HOXNE

Neighbourhood Plan Design Code

FINAL REPORT

AUGUST 2023

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Introduction

01

1. Introduction

1.1. Background

Through the Ministry of Communities and Local Government (MHCLG) Neighbourhood Planning Programme led by Locality, AECOM has been commissioned to provide design support to Hoxne Neighbourhood Forum (NF).

This document seeks to support Neighbourhood Plan policies that guide the assessment of future development proposals and encourage high quality design.

1.2. Objectives

The primary objective of this report is to develop a set of design codes and guidance that should be used to steer any future development within Hoxne.

The codes will highlight the distinctive and important features within the village and protect valuable landscape and built assets, while allowing for innovative development that is in keeping with the village character.

Part of the design support included the development of concept masterplans in two sites indicated by the NF.

1.3. Process

Following an inception meeting with the Hoxne Steering Group and a site visit, AECOM carried out a high level assessment of the area. The following steps were agreed with the group to produce this report:

- Initial meeting and virtual site visit;
- Urban design analysis of the parish in general and the two sites for masterplanning in more detail;
- Preparation of design codes to be used to guide and assess future developments;
- Develop the concept masterplans for 2no. sites;
- Develop a draft report with design guidelines and codes as well as the concept masterplans;
- Submission to the NF and feedback; and,
- Final report.

1.4. The Area of Study

Hoxne is a village is a village in the Mid Suffolk district of Suffolk, England, about five miles (8 km) east-southeast of Diss, Norfolk and 1/2 mile (800 m) south of the River Waveney.

The parish is irregularly shaped and includes several settlements, Low Street/Green Street, Goldbrook, Cross Street/Heckfield Green together with the outlying settlements of South Green and Reading Green.

The map opposite shows, in dashed black line, the neighbourhood plan boundary which will be considered in general and the focus area in red along the built up parts of the village. Low Street/Green Street and Cross Street/ Heckfield Green are the main built areas. The countryside surrounding this core includes the two outlying hamlets of South Green and Reading Green.

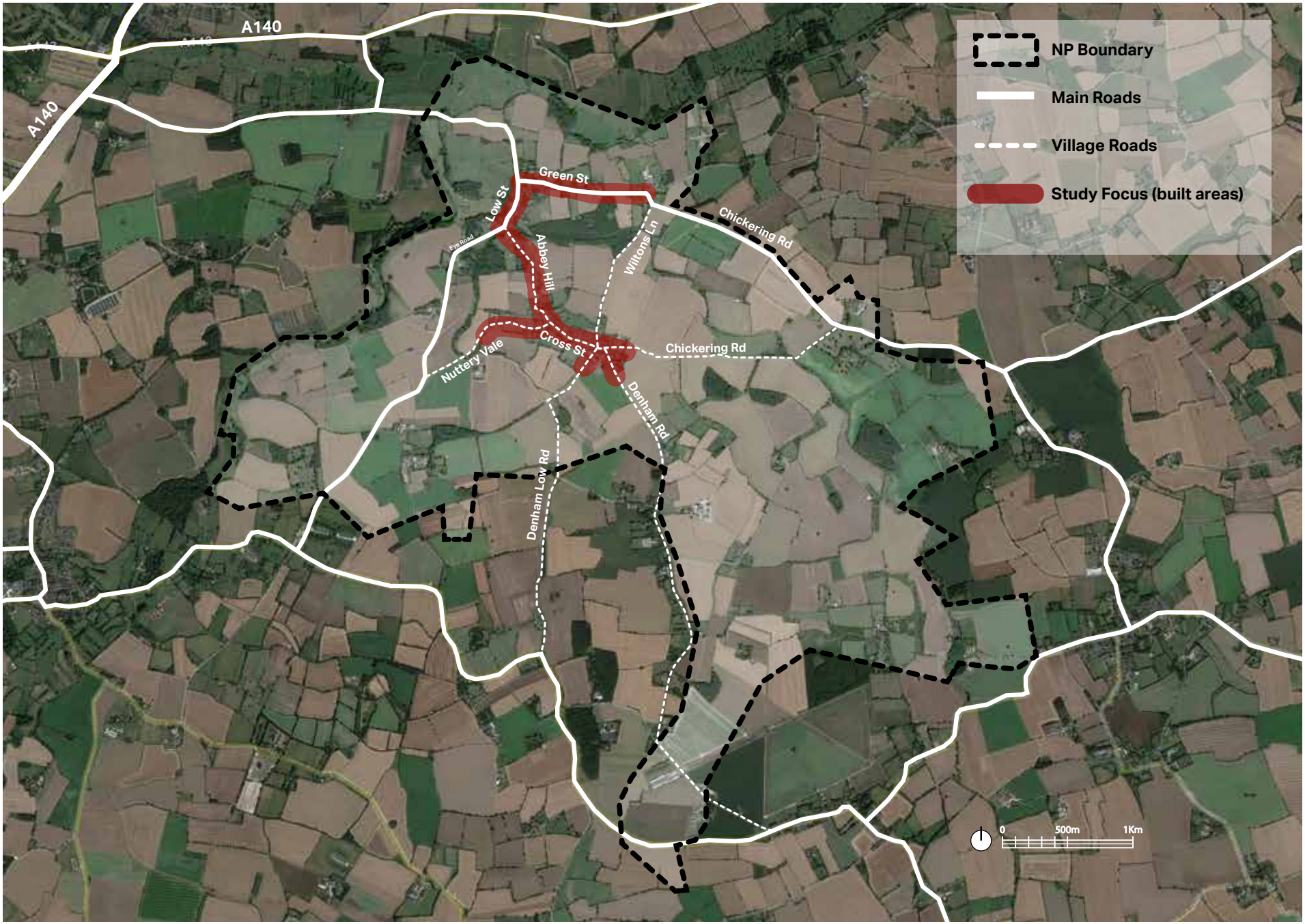


Figure 1: Map showing the neighbourhood plan boundary and the focus area of study for Hoxne.

Local Context Analysis

02

2. Local Context Analysis

2.1. Introduction

This section outlines a brief analysis of the existing context of Hoxne and its physical features. This analysis has informed the design codes developed in Chapter 3.

2.2. Surrounding context

Hoxne's form is mainly linear with properties located along the main roads. It a poly-focal settlement (one of the few remaining) with two main parts centred around Low Street and Cross Street/Heckfield Green. These centres concentrate the built form of the village and the polyfocal character should be preserved. Beyond, the area is rural in nature with dispersed buildings.

There are two conservation areas within the village. The core study area has one Grade I listed building, the Church of SS Peter and Paul, together with 54 Grade II listed buildings, including St Edmunds Monument, and two schedule Ancient Monuments.

The village is surrounded by a network of fields, arable land, ancient woodlands and special landscape reinforcing the rural character of the village.

2.3. Landscape and green infrastructure

The village is surrounded on three sides by a special landscape area designation with fields, woodland and arable lands showing a random pattern across the landscape due to ancient origins. There is a strong presence of green gaps between parts of the village. There is flood risk in the north of the parish and in some north south channels. The landscape surrounding Hoxne is characterised as Rolling Valley Claylands.

The immediate area surrounding the Cross Street settlement is characterised as Plateau Claylands. These areas are interspersed with woodland areas.

2.4. Key views

A number of key views within the built up area have been identified in the Conservation Area Appraisal. It is important to preserve these view points and enhanced where possible, in order to continue providing pleasant views within the village. The HNDP identifies other important views in addition to thosefrom the Conservation Area Appraisal.

2.5. Open spaces

There is a limited number of open spaces within the built up area, as highlighted in Figure 2 (in numbers). Those open spaces contribute to the local character of the village and form part of the local civic pride. More particularly, those open spaces of high quality are:

- **1. Low Street Green** which acts as the main focal point, since it is placed in a central location in the village. It is used for community events throughout the year. The space is mainly grassed with some trees as well allowing for visually interesting views to the village.
- **2. The Playing field** which is located to the southern centre of the village and it is accessed either via a footway from Cross Street or from Denham Low Road. It is not visible from the main streets, since it is set away from the main roads and it is also surrounded by hedgerows and trees providing a green buffer to the adjacent properties. The open space is used for recreational purposes and it includes football pitches, play parks with equipment and bowls green.
- **3. Heckfield Green** which is located in the corner of Cross Street and Wittons Lane. It houses public seating and a mature tree, whilst it is lined by hedgerow and flower beds to the north. Due to its central location along the main road, this open space is usually a meeting/seating point for the local residents.
- **4. Green space adjacent to and behind the Primary School** which is a private land rented by the Primary School and it is used for educational purposes as well as community events.
- **5. Brakey Wood** which is accessed via footpaths and open countryside, whilst it is also served from Cross Street, Abbey Hill and Low Street. It is designated as woodland hosting natural fauna and flora with Goldbrook river flowing through it.
- **6. Community orchard off Wittons Lane** which is a small space ideal to sit and relax, while appreciating the natural environment and wildlife. It is lined with maturing shrubs and trees.
- **7. Area leading up to St Edmund's monument**. The St Edmund's monument is located in the centre of this space and can be clearly seen from the road. Access to this space is permissive. New development planned in the area is likely to constrict views to the monument.
- **8. Hoxne Meadow Cross Street** which is accessed via public footpath from Cross Street and it backs directly to two rows of houses. The open space is surrounded by trees, bushes and shrubbery providing a natural and tranquil scene just outside the settlement boundary.
- **9. Green space abutting the road/footpath on Abbey Hill.** This open space hosts some maturing trees and provides wildlife habitat for birds and small animals.

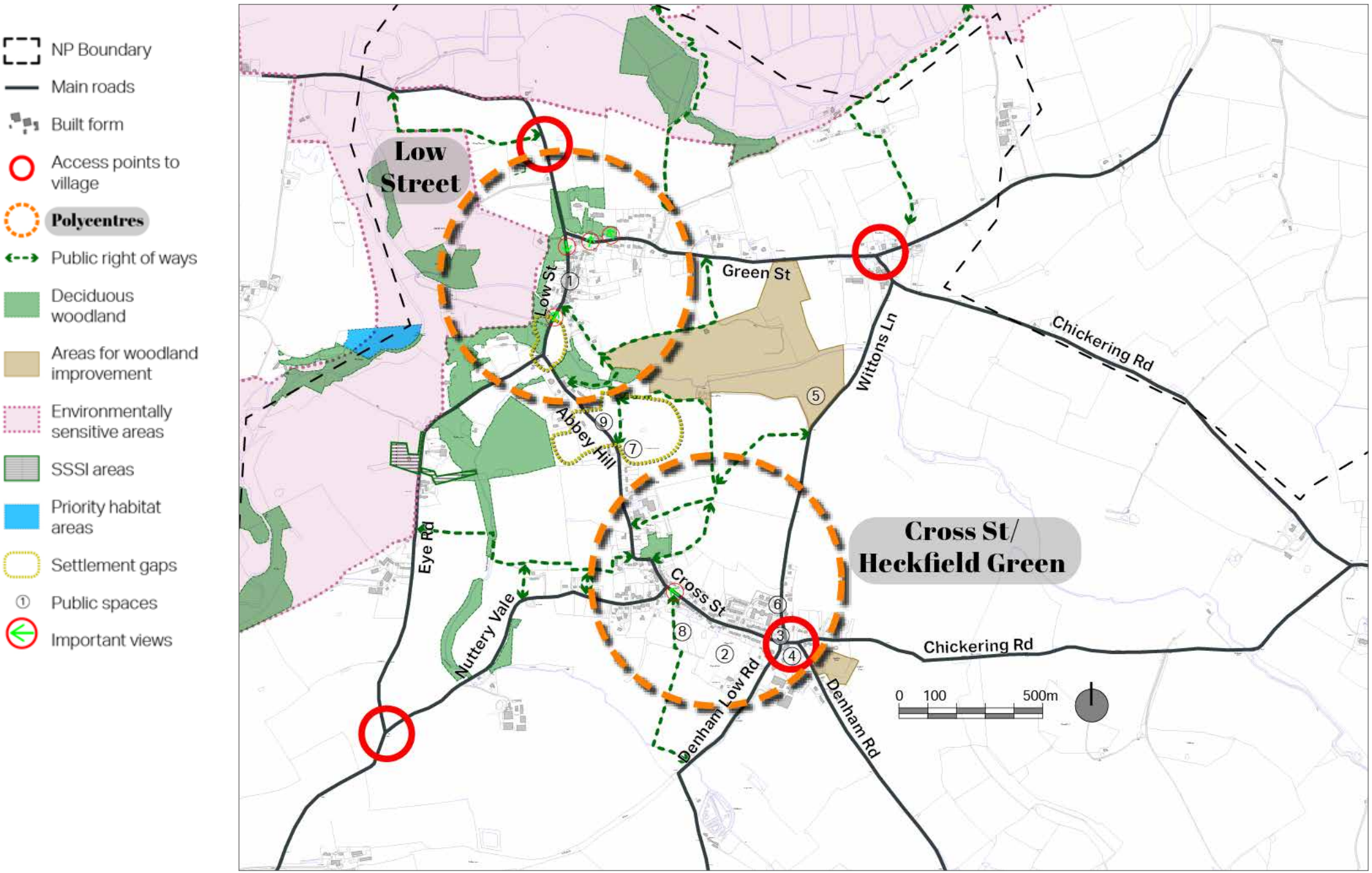


Figure 2: Map showing land-based designations in Hoxne.

2.6. Movement network

The movement network is primarily articulated by what can be described as a spine route running north to south. At the north it starts in Low Street and continues south until it reaches Abbey Hill, and thereafter connecting with Cross Street until it reaches the end of the study area at the junction between Cross Street / Chickering Road / Denham Road.

The access points to the village can be considered at Green Street to the north and Denham Road / Chickering Road to the south.

Other roads such as Eye Road and Nuttery Vale also feed into this spine route, providing good connectivity from the village to the surrounding areas.

Several public right of ways (PROWs) feed into the village from the surrounding countryside.

2.7. Street types and features

There is a variety of street typologies in the village that all contribute to the local character and provide visual interest on the street scene. Those street typologies can be organised in two categories since they share some similar qualities:

- **Entrances to the village**. This category includes all streets that act as entrance points, both main and secondary ones. Some examples of those streets are Green Street, southern end of Low Street, northern end of Abbey Hill, Eye Road, Nuttery Vale, Denham Low Road and Chickering Road.

The sections on this page illustrate three main street typologies that are included in this category. Dimensions might range for each street typology, depending on the street they refer to, however, the main principles remain the same.

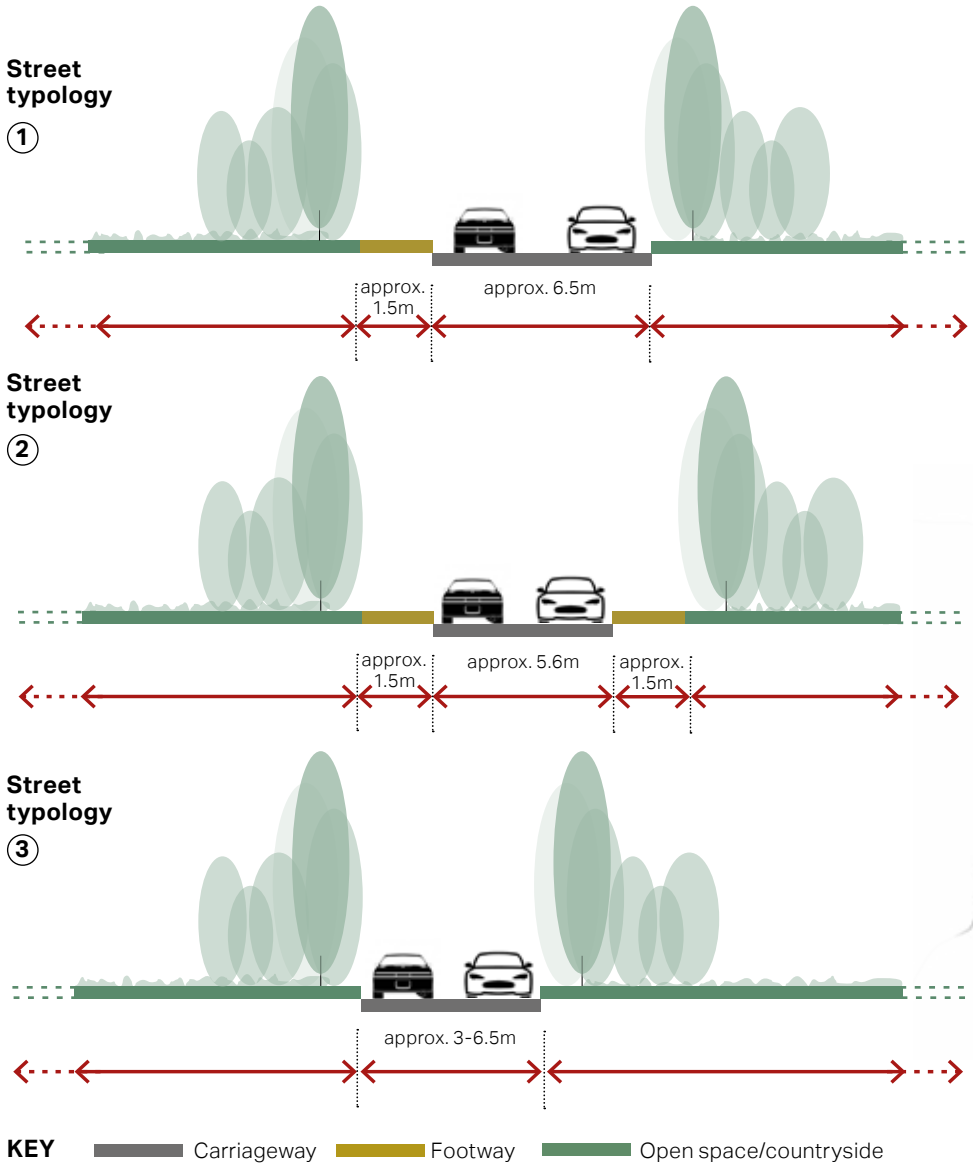


Figure 3: Sections to illustrate the three main street typologies that are included in the Entrances to the village category.

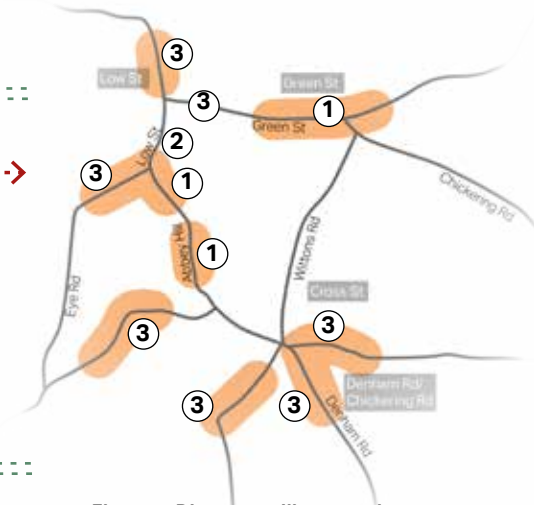


Figure 4: Diagram to illustrate the streets where each typology can be found.

Figure 5: Local example of street typology 1, Green Street.

Figure 6: Local example of street typology 2, Low Street.

Figure 7: Local example of street typology 3, Green Street.

– **Village Core**. This category includes all streets that go through the main village core areas as well as other secondary residential streets. Some examples of those streets are the western end of Green Street, Low Street, Church Hill, northern end of Eye Road, Abbey Hill, Cross Street, Nuttery Vale, southern end of Denham Low Road and the western ends of Denham Road and Chickering Road.

The sections on the next pages illustrate eight main street typologies that are included in this category. Dimensions might range for each street typology, depending on the street they refer to, however, the main principles remain the same.

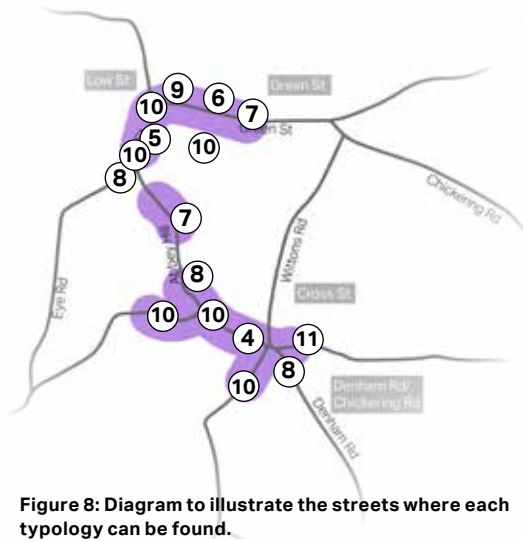
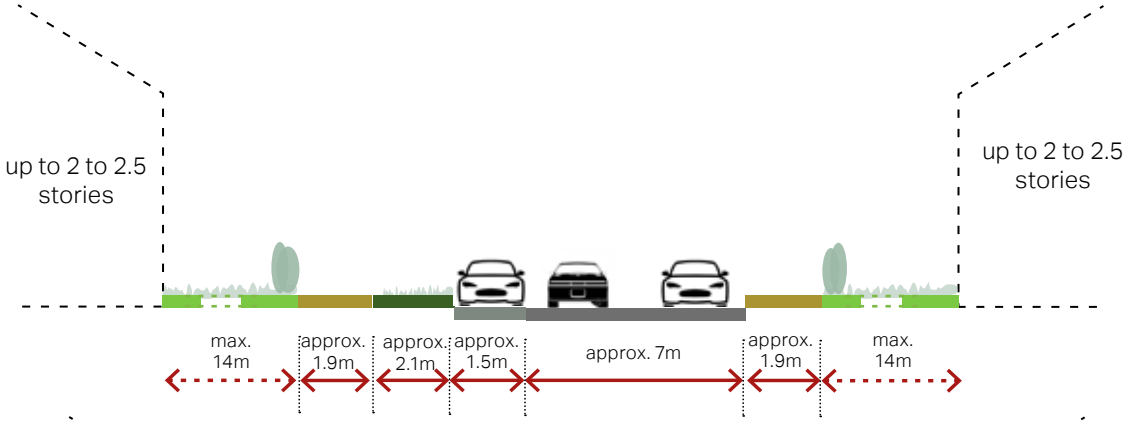


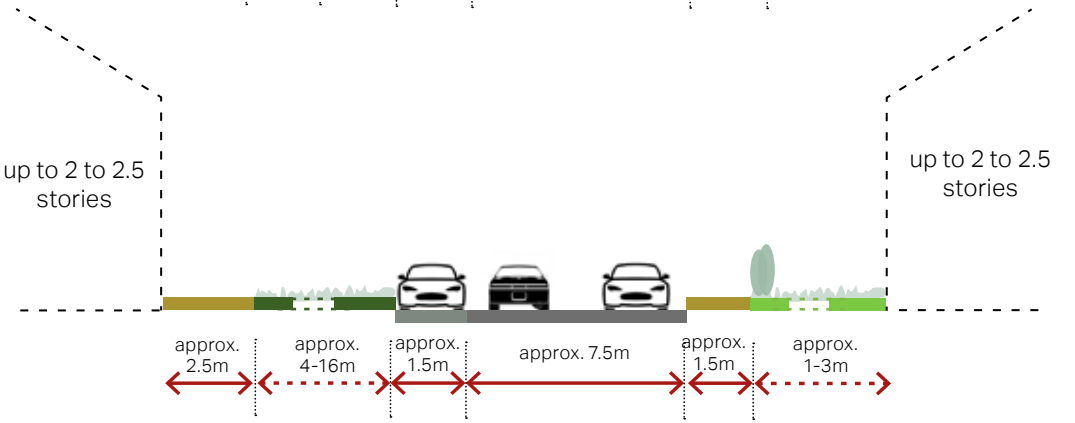
Figure 8: Diagram to illustrate the streets where each typology can be found.

KEY Carriageway; Footway; Open space/ countryside; Front gardens; Green verges; Parking space

Street typology 4



Street typology 5



Street typology 6

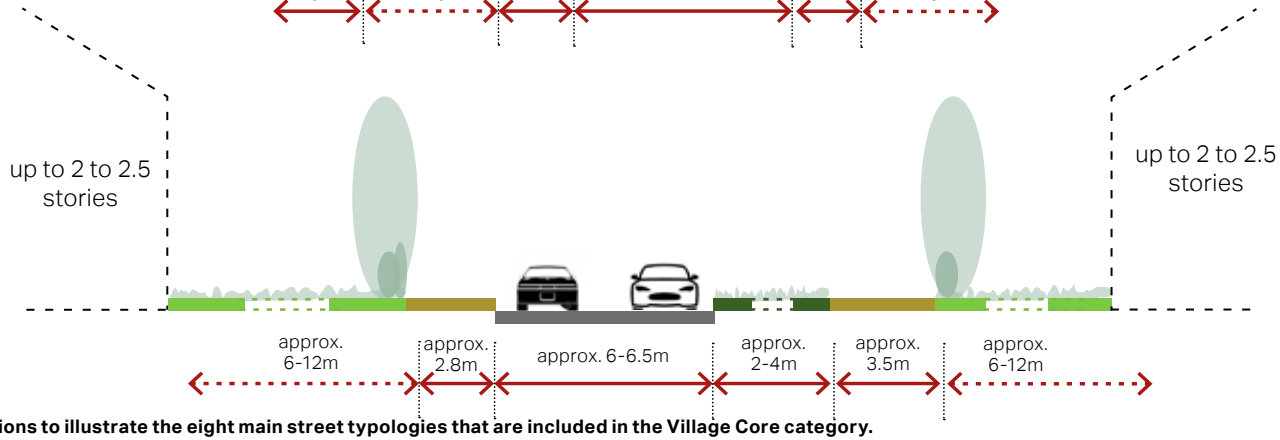


Figure 9: Sections to illustrate the eight main street typologies that are included in the Village Core category.

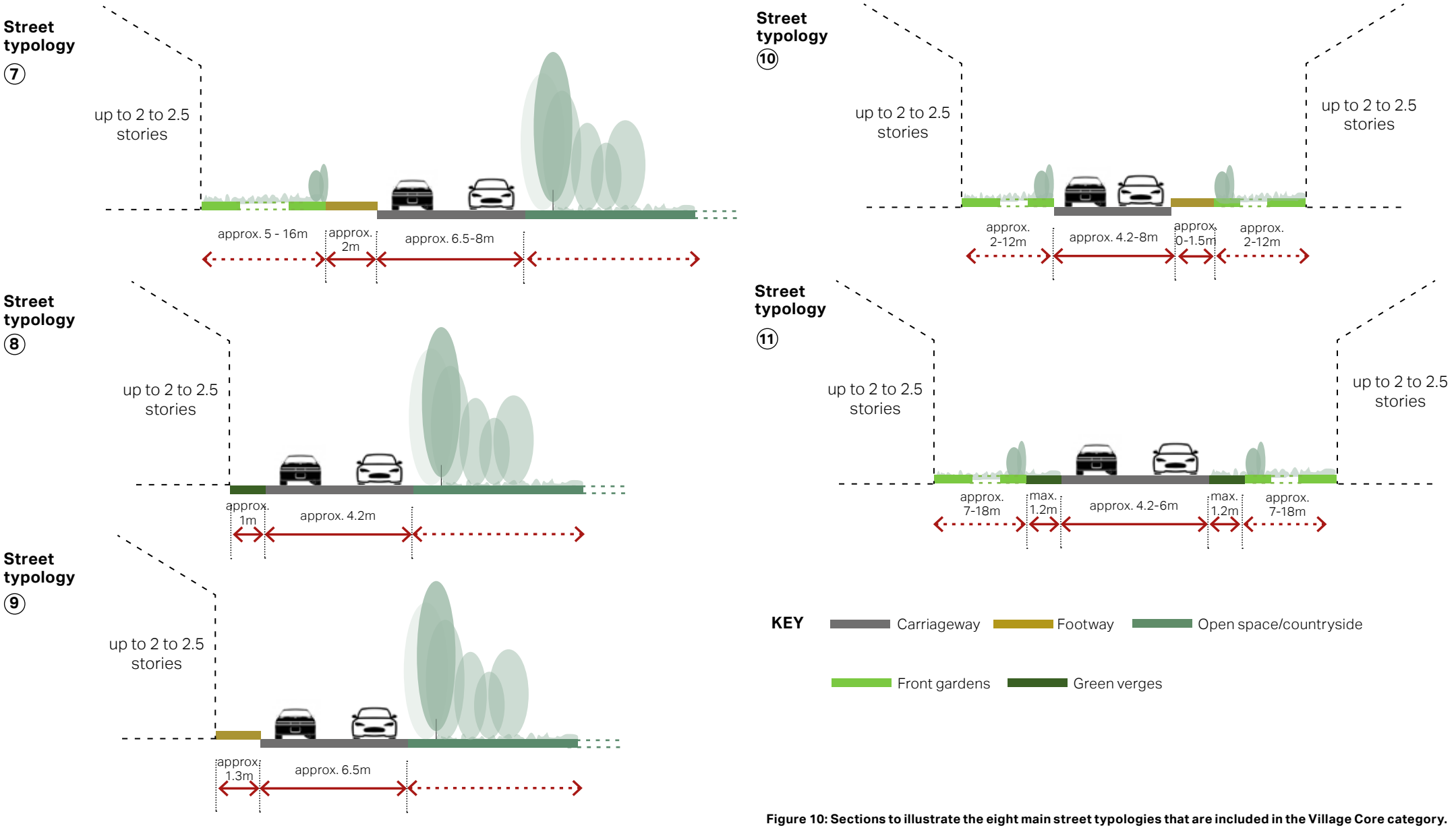


Figure 10: Sections to illustrate the eight main street typologies that are included in the Village Core category.

Figure 11: Local example of street typology 4, Cross Street.

Figure 12: Local example of street typology 5, Low Street.

Figure 13: Local example of street typology 6, Green Street.

Figure 14: Local example of street typology 7, Abbey Hill.

Figure 15: Local example of street typology 8, Abbey Hill.

Figure 16: Local example of street typology 9, Green Street.

Figure 17: Local example of street typology 10, Cross Street.

Figure 18: Local example of street typology 11, Chickering Road.

2.8. Blocks and layout

The village has mainly a linear format serviced by rural arterial roads. Those roads have a meandering character with gentle curves allowing for sequential view of buildings.

However, cul-de-sac streets and developments are also found in the village.

Figure 19: Local example of linear format along Cross Street and Nuttery Vale. (Source:google earth)

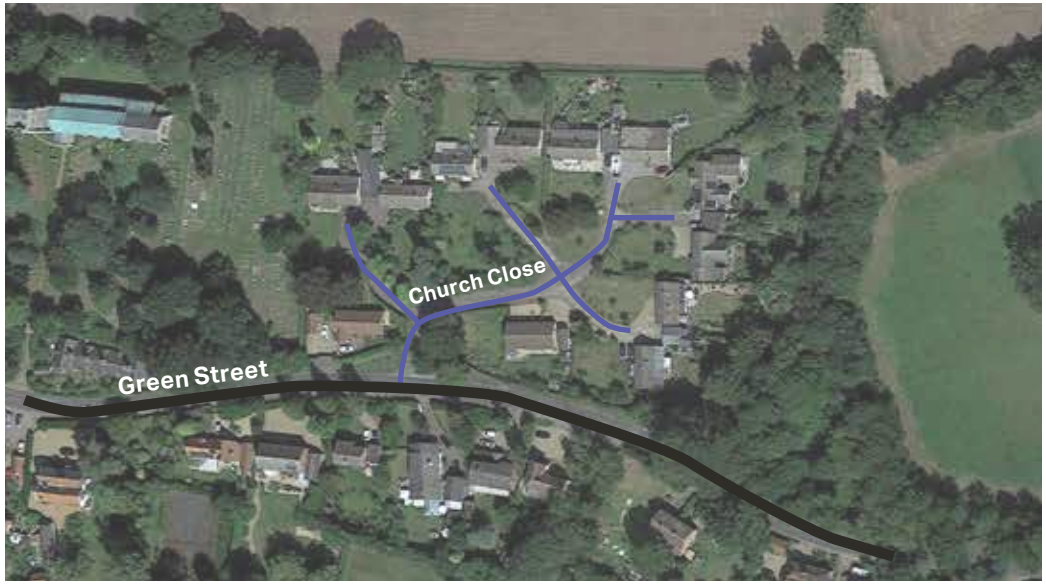


Figure 20: Local example of cul-de-sac development, Church Close. (Source:google earth)

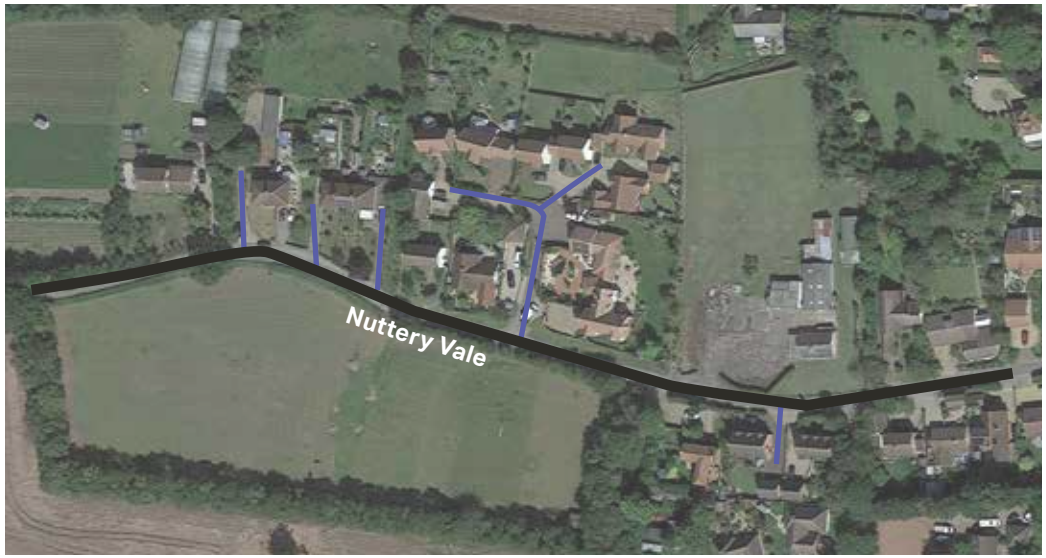


Figure 21: Local example of cul-de-sac development, Nuttery Vale. (Source:google earth)

2.9. Fronts and backs

The rural setting and character of the village allows for a variation in plot sizes and widths of front and back gardens.

This variation in the front gardens creates an interesting visual result along the street scene. In particular, there are buildings that face directly onto the street, as well as other local examples where front gardens vary between approximately 1-18m.

2.10. Property boundary

Hoxne village has a strong rural character with plenty of nature surrounding it. The local examples of property boundary treatments reinforce this character and also create a good green buffer with the surrounding countryside.

In particular, physical boundary treatments range from hedges and hedgerows to flowerbeds, trees, green verges and bushes. Those are well maintained and improve the aesthetics of the village.

Figure 22: Local examples of limited front garden spaces hosting, however, flowers, green verge and bushes to add on the rural character of the village. Those low key interventions have a positive impact on the street scene.

Figure 23: Local example of a large front garden bordered by rich vegetation to add on the rural character of the village as well as provide a level of privacy and separation with the street and the neighbouring properties, Abbey Hill.

Figure 24: Local example of a rural settling with well-sized front gardens and rich physical boundary treatments, Chickering Road.

2.11. Corners and landmarks

The linear layout of the village offers opportunities for the buildings to stand out along the curves and corners and act as landmarks, whilst open spaces can also help create focal points and attract interest towards the buildings.

In addition, heritage assets can also be identified as landmarks as well as other elements of historic or social significance.

The photos presented on this page show some local examples of corner buildings and landmarks within the village.

Figure 25: The Swan of Hoxne pub, located to the southern end of Low Street, acts as entrance/welcome point to the north of the village and therefore, plays an important role in navigation. This makes the pub a local landmark for the village.

Figure 26: Local examples of elements of historic significance that act as landmarks and points of reference for navigation in the village.

Figure 27: St Peter & St Paul's church is a heritage asset and therefore, an important landmark for the village, Green Street.

2.12. Car parking solutions

There are three car parking typologies in the village. Those are:

- **On-plot side and front parking**. This is the prevailing car parking typology .
- **On-plot garage parking**. This car parking typology is mainly found to the south of the village, where there are more recent developments.
- **On-street parking**. This car parking typology is found along Low Street and the south end of Cross Street, where parking bays are inset between trees and green verges.

Figure 28: Local example of on-plot side parking typology, Abbey Hill.

Figure 29: Local example of on-street parking typology, Cross Street.

Figure 30: Local example of on-plot garage parking typology, Abbey Hill.

2.13. Roof profile

The rural character of the village, the rich vegetation and the layout of the buildings allow for an interrupted roofline.

However, along the village core areas (Low Street and Cross Street), where density is higher and there are cases of terraced housing, the roofline becomes more continuous, whilst the chimneys and the subtle variations in the eaves add some inconsistency creating a positive visual outcome.

The prevailing roof type is gabled roof, whilst there are also examples of hipped roofs.

2.14. Fenestration and façades

There is a variety of window types decorating the façades of the buildings; casement windows, awning windows, bow windows, cottage windows as well as dormer windows. Those vary in colour, however, the scale and proportions are fairly consistent creating an overall positive street scene.

2.15. Architectural details and materials

Hoxne village is characterised by different building styles dating from the 14th to the 19th centuries as well as some modern interventions, in-fills and development schemes within and outside of the historic core.

The area is not characterised by one architectural style or a single character, but rather a mix of different styles with different responses to the street layout, front gardens and landscape, as shown on the previous sections.

It is the more modest houses that contribute to the character of the area. There is a mix of materials used for the building facades with the most prevailing being timber-frame, render, flint and red brick. More specifically for the last two, Hoxne village is known for its deposits of brickearth and for the flint implements, and therefore, there are many examples of flint and brick buildings in the village. The scale of the buildings tends to be of two storeys with some examples of single-storey buildings as well.

There is also a variety in roof materials like black glazed, slate and thatch, with plain red pantiles being the most common one. In addition, there are few examples of modern concrete tiles. Fenestration is varied with a lot of replacements, however, casement windows and a few sashed examples still survive.

All the above architectural details and materials further contribute to the local distinctiveness of the village. However, there are some examples where inappropriate materials have been used for replacement windows, the most obvious being the use of uPVC, or other types of alterations like asymmetric night vents and dormer type loft extensions have taken place.

The design guidelines and codes presented in Chapter 3 will aim to address those issues and guide future development in the village to respond to the existing local context.

The next pages provide a showcase of the existing architectural details and materials.

Figure 31: Local examples of thatched roofs, Low Street.

Figure 32: Local examples of rendered façades and slate pantiles, Cross Street.

Figure 33: Local example of sashed windows within the conservation area, Low Street.

Figure 34: Local example of red brick on the building façades with more recent intrusions on fenestration, Cross Street.

Figure 35: Local example of architectural details on the façades and the roofs.

2.16. History and heritage

The map on this page shows the clusters of listed buildings within the village. Hoxne Conservation Areas covers two distinct places within the village. The quality of the buildings and heritage environment give the village a strong character. The grade II* listed buildings show timber-framed farmhouses on moated sites. The grade II listed buildings are a combination of timber framed and rendered houses, clustered together in various locations. There are five Ancient Scheduled Monuments within the boundary, three of which are located within the main settlements.

The main materials and shapes observed are: pitch roofs with plaintile as well as some slate and thatch. The buildings show timber framed examples, a few with exposed framing and brick nogging. Banham bricks are also a feature in some buildings. Rendered buildings are done in the Suffolk style. Modern buildings show red brick and flint materials.

Since the 1950s the village has been growing steadily with different sections of the village being developed throughout each decade. As the village developed over time there are a variety of architectural styles depending on what decade the houses were built. Within the built-up areas there are no major specimen trees, however extensive areas of trees abound and form an important backdrop to the village's centres. A number of trees have TPO (tree preservation orders). Hoxne's settlement pattern is mainly one of small nucleated hamlets, for the most part with one plot deep development, even in the larger groupings at Low Street and Cross Street. Consequently there is countryside in the form of farmland or trees to the rear of most properties.

A more in-depth research of Hoxne's heritage and history can be found in: Hoxne's Conservation Area Appraisal (www.babergh.gov.uk/assets/Conservation-Area-Appraisals/HOXNE-adopted.pdf).

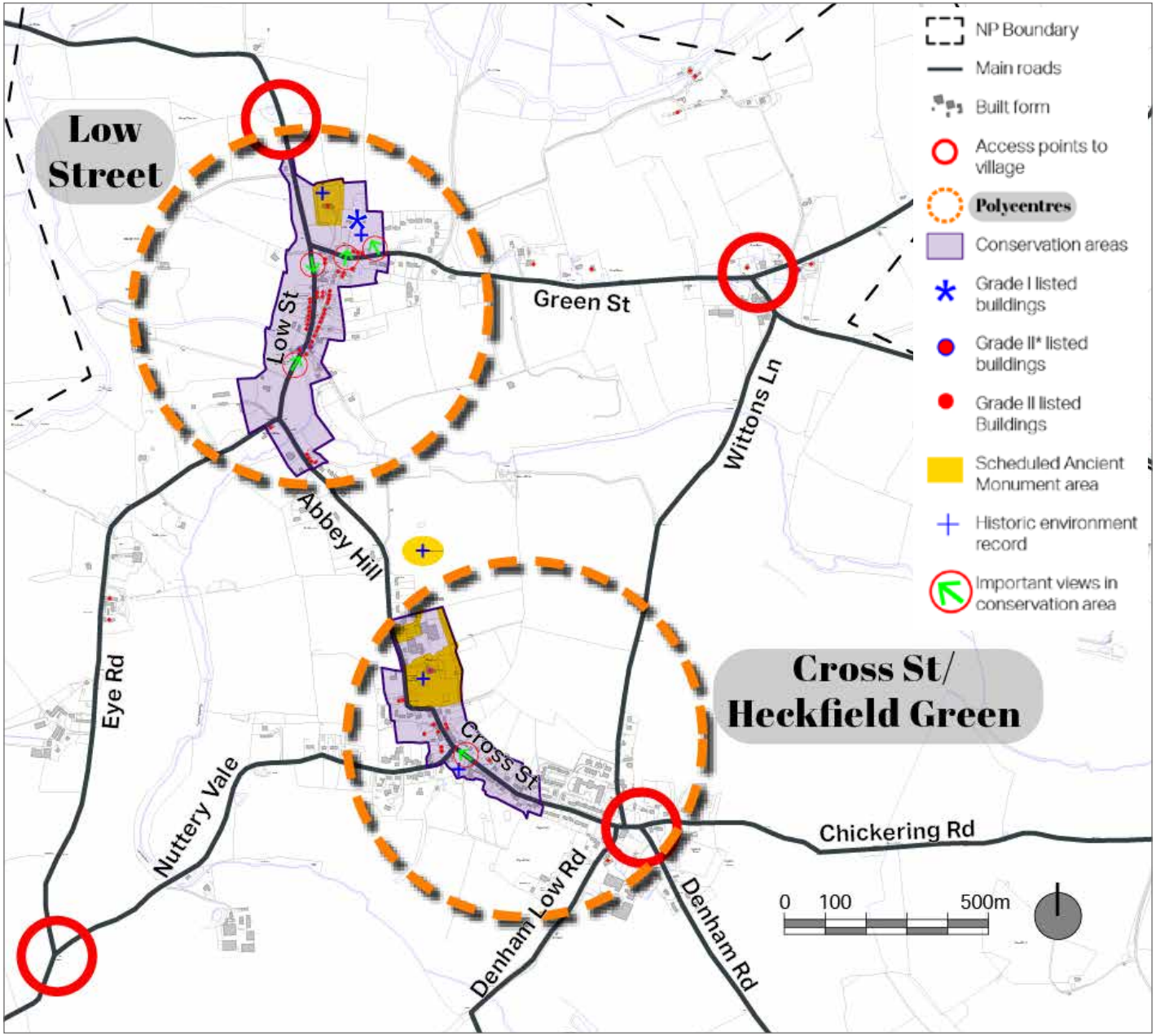


Figure 36: Map with an overview of the heritage and historic assets in the village.

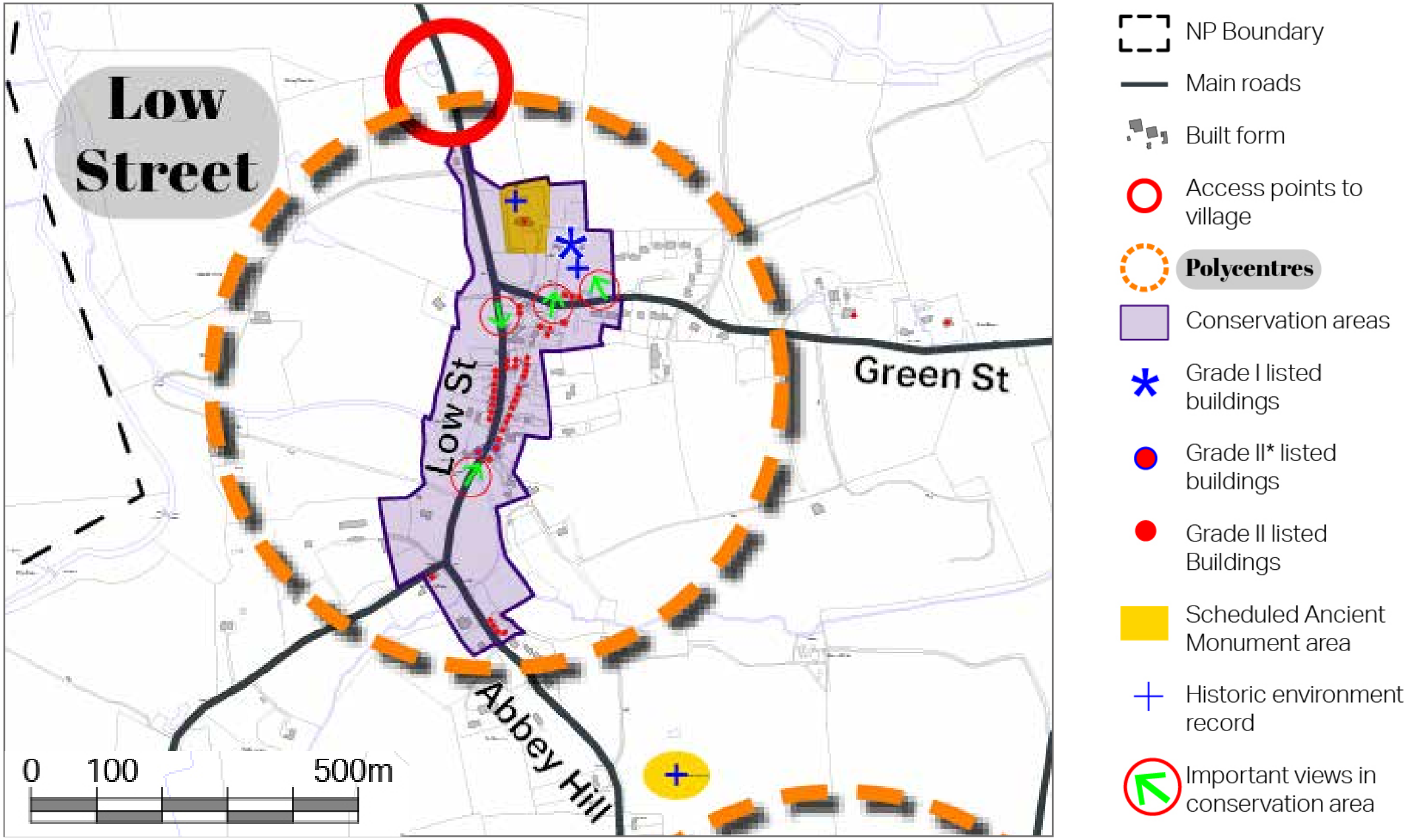


Figure 37: Map with showing the area of Low Street and its heritage and historic assets.

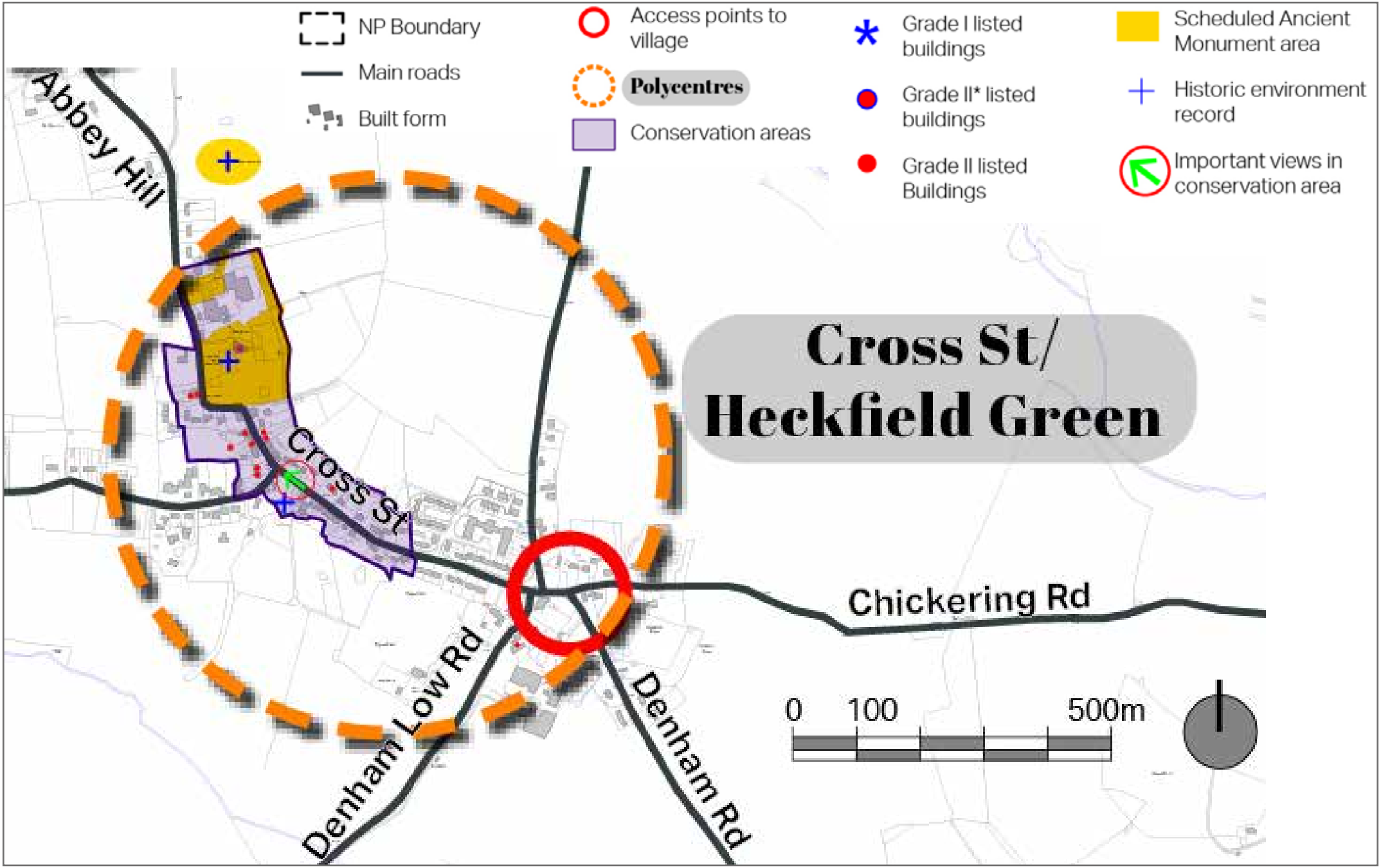


Figure 38: Map with showing the area of Cross Street / Heckfield Green and its heritage and historic assets.

Timber frame and renders

Plaintile on roofs and brick nogging on walls.

Banham bricks on property boundary.

Plaintile and thatch roofs with painted brick and render.

Dark window frames and renders in facades.

Buildings show a strong rural character and materials.

Figure 39: Local example of forms, materials and designs in the conservation areas.


GOLDBROOK
BRIDGE
A·D·1873

Design Codes

03

3. Design Codes

3.1. Introduction

This section outlines a brief analysis of the existing context of Hoxne and its physical features. This analysis has informed the design codes developed in Chapter 3.

The following section describes a set of design codes that have been put together based on the existing context of Hoxne.

These codes will aim to guide any changes or development within the village to ensure the local character is respected whilst still allowing space for innovation within the built environment.

3.2. National guidance and best design practice to follow

This report must be read alongside planning policy and design guidance whose content applies to Hoxne. A brief summary of the relevant documents is provided hereafter.

2019

National Planning Policy Framework
MHCLG

Development needs to consider national level planning policy guidance as set out in the National Planning Policy Framework (NPPF) and the National Planning Policy Guidance (NPPG). In particular, NPPF Chapter 12: Achieving well-designed places stresses the creation of high-quality buildings and places as being fundamental to what the planning and development process should achieve. It sets out a number of principles that planning policies and decisions should consider ensuring that new developments are well-designed and focus on quality.

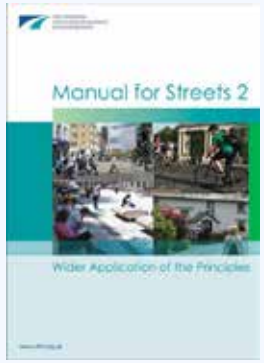
2019

National Design Guide
MHCLG

The National Design Guide (Ministry of Housing, Communities and Local Government, 2019) illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.

2007

Manual for Streets:
Department for Transport



Development is expected to respond positively to the Manual for Streets, the Government's guidance on how to design, construct, adopt and maintain new and existing residential streets. It promotes streets and wider development that avoid car dominated layouts but that do place the needs of pedestrians and cyclists first.

2020

Building for a Healthy Life:
Homes England

Building for a Healthy Life (BHL) is the new (2020) name for Building for Life, the government-endorsed industry standard for well-designed homes and neighbourhoods. The new name reflects the crucial role that the built environment has in promoting wellbeing. The BHL toolkit sets out principles to help guide discussions on planning applications and to help local planning authorities to assess the quality of proposed (and completed) developments, but can also provide useful prompts and questions for planning applicants to consider during the different stages of the design process.

2021

National Model Design Code:
MHCLG

This report provides detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on 10 characteristics of good design set out in the National Design Guide. This guide should be used as reference for new development.

3.3. Strategic design codes

Introduction

The following pages show a number of design codes that are applicable in general as they are strategic themes.

SC1. CONSIDER THE CONTEXT

Preserve the polyfocal nature of Hoxne

- Respect the settlement gap;
- Where possible designate new views that visually link the core of the village with the surrounding countryside;

Links to the countryside

- Enhance links to the countryside. Given that the village is surrounded by countryside it's important that all locations can be linked to the countryside either physically or visually. The network of public right of ways can be used to achieve this aim. .

Protect and enhance the local character

- Secure the continued protection and enhancement of listed and non-listed heritage assets and their setting which contribute to the distinctiveness of the areas in which they are located. Similarly other characterful areas of Hoxne should be protected from harmful development;
- Any new development should take local character into consideration. Design proposals should consider the surrounding scale, layout, density, mass, materials and architectural features, as well as incorporate high standards of landscaping to add to the quality of place;

Enhance and link public spaces

- Local public spaces should be enhances and linked via existing streets, public right of ways and footpaths as well as signage.

Figure 40: Public right of ways should be used to improve Hoxne's linkages between the village and surrounding countryside.

NP Boundary

Main roads

Built form

Access points to village

Preserve Polycentres and gaps

Preserve the natural environment surrounding Hoxne

Preserve the heritage built environment in Hoxne's conservation areas

① Enhance and link public spaces (numbers refer to list in section 2.5)

Enhance public right of ways as a sustainable movement network

Stretch of road where highway design improvements could be made to improve sustainable transport modes (subject to detail design)

Where possible establish new visual links to the countryside

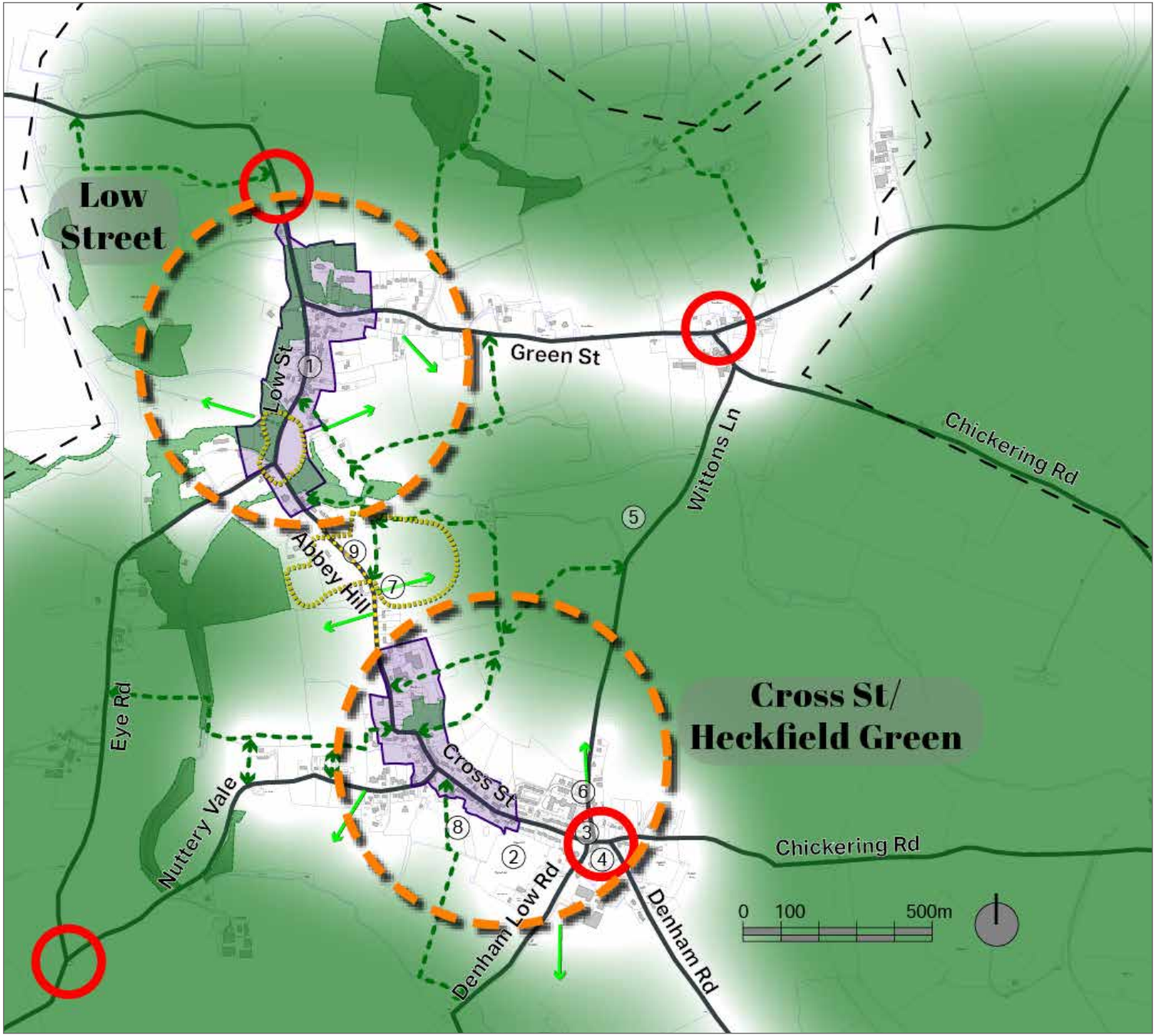


Figure 41: Diagram showing the aim of considering the context and creating better linkages (physical and visual) in Hoxne.

SC2. PROVIDE MEANINGFUL CONNECTIONS

Streets and different parts of the village should be connected with each other. This is a key feature of successful built and natural environments as well as best practice. Some of the features sought are:

- Make connections meaningful and provide a clear origin and destination with routes incorporating built elements as well as natural assets that are important locally;
- Encourage walking and cycling by establishing routes on well connected street layouts, lanes and public right of ways;
- Make it easier to travel by foot, cycle, and public transport before car travel options;
- Promote walking and cycling as an attractive option by making routes short, straightforward and well connected;
- Connect new walking routes to existing open spaces and community facilities as well as the countryside to create a well connected place.
- Increase connectivity to high-quality natural areas such as the surrounding countryside, local green spaces as well as to valuable listed and non-listed assets and buildings should be maximised;
- Use linkages and connections to emphasize buildings and routes whilst making them memorable;
- Encourage the use of permeable layouts instead of cul-de-sac environments in new developments.

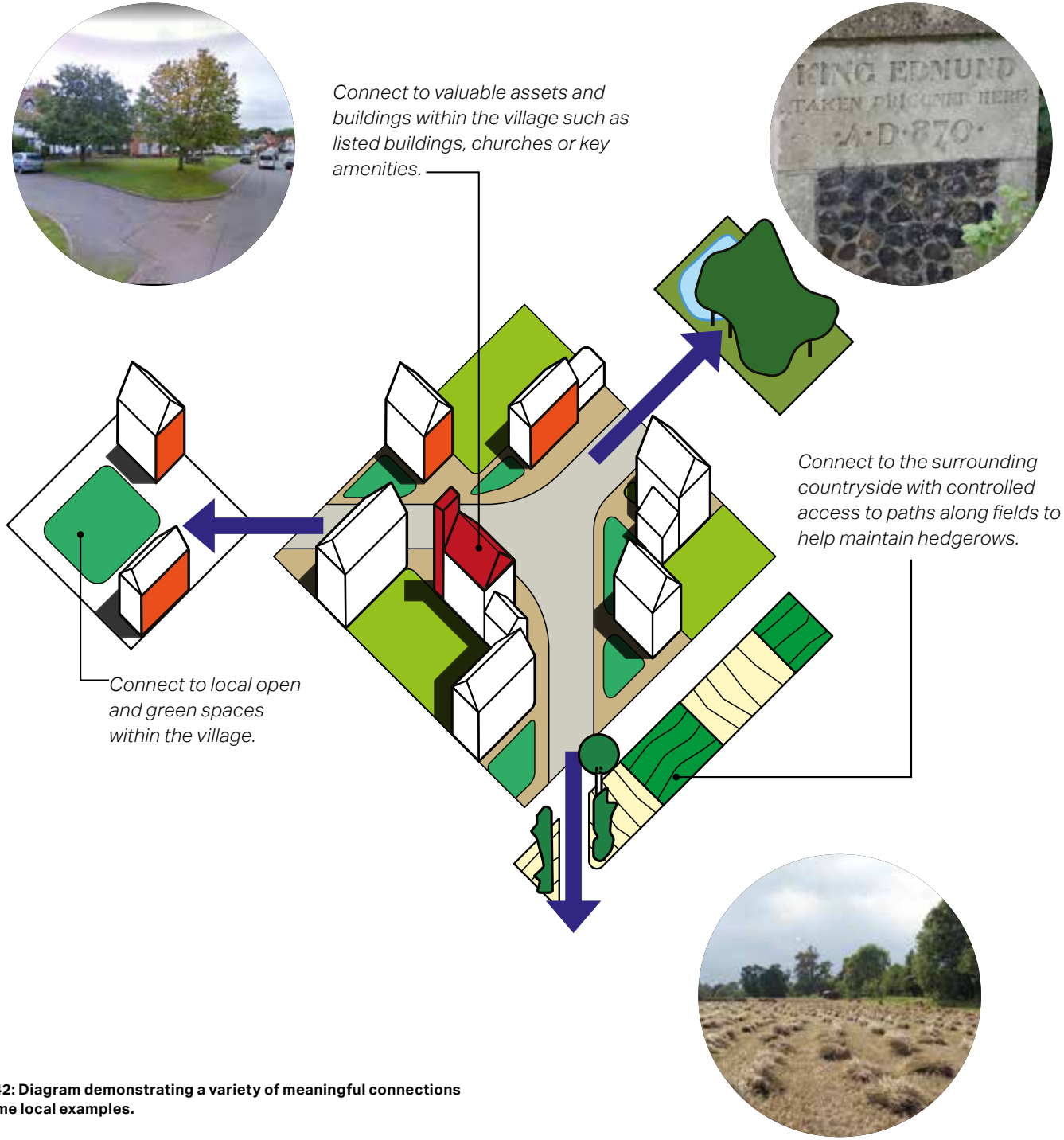


Figure 42: Diagram demonstrating a variety of meaningful connections with some local examples.

SC3. ENABLE WAYFINDING

Wayfinding aims to make walking and cycling easier by ensuring that routes are direct and memorable. When places are well signposted, they are easier for the public to comprehend.

People feel safer when they can easily memorise places and navigate around them. It is easier to orientate when the routes are direct, particularly for people with dementia and related cognitive and sensory challenges. Thus, some guidelines for new development and transformations of the village are:

- Use local landmarks to make the village legible. Landmarks can take many forms as long as they are memorable and distinctive. They can include buildings, mature trees, landscaping, open spaces and even small plaques. Enhance and highlight these as memorable features helping people to understand the village.
- Preserve or create continuity by respecting the built forms identified in the village. This will help creating a clear identity and that are easy to navigate.
- Clear signage should be placed at key nodes and arrival points to aid orientation.
- Distinctive or mature trees can also be used as a tool to mark the access point to a new development or a distinct area within the village.

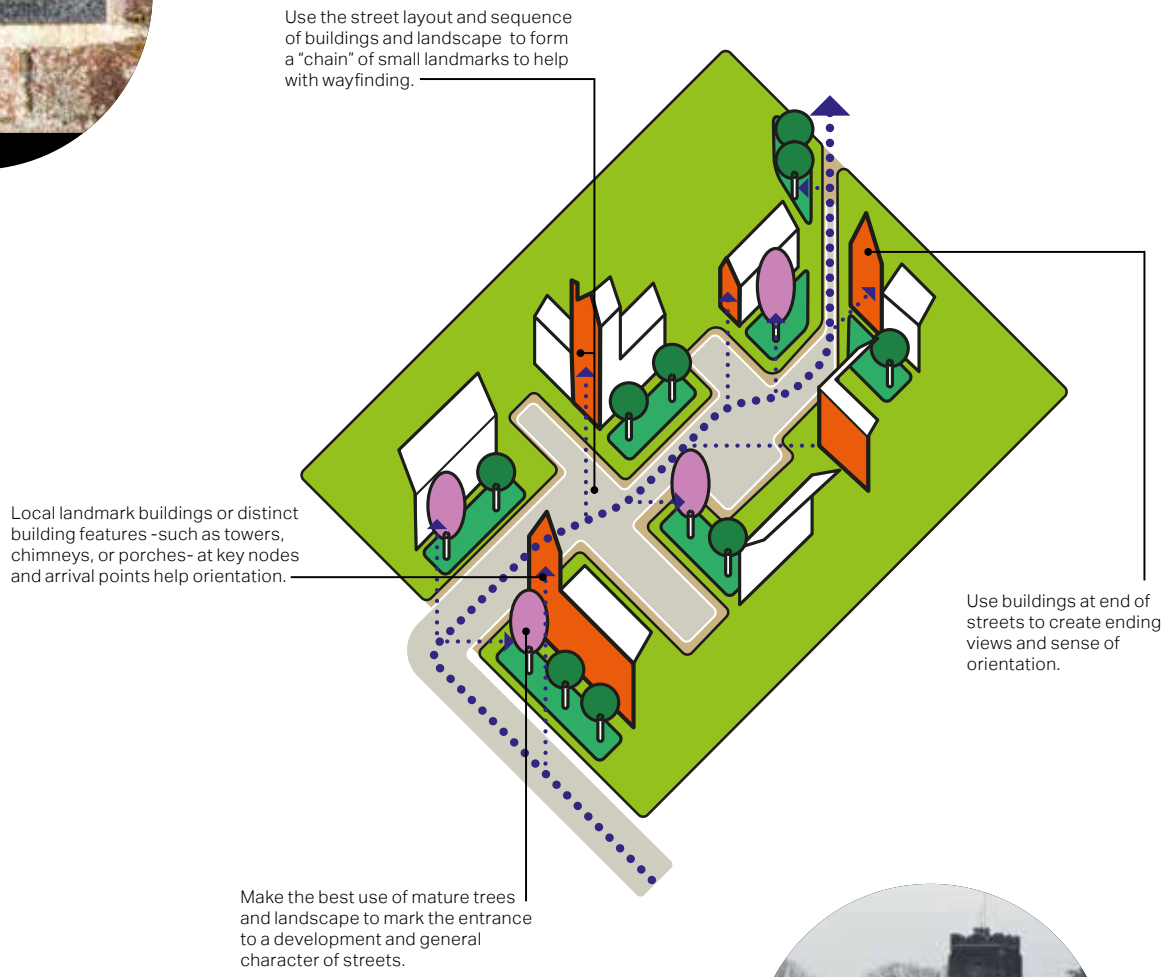


Figure 43: Diagram showing approaches to wayfinding and local examples.

SC4. CREATE A GREEN NETWORK

Green networks and their linkages are considered a fundamental mechanism for preserving the character of the village, as well as reversing the effects of fragmentation on biodiversity. Desirable features of said green networks are:

- Create a continuum of diverse green environments from the surrounding context, into the village and out again and establish transitional spaces between the countryside and the village core;
- Provide a series of both public and private green spaces including generous and vegetated front and back gardens, public green spaces, fields and natural open spaces;
- Incorporate existing native trees and shrubs and avoid unnecessary loss of flora. Any trees or woodland lost to new development must be replaced;
- Use native trees and shrubs to reinforce the rural character of the village. Particular emphasis should be given to the maintenance and improvement of existing hedgerows and the planting of the new ones;
- Maintain the character of village green for public open spaces and keep their high quality tranquil atmosphere, thus encouraging local character and civic pride;
- Locate new landscapes and open spaces within walking distance from their intended users and connected via green and street networks such as footpaths, tree lined streets and public right of ways. These networks are often more useful to create visual amenity, for recreational use and wildlife corridors than isolated parks;
- Spaces located at the core of the village should create a visual connection with surrounding buildings.

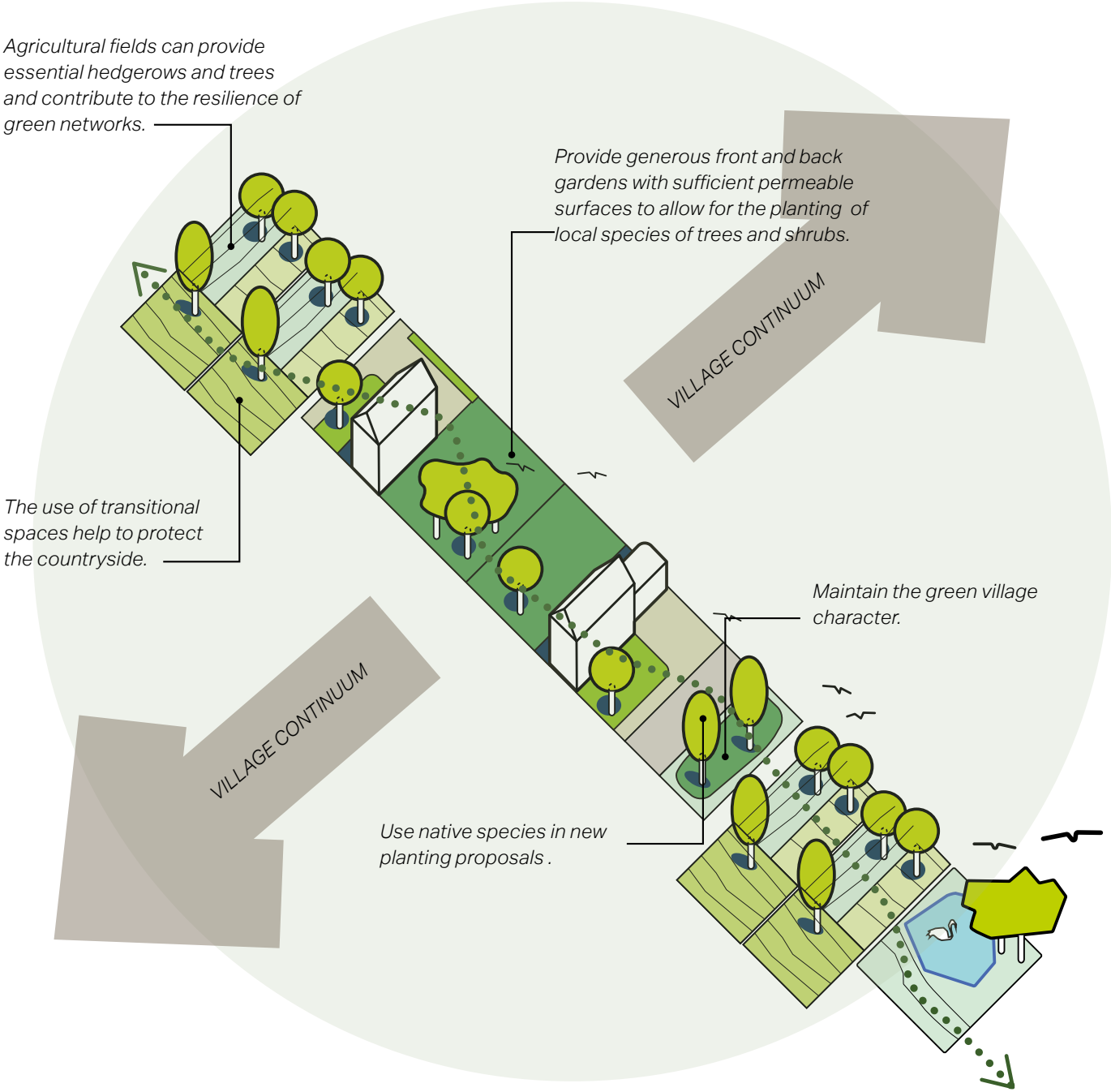


Figure 44: Green network diagram.

SC5. BUFFER SETTLEMENT EDGES

The nature and morphology of the village, call for the creation of settlement edges that help with the transition between built areas and the countryside. These edges are particularly important when new settlement is proposed. Desirable features are:

- Make new buildings face outwards towards the countryside to create a positive outlook. When the edge is adjacent to open countryside houses should positively address the countryside by orientating the buildings to face out over it. Rear garden fences facing the countryside should be avoided as this creates a hard edge and a safety risk;
- Create back to back development where new development meets existing buildings. The aim should be to complete blocks;
- Provide transitional landscape between the hard edge of development and the countryside in the form of hedges, tree bands or meadows;
- Use this planting buffer as a biodiversity corridor;
- Treat edge streets as lanes with minimal road geometry and no kerbs;
- Allow for filtered views to and from countryside and establish visual linkages with public spaces.

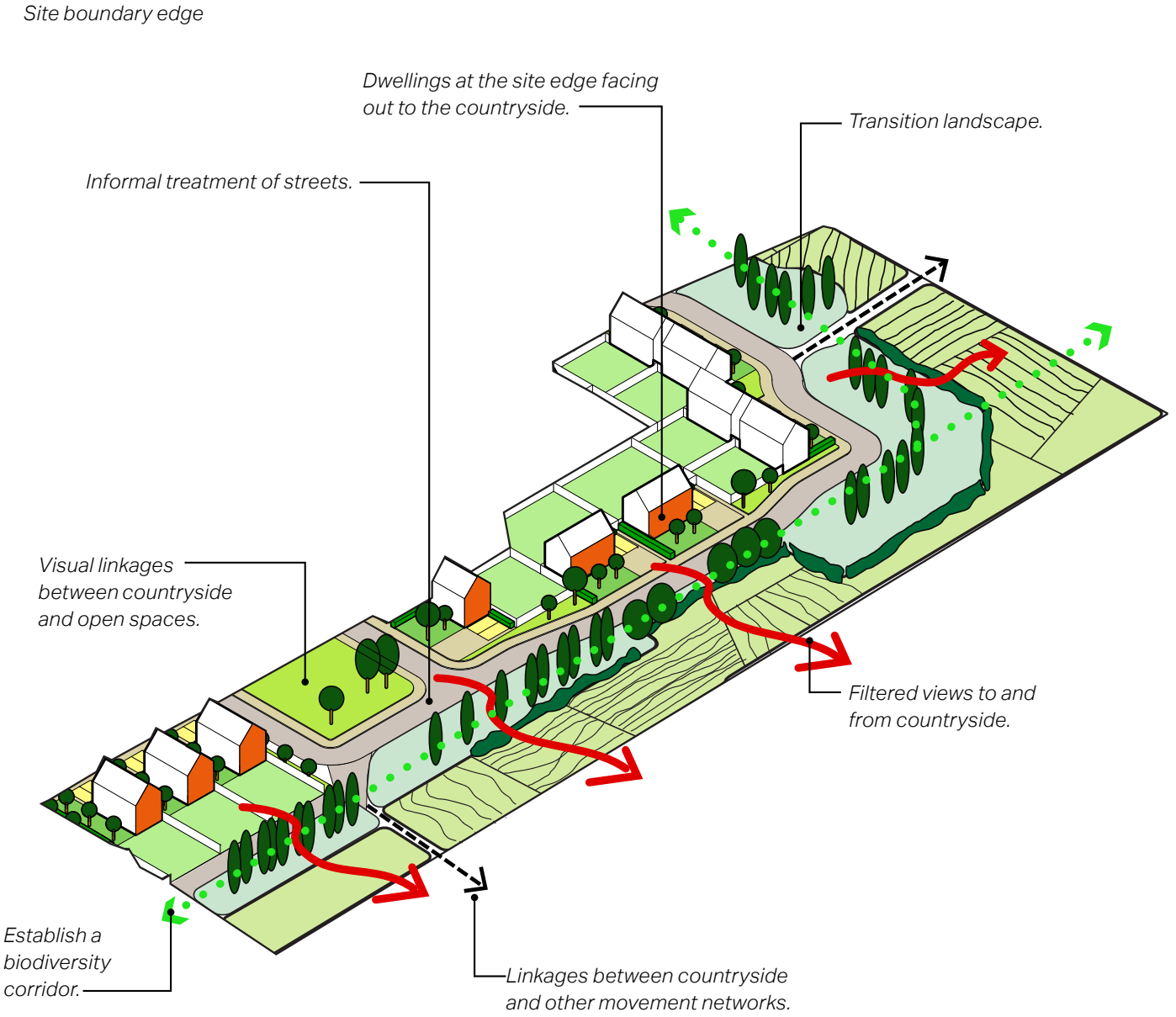


Figure 45: Diagram showing the desired development edge treatment.

3.4. Street typologies and car parking

This section describes the different types of streets and car parking solutions that can be used in Hoxne. These are general guidelines and each site should be assessed for appropriateness. The aim is to create high-quality streets. Advice should be sought from the Local Highway Authority with regard to the layouts of roads and footpaths for adoption.

SPC1. MAIN ACCESS STREET

This street type provides the main access for new development and connects it to the rest of the settlement. It will carry most of the access traffic, whilst the rest of the street network will only carry low neighbourhood traffic. The desired design features for this street type are:

- Street design speed of 30mph maximum with signage informing drivers of speed restrictions;
- Provide front gardens, privacy strips and street planting along to contribute to the general green feeling of the village;
- Where possible, locate parking to the side of properties and consider using garages to mitigate the impact of cars on the streetscape;
- If on-street parking is needed, it can be combined within a verge area and interspersed with trees;
- Green verges and street trees should be integrated in the design, where possible, to create attractive neighbourhoods and provide shade to pedestrians and cyclists;
- Where on-street parking is proposed, it should be interspersed with trees to avoid impeding moving traffic or pedestrians;
- Cycle lanes can be adapted by creating a combined and segregated pedestrian and cycle route.

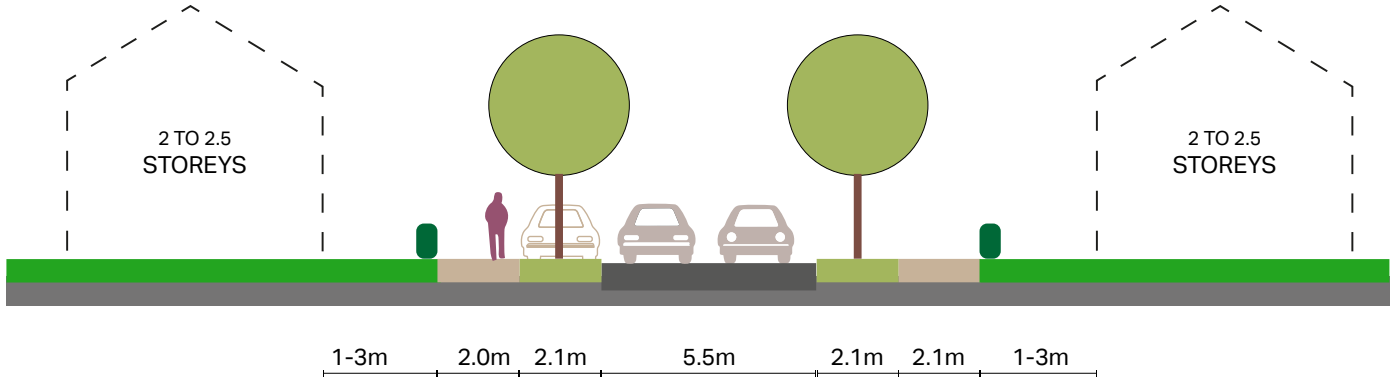


Figure 46: Diagram showing a main access street with suggested dimensioning.

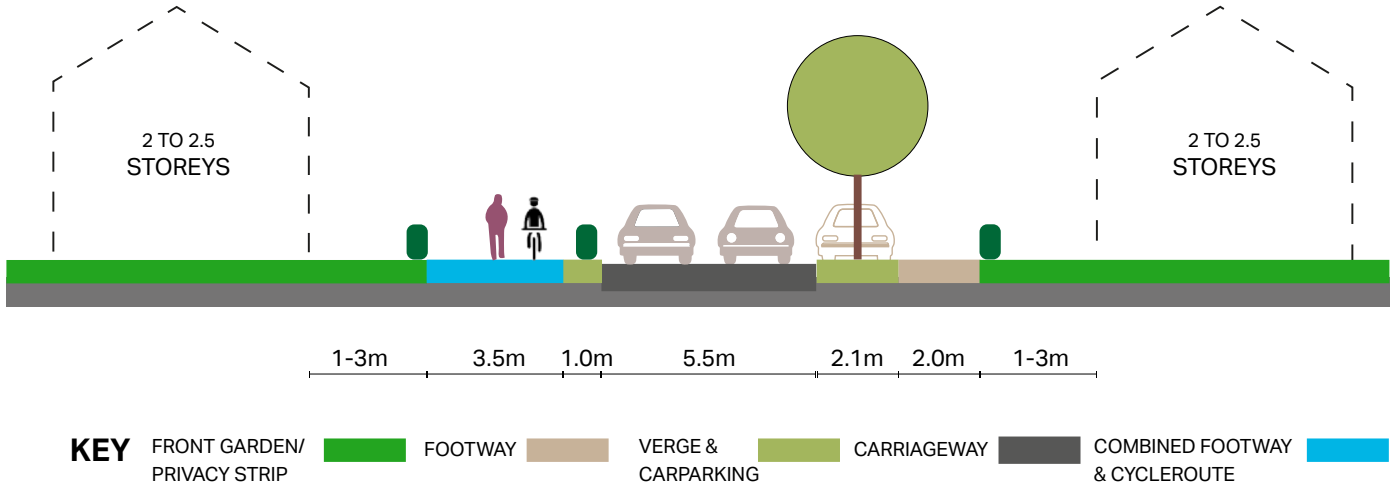


Figure 47: Diagram showing a main access street with combined pedestrian/cycleroute and suggested dimensions.

SPC2. GENERAL STREET

The general street type is the prevalent street across new development. The desired design features for this street type are:

- Design speed should be 20mph and low traffic volumes and low speed and include design elements for traffic calming e.g. minimising the corner kerb radius, raised tables, horizontal deflection, and the like;
- Carriageways should accommodate two-way traffic and parking bays should be designed for cyclists to mix safely with motor vehicles;
- Front gardens should be well planted to create an attractive environment;
- Preferably, locate parking to the side of the property to mitigate the impact of cars on the streetscape;
- If cars are parked at the front at least 50% of the frontage should be landscaped and with a property boundary treatment;
- If terraced dwellings are used front parking courts are acceptable as long as car groupings are broken up (max 6 cars), and there is a high quality material and landscape treatment; .
- It is preferable to have trees on streets as these help to mitigate climate change. If this is not possible, front gardens should be deep enough to host trees;
- Avoid using cul-de sac solutions; instead use street furniture (e.g. bollards) to stop vehicle circulation whilst allowing other movement types.

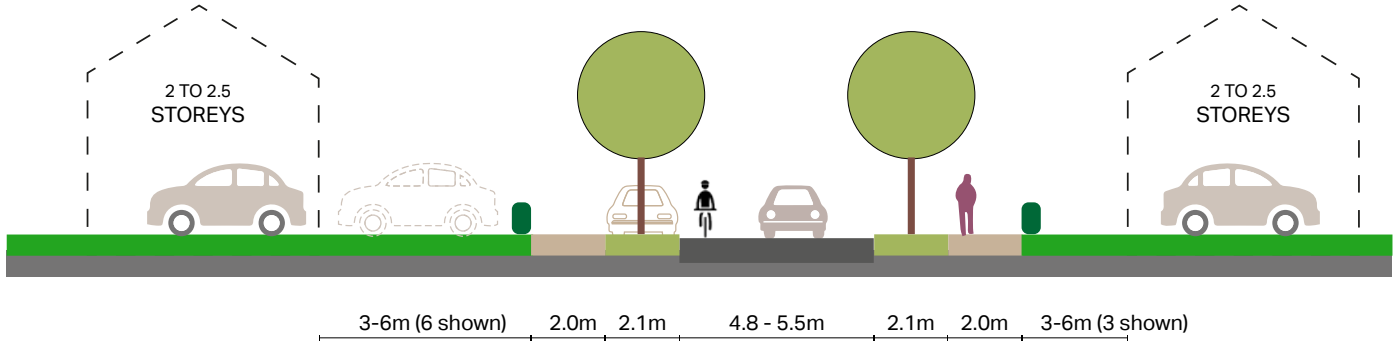


Figure 48: Diagram of general street type with verges and trees on street.

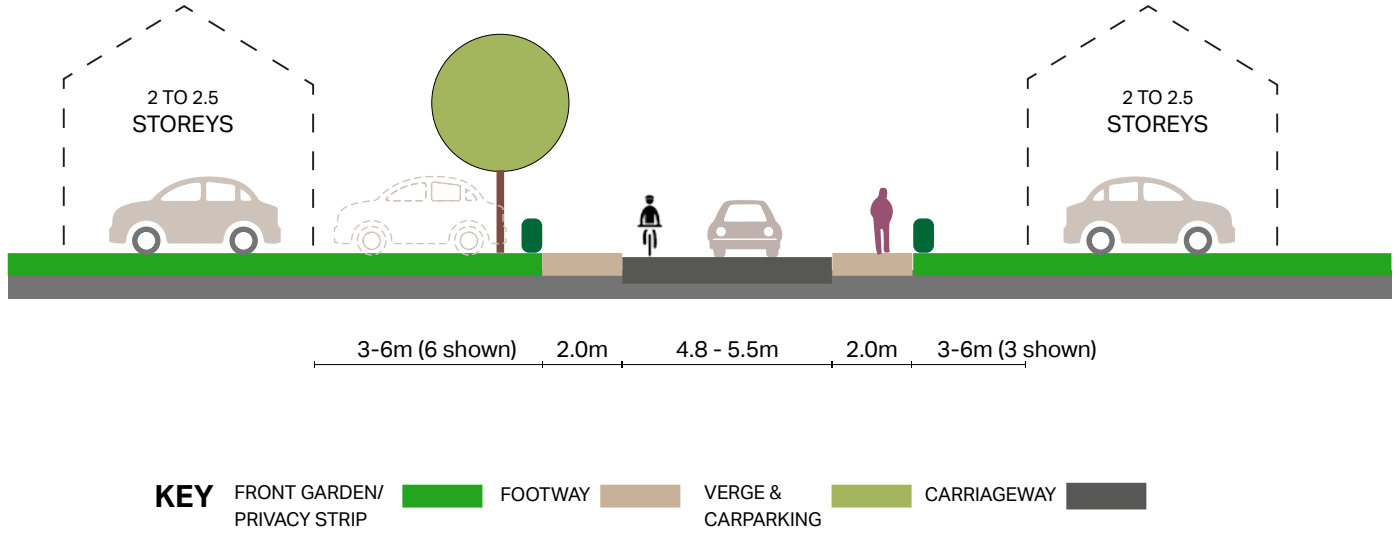


Figure 49: Diagram of general street type without verges but with front gardens allowing for tree placement on plot.

SPC3. EDGE LANE

This street type is used at the edges of development, where the village meets the countryside or green areas and a positive transition is required. The desired design features for this street type are:

- Design speeds must be 20mph or less, to create a quieter environment;
- These lanes can gently meander, softening the presence of the street, providing interest and evolving views whilst helping with orientation;
- Circulation is usually in the form of a shared lane between 6 and 8m hosting all modes of transport (i.e. pedestrian, cycling and motor vehicles) and no footways;
- Providing a planting buffer and landscaping between the edge of the carriageway and the countryside in order to: protect countryside areas, provide transition and control pedestrian accessibility where required. The use of hedgerows where edge lanes face onto agricultural land is particularly encouraged;
- Connect the edge lane to paths and other public right of ways where possible and the general movement network;
- The lane width can vary to discourage speeding and introduce a more informal and intimate character. Variations in paving materials and textures are used instead of kerbs or road markings.
- Swales and rain gardens could also be added into the landscaping to address any flood issue;
- Edge lanes have housing fronting onto the countryside.

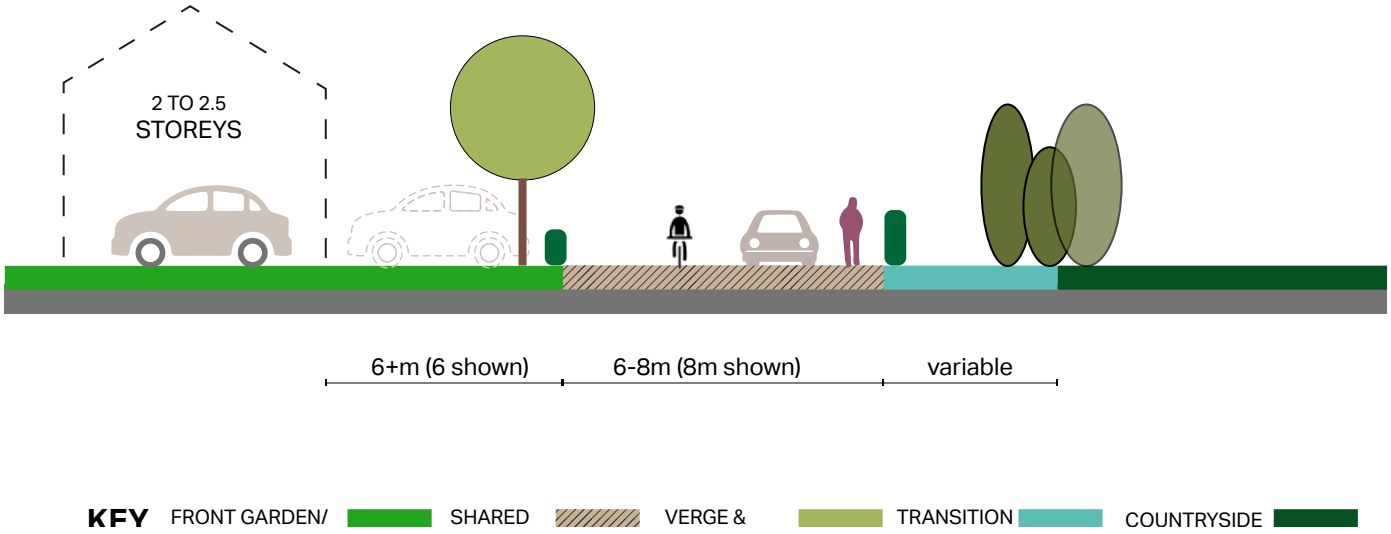


Figure 50: Diagram showing an edge lane.

SPC4. Sustainable Drainage Systems (SuDS) in streets

Sustainable Drainage Systems cover a range of approaches to managing surface water in a more sustainable way, reducing flood risk and improving water quality as well as providing additional amenity benefits. This section briefly outlines how the system work and its components should the need to include this system in new development. Further detail can be found in the Environment and Energy Efficiency section of this document.

- When placed in streets, these systems work jointly with buildings and landscape in a continuous system of water management;
- If SuDs are needed and the reuse of water on site is not possible there are two alternative approaches to using SuDS. The first is infiltration which allows water to percolate into the ground and eventually restore groundwater;
- The second is attenuation and controlled release. This holds back the water and slowly releases it into the sewer network. The overall volume entering the sewer system is the same, however the peak flow is reduced which reduces the risk of the sewers overflowing. Attenuation and controlled release options are suitable when either infiltration is not possible or where infiltration could be polluting;
- The most effective SuDS are site-specific and are integrated at the beginning of the design process and apart from the technical performance for water management, the aim is to create a high quality street environment incorporating water.

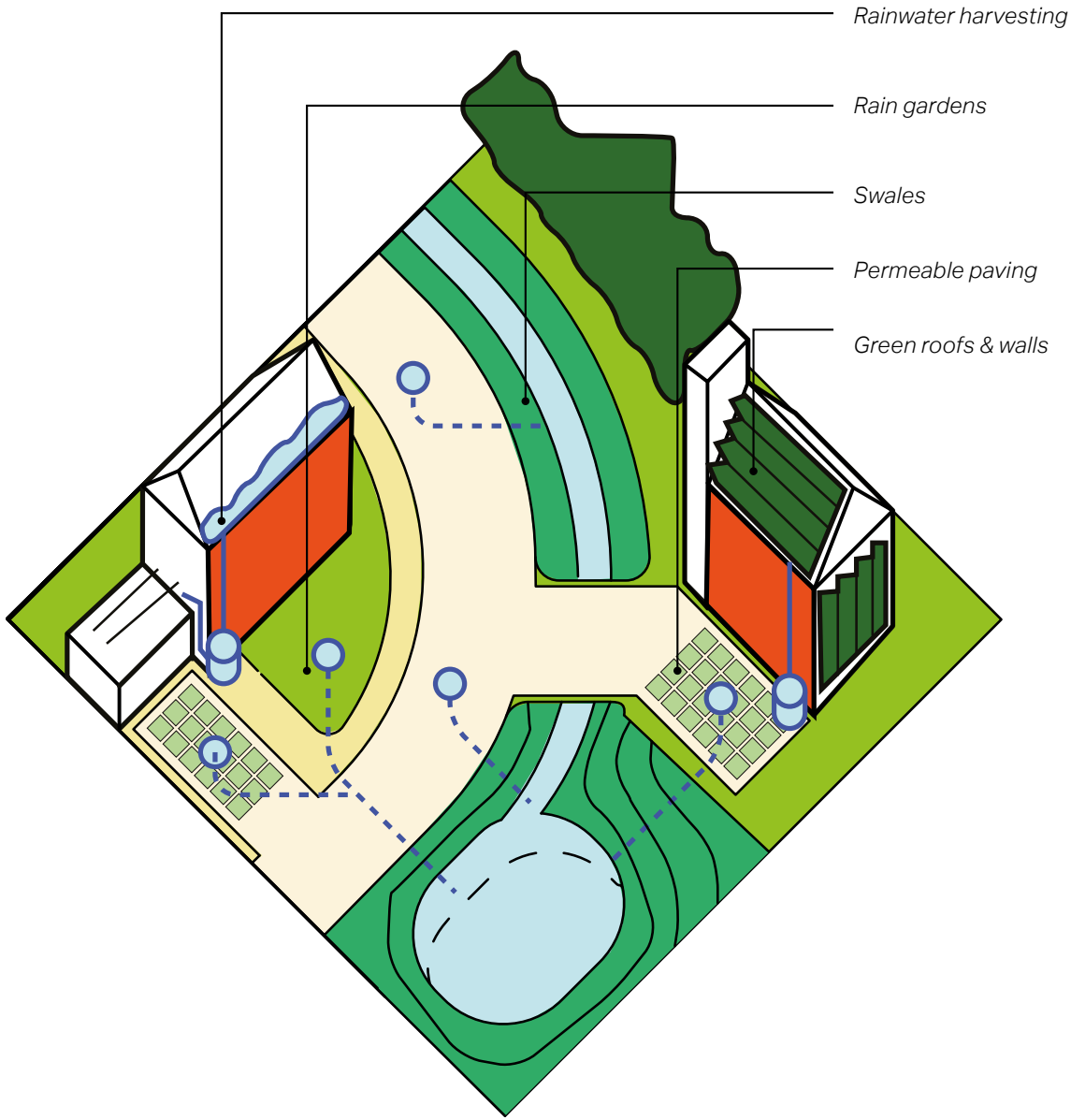


Figure 51: Diagram showing different SuDS elements and how the placement of buildings and streets adds to the overall environment.

SPC5. CAR PARKING TYPOLOGIES

These are suitable types of car parking for Hoxne. The design should be safe and should not undermine the quality of the street or the public realm. Parking for residential should generally be provided on-plot or in a parking square/court, whereas on-street parking can be provided for visitors and near public spaces.

ON-PLOT FRONT OR SIDE

- Car parking on-plot should generally be provided to the side of the building as this minimises the presence of cars on the streets;
- On-plot side or front parking should be combined with high-quality and well-designed landscaping. This can be done by using high-quality ground materials combined with appropriate boundary treatments and planting;
- If cars are parked at the front at least 50% of the frontage should be landscaped and with a property boundary treatment and paving over front gardens to create additional parking spaces should be avoided;

ON-PLOT GARAGE

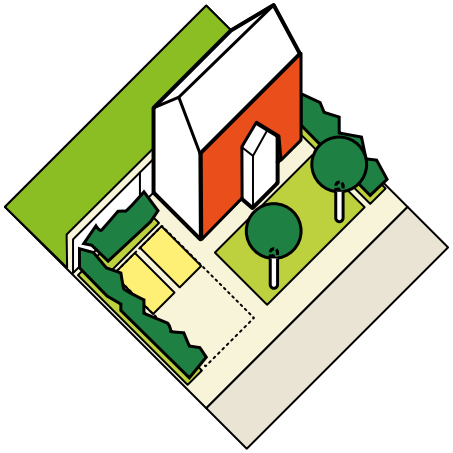
- Garages should reflect the architectural style of the main building and be smaller than the main building. They should also be in line or recessed from the building line so they do not dominate the street;
- Garages should accommodate modern car dimensions and have integrated cycle parking and waste storage;

ON-STREET PARKING

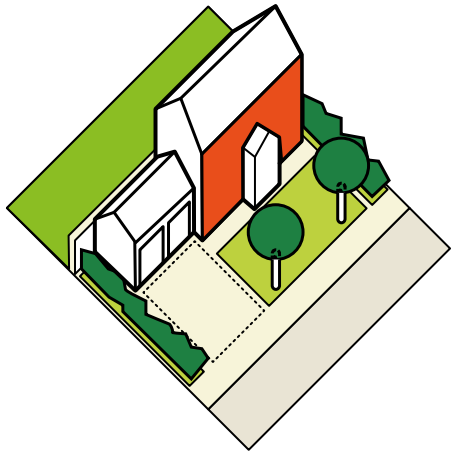
- On-street parking should be parallel to the street and can be inset to the pavement to reduce the visual impact of the parked cars on the street;

PARKING SQUARES

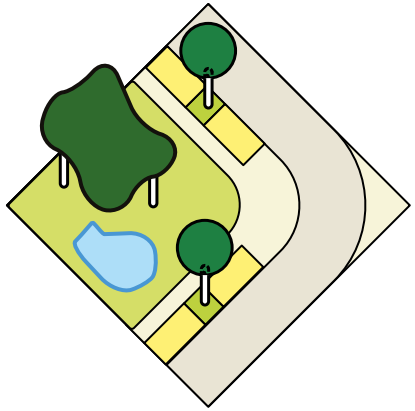
- Parking squares can be provided at the front of the property with the pedestrian footpath in-between the parking space and the building or to the rear of the dwellings;
- Parking squares are most suited for terrace housing as they generally have less space between the front door and the street;
- Parking squares should be well-landscaped and should be overlooked by buildings;
- Car groupings should be broken up (max 6 cars) with landscape/trees.



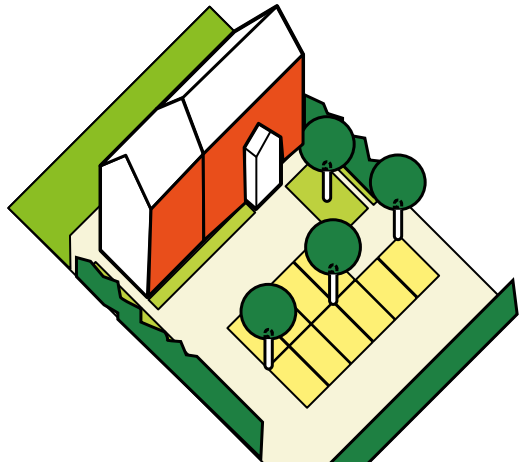
On-plot side or front parking.



On-plot garage parking.



On-street parallel parking.



Parking square.

Figure 52: Diagrams showing the different parking typologies.

Main street example.

General street example.

Edge lane example.

Parking square.

Allow continuity of sustainable modes of transport whilst preventing vehicle circulation.

On-street parking and open space.

Figure 53: Photographs showing examples of positive street typologies and parking.

ELECTRIC VEHICLE CHARGING POINTS

The UK Government has set a target of reducing emissions by 80% by 2050. One of these measures to achieve the aim is to encourage the transition to electric vehicles. Thus new development needs to consider addressing this as part of proposals.

On-street car charging

- Car charging points should be provided when on-street parking is suggested;
- Other locations could be public spaces where charging pods can be concentrated;
- Where charging points are located on the footpath, a clear footway width of 1.5m is required next to the charging point, for a wheelchair user and a pedestrian to pass side-by-side;
- Charging points should never be placed in such a way that forces drivers to park on the pavement or across spaces for cables to reach the charging point from the vehicle;
- Charging points should be placed so they can serve as many vehicles as possible. This helps to overcome issues associated with charged vehicles or petrol or diesel vehicles blocking dedicated electric vehicle spaces. This can make the charging point unusable for others if the charging cables cannot reach other spaces.

Off-street car charging

- Mounted charging points and associated services should be integrated into the design of new developments, if possible with each house that provides off-street parking;
- Avoid cluttering elevations, especially main facades and front elevations.

Figure 54: Photos showing desired design features for electric car charging points.

CYCLE PARKING SOLUTIONS

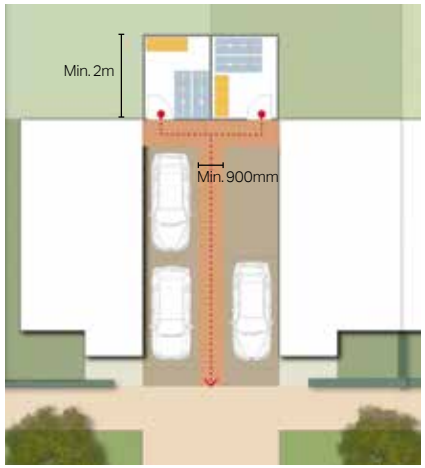
A straightforward way to encourage cycling is to provide secured cycle parking in all new residential developments that is convenient and easy to take bikes out. In addition cycle racks should be places in public spaces and destination hubs such as supermarkets or high streets. From a residential perspective desirable features are:

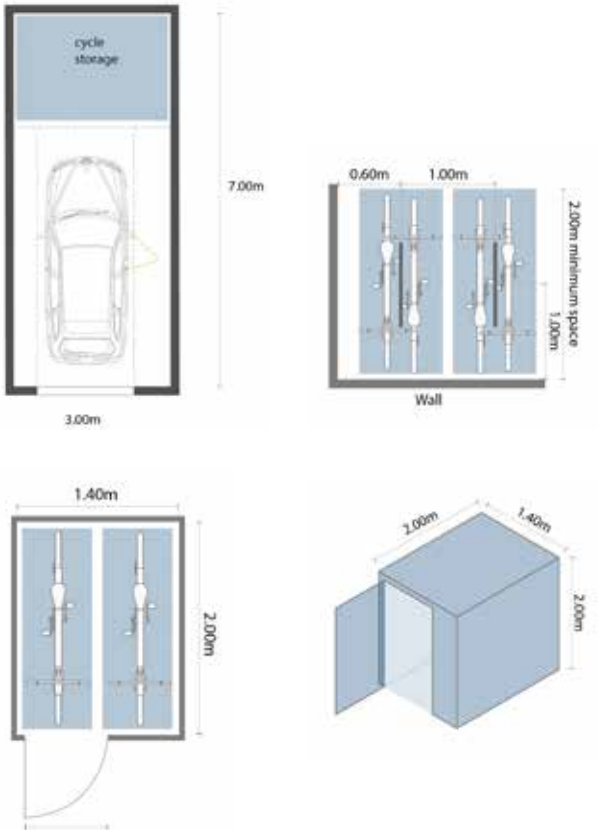
Houses without garages

- Cycle storage must be provided at a convenient location with easy access to get the bikes in and out;
- When provided within the footprint of the dwelling or as a free standing shed, cycle parking should be accessed by means of a door of at least 900mm width and the clear interior space should be at least 2m deep;
- Cycle parking should be secure, covered and it should be well integrated into the streetscape if it is allocated at the front of the house;
- The use of planting alongside cycle parking can be used to mitigate any visual impact on adjacent spaces or buildings.

Houses with garages

- The minimum garage size should be 7mx3m to allow space for cycle storage;
- Where possible cycle parking should be accessed from the front of the building either in a specially constructed enclosure or easily accessible garage;
- The design of any enclosure should integrate well with the surroundings;
- The bike must be removed easily without having to move the vehicle;
- These features also apply for small blocks of apartments.





KEY

- Cycle storage
- Bin storage
- Clear access path
- Cycle/bin wheeling route

Figure 55: Diagrams showing design features for cycle parking and storage.

SPC6. STREET TREES AND LANDSCAPING

Providing street trees and landscaping within the built environment creates an interesting and varied streetscape and brings environmental, physical and mental health benefits. Desired features when proposing trees and landscape on streets are:

- Any existing large mature trees should be retained, particularly those with Tree Protection Orders (TPO);
- Trees can be used to emphasise important streets or as feature elements that can be used as a reference point for wayfinding;
- The species of trees used should be native to the area;
- Trees should be present within pubic open spaces and children's play areas to create environmental and health benefits;
- Where possible existing mature hedgerows should be retained;
- Grasses and other planting such as flower beds can be combined with trees to create variety and biodiversity;
- If only one side of the street or space will have trees, locate trees on the northern side; in this way south facing properties will benefit from shading;
- Plan location of trees to continue biodiversity corridors, for example to create a continuum of back gardens interrupted by streets;
- Design tree pits with root control/barriers from the start.

Figure 56: Diagram showing street trees and different types of planting.

SPC7. LIGHTING

Lighting is an important aspect of the street ambiance and quality, as well as an element that helps with the feels of safety. Issues to address when designing the lighting scheme of new proposals are as follows.

- For maximum benefit, the best use of artificial light is about getting the right light, in the right place, at the right time of day. Lighting schemes can be costly and difficult to change, therefore it is important the appropriate conditions are set out at the design stage;
- Given the proximity to the countryside, lighting in Hoxne should be kept to a minimum, ensuring lighting schemes will not cause unacceptable levels of light pollution, particularly in dark areas where dark skies are enjoyed in the countryside;
- Consider lighting schemes that can be turned off when not needed. The impact on sensitive wildlife receptors throughout the year, or at certain times of year can be mitigated by the design of the lighting or by turning it down or off at sensitive times.
- The needs and safety of pedestrians and cyclists will need to be considered and schemes will need to consider those who may require higher levels of light and enhanced contrast such as the elderly or the visually impaired.
- Vegetation and planting in front gardens should be dense to absorb light and also offer some separation between public and private space.
- Street furniture, such as seating, bike stands or bus stops, should be placed where they benefit from a lighting scheme making them safer to use;
- Ensure minor pedestrian paths and footways have appropriate lighting.

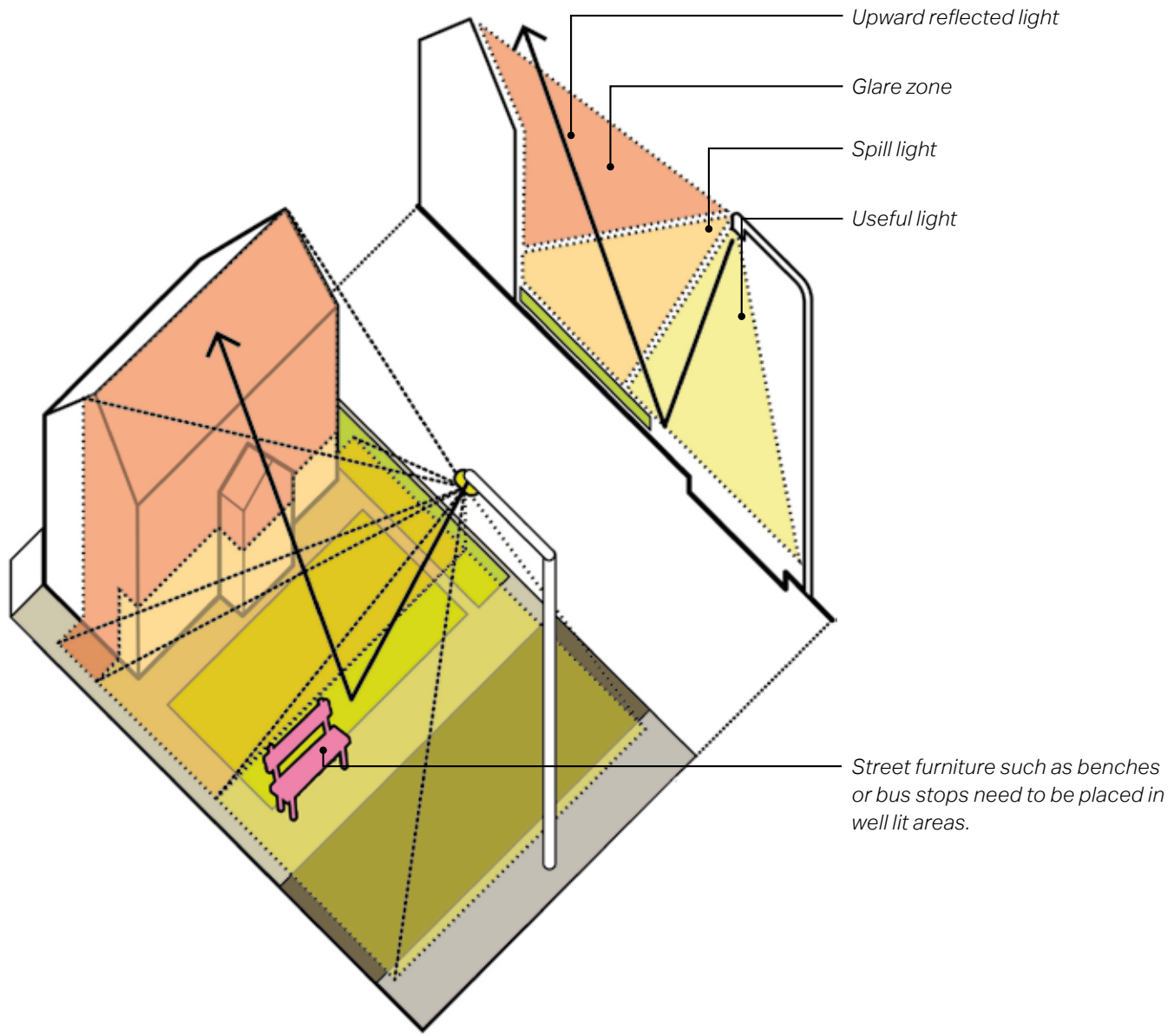


Figure 57: Diagram showing lighting and street furniture.

3.5. Built form

Designing out crime and designing community safety is essential to the creation of successful, safe and attractive developments. The following guidelines are in line with the latest manual endorsed by the police, 'Secured by Design Homes 2019'. The Guidelines for new development are:

BF1. OVERLOOK PUBLIC SPACE

- There should be well-defined routes, spaces and entrances that provide convenient movement without compromising security;
- Main building facades should overlook streets and open spaces to improve natural surveillance. In addition, side windows and driveways should also be well-overlooked;
- Integrate facilities into the open spaces that meet the needs of the people living close by in order to make them attractive;
- Avoid using tall green screening on front gardens in order to allow for some filtered views to the street and the open spaces;
- Integrate light installations along the streets as well as in the open spaces in order to improve the feeling of safety in the area. Buildings should have openings such as doors and windows that look out over the street and public spaces. This provides eyes on the street, acting as natural surveillance to enhance the perception of safety along the street and within public spaces.

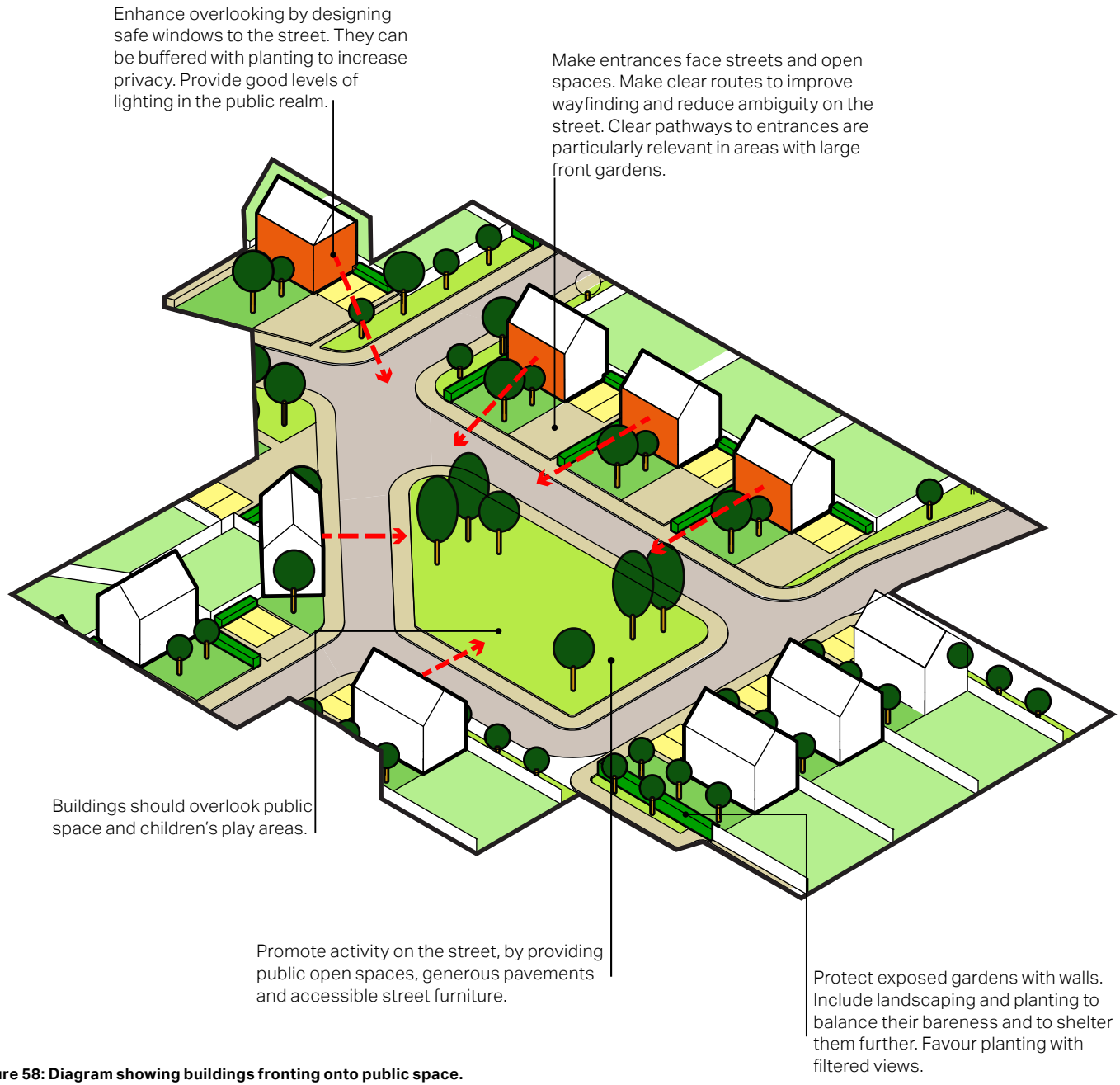
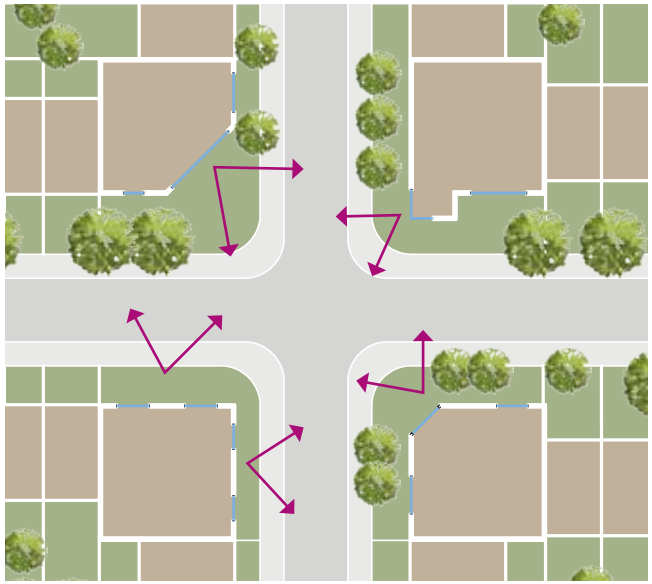


Figure 58: Diagram showing buildings fronting onto public space.

BF2. TURN THE CORNER

Together with the creation of potential local landmarks, one of the crucial aspects of a successful townscape and built form is the issue of corners. Because these buildings have at least two public facing facades, they have double the potential to influence the street's appearance. Therefore, the following guidelines apply to corner buildings.

- If placed at important intersections the building could be treated as a landmark and thus be slightly taller or display another built element, signalling its importance as a wayfinding cue;
- The form of corner buildings should respect the local architectural character. Doing so improves the street scene and generates local pride;
- All the facades overlooking the street or public space should be treated as primary facades;
- The facades should have some form of visual contact in the form of windows, balconies, or outdoor private space;
- Road layouts should be designed to slow traffic and prioritise pedestrians over vehicles;
- Corner buildings enhance the natural surveillance of the street by providing two primary street facing façades that have openings that look out over the street.



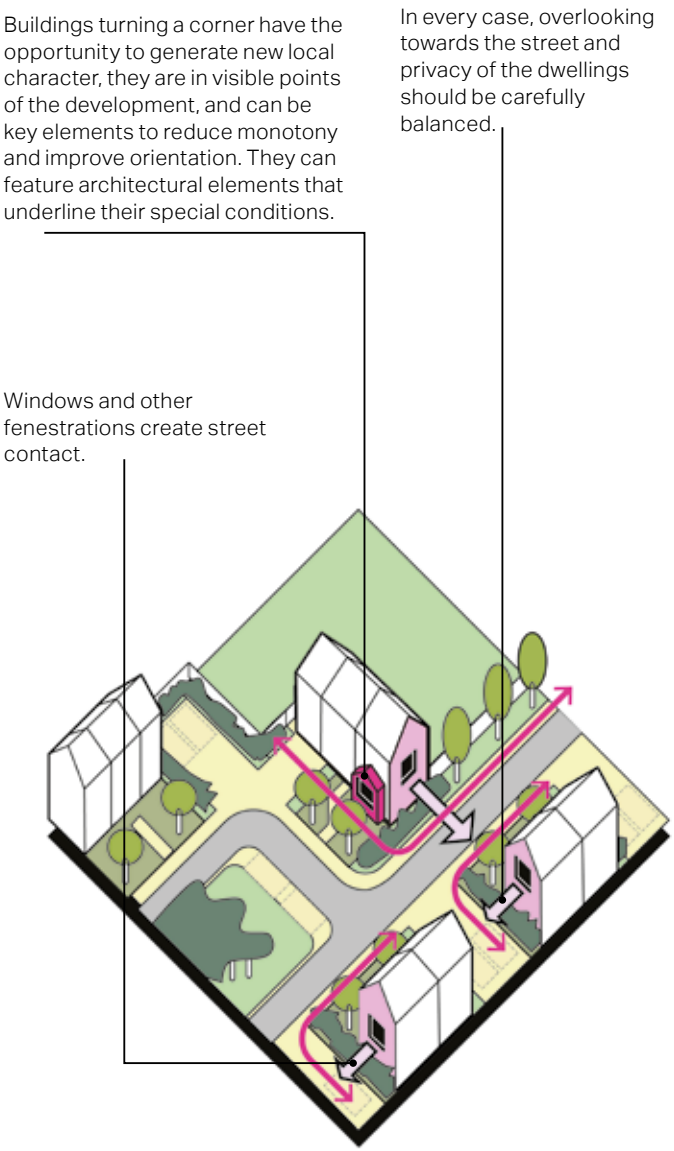


Figure 59: Diagrams showing the desired treatment of corners.

BF3. FRONTS AND BACKS

- The fronts and backs of properties should be well-defined to inform the structure of the village;
- Encourage a perimeter block pattern;
- Dwellings should have their primary facade facing the street with a clear property boundary separating the public from the private domain.

BF4. MAINTAIN A CONSISTENT BUILDING LINE

- The location and orientation of the buildings in relation to the street can affect the feel of an area;
- The building line along a street should generally be consistent and form a unified whole but allow for subtle variations in the form of recesses and protrusions. This provides variety and movement along the street;
- Boundary treatments should reinforce the sense of continuity of the building line and help define the street, appropriate for the character of the village.

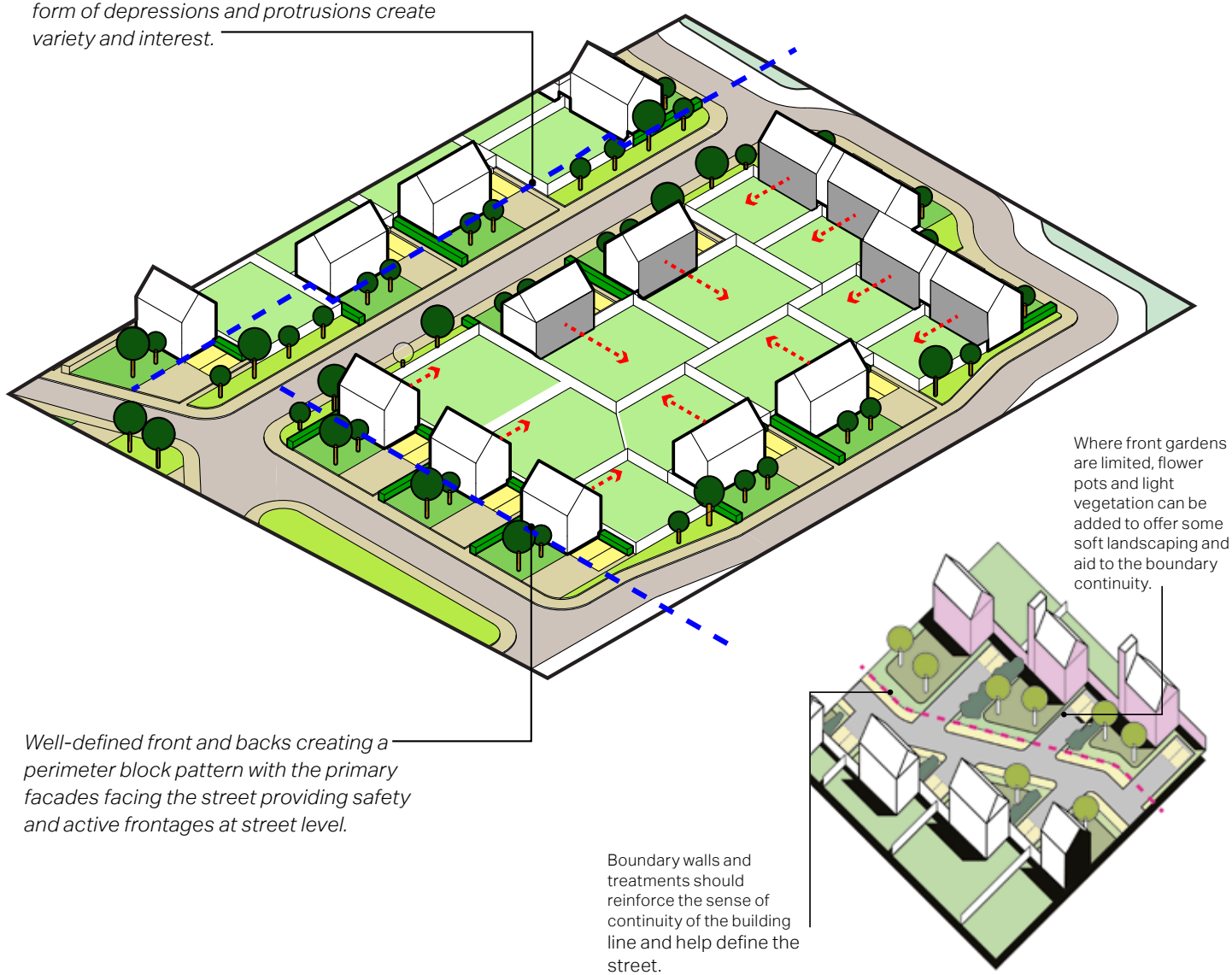


Figure 60: Diagram showing fronts, backs and consistent building lines.

BF5. GAPS AND VIEWS

- Gaps and views are important as they provide framed moments within the built environment of either landmarks or the open countryside. Where appropriate they need to be established;
- Generous gaps between buildings should be created to provide glimpses and filtered views to the countryside beyond. This will connect people with nature and contribute to the general feel of openness;
- Street should be perpendicular to the open countryside in order to create long views from the street. This allows everyone to enjoy the countryside views and enhances legibility by allowing people to orientate themselves in relation to the open space.

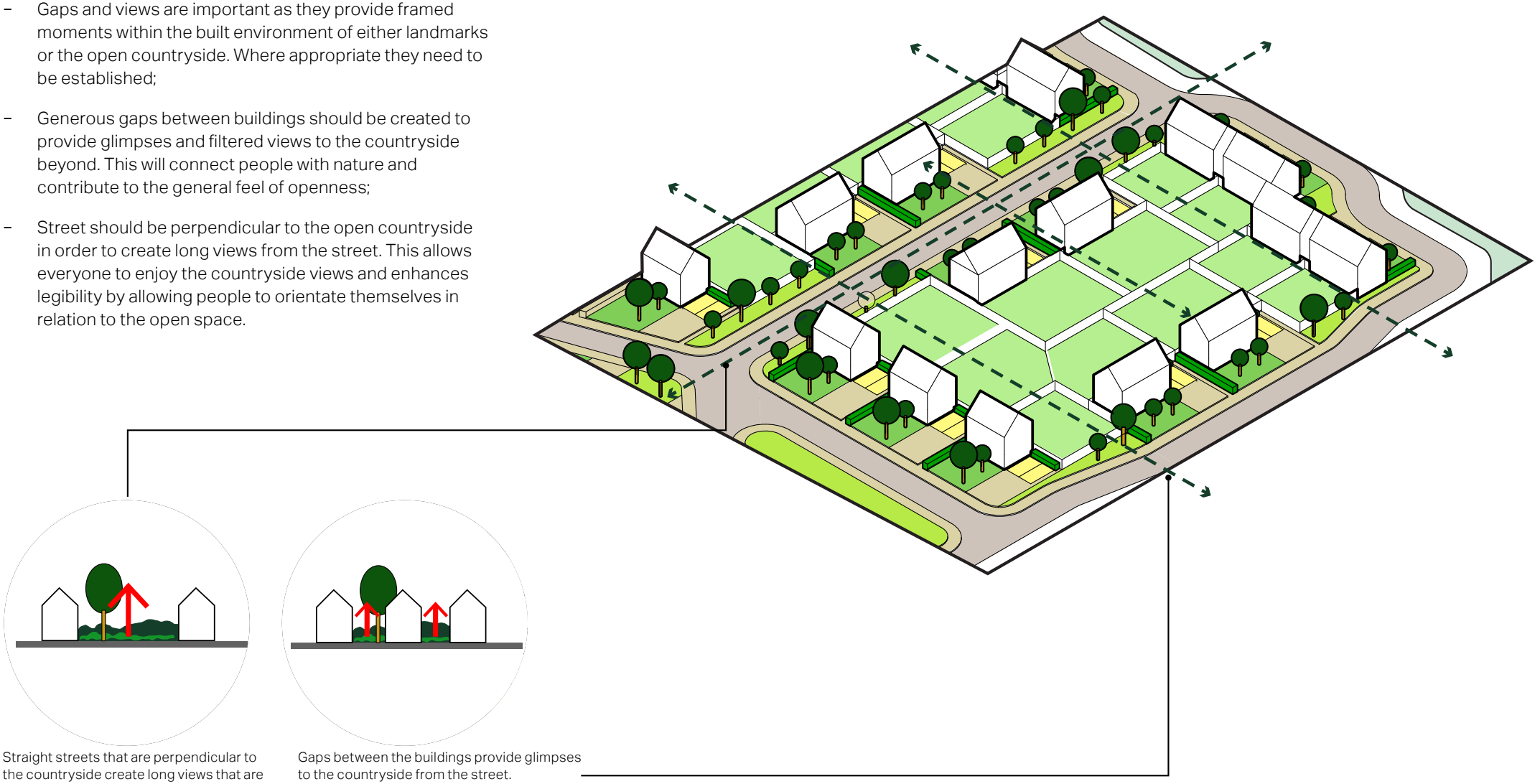


Figure 61: Diagram showing gaps between buildings and long views.

BF6. PROPERTY BOUNDARY TREATMENT

- Boundary treatments should be used at the plot edge to provide a sense of continuity and cohesion along the street as well as providing separation between the public and private domains;
- Using a range of high-quality materials such as brick, hedgerows, ironmongery, planting or a combination of these along the boundary edge, can bring cohesion to the street and the village, whilst still providing visual interest;
- The boundary treatment should be a maximum of 1.2m in height;
- Not having a form of boundary should be avoided;
- Properties should also have a front garden or privacy strip ranging from 1 to 6m in depth to create the desired amount of enclosure along the street (see street typologies).

BF7. GROUND APPEARANCE

- The ground appearance within the curtilage of the property boundary should be finished using high-quality materials that compliment the building materials and colours (see architectural details later in this chapter);
- Front gardens should use a combination of planting and hard materials and the recommendation is that planting should predominate. Paving over the whole of front gardens should be avoided;
- Driveways should use permeable paving to enable water to filter through and should be in harmony with the landscaping surrounding the property (see also SPC4. Sustainable Drainage Systems (SuDS) in streets).

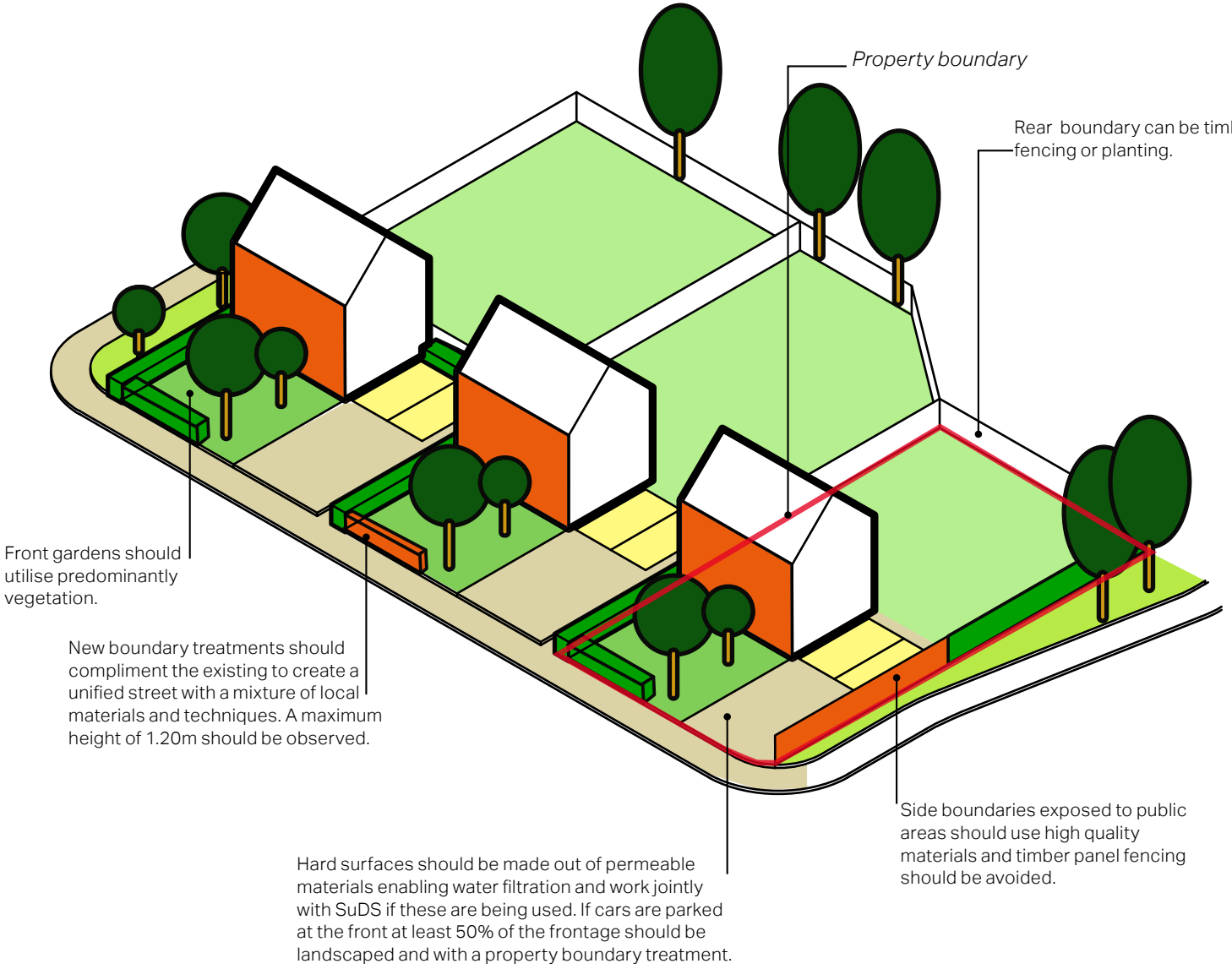


Figure 62: Diagram showing the property boundary and ground treatment.

BF8. GATEWAYS

- Future design proposals should consider placing gateway elements to clearly mark the access or arrival to any potential developed sites. This is particularly important for developments at the edge of settlements due to their location at the interface between the built-up area and the countryside;
- The sense of departure and arrival can often be achieved by a noticeable change in scale, enclosure, or road configuration as well as by placing built elements such as gates, arches or similar. The gateway buildings or features should however reflect local character. For example, they must reflect the informal characters of the settlements in the village and their architectural diversity;
- Besides building elements acting as gateways, high-quality landscaping features could be considered appropriate to fulfil the same role;
- It must be noted that gateway features should mainly be placed to mark a sense of arrival and departure and help with orientation, not to exclude non-residents either physically or symbolically. New developments should also be designed with an open and legible layout rather than an enclosed one.

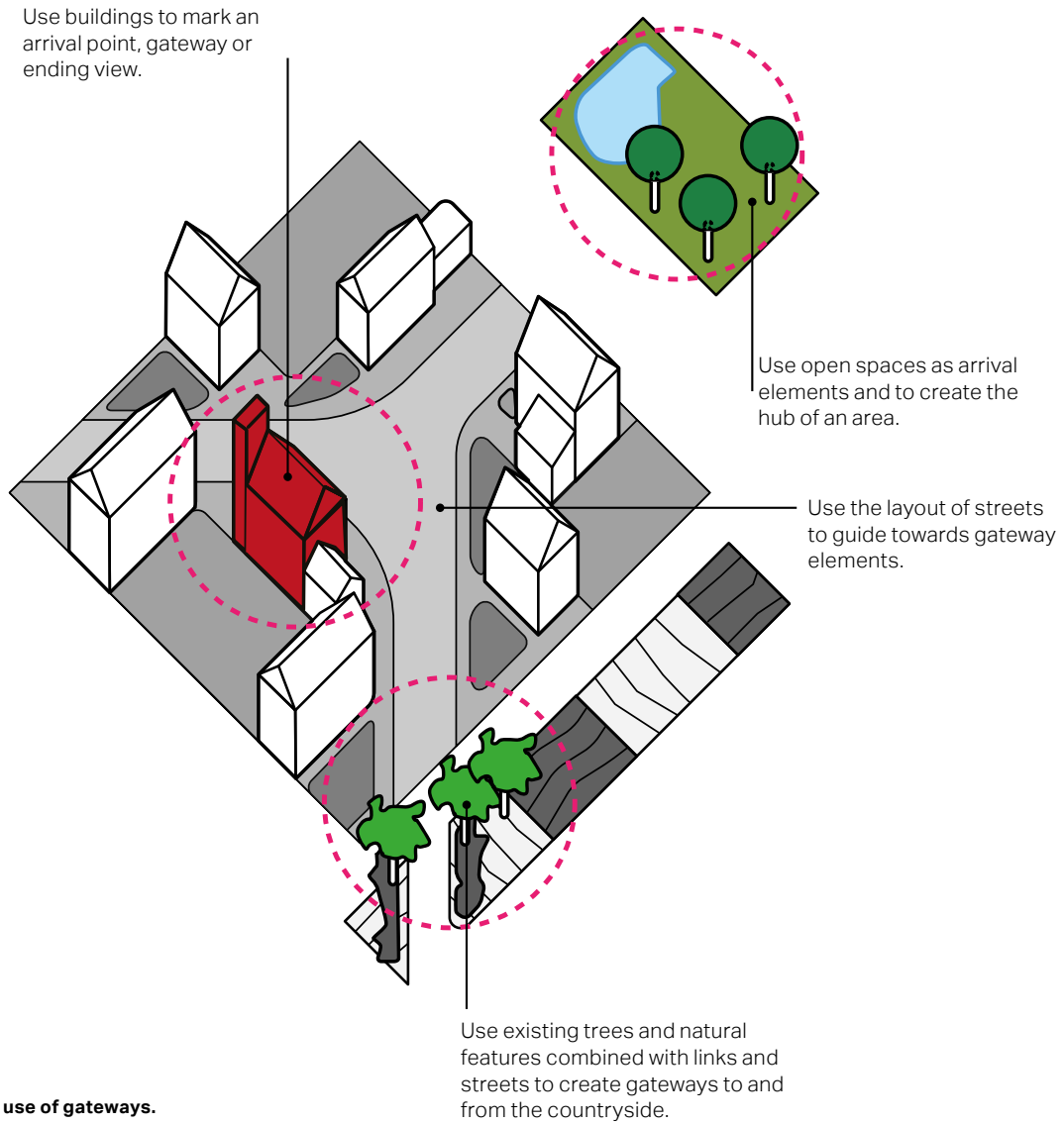


Figure 63: Diagram showing the use of gateways.

BF9. ROOF PROFILE

Creating a good variety in the roof line is a significant element of designing attractive places. Hoxne has a variety of roof profiles that can be referenced to influence new designs. This section shows examples of attractive roofs to be used as reference and guidelines to achieve a good variety of roofs.

- The scale of the roof should always be in proportion with the dimensions of the building;
- Monotonous building elevations should be avoided, with subtle changes in the roof line being promoted during the design process;
- Within Hoxne the majority of the buildings have a pitched or gable pitched roof, therefore these types of roof are the most appropriate;
- Local traditional roof detailing elements should be considered and implemented where possible.;
- Roofs should also be designed with photovoltaic taken into consideration, either as part of the initial design or for future retrofit. The orientation and available roof space should also be considered.

Figure 64: Photographs showing local examples of attractive roofs.

BF10. FACADES AND FENESTRATION

Fenestration on public/private spaces increase the natural surveillance and enhance the attractiveness of the place. Considerations for natural surveillance, interaction, and privacy must be carefully balanced. This section shows examples of fenestration in Hoxne and guidelines for design.

- Corner buildings should incorporate windows on both primary and secondary facades;
- Long stretches of blank (windowless) walls must be avoided;
- Windows should be of sufficient size and number for abundant natural light;
- Site layout and building massing should ensure access to sunshine and avoid overshadowing neighbouring buildings. New developments should also maximise opportunities for long-distance views through careful placement of windows;
- Consistent window styles and shapes should be used across a given facade to avoid visual clutter and dissonance. Varieties in window types, shapes, and details should however be encouraged across the same development;
- The street facing façades of a building should have openings such as doors and windows that are arranged in an orderly way to create a sense of rhythm along the street;
- Bay windows and dormers can be used to articulate the building elevation but must be appropriately sized and well-integrated through their materiality and positioning.

Figure 65: Photographs showing local examples of attractive facades and fenestration.

BF11. ARCHITECTURAL DETAILS AND MATERIALS

The materials and architectural detailing used throughout Hoxne can be a reference point for new development and contribute to its village character.

- The materials that will be used in the new developments should be of a high quality and reinforce local distinctiveness.
- Development proposals should demonstrate that the palette of materials has been selected based on an understanding of the surrounding built and natural environment.
- In new developments, locally sourced bricks or bricks that match the buildings in the surrounding area would be the most appropriate. Particular attention should be given to the bonding pattern, size, colour, and texture of bricks.
- This section includes examples of architectural details and building materials that contribute to the local vernacular of Hoxne and which could be used to inform future development;
- For further guidance, refer to Hoxne's Conservation Area Appraisal (www.babergh.gov.uk/assets/Conservation-Area-Appraisals/HOXNE-adopted.pdf).

Roofing

Strong chimney, dormer and clay tiles

Tiled roof and timber weatherboarding

Grey slate tiles

Thatched roof

Intricate roof shape and dark tiles

Roof shapes reminiscent of rural built forms

Hipped roof

Pitched roof with decorative items

Dutch roof

Walling & building facades

Brick timber window frames and wood detailing

Subtle combination of materials. Weatherboarding, render and tiles

Flint and brick detailing on community hall

Combination of brick and render in a modern take

Detailing in wood

Render - off-white

Flint on a building facade

Painted brick

Brick on the ground floor and off-white render on the first floor

Render - pink

Render - yellow

Brick nogging

Traditional windows and details (casement, sash and bow)

Combination of both vertical and horizontal proportions with subdivisions

Modern windows and details (casement)

Modern windows that show influence of traditional fenestration

Physical property boundaries to integrate built form

Vegetation and flowers

Low level planting

Bushes and planting

Hedgerows and trees

Hard property boundaries

Low height brick wall with vegetation

Low height wall with brick patterns

Banham brick wall

Low height brick wall with railings

BF11. ADAPTABILITY

- Houses should be designed to meet the differing and changing needs of households and people's physical abilities over their entire lifetime. This is an important aspect of making homes sustainable and durable;
- One way to achieve this is to incorporate all the standards- M4(1), M4(2) and M4(3)- of the approved document M4 of the Building Regulations in the design of new homes and to assess whether they can be retrofitted in existing properties;
- The diagram to the right illustrates the principles of inclusivity, accessibility, adaptability and sustainability in a dwelling.

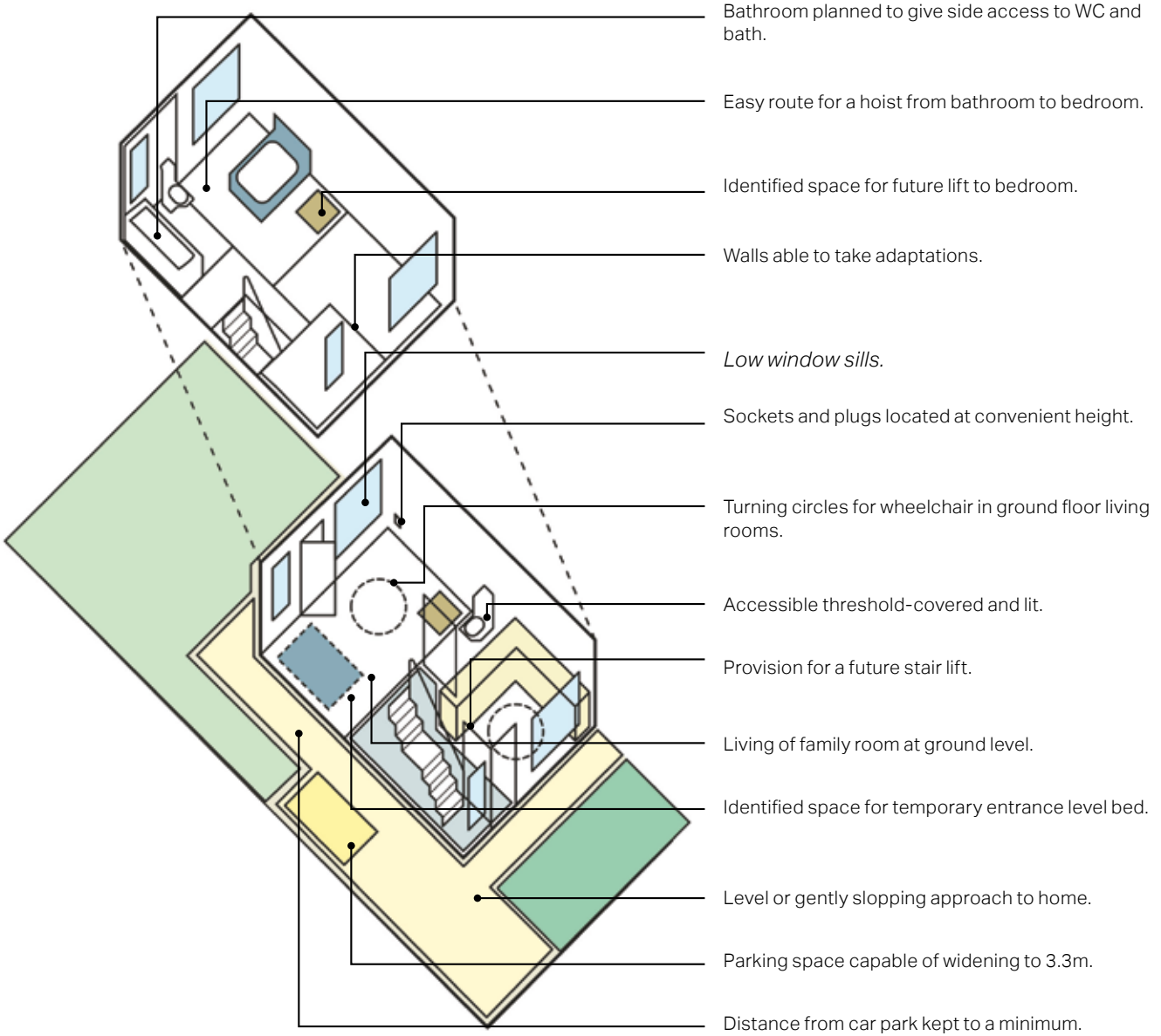


Figure 66: Diagram showing design considerations for a lifetime home.

BF12. SHOP FRONTS

The visual appearance of a shop front can have both a positive or a negative effect on the character of an area. Therefore, it is important that shop fronts are contextual as well as tidy and well-ordered.

- The design of a shop front should take into consideration its effect on the rest of the street;
- The materials and details of a shop front should complement the design of the original building and respect the building proportions;
- Shop signage should be well-proportioned and have well-designed fascia. The style and fonts used can be individual but should be clear;
- The shop windows can be larger in size but should still be proportionate to the building. Oversized windows with large amount of glazing should be avoided as it is not in keeping with the village;
- A view into the shop should be visible from the street. Completely covering the shop window with advertising should be avoided;
- Signage illumination should be indirect, integrated and sensitively designed so the streetscape and character of the village is not negatively affected.

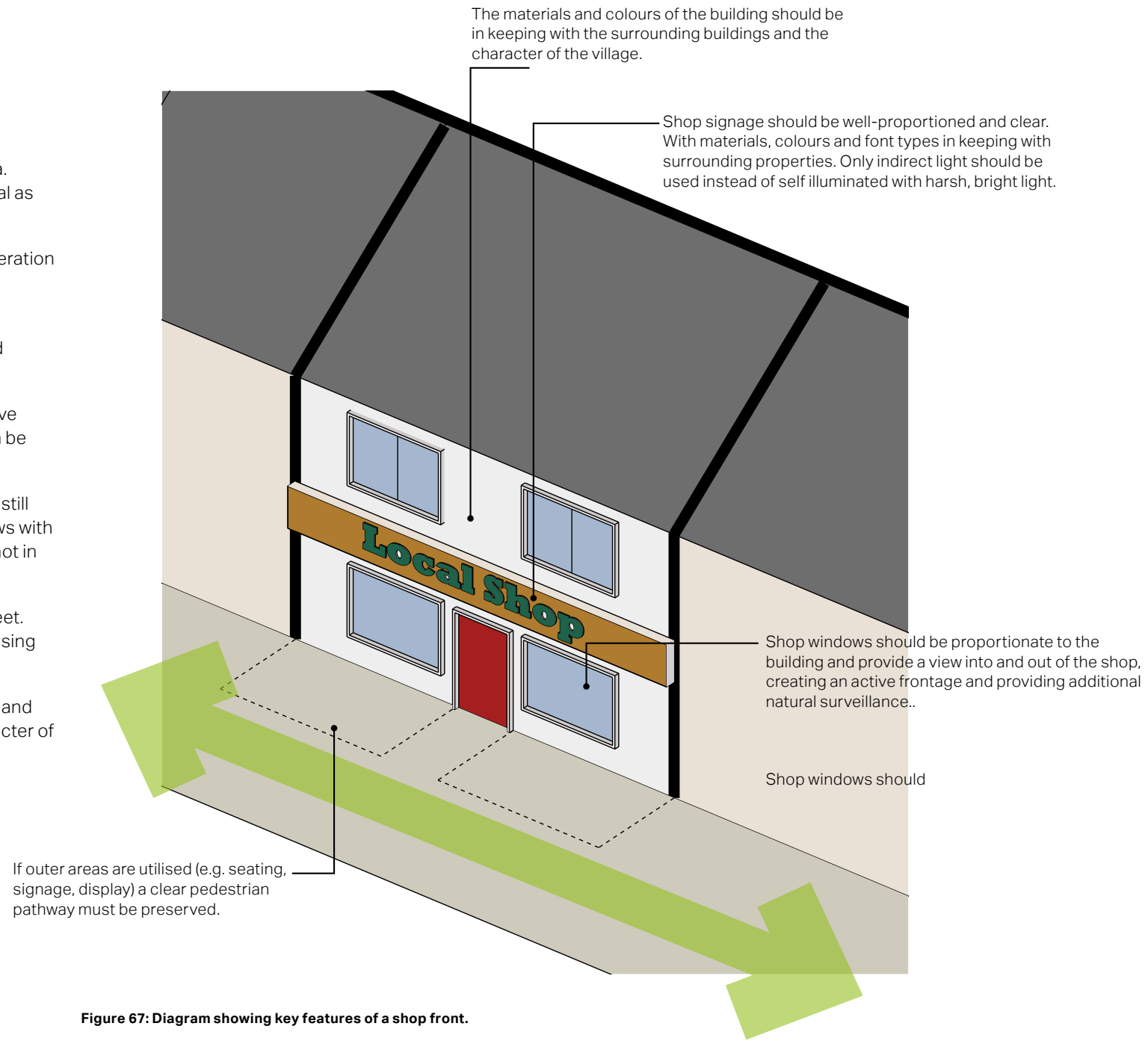


Figure 67: Diagram showing key features of a shop front.

3.6. Environmental and energy efficiency aspects

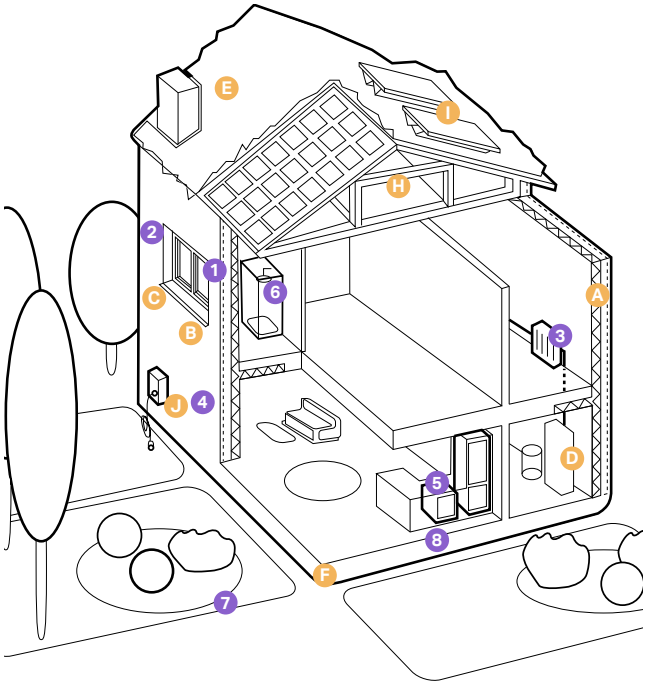
The following section elaborates on energy efficient technologies that could be incorporated in buildings.

The use of such principles and design tools is strongly encouraged to future proof buildings and avoid the necessity of retrofitting.

Energy efficient or eco design combines all around energy efficient appliances and lighting with commercially available renewable energy systems, such as solar electricity and/or solar/ water heating.

EE1. FEATURES IN DWELLINGS

The diagram opposite features an array of sustainable design features. Those on the left show the features that should be strongly encouraged in existing homes, while those on the right show additional features that new build homes should be encouraged to incorporate from the outset.



Existing homes

1. **Insulation** in lofts and walls (cavity and solid)
2. **Double or triple glazing with shading** (e.g. tinted window film, blinds, curtains and trees outside)
3. **Low- carbon heating** with heat pumps or connections to district heat network
4. **Draught proofing** of floors, windows and doors
5. **Highly energy-efficient appliances** (e.g. A++ and A+++ rating)
6. **Highly waste-efficient devices** with low-flow showers and taps, insulated tanks and hot water thermostats
7. **Green space (e.g. gardens and trees)** to help reduce the risks and impacts of flooding and overheating
8. **Flood resilience and resistance** with removable air back covers, relocated appliances (e.g. installing washing machines upstairs), treated wooden floors

Additional features for new build homes

- A **High levels of airtightness**
- B **More fresh air** with the mechanical ventilation and heat recovery, and passive cooling
- C **Triple glazed windows and external shading** especially on south and west faces
- D **Low-carbon heating** and no new homes on the gas grid by 2025 at the latest
- E **Water management and cooling** more ambitious water efficiency standards, green roofs and reflective walls
- F **Flood resilience and resistance** e.g. raised electrical, concrete floors and greening your garden
- H **Construction and site planning** timber frames, sustainable transport options (such as cycling)
- I **Solar panels**
- J **Electric car charging point**

Figure 68: Diagram showing potential technologies to be used in new and existing homes.

EE2. BUILDING FABRIC

Thermal mass

Thermal mass describes the ability of a material to absorb, store and release heat energy. Thermal mass can be used to even out variations in internal and external conditions, absorbing heat as temperatures rise and releasing it as they fall. Thermal mass can be used to store high thermal loads by absorbing heat introduced by external conditions, such as solar radiation, or by internal sources such as appliances and lighting, to be released when conditions are cooler. This can be beneficial both during the summer and the winter.

Thermal storage in construction elements can be providing, such as a trombe wall placed in front of a south facing window or concrete floor slabs that will absorb solar radiation and then slowly re-release it into the enclosed space. Mass can be combine with suitable ventilation strategies.

Insulation

Thermal insulation can be provided for any wall or roof the exterior of a building to prevent heat loss. Particular attention should be paid to heat bridges around corners and openings at the design stage.

Provide acoustic insulation to prevent the transmission of sound between active (i.e. living room) and passive spaces (i.e. bedroom). Provide fir insulation and electrical insulation to prevent the passage of fire between spaces or components and to contain and separate electrical conductors.

Air tightness

Airtight constructions help reduce heat loss, improving comfort and protecting the building fabric. Airtightness is achieved by sealing a building to reduce infiltration- which is sometimes called uncontrolled ventilation. Simplicity is key for airtight design. The fewer junctions the simpler and more efficient the airtightness design will be.

An air tight layer should be formed in the floor, walls and roof. Doors, windows and roof lights to the adjacent walls or roof should be sealed. Link the interfaces between walls and floor and between walls and roof, including around the perimeter of any intermediate floor. Seal penetrations through the air barrier. Consider waster pipes and soil pipes, ventilation ducts, incoming water, gas, oil, electricity, data and district heating, chimneys and flues, including air supplies to wood burning stoves, connections to external services, such as entry phones, outside lights, external taps and sockets, security cameras and satellite dishes.

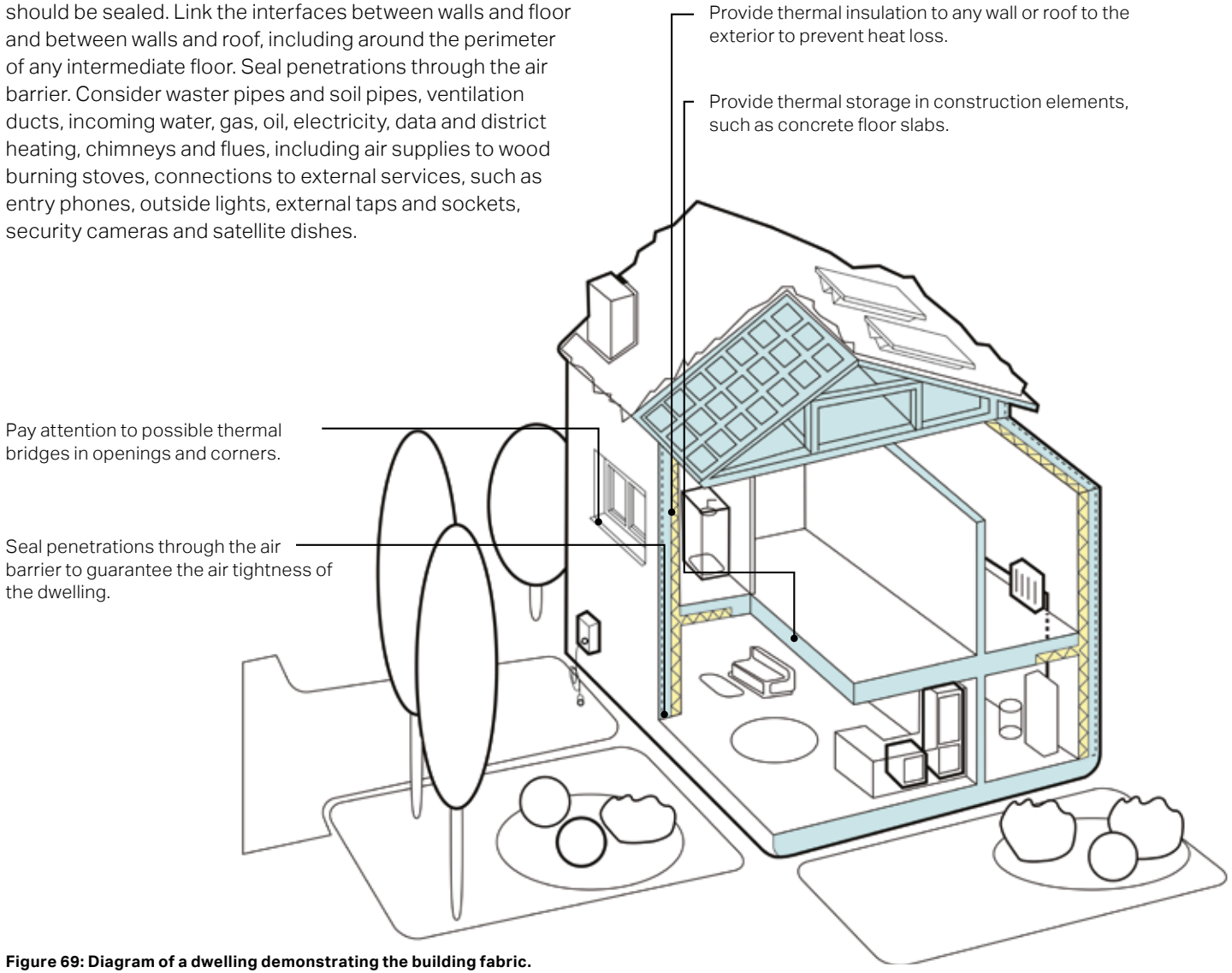


Figure 69: Diagram of a dwelling demonstrating the building fabric.

EE3. RAINWATER HARVESTING

Rainwater harvesting is a system for capturing and storing rainwater as well as enabling the reuse of in-situ grey water. Some design consideration include:

- Concealing tanks with complementary cladding.
- Use attractive materials or finishing for pipes, unsightly pipes should be avoided.
- Combine landscape or planters with water capture systems.
- Use underground tanks.

Figure 70: Water tank cladded with a complementary material.

Figure 72: Concealed tanks integrated with the design.

EE4. ROOF SOLAR PANELS

- Solar panels should be designed to have minimal visual impact on the roof of a building. New builds should incorporate solar panels from the beginning and form part of the design concept. Some attractive options are solar shingles, photovoltaic slates or tiles. Solar panels can also be used as a roofing material in its own right.
- When retrofitting existing buildings the proportions of the roof and building should be considered to identify the best location and sizing of the panels. Tiles or slates of different colours can be added to the roof to better integrate the solar panels.

Figure 71: Retrofitted solar panels integrated sympathetically with a traditional building.

Figure 73: Solar panels integrated with a contemporary building design.

EE5. GREEN ROOFS AND WALLS

Green roofs can improve drainage and enhance biodiversity, as well as being an attractive option. Some design considerations are:

- To integrate the green roof into the design process.
- Easy to reach for maintenance.
- Should complement the surrounding landscape.

Figure 74: Housing extension with a green roof.

Figure 76: Garden building with a green roof.

EE6. PERMEABLE PAVEMENTS

Permeable pavement should be used in front of properties along with front gardens to help with drainage and allow water to filter through. Some design considerations are:

- To respect the material palette of the building and the street.
- Harmonise with the landscape treatment of the property.
- Create an arrival statement and help define the property boundary.

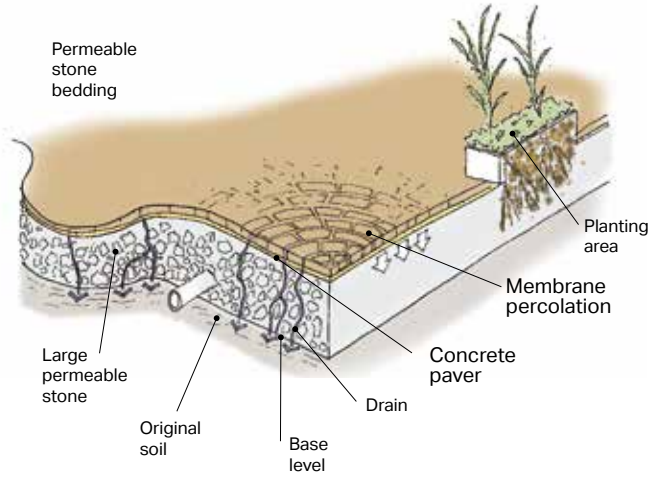


Figure 75: Diagram showing a section through permeable paving.

EE7. STORAGE

Storage can be provided for things such as bicycles, waste bins and deliveries that might otherwise clutter the street scene.

Cycle storage

- Residential cycle storage should be provided within the property boundary. Dwellings with a garage can have combined cycle and waste storage within the garage. Dwellings without a garage should have a secure covered cycle enclosure.
- Ensure a sufficient level of security if the storage is accessible from the street.
- The design of the storage should be well-integrated and can be used as part of the property boundary.

Waste storage

- Specific enclosures of a sufficient size should be created for all the necessary bins. Bin storage can be used as part of the boundary treatment.
- Unattractive and unsafe rear alleyways between back garden fences must be avoided.

Post and deliveries

- All dwellings should be provided with individual, lockable post boxes as well as a secure place to deposit parcel deliveries.
- Parcel boxes should be designed into the scheme from the an early stage to avoid cluttering the streetscape. They must be placed discretely away from front elevations.

Figure 77: Residential cycle storage with a green roof.

Figure 79: High-quality materials used for the waste bin storage.

Figure 78: Waste bin storage used as a boundary treatment.

Figure 80: Example of a delivery box.

EE8. WILDLIFE FRIENDLY

There are a number of ways in which the built environment can support wildlife and even help it thrive. As well as design considerations there are a number of actions that can be taken by individuals and communities to foster wildlife and habitat creation.

Biodiversity corridors

- Front and back gardens along with public green spaces and surrounding fields can play a key role in supporting wildlife. They have the potential to create habitat mosaics and enable wildlife corridors, often linked up with parks, tracks, rivers, churchyards and hedgerows.
- To support biodiversity corridors the use of chemicals in gardens should be reduced or eliminated.
- Plant early, mid-season and late blooming nectar rich flowers to attract pollinators and beneficial insects all year round.

Habitat creation

- There are a number of ways to create local habitats for wildlife such as bee boxes, hedgehog homes, log and stone piles for invertebrates, toads and slow worms that will also inhabit compost heaps.
- Bird or bat boxes such as a hollow brick can be installed.

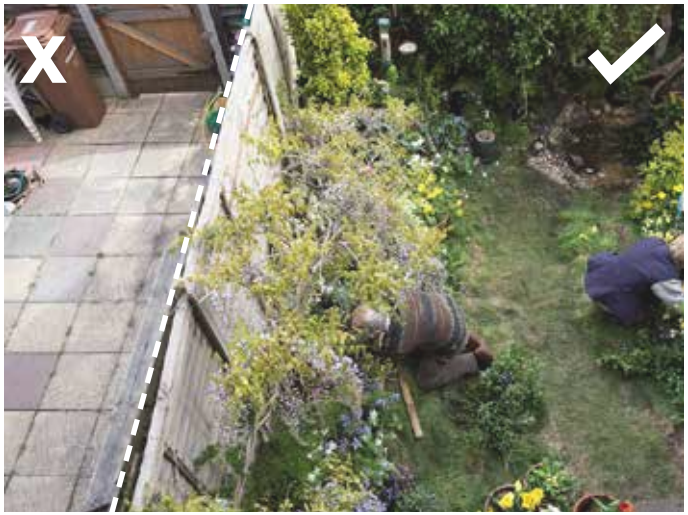


Figure 81: Contrast of a bare garden (left) vs. one full of plants (right).

Figure 82: Bird box that can be used for nesting birds.

Figure 83: Example of a bee box.

Figure 84: Small ponds can increase biodiversity.

3.7. General questions to ask and issues to consider when presented with a development proposal

Because the design guidelines and codes in this chapter cannot cover all design eventualities, this section provides a number of questions based on established good practice against which the design proposal should be evaluated.

The aim is to assess all proposals by objectively answering the questions below. Not all the questions will apply to every development.

The relevant ones, however, should provide an assessment as to whether the design proposal has taken into account the context and provided an adequate design solution.

As a first step there are a number of ideas or principles that should be present in all proposals.

These are listed under 'General design guidelines for new development'. Following these ideas and principles, a number of questions are listed for more specific topics.

1

General design guidelines for new development:

- Does it integrate with existing paths, streets, circulation networks and patterns of activity?
- Does it reinforce or enhance the established settlement character of streets, greens, and other spaces?
- Does it harmonise and enhance existing settlement in terms of physical form, architecture and land use?
- Does it relate well to local topography and landscape features, including prominent ridge lines and long-distance views?
- Does it reflect, respect, and reinforce local architecture and historic distinctiveness?
- Does it retain and incorporate important existing features into the development?
- Does it respect surrounding buildings in terms of scale, height, form and massing?
- Does it adopt contextually appropriate materials and details?
- Does it provide adequate open space for the development in terms of both quantity and quality?
- Does it incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features?
- Does it ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other?
- Does it make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation, and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours?

1 (continued)

- Does it positively integrate energy efficient technologies?
- Does it ensure that places are designed with management, maintenance and the upkeep of utilities in mind?
- Does it seek to implement passive environmental design principles by, firstly, considering how the site layout can optimise beneficial solar gain and reduce energy demands (e.g. insulation), before specification of energy efficient building services and finally incorporate renewable energy sources?

2

Street grid and layout:

- Does it favour accessibility and connectivity? If not, why?
- Do the new points of access and street layout have regard for all users of the development; in particular pedestrians, cyclists and those with disabilities?
- What are the essential characteristics of the existing street pattern; are these reflected in the proposal?
- How will the new design or extension integrate with the existing street arrangement?
- Are the new points of access appropriate in terms of patterns of movement?
- Do the points of access conform to the statutory technical requirements?

3

Local green spaces, views and character:

- What are the particular characteristics of this area which have been taken into account in the design; i.e. what are the landscape qualities of the area?
- Does the proposal maintain or enhance any identified views or views in general?
- How does the proposal affect the trees on or adjacent to the site?
- Can trees be used to provide natural shading from unwanted solar gain? i.e. deciduous trees can limit solar gains in summer, while maximising them in winter.
- Has the proposal been considered within its wider physical context?
- Has the impact on the landscape quality of the area been taken into account?
- In rural locations, has the impact of the development on the tranquillity of the area been fully considered?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- Can any new views be created?
- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?
- Have opportunities for enhancing existing amenity spaces been explored?
- Will any communal amenity space be created? If so, how will this be used by the new owners and how will it be managed?
- Is there opportunity to increase the local area biodiversity?
- Can green space be used for natural flood prevention e.g. permeable landscaping, swales etc.?
- Can water bodies be used to provide evaporative cooling?
- Is there space to consider a ground source heat pump array, either horizontal ground loop or borehole (if excavation is required)?

4

Gateway and access features:

- What is the arrival point, how is it designed?
- Does the proposal maintain or enhance the existing gaps between settlements?
- Does the proposal affect or change the setting of a listed building or listed landscape?
- Is the landscaping to be hard or soft?

5

Buildings layout and grouping

- What are the typical groupings of buildings?
- How have the existing groupings been reflected in the proposal?
- Are proposed groups of buildings offering variety and texture to the townscape?
- What effect would the proposal have on the streetscape?
- Does the proposal maintain the character of dwelling clusters stemming from the main road?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?
- Subject to topography and the clustering of existing buildings, are new buildings oriented to incorporate passive solar design principles, with, for example, one of the main glazed elevations within 30° due south, whilst also minimising overheating risk?
- Can buildings with complementary energy profiles be clustered together such that a communal low carbon energy source could be used to supply multiple buildings that might require energy at different times of day or night? This is to reduce peak loads. And/or can waste heat from one building be extracted to provide cooling to that building as well as heat to another building?

6

Building line and boundary treatment

- What are the characteristics of the building line?
- How has the building line been respected in the proposals?
- Has the appropriateness of the boundary treatments been considered in the context of the site?

7

Building heights and roofline

- What are the characteristics of the roofline?
- Have the proposals paid careful attention to height, form, massing and scale?
- If a higher than average building(s) is proposed, what would be the reason for making the development higher?
- Will the roof structure be capable of supporting a photovoltaic or solar thermal array either now, or in the future?
- Will the inclusion of roof mounted renewable technologies be an issue from a visual or planning perspective? If so, can they be screened from view, being careful not to cause over shading?

8

Household extensions

- Does the proposed design respect the character of the area and the immediate neighbourhood, and does it have an adverse impact on neighbouring properties in relation to privacy, overbearing or overshadowing impact?
- Is the roof form of the extension appropriate to the original dwelling (considering angle of pitch)?
- Do the proposed materials match those of the existing dwelling?
- In case of side extensions, does it retain important gaps within the street scene and avoid a 'terracing effect'?

8 (continued)

- Are there any proposed dormer roof extensions set within the roof slope?
- Does the proposed extension respond to the existing pattern of window and door openings?
- Is the side extension set back from the front of the house?
- Does the extension offer the opportunity to retrofit energy efficiency measures to the existing building?
- Can any materials be re-used in situ to reduce waste and embodied carbon?

9

Building materials and surface treatment

- What is the distinctive material in the area?
- Does the proposed material harmonise with the local materials?
- Does the proposal use high-quality materials?
- Have the details of the windows, doors, eaves and roof details been addressed in the context of the overall design?
- Do the new proposed materials respect or enhance the existing area or adversely change its character?
- Are recycled materials, or those with high recycled content proposed?
- Has the embodied carbon of the materials been considered and are there options which can reduce the embodied carbon of the design? For example, wood structures and concrete alternatives.

10

Car parking

- What parking solutions have been considered?
- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?
- Has planting been considered to soften the presence of cars?
- Does the proposed car parking compromise the amenity of adjoining properties?
- Have the needs of wheelchair users been considered?
- Can electric vehicle charging points be provided?
- Can secure cycle storage be provided at an individual building level or through a central/ communal facility where appropriate?
- If covered car ports or cycle storage is included, can it incorporate roof mounted photovoltaic panels or a biodiverse roof in its design?

11

Architectural details and design

- If the proposal is within a Conservation Area, how are the characteristics reflected in the design?
- Does the proposal harmonise with the adjacent properties?
- This means that it follows the height massing and general proportions of adjacent buildings and how it takes cues from materials and other physical characteristics.
- Does the proposal maintain or enhance the existing landscape features?
- Has the local architectural character and precedent been demonstrated in the proposals?
- If the proposal is a contemporary design, are the details and materials of a sufficiently high enough quality and does it relate specifically to the architectural characteristics and scale of the site?
- Is it possible to incorporate passive environmental design features such as larger roof overhangs, deeper window reveals and/or external louvres/shutters to provide shading in hotter months?
- Can the building designs utilise thermal mass to minimise heat transfer and provide free cooling?
- Can any external structures such as balconies be fixed to the outside of the building, as opposed to cantilevering through the building fabric to reduce thermal bridge?

Masterplan Study

04

4. Masterplan Study

4.1. Introduction

This chapter shows the resulting concept masterplans developed as part of the studies carried out in Hoxne.

4.2. Objectives

As part of the support package, AECOM developed a concept masterplan for two sites that are allocated for development. The objective was to provide the Neighbourhood Plan Steering Group with concept schemes that confirmed the capacity of the site as well as applying best practice design principles to understand the potential spatial qualities, form and layout development on these sites might take.

To do so we carried out a site by site analysis identifying the main issues and opportunities from a design perspective. Based on this analysis the concept masterplan was developed.

The desired capacity for the sites is as follows:

Site E target = 38 dwellings;

Site F target = 15 dwellings;

Overall target = 53 dwellings.

After three iterations jointly developed with the steering group as well as representatives of the landowners, a final concept masterplan was agreed. The final iteration is shown in the following pages together with the analysis.

Please note. The illustrative plans shown in the following are not definitive. Final design will follow once all detailed technical investigations and studies have been carried out.

Figure 85: Existing access to site E from Denham Road.

Figure 86: Existing access to site F from Denham Low Road.

Figure 87: View of existing listed barn and access to site E from Denham Low Road.

Figure 88: View of potential location for new access to site E from Denham Road.

4.3. Constraints and issues

For illustrative purposes only; not a final proposal

4.4. Opportunities

For illustrative purposes only; not a final proposal

4.5. Concept masterplan

CONCEPT MASTERPLAN

- Site boundary
- Wider access/movement network
- Access
- New streets
- New dwellings
- New private gardens
- New property boundary (hedges, walls and fencing)
- Carparking
- New Trees
- New buffers for visual mitigation
- New public spaces
- Existing groups of trees providing edges and visual separation retained
- Existing planting buffer enclosing sites and acting as visual separation retained
- Existing grassland areas retained for school use
- Existing pond retained
- Pedestrian/cycle access
- Filtered views to countryside
- Cycling / pedestrian link enabled
- Natural surveillance from dwellings

For illustrative purposes only; not a final proposal

Next steps

05

5. Next steps

The Design Guidelines and Codes will be a valuable tool in securing context-driven, high quality development within Hoxne.

They will be used in different ways by different actors in the planning and development process, as summarised in the table.

ACTORS	HOW THEY WILL USE THE DESIGN GUIDELINES
Applicants, developers, and landowners	As a guide to community and Local Planning Authority expectations on design, allowing a degree of certainty – they will be expected to follow the Guidelines as planning consent is sought.
Local Planning Authority	As a reference point, embedded in policy, against which to assess planning applications. The Design Guidelines and Codes should be discussed with applicants during any pre-application discussions.
Parish Council	As a guide when commenting on planning applications, ensuring that the Design Guidelines and Codes are complied with.
Community organisations	As a tool to promote community-backed development and to inform comments on planning applications.
Statutory consultees	As a reference point when commenting on planning applications.

About AECOM

AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately $17.4 billion during fiscal year 2016. See how we deliver what others can only imagine at aecom.com and @AECOM.

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