbon, local, and sustainably sourced materials **should** be prioritised.

H13. Materials should be durable, long-lasting, and easily maintained.

- **H13.1** Materials **must** be fit-for-purpose, selected to suit their location and likely future maintenance, so that they will retain their quality.

Brick detailing can be used in certain locations to provide visual interest, Cambridge.

In this example, a grain store conversion reuses an agricultural building form but adds modern materials and detailing to creatively add to local character.

Brick detailing is used successfully in these sweeping curved walls in Park Avenue, Taverham.

Costessey ‘white’ bricks were a locally-made traditional material, and contribute to the traditional vernacular and character of the town.

5.8 Climate resilience and energy efficiency

Why

Responding to climate change is one of the most pressing challenges for the districts and for the built environment as a whole. There is an urgent need to quickly reduce carbon emissions both from the construction sector and from the energy required to operate buildings.

Climate-responsive design focuses on placing developments in sustainable locations, designing environmentally conscious buildings and landscapes, and fostering behavioural shifts in occupants.

Key Design Principles

- **H14.** New development should use energy efficiently through sustainable design, reducing its environmental impact and lowering energy costs for users.
- **H15.** Development should contribute to wider decarbonisation, through the use of low-carbon heating sources and renewable energy generation.
- **H16.** New development must conserve water and integrate water harvesting solutions wherever possible. It should also tackle surface water flooding challenges and, when needed, improve the local water quality.
- **H17.** Building design should consider the whole lifecycle, including both embodied carbon and operational carbon, which should influence choices of materials and construction techniques.

At this net carbon zero development in Northrepps, highly efficient design utilises triple-glazing, air source heat pumps and mechanical ventilation with heat recovery to minimise emissions and reduce energy consumption.

This terraced typology achieves Passivhaus standards, and has been sensitively integrated into a conservation area, adjacent to Taylor and Green Grade II Listed buildings, in Ditchingham.

How

H14. New development should use energy efficiently through sustainable design, reducing its environmental impact and lowering energy costs for users.

- **H14.1** Development **should** be aligned with the Future Homes Standard.
- **H14.2** A fabric-first approach to materials and construction details **should** be taken.
- **H14.3** Passivhaus standards, or suitable alternative design standards, **should** be achieved where possible.
- **H14.4** Proposals **should** demonstrate how buildings optimise energy efficiency through passive design strategies such as orientation, natural ventilation, solar gain, shading, etc.) (see principles N8, H2 and H3). This **should** be evidenced in the DAS, or through a Sustainability Statement.

H15. Development should contribute to wider decarbonisation, through the use of low-carbon heating sources and renewable energy generation.

- **H15.1** PV panels, together with battery storage, **should** be installed to help power all new homes, and all major development for non-residential buildings (with a floor area of over 1000 sq m), for example on roofs or in the form of solar carports.
- **H15.2** Low-carbon heating sources, such as Ground or Air Source Heat Pumps, **should** be installed in new homes. Any noise or visual impacts **must** be carefully mitigated.
- **H15.3** New development **should** install smart meters to monitor and optimise energy consumption.

For example...

To satisfy code H14.4, the following measures should be considered:

- Simple, efficient building forms. Where articulation is needed or desirable, it should have a clear function, or contribute to local character). Buildings should generally avoid complex roof arrangements, stepped buildings, and large overhangs.
- Ultra-efficient insulation, and air tightness.
- Avoid thermal bridging.
- High quality components (for example windows with high U-values).
- Optimising glazing proportions for external façades.
- Effective ventilation to control overheating and excess humidity.

A shallow-plan form and steep roof pitch references traditional housing. Building orientation allows for solar gain in winter, with shading features to prevent overheating in summer. Carrowbreck, Norfolk.

Heat pumps are carefully integrated in front of homes at this development on Marmalade Lane, Cambridge.

H16. New development must conserve water and integrate water harvesting solutions wherever possible. It should also tackle surface water flooding challenges and, when needed, improve the local water quality.

- **H16.1** New development **must** integrate rainwater harvesting systems such as collection from roofs, for example via water butts.
- **H16.2** Harvested rainwater **should** be re-used for internal systems such as flushing toilets, where possible. This will help reduce potable water consumption.
- **H16.3** Surface water run-off **must** be carefully managed on-site (or elsewhere) to ensure that new development does not cause surface water flooding, through measures such as permeable paving (where appropriate) and nature-based solutions such as rain gardens or swales (see principles N12, N16 and S1).

H17. Building design should consider the whole lifecycle, including both embodied carbon and operational carbon, which should influence choices of materials and construction techniques.

- **H17.1** The selection of construction materials, finishes and appliances **must** balance sustainable options, including consideration of the embodied carbon of resources, alongside technical performance and the contribution to the character of the development.
- **H17.2** The design of new development **must** consider its lifecycle as a whole, including the potential for reuse, recycling and disassembly.
- **H17.3** New development **should** take up opportunities to retrofit and re-use existing built features and **must** provide evidence for why an asset cannot be re-purposed.

For example...

To satisfy code H17.3, you could:

- Re-use agricultural or industrial buildings for new homes, or re-clad the structure of a building. This contributes significantly to local character, but also reduces carbon emissions compared to new build development.

SuDS integrated into the open space, in Long Stratton.

In this passivhaus development, close attention was paid to the use of materials. For example, specialised Porotherm blocks were used in the construction, which have thermal and acoustic efficiencies, and also use 95% less water than traditional.

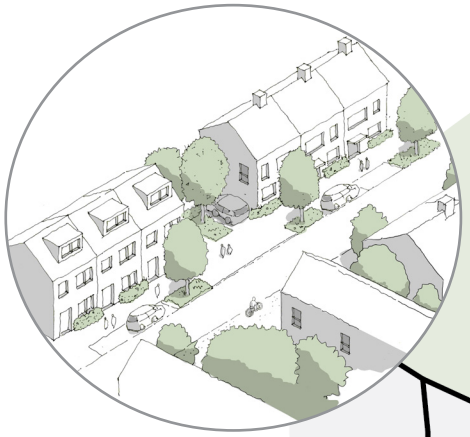
Community and heritage asset, Booton

6

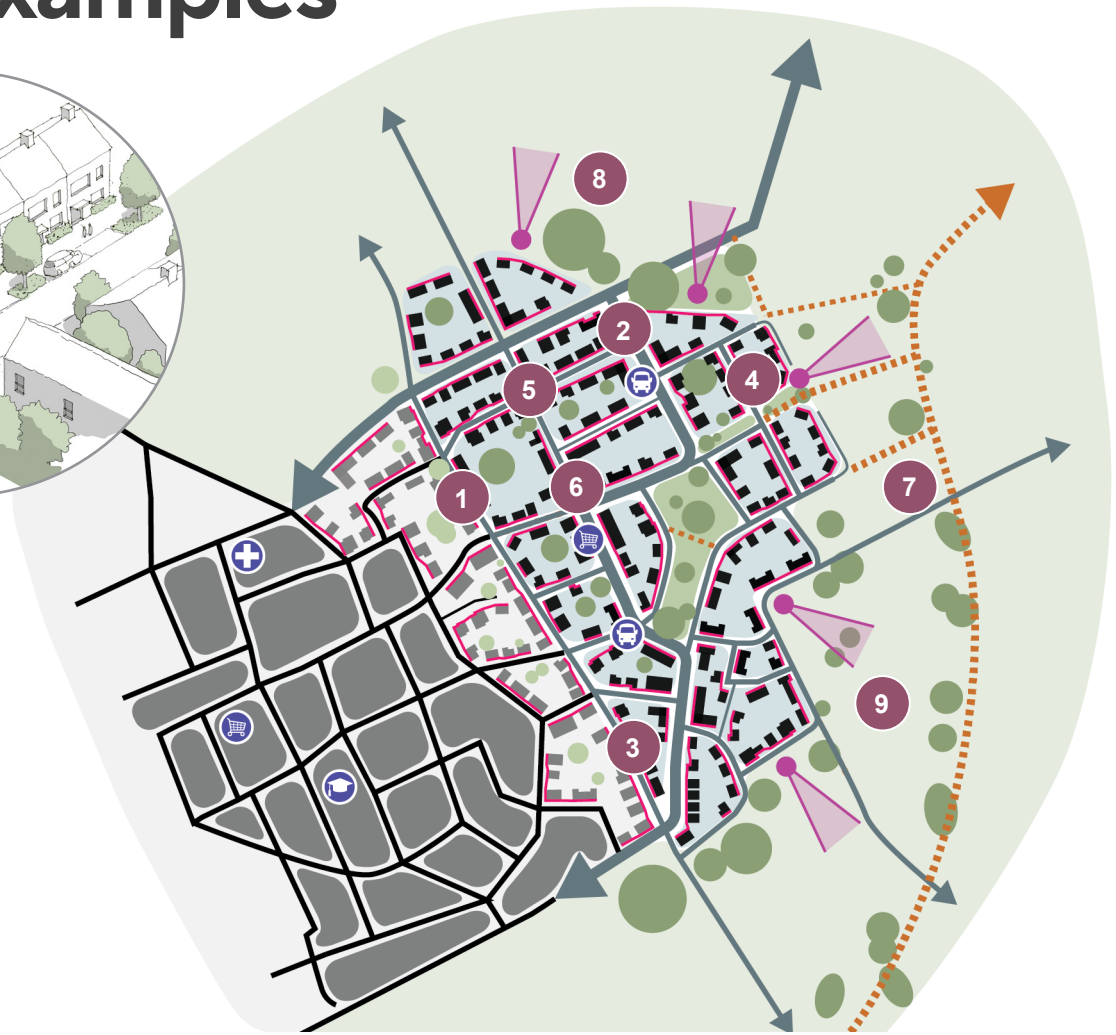
Appendices

Appendix A: Worked Examples

Norwich Fringe Settlements



1. Direct pedestrian and cycle connections to nearby services and community facilities in the existing settlement
2. Connected movement network, with public transport routes and stops
3. Strong and consistent building line, with limited setback from the street
4. Rectilinear street pattern, reflecting the existing settlement grain
5. SuDS and structural planting integrated into the street network
6. Some services provided within the new development e.g. a shop or cafe
7. Direct pedestrian and cycle connections into existing networks and PROW (and the countryside)
8. Strategic planting and landscaping at the edges of the development help to screen views and reduce its visual impact
9. At the development edge, homes are orientated to benefit from views out to the countryside



- Proposed buildings
- Existing buildings
- Development plots
- Proposed open space and play
- Countryside
- Street network
- Predominant building line and frontages
- Pedestrian and cycle routes (connecting to Public Rights of Way)
- Proposed trees
- Existing trees
- Views
- Existing town

Main Towns and Key Service Centres

1. Direct pedestrian and cycle connections to nearby services and community facilities
2. Connected movement network, with public transport routes and stops
3. Views towards church and town centre protected
4. Strong building line which is varied to create character on the street - for example on the central avenue
5. SuDS and street planting integrated into the street network and plot level
6. Buildings set behind landscaping to reflect existing landscaping treatment fronting the road
7. Existing field boundary maintained and strengthened to retain views towards town from the surrounding countryside.

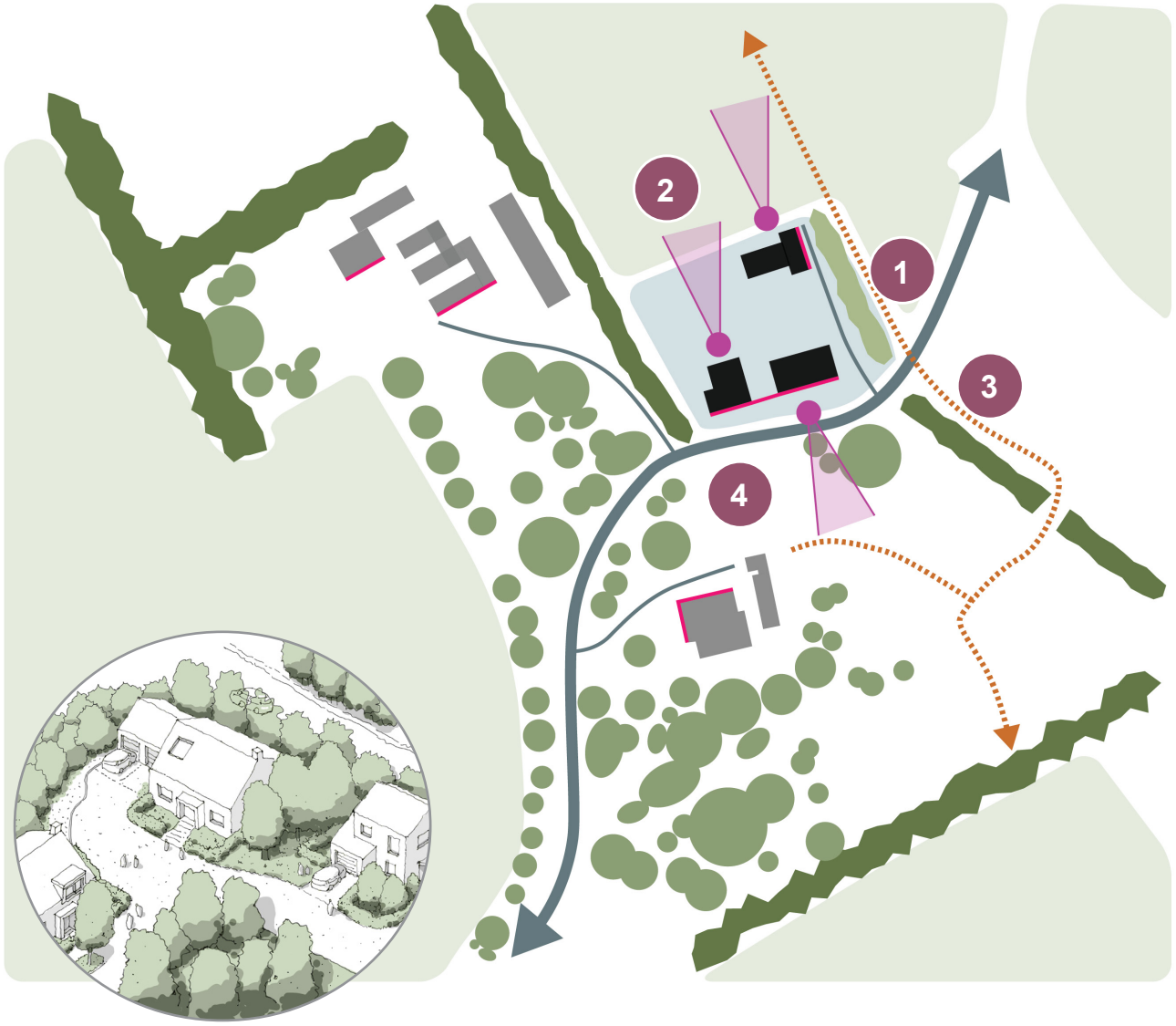
Villages

1. Looser settlement grain and varied building orientation (reflecting the existing pattern of the village)
2. Direct pedestrian and cycle connections to nearby open space and to the countryside
3. Views created towards the countryside
4. Larger setbacks, with on-plot planting
5. SuDS and structural planting integrated into the street network and plot level

- Proposed building
- Existing buildings
- Development plots
- Open space and play
- Countryside
- Street network
- Pedestrian and cycle routes (connecting to Public Rights of Way)
- Trees
- Views
- Predominant building line and frontages

Dispersed Settlements and Countryside

1. Views of the new development filtered by new landscaping, reducing its visual prominence on approach from the road.
2. Direct pedestrian and cycle connections to nearby open space and to the countryside
3. Views created towards the countryside
4. Building set back from the road



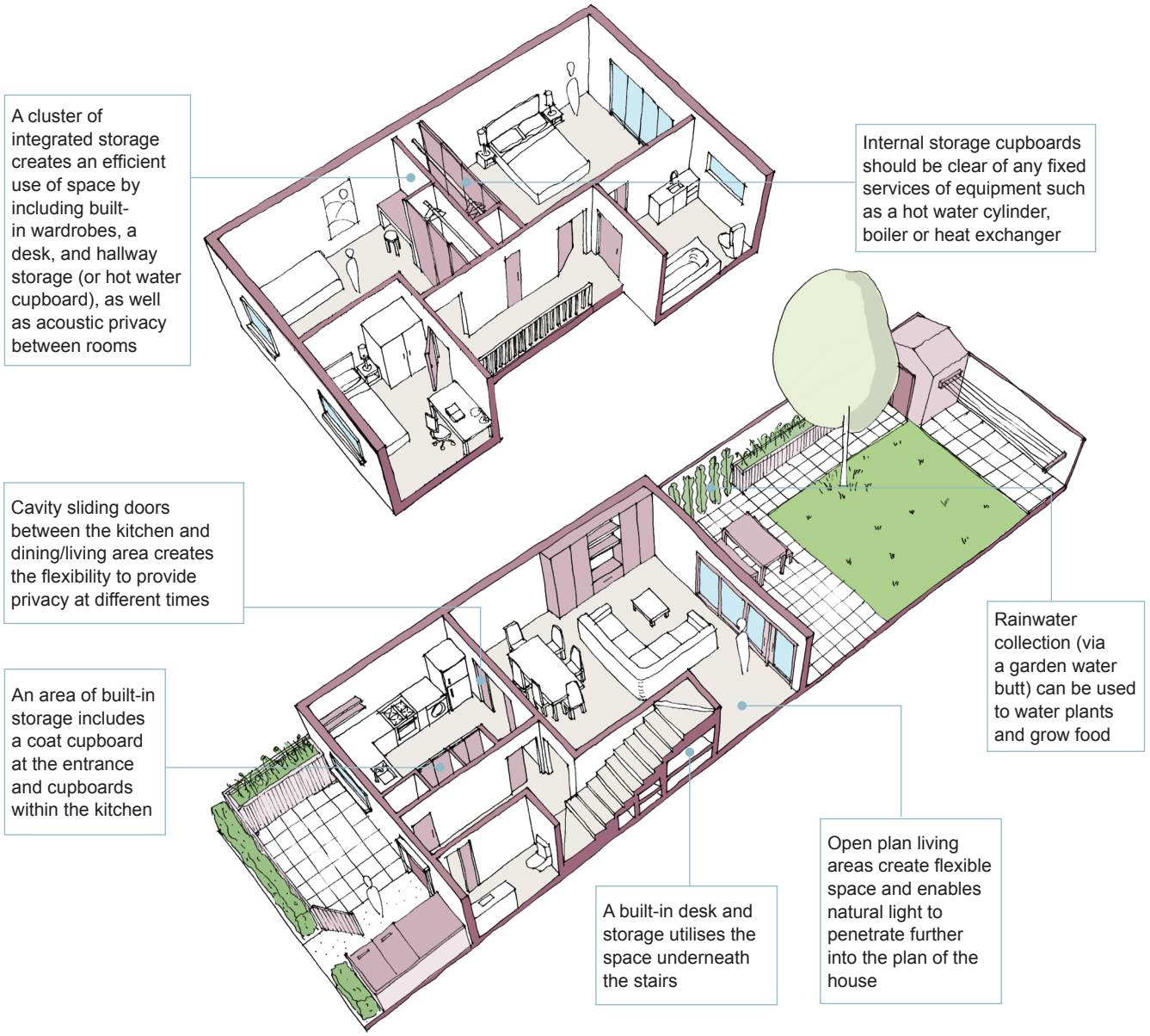
- Proposed building
- Existing buildings
- Development plot
- Countryside
- Street network
- Pedestrian and cycle routes (connecting to Public Rights of Way)
- Trees
- Existing hedgerows
- Proposed hedgerows
- Views
- Predominant building line and frontages

Appendix B: Best Practice Guidance

This supporting guidance should be considered by applicants:

Internal storage must be integrated into dwellings.

- Appropriately sized, usable internal storage space should be provided inside homes.
- A designated entrance zone (at least 1.0m in depth) should be provided inside front doors to allow residents to store personal items such as coats, shoes, etc in the form of a storage cupboard or an additional min. 0.3m to the clear entrance width.
- New development should incorporate water-efficient appliances, such as taps, WCs, and showers.



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