



Hargrave

Design Guidance and Code

Quality information

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Introduction

01

1. Introduction

1.1. Introduction

Through the Ministry of Housing, Communities and Local Government (MHCLG) Neighbourhood Planning Programme led by Locality, AECOM has been commissioned to provide design support to Hargrave Parish Council (Suffolk).

This document is intended to support Neighbourhood Plan policies that encourage high quality design. It includes design codes covering the built up part of the parish.

1.2. Objective

The main objective of this report is to provide a bespoke design code that future developments within the neighbourhood plan area must follow in order to respond to Hargrave's special character.

The core method to meet this aspiration can be divided in the following steps:

- 1 Context analysis
- 2 Design Code

1.3. Process

Following an inception meeting, AECOM and the members of Hargrave Council carried out a high-level assessment of the village. The following steps were agreed with the group to produce this report:

- 1 Initial meeting to discuss brief between AECOM and the Hargrave Neighbourhood Planning Group.
- 2 AECOM site visit and analysis of the area.
- 3 Preparation of design code.
- 4 Draft report.
- 5 Submission of a final report.

1.4. The area of study

Hargrave is a village and civil parish in the West Suffolk district in eastern England. It is located about 7 miles (10 km) south west of Bury St Edmunds and lies at the crossroads from Ousden and Lady's Green (west) and Chevington (east).

The village has approximately 120 dwellings, two churches and a Village Hall (built and funded by the village).

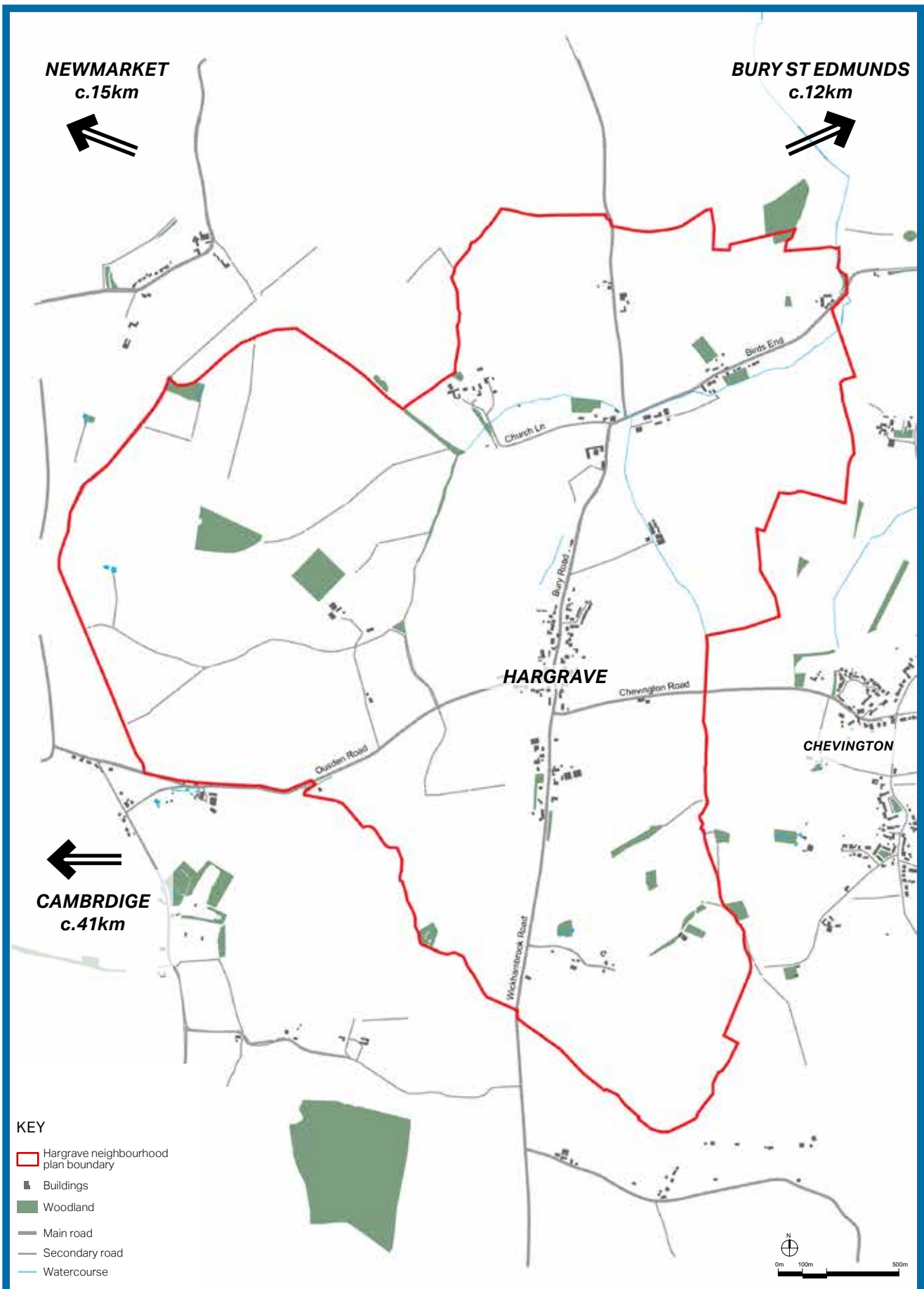


Figure 1: The Neighbourhood Plan Area.



Analysis

02

2. Analysis

2.1. Introduction

It is important that all design proposals are based on an understanding of the context and this should be set out in planning applications. Context refers to the current, and sometimes future, condition at a number of scales including: the site, adjacent buildings, spaces and routes, and the wider village and countryside.

This chapter introduces elements of context at the parish scale and the concept of character areas.

2.2. Elements of context

Please refer to the plans on the following pages, which are presented in the same order as the introductory descriptions below.

Green and blue infrastructure

Hargrave is a rural parish, consisting of a number of hamlets in an undulating landscape dominated by arable farm land intersperse with woodland blocks.

'Blue infrastructure' is dominated by ditches and ponds mostly used for agriculture. Some of the important local green spaces in Hargrave include:

- The Green;
- Great Knowles Green; and
- Little Knowles Green Farm;

Housing

Hargrave has a mix of housing typologies. Terraced and semi-detached houses can be found in School Cottages road while detached housing predominates in the rest of the village.

Topography and views

Much of Hargrave's special character comes from its prominent position at one of the highest points in Suffolk. There are several long distance views from and towards the village contributing to the settlements character. These views should be preserved and enhanced.

Heritage

There are a number of listed buildings in the parish, the most significant being the Grade II Listed Church of St Edmund's. In addition to the listed buildings, other buildings have historic and architectural merit within the village. In particular, the Old School House and School Hall are identified as buildings of local significance.

Flood risk

The areas of Birds End and The Wash, due to being located at the bottom of steep slopes, have been subject to flooding on a number of occasions. The immediate vicinity along the course of the stream is designated as Flood Zone 3 as defined by the Environment Agency.

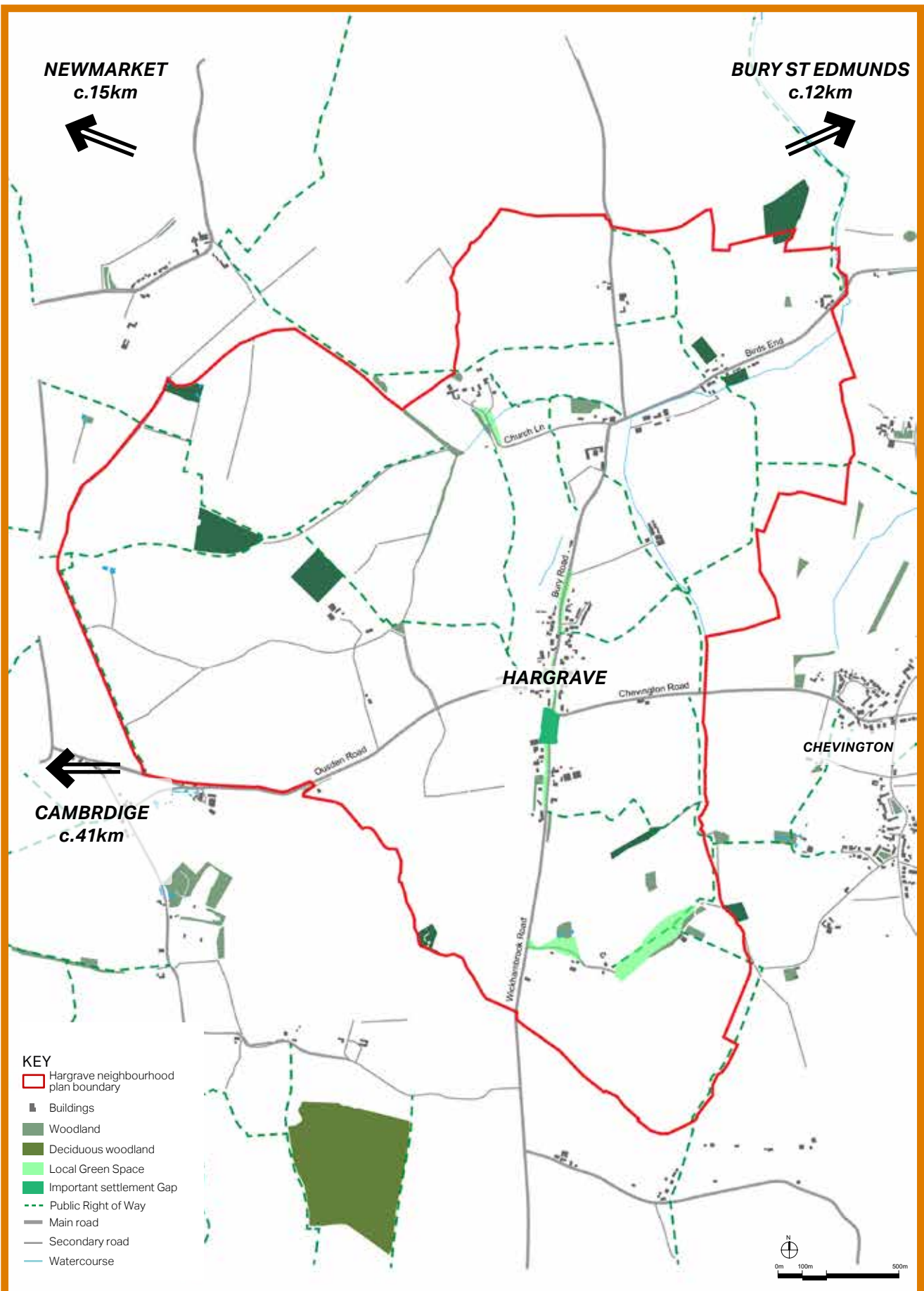


Figure 2: Green and blue infrastructure.

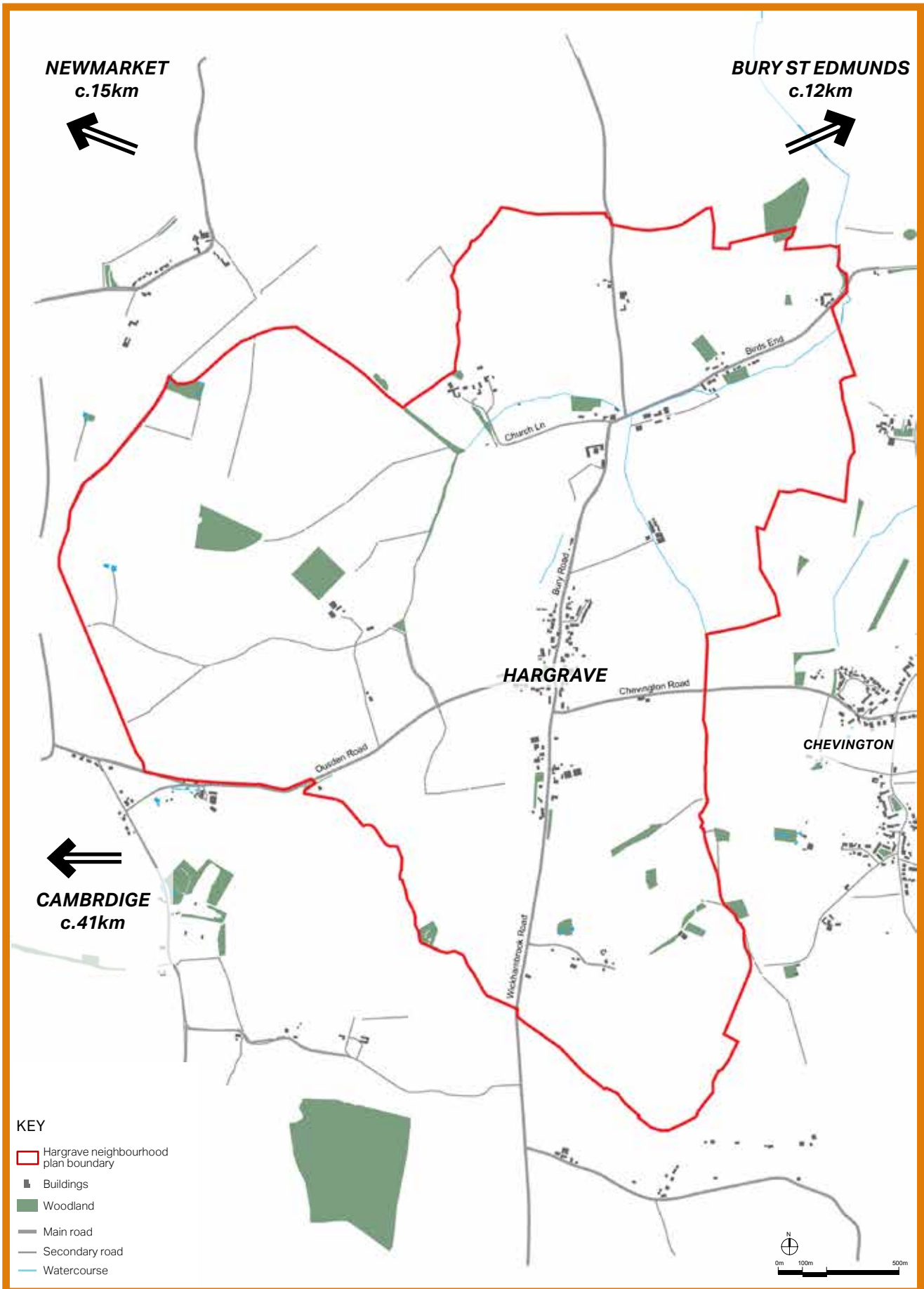


Figure 3: Green and blue infrastructure.

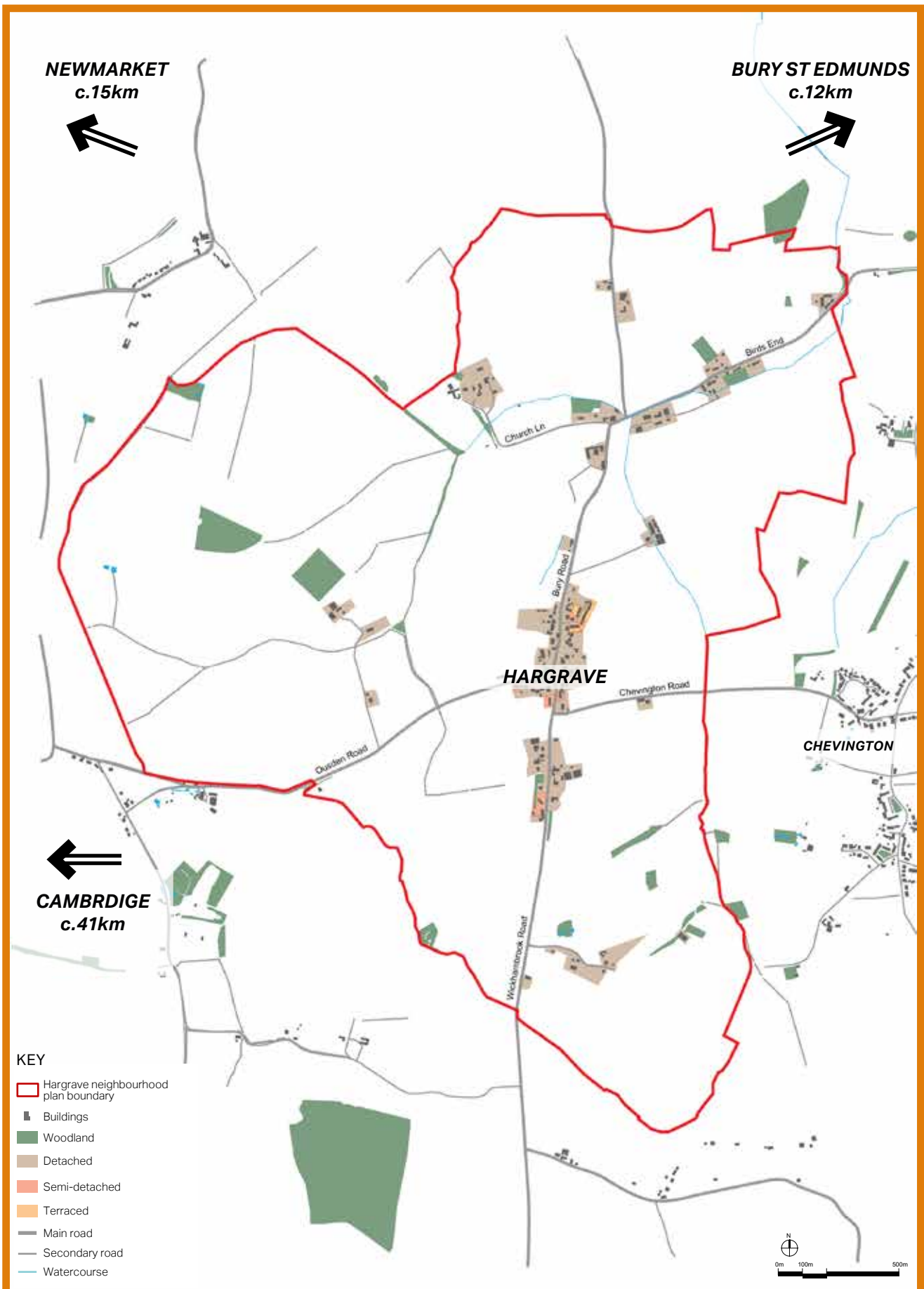


Figure 4: Predominant housing typologies.

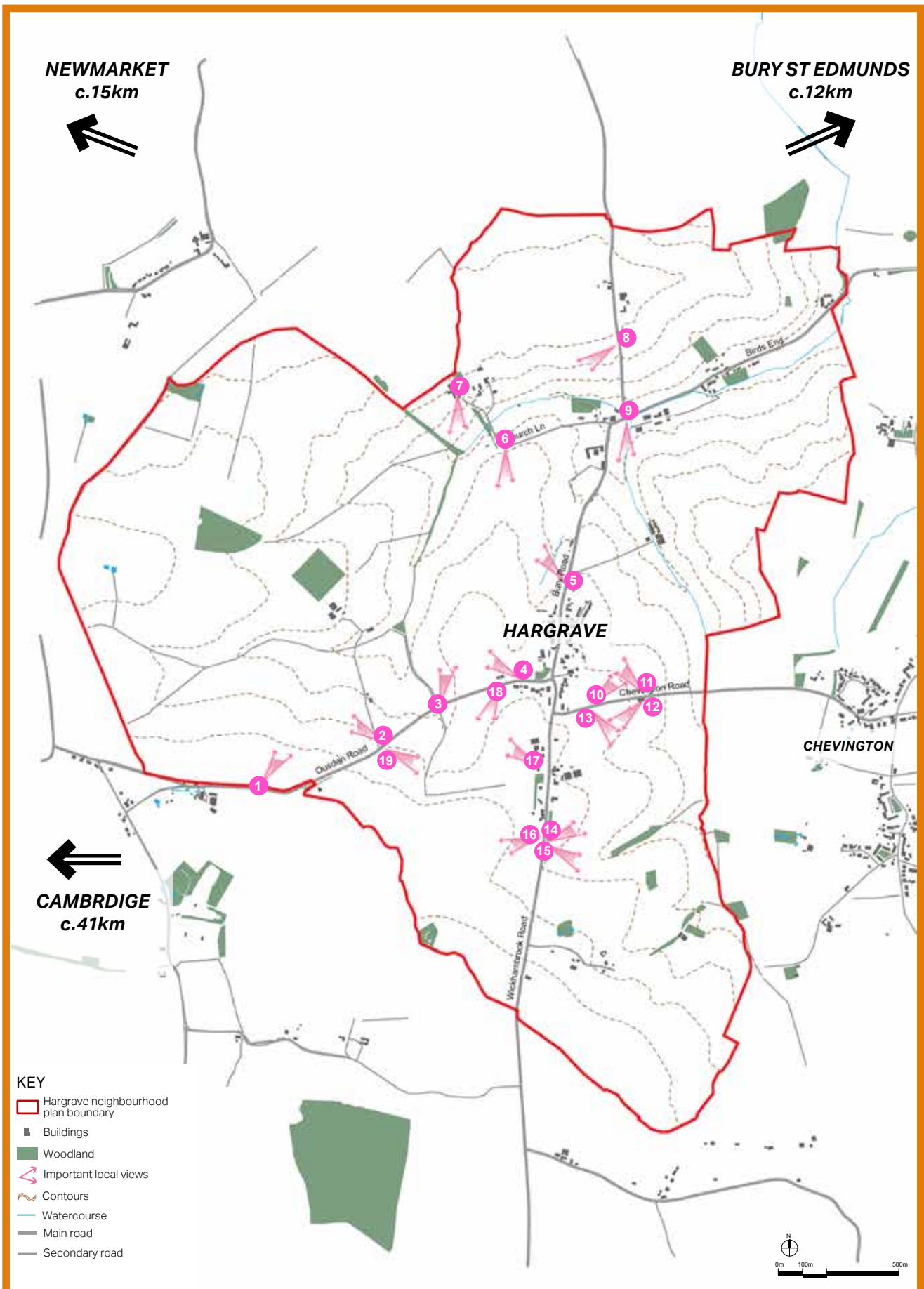


Figure 5: Topography and important views identified in the Neighborhood Plan.

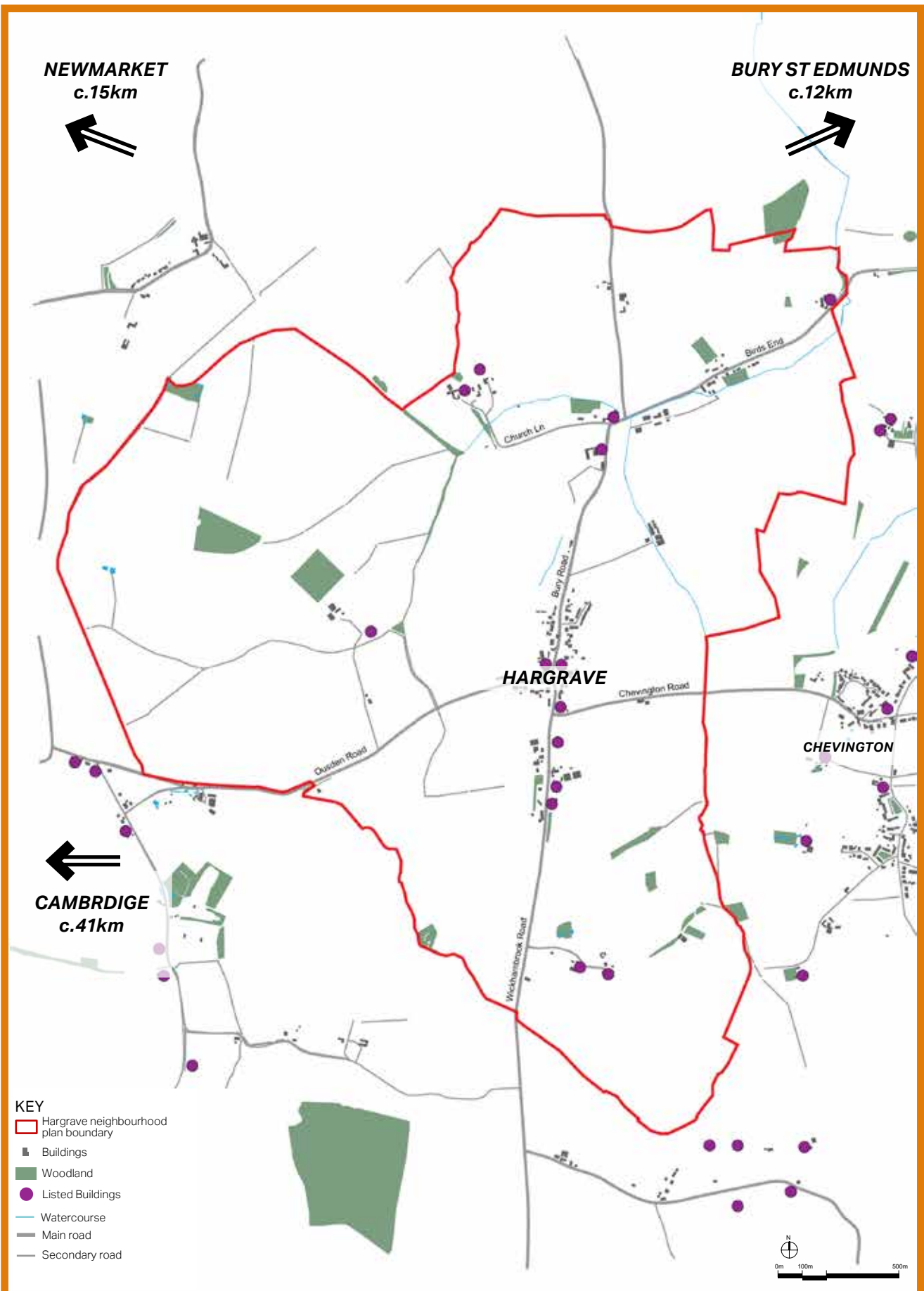


Figure 6: Heritage assets.

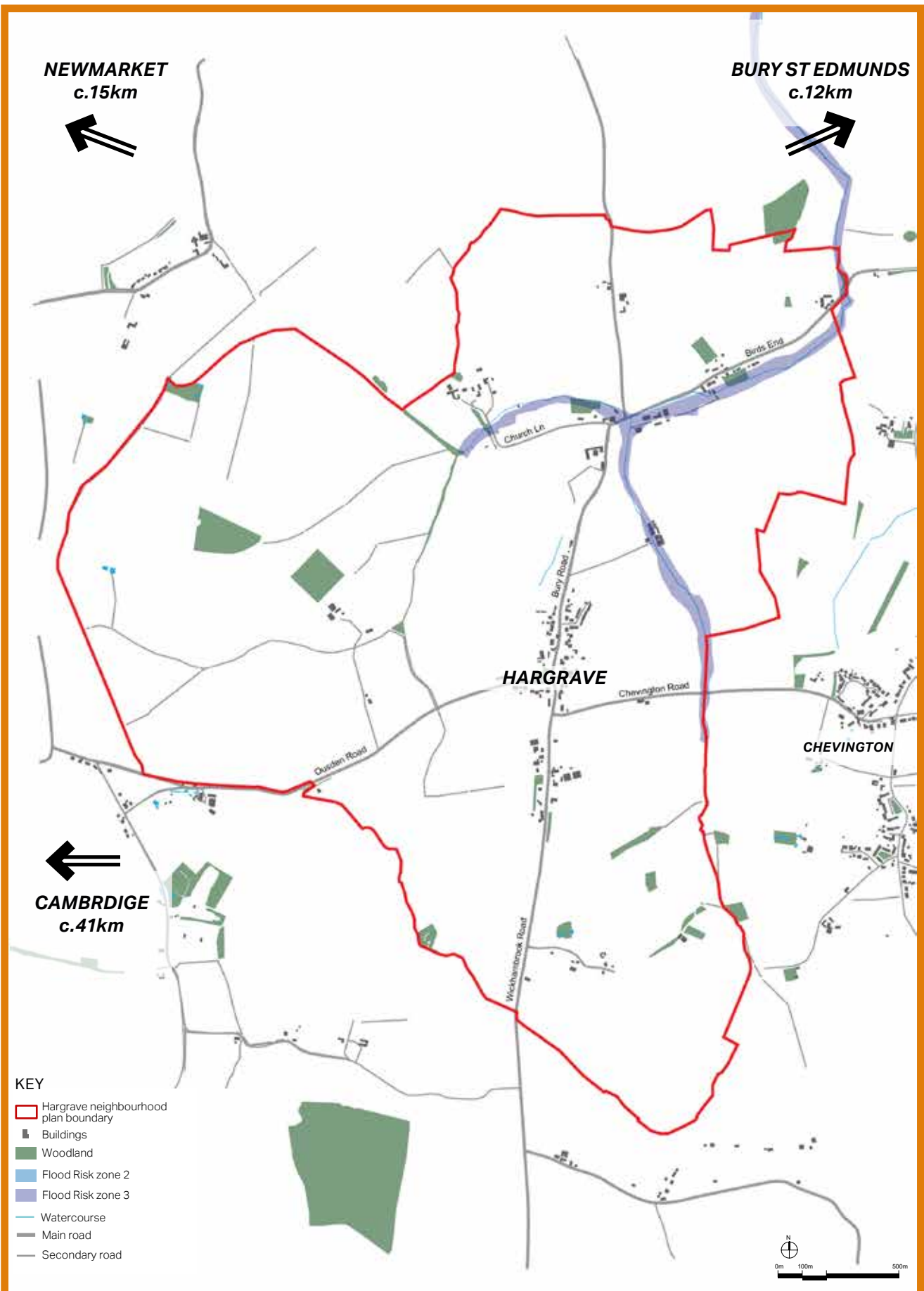


Figure 7: Flood Risk.



**Design guidance
and codes**

03

3. Design guidance and codes

3.1. Introduction

This chapter introduces a set of design principles for Hargrave, and guidance and codes to deliver them.

New development, at any scale, should not be viewed in isolation. The design and layout must be informed by the wider context and respond to the village character.

The general design principles that will look at the pattern of streets and spaces, building traditions, materials and the natural environment should all respond to the character, recognising that new building technologies are capable of delivering alternative building styles that may be more efficient.

It is important that the new design embodies the 'sense of place' and also meets the aspirations of people already living in that area, maintaining a harmony between any new development and its surroundings.

The set of design principles shown on the following pages are specific to Hargrave and are based on the analysis of the village's character and discussions with members of the Neighbourhood Plan Steering Group.

LG Layout and grain

MO Mobility

HO Housing

MD Materials and details

CO Community

SU Sustainability

LG Layout and grain

LG.01 Pattern of developments

Hargrave has a broadly linear pattern of development with its central spine along Bury Road. Linear development provides a strong connection to the countryside, as gaps provide important views. Public footpaths offer access to fields both to the west and east of the settlements and along the water features.

Development at scale is not anticipated beyond the proposed Village Hall and possible enabling development. Most planning applications will be for infill and household extensions. All development should reflect the local context ensuring that it makes a positive contribution to the existing built form.

To ensure a good fit between new and old built forms it is important that any new development seeks to conserve and

enhance the character of the existing settlement in terms of urban form as well as character.

- i. Developments affecting the transitional edges between a settlement and the countryside should be softened by landscaping to complement the character of the adjacent or surrounding countryside;
- ii. Important local views should be protected, and the impact of the massing, height and architectural quality of any new development within the view corridor should be considered.

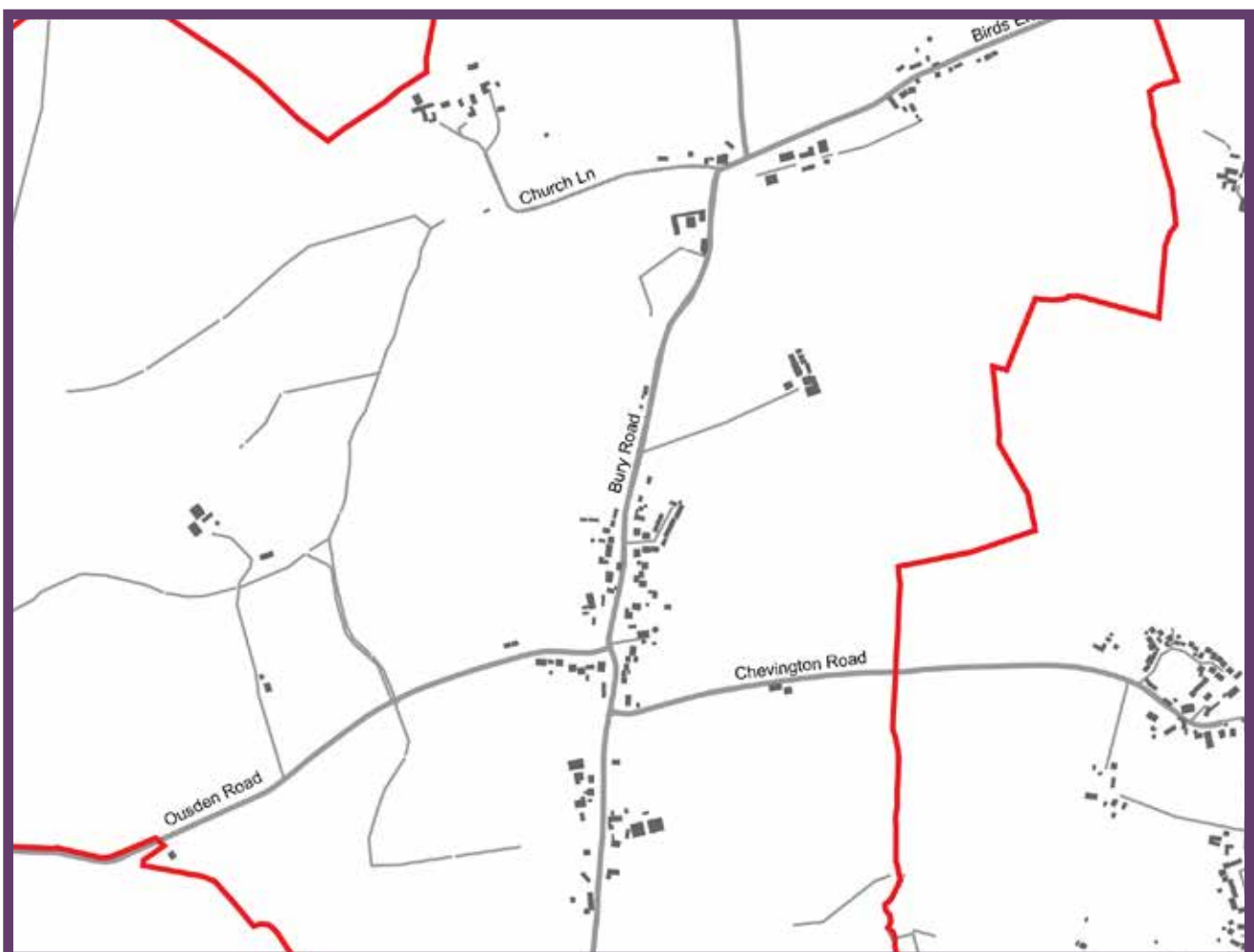


Figure 8: Hargrave has a broadly linear pattern of development.

Future development should be sympathetic to local character and history, and establish or maintain a strong sense of place. Understanding and appreciating the local historic environment will help to ensure that proposed development is properly integrated with the existing settlement and does not result in the loss of local distinctiveness.

- i. Development should respect the historic locally distinctive grain with mix of form, layout and size;
- ii. Siting and layout of new development must be sympathetic to specific character areas and respect the historic heritage of the village;
- iii. Developments which are high density and do not reflect the current grain of each character area should be avoided unless on a site identified for a different design approach. Proposals need to consider existing density context and the relationship between buildings and plot sizes.



Figure 9: Large grain on Bury Road.



Figure 10: Medium grain on School Cottages.



Figure 11: Large grain near Hargrave Church.

MO Mobility

MO.01 Interconnected street network – connectivity

The arrangement and grouping of buildings, the relationship between one building and another and with the street, open spaces and the surrounding area, are all important elements in defining the character of an area.

Within Hargrave the street layout is reflective of its historic development. Bury Road is the most heavily used road and is where linear development began. Church Lane to the east, Ousden Road to the west and Chevington Road to the west are secondary routes that connect the village to the surrounding area. Best practice favours an interconnected street network as it offers a choice of routes, allowing for a higher level of pedestrian activity increasing social interaction.

Given the importance of existing pedestrian routes, it is considered that a connected approach for future streets is adopted where possible.

- i. Proposals should consider the existing relationship between buildings and the street or other surrounding open spaces and how the siting and position of any new buildings can positively respond to this;
- ii. New streets should be considered a space to be used by all, not only vehicles. Therefore, it is essential that street design prioritises the needs of pedestrians, cyclists and public transport users.
- iii. There should be a clear hierarchy of streets to facilitate different levels of activity. Streets should incorporate opportunities for landscaping, green infrastructure and sustainable drainage.
- iv. The design of the street network should respond to the topography and natural desire lines.



Figure 12: Street networks and connectivity.

MO.02 Parking typologies

Adequate parking solutions need to be integrated into development.

There is no single best approach to domestic car parking. A good mix of parking typologies should be deployed and influenced by location, topography and policy requirements.

The main types to be considered are shown in this section. Generally:

- i. For family homes, cars should be placed at the front or side of the property. For small pockets of housing a front or rear court is acceptable.
- ii. Car parking design should be combined with planting to minimise the presence of vehicles.
- iii. Parking areas and driveways should be designed to minimise impervious surfaces, for example through the use of permeable paving.
- iv. When placing parking at the front, the area should be designed to minimise visual impact and to blend in with the existing streetscape and materials. The aim is to keep a sense of enclosure and to break the potential of a continuous area of car parking in front of the dwellings by means of walls, hedging, planting, and use of differentiated quality paving materials.
- v. Cycle parking should be integrated into all new housing.

On-plot parking

- i. On-plot parking can be visually attractive when it is combined with high quality and well designed soft landscaping. Front garden depth from the pavement back should be sufficient for a large family car.
- ii. Boundary treatment is the key element to help avoid a car-dominated character. This can be achieved by using elements such as hedges, trees, flower beds, low walls, and high quality paving materials between the private and public space.
- iii. Driveways should be constructed from porous materials to minimise surface water run-off.

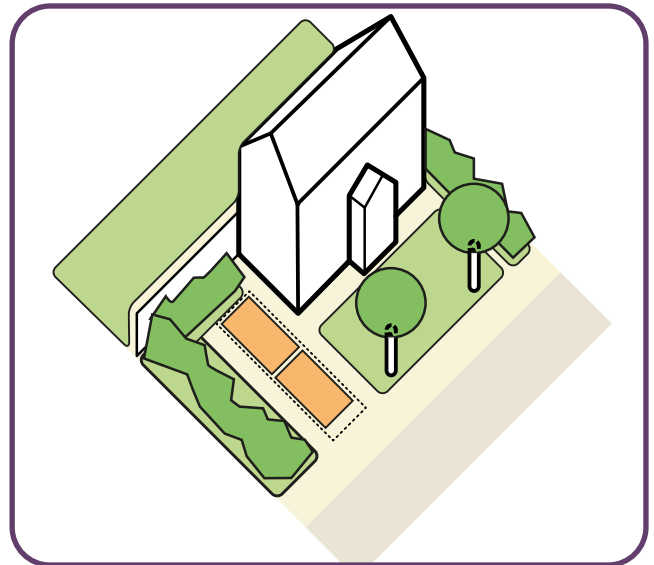


Figure 13: Diagram showing side-parking.

On-plot parking with garage

- i. Where provided, garages should integrate with the main building. They must complement and harmonise with the architectural style of the main building rather than forming a mismatched unit.
- ii. Often, garages can be used as a design element to create a link between buildings, ensuring continuity of the building line. However, it should be considered that garages are not prominent elements and they must be designed accordingly.
- iii. Consideration must be given to the integration of bicycle parking and/or waste storage into garages.

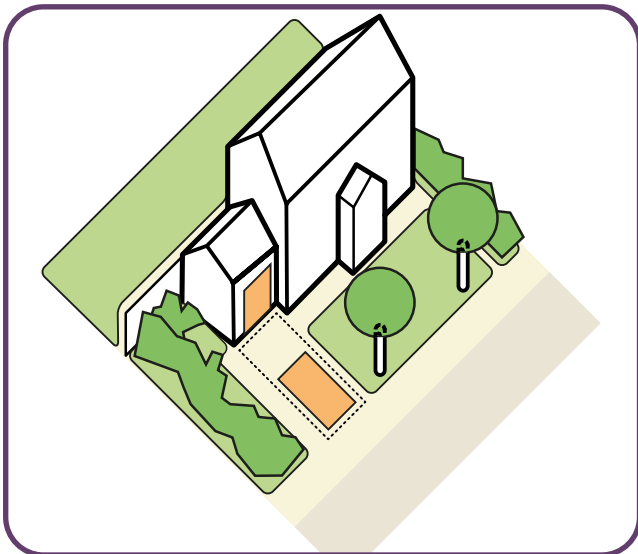


Figure 14: On-plot parking with garage.



Figure 15: On-plot parking.

On-street parking

- i. Unallocated on-street parking uses land more efficiently than other types.
- ii. Where possible, tree planting and other gaps between parking bays should be incorporated. It is suggested to insert trees every 5-6 parking spaces where possible.
- iii. On-street parking can be in parallel, perpendicular or echelon in relation with the traffic speed and the traffic volume.
- iv. On-street parking must be designed to avoid impeding the flow of pedestrians, cyclists, and other vehicles, and can serve a useful informal traffic calming function.
- v. Parking bays can be inset between kerb build outs or street trees. Kerb build outs between parking bays can shorten pedestrian crossing distances and can host street furniture or green infrastructure. They must be sufficiently wide to shelter the entire parking bay in order to avoid impeding traffic.
- vi. On low-traffic residential streets or lanes that are shared between vehicles and pedestrians, parking bays can be clearly marked using changes in paving materials instead of markings but must be of a different level to the pedestrian way e.g. with a kerb. This will provide drivers with an indication of where to park. The street must be sufficiently wide so that parked vehicles do not impede motor vehicles or pedestrians.
- vii. Opportunities must be created for new public car parking spaces to include electric vehicle charging points. Such provision must be located conveniently throughout the town and designed to minimise street clutter.

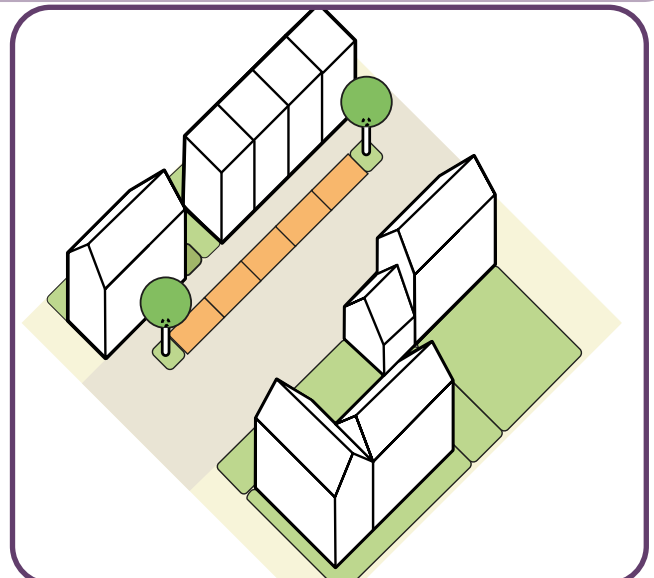


Figure 16: Diagram showing the on-street parking.

MO.03 Cycle parking

A straightforward way to encourage cycling is to provide secured and covered cycle parking within all new residential developments and publicly available cycle parking in the public realm.

Houses without garages

- i. For residential units where there is no on-plot garage, covered and secured cycle parking should be provided within the domestic curtilage.
- ii. Cycle storage should be provided at a convenient location that is easily accessible.
- iii. When provided within the footprint of the dwelling or as free standing shed, cycle parking should be accessed by means of a door at least 1300mm high and the structure should be at least 2m deep.
- iv. Parking should be secure, covered and it should be well integrated into the streetscape if it is allocated at the front of the house.
- v. The use of planting and smaller trees alongside cycle parking can be used to mitigate any visual impact on adjacent spaces or buildings.

Houses with garages

- i. The minimum garage size should be 7mx3m to allow space for cycle storage.
- ii. Where possible cycle parking should be accessed from the front of the building either in a specially constructed enclosure or easily accessible garage.
- iii. The design of any enclosure should integrate well with the surroundings.
- iv. The bike should be removed easily without having to move the vehicle. New development should promote cycling by providing more cycle routes and monitor the condition of the existing ones.
- v. In the case of apartments, cycle parking should be allocated at the basement or ground floor.

MO.04 Legibility and signage

A legible and well signposted place is easier for the public to understand as people can orient themselves with visual landmarks and direct routes. Being able to navigate around a place makes people feel safer and creates a more pleasant living environment that functions well.

- i. Hargrave should use a variety of identifiable landmarks, gateways and focal points to create visual links and establish a clear hierarchy between places.
- ii. The village should be complemented by distinctive architectural elements around gateways and nodes.
- iii. New developments should be designed around a series of nodal points focusing on the relationship with the existing character areas as well as the surrounding landscape.
- iv. Wayfinding must be clearly established throughout the village, particularly along pedestrian and cycle routes and should be designed to complement and not clutter the public realm.

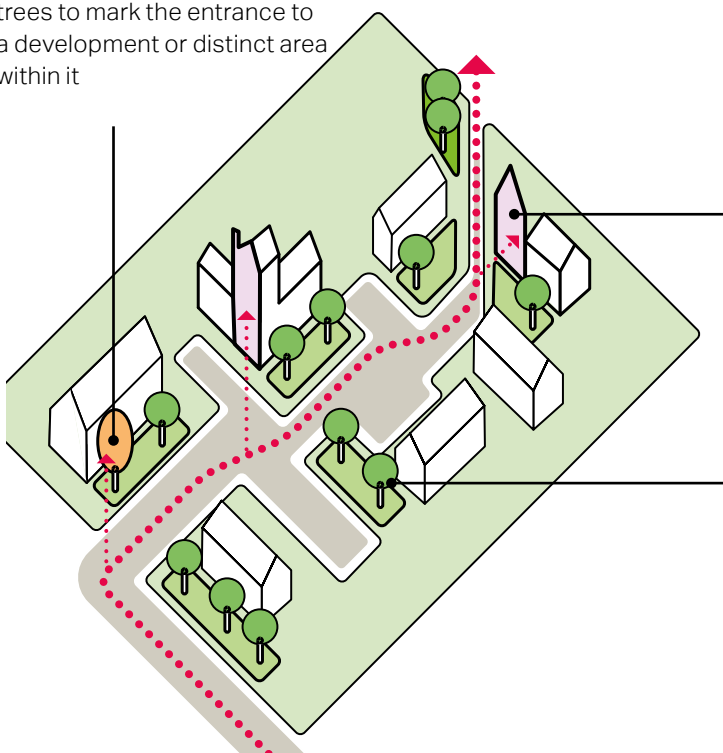


Figure 17: Church of St Edmund, a Grade II listed building and important, although secluded, landmark for the village.



Figure 18: Village Hall, a focal point in Hargrave.

Make the best use of mature trees to mark the entrance to a development or distinct area within it



Local landmark buildings can be used as a point of orientation

Use high quality trees and landscaping to help with wayfinding along the main desired path

Figure 19: Diagram showing wayfinding elements in public realm.

HO Housing

HO.01 Scale form and massing

The scale, form and massing of buildings are important in establishing and enhancing the character of a place; therefore, new development needs to react sensitively to preserve and enhance the best characteristics of the existing context of a place ensuring a harmonious relationship with neighbouring buildings, spaces and streets.

Building heights within Hargrave are very consistent, with the majority of the buildings being two-storey.

- i. The scale and massing of new buildings should be consistent with the form and massing of neighbouring properties.
- ii. New developments should seek to respond to the surrounding context by using similar configurations with a modern interpretation. Buildings and developments that do not respect the existing townscape should be avoided.
- iii. The height of new buildings should respond to the surrounding context and should not be over-bearing or dominant in the existing street scene.
- iv. Development within Hargrave should be of a scale and design to reinforce the locally distinctive character of each character area.



Figure 20: Massing and building heights to the North of Bury Rd.



Figure 21: Bungalow example in Hargrave



Figure 22: Houses with 2 to 3 storeys massing

HO.02 Well defined public and private space

A clear definition between public and private space is a fundamental principle for good place-making. Buildings fronting the streets and open spaces give life to the public realm, primary access and principal frontages should therefore always face onto public spaces.

- i. In residential areas, the distances between the backs of the properties need to be proportioned in consideration with privacy.
- ii. Setbacks from the street and front garden landscaping, together with more detailed architectural design should seek to balance privacy for front living rooms with natural surveillance of the streets, and the need for street enclosure.
- iii. The privacy distance between the backs of the properties should be a minimum of 20m. When this is not possible, the layout should be a back to-side arrangement, or use single-aspect buildings (north facing single aspect units should be avoided) to avoid creating overlooking issues.
- iv. Appropriate boundary treatments including low walls, hedges and railings must be incorporated into design proposals to clearly distinguish public and private space.
- v. Private open amenity space in the form of back gardens, which are important for well-being, is part of the character of Hargrave. All new houses will be expected to have usable outside amenity space, with the exception of the town centre character area where more compact building typologies, such as the mews house, may be appropriate.

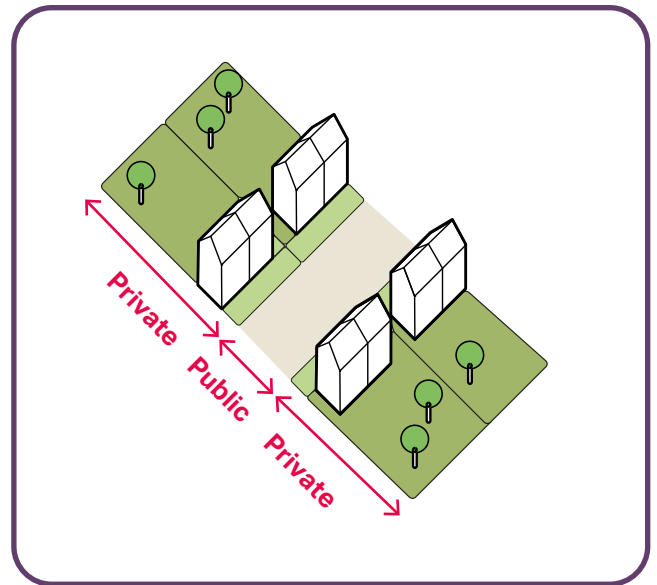


Figure 23: Public and private space

HO.03 Roofline

Hargrave has a varied roofline, with gables and pitched roofs adding to the character of the area.

- i. Varied rooflines can help to create a more visually appealing and distinctive townscape.
- ii. The scale of the roof should be in proportion with the dimensions of the building with subtle changes in the roofline to avoid monotonous elevations.
- iii. Rooflines should respect view corridors and not obstruct them. They should also be considerate of topography and existing landmarks.



Figure 24: Two-storey buildings with gabled roof in Hargrave.



Figure 25: A mix of gable roof with dormer.



26 Figure 26: Terraced properties with gable roof on School Cottages.

HO.04 Building line and setbacks

The use of continuous building lines and setback distances contribute to the overall character of the area and the sense of enclosure of the streets and public spaces. Continuous building lines with a minimum gap create a strong distinction between public and private spaces, and provide definition to the public realm. Where buildings are more generously set back from the carriageway, the threshold spaces should be well landscaped.

- i. To ensure sufficient street enclosure, private front thresholds should have a modest depth and accommodate a small garden or area for plantation.
- ii. Low to medium density developments in residential areas can vary setbacks in order to respond to the landscape context and the more open character of the area.
- iii. Front gardens can be much deeper where the topography requires so or to respond to the existing character area. It also helps to create a softer transition between countryside, green spaces and built environment.



Figure 27: Building set back varied which provides interesting streetscape on Bury Rd.

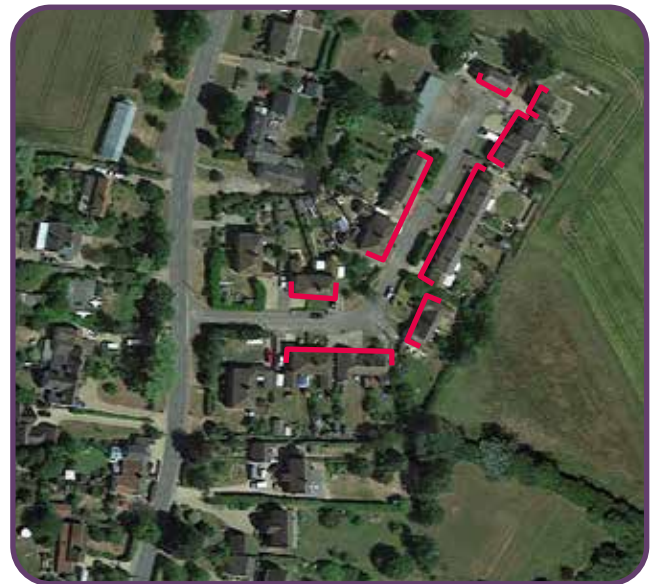


Figure 28: Building set back following the road layout in School Cottages.

HO.05 Corner buildings

An important townscape principle is for buildings to satisfactorily address the corner. Where corner sites are visually prominent buildings should define the corner architecturally.

- i. Buildings should have multiple entrances if possible and two active frontages should be created by incorporating prominent entrances and windows.
- ii. On corners which are less visually prominent, such as within the lower density residential areas, continuous built frontage should address the corner by using a series of linked dwellings where possible.
- iii. When a terraced, detached or semi-detached house faces out onto the corner, the buildings should have the main entrance and habitable room windows facing both sides to create activity, and should overlook the street. This building can also be taller or have a distinctive architectural element to ensure a greater presence.

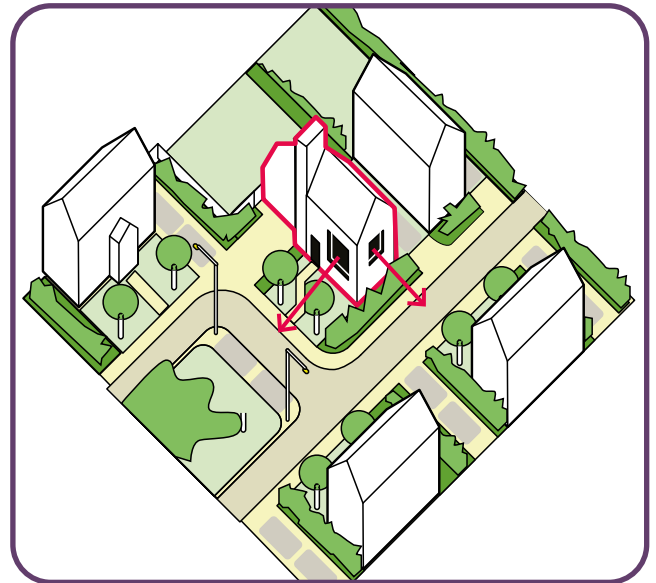


Figure 29: Diagram showing the corner building with two active frontages.



Figure 30: Corner building facing both ways.

HO.06 Active frontages

Active frontages bring life and vitality to streets and public spaces.

- i. Introducing regular doors, windows, front gardens and front parking, providing it does not dominate, can stimulate activity and social interactions.
- ii. Narrow frontages with a vertical rhythm can create a more attractive and interesting streetscape, while articulation on façades and use of bays and porches can create a welcoming feeling.
- iii. Exposed blank façades facing the public realm must be avoided. They should generally be fenestrated.

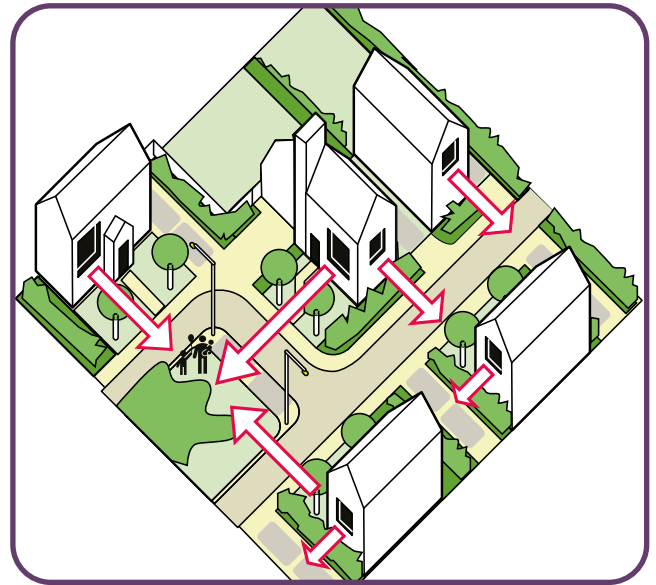


Figure 31: Active frontages with a well-supervised public realm.

HO.07 Aspect and orientation

Buildings should be designed to maximise solar gain, daylight and sun penetration, while avoiding overheating. Subject to topography and the clustering of existing buildings, they should be orientated to incorporate passive solar design principles. These principles include:

- i. One of the main glazed elevations should be within 30° due south to benefit from solar heat gain. Any north-facing facades might have a similar proportion of window to wall area to minimise heat loss on this cooler side.
- ii. If houses are not aligned east-west, rear wings could be included so that some of the property benefits from solar passive gain (See Figure 33).
- iii. Homes should be designed to avoid overheating through optimisation of glazed areas, natural ventilation strategies including high- and low- level openings, longer roof overhangs, deep window reveals and external louvres/ shutters to provide shading in hotter summer months (See Figure 32).
- iv. North facing single aspect units should be avoided or mitigated with the use of reflective light or roof windows.

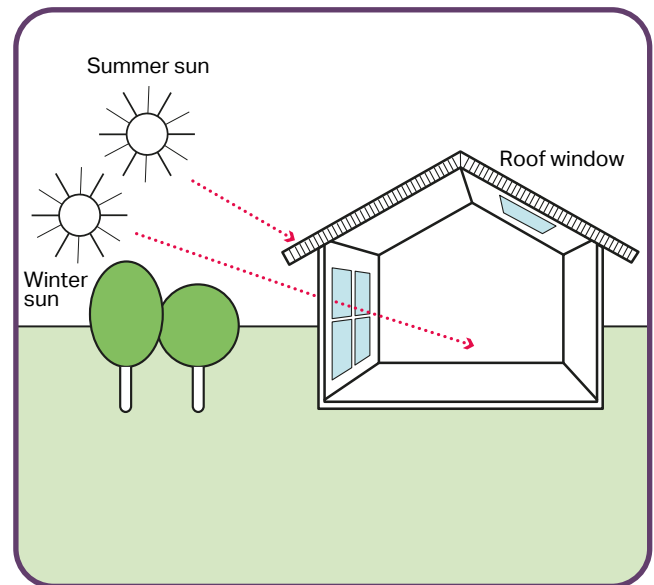


Figure 32: The use of roof window, pitch roof, location and size of windows in favour of maximising solar gain

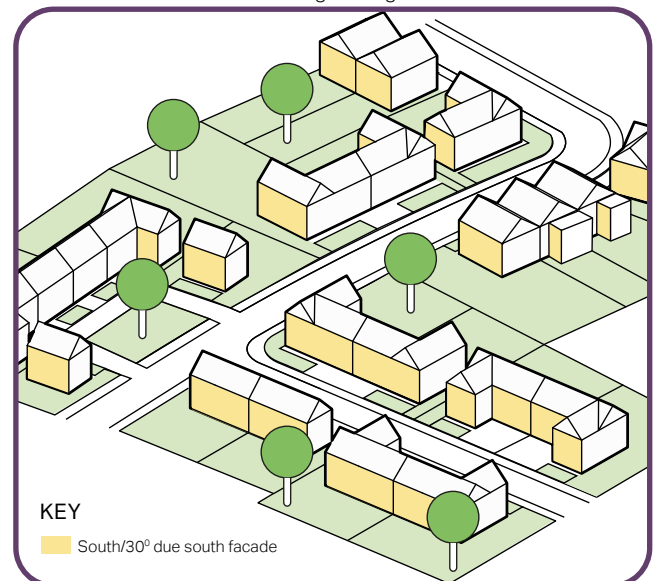


Figure 33: Elevations that would benefit from passive solar gain

HO.08 Building proportion

The relationships between the building and its elements can provide visual interest and enhance local character.

- i. A building's elements should be proportional and related to the scale of the building itself.
- ii. The proportions should be dictated by and respond to the type of use proposed as well as the composition of the existing streetscape.
- iii. The front elevation of the buildings must be arranged in an orderly way to avoid creating cluttered façades.
- iv. Features such as windows, doors and solid walls should create vertical and horizontal rhythms along the façade providing variety.

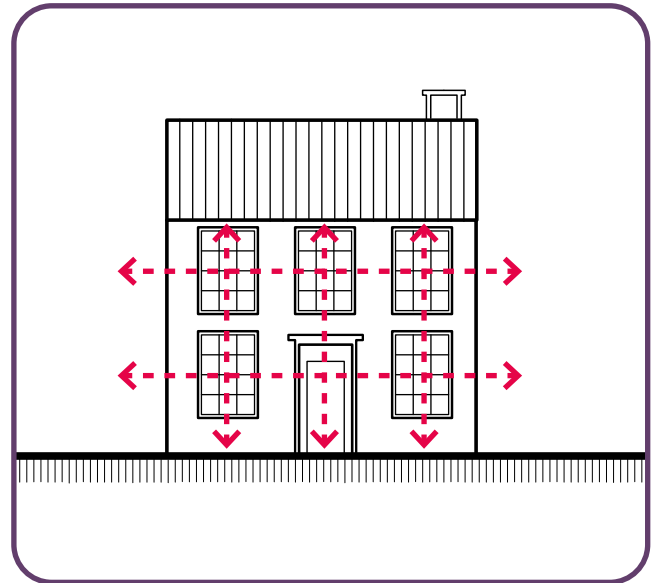


Figure 34: Elevation showing typical building proportion in a detached house.

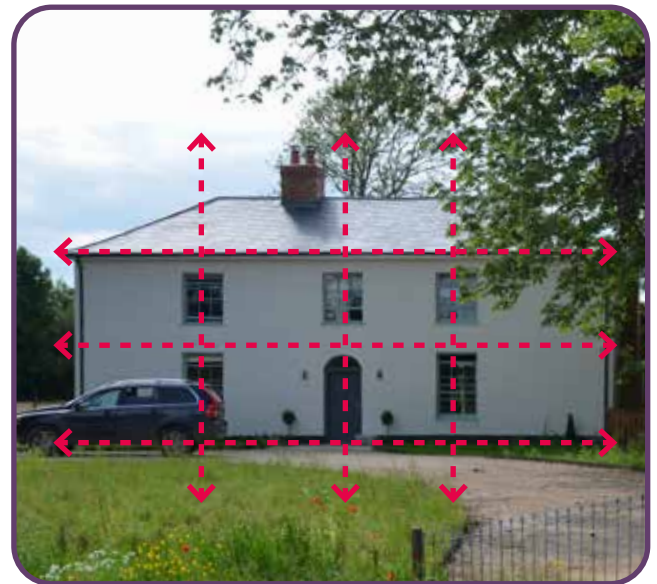


Figure 35: Horizontal and vertical window alignment on a detached house in Hargrave

HO.09 Landmarks and articulation

Landmark buildings should be easily recognisable and memorable as they often mark the end of vistas or long views as well as being able to address prominent corners.

- i. Buildings should be designed with a number of different features that can create a landmark, such as, projecting bays, large window openings, expressive roof forms and taller elements.
- ii. To provide articulation and a welcoming feeling, building façades should have occasional projections such as bays and porches.
- iii. New developments should include some landmark buildings to improve legibility and provide varying features to create articulation which allows visual interest.



Figure 37: Old Grove, a Grade II listed building.



Figure 38: Hargrave Village Hall.



Figure 36: Grove Farm Barn on Wickhambrook Road.



Figure 39: Church of St Edmund, a Grade II listed building, important landmark for the village.

HO.11 Extension and alteration

There are multiple ways to create extra space within a building using different types of extensions. Extensions must be designed to an appropriate scale and be secondary to the original building. The pitch and form of a building's roof forms part of its character; therefore, extensions should respond by enhancing the existing character. Extensions should consider the materials, architectural features and proportions of the original building and be designed to complement these existing elements.

Many household extensions are covered by permitted development rights, meaning that they do not need planning permission. There are exceptions, though, that will be relevant here, such as in conservation areas where permitted development rights are restricted. Check the latest guidance here: https://www.planningportal.co.uk/info/200130/common_projects/17/extensions

- i. The character of the existing building, along with its scale, form, materials and details should be taken into consideration when preparing proposals for alterations and/or extensions.
- ii. External extensions should respect or enhance the visual appearance of the original buildings and the character of the wider street scene.
- iii. Extensions should be subordinate in term of scale and form and shall not be visually dominant or taller than the existing building.
- iv. Extensions should be recessed or in line with the existing building façade and shall use lower ridge and eaves levels to ensure that the length and width of the extension are less than the dimensions of the original building.
- v. Extensions should be designed using materials and details to match the existing building or alternatively, use contrasting materials and details with a contemporary design approach. However, in either case, extensions should create an overall harmonious composition and a strong degree of unity with the original building.
- vi. Extensions should safeguard the privacy and daylight amenity of neighbouring properties.
- vii. Extensions should retain on-site parking capacity and a viable garden area to meet the needs of future occupiers.
- viii. Extensions of existing buildings should help to reduce carbon emission by complying with high energy efficiency standards and utilising low energy design.

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. Side extensions should be set back from the main building and complement the materials and detailing of those on the original building, particularly along the street elevation. The roof of the extension should harmonise with that of the original building; flat roofs should be avoided. Side windows should also be avoided unless it can be demonstrated that they would not overlook neighbouring properties.

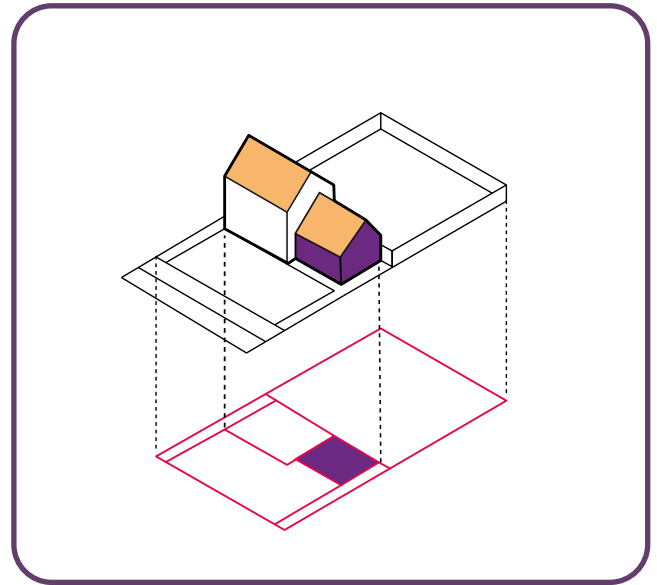


Figure 40: An example diagram of a side extension.

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 of 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.

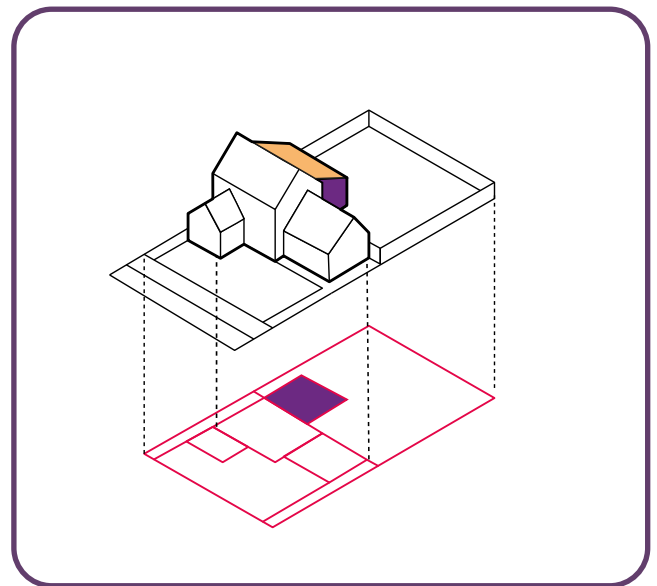


Figure 41: An example diagram of a rear extension.

HO.12 Views

Considering that Hargrave has a steep topography, the following principles should be taken into consideration:

- i. Development should preserve the existing views and sight-lines to and from current built-up areas.
- ii. The impact of the massing, building height and architectural details of any new development within the main view corridors should be carefully designed.
- iii. Longer distance views across the valley and short views which contribute to the character of Hargrave should be preserved.
- iv. Individual views that hold particular local significance and that contribute to the significance of a local heritage asset should be protected and any new development should be designed in a way that safeguards the locally-significant views.



Figure 42: View to the west from next to the Village Hall towards Church Lane.



Figure 43: View to the north west from the village play area .

HO.13 Boundary treatment

Boundary treatments, such as hedges, wide verges, low walls and railings should be included in design proposals to clearly distinguish public and private spaces.

- i. Boundary treatments should reflect locally distinctive forms and materials, consisting of predominantly of red brick and wooden fence but also occasional use of flint for boundary walls; or hedgerows, trees or wooden fence.
- ii. Development shall identify existing boundary treatments in the context of the site and consider appropriate boundaries for new development to ensure integration with existing context.
- iii. Existing boundary trees, wide verges and hedgerow should be retained and should be reinforced with native species.
- iv. Boundary treatments should use locally distinctive traditional materials or hedging comprising native species.

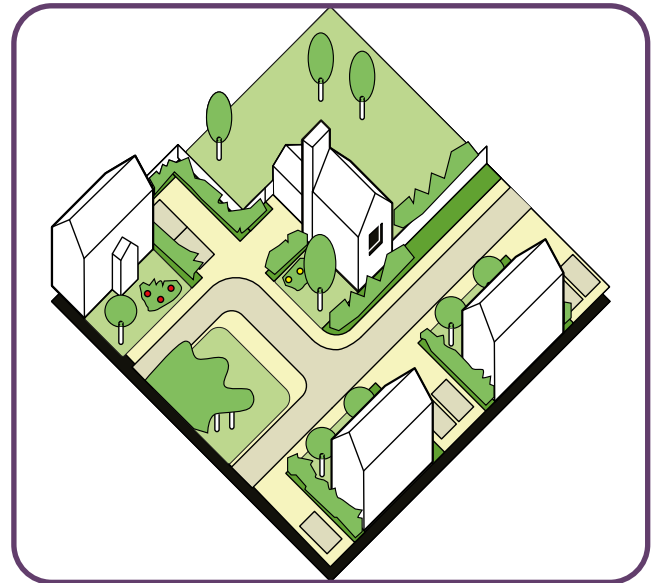


Figure 44: Diagram showing the boundary treatment such as low wall and hedges in front of houses.



Figure 45: Low wall creating a strong definition between public and private space.



Figure 47: Wide verges and hedges used as a boundary treatment **36**



Figure 46: Hedges used as a boundary treatment.

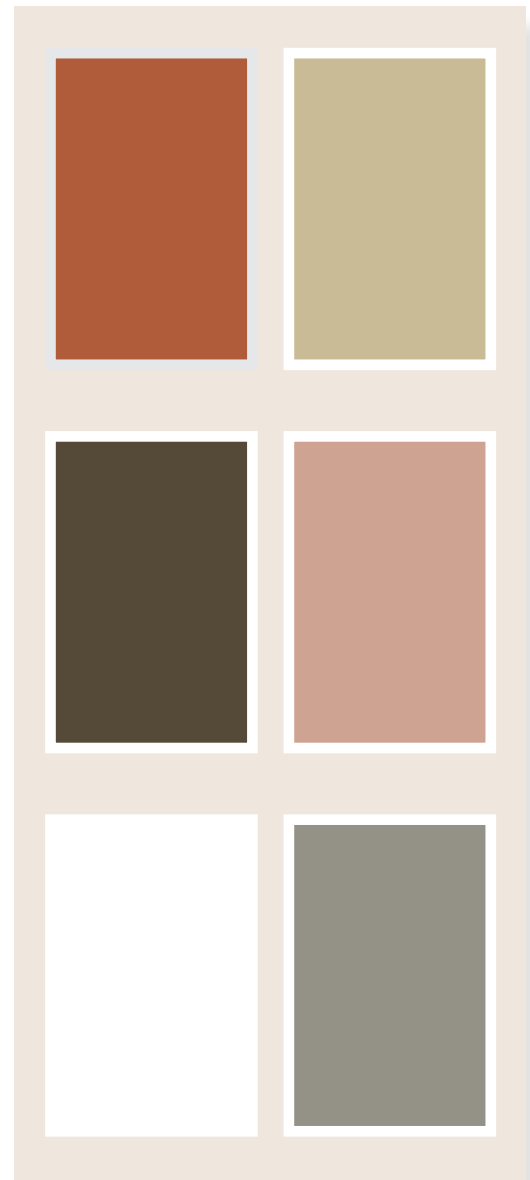
MD Materials and details

MD.01 Materials

There are a range of architectural styles used within the village for walls, roofscape and fenestration.

- i. The materials and architectural detailing used in Hargrave contribute to historic character of the village.
- ii. Architectural design shall reflect high quality local design references in both the natural and built environment and reflect and reinforce local distinctiveness.
- iii. Any future development proposals should demonstrate that the palette of materials has been selected based on an understanding of the surrounding built environment.

Colour palette





Thatched roof



Red brick



Flint stones with red bricks ornament



Suffolk Pink render



Pitched roof with pantiles



Pitched roof with dormers



Typical porch door



White render



Sash window with timber frame



Modern french balcony



Chimney with red brick



Bay window

MD.02 Windows

The detailing, materials and fenestration of windows along building façades can inform the character of the street. Within Hargrave, there are a variety of window styles which should be used as guidance for future windows in the town.

- i. Windows should match the general orientation, proportion and alignment of other windows in the same building as well as those on adjacent properties, reinforcing the continuity of the streetscape.
- ii. Window subdivisions should be arranged symmetrically about the horizontal and vertical areas of the openings. Large panes of glass that are not subdivided should be avoided, as they can distort the visual scale of the building.
- iii. Windows in new developments should have consistent colour, thickness of frame and quality of windows across all elevations.
- iv. Windows should employ a particular design approach by adopting either a contemporary or traditional style. Contemporary style buildings can have a variety of window designs whereas traditional building styles should have a limited range of patterns.



Figure 48: Multipanel sash window in Hargrave.



Figure 49: Casement window in Hargrave.



39 Figure 50: Modern casement window in the Village.

MD.03 Doors

Different types of doors are used throughout Hargrave contributing to an interesting and varied streetscape.

- i. New development could use the existing architectural styles as inspiration.
- ii. Small porches at the entrance of buildings should respect the building line of the street, particularly where a strongly defined building line is an important characteristic of a street. The roof pitch should match that of the original building to ensure it blends in with the building.



Figure 51: Painted wooden door in Hargrave.



Figure 52: A protruding porch in Hargrave.



Figure 53: A modern style door in Hargrave.

MD.04 Roofscape

The scale of a roof should be designed in proportion to the height of the elevation. Subtle changes in angle of the roof pitch provides a variety of roofscapes, avoiding monotonous building compositions.

- i. Roofs should have a simple form and avoid shallow pitches. Ridge heights should be limited by narrowing the plan depth rather than lowering the roof pitch.
- ii. Development shall use a common palette of locally distinctive vernacular building material, comprising of slate and red clay pantiles for gable and pitched roofs.
- iii. Roof renovation should consider any existing features of interest and ensure the use of matching details and materials.
- iv. Where plain clay tiles are used, roofs must have a pitch of 50° . Roofs with pitches in the range of 35° - 40° should use slates.



Figure 55: Pitched roof with pitched dormers.



Figure 56: Hipped roof in Hargrave.



Figure 54: Articulated pitched and hipped roof.



Figure 57: Thatched roof.

MD.05 Chimneys

Chimneys can be seen across the village in all housing types, therefore they can be placed in several locations. A modern approach should be taken to chimney design and should only be incorporated where they serve a function.

- i. Chimneys should match the primary elevation material and be placed symmetrically to the ridge line.
- ii. Chimneys should rise above the roof and when on an end elevation should connect to the ground.
- iii. Chimneys should be positioned on the roof ridges, centrally on a gable end or against an out scale wall and should have pots.



Figure 58: Chimney stack with red brick.

CO Community

CO.1 Biodiversity

Hargrave has a rich and varied landscape character. There are many natural features and assets, such as trees, woodlands, hedgerows, water features, verges, front and back gardens. They all contribute to provide habitats for biodiversity to flourish. Therefore, any new development or any change to the built environment should:

- i. Protect and enhance woodlands, hedges, trees and road verges, where possible. Natural tree buffers should also be protected when planning for new developments.
- ii. Avoid abrupt edges to development with little vegetation or landscape on the edge of the settlement and, instead, aim for a comprehensive landscape buffering.
- iii. Strengthen biodiversity and the natural environment.
- iv. Ensure habitats are buffered. Widths of buffer zones should be wide enough and based on specific ecological function.
- v. Include the creation of new habitats and wildlife corridors in the schemes. This could be by aligning back and front gardens or installing bird boxes or bricks in walls.
- vi. Propose wildlife corridors in the surrounding countryside by proposing new green links and improving the existing ones. This will enable wildlife to travel to and from foraging areas and their dwelling areas.
- vii. Protect mature and veteran trees, wide green verges and species-rich hedgerow as they are essential for biodiversity. Hedgerows are a particularly good habitat for fauna and also prevent soil erosion.

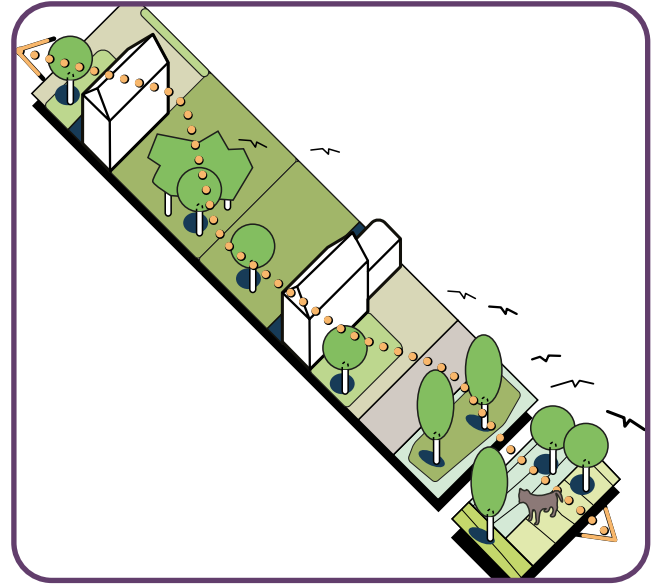


Figure 59: Diagram to highlight the importance of creating wildlife corridors.



Figure 60: Examples of a frog habitat decorating rear gardens or public green spaces.



Figure 61: Examples of a bughouse decorating rear gardens or public green spaces.

CO.02 Open Space

Hargrave has a good network of footpaths and wide range of green spaces. Future open spaces should be planned by considering the following principles:

- i. Design new open space to incorporate existing landscape features to create an informal park with opportunities for natural play and recreation.
- ii. All existing good quality woodland, hedgerows, trees and shrubs to be retained within the layout of the parks and enhanced with improved management.
- iii. New trees, grassland and shrubs to be planted to supplement existing vegetation.
- iv. Active frontages to face onto green spaces.
- v. Provide allotments or other community garden facilities where appropriate.
- vi. Allow for flexible use of the space allowing temporary uses to fluctuate with a changing programme of events and use.

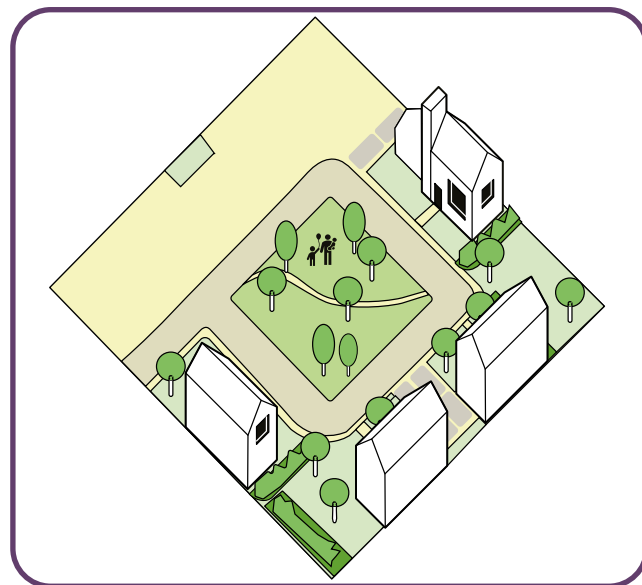


Figure 62: Green space at the heart of a development.

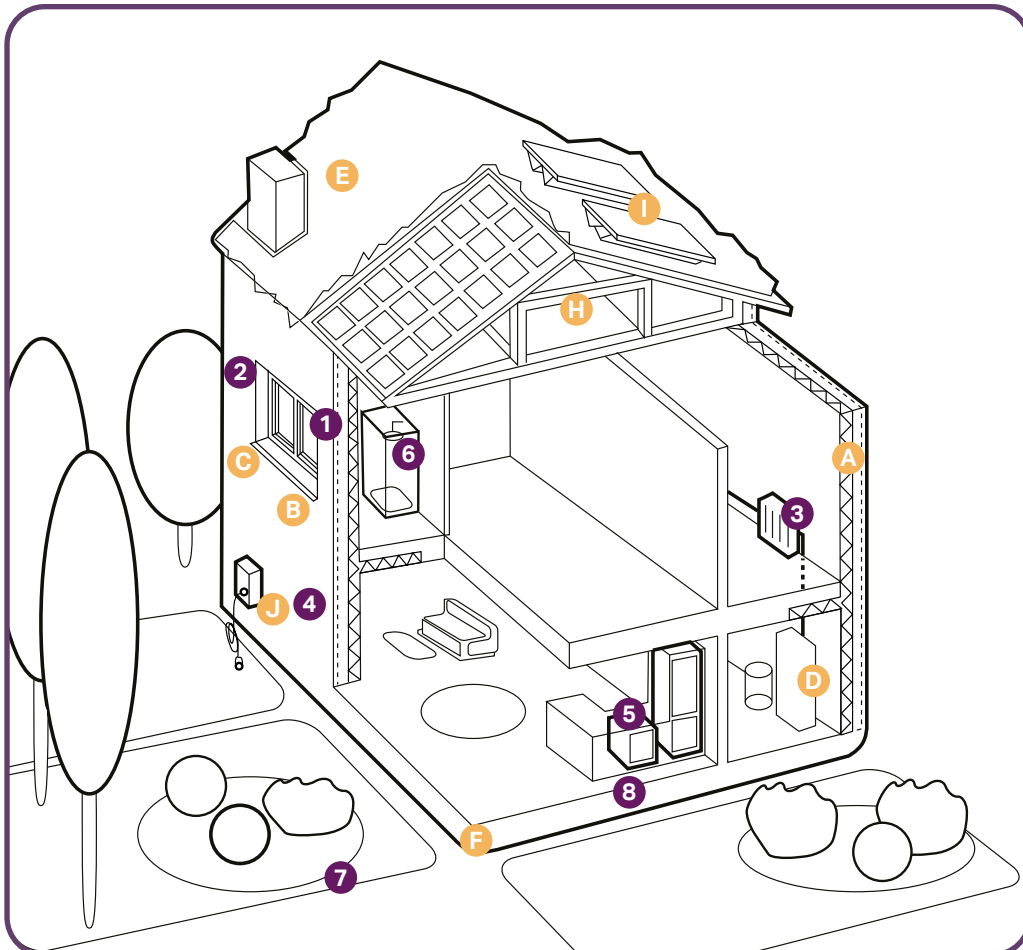
SU Sustainability

This section introduces examples of energy efficient technologies and strategies that could be incorporated into new and existing buildings. Although these do not constitute a policy requirement, new development would be highly encouraged to embed these guidelines into their proposals.





SU.01 Energy efficient housing and energy production

Low-carbon home

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



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**  **Drought proofing** of floors, walls, 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 measures in 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 panel**
- J**  **Electric car charging point**

Starting from the design stage, there are strategies that can be incorporated towards passive solar heating, cooling and energy efficient landscaping which are determined by local climate and site conditions. The retrofit of existing buildings with eco design solutions should also be encouraged.

The aim of these interventions is to reduce overall home energy use as cost effectively as the circumstances permit. The final step towards a high-performance building would consist of other on site measures towards renewable energy systems.

It must be noted that eco design principles do not prescribe a particular architectural style and can be adapted to fit a wide variety of built characters. A wide range of solutions is also available to retrofit existing buildings, included listed properties, to improve their energy efficiency¹.

1. Historic England. <https://historicengland.org.uk/advice/technical-advice/energy-efficiency-and-historic-buildings/>

SU.02 Sustainable drainage systems

The term SuDS stands for Sustainable Drainage Systems. It covers a range of approaches to managing surface water in a more sustainable way to reduce flood risk and improve water quality whilst improving amenity benefits.

SuDS work by reducing the amount and rate at which surface water reaches a waterway or combined sewer system. Usually, the most sustainable option is collecting this water for reuse, for example in a water butt or rainwater harvesting system, as this has the added benefit of reducing pressure on important water sources.

Where reuse is not possible there are two alternative approaches using SuDS:

- i. Infiltration, which allows water to percolate into the ground and eventually restore groundwater.
- ii. Attenuation and controlled release, which holds back the water and slowly releases it into the sewer network. Although the overall volume entering the sewer system is the same, the peak flow is reduced. This reduces the risk of sewers overflowing. Attenuation and controlled release options are suitable when either infiltration is not possible (for example where the water table is high or soils are clay) or where infiltration could be polluting (such as on contaminated sites).

The most effective type or design of SuDS would depend on site-specific conditions such as underlying ground conditions, infiltration rate, slope, or presence of ground contamination. A number of overarching principles can however be applied:

- iii. Reduce runoff rates by facilitating infiltration into the ground or by providing attenuation that stores water to help slow water flow so that it does not overwhelm water courses or the sewer network.
- iv. Integrate into development and improve amenity through early consideration in the development process and good design practices.

- v. SuDS are often as important in areas that are not directly in an area of flood risk themselves, as they can help reduce downstream flood risk by storing water upstream.
- vi. Some of the most effective SuDS are vegetated, using natural processes to slow and clean the water whilst increasing the biodiversity in an area.
- vii. Best practice SuDS schemes link the water cycle to make the most efficient use of water resources by reusing surface water.
- viii. SuDS must be designed sensitively to augment the landscape and provide biodiversity and amenity benefits.

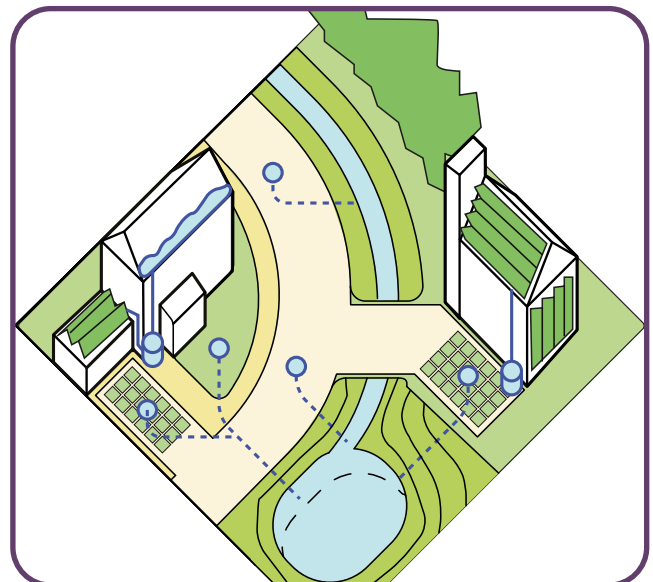


Figure 63: Diagram showing the best use of harvesting water systems rain garden, swales, permeable paving, green roofs..



Figure 64: Examples of SuDS designed as a public amenity and fully integrated into the design of the public realm, Sweden.

SU.03 Permeable pavements

Most built-up areas, including roads and driveways, increase impervious surfaces and reduce the capacity of the ground to absorb runoff water. This in turn increases the risks of surface water flooding. Permeable pavements offer a solution to maintain soil permeability while performing the function of conventional paving. The choice of permeable paving units must be made depending on the local context; the units may take the form of unbound gravel, clay pavers, or stone setts.

Permeable paving can be used where appropriate on footpaths, public squares, private access roads, driveways, and private areas within the individual development boundaries. In addition, permeable pavement must also comply with the following acts, regulations and orders:

- i. Flood and Water Management Act 2010, Schedule 3.¹
- ii. The Building Regulations Part H – Drainage and Waste Disposal.²
- iii. Town and Country Planning (General Permitted Development) (England) Order 2015.³

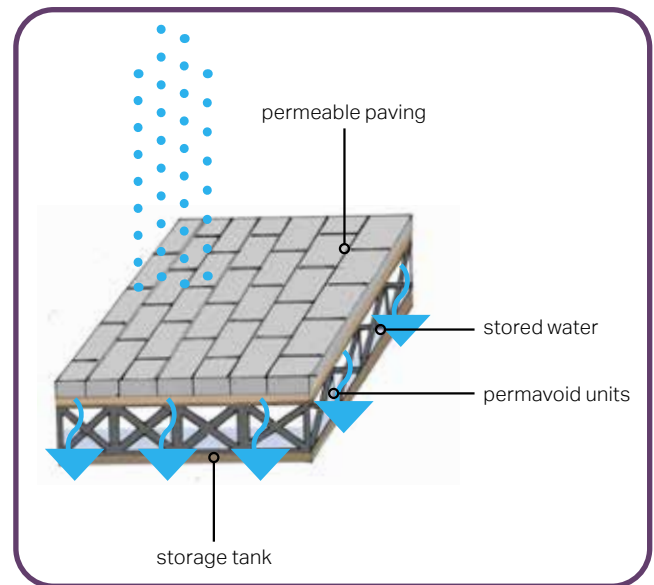


Figure 65: Diagram illustrating the functioning of a soak away.

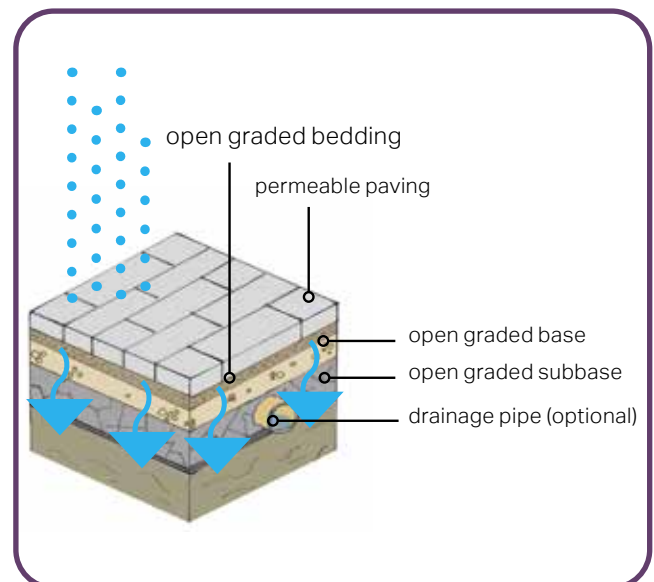


Figure 66: Diagram illustrating the functioning of a soak away.

1 Great Britain (2010). Flood and Water Management Act, Schedule 3. Available at: <http://www.legislation.gov.uk/ukpga/2010/29/schedule/3>

2 Great Britain (2010). The Building Regulations Part H – Drainage and Waste Disposal. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/442889/BR_PDF_AD_H_2015.pdf

3 Great Britain (2015). Town and Country Planning (General Permitted Development) (England) Order 2015. Available at: http://www.legislation.gov.uk/uksi/2015/596/pdfs/uksi_20150596_en.pdf

Regulations, standards, and guidelines relevant to permeable paving and sustainable drainage are listed below:

- Sustainable Drainage Systems - non-statutory technical standards for sustainable drainage systems.¹
- The SuDS Manual (C753).²
- BS 8582:2013 Code of practice for surface water management for development sites.³
- BS 7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers.⁴
- Guidance on the Permeable Surfacing of Front Gardens.⁵

SU.04 Storage and slow release

Rainwater harvesting refers to the systems allowing the capture and storage of rainwater as well as those enabling the reuse of on-site grey water.

1 Great Britain. Department for Environment, Food and Rural Affairs (2015). Sustainable drainage systems – non-statutory technical standards for sustainable drainage systems. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf

2 CIRIA (2015). The SuDS Manual (C753).

3 British Standards Institution (2013). BS 8582:2013 Code of practice for surface water management for development sites. Available at: <https://shop.bsigroup.com/ProductDetail?pid=00000000030253266>

4 British Standards Institution (2009). BS 7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers. Available at: <https://shop.bsigroup.com/ProductDetail?pid=00000000030159352>

5 Great Britain. Ministry of Housing, Communities & Local Government (2008). Guidance on the Permeable Surfacing of Front Gardens. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7728/pavingfrontgardens.pdf

Simple storage solutions, such as water butts, can help provide significant attenuation. To be able to continue to provide benefits, there has to be some headroom within the storage solution. If water is not reused, a slow release valve allows water from the storage to trickle out, recreating capacity for future rainfall events.

New digital technologies that predict rainfall events can enable stored water to be released when the sewer has greatest capacity to accept it.

These systems involve pipes and storage devices that could be unsightly if added without an integral vision for design. Therefore, some design recommendations would be to:

- Conceal tanks by cladding them in complementary materials.
- Use attractive materials or finishing for pipes.
- Combine landscape/planters with water capture systems.
- Underground tanks.
- Utilise water bodies for storage.



Figure 67: Water butts used for rainwater harvesting.

SU.05 Bioretention systems

Bioretention systems, including soak away and rain gardens, can be used within each development, along verges, and in semi-natural green spaces. They must be designed to sit cohesively with the surrounding landscape, reflecting the natural character of the Parish. Vegetation must reflect that of the surrounding environment.

They can be used at varying scales, from small-scale rain gardens serving individual properties, to long green-blue corridors incorporating bioretention swales, tree pits and mini-wetlands, serving roads or extensive built-up areas.

These planted spaces are designed to enable water to infiltrate into the ground. Cutting of downpipes and enabling roof water to flow into rain gardens can significantly reduce the runoff into the sewer system. The UK Rain Garden Design Guidelines provides more detailed guidance on their feasibility and suggests planting to help improve water quality as well as attract biodiversity.¹

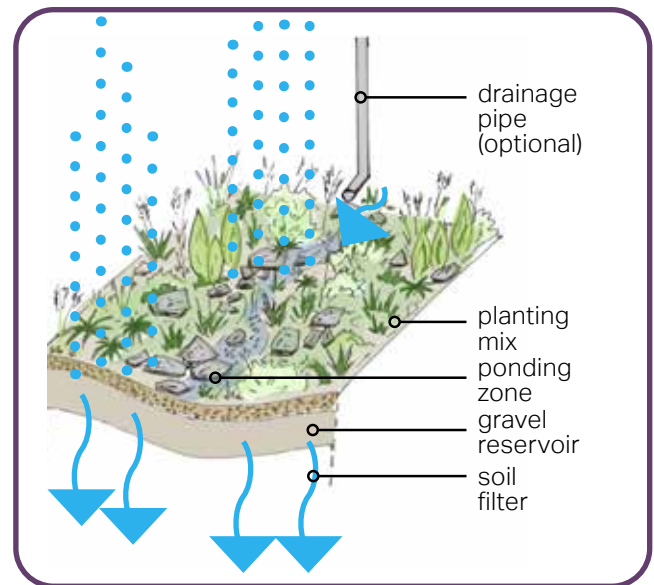


Figure 68: Diagram illustrating the functioning of a rain garden.

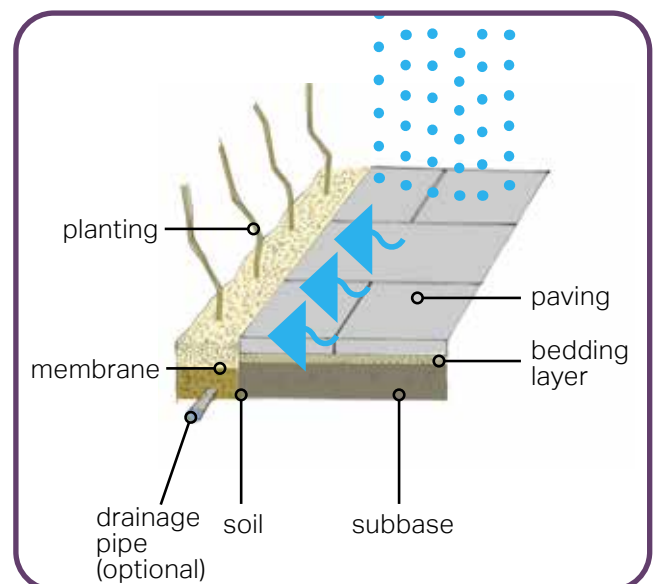


Figure 69: Diagram illustrating the functioning of a soak away garden.

¹ UK Rain Gardens Guide. Available at: <https://raingardens.info/wp-content/uploads/2012/07/UKRainGarden-Guide.pdf>



Checklist

04

4. Checklist

4.1. Checklist to ask and issues to consider when presented with a development proposal

Because the design guidelines and codes in this document 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 on the following pages.

1

General design guidelines 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 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?
- 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 and 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 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'?
- 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.
- 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?

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?



Delivery

05

5. Delivery

The design guidance and codes will be a valuable tool in securing context-driven, high-quality development in Hargrave. 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 code as planning consent is sought.
Local Planning Authority	As a reference point, embedded in policy, against which to assess planning applications. The code should be discussed with applicants during any pre-application discussions.
Parish Council	As a guide when commenting on planning applications, ensuring that the code is 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.

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