



# DRAFT AUSTREY

Design Guidance  
and Codes

First Draft Report  
February 2024

## Quality information

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Introduction

01

Figure 01: Detached property on Main Road

# 1. Introduction

**The aim of the Neighbourhood Plan design code is to empower the local community to influence the design and character of the local area and to deliver suitable, sustainable development that meets the needs of local people.**

## 1.1 Background

Through the Department of Leveling Up, Housing and Communities (DLUHC) Neighbourhood Planning Programme led by Locality, AECOM has been appointed to provide design support to the Austrey Neighbourhood Group (ANG) by preparing this Design Guidance document.

The ANG require a parish-wide design guide including design codes to influence the character and design of new development across the neighbourhood area, the extent of which is illustrated in Figure 02 (overleaf).

The neighbourhood area consists of a large spatial area including the large village of Austrey, outlying farmsteads and the wider countryside. Austrey is mostly characterised by pre-1900 housing and more modern housing development between 1960-80.

The village has clusters of listed and locally listed buildings in mainly historic settings. However, there is no designated conservation area, and therefore no known existing character appraisal to support the character appraisal for this design guide.


The neighbourhood area has a housing requirement of 40 homes, which is considered to be met through committed development. The neighbourhood area is facing high development pressures and speculative development and it is envisaged that the design guidance and codes will provide important guidance and clarity for ongoing speculative development and any additional growth which may come about through the neighbourhood plan



## 1.2 Neighbourhood Area

Austrey is a village in the North Warwickshire district of Warwickshire. The village lies in a central location at the far northeastern extremity of North Warwickshire and is also uniquely close to the County boundaries of Leicestershire, Staffordshire and Derbyshire.

Nearby villages include Newton Regis (1 mile), Polesworth (3 miles), Dordon (4 miles), Warton (1.5 miles) and Appleby Parva (1.5 miles).

Austrey is two miles by road from Junction 11 of the M42 motorway/A42 and this motorway corridor provides access to many transport links including the national motorway network. 

Shops and services within the village are limited however, Austrey has a Village Shop, Post Office, Primary School, Pre-School and a Playgroup. The village has two Churches, St Nicholas Church of England that dates back to the 13th century and an early-19th-century Baptist Church.

### 1.2.1 Social characteristics

According to the 2021 census, the neighbourhood area has a population of 1,100 usual residents.

In total there were 470 household spaces (Census, 2021). Of these, 95 households (20.3%) had at least one resident, 190 households (40.5%) had 2 residents, 97 households (20.6%) had 3 residents and 87 households (18.6%) had 4 or more.

### 1.2.2 Environmental conditions

Austrey is mainly a rural agricultural community with the neighbourhood area covering a total area of 858.99 hectares (ha). With a total population of 1,100 people, the population density of the neighbourhood area is 1.3 persons per ha.

The village is enclosed by agricultural fields and a network of mature hedgerows and trees, allowing the village to assimilate with the wider landscape setting.

There are no major watercourses within the neighbourhood area boundary however, there are several land drains and ponds scattered throughout the area, specifically to the west of the village. Additionally, a culvert navigates beneath a large area of the village. It becomes exposed for a small section to the south of Bishops Cleeve. More information is set out in Section 2.4.6.

### 1.2.3 Economic dynamics

There are limited large scale employment opportunities within the neighbourhood area. The majority of Austrey's workforce therefore, either commute to larger settlements, such as Tamworth, or work from home.

Typical distance traveled to work:

- Less than 10km: 13.9%
- 10km-30km: 26.5%
- +30km: 7.1%
- Work from home: 40.7%
- Other: 11.7%

There are however, many examples of smaller commercial and homeworking enterprises within the village.

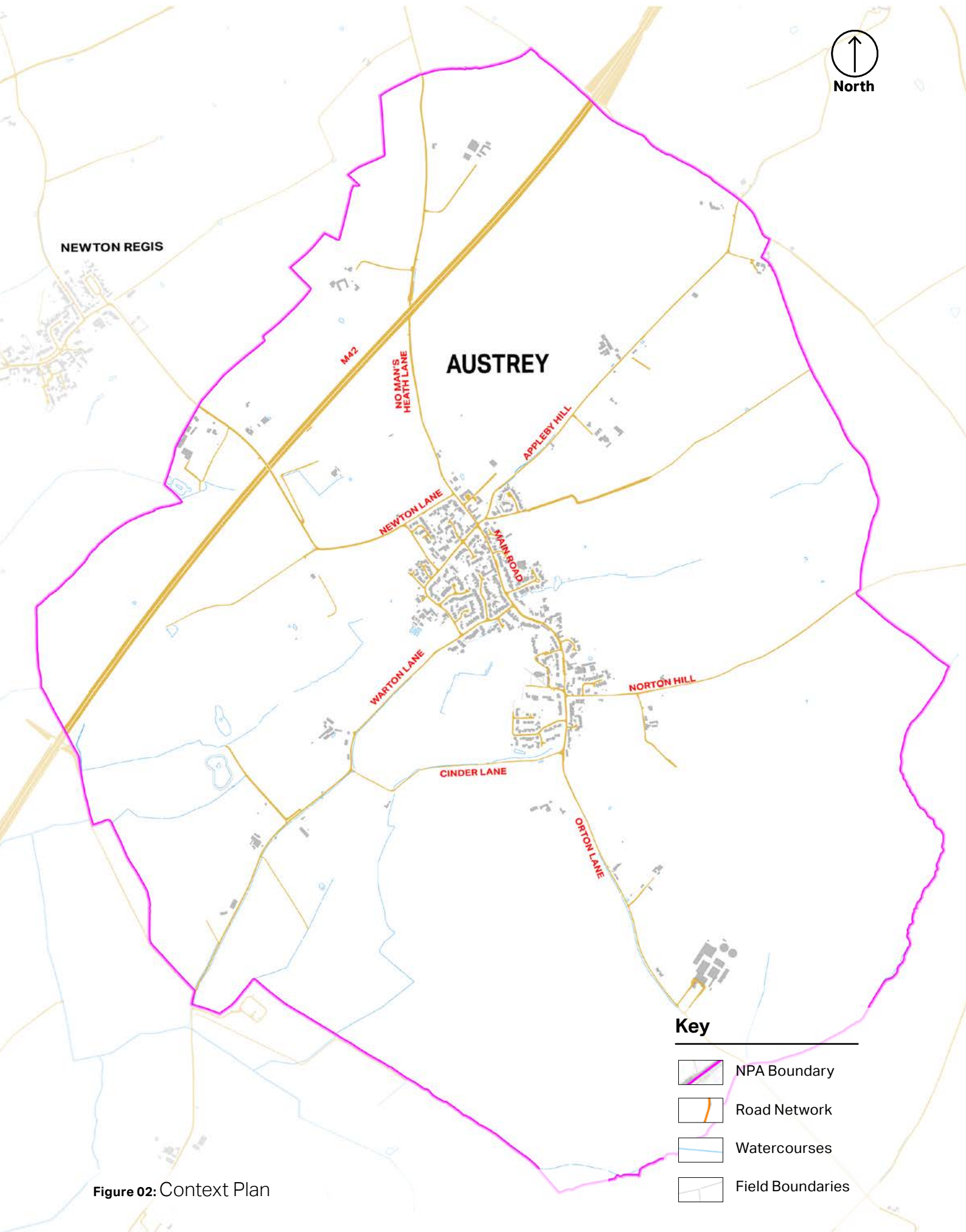






Figure 02: Context Plan

**Key**

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-  NPA Boundary
-  Road Network
-  Watercourses
-  Field Boundaries

## 1.3 Methodology

The following steps have underpinned the understanding of place and engagement with the ANG:

- Step 1: On the 17th January 2024, an inception call was held between AECOM and a representative of the ANG to understand the aims of the group and confirm the brief.
- Step 2: On the 13th February 2024, AECOM representatives undertook a site visit in order to assess the local character and photograph the area.
- Step 3: Following the initial engagement, AECOM progressed with a comprehensive neighbourhood analysis to underpin the design guidance set out within this document.
- Step 5: On 1st March 2023, AECOM shared a draft Design Code document with the ANG for review.
- Step 6: After capturing the feedback from the ANG, AECOM issued the final Design Code document **XX, XXXX**.



# 1.4 Policy Context

National and local policy documents can provide valuable guidance on bringing about good design and the benefits accompanying it. Some are there to ensure adequate planning regulations are in place to ensure development is both fit for purpose and able to build sustainable, thriving communities. Supplementary guidance documents complement national and local policy and provide technical design information.

## **National Planning Policy Framework - (2023)**

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 and beautiful places stresses the creation of high-quality buildings and places..

## **Buildings for a Healthy Life - Homes England (2020)**

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.

## **Manual for Streets (2007)**

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 and promotes active travel.

## **National Design Guide (2019)**

The National Design Guide (Department for Levelling Up, Housing and Communities, 2021) illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.

## **National Model Design Code (2021)**

The National Model Design Code (NMDC) sets a baseline standard of quality and practice.

The NMDC 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 NDG.

NATIONAL LEVEL

**Table 01:** National Planning Policy

**North Warwickshire Local Plan (2021)**

The Local Plan contains planning policies that guide the development and use of land and how they function at a strategic level as well as providing detailed policies for individual sites and applications. The new Local Plan supersedes the Core Strategy.

The Core Strategy was adopted in 2014 and sought quality sustainable development in the right place at the right time. It looked forward to 2029. The Local Plan looks forward to 2033 and continues the theme of sustainable development in the right place with the right infrastructure.

Austrey is identified in the settlement hierarchy as a Category 4 settlement: Other Settlements with a development boundary. There is no minimum housing target for Austrey and site allocation H13 has been developed.

**Table 02:** Local Planning Policy

**Austrey Neighbourhood Plan (revised 2024)**

The Austrey Neighbourhood Plan was first adopted in 2014 and covers key aspects of neighbourhood planning, section by section.

The Neighbourhood Plan contains policies that focus on the following themes:

- Environment, Landscape and Wildlife,
- Housing Design,
- Housing Development.

The ANG are currently undertaking a review and update to the Neighbourhood Plan. The Draft Modified Plan takes into consideration the recent changes in national planning policy set out in the National Planning Policy Framework (NPPF) 2021 and has been prepared to be in general conformity with the Adopted North Warwickshire Local Plan 2021.

Upon adoption, the modified Austrey Neighbourhood Plan will complete the Development Plan for Austrey. The codes and guidance within this document should be considered alongside the updated policies of the Neighbourhood Plan.

**Table 03:** Neighbourhood Planning Policy

## North Warwickshire Local Plan (2021)

LP1 Sustainable Development  
LP2 Settlement Hierarchy  
LP7 Housing Development  
LP8 Windfall  
LP14 Landscape  
LP15 Housing Environment  
LP16 Natural Environment  
LP17 Green Infrastructure  
LP20 Green Spaces  
LP27 Walking and Cycling

## Austrey Neighbourhood Plan (modified 2024)

Policy AP1 Natural Environment  
Policy AP2 Local Green Spaces  
Policy AP3 Views  
Policy AP4 Farm Diversification  
Policy AP5 High Quality Design  
Policy AP6: Sustainable Design  
Policy AP7: Promoting Safer Neighbourhoods  
Policy AP8: Active Travel and Healthy Lifestyles  
Policy AP9: Windfall Development

**Table 04:** Relevant policies

## 1.5 Policy Designations

### 1.5.1 Development Boundary

Austrey is identified as a Category 4 settlement in the Local Plan describing the village as a 'Other Settlement with a development boundary.

New development within development boundaries will be supported in principle. Development directly adjacent to settlement boundaries may also be acceptable. All development will be considered on its merits; having regard to other policies in the Local Plan and will cater for windfall housing developments usually on sites of no more than 10 units at any one time depending on viability, services and infrastructure deliverability

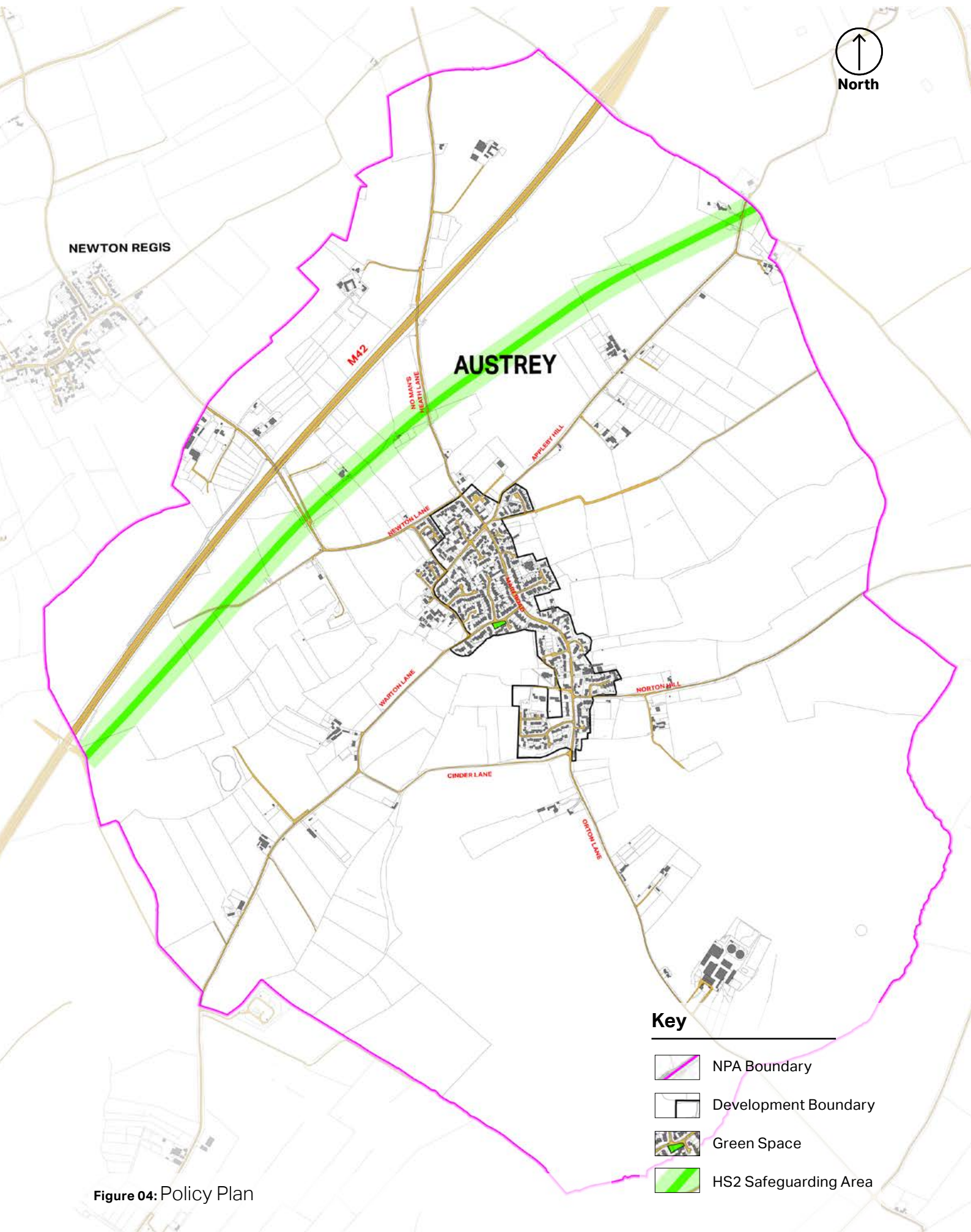
### 1.5.2 Green Spaces

Land to the south of Bishops Cleeve (as illustrated in Figure 03) is identified in the Local Plan as a 'Green Space'. Green Spaces identified in the Local Plan will be retained, protected and wherever possible enhanced.



**Figure 03:** Designated green space at Bishops Cleeve





**Key**





	NPA Boundary
	Development Boundary
	Green Space
	HS2 Safeguarding Area

Figure 04: Policy Plan





Context and Character  
Analysis

02

Figure 05: Modern housing development on Wulfric Avenue

# 2. Context and Character Analysis

**This chapter presents a contextual analysis of the neighbourhood area. It will provide an overview of Austrey's historic origins and settlement growth, an analysis of the key topics such as character, blue and green infrastructure features, and an introduction to built form and density. This analysis is the basis for the Design Guidance and Codes in Section 03.**

This section outlines the broad physical, historical and contextual characteristics of the wider and local context of Austrey. Context refers to the current (and sometimes future) conditions within an area across a range of issues including village history and heritage, morphology, green space, movement and landscape setting.

A character assessment is used to describe and articulate what is special and distinctive about a place. It is used to identify recognisable patterns of elements or characteristics that make one place different from another.

This report is focused on the character of the urban townscape and the rural landscape context. The features introduced in this section are later used to inform the Design Code.

## 2.1 Context

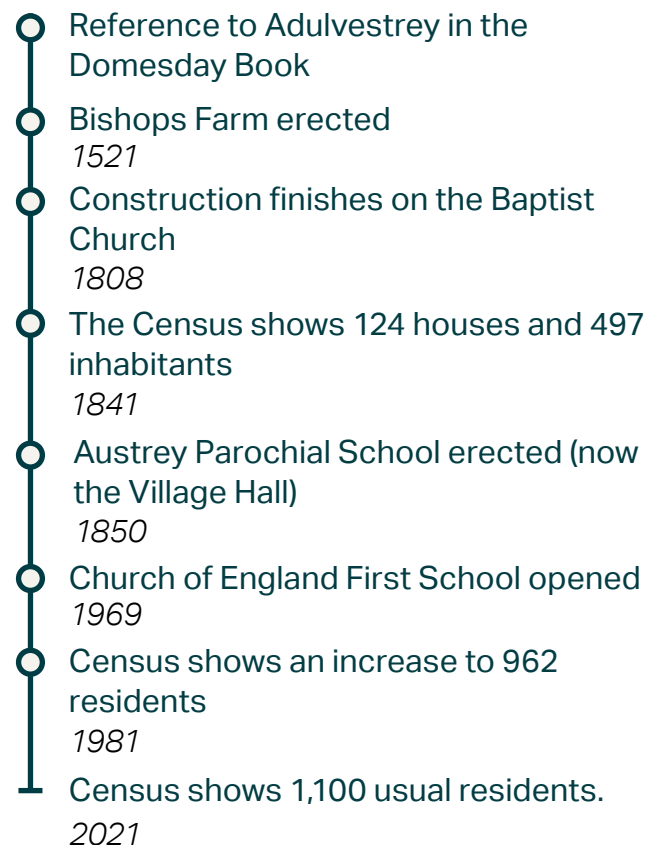
### 2.1.1 Settlement origins and growth

The village of Austrey can trace its origins back to the Domesday Book where it is referenced under the name of Adulvestrev.

The Census of 1841 shows that there were 124 houses in the village with 497 usual residents. This reduced to 335 people in 1911.

The majority of Austrey's housing stock was built in the late 20th Century as many old

cottages were destroyed in the 1950s and 1960s. Approximately 40 houses remain that pre-date 1900. These include Bishops Farm, Manor House, Saddler's Cottage and Farthings.

- 
- Reference to Adulvestrey in the Domesday Book
  - Bishops Farm erected  
1521
  - Construction finishes on the Baptist Church  
1808
  - The Census shows 124 houses and 497 inhabitants  
1841
  - Austrey Parochial School erected (now the Village Hall)  
1850
  - Church of England First School opened  
1969
  - Census shows an increase to 962 residents  
1981
  - Census shows 1,100 usual residents.  
2021



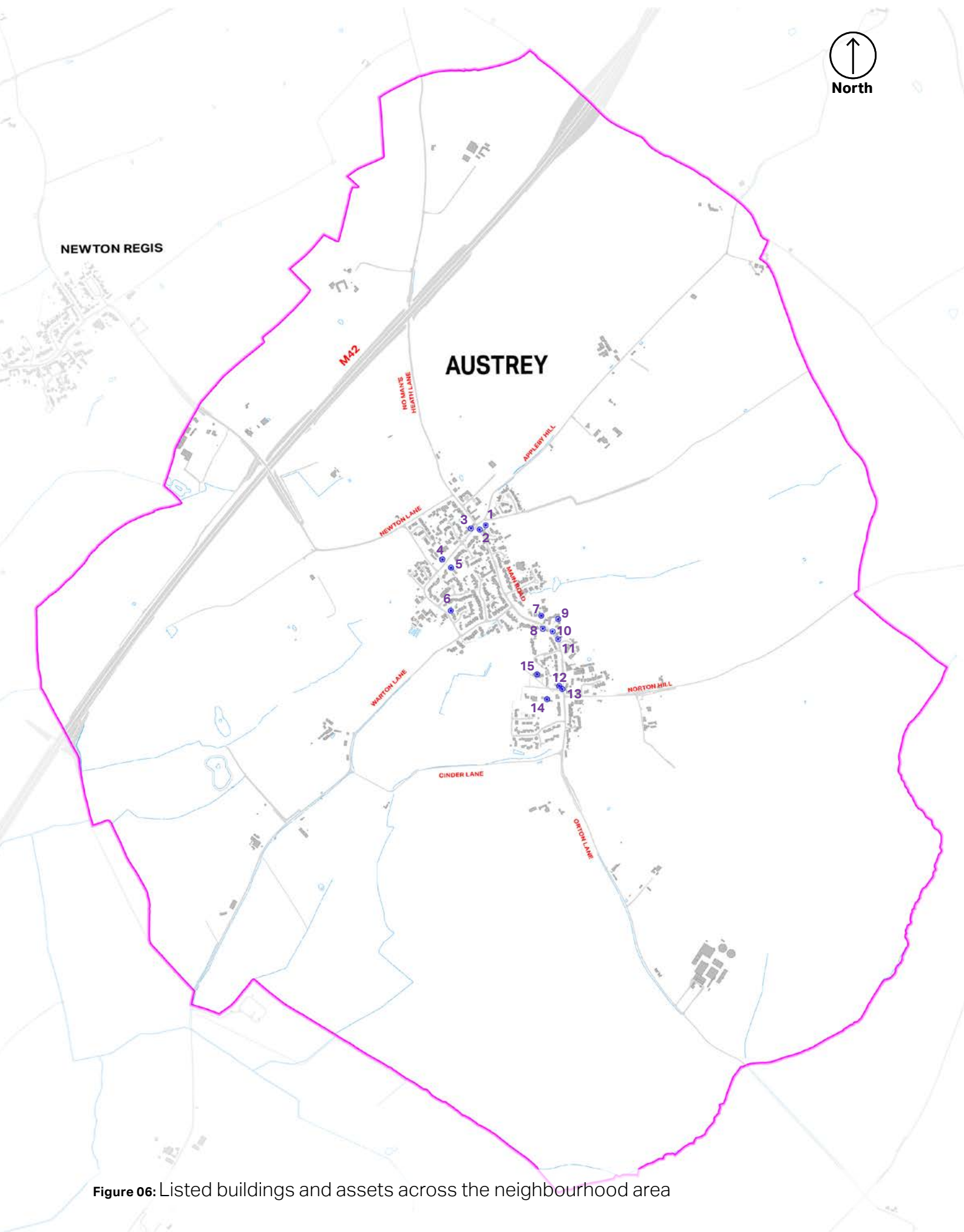
## 2.1.2 Listed buildings

There are 15 listed buildings and assets within the neighbourhood area, the majority of which are grade II with the exception being the Church of St Nicholas at grade II\*.

The 15 listed buildings and assets are listed in Table 05 and are illustrated in Figure 06.

GRADE	HERITAGE ASSET	MAP REF
GRADE II LISTED	The Elms	1
	Wall Surrounding Garden at the Elms	2
	Nether End	3
	Manor House	4
	Bishops Farmhouse	5
	Flavel	6
	The Limes	7
	The Homestead	8
	Austrey Baptist Church	9
	K6 Telephone Kiosk	10
	Farthings	11
	Bird in Hand Public House	12
	Village Cross	13
	The Old Vicarage	14
GRADE II*	Church of St Nicholas	15

**Table 05:** Listed Buildings and Assets in Austrey



**Figure 06:** Listed buildings and assets across the neighbourhood area

### 2.1.3 Heritage features

Heritage features on buildings within the village envelope include:

**The Elms:** A late 18th Century House with:

- Red brick with string course and moulded cornice.
- Old plain-tile double-span roof has stone-coped gable parapets
- 2 brick valley stacks. Central 6-panelled door with 12-pane overhead, and moulded projecting hood.
- Irregular fenestration to left return side and 2-storey wing to rear.

**Nether End:** A 16th Century House and former attached farm building with:

- Timber-framed with one pair of crucks and brick infill on regular coursed sandstone plinth.
- Additions and front refaced in Flemish bond brick Plain-tile roof.
- Porch has 18th Century brick and stone steps and low wall parallel to front.

**Manor House:** Late 17th and early 18th Century with some 19th Century alterations with:

- Flemish bond brick with string courses, brick rusticated alternating quoins and dentil cornice
- Old plain-tile hipped roof; two C19 brick ridge stacks.
- Symmetrical front has C19/C20 seven-panelled door with C19/C20 plain-tile hipped hood on simple brackets. Flanking windows.



Figure 07: The Elms




Figure 08: Nether End



Figure 09: Manor House



**Bishops Farmhouse:** Early/mid 16th Century Farmhouse with:

- Timber-framed, of close studding with middle rails and plastered infill on high sandstone plinth.
- Rear wing largely rebuilt in brick.  Old plain-tile roof; brick central stack, Baffle-entry T-plan with wing to rear.
- Later timber-framed open-fronted porch has gabled plain-tile roof.



**Figure 10:** Bishops Farmhouse

**Flavel:** Mid/late 18th Century House with:

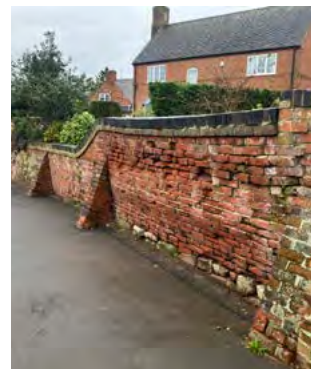
- Flemish bond brick with string course and moulded brick cornice.
- Plain-tile roof has gable parapets with kneelers; brick external end stacks, 2 storeys.
- Symmetrical front has fielded 6-panelled door inside 20th Century open-fronted porch.



**Figure 11:** Flavel

**The Limes:** 18th Century House with:

- Brick with 19th Century/20th Century pebbledash, rendered string course and brick dentil cornice, Late 20th Century plain-tile roof; 19th Century brick ridge and right end stacks
- L-plan with wing on left to rear.
- Part-glazed 6-panelled door between second and third bays has rendered alternating rusticated surround with blind keyed round arch.



**Figure 12:** The Limes

**The Homestead:** Cottage 17th Century with late 20th Century additions with:

- Timber-framed with C20 colour-washed pebbledash.
- Late 20th Century plain-tile roof. brick ridge and right end stacks
- Attached former outbuilding to left, now part of the house, is partly timber-framed with brick infill and partly of brick.



Figure 13: The Homestead

**Farthings:** 17th Century House with:

- Timber-framed with braces and rendered infill on regular coursed sandstone plinth
- Old plain-tile roof; rendered ridge stack.

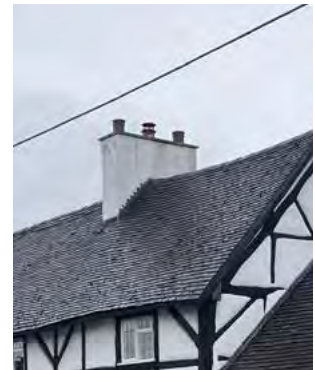


Figure 14: Farthings

• **Bird in Hand Public House:** 17th Century Public House with 18th Century and 19th Century alterations with:

- Timber-framed with whitewashed brick infill, almost wholly rebuilt in whitewashed brick to the front, bays have brick dentil cornice
- Thatched roof has gable parapets; whitewashed brick end and two ridge stacks.



Figure 15: Bird in Hand Public House

**The Old Vicarage: Late** 17th / early 18th Century former Vicarage with:

- Flemish bond brick with rendered plinth, moulded string course and alternating rusticated quoins, and painted moulded flood cornice.
- Old plain-tile roofs; brick end stacks.
- Sashes have gauged brick flat arches with painted keystones, on ground floor abutting the string course.



Figure 16: The Old Vicarage

## 2.2 Built Form

### 2.2.1 Typologies

Detached properties comprise the dominant housing typology and vary significantly in size. They are spread throughout the neighbourhood area.

Semi-detached properties provide some diversity along the streetscene.

There are some terraced properties in Austrey, many of which are located at Holly Bank Estate / Windmill Lane where they have been arranged to encompass a central area of greenspace. Household composition comprises the following:

- 1 bedroom 2.1% (of total housing)
- 2 bedrooms 14.1% (of total housing)
- 3 bedrooms 37.6% (of total housing)
- 4 or more bedrooms 46.2% (of total housing)

### 2.2.2 Material Palette

The material palette across Austrey varies significantly. They comprise the following:

- Red brick: is the dominant elevational material. On historic buildings it is often arranged in a Flemish bond.
- Render: is often used, particularly in modern developments, to provide variety on the streetscene.
- Timbering: there are some cases of half timbering, particularly on historic buildings.
- Concrete roof tiling: typically on older housing and comprises the predominant roofing material

- Natural grey slate: provides some diversity on Austrey's roofscape
- Thatched: one case of a thatched roof at the Bird in Hand pub.

### 2.2.3 Detailing

Detailing across the neighbourhood area is limited.

Many facades are articulated by porches and roofs are often articulated by gables, link gables and chimneys. Chimneys often bookend properties, particularly detached housetypes.

However, there are examples of brick banding, bricks arranged in a Flemish bond, and stone and wooden sills and lintels.

### 2.2.4 Extensions

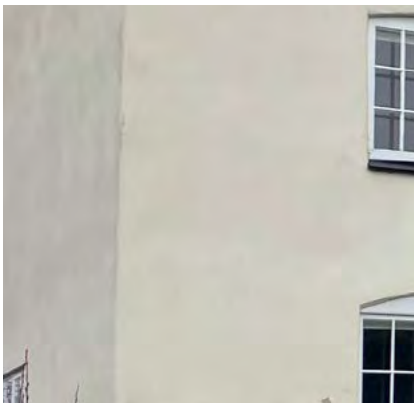
Extensions and alterations to existing properties are commonplace across the neighbourhood area. The majority of which are side extensions, a few of which are subservient to the original building, however, there are few cases where the extension goes beyond the existing building line, detracting from the uniformity of built form on the street scene. Extensions typically reflect the materiality, colour and form of the original building, resulting in a sympathetic addition to the street scene.

### 2.2.5 Conversions

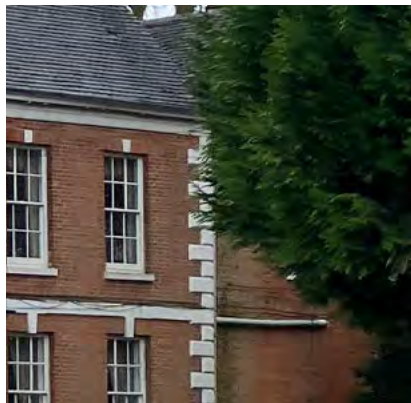
There are several cases of farm buildings, including ancillary agricultural buildings, being converted to residential use. They predominantly retain the form and scale of the original structure and often reflect, reuse and enhance the character and materiality of the rural nature of the building.



## MATERIALS



## DETAILING



## ROOFSCAPE





**Figure 17:** Figure ground plan



**Figure 18:** Plan illustrating plots



### **2.2.6 Density**

Due to the dominance of detached housetypes in the neighbourhood area, the density of buildings across Austrey is generally commensurate with an average dwellings per hectare (dph) of 25 dph.

Density varies slightly through the use of semi-detached and terraced housetypes, particularly in places like Holly Bank Estate or along Main Road.

The following five areas have been identified to provide an overview of density across Austrey:

1. Corn Fields: 22 dph
2. Holly Bank Estate: 32 dph
3. Orchard Close / Flavel Crescent: 22 dph
4. Main Road: 35 dph
5. The Green: 20 dph
6. Wulfric Avenue: 23 dph

### **2.2.7 Plots and setback**

Plots and setback are also generally commensurate across Austrey. Properties are typically setback from the road, usually ranging between 3-5m from the back of the pavement. This allows for, in some cases, generous front amenity space that softens the transition between public and private space.

### **2.2.8 Blocks**

Urban blocks are generally irregular in shape which is in line with the rural/ village character of Austrey and the wider neighbourhood area.

Blocks are often punctuated by cul-de-sacs or pockets of green spaces and are bounded by looping streets.

## 2.3 Identity

### 2.3.1 Character

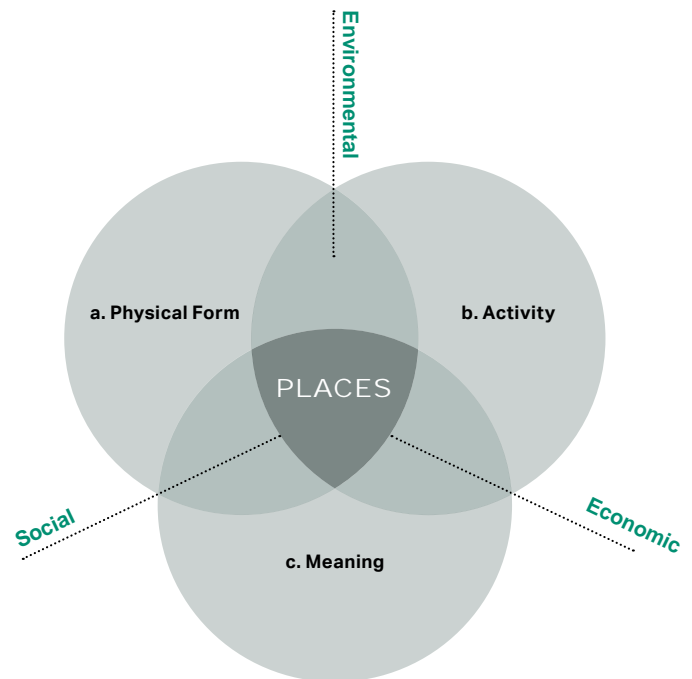
Places have a clear and strong identity and character. They are a combination of their physical form, their activities and their meaning to people. The diagram opposite shows how these factors come together to create a successful place. The character areas were developed by creating the full picture of Austrey.

The plan overleaf (Fig 19) illustrates the neighbourhood area's principal landscape and villagescape character areas as defined in this study based on analysis of topography, landform, land use, and built development.

The character areas include:

- Austrey Village
- Windmill Lane / Holly Bank Estate
- Modern Housing

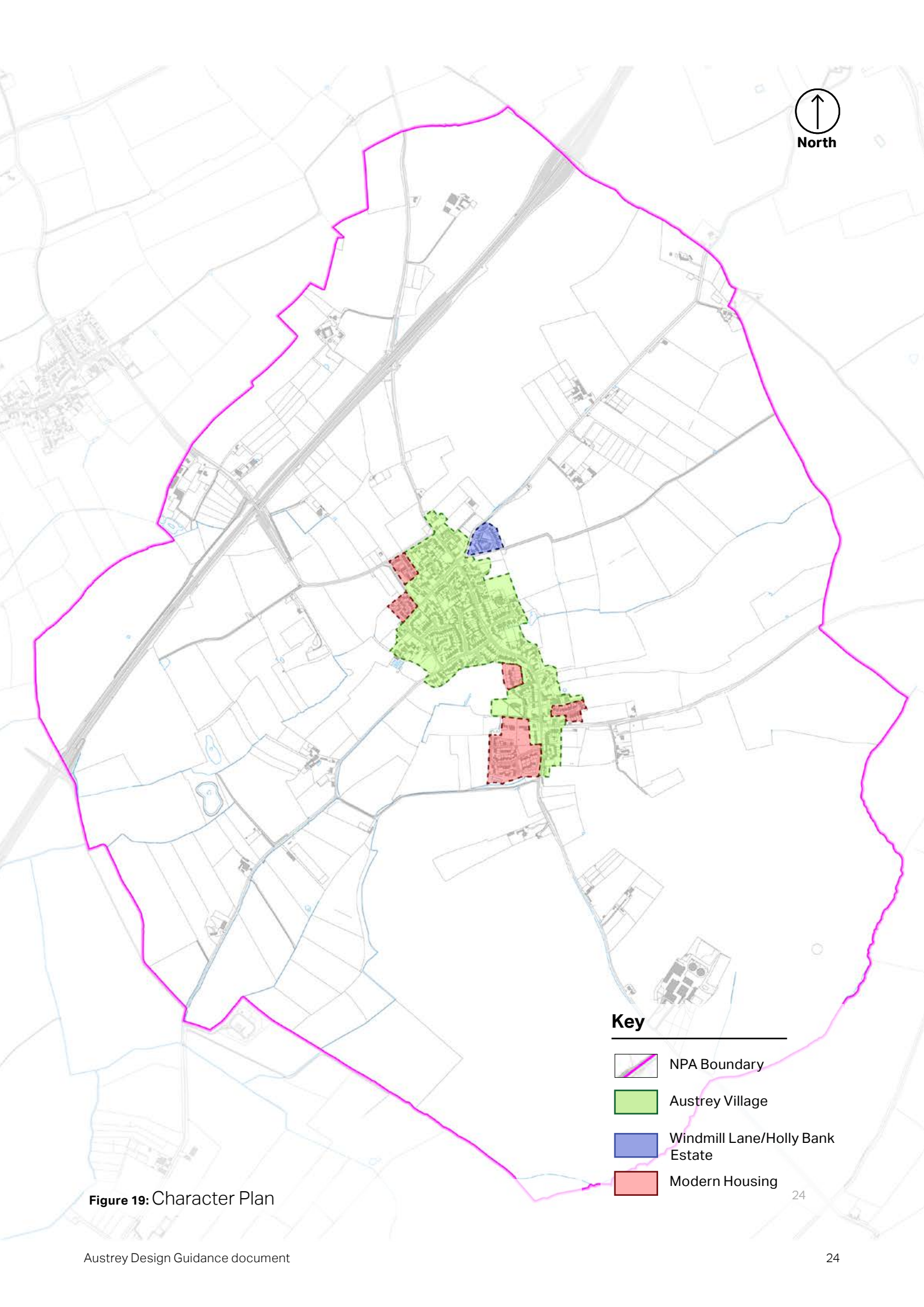
All new development must undertake its own comprehensive analysis of the place to understand a proposal's broader context and establish aspirations and place-specific responses to the location, siting and design of new development.



a. Physical conditions of existing built development including layout, form, scale, appearance, landscape character, waterways and flood risk

b. Use, vitality and diversity, including community facilities and local services

c. How a place is perceived, including local heritage, views inwards and outwards and social histories.



**Key**

-  NPA Boundary
-  Austrey Village
-  Windmill Lane/Holly Bank Estate
-  Modern Housing

Figure 19: Character Plan



### 2.3.2 Character area 1: Austrey Village

Character area 1 comprises the majority of Austrey's built up area. Housing styles are homogeneous with the majority of housing built in the inter-war and postwar period.

The character area is arranged along Main Road (and radiating cul-de-sacs), Bishops Cleeve, Warton Lane and No Man's Heath.

Detached properties are the dominant housetype in this character area. Gaps between properties are minimal, which drives up density across the character area. This is exacerbated by terraced properties, particularly along Main Road.

Dotted throughout the character area are several historical buildings and assets. These are illustrated in Figure 06 and are listed in table 05. This slightly diversifies the character of Austrey Village.

Urban blocks are typically large and irregular in shape and are often punctuated by cul-de-sacs.

#### Key characteristics

- Varied density of buildings. Plots are generally commensurate providing generous front and rear private amenity space
- Mainly parking on-plot, either to the side or front of the property.
- Mainly 2 storeys in scale with chimneys or gables often articulating the roofscape.
- Good level of street enclosure reinforced by hedgerow, walls and trees.



Figure 20:

**Materiality:** Red brick, brown brick, render, buff brick.

**Roofscape:** Natural slate, concrete tiling and grey interlocking tiling in a typically traditional pitch.

**Boundaries:** Hedgerow, low planting, brick walls, fencing, and metal railing.



## Main Road

Main Road is the principal route through Austrey serving access to a series of secondary and residential streets.

Properties typically front the street and are setback from the road behind strong boundary features.

Many of the village's listed buildings are positioned along this street, creating diversity to the style of buildings as you travel along the street.



## Bishops Cleeve and Warton Lane

Bishops Cleeve and Warton Lane extend Austrey's built form westwards from Main Road and provide access to smaller, residential streets, including Flavel Crescent, Orchard Close, Newborough Close, Elms Drive and Yew Tree Crescent.

These streets comprise the majority of Austrey's housing stock and is arranged across a series of local streets and cul-de-sacs.

These streets have a Sylvan character with turfed front gardens, hedgerow planting and significant tree planting, both within residential curtilages and within pocket green spaces.

The scale of buildings are typically two storeys and reside within typically commensurate plots.



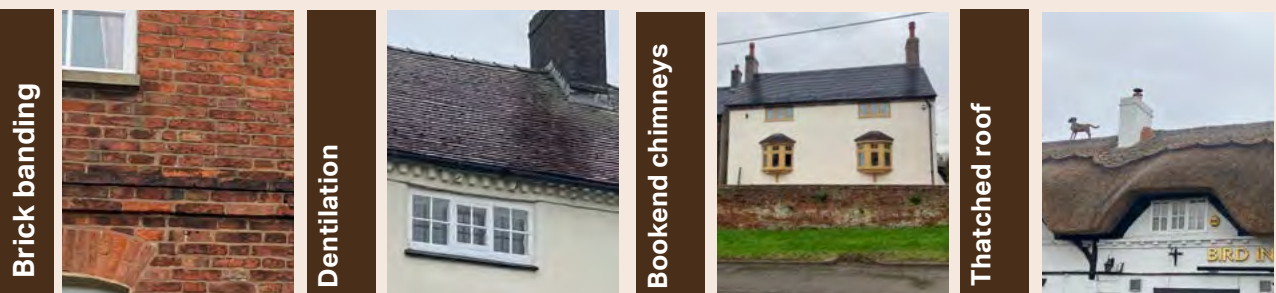
## Colour palette



## Materials



## Detailing



## Openings



## Boundaries





### 2.3.3 Character area 2: Windmill Lane / Holly Bank Estate

Character area 2 comprises the standalone residential area of Windmill Lane and Holly Bank Estate.

The character area is located to the north-east of the main village envelope and is accessed off Appleby Hill.

Terraced housing comprises the majority of the housing types and they are arranged in clusters of 4 dwellings.

Parking is provided both on-plot, to the front of properties, or within a parking court, which is overlooked by dwellings. Properties are orientated to overlook a central area of parking and green/open space. Therefore, rear boundaries face outward to the wider countryside.

Building scale is commensurate with one another with 2 storey properties creating a rhythm to the roofscape. The roof line is articulated by chimneys.

#### Key characteristics

- Buildings are orientated to face the central area of green space
- Parking is provided off-plot
- Porches and chimneys are used to articulate both the facade and the roofline.



Figure 21:

**Materiality:** Buff brick and render.

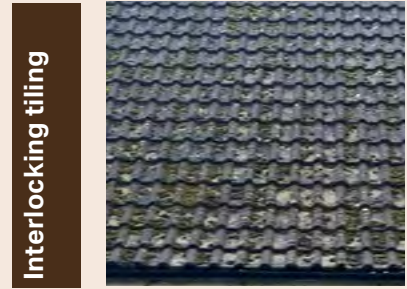
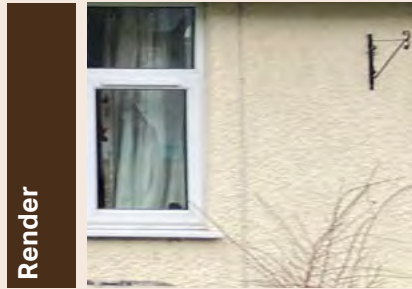
**Roofscape:** Concrete roof tiling in a traditional pitch

**Boundaries:** hedgerow, fencing and open boundaries.

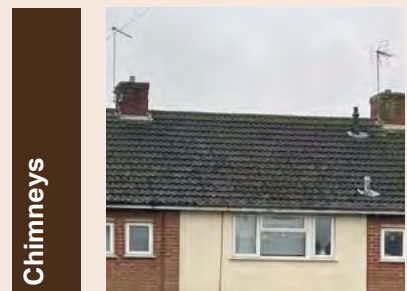
## Colour palette



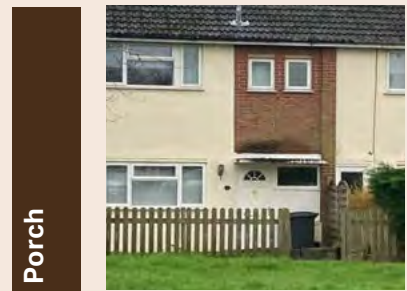
## Materials



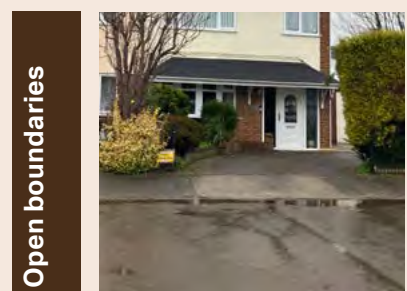
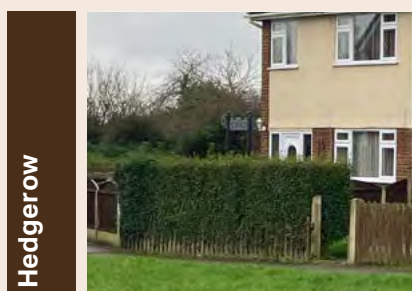
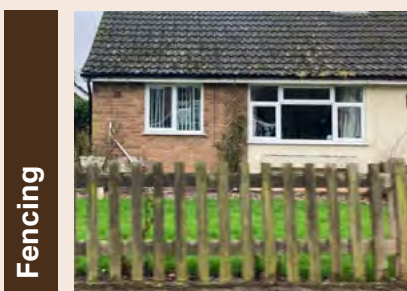
## Detailing



## Openings



## Boundaries





### 2.3.4 Character area 3: Modern Housing

Character area 3 comprises the more recent and modern housing development at Wulfric Avenue, Mill View Gardens, The Green, Paget Rise and Corn Fields.

These sites have mainly been constructed over the last 20 years and typically reflect the typical edge-of-settlement character.

They comprise mainly of detached executive housing, semi-detached properties and some cases of bungalows.

Sites are mainly accessed via a singular spinal access road that typically terminates in a cul-de-sac.

Properties are mainly orientated to face inwardly, with rear boundaries usually facing the wider countryside. The development at Wulfric Avenue bucks this trend by appropriately orientating properties to face outwardly and overlook the wider landscape. This helps to assimilate the development into the wider landscape setting, mitigating the built form's harm on the natural landscape.

Materiality across all sites are similar with the use of red brick comprising the dominant elevational treatment and render providing some diversity along the streetscene.

Hedgerow and tree planting both within the street and within residential curtilages help to create a green character across each site.

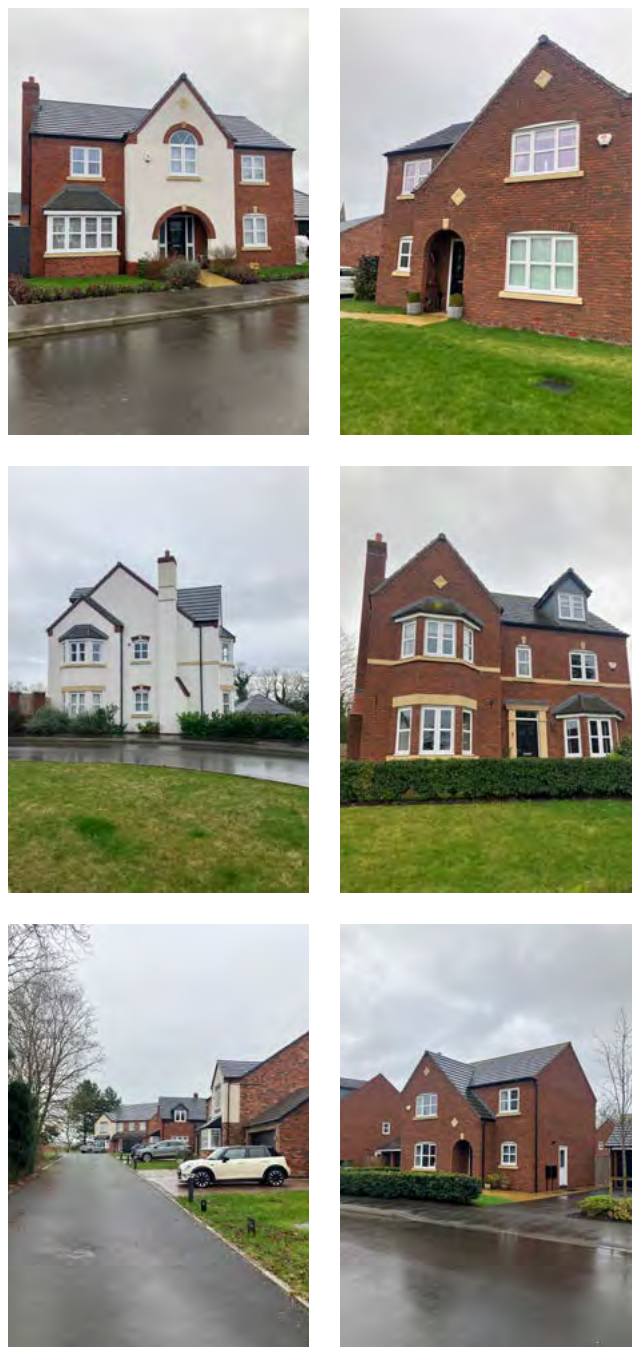


Figure 22:

**Materiality:** Red brick and render.

**Roofscape:** Traditional pitch using predominantly grey tiling. Link gables, gablets and catslide roofs create diversity to the roofscape.

**Boundaries:** hedgerow, low brick walls and metal railing.

## Paget Rise

Paget Rise is located to the north of Warton Lane and is arranged across two access roads, allowing for properties to face outwards to the wider countryside. There is a mix of detached and semi-detached properties all at 2 storeys in scale. Red brick is the dominant elevational treatment with render on the larger properties creating diversity on the streetscene.



## Mill View Gardens

Mill Views Gardens is located to the east of the neighbourhood area and is accessed off Norton Hill. It is arranged across a singular spine road with properties orientated and setback to create a good sense of street enclosure. Red brick is the dominant elevational treatment with stone sills and lintels creating interest to building facade.



## Wulfric Avenue

Wulfric Avenue is located to the south of the neighbourhood area and to the west of Main Road. It is characterised by irregular perimeter blocks with properties orientated to face the street. Buildings address the site edge well by facing outwards behind vegetated boundaries. This allows for a positive transition between the urban and rural environments.



Red brick is the dominant elevational treatment with render providing diversity along the streetscene. Detailing comprises brick detailing, stone sills and lintels and decorative features on the facade. Boundaries vary however planting within residential curtilages create a Sylvan character.

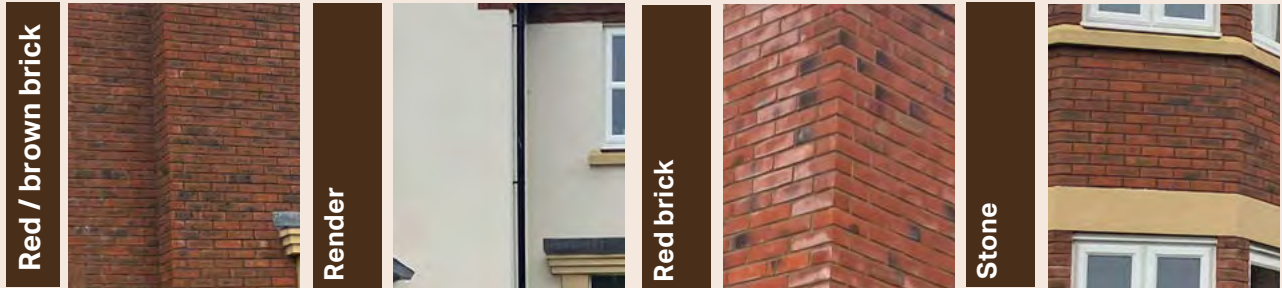




## Colour palette



## Materials



## Detailing



## Openings



## Boundaries





### 2.3.5 Boundaries

Boundary treatments (front, side and rear) contribute to the visual qualities of the street scene and help delineate between the private and public realm. Positive boundary treatments integrate into the wider hard and soft landscape, including the green infrastructure network, as well as provide enclosure to the street. As demonstrated on the adjacent imagery, boundary treatments vary across the neighbourhood area. They include:

#### Open Boundaries

- Open boundaries (no edge) encourages a positive relationship between the street and the property.
- Open boundaries do not provide a defensible edge and do not delineate public and private spaces well.
- They are prevalent throughout the village.

#### Masonry Boundaries

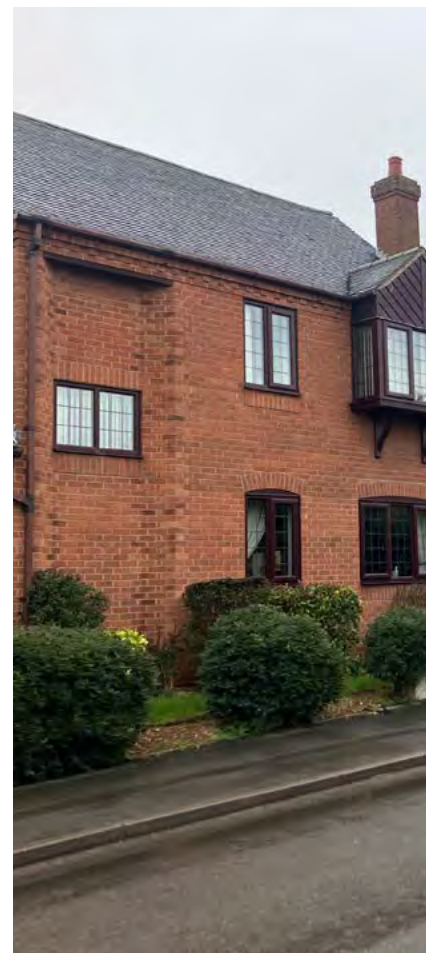
- Stone/brick walls are a common form of boundary treatment across the neighbourhood area.
- They are a strong visual feature in the street scene and establish a strong boundary between the public and private realm.
- They are particularly prevalent when bounding listed buildings such as the Elms and the Old Vicarage.

#### Green Boundaries

- Green boundaries predominantly come in the form of hedgerow (both short and tall).
- Tree planting also contribute towards vegetated boundaries.
- Green boundaries are favourable on site edges where the property overlooks the wider countryside.
- Hedgerow boundary treatments can integrate into the wider green infrastructure network and can be used as important corridors for local wildlife, contributing towards a biodiversity net-gain.
- They provide visual relief along the street scene.
- They are prevalent throughout the village.

#### Fenced Boundaries

- Fencing is a common boundary treatment for both side and rear boundaries.
- They provide privacy. However, fencing that fronts onto the street should be discouraged.
- They are notable features at the Holly Bank Estate.



**Figure 23:** The images above illustrate the varying boundary treatments across Austrey. Hedgerow and low brick walls (mainly red brick) constitute the dominant front boundary treatment with tall brick and fenced rear and side boundaries. Low brick walls or low planting comprise an important characteristic across all three character areas and help define the street, often framing notable views along the street. New development should seek to continue this treatment to be in keeping with the prevailing local character.

## 2.4 Landscape

### 2.4.1 Landscape character

The neighbourhood area falls within the Dunsmore/High Cross Plateau/Mease Lowlands being identified as Mease Lowlands in the Warwickshire Landscapes Guidelines document produced by the Countryside Commission.

Mease Lowlands is described as a rolling agricultural region that is characterised by small rural villages.

It is further identified within the Estate Farmlands sub-character area which is defined by a well ordered agricultural landscape characterised by large country estates and small game coverts.

Summary features:

- A gently rolling topography of low rounded hills and valleys
- A late enclosure pattern of large hedged fields
- Many small regularly shaped game coverts
- Large country houses often set in mature parkland
- Small hilltop villages often marked by tall church spires
- Winding country lanes bounded by wide grass verges.

### 2.4.2 General development guidelines

- Conserve all sites of archaeological and historical importance
- Conserve the rural character of villages by retaining existing features and local patterns in all development schemes

- Protect and enhance the internal open space and irregular outline of village settlements
- Conserve the historic nucleated settlement pattern by avoiding new development in open countryside
- New agricultural buildings should be sites, designed and landscaped to blend with the surrounding farmed landscape
- Landscape assessment should be a major consideration at the inception of all road schemes
- Conserve rural character by limiting standardised treatments during highway improvement schemes
- Protects the character and special features of country roads
- Highway landscaping should be strongly linked to the surrounding landscape pattern
- Restoration proposals for mineral workings should be based upon an assessment of landscape character.

### 2.4.3 Landscape guidelines for Estate Farmlands.

- Conserve the historic pattern of large hedged fields, with priority given to strengthening and restoring primary hedge-lines
- Enhance field pattern through more appropriate hedgerow management
- Promote long rotation as a management tool for neglected small woods and spinneys
- Conserve and restore all areas of existing parkland
- Enhance the continuity and wooded character of rivers and stream corridors
- Enhance tree cover through small scale woodland planting.



#### 2.4.4 Landscape views

Due to Austrey's natural topography, there are several notable views across the landscape towards the village, as identified in the Austrey Neighbourhood Plan.

These views are illustrated in Section 1: Environment, Landscape and Wildlife in the Neighbourhood Plan and are protected as part of Policy AP3: Views.

Where a development proposal would affect these views, appropriate evidence should be submitted with any application to demonstrate how the view has been taken into account and respected.

These views include:

1. Westward views across several agricultural fields from the east of the neighbourhood area towards the village.
2. Southward views from Norton Hill looking towards Orton-on-the-Hill.
3. Southward views across agricultural fields from Cinder Lane.
4. South eastward views across agricultural fields from Warton Lane.
5. Views of listed buildings and assets within the main village envelope.

#### 2.4.5 Flooding from rivers

According to the flood mapping services provided by the Government, there is no immediate risk from river flooding within the village of Austrey.

Areas to the south of the neighbourhood area, notably to the south of Meadow Farm and along the south western boundary, there is a minimal risk (Flood Zone 2) from river flooding associated with Bramcote Brook.

#### 2.4.6 Surface water flooding

Inadequate surface water drainage can result in discharge of water onto roads and neighbouring properties.

Illustrated on the adjacent plan (Fig 24) are the areas of the neighbourhood area that are at risk from surface water flooding.

There is medium to high risk of surface water flooding within the main village itself. Surface water collects on areas of hardstanding such as road surfaces and parking areas in dips or flows along Warton Lane and Bishops Cleeve after periods of heavy rainfall. This type of flood risk is distributed in pockets throughout the wider areas of the settlement, mainly along the many land drains that cross the neighbourhood area.

Development can have a significant impact on surface water drainage. The more concrete that is used in development, the fewer places there are for rainwater to drain safely away. This can lead to flash flooding and overloading of the sewer network, which can cause pollution and increase the risk of flooding.

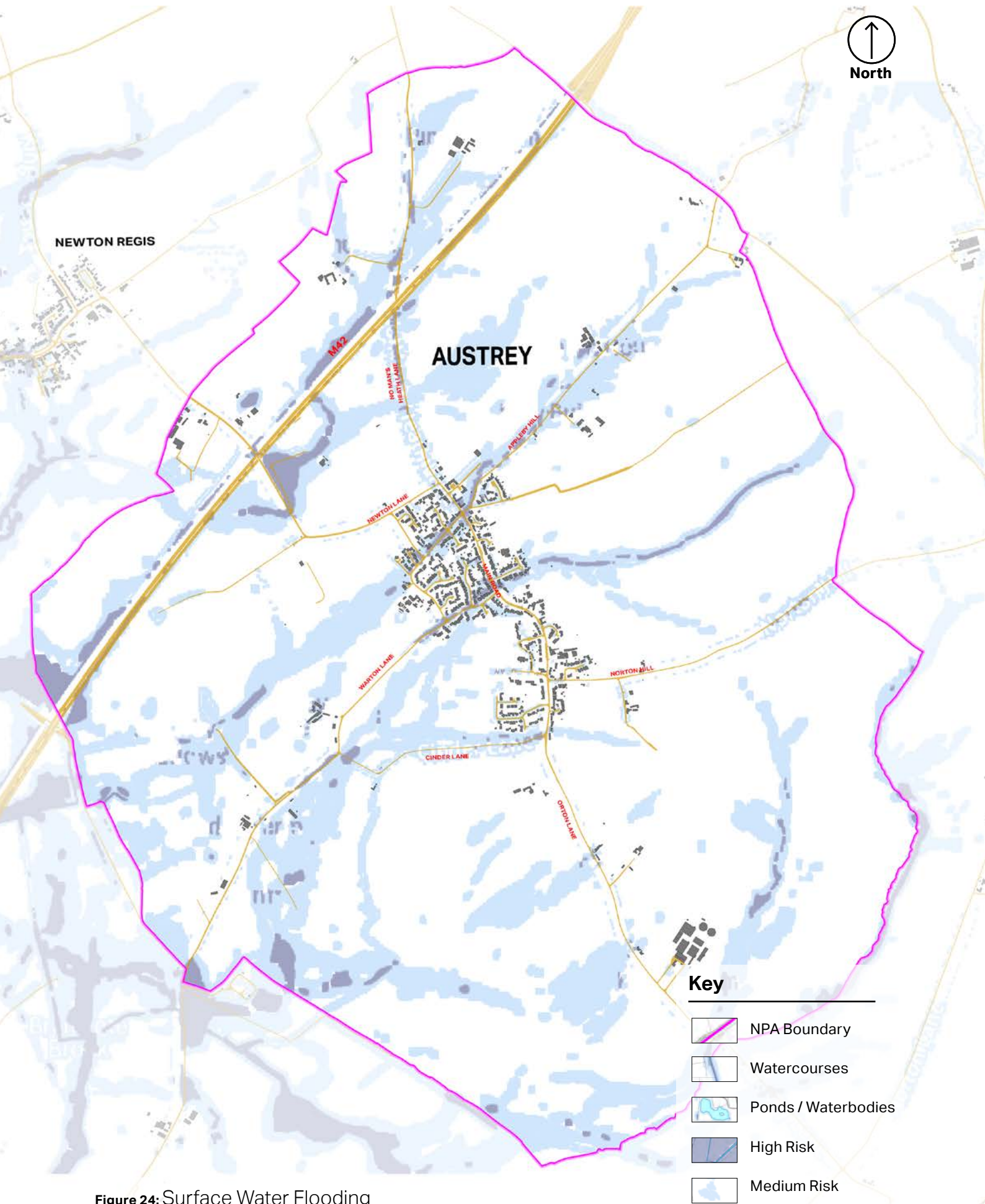


Figure 24: Surface Water Flooding





Design Guidance

# 03

**Figure 25:** Nether End on Warton Lane



# 3. Design Guidance and Codes

**This section sets out the design guidance and codes that will influence the design of new development across the Austrey neighbourhood area.**

## 3.1 Introduction

This section supports developers and development managers when producing or reviewing planning applications in the neighbourhood area. The guidelines apply to the whole neighbourhood area including infill development and windfall development.

Whilst there is not always agreement on aesthetic issues and architectural taste, these guidelines are focused on topics that help designers and decision makers objectively respond to context, character and community priorities.

Development proposals can apply these guidelines as part of a clear design process to improve and enhance the setting and sustainability of the neighbourhood area while not detracting from its context and local character or sense of place.

The following topics are addressed by design guidelines in this section:

1. Responding to Heritage
2. Appearance
3. Detailing
4. Boundary Treatments in New Development
5. Infill and Backland Development
6. Building Line and Setback
7. Proportion and Scale
8. Conversion of Agricultural Buildings
9. Extensions and Alterations
10. Landscape Setting and Rural Identity
11. Biodiversity
12. Tree Planting
13. Car Parking
14. Energy Efficiency Measures to Net Zero Carbon
15. Sustainable Building Materials and Construction
16. Assessing Renewable Energy Sources
17. Sustainable Drainage Systems (SuDS)

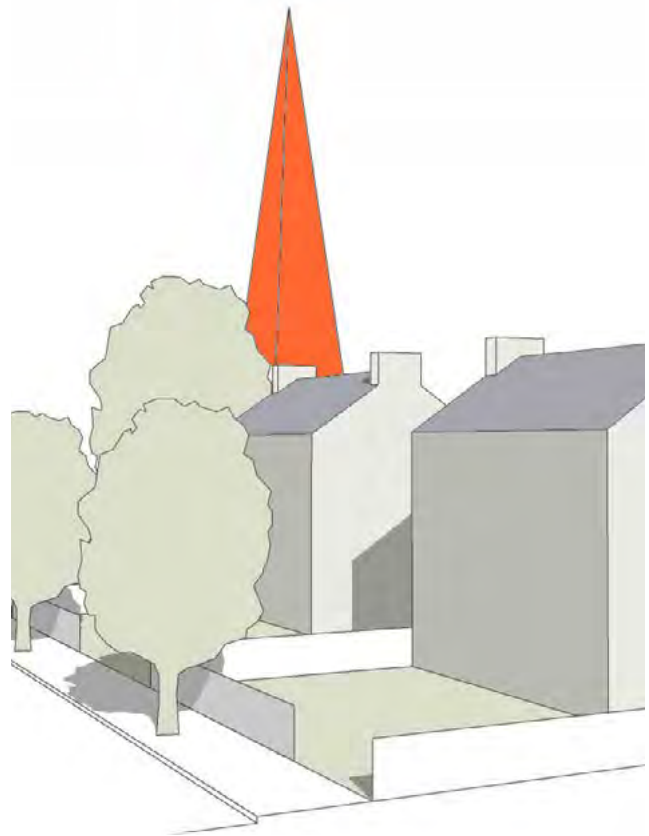




## Design Code 1: Responding to heritage

Development proposals, both major and minor, that effects a listed building or asset, or impacts the setting or the view of a buildings or asset (as identified in Figure 06 and Table 05), including alterations and extensions must:

- Respond to the heritage features, such as characteristics, materiality and detailing set out in Section 2.1.3.
- Respect the historic layout and pattern, responding to positive characteristics in terms of street pattern, density and layout, plot series and boundary treatments.
- Respond appropriately by respecting scale, massing, and height, especially where visible from public routes and spaces (particularly the main routes through the village).
- Retain and frame key views of Listed assets and notable buildings and be orientated and sited where it does not impact the setting of a Listed asset.
- Avoid dormers that significantly alter the roofline.
- Ensuring that windows and door design are proportioned and designed to reflect the style/age of the surrounding heritage buildings.



**Figure 26:** New developments should respect the existing shape and rhythm of skylines and designers should make sure that new buildings do not obstruct views to local landmarks such as Church Spires

## Design Code 2: Appearance

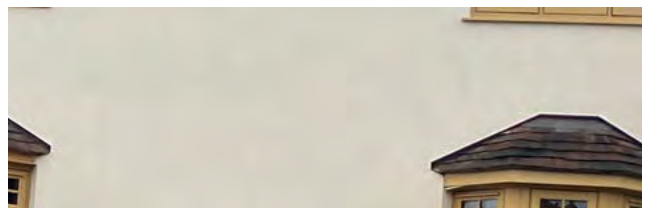
New development must:

- At the outset, proposals must identify the relevant character area in which they reside and seek to reflect the appearance of adjacent properties. This includes walls and roofs, fenestration, doorways, and roof detailing.
- Use red brick as the dominant elevational material and should seek to utilise this material as often as possible.
- The use of render is encouraged on certain facades to provide contrast and interest along the street scene.
- Natural slate and concrete interlocking tiling must be used on roofs. Reference should be made to the appropriate character area.
- Materials should be natural and locally sourced as this will contribute to a cohesive materiality and colour palette across Austrey. Synthetic materials are often not as long-lasting or aesthetically comparable to natural materials.
- Deviating from traditional materials and aesthetics should be considered where innovative design and sustainability is demonstrated.

### Elevational treatment



Red Brick



Render



Timbering

### Roofing treatment



Concrete interlocking tiling



Natural Slate



## Design Code 3: Detailing

Detailing on properties comprise an important feature across Austrey's built form and significantly contributes to the visual qualities of its character area.

Where possible, new buildings should consider:

- Delineating storeys with decorative stone or brick banding, preferably with an alternate colour to the facing brick.
- Surround openings with either wood or stone sills and lintels.
- When working on, or adjacent to, a Listed Building or asset, reference the features set out in 2.1.3 and consult Historic England.
- Articulating the roofscape with chimneys, link gables or gablets.

## Elevational treatment



Stone banding



Stone keystones and gablets



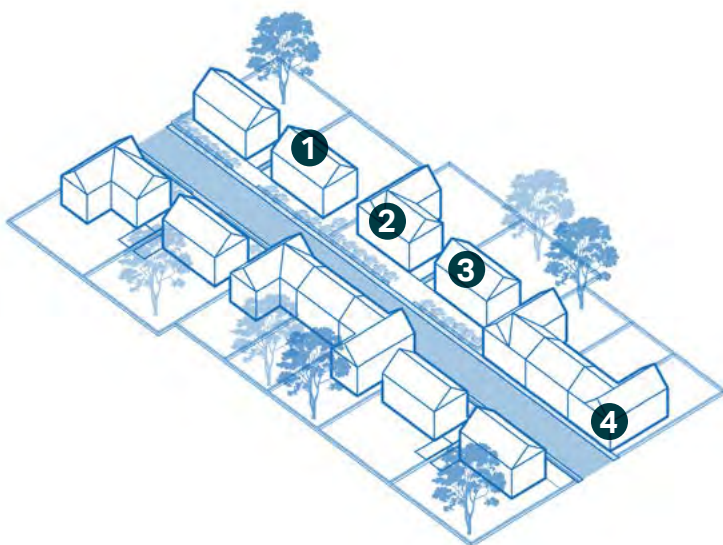
Brick banding



Decorative stone features

## Design Code 4: Boundary treatments in new development

- Buildings should be designed to ensure that streets and/or public spaces have good levels of natural surveillance from adjacent buildings. This can be achieved by placing ground floor habitable rooms and upper floor windows facing the street;
- Natural boundary treatments should reinforce the sense of continuity of the building line and help define the street, appropriate to the character of Austrey. They should be mainly continuous hedges and low walls, as appropriate, made of traditional materials found elsewhere in Austrey, typically red brick.
- Tall, close-boarded wood fencing as front boundaries should be avoided to encourage interaction with the street.
- Front gardens/soft planted shallow setbacks should be provided in most instances;
- If placed on the property boundary, waste storage should be integrated as part of the overall design of the property. Landscaping could also be used to minimise the visual impact of bins and recycling containers; and
- Locally distinctive landscape features and planting, such as low wall boundary and hedges of native species should be used in new development to define boundaries.
- On development edges, where the site abuts the wider countryside, boundaries both bounding residential curtilages and site edges, boundaries must address the criteria in Design Code 10.



**Figure 27:**  
Illustrative diagram showing boundary treatments

1. Adequate front garden with native hedges and low wall as boundary treatment clearly defines the property boundary.

2. Properties overlooking street to increase natural surveillance which improves safety.

3. Varied building set back in the form of recesses and protrusions add interest to street scene.

4. Brick walls and black metal railings are a characteristic element in the character of Austrey, linking groups of properties and enclosing gardens. The low walls should be red brick or stone..

## Design Code 5: Infill and backland development

**Scale and massing:** Building scale and massing should be in keeping with the prevailing development pattern and not be overbearing on existing properties or deprive them of light, including overlooking or overshadowing of both windows and amenity space.

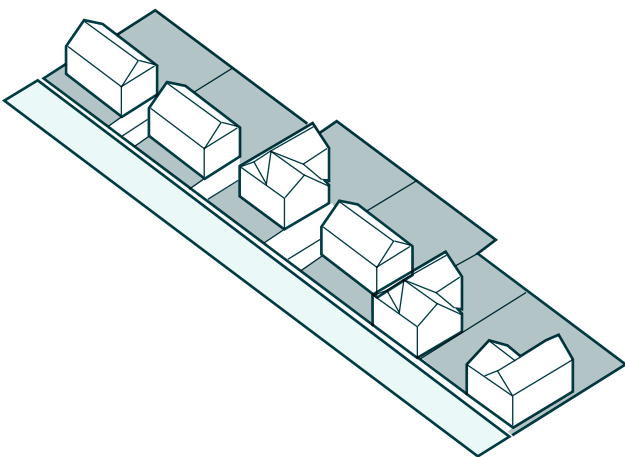
**Enclosure:** Building scale and position on plot should help to define and enclose the space within the street corridor or square to an appropriate degree based on the existing street section (building to building) and level of enclosure (ratio of street width to building height).

**Fenestration (window pattern):** The positioning of windows should be in keeping with the predominant positive building character on the street or harmonise with adjacent buildings of good character.

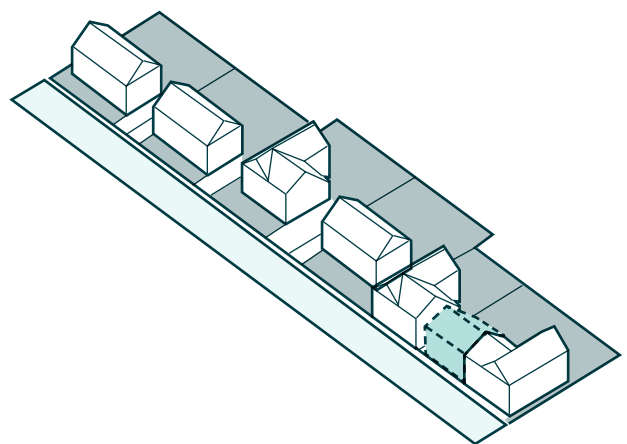
**Access:** Building entrances should address the street with a main access and main frontage. Corner buildings should address both streets with frontages but the main entrance could be on either subject to access requirements.

**Building heights:** Building heights should vary from 1.5 to 2.5 storeys depending on adjacent plots. A variable eaves line and ridgeline is allowed to create interest but variation between adjacent buildings should be a maximum of 0.5 storeys in general.

**Refuse and cycle storage:** Access for bin and cycle storage should be provided with stores being integrated within plot boundaries. Ginnels / alleyways should be considered for terraced buildings with 4 or more units in order to allow access to the rear of properties for cycle and bin storage.



**Figure 28:** A potential site for infill. The future infill property should complement the street scene.



**Figure 29:** New properties should generally be consistent with existing building line patterns. Some places in Austrey have linear or regular meandering arrangements of buildings while others have random and irregular patterns. Building lines should be set back from the road.



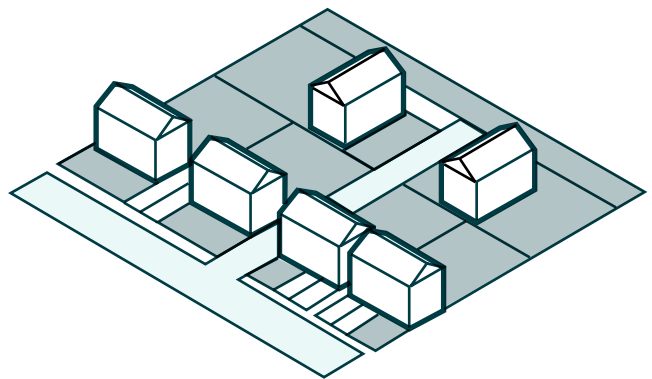
**Parking provision:** Parking should be integrated on plot where possible with parking spaces set behind the building line, generally to the side of plot being preferable. For narrow dwellings it is preferred to retain a small front garden with a boundary wall as opposed to an open hard surface parking space. Where parking is required to the front of the plot it should be afforded sufficient space and utilise hedgerows to screen cars laterally from the street.

**Proportionate backland development:**

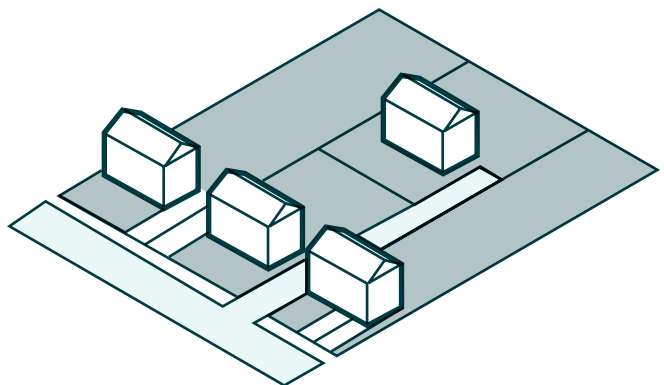
Backland development proposals should ensure that the density, scale and appearance reflect the immediate context (i.e. the original dwelling). Backland development should not be larger in height, massing or scale than the existing dwelling. The privacy, integrity and amenity of the existing dwelling must be protected from that proposed on the backland. Only on exceptionally large plots would it be deemed acceptable for any backland proposal to be larger or vary in character to that of the original dwelling.

**Access and spacing within backland development:**

Backland development must avoid tandem development by ensuring appropriate spacing, access and the overall configuration does not adversely affect the amenity of the original (or surrounding dwelling(s)). Backland access should minimise the removal or alteration of existing boundary treatments within the original plot where feasible.



**Figure 30:** Access to infill development is key



**Figure 31:** Tandem development is generally unacceptable due to unacceptable erosion of privacy and amenity

## Design Code 6: Building Line and Setback

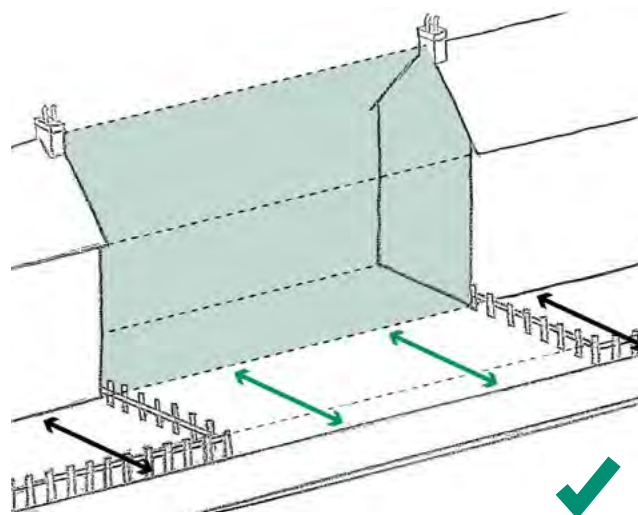
Infill sites will vary in scale, context and location within a settlement. An infill can have significant impact on the character and appearance of the built environment. The following general principles should be applied to any future infill site:

**Building line** - The building line should reflect the predominant building line of the street. Where buildings are set back from the pavement a red brick wall or hedgerow boundary treatment should define the plot and link up to adjacent buildings. Reference should

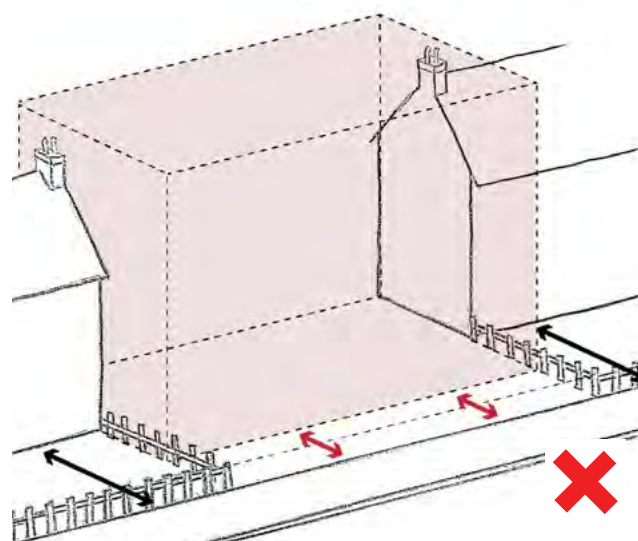
**Scale and position** - Building scale and position on plot should help to define and enclose the space within the street corridor or square to an appropriate degree based on the existing street section and level of enclosure.

**Active frontage** - Building entrances should address the street with a main access and main fenestration. Corner buildings should address both streets with fenestration and the main entrance on the main street in the hierarchy.

**Plot series** - Building façade design should respect the horizontal rhythm of plots and building subdivisions on the street in order to harmonise and maintain visual interest; enclosure.



**Figure 32:** Good practice diagram: the set-back matches neighbouring properties on the street and the massing and roof form fits within local parameters

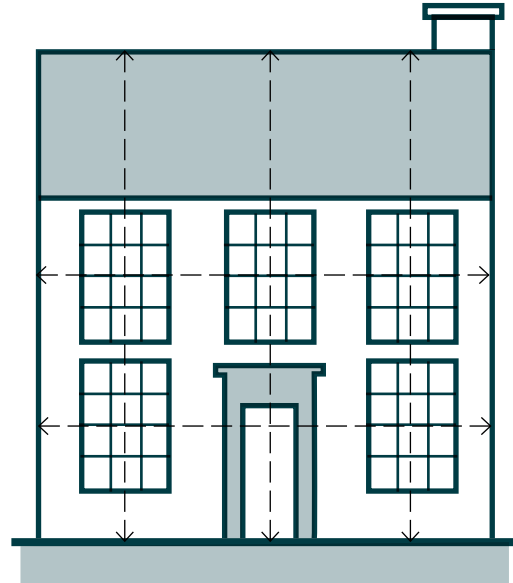


**Figure 33:** Bad practice diagram: reduced set-back and overbearing massing can create an 'un-neighbourly' building

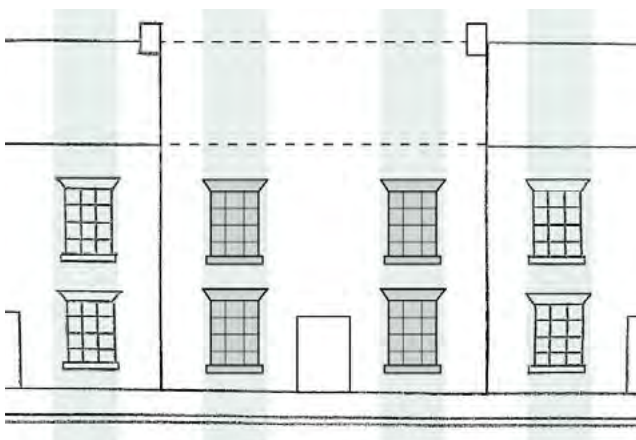
## Design Code 7: Proportion and Scale

The relationship between buildings and its elements can provide visual interest and enhance the local character of the neighbourhood area. The following principles should be adhered to:

- The proportions of a building's elements should be related to each other as well as the scale and proportion of the building.
- The proportions should be dictated by and respond to the type of activity proposed as well as the composition of the existing streetscape.
- The front elevation of the buildings must be arranged in an orderly way to avoid creating cluttered facades.
- Features such as windows, doors and solid walls should create vertical and horizontal rhythms along the façade providing variety.



**Figure 34:** Elevation showing typical building proportion in a detached house. The proportion of a building's elements should be related to each other as well as the scale and proportion of the overall building.



Good practice diagram: the window typology and fenestration pattern match the ones of neighbouring properties



Bad practice diagram: different fenestration impacts the visual harmony of the façades



## Design Code 8: Conversion of agricultural buildings

Conversion of existing agricultural buildings must:

- Preserve the agricultural character of the building.
- Have a minimal visual impact on the landscape in which it relates.
- Be fit for purpose but also designed to be sensitive to their surroundings, integrating into the wider landscape setting
- Ensure that new openings for windows and doors complement originals in size, form and location.
- Retain, reuse and repair wherever possible traditional outbuildings and existing boundaries.
- Ensure that new boundaries follow existing boundary lines and incorporate existing natural features such as hedgerows, walls or footpaths.



**Figure 36:** Example of dwellings and outbuildings that are partially screened by trees and planting.

## Design Code 9: Extensions and alterations

- Extensions to existing properties must be subservient or of an appropriate scale in relation to the original building.
- Extension to the front of the property should be avoided as this may compromise visual cohesion with the street frontage.
- Extensions to historic buildings, or within the setting of Listed assets, should be sympathetic and respond sensitively to the original character of the building or nearby Listed assets.
- Material palettes and style of the extension should be carefully chosen to blend cohesively with the original form and features.
- Extensions must not exceed a 45 degree splay from the centre of the window of the nearest habitable window of an adjacent window to avoid a reduction in daylight.

### More specific guidance on extension types is set out below.

**Front Extension** - Front extensions are generally not acceptable. If proposed, in all cases front extensions should take the form of the existing building, mirroring the roof pitch, replicate or have lower cornice height and their ridge should be below the existing ridge height. The extension can project maximum 2 metres beyond the front facade and will not cover more than 50% of the front elevation.

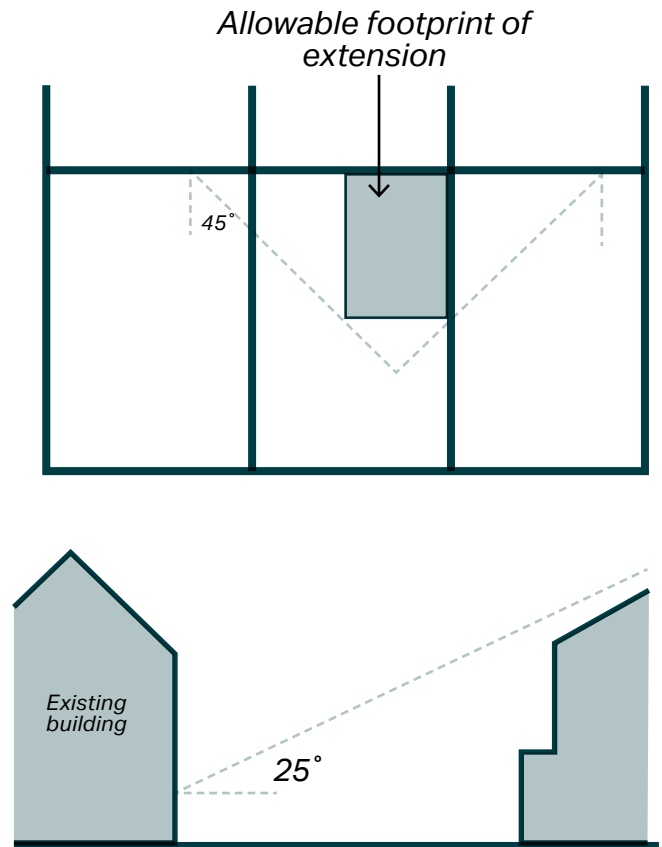


Figure 37: 25° / 45° rule

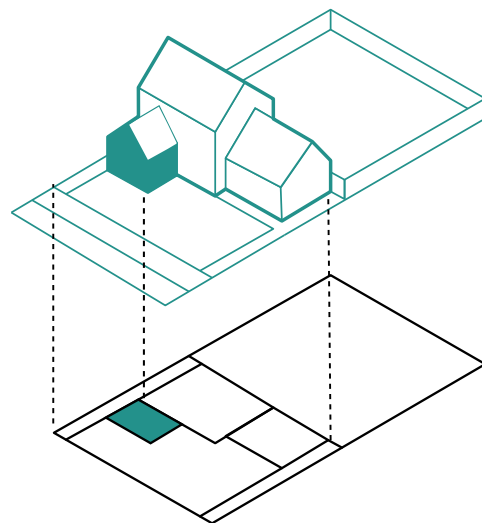


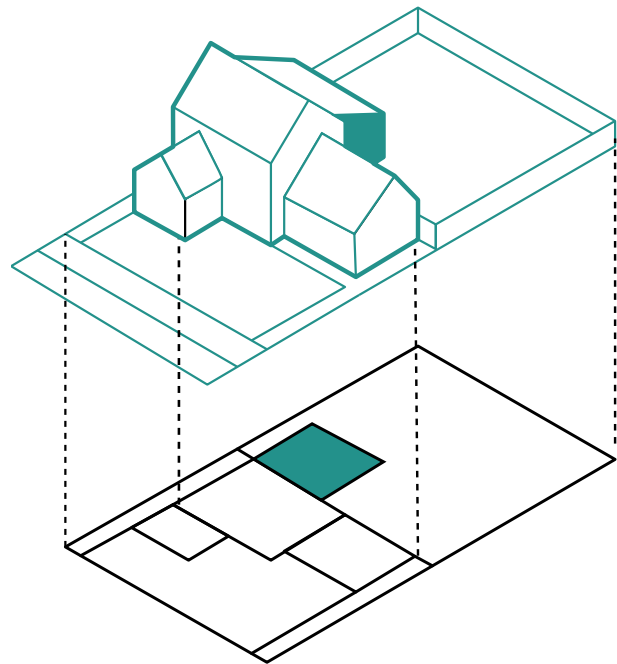
Figure 38: Drawing showing front extension

**Rear extensions** - Single-storey rear extensions are, generally, the easiest way to extend a house and provide extra living space. The extension should be set below any first-floor windows and designed to minimise any effects on neighbouring properties, such as blocking day light. A flat roof is generally acceptable for a single storey rear extension.

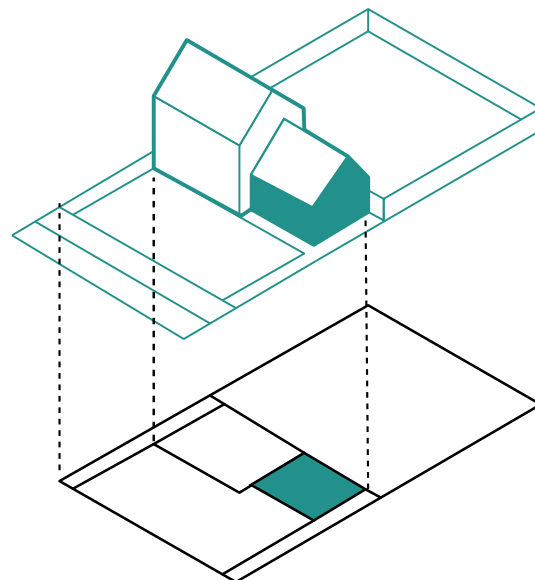
Double-storey rear extensions are not common as they usually affect neighbours' access to light and privacy, however, sometimes the size and style of the property allows for a two-storey extension. In these cases, the roof form and pitch should reflect the original building and sit slightly lower than the main ridge of the building.

**Side extensions** - Side extensions are a popular way to extend a building to create extra living space. However, if poorly designed, they can negatively affect the appearance of the street scene, disrupting the rhythm of spaces between buildings. Single-storey and double-storey side extensions should be set back from the main building line to the front of the dwelling and complement the materials and detailing of the original building, particularly along the street elevation. The roof of the extension should harmonise with that of the original building.

Side windows should also be avoided unless it can be demonstrated that they would not result in overlooking of neighbouring properties.



**Figure 40:** Drawing showing rear extension



**Figure 39:** Drawing showing side extension

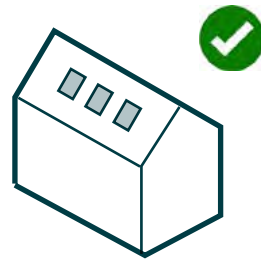


**Garages and outbuildings** - Garages should be subservient to the main dwelling in terms of their scale, massing and height and should not include domestic features such as dormer windows (the standard size expected for garages to enable general storage are – internal dimensions of at least 6m x 3m for a single, 6m x 6m for a double)

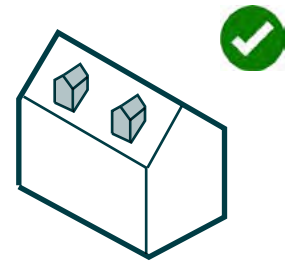
Outbuildings, such as working from home office spaces, should be well designed, provide enough natural light, be thermally efficient and secure. They should be visually subservient to the main dwelling.

Pre-fabricated, pre cast concrete and plastic panels should be avoided.

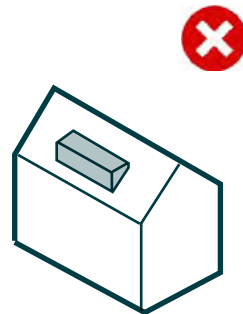
**Loft conversions** - As an enclosed space the main challenge of loft conversions is the introduction of roof lights or dormer windows for natural light and ventilation. Some examples of what is and isn't acceptable is shown on the diagrams, right.



Loft conversion incorporating skylights.



Loft conversion incorporating gable dormers.



Loft conversion incorporating a long shed dormer which is out of scale with the original building



Original roofline of an existing building



Loft conversion incorporating gable dormers.



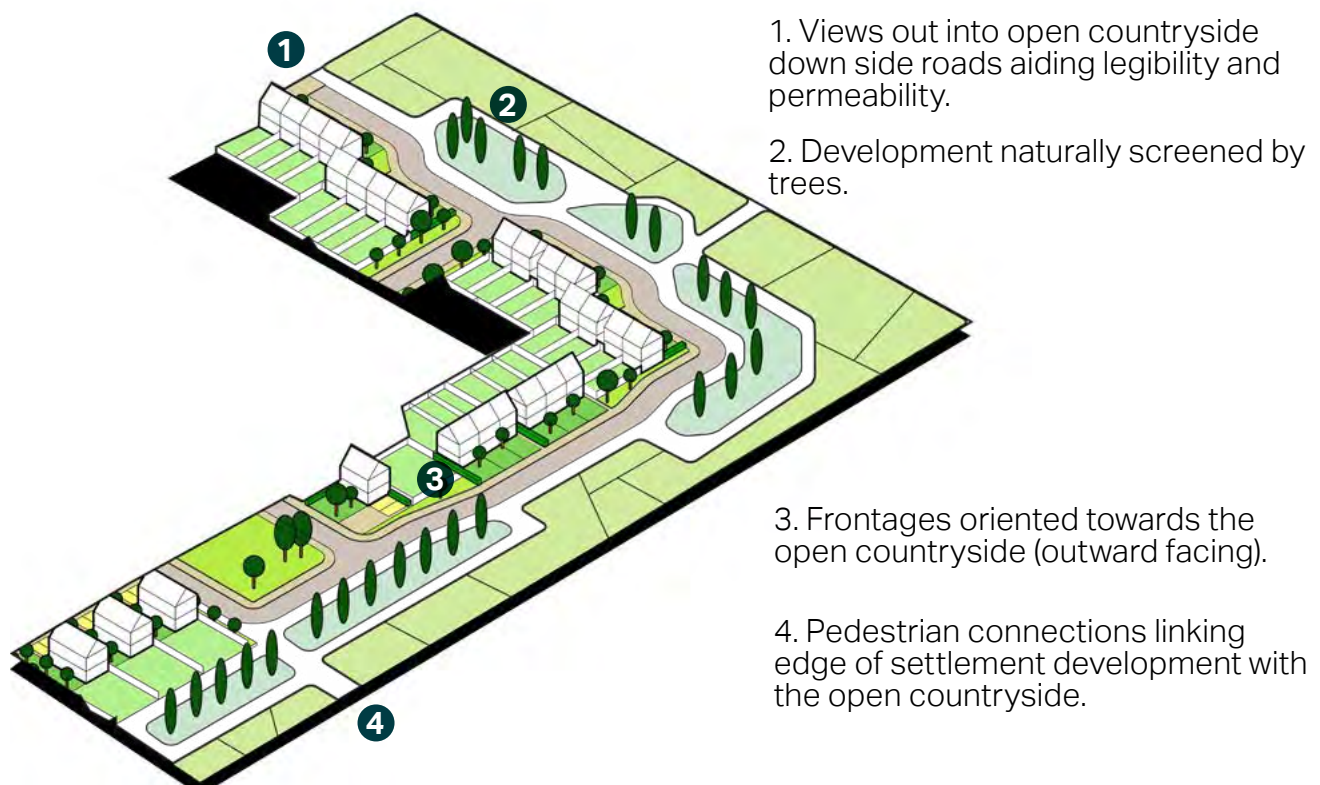
Loft conversion incorporating gable dormers which are out of scale.

## Design Code 10: Landscape setting and rural identity

Development proposals that are located on settlement edges must:

- Ensure dwelling frontages are orientated outwards and avoid rear boundaries facing the landscape - unless suitably screened by planting.
- Retain the visual quality of the landscape by reducing the scale of development; Dwellings should not exceed 2 storeys in these locations.
- Soften the boundary between built form and the wider landscape by encouraging soft landscape planting such as hedgerow, wildflower, and tree planting.

- Provide links for both pedestrians and cyclists to the wider countryside, and where possible, connect to the Public Right of Way network.
- Avoid designing a street hierarchy that arranges primary roads and over-engineered turning heads to abut the wider landscape.
- Be of a low density with buildings interspersed with tree planting to visually soften the impact on the surrounding countryside.



**Figure 41:** Landscape sensitive edge of settlement development diagram.

## Design Code 11: Biodiversity

Planning applications across the neighbourhood area must be supported by proposals for the incorporation of features for biodiversity enhancement, in addition to what may be required to address any adverse impacts resulting from the development.

Appropriate features include:

- Features for nesting birds associated with the built environment such as swifts and house sparrows.
- Features for roosting bats.
- Green walls and green/brown roofs.
- Mixed native species hedgerows.
- Creation of new wildlife ponds and the re-creation of historically lost ponds.
- Native scrub and tree planting.
- Orchard/fruit trees.
- Creation of species rich grassland.
- Creation of rough grassland suitable for foraging barn owls and provision of barn owl nest boxes.
- Log piles and compost heaps.
- Provision of gaps in boundary fences to allow access by hedgehogs and provision of hedgehog domes. Hedgehog Highways should be marked out on site to ensure they are not blocked up by future landowners.

The loss of trees, hedgerows and native planting should be avoided and instead these features should be incorporated into the design of proposed development.

The loss of historic field boundaries will not be acceptable.

Where the loss of trees is unavoidable, a 3 for 1 system should be incorporated where 3 new trees should be planted for every 1 lost.

All major development should be accompanied by a landscape layout which prioritises the use and incorporation of native species and promotes overall biodiversity net gain.

Aim to develop a multifunctional green infrastructure network made up of a variety of elements: including hedgerow, private gardens, tree planting, grass verges, SuDs, amenity green space, watercourses, cemetery, allotments, orchards, meadows, and playing fields.



## Design Code 12: Tree planting

New development must:

- Aim to preserve existing mature trees, incorporating them into the new landscape design and using them as accents and landmarks, where appropriate.
  - Consider canopy size when locating trees; reducing the overall number of trees but increasing the size of trees is likely to have the greatest positive long-term impact.
  - Size of tree pits should allow sufficient soil around the tree. Ensure tree stems are in the centre of the verge to provide a 1m clearance of the footway or carriageway.
  - Tree root zones should be protected to ensure that trees can grow to their mature size. Root barriers must be installed where there is a risk of damaging foundations, walls and underground utilities.
- New trees should be added to strengthen vistas, focal points and movement corridors, while retaining clear visibility into and out of amenity spaces. They should not, however, block key view corridors and vehicular circulation sight lines.
  - New trees should be integrated into the design of new developments from the outset rather than left as an afterthought to avoid conflicts with above- and below-ground utilities.
  - To ensure resilience and increase visual interest, a variety of tree species is preferred over a single one.
  - The overall aim should be to plant trees and other soft landscaping. This should form part of each development regardless of size. How appropriate a tree is for any given urban location must also be determined based on space requirements.



**Figure 42:** Diagram showing green spaces and landscape planting

## Design Code 13: Car Parking

New development that proposes, or impacts the existing provision of, car parking must apply the following design considerations:

- Most homes should have on-plot parking wherever possible and cars should be located at the front or the side of the property;
- Car parking should be designed to avoid being visually intrusive, such as by screening these areas with planting and high quality landscaping. Boundary treatment is key to ensuring this and can be achieved by using elements such as hedges, trees, flower beds, low walls and high quality paving materials;
- Driveways must be constructed from porous materials to minimise surface water run-off. These materials such as cobbles or flagstones are also much more attractive than the use of tarmac;
- Garages should be designed either as a free standing structure or an additive form to the main building. In both cases, garages should reflect the architectural style of the building and look an integral part of it rather than a mismatched unit. Garages should be behind or in line with the building, never positioned ahead of the building line;
- New developments should incorporate cycle parking, which occupies minimal space and can be incorporated into the domestic curtilage, either with a secure cycle store at the front, or space for bicycles behind a secure side gate to a back garden.

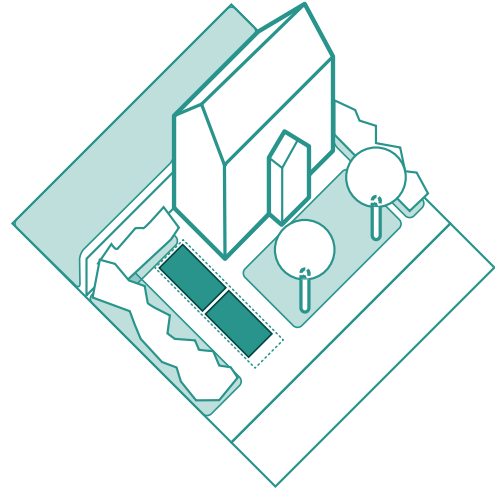


Figure 43: Diagram showing on-plot parking

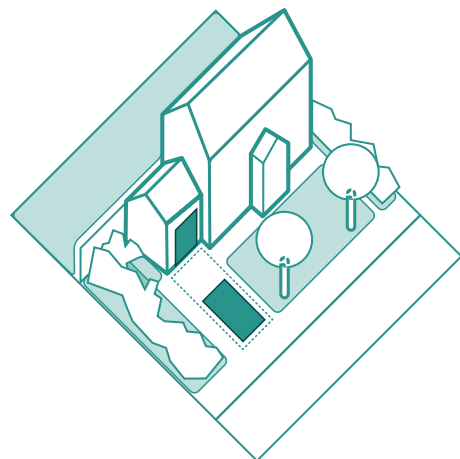


Figure 44: On-plot parking with garage

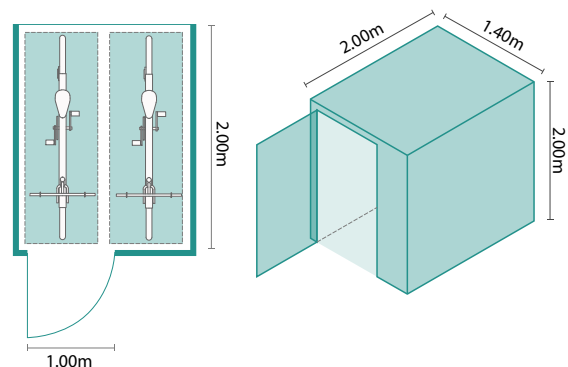


Figure 45: Secure cycle storage for two bicycles

## Design Code 14: Energy Efficiency Measures to Net Zero Carbon

Climate change has created the need to decrease our carbon footprint towards net-zero by providing innovative solutions to transportation (electrification) and the energy use of buildings. Sustainable design incorporates innovative practices at all scales of design to achieve less impactful development footprints, whilst future proofing homes, settlements and natural environments. Reducing use of imported natural resources whilst increasing utilisation of local resources and sustainable natural resources can help to achieve this.

Development and improvements should incorporate innovative practices to help achieve a broad vision of a sustainable village. Best practices, technological advancements and the use of local materials and resources should inform the design and implementation of projects. Space standards help to make building more adaptable and responsive to changing needs. Climate change creates an imperative to decrease our carbon footprint by providing innovative solutions to transportation and the energy use of buildings.

**Aim** - New development must be net zero in use. For all building stock to be carbon neutral by 2050, all new buildings need to be carbon neutral from now on so that they do not need costly retrofitting. It is paramount that new development adopts a fabric first approach in line with the Government's emerging Future Homes Standard and Part L of the UK Building Regulations in order to attain higher standards of insulation and energy conservation.

**On-plot renewables** - Maximise on-site renewable energy generation (solar, ground source, air source and wind driven), and on site water reuse and management.

**Passivhaus design** - Reducing energy demand further by employing passive design principles for homes is desirable and can make development more acceptable to the community (window orientation, solar gain, solar shading, increased insulation, ventilation with heat-recovery).

**Domestic batteries** - Incorporate domestic batteries (to store excess electricity) or other energy storage (i.e. large hot water tanks) to enable intermittent renewable electricity supply (e.g. from solar panels) to be stored to match demand and maximise renewable energy potential. Grid balancing and managing periods when it is cold, not sunny and not windy is going to be a big challenge of the 2030s and something new homes should be adapted for.

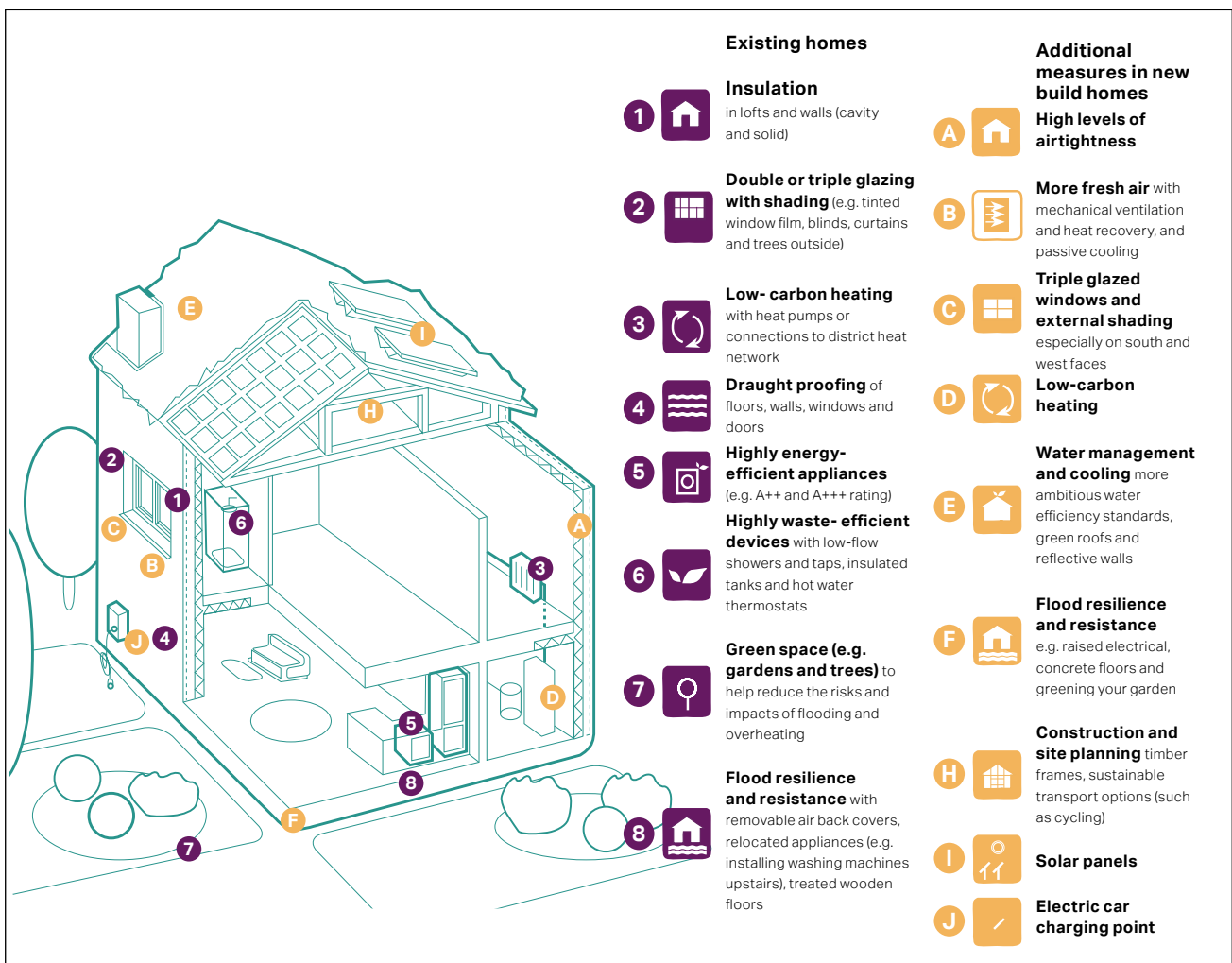
**Thermal efficiency** - Consider building form and thermal efficiency: point-block / terraced / semi-detached / detached all have different energy efficiency profiles. Local design preference and character considerations could ease acceptance for development.



**Heat resilience** - All new development must be well designed to be resilient to heat stress and overheating using the [Good Homes Alliance toolkit](#).

**Ventilation** - All new residential developments need dual aspect and adequate windows and openings to allow for cross ventilation, light colour or green surroundings, high thermal mass and useful external shading.

**Green infrastructure** - Tree planting / landscaping to manage heat stress should include small deciduous species around new and existing residential areas to provide shade in the summer but not block daylight in the winter. This will also help manage flood risk and provide habitat. Green roofs and walls provide similar benefits.

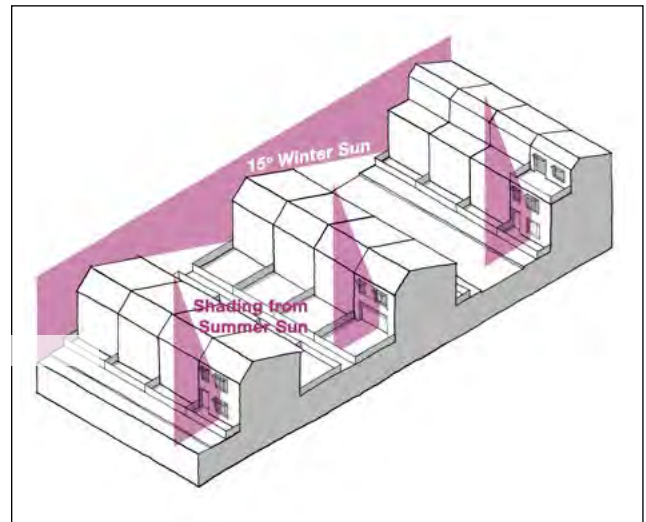


**Figure 46:** Cut-through diagram of an energy efficient home and its features.

## Design Code 15: Sustainable Building Materials and Construction

**Sustainable materials** - Sustainable design and construction in development is needed:

- Reduce the embodied carbon of the design by minimising the use of energy and carbon intensive materials (e.g. use wood structures and concrete alternatives instead of steel and concrete).
- Reuse materials.
- Use recycled materials.
- Use local, sustainable materials and/or responsibly sourced (e.g. Forest Stewardship Council certified timber, or certified under BES 6001, ISO 14001 Environmental Management Systems).



**Figure 47:** The layout and orientation of new buildings contributes to reducing their energy needs by avoiding overshadowing, maximising passive solar gain, internal daylight levels and ventilation (source: National Model Design Code).

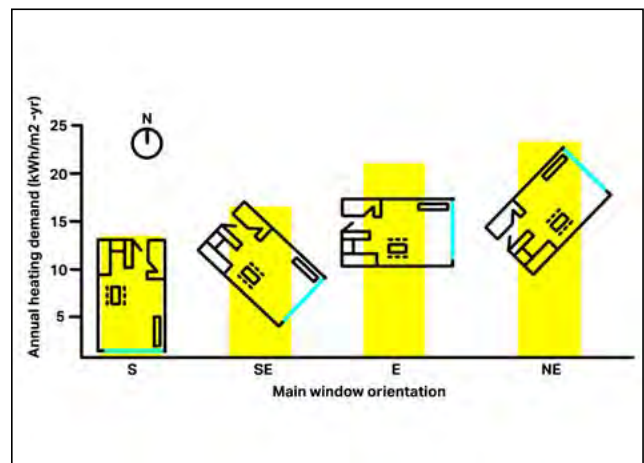
## Design Code 16: Assessing Renewable Energy Sources

**Energy sources** - Key considerations in the assessment of renewable energy sources for development to be net zero for power generation may include (but are not limited to):

- Optimising solar orientation of streets and buildings. Aim to increase the number of buildings on site that are oriented within 30° of south (both main fenestration and roof plane) for solar gain, solar energy (solar panels) and natural daylighting.
- A heat network for any new development.
- Ground conditions to accommodate loops for ground source heat and space for air source heat pump units.
- Opportunity to create links to local estates for sustainable coppicing, harvesting or recycling of biomass fuels.
- Local wind speed and direction for micro-generation wind turbines.
- Collaborating with utilities, highway authorities, telecoms companies and other stakeholders when designing and delivering projects to minimise energy usage and disruption during the construction stage and reinforcement of the electricity grid for additional electric vehicles and renewables.



**Figure 48:** Integrated solar panels on slate roof.



**Figure 49:** Building orientation influences the annual heating demand.



**Figure 50:** Main buildings oriented within 30° of south for solar gain

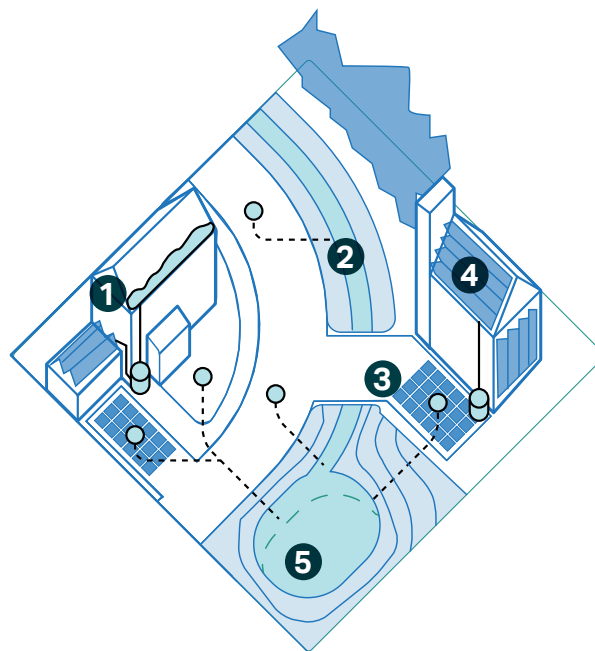


## Design Code 17: Sustainable Drainage Systems (SuDS)

As a standard, proposals must promote methods to mitigate increased risk of storms/flooding with sustainable drainage systems.

Development proposals should seek to:

- Integrate sustainable drainage systems to assist with flood alleviation from rivers and drains and surface water runoff and incorporate surface features such as planted raingardens to express this function.
- On minor development sites, proposals must integrate bio-swales and/or rain gardens and/or permeable surfacing in their design to assist with surface water drainage.
- On schemes that propose 10 or more dwellings, proposals must integrate bio-swales and/or attenuation basins in their design. These must be planted with wildflower planting to assist achieving a biodiversity net gain.
- Natural barriers (e.g. planting) and appropriate side slopes should be introduced to help manage perceived safety risks.
- The location of SuDS features will naturally be determined by topography (working towards the lower end of the site) and must be outside of the key flood risk areas.
- Proposals must adopt the use of permeable paving in hard landscaped areas.



- |   |                  |   |                   |
|---|------------------|---|-------------------|
| 1 | Rain garden      | 4 | Green roof        |
| 2 | Swale            | 5 | Attenuation basin |
| 3 | Permeable paving |   |                   |

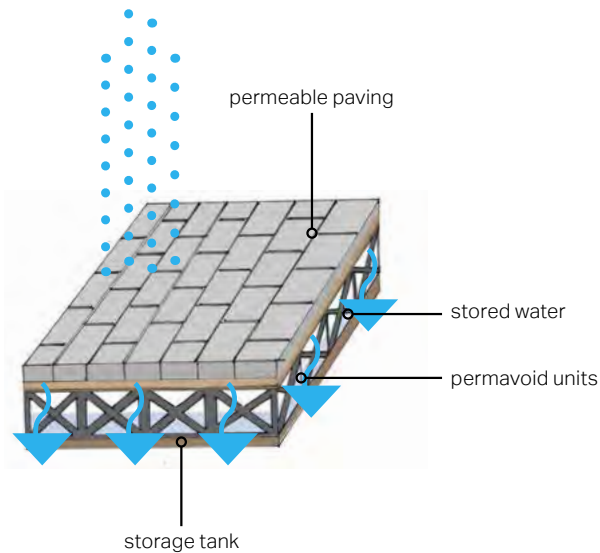
**Figure 53:** Diagram showing the best use of harvesting water systems rain garden, swales, permeable paving, green roofs



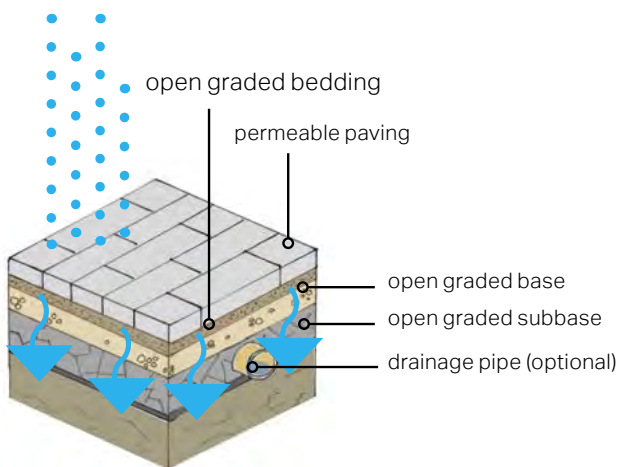
**Figure 54:** Example of a rainwater harvesting tank in the shape of a beehive (source: <https://www.gardenplantsonline.co.uk/>)



**Figure 56:** A good example of permeable paver (Source: <https://www.paverconnection.com/testimonial/hedwig-village-permeable-driveway-and-patio-upgrade/>)



**Figure 57:** A good example of clay paver (Source: <https://www.londonstone.co.uk/brick-pavers/paving-bricks/>)



**Figure 55:** Diagrams illustrating the functioning of a soak away

## 3.2 Glossary

Term	Description
Backland development	Backland development refers to the development of land set back behind existing properties.
Biodiversity Net Gain	The process of measurably increasing the natural environment of a development site.
Blue Infrastructure	A network of multi-functional water spaces and other water features including rivers, streams, canals and other water bodies,
Connectivity and Permeability	Permeability and connectivity are terms that describe the extent to which urban forms permit (or restrict) movement of people or vehicles in different directions.
Development Boundary	A development boundary is a line that is drawn on a plan around a village, which reflects its built form and indicates where a set of plan policies are to be applied.
Development Plan	Sets out the policies and proposals for land use in a particular area.
Green Infrastructure	A network of multi-functional green space and other green features, It includes parks, open spaces, playing fields, woodlands – and also street trees, allotments, private gardens, green roofs and walls, sustainable drainage systems (SuDS) and soils.
Infill development	New development that is located in-between two existing properties within the Development Boundary.
Legibility	A legible built environment is one in which pathways, landmarks and districts are easily recognised and can be grouped into a coherent pattern.
Setback	How far buildings are located from a front boundary, road or pavement.
Street enclosure	A measure of the relationship between building height and street width, setting out the visual definition of a street.
Street scene	A view that presents the buildings and layout of the street.





Checklist

# 04

**Figure 58:** Modern development at Wulfric Avenue

## 4. Checklist

This section sets out a general list of design considerations by topic for use as a quick reference guide in design workshops and discussions.

### 1

#### General design considerations for new development:

- Integrate with existing paths, streets, circulation networks and patterns of activity;
- Reinforce or enhance the established settlement character of streets, greens, and other spaces;
- Harmonise and enhance existing settlement in terms of physical form, architecture and land use;
- Relate well to local topography and landscape features, including prominent ridge lines and long-distance views;
- Reflect, respect, and reinforce local architecture and historic distinctiveness;
- Retain and incorporate important existing features into the development;
- Respect surrounding buildings in terms of scale, height, form and massing;
- Adopt contextually appropriate materials and details;
- Provide adequate open space for the development in terms of both quantity and quality;
- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;
- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;
- 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;
- Positively integrate energy efficient technologies;
- Ensure that places are designed with management, maintenance and the upkeep of utilities in mind; and
- 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 & 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?
- 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?



# 3

## Local green spaces, views & character:

- Will any communal amenity space be created? If so, how this will 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 villagescape?
- 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'?
- 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 & 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?
- Does 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.
- Can the proposed materials be locally and/or responsibly sourced? E.g. FSC timber, or certified under BES 6001, ISO 14001 Environmental Management Systems?

# 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?



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