

AECOM

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Hermitage

Design Guidelines and Codes

Final Report

September 2022

Delivering a better world

Quality information

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Revision History

Issue no.	Issue date	Details	Issued by	Position
5	010922	Review	Madeleine Gohin	Locality
4	170822	Review	Quentin Webb Ruth Cottingham David Dobson Rosemary Healy	Hermitage Neighbourhood Plan Steering Group
3	220622	Review	Ben Castell	Director
2	210622	Proofreading	Elena Butterworth	Planner
1	170622	Research, site visit, drawings	Stela Kontogianni	Urban Designer
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Introduction

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1. Introduction

Through the Department for Levelling Up, Housing and Communities (DLUHC) Programme, led by Locality, AECOM was commissioned to provide design support to Hermitage Parish Council.

1.1 The importance of good design

As the National Planning Policy Framework (NPPF) (paragraph 126) notes, 'good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities'.

Research, such as for the Government's Commission for Architecture and the Built Environment (now part of the Design Council; see, for example, The Value of Good Design¹) has shown that good design of buildings and places can improve health and well-being, increase civic pride and cultural activity, reduce crime and anti-social behaviour and reduce pollution.

This document seeks to harness an understanding of how good design can make future development as endearingly popular as the best of what has been done before.

1. <https://www.designcouncil.org.uk/sites/default/files/asset/document/the-value-of-good-design.pdf>

Following the analysis of the parish, a set of architectural and design qualities will be identified. This set of qualities combined with good design practice will form the design principles that any development within Hermitage parish should follow in order to comply with this Design Guidelines and Codes document.

1.2 What is a design code

The Governments Planning Policy Guidance defines design codes as:

'... a set of illustrated design requirements that provide specific, detailed parameters for the physical development of a site or area. The graphic and written components of the code should be proportionate and build upon a design vision, such as a masterplan or other design and development framework for a site or area. Their content should also be informed by the 10 characteristics of good places set out in the National Design Guide... They can be ...appended to a Neighbourhood Plan...'²

2. Paragraph: 008 Reference ID: 26-008-20191001 - Revision date: 01 10 2019.

1.3 The purpose of this document

The NPPF 2021, paragraphs 127-128 states that:

'Plans should... set out a clear design vision and expectations, so that applicants have as much certainty as possible about what is likely to be acceptable. Design policies should be developed with local communities so they reflect local aspirations, and are grounded in an understanding and evaluation of each area's defining characteristics. Neighbourhood planning groups can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development...'

'To provide maximum clarity about design expectations at an early stage...These provide a framework for creating distinctive places, with a consistent and high quality standard of design. However, their level of detail and degree of prescription should be tailored to the circumstances and scale of change in each place, and should allow a suitable degree of variety.'

The Government is placing significant importance on the development of design codes in order to set standards for design upfront and provide firm guidance on how sites should be developed.

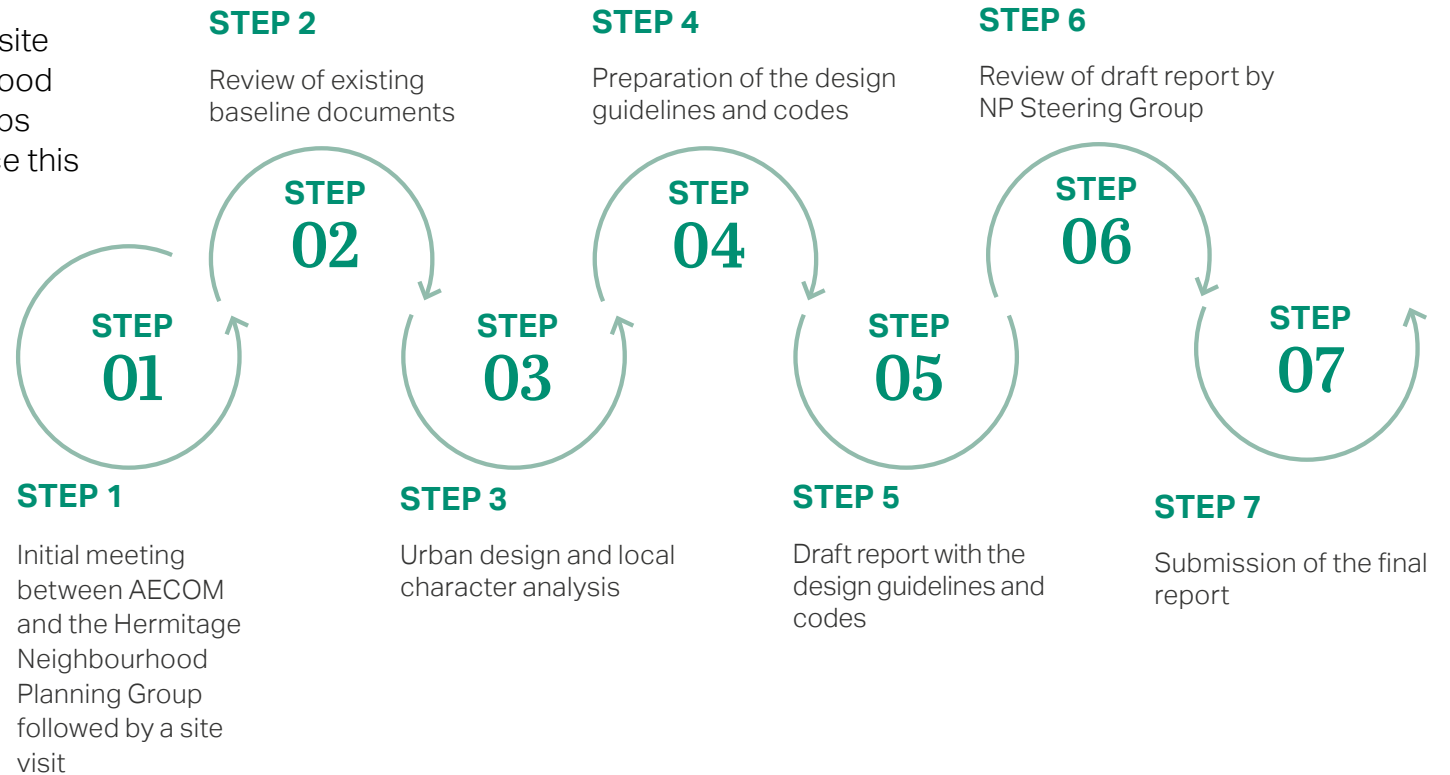
West Berkshire Local Plan sets out planning policies up to 2026. The Local Plan is now at a review stage to cover the period up to 2037 and has allocated a site in Hermitage village for provision of approximately 15 dwellings.

Thus, this Design Guidelines and Codes report will provide design guidance to ensure that this site or any other windfall development within the parish contributes to a distinctive place with a consistent and high quality standard of design that reflects the rural nature of the village.

It is intended that the Design Guidelines and Codes report becomes an integral part of the Neighbourhood Plan and be given weight in the planning process. The Government intends to make it clear that decisions on design should be made in line with design codes.

1.4 Preparing the design code

Following an inception meeting and a site visit with members of the Neighbourhood Plan Steering Group, the following steps were agreed with the Group to produce this report:



1.5 Policy context

This section outlines some key policy and design guidance that should be considered in future development in Hermitage parish. The following guidelines have been produced at national, district or parish level.

NATIONAL LEVEL

2021 - National Planning Policy Framework

DLUHC

The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

2021 National Model Design Code

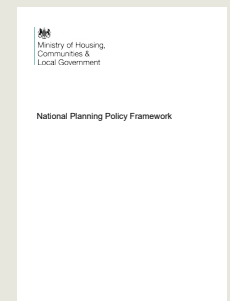
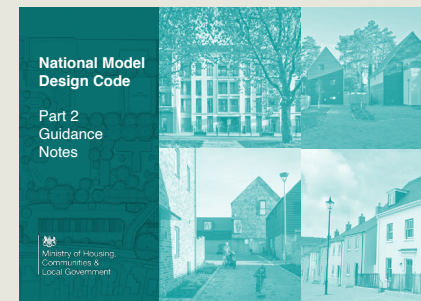
DLUHC

This report provides detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on 10 characteristics of good design set out in the National Design Guide.

2021 - National Design Guide

DLUHC

The National Design Guide illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.



2007 - Manual for Streets

Department for Transport

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

2020 - Building for a Healthy Life

Homes England

Building for a Healthy Life (BHL) is the new (2020) name for Building for Life, the government-endorsed industry standard for well-designed homes and neighbourhoods. The 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.



2019 - West Berkshire Density Pattern Book

West Berkshire Council + David Lock Associates

This document is a guidance tool used for assessing the capacity of sites. As such it should reflect policy aspirations but also be grounded in deliverable market realities within the district.

2017 - Housing Site Allocations Development Plan document

West Berkshire Council

This document implements the framework set by the Core Strategy by allocating non-strategic housing sites across the District in accordance with the spatial strategy of the Core Strategy. This means that the sites to be allocated are in the areas that the Core Strategy sets out, based on evidence, as suitable for some level of future growth and that the proposals will conform to the policy details set out in the Core Strategy.

2012 - Core Strategy Development Plan document (2006-2026)

West Berkshire Council

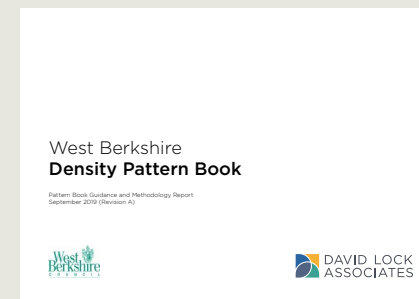
This document sets out a long term vision for West Berkshire to 2026 and translates this into spatial terms, setting out proposals for where development will go, and how this development will be built.

West Berkshire District Local Plan (1991-2006)

West Berkshire Council

The saved policies of the West Berkshire District Local Plan 1991 - 2006 forms part of the current Local Plan for the district. Saved policies are those policies that the Secretary of State agreed could continue to apply after 25 September 2007.

The Core Strategy and the Housing Site Allocations DPD replaced a number of the saved policies within the West Berkshire District Local Plan (1991-2006).



NATIONAL LEVEL

DISTRICT LEVEL

1.6 Area of study

Hermitage parish covers an area of around 636 hectares. The parish is located to the north of Newbury and Thatcham in the District of West Berkshire.

The village is located within the nationally important North Wessex Downs Area of Outstanding Natural Beauty (AONB), which is characterised by open arable sweeps of chalk downs, slopes as well as picturesque woodlands and commons that serve as important green assets across the parish.

Access into the parish is via the B4009, which is a principal road that directly intersects the village and provides links to Newbury to the south-west and the surrounding village - Hampstead Norreys to the north. The northern part of the parish also borders the M4, which is a major regional motorway providing access to

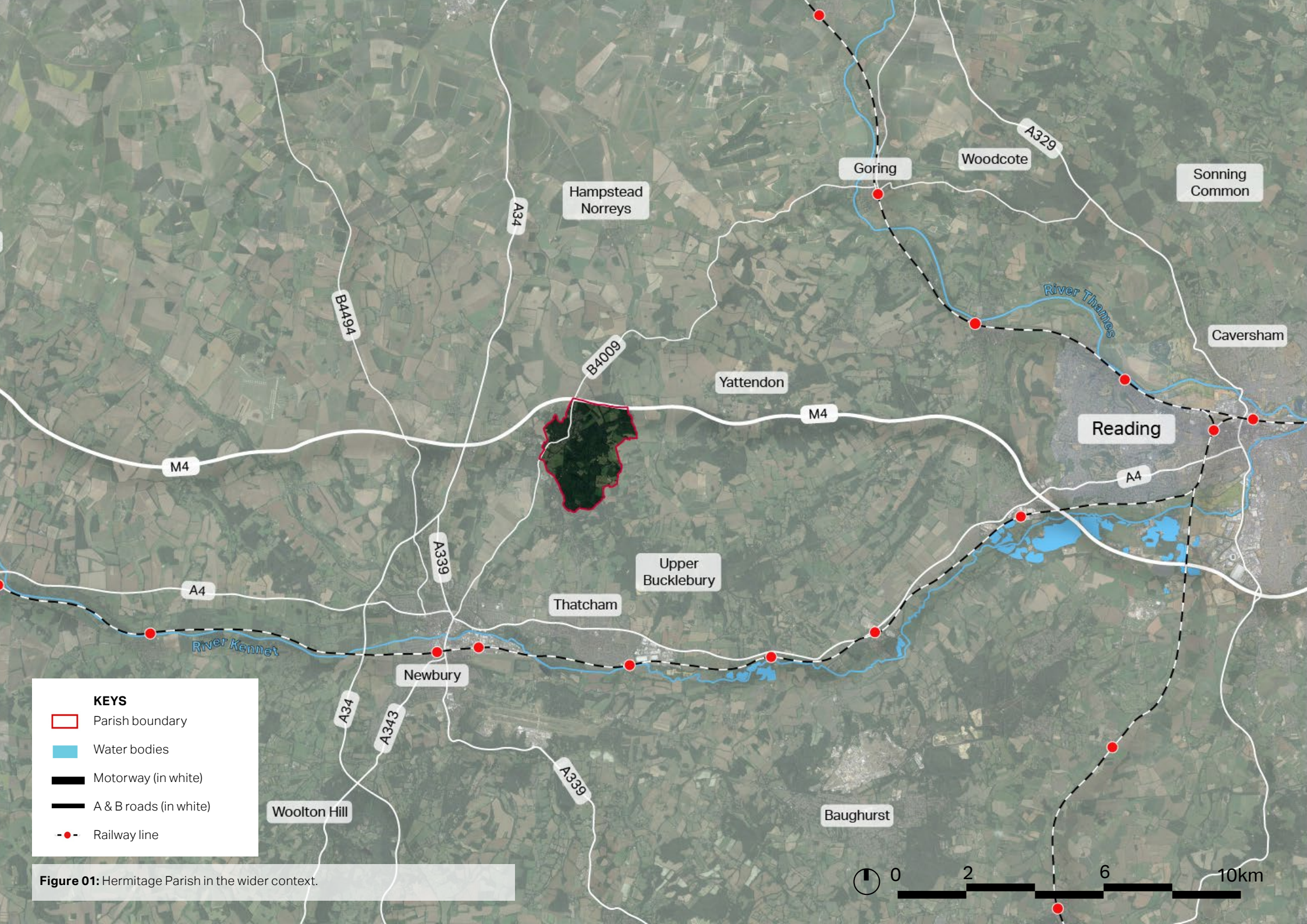
Reading to the east and Swindon and Bristol to the west. Connected to the M4 is the A34, which runs to the west of Hermitage parish and is another major road that provide connections to surrounding villages and towns.

The closest railway station is in Newbury, which is approximately 9km and a 12mins drive from Hermitage village, offering regular connections towards Reading and London to the east and Plymouth to the south-west.

With regard to public transport in the parish, the local bus service No. 6 operates every 2 hours and runs daily between Newbury and West Ilsley via Hermitage throughout the working day. There are several bus stops located along the B4009/Hampstead Norreys Road. In terms of cycling, the Local Cycle Route 2 which runs between

Bucklebury, Bradfield, Yattendon and Hermitage is a designated cycling route that runs along parts of B4009 before branching east along Yattendon Road towards Yattendon beyond the parish.

There are a number of local facilities and services in the parish, including Holy Trinity Hermitage Church, two pubs (The Fox Inn and The White Horse), a post office/ convenience store, a supermarket and the village hall. Hermitage Primary School and a pre-school which is housed in the village hall can be found located to the north of the village.



Local character analysis

02

2. Local character analysis

This chapter describes the local context and key characteristics of Hermitage parish related to heritage, built environment, streetscape, views, landscape and topography.

2.1 Access and Movement

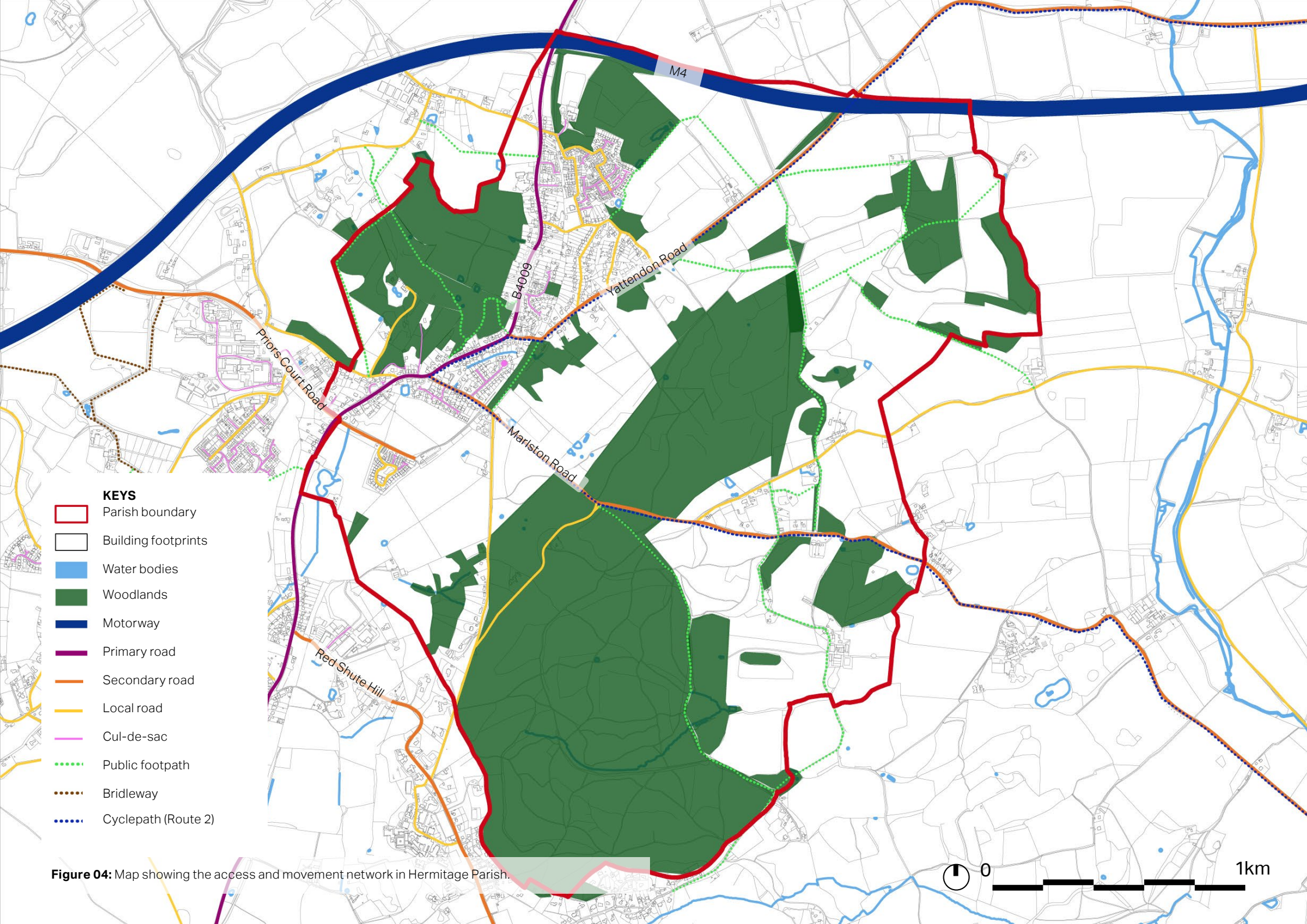
- Motorway.** The northern part of the parish borders the M4, which is a major regional route providing east-west access from Reading towards Bristol. Connections onto the M4 for Hermitage is provided via Priors Court Road and the A34 to the west beyond the parish.
- Primary roads/secondary roads.** The B4009 serves as a primary route, providing north-south connections towards Hampstead Norreys to the north and Newbury to the south. It is connected to the secondary roads of Yattendon Road, Priors Court Road and Marlston Road which provide east-west access across the parish and to nearby settlements of Priors Court and Wellhouse. Properties front onto both sides of these roads, which are buffered from the road by street trees and pavements.
- Local roads/ cul-de-sacs.** The B4009 and secondary roads are connected to a network of quieter local residential roads that provide access to residential neighbourhoods across the village. These roads tend to be narrower, making it difficult for two-way traffic to pass and leaving little room for on street parking which can sometimes cause congestion especially on some of the narrow rural lanes along the settlement edge (e.g. Doctors Lane and Pond Lane).
- Public Rights of Way and cycle routes.** The parish is home to a good network of footpaths that connect Hermitage village to the surrounding woodlands (such as Oare Common and Pheasant Hill Wood) and picturesque landscape of the North Wessex Downs AONB. There is also a small network of bridle ways beyond the eastern boundary of the parish. The Local Cycle Route 2 provides cycling connection from Bucklebury through Hermitage towards Yattendon.



Figure 02: B4009/Hampstead Norrey's Road - a primary vehicular route that serves as the spine of development of Hermitage, characterised by wide pavements lined with street trees.



Figure 03: Fletton Link - a residential cul-de-sac characterised by pavements on both sides of the road and properties with smaller setback from the road.



KEYS

- Parish boundary
- Building footprints
- Water bodies
- Woodlands
- Motorway
- Primary road
- Secondary road
- Local road
- Cul-de-sac
- Public footpath
- Bridleway
- Cyclepath (Route 2)

Figure 04: Map showing the access and movement network in Hermitage Parish.



2.2 Land-based designations and constraints

There are a good number of land-based designations across the parish that contribute positively to its character. These are:

- **North Wessex Downs Area of Outstanding Natural Beauty (AONB).** Hermitage parish falls entirely within the North Wessex Downs AONB, which consists of arable farmlands, undulating chalk uplands and extensive networks of woodlands – serving as a scenic backdrop to the parish and contributing significantly to its character. The AONB status across the parish would also be a major constraint to future development which will have to respect and preserve the landscape features across the area.
- **Ancient woodlands and deciduous woodlands.** These priority habitats can be found extensively surrounding the settlement envelope of Hermitage serving as important green infrastructure to the parish. Some of these include Oare

Common, Roebuck Wood, Pheasant Hill Wood and Fence Wood. Most of the woodlands are connected to Hermitage village via a network of Public Rights of Way (PRoW).

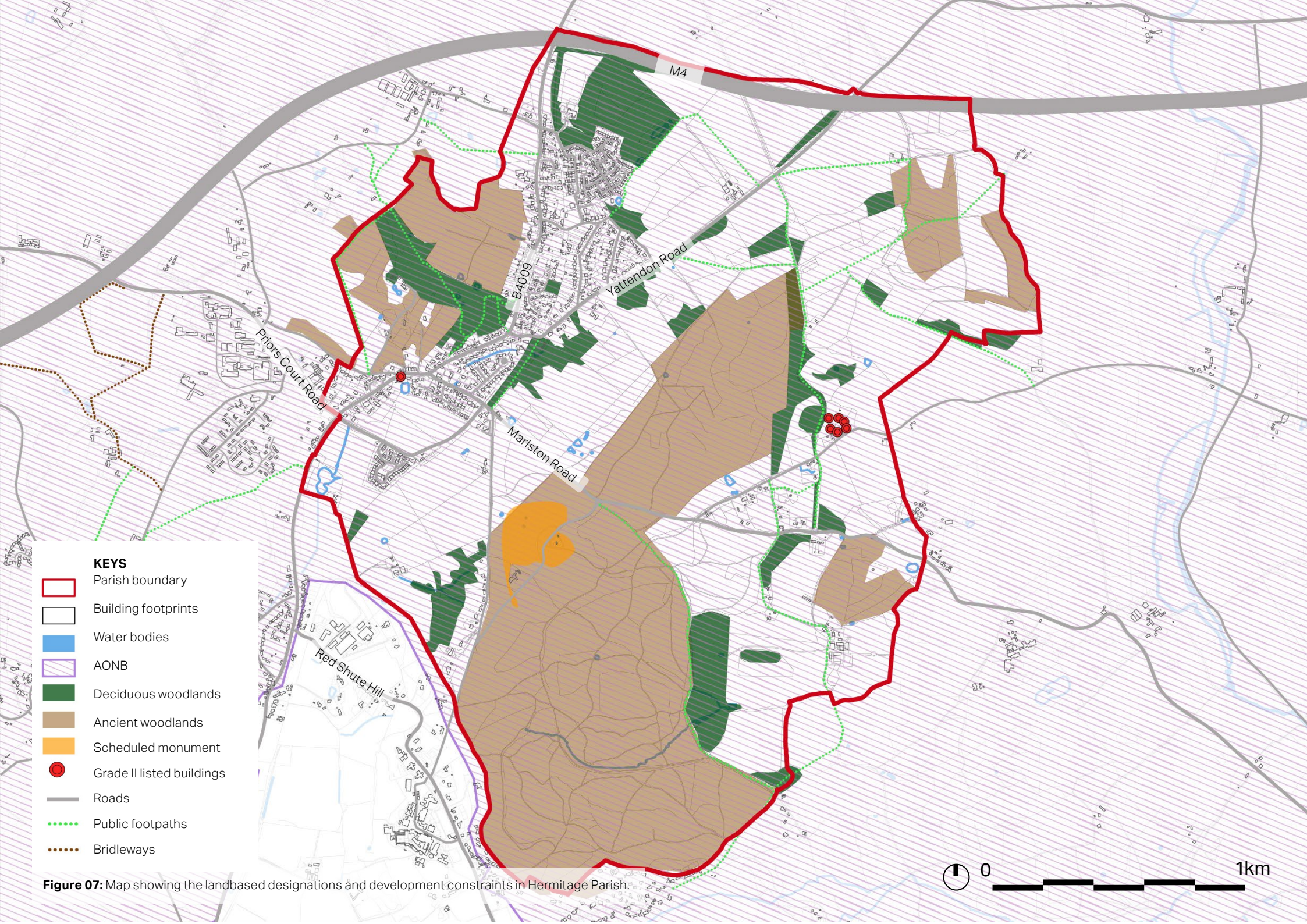
- **Scheduled monument and listed buildings.** The Grimsbury Castle scheduled monument (Ref.1006983) is an Iron Age hillfort which can be found in the southeast of the parish on Slanting Hill. There are 7 Grade II listed buildings across the parish, including an 18th century cottage on Newbury Road (B4009) and a series of farm buildings on Wellhouse Farm to the east of the parish.



Figure 05: Furze Hill woodlands bordering Hermitage Recreation ground to the northern edge of the parish.



Figure 06: A landscape of open farmlands and woodlands as part of the AONB that surrounds much of Hermitage parish, B4009.



- KEYS**
- Parish boundary
 - Building footprints
 - Water bodies
 - AONB
 - Deciduous woodlands
 - Ancient woodlands
 - Scheduled monument
 - Grade II listed buildings
 - Roads
 - Public footpaths
 - Bridleways

Figure 07: Map showing the landbased designations and development constraints in Hermitage Parish.



2.3 Hermitage village character

Hermitage is a rural village set north-east of Newbury in the heart of the North Wessex Downs, an Area of Outstanding Natural Beauty. It is surrounded with a beautiful and sensitive landscape with long-distance views towards the open countryside.

Access and public realm

The spine road (B4009)-comprising Hampstead Norreys Road, Newbury Road and Long Lane- is the main access to the village offering connections to Hampstead Norreys and Newbury, to the north and south respectively. This is a one-lane road permitting two-way travel, with a varied streetscape afforded by the diverse housing typologies along the road. More specifically, the B4009 possesses characteristics of a countryside lane along the edges of the village where there are no pavements on either side. Pavements are present again as the road transitions into the more built up parts of the village.

In addition, other secondary/ local roads, for instance Yattendon Road, Priors Court Road, Marlston Road, Long Lane and Newbury Road, offer access to the village from the north, east and south respectively. These roads are either countryside lanes or they have pavements on either side of the street.

The public realm, within the built environment, is of good quality with pavements along the spine road (B4009) as well as some cul-de-sac streets, for instance Pinewood Crescent, Colyer Close and Hermitage Green.

There is a good network of footpaths throughout the parish offering connections to other neighbourhoods within the village and the surrounding countryside and other settlements.

Bus services are available along the spine road (B4009), though, the routes are not frequent which could discourage people from using public transport.



Figure 08: View to the spine road (B4009), within the built environment, with pavements on both sides.



Figure 09: View to the spine road (B4009), towards the edge of the village settlement, where there are no pavements on either side and the road has a more rural character.

Land uses

There is a mixture of land uses in the village though residential uses prevail. The village includes Hermitage Primary School, a nursery and pre-school, along with a Co-op along the B4009, as well as the Fox Inn and White Horse pubs, Holy Trinity Church, the village hall and a post office.



Figure 10: The Fox Inn pub is located in the corner of the junction of spine road (B4009) and Yattendon Road and it acts as a landmark for the village.

Patterns of development and boundary treatments

Hermitage presents a variety of development patterns which offers a visual interest along the streetscape. In general, the village is rural and its close proximity to the open countryside, the woods and sensitive landscape reinforce this quality.

Linear patterns are developed along the slightly meandering spine road (B4009) offering a level of informality along the streetscape. The irregular buildings lines, building rotations and variety of building setbacks also contribute to the informal and therefore, rural character of the village. Plot sizes and widths are slightly irregular, whilst front and back gardens are well-sized, bordered with rich vegetation. In particular, front gardens are bordered with hedges, hedgerows and trees, often combined with low-height brick walls and railings or timber fencing with gaps between panels, whilst the back gardens also encourage vegetation.



Figure 11: Buildings are organised in linear form along the B-road with generally irregular setbacks, whilst they are bordered with vegetation and, often, low-height brick walls.



Figure 12: The rear gardens of the buildings along the western side of the spine road (B4009) are backing the Oare Common woods, which offers pleasant long-distance views to the background nature from the B-road.

Linear patterns are also found along Deacons Lane, Pond Lane, Doctors Lane, Chapel Lane and Yattendon Road, however, the character along these street is more rural compared to the linear developments along the spine road (B4009). In particular, the meandering rural lanes are narrow with no pavements on either side, apart from Yattendon Road, whilst the plot sizes and widths are more varied and narrower. Natural boundary treatments prevail, whilst building lines are irregular reinforcing the rural context.



Figure 13: Example of a linear layout along a meandering rural lane, with no pavements, bordered with rich vegetation.

Cul-de-sac layouts, found just off the spine road (B4009), Chapel Lane, Crabtree Lane and Marlston Road, add visual interest to the village character. They are short in length, meandering streets with pavements on both sides. Plot sizes are smaller compared to the linear developments, whilst building lines and rotations are relatively irregular. Boundary treatments are mainly natural ranging between grass areas, hedges, hedgerows, trees and flower beds; however they are mostly used along the property lines between dwellings and thus, there is a feel of openness along these streets.



Figure 14: Example of a cul-de-sac layout where the limited boundary treatments create a feel of openness along the street.

Lastly, there have been some recent additions into the village envelope in the form of cul-de-sac developments, to the north along Pinewood Crescent and south in Hermitage Green. The building density in both developments is higher, over 30 dph (dwellings per hectare), compared to the average density in the village, approximately 22dph, however the environment in Hermitage Green feels less compact due to the presence of the open green space to the centre of the development. Properties are arranged around the open space, whilst the building lines offer subtle variations



Figure 15: View to the recent development in Hermitage Green where buildings overlook the green space enhancing natural surveillance.

introducing a feel of informality matching the surrounding rural context. Soft, green space, grass areas, bushes and flower beds, and hard surfaces - like tarmac paving, are in a relative balance, whilst the back gardens are bordered with rich vegetation and trees offering a smooth transition into the countryside. Plot sizes are generally similar to the other cul-de-sac developments in the village, however, there is less informality in the sizes and widths.

On the other hand, although the development along Pinewood Crescent presents some similarities with Hermitage Green regarding the regular buildings lines and plot sizes and widths, it also presents some characteristics that are different. In particular, the hard surfaces prevail over the soft ones, since natural boundary treatments are limited. This undermines the rural character of the village, whilst it does not boost biodiversity and movement of species or offer a smooth transition towards the countryside to the east. In addition, the lack of greenery in the area combined with the lack of open spaces creates a feel of a

more compact place which does not match the general feel of openness in the village.



Figure 16: Street within Pinewood Crescent recent development where hard surfaces prevail over the soft ones undermining the rural character of the village.



Figure 18: Positive example of a well-vegetated street within Pinewood Crescent development which boosts biodiversity within the built environment.

Open spaces and views

Hermitage village is surrounded by open countryside and woodlands which are accessible via a number of footpaths. This beautiful landscape and nature can also be appreciated from the built environment as well with long-distance views. For instance, there are views to the north of spine road (B4009), east of Everington Lane, west of Slanting Hill and north of Doctors Lane.



Figure 17: Example of a long-distance view towards the open countryside and woodlands.

In terms of green spaces, there is a designated open space to the north of the village adjacent to the village hall which includes a play area, outdoor gym, a football field, benches and grass areas. In addition to this, Pinewood Park, located along Chapel Lane, is another example of open green space including a play area as well, whilst Hermitage Green Play area is a recently added green space due to the recent development.



Figure 19: View to the open green space next to the Village Hall that includes a play area, outdoor gym, football field, benches and grass areas.

Building heights and typology

There is a mixture of different typologies in the village, servicing for the needs of a wider group of people, ranging from detached, semi-detached, terraced housing, bungalows and flats.

The average building height is generally low, around 2 storeys, whilst heights range between 1-2.5 storeys. There are also examples of flats in the more recent developments that reach 3 storeys, however, these are the exception and anything above 2 storeys is not supported by the locals.

Roof types range between gabled and hipped, however there are also examples of mansard roofs, cat slide and thatched roofs.

This variety in typologies, roof types and building heights, creates interesting visuals on the rooflines along the streetscape. In particular, the roofline along the B-road is generally regular, whilst it gets usually interrupted by chimneys and dormers. It is generally continuous, however, due to the low density and hence the generous

gaps between buildings, it usually becomes non-continuous. Along the more rural lanes where density drops even more, approximately 10 dph, the roofline is non-continuous as it often gets interrupted by rich vegetation and large trees, whilst it is more irregular due to the variations in roof types and pitches.



Figure 20: Examples of different rooflines along denser (top photo) streets and less denser (bottom photo) rural lanes.

In addition, the roofline in the cul-de-sac developments is generally regular with subtle variations and interspersed with landscaping elements. Lastly, in the more recent developments, the roofline is continuous and more consistent as there are not many varieties in roof types and pitches.

The picturesque woodlands backdrop is a unique characteristic to Hermitage village. Any views towards the woodlands and surrounding landscape between buildings



Figure 21: The rich backdrop vegetation is a characteristic of the village and it can be appreciate it to its fullest within low rise developments.

must be preserved and not be undermined by new development.

Car parking

There is a variety of car parking typologies ranging between on-street parking, on-plot parking and garages as well as court parking.

In general, the main ground material that is used for the car parking spaces is tarmac which increases the hard surfaces in the village. However, there are examples of



Figure 22: Local example of on-plot parking where a more earthy palette and permeable paving is used for the ground.

permeable pavings, where a more earthy palette is used, along the rural lanes.

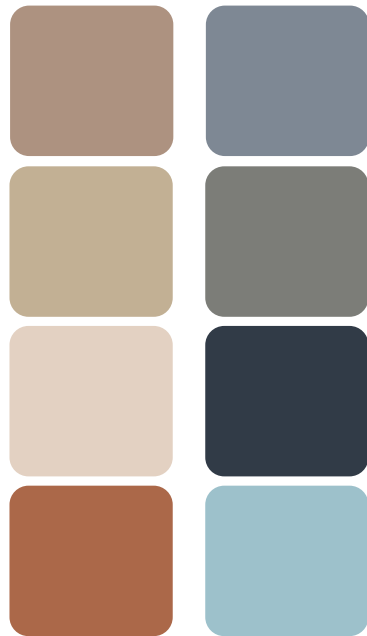
Local vernacular

There is rich local vernacular in the village which should be respected and referenced in any new development to preserve the character of the area.

Roof materials range between red slate tiles, clay tiles and grey slate, whilst there are some examples of thatched roofs that still remain in the village. Red brick chimneys and gabled and hipped dormers also decorate the roofs adding visual interest.

Regarding the façades, the red brick is extensively used throughout the village, whilst there are also examples of combinations between different brick colours that add architectural interest along the streetscape. Timber frames with rendered infills, painted brick and horizontal dark weatherboarding are also used in the village. There are also some examples of yellow brick found in some bungalow typologies within the cul-de-sacs.

Lastly, window types include casement, sashed and bow windows of timber frame, mainly painted white. More modern developments mostly maintain the typology; however, they include some darker colours or minimum details on the frames that clashes with the surrounding style. There is also a variety of types of porches depending on the roof type of the property or the materials that are used.



Colour Palette

Roof materials & types



Red clay tiles on a gabled roof



Red clay tiles on a gabled roof with dormer window



Grey slate tiles on a hipped roof



Clay tiles on a catslide roof



Thatched roof



Red clay tiles on a mansard roof



Clay tiles on a cross gabled roof



Red clay tiles on a gabled roof with gabled dormers



Hipped roof with red brick chimneys

Walling & boundaries



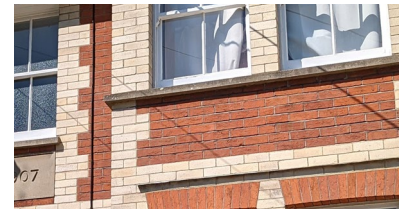
Red brick



Timber frame with white render infills



Variations of brick colour on facade



Combination of red and beige brick



Off-white painted brick



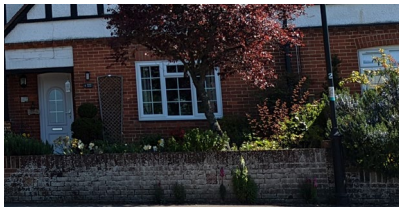
Tile hanging combined with red brick



Horizontal dark weatherboarding



Buffed coloured brick with red brick details around the window frames



Brick wall with bushes and trees



Red brick wall with patterns

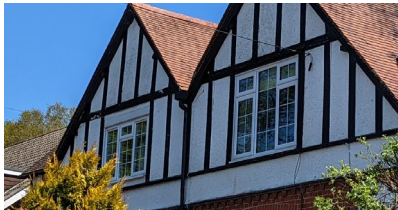


Hedgerows



Stone wall with railings

Windows, doors & other details



Casement windows



Sashed window framed with red brick



Bow windows



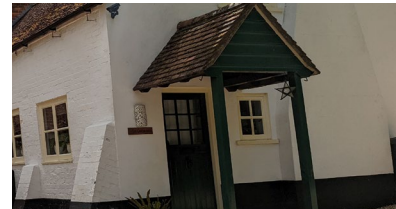
Modern windows on a converted barn



Door with glass and attractive brickwork surround



Hipped porch with clay tiles



Gabled porch with red slates and wooden details



Red brick gabled porch



Timber door & horizontal timber fencing



Off-white painted wooden door with detail



Porch under a catslide roof



Gabled porch with wooden details appropriate for a commercial building





















- KEYS**
-  Hermitage parish boundary
 -  Building footprints
 -  Water bodies
 -  AONB
 -  Woodlands
 -  Open fields
 -  Playing fields
 -  Play area
 -  Roads
 -  PRoWs
 -  Cycle path (Route 2)
 -  Important views
 -  Village hall
 -  Hermitage Primary School
 -  Post office
 -  Holy Trinity Church
 -  Pubs/restaurants
 -  Supermarket
 -  Grade II listed building
 -  Trees and hedges



Figure 23: Map showing the existing green and community assets in Hermitage village that contribute to the village's character.



Design guidelines and codes

03

3. Design guidelines and codes

This chapter provides guidance on the design of development, setting out the expectations that applicants for planning permission in Hermitage parish will be expected to follow.

3.1 Place making

What urban designers and planners call ‘placemaking’ is about creating the physical conditions that residents and users find attractive and safe, with good levels of social interaction and layouts that are easily understood.

The placemaking principles set out in the following pages should be used to assess the design quality of future development or regeneration proposals.

These key principles should be considered in all cases of future development as they reflect positive place-making and draw on the principles set out in many national urban design best practice documents.



3.2 Walkable places

Creating new walking routes which are well connected to the existing network should be a prerequisite for any new development in Hermitage parish.

The success of a place is influenced by how walkable it is. It is good practice to plan new homes within a 400 metres walking distance (= 5 minutes) of bus stops and within 800 metres (= 10 minutes) of convenience stores or community buildings.

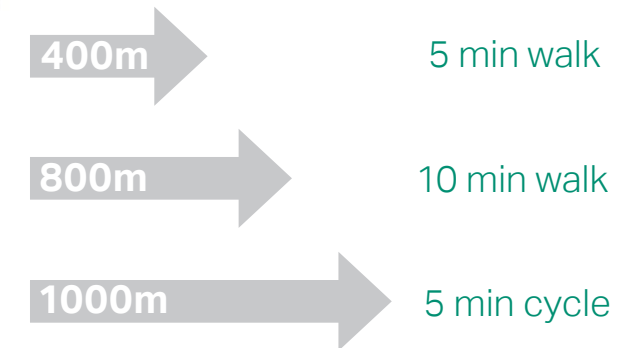


Figure 24: The 10 characteristics of well-designed places. (Source: National Design Guide, page 8).

3.3 General principles and guidelines

The design guidelines and codes, with reference to the Hermitage Neighbourhood Area, will follow a brief introduction of the general design principles.

The guidelines and codes developed in the document focus on residential environments including new housing development in the parish, as well as any potential conversion or housing extension.

In any case, considerations of design and layout must be informed by the wider context, considering not only the immediate neighbouring buildings, but also the landscape and rural character of the wider locality. The local pattern of streets and spaces, building traditions, materials and natural environment should all help to determine the character and identity of a development.

It is important that full account is taken of the local context and that the new design embodies the 'sense of place' and also meets the aspirations of people already living in that area. Therefore, some design principles that should be present in any design proposal are:

- Respect the existing pattern of the parish to preserve the local character;
- Respect the heritage, landscape and key views identified in the parish;
- Aim for high quality design that reflects and respects the local vernacular;
- Integrate with existing paths, streets, circulation networks and improve the established character of streets, greens and other spaces;
- Harmonise and enhance existing village in terms of physical form, architecture and land use;
- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;
- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;
- Respect surrounding buildings in terms of scale, height, form and massing;
- Provide adequate open space for the development in terms of both quantity and quality;
- Preserve views towards the open countryside as well as views from the countryside towards the village settlement;
- Reinforce or enhance the character of streets, greens, and other spaces;
- 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;

- 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;
- 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.



3.4 Hermitage design guidelines and codes

This section introduces a set of design principles that are specific to Hermitage parish. These are based on:

- Baseline analysis of the area in Chapter 2;
- National design documents such as National Design Guide, National Model Design Code and Building for a Healthy Life documents which informed the principles and design codes; and
- Discussion with members of the Neighbourhood Plan Steering Group.

The codes are divided into **4 sections**, shown on the next two pages, each one with a different number of subsections. Each section and subsection is numbered (e.g DC.01) to facilitate its reading and consultation.

Theme	Code	Title
DC.01 In keeping with local character	1	Set in rural landscape/ settlement edges
	2	Patterns of growth and layout of buildings and gardens
	3	Heritage, views and landmarks
DC.02 Built form	4	Overlooking the public space
	5	Boundary lines and boundary treatments
	6	Corner treatment
	7	Continuity and enclosure
	8	Legibility and wayfinding
	9	Building heights, density and housing mix
	10	Infill development
	11	Housing extensions and conversions
	12	Materials and architectural details
DC.03 Access and movement	13	Accessible and attractive footpath network/ Access to the countryside
	14	Prioritise walking and cycling
	15	People friendly streets
	16	Street lighting
	17	Parking and servicing
DC.04 Sustainable Design and Environment	18	Create a green network
	19	Biodiversity
	20	Water management
	21	Trees
	22	Open spaces
	23	Sustainable design

DC.01 In keeping with the local character

Code.1 Set in rural landscape/ development edges

Hermitage parish has a strong rural landscape and rich vegetation which should not be undermined by any new development. In particular, any new development set on the edges of the village needs to respect the existing nature and aim to enhance it. Thus, some design guidelines on how new development should treat rural development edges are:

- New development should conserve existing native trees and shrubs along the lanes and within the developable site and incorporate any green asset within design, whilst any unnecessary loss of flora should be avoided;
- Abrupt edges with little vegetation or landscape on the edge of the development should be avoided. On the contrary, rich vegetation should be in place to provide a smooth transition from the built-up areas to the rural

landscape. For example, the recent development at Hermitage Green is characterised by soft edges around the site mitigating any impact on the surrounding landscape, whilst enhancing biodiversity;

- Edges must be designed to link rather than segregate existing and new neighbourhoods. Therefore, green corridors should be proposed to provide additional pedestrian and cycle links that will improve connectivity with surrounding neighbourhoods and contribute to the successful integration of the new development within the parish; and
- Development adjoining public open spaces or open fields and countryside should either face onto them, as shown in [Figure 27](#), to improve natural surveillance or have a soft landscaped edge, as shown in [Figure 25](#) with the example of Hermitage Green, to create a gradual transition into the open fields.



Figure 25: Local example of recent development in the village where properties back the open countryside with soft edges to mitigate any impact on the surrounding countryside, Hermitage Green.



Figure 26: Example of an edge lane, elsewhere in UK, where buildings front the landscaped area, whilst the shared surface allows different users to co-exist peacefully.

DC.01 In keeping with the local character

1. Existing properties should be buffered with rich vegetation to mitigate any visual impact towards the open countryside.
2. Retain any green asset and incorporate it into the new design.
3. New green verge with trees and vegetation to serve as an additional buffer (width varies).
4. New private drive or edge lane used by vehicles and cyclists. More details on street typologies can be found in [Code 15](#).
5. New residential frontage with boundary hedges and front gardens to enhance rurality.

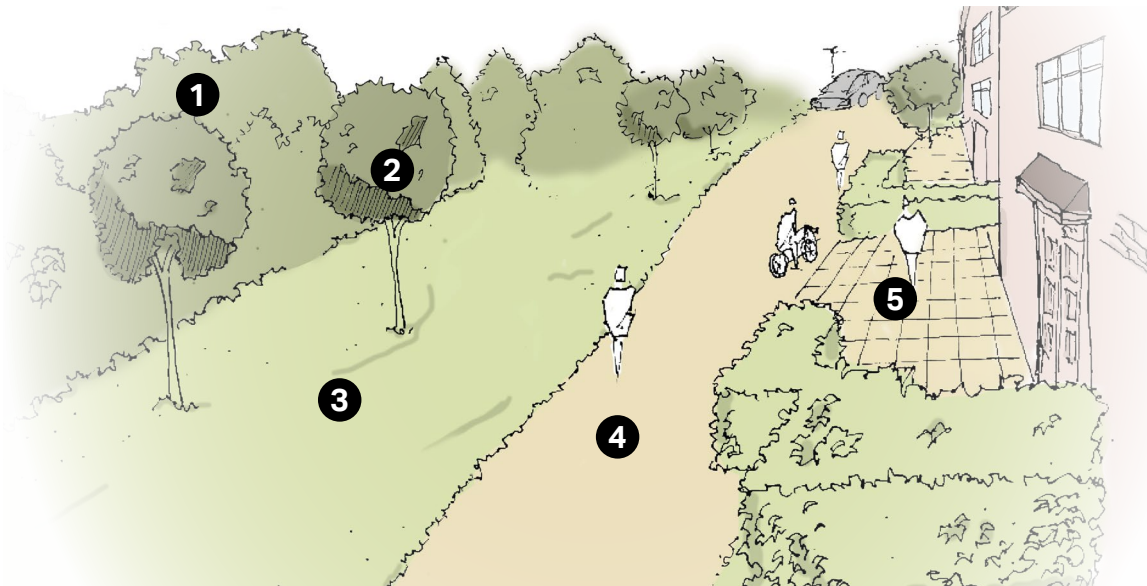


Figure 27: Sketch to illustrate design guidelines on orientating new development to face onto rural edges to improve natural surveillance and to maximise open views towards the countryside.



Figure 28: Diagram to illustrate a positive treatment of the edges that respects the surrounding open countryside and offers a smooth transition into the open fields, Hermitage Green.



Figure 29: Diagram to illustrate an example of a development edge with limited natural buffer that results in an abrupt transition to the surrounding countryside and thus, undermines nature and biodiversity, Rowlock Gardens.

DC.01 In keeping with the local character

Code.2 Patterns of growth and layout of buildings and gardens

As analysed in [Section 2.3](#), there are two main patterns of growth within the village, the linear layout and cul-de-sac developments, and each one presents different qualities in terms of street layout, buildings lines, plot sizes and widths. In addition to this, the close relationship with the countryside contributes to the character of these patterns. Thus, any new development should suggest design that matches the existing patterns of growth and some design guidelines are:

- New developments should be within the village settlement boundary, whilst also protecting important views to the countryside and existing vegetation;
- New developments must demonstrate a good understanding of the scale and massing of the surrounding built environment and avoid proposing design that exceeds the surrounding roofline and creates unpleasant views to the existing properties;
- New development must demonstrate a good understanding of the building orientation, building lines and building setbacks of the surrounding built environment and propose design that reflects the rural qualities of the area;
- The building densities of the new development should reflect the rural character of the village. In particular, lower density developments of 20 dph are deemed appropriate across the parish and are encouraged. This density fits with the prevailing character of the settlement, but still seeks to maintain efficient use of land. In case of higher densities, an appropriate green coverage and vegetation should be in place to ensure the rural character of the village is retained. In general, any proposal that would adversely affect the physical appearance of a rural lane, or give rise to an unacceptable increase in the amount of traffic, noise, or disturbance must be avoided;
- Building setbacks and building lines should be slightly irregular to introduce an informality and therefore, reinforce the rural character of the village;
- The size of plots and their pattern should be varied to contribute to the rural character of the village;
- The sizes of front and back gardens should be varied to reinforce the rural character of the village. However, they should not show great discrepancies with the front and back gardens of the surrounding properties which range between 5-10m and 15-30m respectively;
- Existing hedges, hedgerows and trees should be integrated into design, whilst more planting and vegetation is encouraged to form part of the green network strategy; and
- Appropriate signage should be incorporated along the road to indicate the low speed limits or provide navigation.

DC.01 In keeping with the local character



Figure 30: Local example of a linear development where buildings, mainly 2-2.5-storey ones, are set along a meandering street bordered with hedgerows, trees and low-height brick walls.



Figure 32: Local example of a cul-de-sac development where buildings, ranging between 1-2.5-storeys, are set along a meandering streets with limited boundary treatments, mainly grass areas and flowerbeds.

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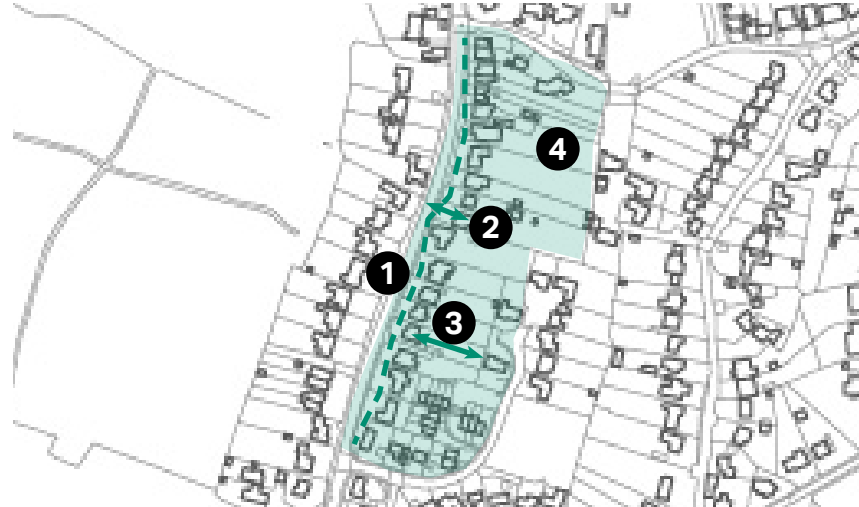


Figure 31: Diagram of a linear layout within the village illustrating key elements like building lines, density and dimensions for front and rear gardens that should be referenced into the new development, Hampstead Norreys Road (B4009).

1. Building lines and rotations are generally irregular reinforcing the rural character of the village.
2. Front gardens vary between 9-10m.
3. Rear gardens vary between 40-70m.
4. Average building density is approximately 12 dph (dwellings per hectare).

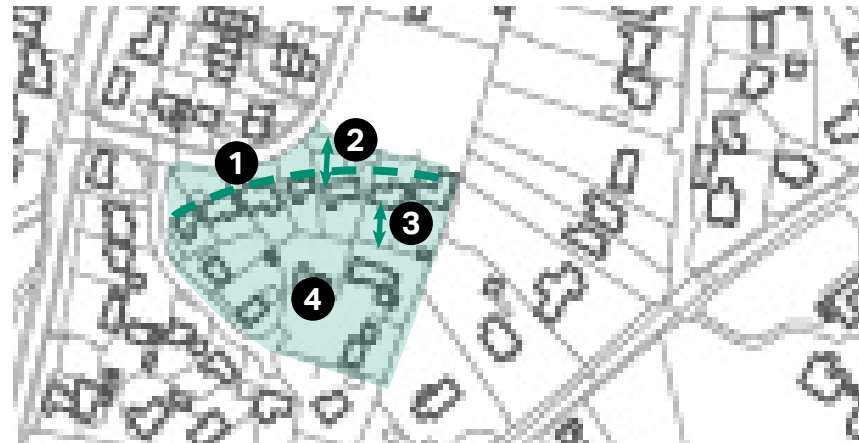


Figure 33: Diagram of a cul-de-sac layout within the village illustrating key elements like building lines, density and dimensions for front and rear gardens that should be referenced into the new development, Kiln Close.

1. Building lines and rotations are more regular compared to the linear layouts in the village with subtle variations to offer visual interest.
2. Front gardens vary between 7-10m.
3. Rear gardens vary between 10-15m.
4. Average building density is approximately 18 dph (dwellings per hectare).

DC.01 In keeping with the local character

Code.3 Views, landmarks and heritage

Hermitage parish, located within the AONB, is characterised for its unique landscape, relationship with the surrounding countryside and rich backdrop vegetation and woodlands. There are also some listed buildings and an ancient monument within the parish as well as unlisted buildings of historic significance. Any new development needs to acknowledge the existence of all those elements and stimulate ways in which those assets could be further promoted and protected. Thus, some design guidelines are:

- New development proposals should maintain open views towards the surrounding landscape. Development density should allow for spaces between buildings to preserve views of the countryside setting and maintain the perceived openness of the village. The fact that the village falls into the AONB area stresses the importance of preserving the views even more;
- Scenic and tranquil views, as shown in [Figure 23](#), to the countryside should be retained and enhanced in future development. For example, footpaths bordered with rich vegetation can help protect particular views while improving walkability in the village;
- The roofline of any new development should be set lower than the backdrop vegetation, avoiding hard lines of the silhouette against the sky;
- The roofline of any new development should not create unpleasant visual impacts on surrounding neighbourhoods. Vegetation should be proposed to act as a buffer between existing and new developments;
- New development which potentially affects any designated or non-designated heritage asset must respect the significance of the asset and must demonstrate how local distinctiveness is reinforced. For example, adding landscape and vegetation can create

a buffer and mitigate any visual impact, while also preserving key views; and

- Creating short-distance views broken by buildings or trees helps to create landmarks and memorable routes. New buildings should not obstruct views that are framing the woodlands backdrop of the village, which are deemed important locally.



Figure 34: The location of this building at the corner of Pinewood Crescent and B4009 and its high quality architectural details and massing make it stand out along the streetscape and act as a landmark.

DC.01 In keeping with the local character



Figure 35: Examples of backdrop vegetation and open views to the countryside, Hermitage village. New development should retain this quality of rural environment in order to preserve the rural character.

DC.02 Built form

Code.4 Overlooking the public space

It is a good design principle for properties to overlook the public space (street, pavement, footpath, green space, square etc.). This helps to create active frontages, improve natural surveillance and decrease antisocial behaviour. Thus, overlooking the public space is essential to the creation of successful, safe and attractive developments. Some guidelines for new development are:

- Main building façades in new development should overlook open spaces to improve natural surveillance. In addition, driveways and on-street parking areas should also be well-overlooked. Some positive examples are Hermitage Green development where properties overlook the play area with clear and unobstructed views and the footpath along Fletton Link where properties are set along it;

- New development should design well-defined routes, spaces and entrances that provide convenient movement without compromising security;
- Facilities, like play areas and outdoor gyms, should be integrated into the open spaces to meet the needs of the people living close by, whilst also encouraging activity and therefore, natural surveillance;
- Natural boundary treatments in front gardens are welcomed to promote the rural character of the village, however, new development should also allow some views to the street and the open spaces.



Figure 36: Positive local example of properties overlooking a green space with open unobstructed views, Hermitage Green.



Figure 37: Properties fronting the footpath create active frontages that offer natural surveillance and thus, the feeling of a safe environment.

DC.02 Built form



Figure 38: Positive example of properties overlooking the public space, whilst also integrating edge lanes to reinforce a more rural feel in the area, elsewhere in UK.

Recognisable entrances and routes to improve wayfinding and reduce ambiguity on the street. Clear pathways to entrances are important

Promote activity on the street, by providing public open spaces, generous pavements and accessible street furniture

Enhance overlooking by designing safe windows to the street. They can be buffered with planting to increase privacy.

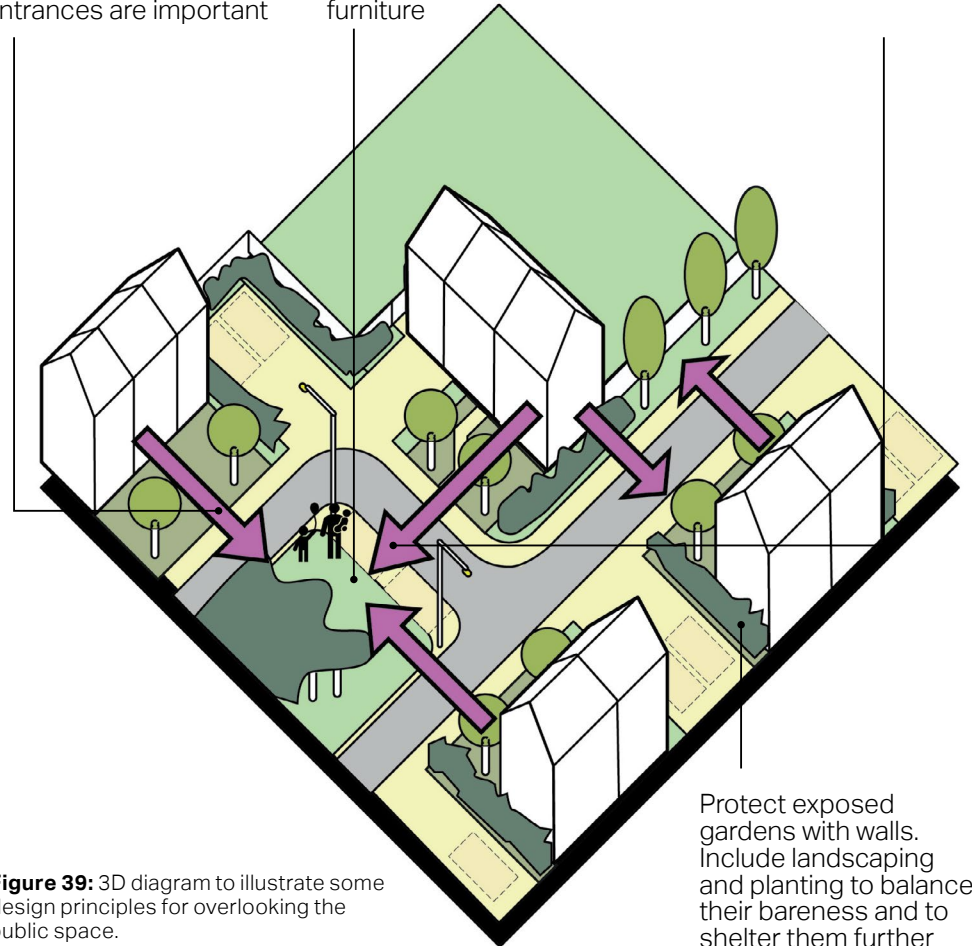


Figure 39: 3D diagram to illustrate some design principles for overlooking the public space.

Protect exposed gardens with walls. Include landscaping and planting to balance their bareness and to shelter them further

DC.02 Built form

Code.5 Building lines and boundary treatments

As analysed in [Section 2.3](#), boundary lines are generally irregular with variations on building setbacks and rotations, whilst boundary treatments are mainly natural. However, there are also examples of hard ones, for instance low-height brick walls and timber fencing. These two elements contribute to the rural character of the village and so, any new development should match the existing qualities. Some design guidelines are:

- Buildings should front onto the streets. The building line should have subtle variations in the form of recesses, protrusions and rotations, but it should generally form a unified whole;
- Buildings should be designed to ensure that streets and/or public spaces have good levels of natural surveillance. This can be ensured 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, whilst also promoting the rural character of the village. They should be mainly continuous hedges, bushes and trees accompanied by low-height brick walls. Timber fencing can also be used, less often, and it is highly recommended to place gaps between the panels to enhance biodiversity and movement of species. The use of either panel fencing or metal or concrete walls in these publicly visible boundaries should be avoided; and
- In the case of edge lanes, lanes fronting green gaps and open countryside, the natural boundary treatments can act as buffer zones between the site and the countryside and offer a level of protection to the natural environment.



Figure 40: Local example of long hedges, bushes and trees combined with low-height brick walls.



Figure 41: Boundary treatments within the cul-de-sacs are often limited to grass areas with flowerbeds, bushes or trees.

DC.02 Built form



Figure 42: Local example of layouts within Hermitage village presenting generally irregular building lines and rotations as well as natural boundary treatments in the front and rear gardens.



Figure 43: Example of recent development, elsewhere in UK, which should not be acceptable in Hermitage's rural context as it consists of regular building lines with minimum variations and lack of natural boundary treatments or vegetation along the edges.

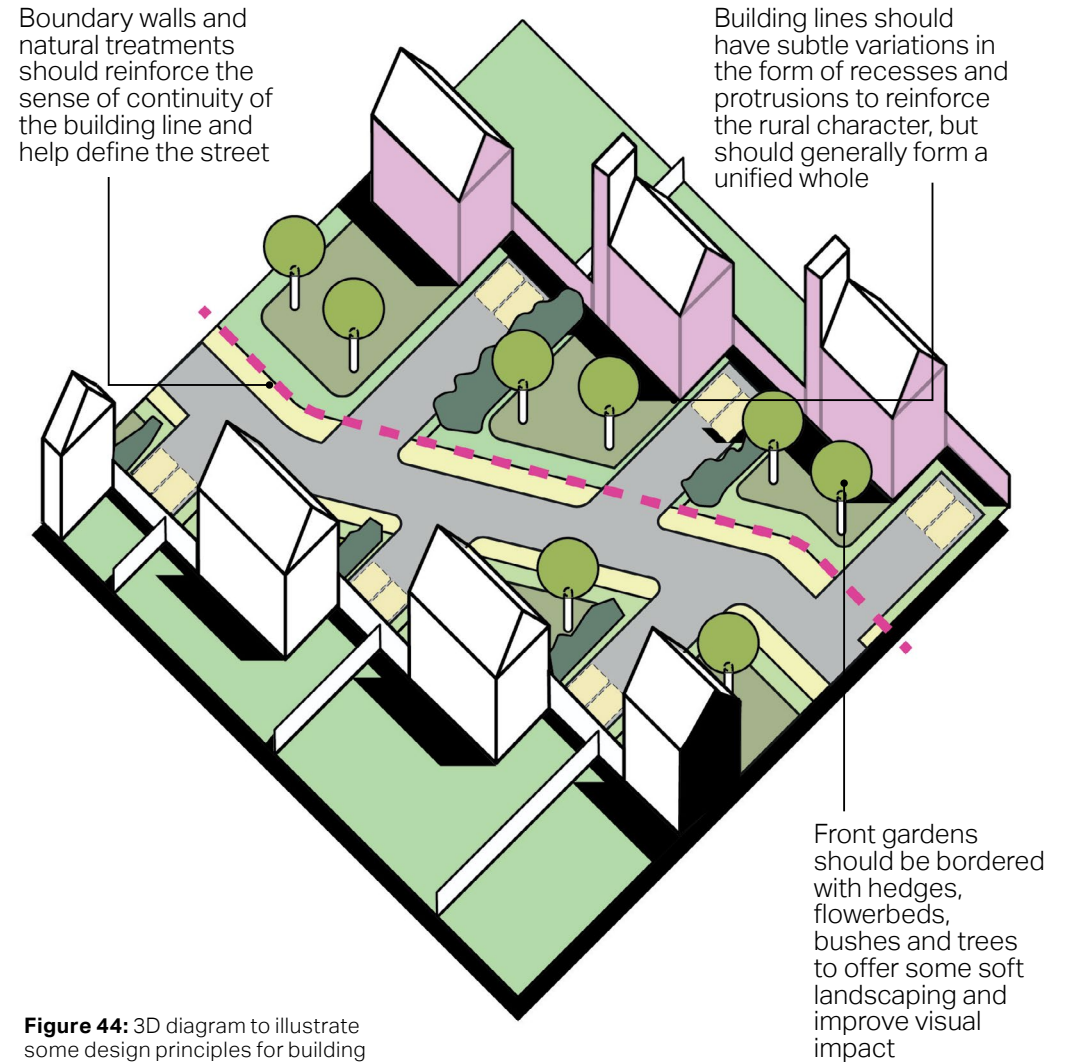


Figure 44: 3D diagram to illustrate some design principles for building lines.

DC.02 Built form

Code.6 Corner treatment

Together with the creation of potential local landmarks, one of the crucial aspects of a successful streetscape is the issue of corners. These buildings have at least two public facing façades and so they have double the potential to influence the street's appearance. Therefore, the following guidelines apply to corner buildings.

- If placed at important intersections the building could be treated as a landmark and thus be slightly taller or display another built element, signalling its importance as a wayfinding cue;
- The form of corner buildings should respect the local architectural character. Doing so improves the street scene and generates local pride;
- All the façades overlooking the street or public space should be treated as primary façades; and
- All the façades overlooking the street or public space should have some form of street contact in the form of windows, balconies, or outdoor private space.



Figure 45: Example of a corner building where both façades have windows to allow for natural surveillance, elsewhere in rural UK.



Figure 46: Local example of a corner buildings where both façades have windows to allow for natural surveillance, Hermitage village.

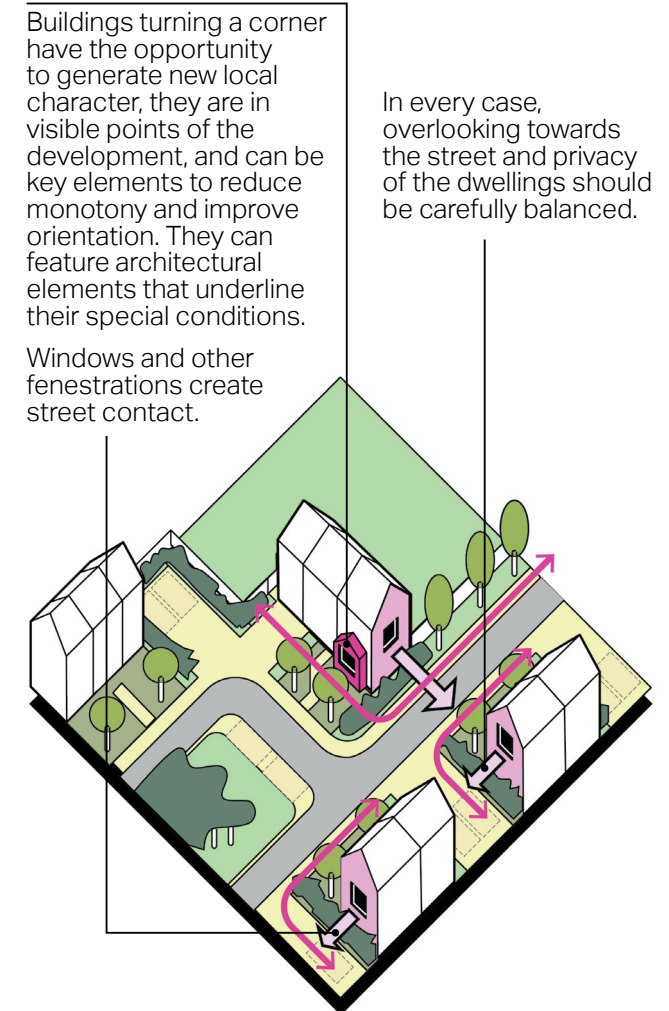


Figure 47: 3D diagram to illustrate some design principles for corner treatment.

DC.02 Built form

Code.7 Continuity and enclosure

Focal points and public spaces in new development should be designed in good proportions and delineated with clarity. Clearly defined spaces help create an appropriate sense of enclosure - the relationship between a given space (lane, street, square) and the vertical boundary elements at its edges (buildings, walls, trees).

Hermitage village offers different levels of enclosure along the streetscape depending on the width of the road, the existence or absence of vegetation and building heights. Therefore, new development is expected to propose design that matches the existing levels of enclosure in the village. The following principles serve as general guidelines that should be considered for achieving a satisfactory sense of enclosure in new development:

- Building setbacks in new development should be of an appropriate ratio between the width of the street and the building height. Ratios between 1:2

and 1:3 (building height/street width) will generally create spaces with a strong sense of enclosure. However, lower levels of enclosure, 1:6, are also acceptable within the parish, for instance in cases of main streets;

- Careful positioning of walls, landscaping and paving can achieve visual continuity and well-defined open spaces to link buildings together and define public and private spaces; and
- Trees, hedges, and other landscaping features can help create a more enclosed streetscape in addition to providing shading and protection from heat, wind, and rain.

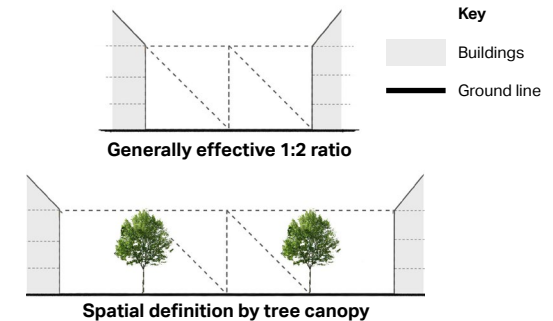


Figure 48: A ratio of 1:2 (top) or 1:3 is generally appropriate for residential streets. In addition, enclosure can be defined by trees instead of buildings (bottom).



Figure 49: The great sense of enclosure along this footpath is given by the close distance of buildings in relationship to the width of the footpath, elsewhere in UK.

DC.02 Built form

Local examples of enclosure

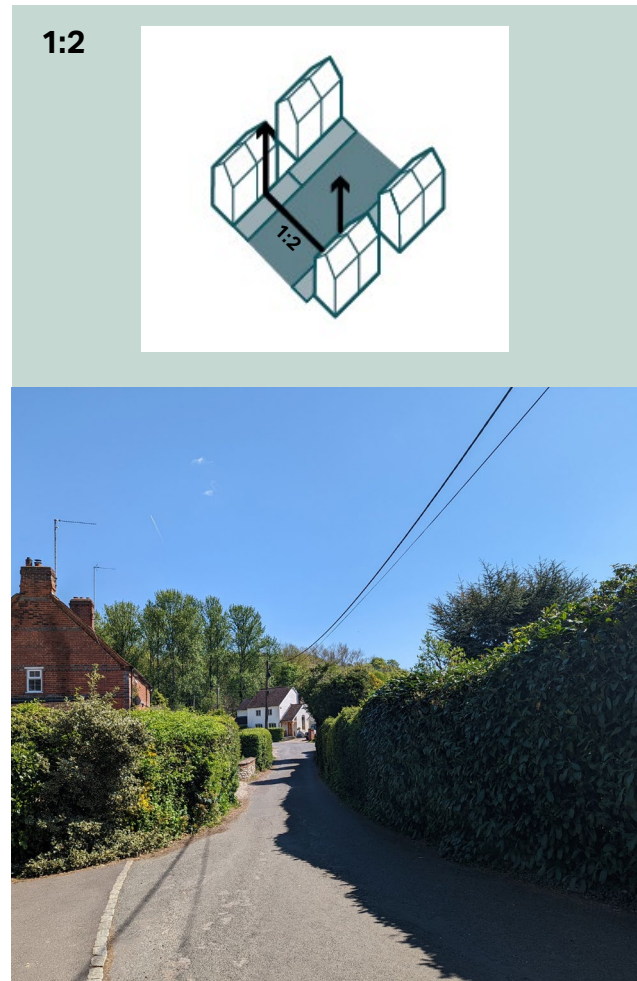


Figure 50: Local example of 1:2 enclosure, which is created by the narrow lane in combination with rich vegetation.



Figure 51: Local example of 1:3 enclosure, which is created by the footpath in combination with varied building setbacks and 2-storey buildings heights.

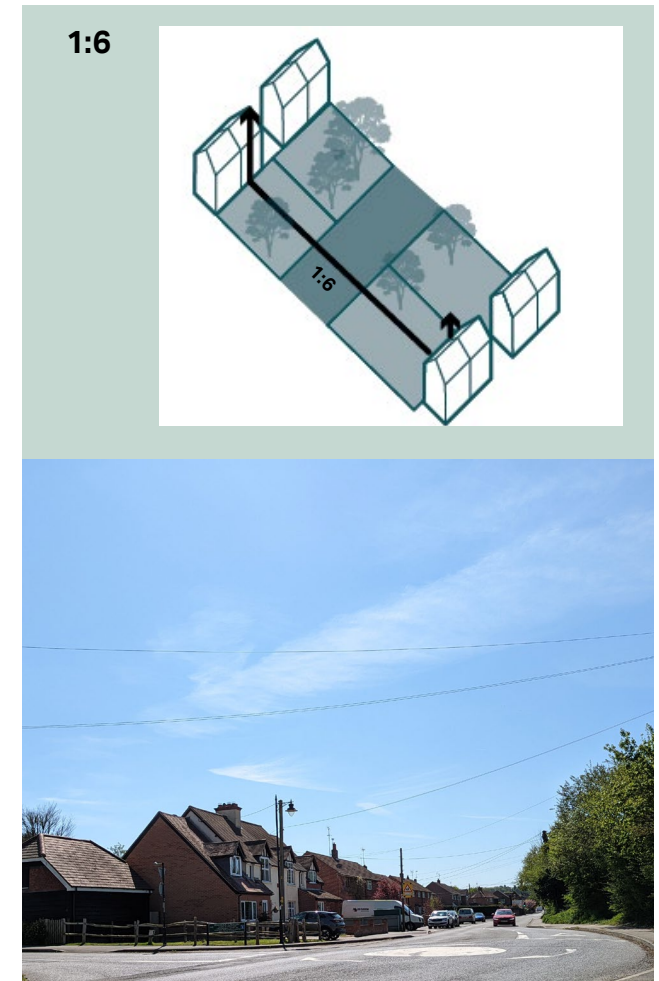


Figure 52: Local example of 1:6 enclosure, which is created by the wide main road in combination with the pavement, varied building setbacks and 2.5-storey buildings heights.

DC.02 Built form

Code.8 Legibility and wayfinding

When places are legible and well signposted, they are easier for the public to understand and therefore, likely to both function well and be pleasant to live in or visit. It is easier for people to orient themselves when the routes are direct and visual landmarks clearly emphasise the hierarchy of the place. Thus, some design guidelines on new development are:

- Signage should be strategically located along walking and cycling routes to signal the location of local assets or other important destinations. For instance, local amenities such as the pubs, the Co-op or the village hall, or particular woodlands and nearby settlements;
- Buildings, as well as public art, historic signage totems or even an old and sizeable tree could act as landmarks;
- Buildings which are located at corners, crossroads or along a main road could play a significant role in navigation. For that reason, the architectural style

of these buildings could be slightly differentiated from the rest to help them stand out;

- New signage design should be easy to read. Elements like language, fonts, text size, colours and symbols should be clear and concise, and avoid confusion;
- Signage should relate well to the rural setting of the host building, whilst illuminated signage will not be recommended; and
- Applicants are encouraged to use wooden, hand painted and non illuminated signage, avoiding the use of garish or day-glow colours. Overall, the signage must be sensitive to the rural environment and blend with the existing rich vegetation.

Local landmark buildings or distinct building features -such as towers, chimneys, or porches- at key nodes and arrival points help orientation.

Utilise high quality trees and landscaping to help with the wayfinding along the main desired pathway.

Make the best use of mature trees to mark the entrance to a development.

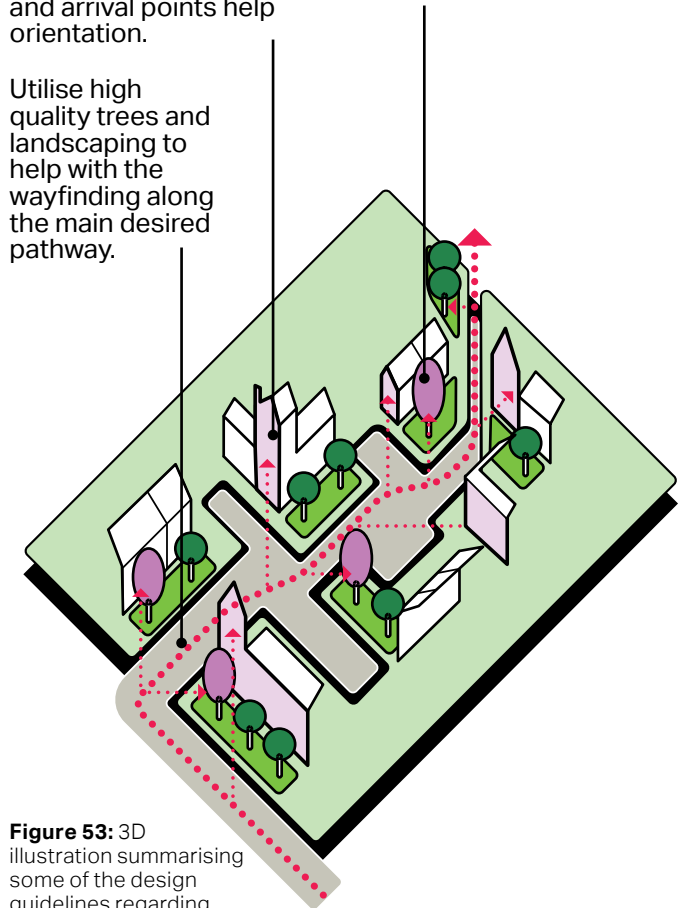


Figure 53: 3D illustration summarising some of the design guidelines regarding wayfinding.

DC.02 Built form



Figure 55: Example of signage that could be implemented along footpaths within the open countryside to navigate people towards important destinations.



Figure 54: Examples of wooden sign posts that are integrated well into the surrounding rural environment respecting the existing character.



Figure 56: Example of a sign post indicating the location of public footpaths, whilst the wooden material fits perfectly into the surrounding rural context.



Figure 57: Example of tactile paving to facilitate movement for people with visual impairment.

DC.02 Built form

Code.9 Building heights, density and housing mix

Building heights, density and housing mix are three important parameters that should be designed and decided with careful consideration of Hermitage's rural context.

Building heights

There is a low housing density in the parish reinforcing its rural character. More specifically, properties tend to be between 1-2.5-storey high with decent-sized rear gardens. However, there have been some recent additions of 3-3.5-storey flats and properties with small-sized gardens, but these should be the exception rather than the norm and they are not supported by the local community.

The rooflines are generally irregular and they often get interrupted with nature where density goes lower. Chimneys and dormers often decorate the roofs offering a visual interest.

Some design guidelines on building heights are:

- New development should propose maximum height of 2 storeys to preserve the existing context, as well as respecting the surrounding countryside and AONB landscape. Buildings could reach 2.5 storeys, as an exception, but they should be adequately justified and not negatively affect views to the backdrop vegetation or surrounding residential neighbourhoods;
- Monotonous building elevations should be avoided, therefore subtle changes in roofline should be ensured during the design process. Chimneys and dormers could decorate the roof as well;
- Local roof detailing elements such as roofing materials, chimney stacks and edge treatments should be considered and implemented where possible in cases of new development; and
- Roofline should be set lower than the vegetation backdrop, avoiding hard lines of the silhouette against the sky.



Figure 58: Local example of a single storey building set along a cul-de-sac street allowing views to the backdrop vegetation.



Figure 59: Local example of a 2-storey buildings, the roofline of which is sensitively sitting below the backdrop vegetation.

DC.02 Built form

Building density

The concept of density is important to planning and design as it affects the vitality and viability of the place. The density within the parish is quite low which is justified by its rural character. However, there have been examples of higher densities which should be the exceptions as they are not supported by the local community. Therefore, some guidelines for new development are needed to ensure that the existing housing density numbers are respected:

- The building densities of the new development should reflect the rural character of the village. In particular, the average building density in the main village settlement is around 22 dph (dwellings per hectare) on average. It is a general consensus locally that new developments should not exceed 20 dph in general. In case of higher densities, an appropriate green coverage and vegetation should be in place to ensure the rural character of the village is retained;
- Housing densities should be reduced towards development edges and along

rural edges to maintain 20 dph in order to create a gradual transition towards the countryside. In addition, the fact that the whole parish lies within the AONB area justifies a lower housing density too; and

- Small scale development and infills are encouraged because they follow the scale and pattern of existing grain and streets and therefore, retain the character of the area. However, infill sites within the village settlement boundary should reflect the surrounding densities and avoid being over developed.



Figure 60: Local example of approximate density below 20 dph, Deacon Lane.



Figure 61: Local example of approximate density below 15 dph, Hermitage Norreys Road (B4009).



Figure 62: Local example of a recent development with approximate density around 30 dph, Hermitage Green.

DC.02 Built form

Housing mix

The aspiration for the parish is to ensure that there is a mix of housing types and supply of social and affordable housing to cater for the needs of a wider group of people. The current mixture of housing in the village includes bungalows, detached and semi-detached houses, converted farm buildings and flats.

Therefore, new development should offer a range of building typologies and sizes in order to attract a wide group of people and boost the local economy. Some design guidelines for new development are:

- New development should propose a mix of housing to include a range of house types and sizes, both developer and self built, to allow for a variety of options and bring balance to the population profile. The existing mix of housing in the village should be enhanced;

- Affordable housing should be a priority in new development and its quality and architectural design should be of high standards to complement the local vernacular.



Figure 63: Local example of a bungalow.



Figure 64: Local example of a 2-storey detached house.



Figure 65: 2-storey flats located in Hermitage Green - example of local housing style.

Code.10 New houses and infill development

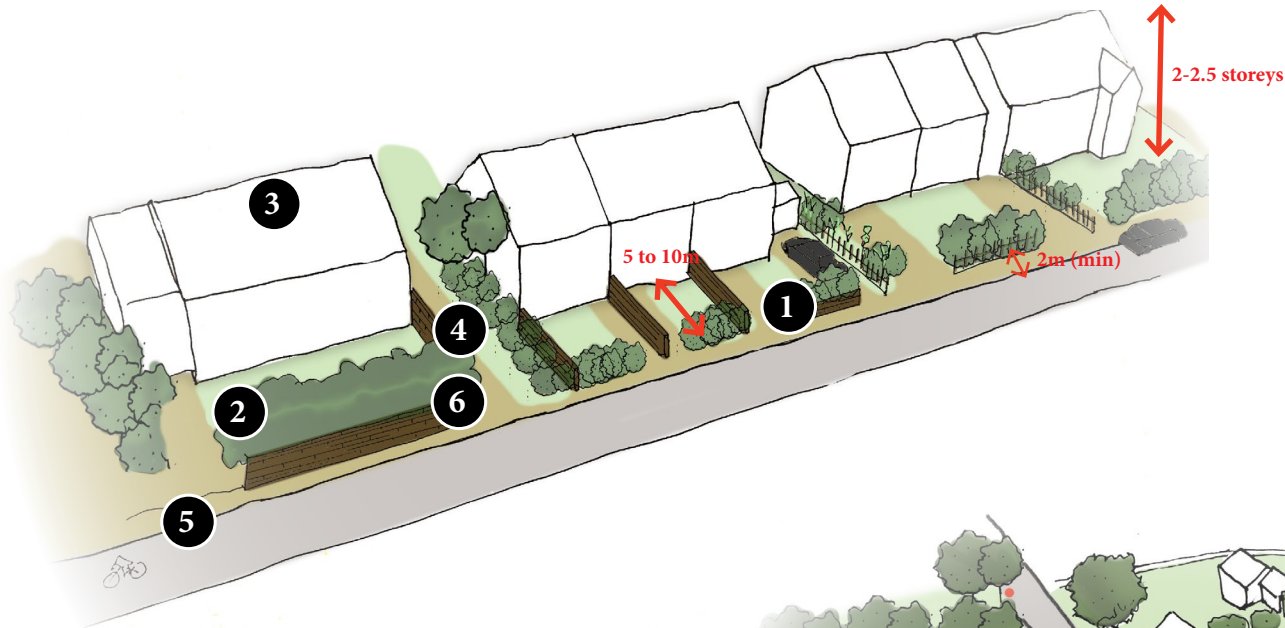
It is a general consensus that small scale and infill developments are encouraged, since they follow the scale and pattern of the existing grain and therefore, maintain the rural character of the parish. However, any proposed design for infill development should be appropriate and sensitive to the surrounding setting of the village or settlement and therefore, some design guidelines are needed and presented below:

- Small infill developments should complement the street scene into which they will be inserted. The new design needs to reflect the materials, scale, massing and layout of the surrounding properties. Thus, a good understanding of the character of the village, as analysed in [Section 2.3](#), is needed, before proposing any new design. [Figures 68 and 69](#) include some specific guidelines for some of the settlements in the parish;
- Natural boundary treatments are recommended to preserve the character along the streetscene and improve biodiversity;

- In case of cul-de-sacs, pedestrian and cycle links should be proposed to allow for permeability for the users and offer connections with existing footpaths and woodlands;
- Small infill developments need to be considered in relation to topography, views, vistas and landmarks. In particular, important views identified in [Figure 23](#) should not be blocked by any new development and boundary treatments should be dealt with in consistency with guidelines from [Code 3: Views, landmarks and heritage](#); and
- New building lines should be reasonably consistent along a street with existing buildings and offer subtle variations to enhance the rural context.



Figure 66: Positive example of a recent infill development (photo above) in a rural village elsewhere in UK that fits nicely into the local context (photo below) in terms of scale, massing, architectural styles and details.

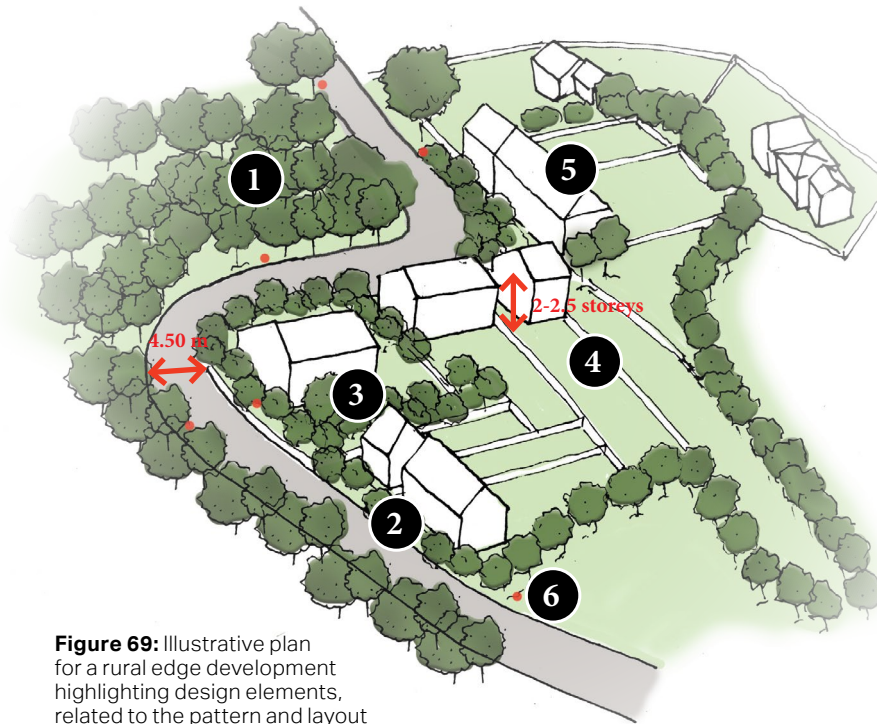


1. Linear format of development along main roads with well-sized front gardens (suggested range would be from 5 to 10m).
2. Front gardens decorated with vegetation.
3. Dwelling height maximum 2-2.5 storeys.
4. Integration of footpaths where possible.
5. Wider pavement (minimum 2m) along main roads to accommodate movement.
6. Low brick walls with vegetation to give a good visual impact to pedestrians and ensure a level of privacy for the owners. Panel fencing should be avoided.

Figure 68: Illustration to show a linear development highlighting design elements, related to the pattern and layout of buildings.



Figure 67: Positive example of an infill development within a rural village, elsewhere in UK, that respects the surrounding density and integrates physical boundary treatments to create a pleasant visual outcome and a green buffer with surrounding existing properties.



1. Green infrastructure should be protected and enhanced where appropriate.
2. Front gardens should be decorated with soft landscape elements and vegetation.
3. Properties should be separated with green buffers while long brick walls should be avoided.
4. Well-sized front and back gardens.
5. Variety of building typologies and roof pitches.
6. Appropriate signage indicating speed limits.

Figure 69: Illustrative plan for a rural edge development highlighting design elements, related to the pattern and layout of buildings.

DC.02 Built form

Code.11 Barn conversions and housing extensions

Hermitage village consists of the main village settlement and some residential properties scattered to the south-east of the parish. These remote properties were former farm buildings that are now converted to residential uses. These are positive examples of conversions within the parish in the sense that no change has been done to their historic fabric and thus, the buildings significantly contribute to the local vernacular of the village. Therefore design guidance is needed to ensure that any other future conversion or small infill in the vicinity respects the agricultural characteristics of the property and it does not undermine the original use of the farm building. Some design guidelines are:

- Features and general layout of the building setting that are characteristics of historic working buildings need to be retained and not filled in. For instance, loose courtyard arrangements of buildings, physical boundary treatments,

openings or wagon doors. New openings should generally be avoided and kept to a minimum when necessary;

- The use of domestic add-ons such as chimneys, porches, satellite dishes, domestic external lighting and hanging baskets need to be avoided;
- The use of weatherboarding or half weatherboarding and red brick for ground floor need to be preferred over any other material, since these were the only materials used for the farm buildings;
- Features such as dormer windows need to be avoided. If rooflights are used, they should be sited discreetly so as to not become a feature in the landscape;
- Courtyards should be surfaced in a material that reflects its rural setting. Farmyards should remain open and not be divided by fences or walls;
- Parking spaces should not be formally marked out; and
- Boundary brick walls should be left intact, and not chopped through or reduced for access or to create visual splays.

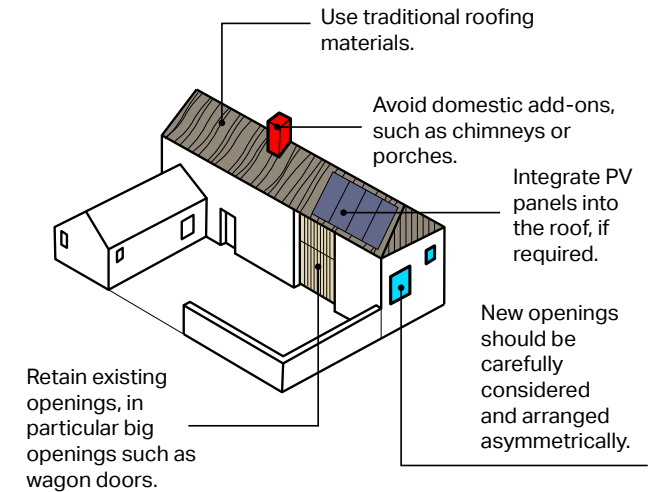


Figure 70: Diagram to illustrate some design principles for the conversion of agricultural buildings.



Figure 71: Local example of a barn that was converted into residential retaining the existing characteristics and materials of its former use.

DC.02 Built form

Extensions

Extensions to dwellings can have a significant impact not only on the character and appearance of the building, but also on the street scene within which it sits.

A well-designed extension should enhance the appearance of its street, whereas an unsympathetic extension can create problems for neighbouring residents and affect the overall character of the area. Therefore, some design guidelines on housing extensions are needed and presented below:

Side extensions

- Side extensions should not detract from the appearance of the building, its surroundings and the wider rural setting;
- Single-storey and double storey side extensions should be set back from the main building and complement the materials and detailing of the original building;

- Double storey rear extensions are becoming more common but they can 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.
- The roof of the extension should harmonise with that of the original building and flat roofs should be avoided; and
- Side windows should also be avoided unless it can be demonstrated that they would not result in overlooking of neighbouring properties.

Rear extensions

- The extension should be set below any first-floor window and designed to minimise any effects of neighbouring properties, such as blocking day light; and
- A flat roof is generally acceptable for a single storey rear extension.



Figure 72: Positive example of a side extension that respects the existing building in terms of scale and building materials. In particular, the use of weatherboarding positively reflects back to the typical appearance of barns and outbuildings, elsewhere in UK.

DC.02 Built form

Code.12 Materials and architectural details

Hermitage village has a wide variety of architectural styles and details that can act as references for new development. New developments should be respectful of architectural styles and use of materials of surrounding housing, whilst ensuring that a mix of styles are provided that is in keeping with the Hermitage palette. A list of photos showcasing some of the most characteristic materials used throughout the parish is presented on the next page, whilst more details on local vernacular can be found in [Section 2.3.](#)

Some design guidelines for new development are:

- Architectural design in new development shall reflect the high quality local design references in both the natural and built environment and make a valuable contribution to the rural character of the village;
- Regarding the natural environment, the number of trees and rich vegetation in the village contribute to its rural character and reinforce biodiversity. Therefore, any new development should make sure it proposes a similar level of greenery in the new design to create a consistent setting;
- Regarding the built environment, new development shall only use appropriate materials that contribute to the local vernacular. These materials may include timber framing, weatherboarding, white render, grey slate, red slate, red brick and buff coloured brick;
- New development can propose a combination of natural and hard boundaries to match the surrounding styles along the streetscape. In particular, there are stretches of brick walls bordering some properties in the village combined with either trees or long hedges and bushes;
- The choice of colour and finish of materials is an important design factor in reducing the impact of the buildings on the surrounding landscape. Generally very light colours, like white, cream or light grey, and large areas of intense strong colours do not blend well with the rural landscape. Thus, muted and darker tones could be a better option;
- The use of traditional, natural and preferably locally sourced materials is generally more appropriate than man-made synthetic, pre-coloured materials, as they lack the variation on colour and texture found in natural materials; and
- Use of materials on roofs that encourage moss growth is favoured and any chemical treatment to remove moss growth should be discouraged.

DC.02 Built form

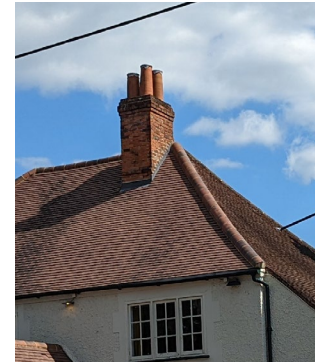


Figure 73: Local colour palette and colaz of good examples of local vernacular that should be used as reference in new development.

DC.03 Access and movement

Code.13 Accessible and attractive footpath network/ access to the countryside

There are a number of footpaths within the parish, mainly concentrated to the north, offering access to residential neighbourhoods and woodlands. However, these pedestrian/cycle links could be improved, whilst additional ones could be proposed to ensure safe and easy access to the surrounding countryside. Therefore, new developments should make sure that safe and suitable footpath networks are prioritised and maintained. Some design guidelines are:

- Where possible, newly developed areas must retain or provide direct and attractive footpaths between neighbouring streets. Establishing a robust pedestrian network across new developments and among new and existing development is key in achieving good levels of connectivity and promoting walking and cycling;

- Where possible, new proposed footpaths should link up green and blue spaces and woodlands to create a network of green walking routes and promote biodiversity. For example, footpath connections and other green links could connect new developments with surrounding woodlands like Roebuck Wood, Cuckoo Pits, States Hill Wood, Pheasant Hill Wood etc.;
- Design features such as gates or barriers to footpaths must be kept at a minimum and the latter must be avoided. New developments should encourage pedestrian connectivity between neighbourhoods and avoid creating fragmented communities;
- Strategically placed signposts can assist pedestrians and cyclists with orientation and increase awareness of publicly accessible paths in the parish. However, new signposts must respect the rural character of the parish and avoid creating visual clutter as described in [Code 8](#); and
- Footpath network needs to be in place before first occupation of houses on the sites.



Figure 75: Local footpath connects the Village Hall with the residential development in Pinewood Crescent offering immediate connections with the open space and play area north of the Village Hall.



Figure 76: Cul-de-sac street which, however, allows for pedestrian and cycle connections to the surrounding neighbourhoods and countryside, elsewhere in UK.

DC.03 Access and movement

Code.14 Prioritise walking and cycling

There is a limited network of cycle paths and footpaths in the parish, whilst there are examples of recent developments that are not well-connected and integrated with nearby neighbourhoods. It is a consensus that the existing footpath network needs to be improved to provide safe and easy access to the open countryside, whilst any new link should be designed to connect communities. Thus, some design guidelines for new development are:

- Varied links should be enabled and created to favour pedestrian and cycle movement. These routes should always be overlooked by properties to create natural surveillance and offer good sightlines and unrestricted views to make people feel safer;
- Cul-de-sac development patterns, where proposed, should be connected to footpaths to avoid blocking pedestrian and cycle flow;

- Design features such as barriers to vehicle movement, gates to new developments, or footpaths between high fences must be avoided; and
- All newly developed areas must provide direct and attractive footpaths between neighbouring streets and local facilities. Streets must be designed to prioritise the needs of pedestrians and cyclists.



Figure 77: Footpath integrated within residential development offering alternative walking and cycling routes to people, somewhere in UK.



Figure 78: Example of a green link (source: <https://www.sustrans.org.uk/our-blog/opinion/2020/august/how-does-the-uk-government-s-gear-change-relate-to-the-national-cycle-network>).



Figure 79: Example of footpath that connects the newly built neighbourhood with the surrounding countryside at the background. The materials used for the signposts respect the rural character of the village, elsewhere in UK.

DC.03 Access and movement

Code.15 People-friendly streets and green links

It is essential for Hermitage village that any new development includes streets that incorporate the needs of pedestrians, cyclists, and, if applicable, public transport users. Thus, some guidelines for future development are:

- Streets must meet the technical highways requirements, as well as being considered a 'place' to be used by all. It is essential that the design of new development includes streets that incorporate the needs of pedestrians, cyclists, and if applicable, public transport users;
- Although the prevailing parking typology is on-plot parking, it is important that where on-street parking is introduced, it does not impede the access for pedestrians and other vehicles (including

emergency vehicles) and it is well-vegetated;

- Within the development boundaries, streets should not be built to maximise vehicle speed or capacity. A range of traffic calming measures, like speed cushions and bumps, speed tables or raised pedestrian crossings could be introduced by design;
- Signage to indicate the speed limits is important to encourage courteous driving and therefore, create a safer environment for people to walk and cycle;
- New streets should have a gentle meandering character to promote a more informal setting, while also providing evolving views to the surrounding countryside;
- Routes should be laid out in a permeable pattern, allowing for multiple choices of routes, particularly on foot and bike. Any

cul-de-sacs should be relatively short and provide onward pedestrian links;

- Streets must respect the existing vegetation, while also incorporating new opportunities for landscaping, green infrastructure, and sustainable drainage; and
- Any new development should provide well-connected streets of varied character to filter traffic and speed. A legible street hierarchy should include primary, secondary, tertiary roads and edge lanes. The next pages present illustration examples of these street typologies.

DC.03 Access and movement

Residential street

- These streets have a strong residential character and provide direct access to residences from the main roads;
- The width of the carriageway should reflect the context of the street. For instance, it should be approximately 4.8m if it serves only a cluster of houses, whilst if it connects neighbourhoods or carries public transport traffic it should be approximately 5.5 m. On-street parking may be on-plot or accommodated on the street or inset into green verges;
- Carriageways should be designed to be shared between motor vehicles and cyclists. Vertical traffic calming features such as raised tables may be introduced; and
- Where possible, secondary streets should be tree-lined on both sides.
- Front gardens should be well-vegetated to create an attractive walking environment and reinforce rurality and biodiversity;

- In the case of on-plot parking, the parking space should be located to the side of the property to mitigate the impact of cars on the streetscape (subject to building typology); and
- Proposals for footpath and cycle routes within new developments are encouraged, and these should be linked to any existing footpath and cycle networks.

Cul-de-sac street

- Where cul-de-sacs are proposed they should have pedestrian paths that connect them to surrounding neighbourhoods and increase their connectivity, with careful consideration given to the landscape and lighting;
- It is generally advisable to back onto gardens of other properties to improve biodiversity and movement of species as well as to avoid a street dominated environment. Alternatively, a side dwelling typology is suggested when properties back onto the open countryside in order

to provide distant views to the open land from the street;

- Parking should be placed in well overlooked areas, however, it should not dominate the streetscape. A balance must be sought between achieving residential density and providing parking, for example by employing house types and sizes that generate less parking. In some instance, additional vehicles may also be stored remotely within a short distance from the homes that they serve in the form of small courtyards. Garages separated from dwellings are not generally acceptable.



Figure 80: Secondary street with inset parking bays alternating with street trees on both sides of the street, elsewhere in UK.

DC.03 Access and movement

Tertiary streets

- Tertiary streets have a strong residential character and they should be designed for low traffic volumes and low speeds, ideally 20 mph. These streets must be designed for cyclists to mix with motor vehicles. Traffic calming features such as raised tables can be used to prevent speeding;
- Tertiary streets should be formed with a high degree of built form enclosure, with consistent building lines and setbacks;
- and
- Street trees should be provided with suitable gaps wherever possible.



Figure 81: Tertiary street with inset parking bays alternating with trees on both sides, elsewhere in UK.

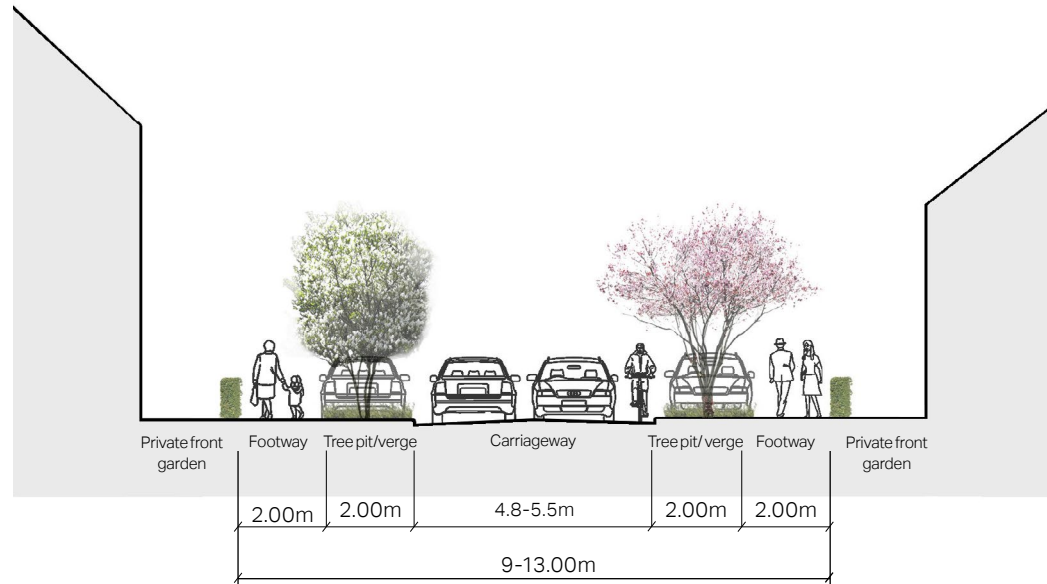


Figure 82: Cross-section to illustrate some guidelines for residential streets.

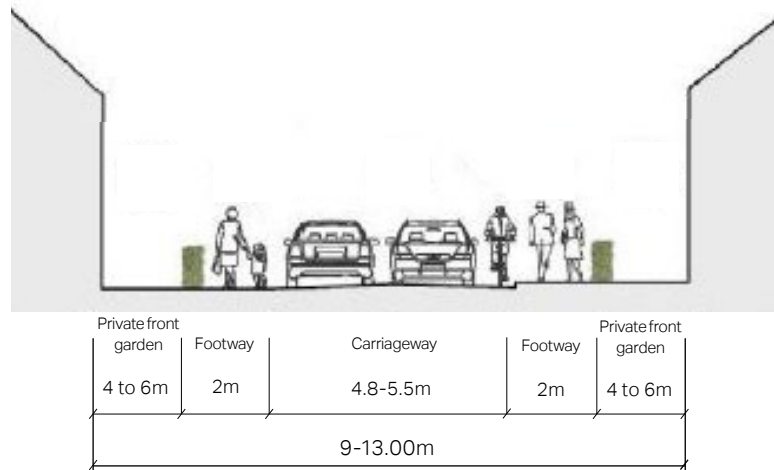


Figure 83: Cross-section to illustrate some guidelines for tertiary streets.

DC.03 Access and movement

Design principles:

1. Wide pavements to encourage pedestrian flow and street trees to provide shading and create a 'garden' neighbourhood feel.
2. On-plot side parking is suggested as the main parking typology in the area.
3. Front gardens with rich vegetation and planting are key contributors to the visual interest and quality of the streetscape.

4. Stagger opposing buildings along the street to increase variation and reduce monotony on the street.

5. Increased density in cul-de-sacs favours activity and prevents isolation of these areas. A balance must be achieved between density and parking provision; dwelling types and sizes that generate less parking are preferred.

6. When cul-de-sacs are proposed, there should be safe and overlooked connection with the footpath and cycling networks available in the area.

Typical residential street

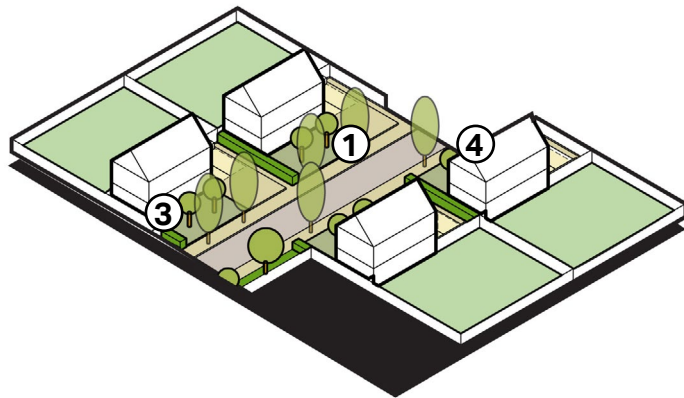


Figure 84: Design principles for a typical residential street.

Cul-de-sac street

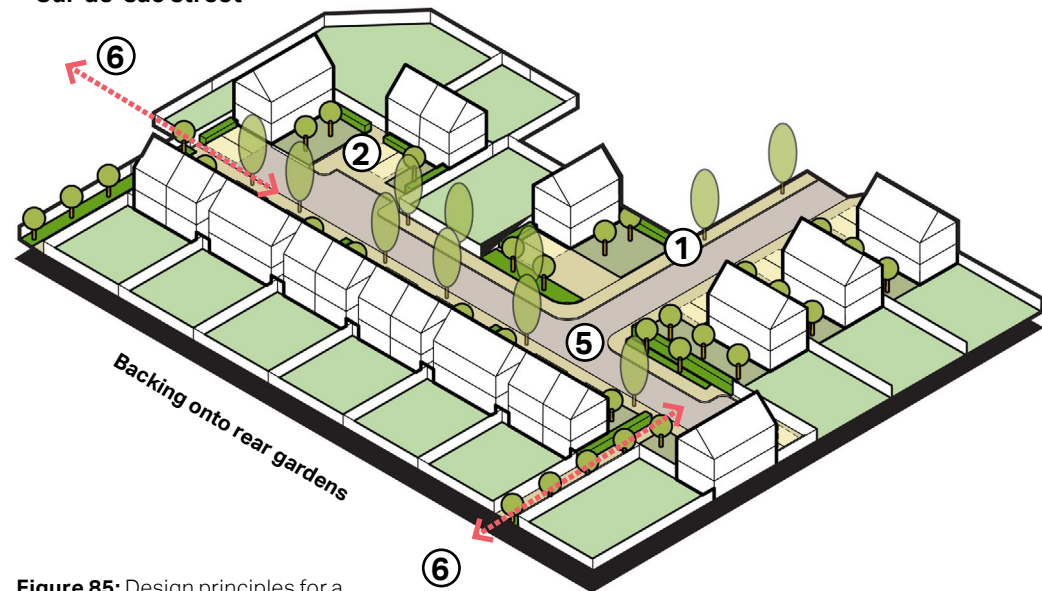


Figure 85: Design principles for a typical cul-de-sac street.

DC.03 Access and movement

Edge lanes

- All the edges of new development areas should be served by continuous edge lanes to provide high level of connectivity;
- Edge lanes are low-speed streets that front houses with gardens on one side and a green space on the other. Carriageways typically consist of a single lane of traffic in either direction, and are shared with cyclists; and
- Variations in paving materials and textures can be used instead of kerbs or road markings.



Figure 86: Cross-section to illustrate some dimensions for edge lanes.

Green links

- Green links should be located within minimum 7.5m wide corridor adjacent to retained green assets;
- Shared or segregated footpath and cycleway to be provided within corridor;
- Footpath and cycleway to be hard surfaced and constructed of bound material which may also combine with vehicle access;
- Combined width of unsegregated footpath and cycleway to be a minimum of 3.0m; and
- Where required, SUDs features to be incorporated into corridor beside the surface of shared footpath and cycleway.

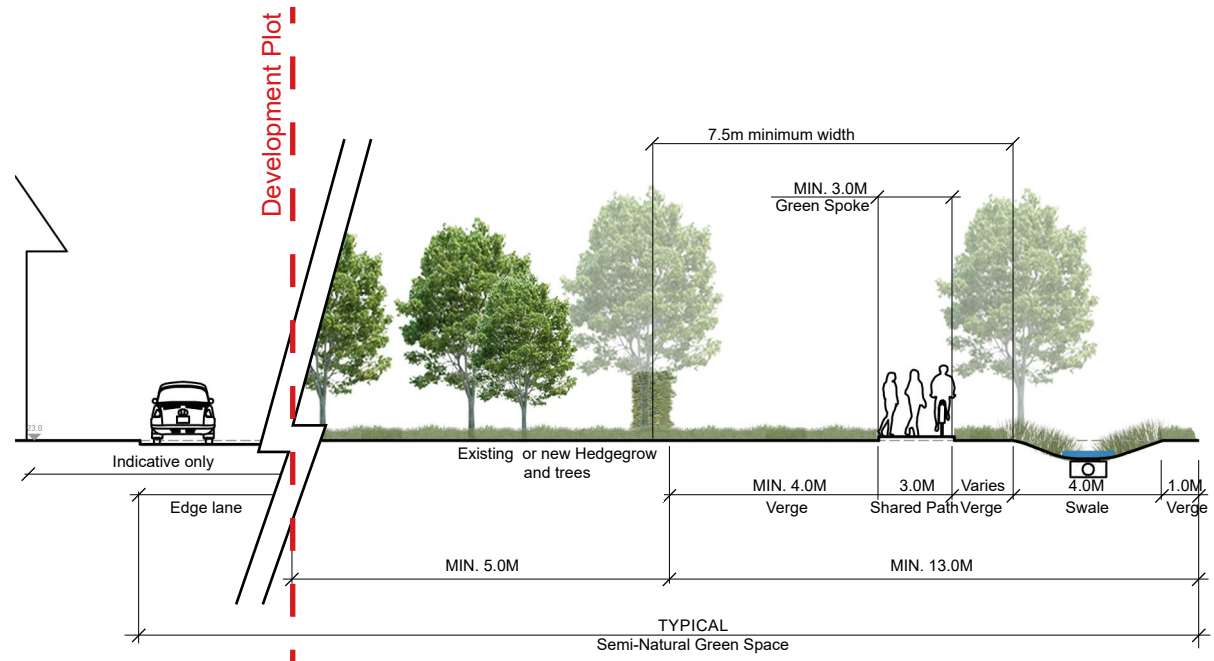


Figure 87: Section to illustrate some dimensions for green links.

DC.03 Access and movement

Design principles:

1. Provide interest to edges with gently meandering streets and lanes.
2. Provide landscaped buffering to the street with appropriate planting.
3. Connect to pathways and public rights of way.



Figure 88: Positive example of a meandering edge lane where properties with well vegetated front gardens overlook the adjacent open space, Newquay.

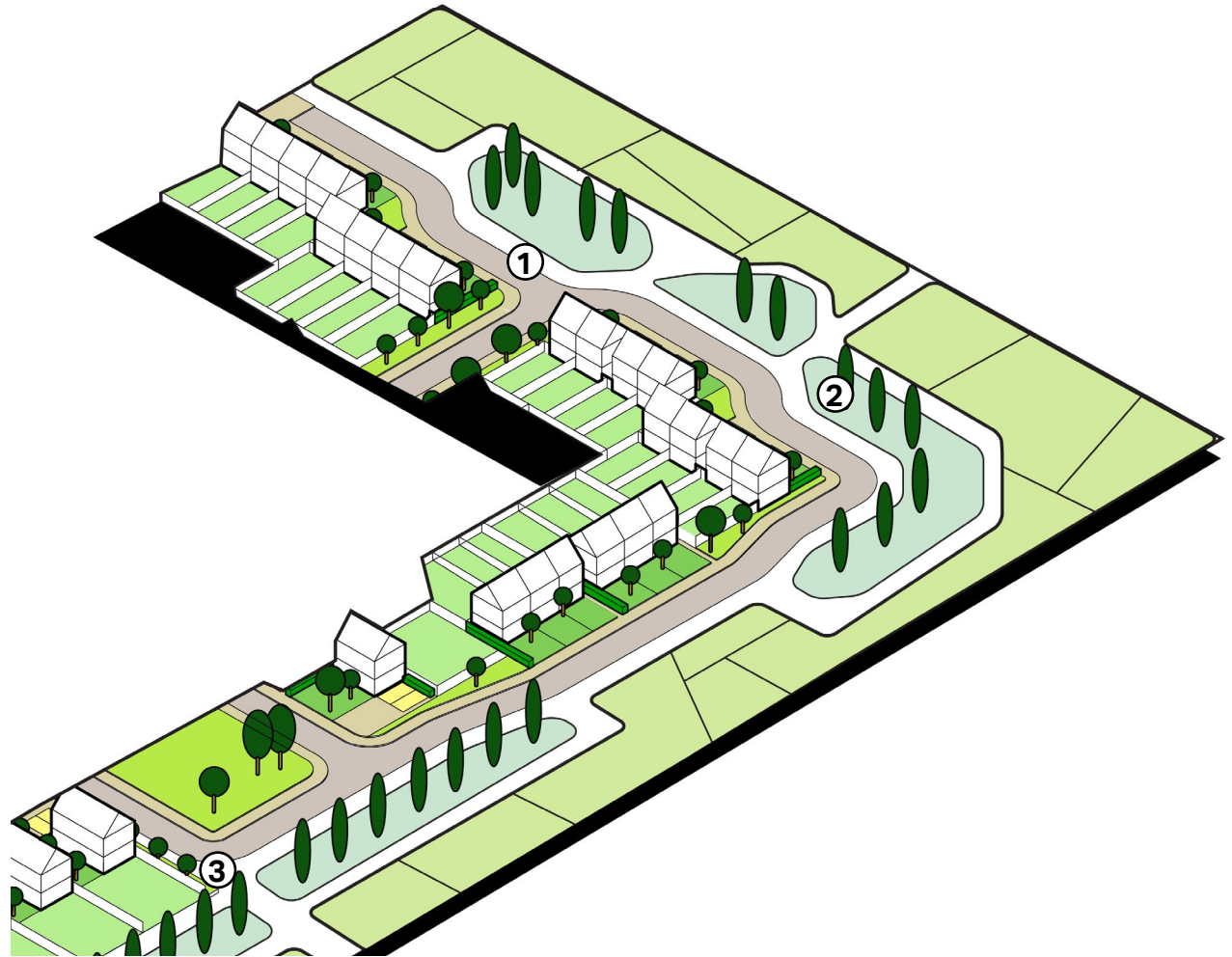


Figure 89: Design principles for a typical edge lane.

DC.03 Access and movement

Code.16 Street lighting

Hermitage parish has a strong rural character and thus, dark skies is another key characteristics that residents are keen to protect and maintain. It is important for new development to minimise any potential impact on street lighting or house lighting to the natural habitat and light pollution. The following guidelines aim to ensure there is enough consideration given at the design stage of new developments:

- Lighting schemes in residential areas are important to encourage courteous driving and thus, make people feel safer to walk or cycle along the rural lanes. However, lighting schemes should make sure they do not cause unacceptable levels of light pollution particularly in intrinsically dark areas. Dark at night is defined as more than 50m from an existing street light;
- New development should consider lighting schemes that could be turned off when not needed ('part-night lighting') to reduce any potential adverse effects;
- New development should choose lighting that is energy-efficient and

sustainable. For instance, the installation of motion sensors on the lights should be encouraged;

- Lighting schemes should be directed downward to avoid reducing dark skies or disturb neighbours or passers-by.
- Foot/cycle path light should be in harmony with surrounding rural landscape. Lighting such as solar cat's-eye lighting, reflective paint and ground-based lighting could be introduced; and
- New developments and house extensions designs should be encouraged to use natural light sources.



Figure 90: Example of a foot/cycle path which is lit by solar cat's-eye providing some light for pedestrian and cyclists without creating any disturbance to the nearby properties or unacceptable levels of light pollution.

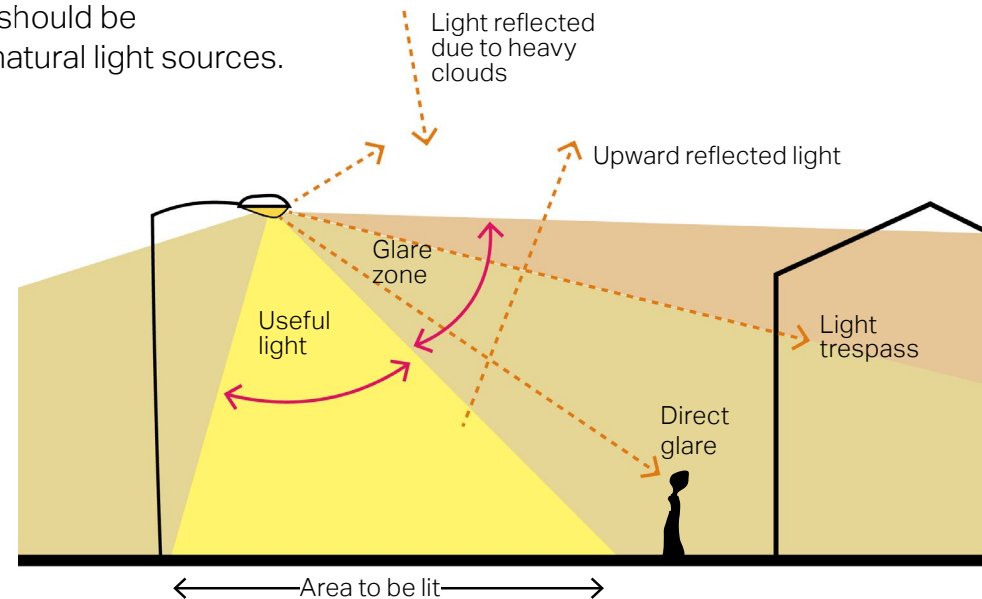


Figure 91: Diagram to illustrate the different components of light pollution and what 'good' lighting means.

DC.03 Access and movement

Code.17 Vehicular and cycle parking and servicing

Although the aim to create a good network of walking and cycling routes within Hermitage parish is a priority, the demand for private cars still remains high. Therefore car parking has to be carefully integrated into the design of developments. In addition, energy efficiency is also an important consideration and the need for more electric cars is rising.

The dominant car parking typology found in the parish is on-plot parking; however, there are also cases of on-plot garage parking, on-street parking and parking courts. Therefore, the design guidelines on the next pages will focus on the typologies mentioned above.

Guidelines for on-plot or on front car parking

- Parking should be well integrated into design so as not to dominate the public realm;
- High-quality and well-designed soft landscaping, hedges, hedgerows, and trees, should be used to increase the visual attractiveness of the parking and enhance the rural character of the parish;
- Hard standing and driveways must be constructed from porous materials, to minimise surface water run-off and therefore, help mitigate potential flooding; and
- In terms of electric vehicles charging points, mounted charging points and associated services should be integrated into the design of new developments, if possible with each house that provides off-street parking and pre installed charging points. Whilst cluttering elevations, especially main façades and front elevations, should be avoided.

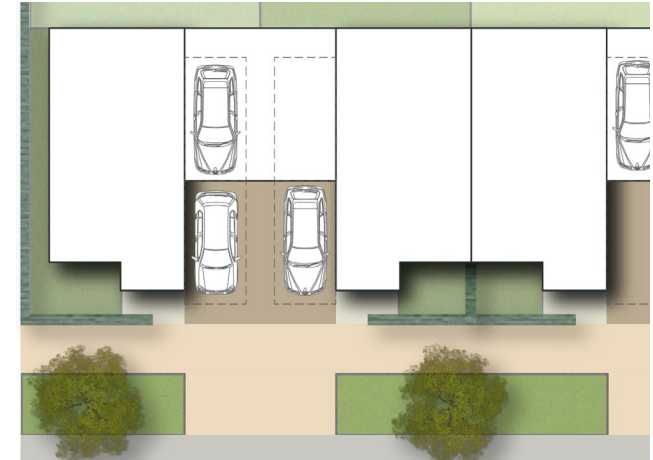


Figure 92: Illustrative diagram showing an indicative layout of on-plot side parking.



Figure 93: Example of a well-vegetated on-plot front parking that improves the aesthetics of the surrounding environment and enhances the rural character of the village, elsewhere in UK.

DC.03 Access and movement

Guidelines for on-street car parking

- The streetscape should not be dominated by continuous on-street parking spaces. Where possible, tree planting and grass areas can be incorporated between parking bays to improve aesthetics;
- On-street parking must be designed to avoid impeding the flow of pedestrians, cyclists and other vehicles;
- On-street parking should be widened to allow each bay to be able to charge electric vehicles;
- Car charging points should always be provided adjacent to public open spaces. Street trees and vegetation are also supported to minimise any visual contact with the charging points;
- Where charging points are located on the footpath, a clear footway width of 1.5m is required next to the charging point to avoid obstructing pedestrian flow; and

- Car charging points within parking courts are highly supported, since they can serve more than one vehicle.

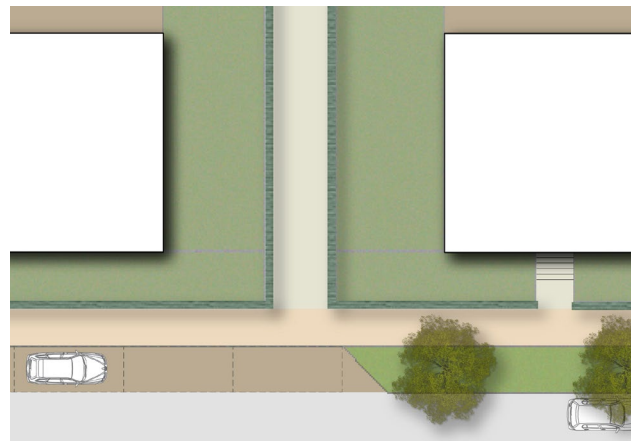


Figure 94: Illustrative diagram showing an indicative layout of on-street inset parking.



Figure 95: Example of on-street parking with parking bays and street trees to mitigate the impact of the cars on the streetscape, Poundbury.



Figure 96: Example of on-street electric vehicle charging points.

DC.03 Access and movement

Guidelines for parking courts

- Parking courts are acceptable for small building clusters and permeable paving should be used where possible;
- Parking courts must be overlooked by properties to increase natural surveillance; and
- Planting and vegetation should be integrated into design to soften the presence of cars and preserve the rural character of the area.



Figure 97: A courtyard with informal perpendicular and garage parking elsewhere in UK.

Guidelines for garages

- Garages must not dominate the appearance of dwellings and must not reduce the amount of active frontage to the street; and
- Garages should provide minimum 3m x 7m internal space to park a car and provide space for storage to avoid the garage to be used for storage purposes only.

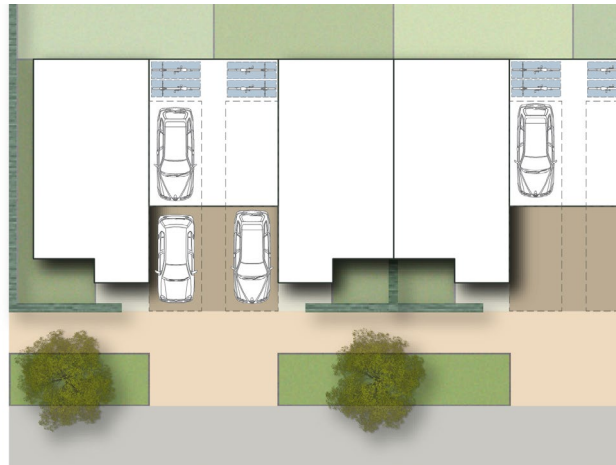


Figure 98: Illustrative diagram showing an indicative layout of on-plot garage.



Figure 99: Example of an on-plot garage parking within a rural environment which is 'hidden' behind the rich vegetation along the building frontage mitigating any visual impact, elsewhere in UK.

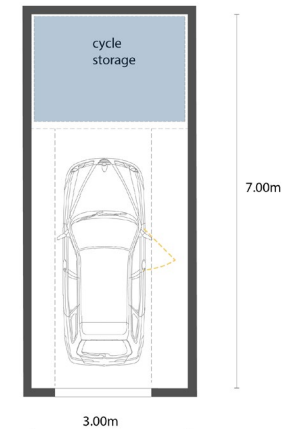


Figure 100: Indicative layout of a garage with a cycle storage area.

DC.03 Access and movement

Cycle parking

Houses without garages

- For residential units, where there is no on-plot garage, covered and secured cycle parking should be provided within the domestic curtilage;
- Cycle storage must be provided at a convenient location with an easy access;
- When provided within the footprint of the dwelling or as a free standing shed, cycle parking should be accessed by means of a door at least 900mm wide and the structure should be at least 2m deep; and
- The use of planting and smaller trees alongside cycle parking can be used.

Houses with garages

- The minimum garage size should be 7m x 3m to allow space for cycle storage;
- Where possible, cycle parking should be accessed from the front of the building either in a specially constructed enclosure or easily accessible garage;
- The design of any enclosure should integrate well with the surroundings; and
- Bicycles must be easily removable without having to move the vehicle.



Figure 101: Example of cycle parking storage that fits sensitively within a rural environment, elsewhere in UK.

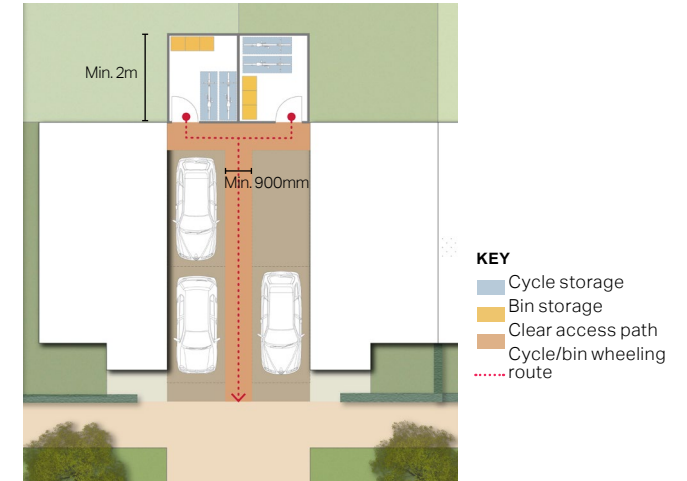


Figure 102: Indicative layout of a bicycle and bin storage area at the back of semi-detached properties.

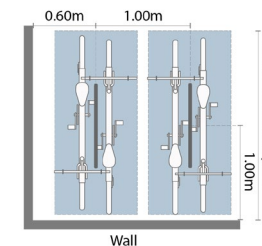


Figure 103: Sheffield cycle stands for visitors and cycle parking illustration.

DC.03 Access and movement

Servicing

With modern requirements for waste separation and recycling, the number and size of household bins has increased, posing a problem with the aesthetics of the property and the management of the bins. Therefore, new development should cater for integrating waste storage whilst retaining the rural context of the village. Some guidelines for new development are:

- When dealing with waste storage, servicing arrangements and site conditions should be taken into account. In some cases waste management should be from the front of the building and in others, from the rear. It is recommended that bins are located away from areas used as amenity space;
- A specific enclosure of sufficient size should be created for all the necessary bins;
- Bins should be placed within easy access from the street and, where possible, with the ability to open on the pavement side to ease retrieval;

- Bins should be placed as close to the dwelling's boundary and the public highway, such as against a wall, fence, hedge but not in a way as to obstruct the shared surface for pedestrian and vehicle movements;
- Soft surfaces could be added on or around the bins, not only to improve the aesthetics of the front garden, but also to enhance biodiversity; and
- Wheelie bin storages are recommended to improve the aesthetics of the environment.



Figure 104: Example of a 'chameleon' bin which, due to the chosen pattern successfully hides itself within the surrounding vegetation.



Figure 105: Example of bin storage surrounded by flowers and plants improving the surroundings and enhancing biodiversity.



Figure 106: Local example where the bins are stored under the shed, whilst the side wall is decorated with flowers and plants to improve the environment. This arrangement combined with the particular permeable paving contributes to the rural feel of the village.

DC.03 Access and movement

Utilities

Utilities, like servicing, is a necessary part in the operation of public and domestic environments. Poor planning of utilities could hinder the overall quality of the urban environment and create unattractive new development schemes. Some guidelines related to utilities in new development are:

- Design shared common trenches for service and drainage runs to minimise disturbance to buildings and reserve space for pipeworks and drainage under the verges and service strips;
- Where existing pavements are excavated, they should be reinstated with matching materials to ensure coherent surfacing;
- Avoid any damage to the root system of retained trees. Service runs should not be located within the tree root spreads or new tree planting corridors;
- Use sympathetic materials to the surrounding paved areas for manhole covers and that they fit with the surface material used. Ease of maintenance should be a priority;
- Integrate substations and other service kiosks into the design of new developments from the start;
- The location and design of services on a building must be considered carefully and every effort should be made to locate these items as unobtrusively as possible;
- Pipework should be grouped together and run internally wherever practical. Chimneys can be used to disguise gas flues where they do not serve as a working fireplace; and
- Meter boxes should be designed into a scheme from the outset to avoid cluttering the elevations. They should be on the end rather than front elevations where possible and be in a colour that blends in with the surrounding wall. External meter boxes can be avoided through the use of smart meters.

DC.03 Access and movement

Poorly located meter boxes, their presence clutters front elevations.



Porches / recessed entries can conceal the presence of meter boxes



Positive example of drainage channel as demarcation of thresholds of water run-off from and to dwellings



Use clean lines and sympathetic colours for gutters and downpipes



DC.04 Sustainable design and environment

Code.18 Create a green network

A well connected green network should be created throughout the new developments to preserve the rural feel of Hermitage village and provide links to the countryside for people as well as habitats. Opportunities should be sought to introduce green assets into design and contribute to biodiversity. Some design guidelines on green networks are:

- Biodiversity and woodlands should be protected and enhanced where possible. For example, the preservation of Oare Common, Roebuck Wood and States Hill Wood could benefit the natural environment, whilst acting as a natural screening offering a gradual transition into the rural countryside;
- New development should ensure that small and isolated woodlands in the parish are linked to larger green areas nearby via footpaths or tree-lined lanes to protect connectivity of habitats and biodiversity. These areas could also be integrated into the new design from the outset of the project;

- New development should propose green links to enhance the pedestrian and cycle movement within the village connecting the new and existing residential neighbourhoods between them and with the surrounding open space and countryside, as shown in [Figure 108](#);
- Green networks should link existing and newly proposed street trees, green verges, front and rear gardens, open spaces, habitat sites and the countryside together;
- New development should front onto green assets and access should be granted for all groups of people;
- SuDS should be introduced, where possible, and incorporated into design of the green network to mitigate any flooding issue; and

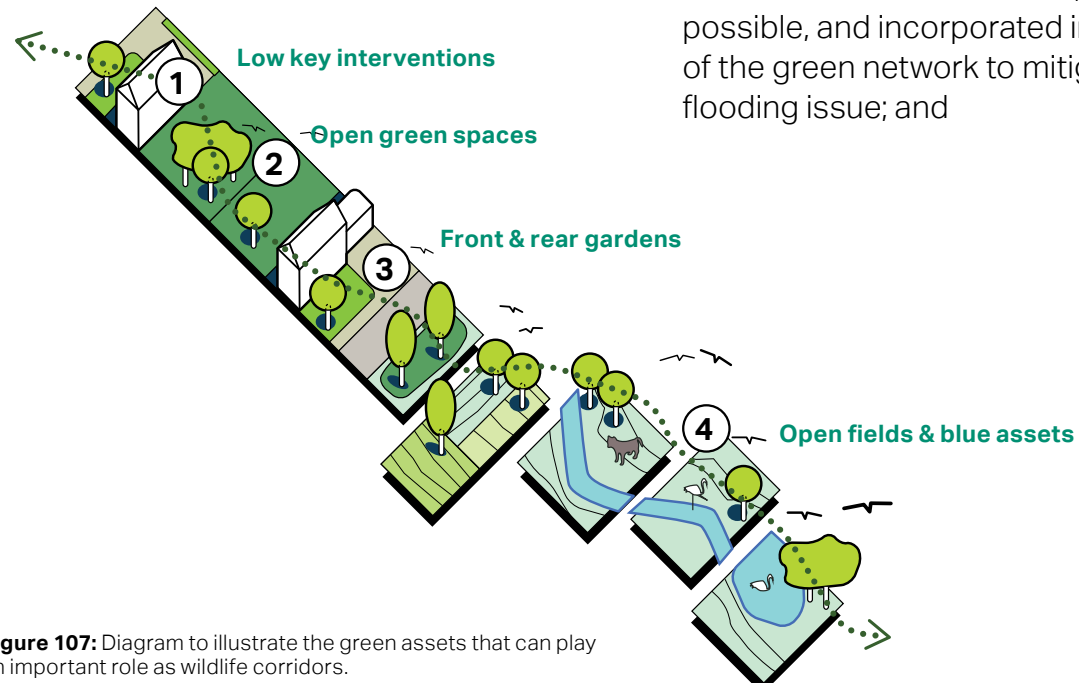


Figure 107: Diagram to illustrate the green assets that can play an important role as wildlife corridors.

DC.04 Sustainable design and environment

- Green fingers¹ could encourage walking and cycling over driving. However, since car users still represent a major group in the area, car parking should be well incorporated, e.g. parking bays with green verges and street trees, into the public realm to minimise the presence of cars. For further information about car parking please see the principles that are listed in Building for a Healthy Life and Manual for Streets documents in pages 8 and 9.

¹ Green fingers are routes, often tree-lined, that prioritise pedestrians and cyclists over cars, or are car-free. They provide connections to green and recreational spaces in an urban area.



Figure 109: An example of a SuDS corridor - Upton Urban Extension, Northampton.

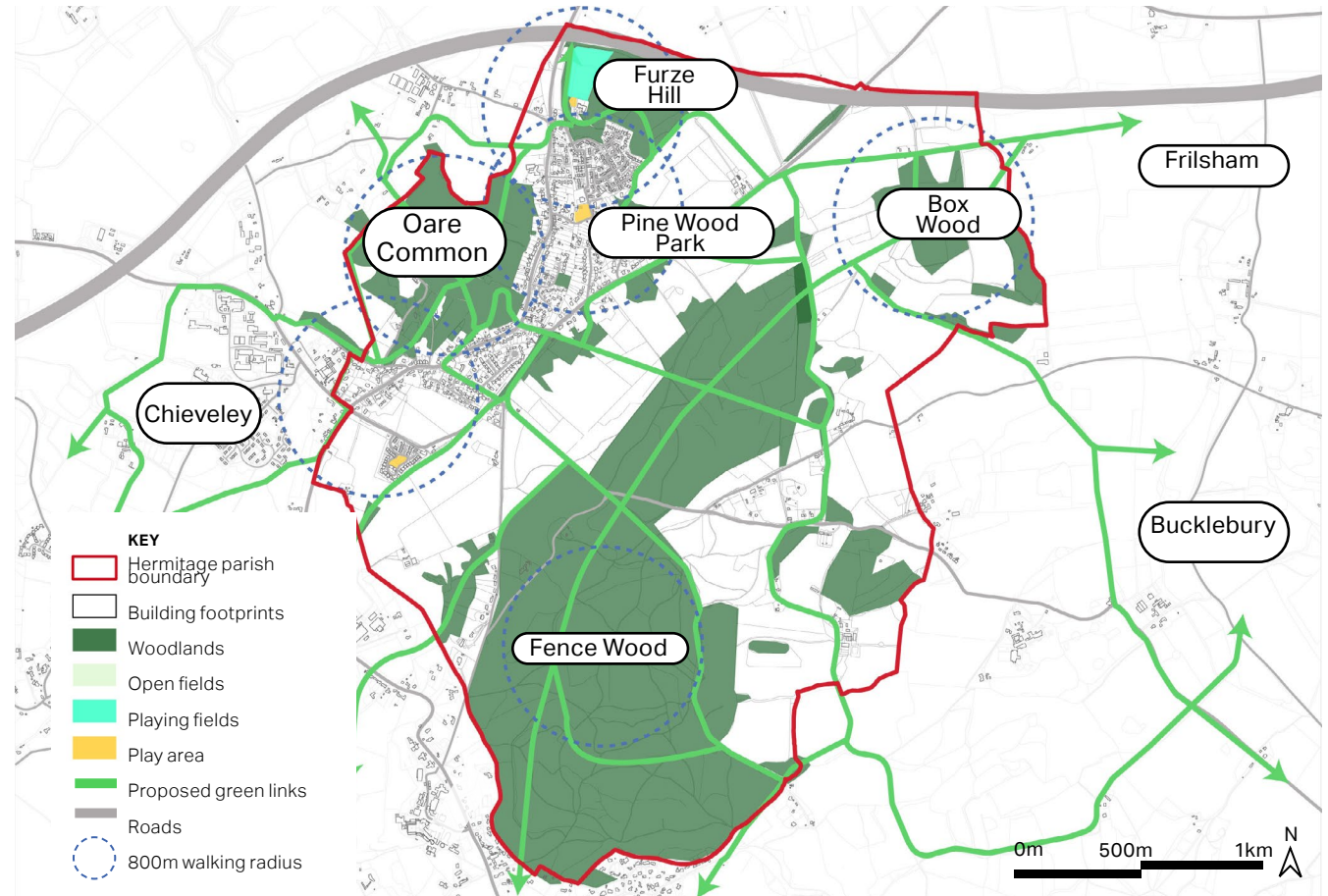


Figure 108: Opportunities for new or improved green links around the parish aiming to encourage walking and cycling between the settlements and the surrounding woodlands and villages within the AONB. The circles indicate an 800m distance (approx. 10min walk).

DC.04 Sustainable design and environment

Code.19 Biodiversity

Under the wider backdrop of climate change and global warming, protection of biodiversity is becoming an important priority and should start at the local level. It is in the interest of new developments in Hermitage parish to prioritise its enhancement through design. Some design guidelines are:

- New development should protect and enhance the existing habitats and wildlife corridors. In particular, new development should help increase movement between isolated wildlife populations and provide escape cover from predators and shelter during bad weather;
- New development should propose green links, as shown in [Figure 107](#), to help link up formal and informal green spaces;
- Biodiversity, woodlands, hedgerows, ditches should be protected and enhanced where possible and be an integrated part of the design process rather than an afterthought;
- New development proposals should aim for the creation of new habitats and wildlife corridors, e.g. by aligning back and front gardens, adding pollinator gardens or installing bird boxes, bug hotels, bat boxes or hedgehog houses;
- Gardens and boundary treatments should be designed to allow the movement of wildlife and provide habitat for local species. For that reason, rich vegetation and plantation is suggested. The large gardens within the parish give access to substantial areas of private green space with much wildlife evidenced including hedgehogs, snakes, badgers and birdlife;
- Blue assets can also contribute to biodiversity connectivity. Therefore, the existing ditches and streams should be considered in design proposals when planning for wildlife corridors;
- All areas of biodiversity that require further planting/ enhancement should be planted before the start of construction; and
- The choice of plants in new development should be appropriate to the setting of the proposal and Hermitage's setting within the AONB and proximity to areas of ancient woodland.

DC.04 Sustainable design and environment



Figure 110: Example of a structure used as a frog habitat corridor located in an outdoor green space.



Figure 111: Example of a bug hotel that could be placed in the front or rear garden of a property.



Figure 112: Example of a bat box placed in the front or rear garden of a property.



Figure 113: Example of a birdhouse located on a grass area opposite a public footpath.



Figure 114: Example of a pollinator garden that could be placed in a communal green space within the built environment.



Figure 115: An example of a Hedgehog tunnel within a garden fence.

DC.04 Sustainable design and environment

Code.20 Water management

Sustainable drainage solutions (SuDS)

There is not a great risk of flooding within Hermitage parish, however some water management techniques could be implemented to offer improvements to the surface water drainage. Therefore, the introduction of some sustainable drainage systems, known as SuDS, would be beneficial for the village.

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. However, a number of overarching principles that could be applied in new development are:

- Manage surface water as close to where it originates as possible;
- Reduce runoff rates by facilitating infiltration into the ground or by providing attenuation that stores water to help slow its flow down, so that it does not overwhelm water courses or the sewer network;

- Improve water quality by filtering pollutants to help avoid environmental contamination;
- Integrate into development and improve amenity through early consideration in the development process and good design practices;
- SuDS are often also 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;
- Some of the most effective SuDS are vegetated, using natural processes to slow and clean the water, whilst increasing the biodiversity value of the area;
- Best practice SuDS schemes link the water cycle to make the most efficient use of water resources by reusing surface water; and
- SuDS should be designed sensitively to augment the landscape and provide biodiversity and amenity benefits.



Figure 116: Example of swales check dam integrated with a crossing point, somewhere in UK.



Figure 117: Example of SuD designed as a public amenity and fully integrated into the design of the public realm, Stockholm.

DC.04 Sustainable design and environment

Storage and slow release

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

Simple storage solutions, such as water butts, can help provide significant attenuation. However, other solutions can also include underground tanks or alternatively overground gravity fed rainwater systems that can have multiple application areas like toilets, washing, irrigation. In general, some design guidelines to well integrate water storage systems are:

- Consider any solution prior to design to appropriately integrate them into the vision;
- Conceal tanks by cladding them in complementary materials;
- Use attractive materials or finishing for pipes; and
- Combine landscape/planters with water capture systems.



Figure 118: Examples of water butts used for rainwater harvesting in Reach, Cambridgeshire.



Figure 119: Example of a gravity fed rainwater system for flushing a downstairs toilet or for irrigation.

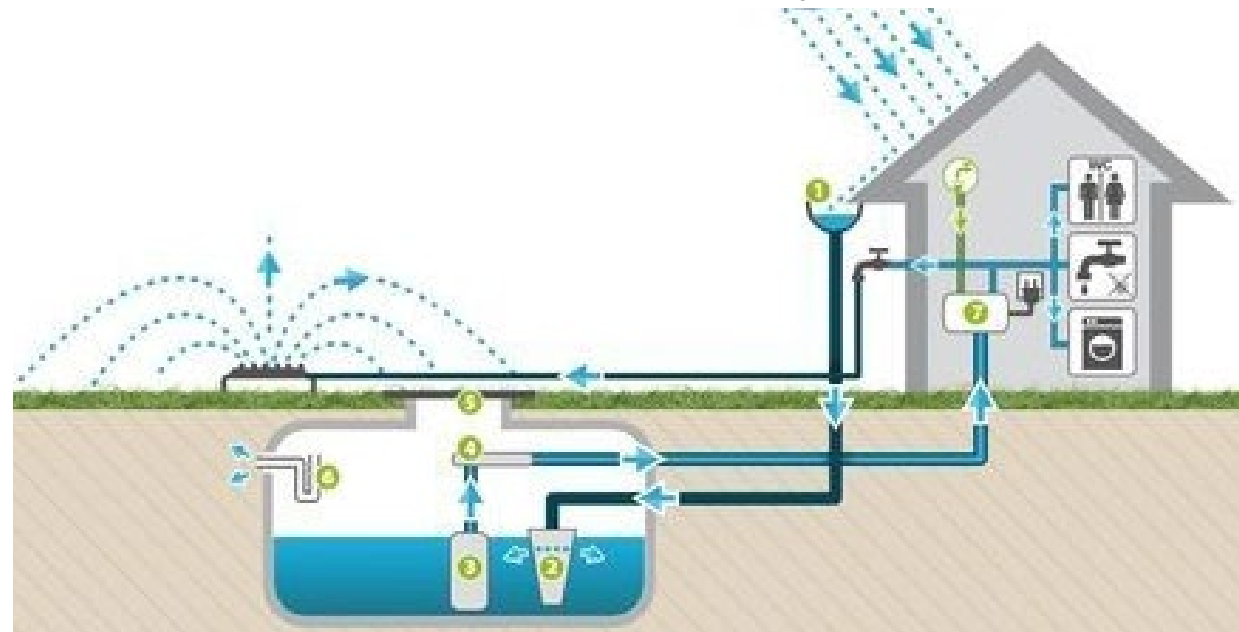


Figure 120: Diagram illustrating rainwater harvesting systems that could be integrated into open space and residential developments.

DC.04 Sustainable design and environment

Permeable paving

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 paving offers a solution to maintain soil permeability while performing the function of conventional paving. Therefore, some design guidelines for new development are:

- 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; and
- Permeable paving can be used where appropriate on footpaths, private access roads, driveways, car parking spaces (including on-street parking) and private areas within the individual development boundaries.

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

- Sustainable Drainage Systems - non-statutory technical standards for sustainable drainage systems¹.
- The SuDS Manual (C753)².
- Guidance on the Permeable Surfacing of Front Gardens³.

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. 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

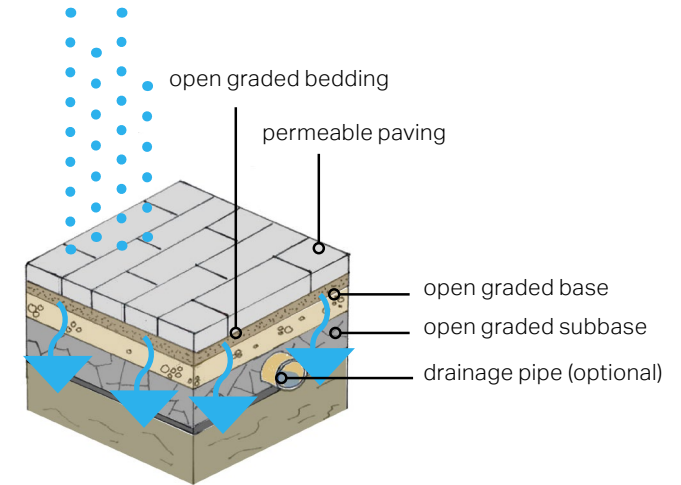


Figure 121: Diagram illustrating the function of a soak away.



Figure 122: Example of a permeable paving that could be used for driveways.

DC.04 Sustainable design and environment

Code.21 Trees

Street planting helps maintain visual consistency along the public realm, whilst it offers other benefits like better mental health and well-being by reducing stress, lessening heat islands, and providing protection from natural elements such as wind and rain. In addition to this, the trees help preserve and maintain the rural context of the area and they therefore, should be retained and enhanced in new development. Some guidelines for new development are:

- New development should aim to preserve existing mature trees, hedgerows and hedges by incorporating them in the new landscape design;
- To ensure resilience and increase visual interest, a variety of native tree species is preferred over a single one;
- Flower beds, bushes and shrubs are welcomed in new developments, since they contribute to the livelihood of the streetscape and create visual interest and colour to their surroundings;

- Hedgerows can be planted in front of bare boundary walls to ease their visual presence or they can be used to serve as landscape buffers for on-plot car parking and driveways within curtilages;
- Native trees can normally be used to mark reference points and signify edges of development;
- Native trees and shrubs (such as Beech, Blackthorn and Hawthorn) should also be present in any public open space, green or play area to generate environmental and wildlife benefits; and
- The success of tree planting is more likely to be achieved when it has been carefully planned to work in conjunction with all parts of the new development, parking, buildings etc.



Figure 123: View to the Village Hall illustrating how rich the existing vegetation is within the parish.



Figure 124: Rich vegetation, large trees, hedges and bushes border the properties and reinforce the rural feel of the village.

DC.04 Sustainable design and environment

Code.22 Open spaces

Open spaces could play a vital role in creating a positive environment in the rural character of an area like Hermitage. These are places that could also encourage communities to gather and engage - creating lively, harmonious and diverse neighbourhoods, for example the play area north of the village hall, Pinewood Park or Hermitage Green. Thus, new development should prioritise the design of open spaces and some key design guidelines are:

- The location of new open spaces within new development should be decided based on the location of the existing ones considering the needs of the existing population too;
- Landscape should not be used as a divisive measure between new and existing development. However, green buffer zones between older and new development are acceptable to mitigate any unpleasant visual impact. This can be achieved by procuring a landscape consultant early on in the design process;

- All recreational spaces should be designed to link up with each other and also link up with existing adjoining sites taking particular note of enhancing green fingers, so that habitat links and wildlife corridors are created to enhance biodiversity across Hermitage;
- Surrounding buildings should overlook play areas and public spaces to encourage movement and natural surveillance;
- Open spaces should be equipped with good quality street furniture to create pleasant seating areas, shaded spaces avoiding hidden spots; and
- The materials and style of any street furniture in the open spaces should be consistent throughout the parish and aim to proudly represent the local character.



Figure 125: Local example of the play area next to the Village Hall., which is surrounded by rich vegetation and nature.



Figure 126: Properties overlooking a public open space which is equipped with grass areas, large green trees and street furniture, elsewhere in UK.

DC.04 Sustainable design and environment

Code.23 Sustainable design

Hermitage parish Neighbourhood Plan is aspired to have a positive impact on the environment and thus, any future development should aim to be eco-friendly.

The codes below, 23-27, offer some design guidelines on sustainable development regarding the built environment. However, previous Codes 18-22 also make a significant contribution to the environment and therefore, to an ecological sustainability.

Buildings contribute almost half (46%) of carbon dioxide (CO₂) emissions in the UK. The government has set rigorous targets for the reduction of CO₂ emissions and minimising fossil fuel energy use.

There is a good number of energy efficient technologies that should be incorporated in buildings. The use of such principles and design tools is strongly encouraged to future-proof buildings and avoid the necessity of retrofitting.

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

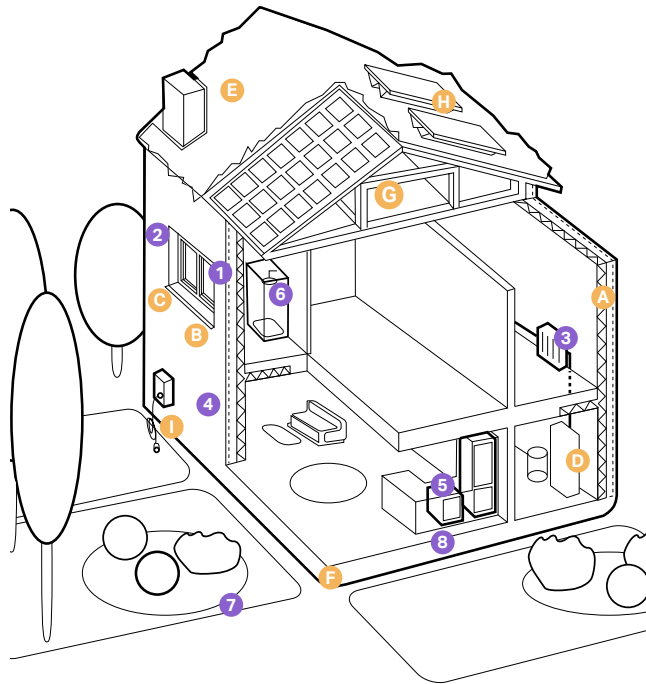
F.127 features an array of sustainable design features. Those on the top show the features that should be strongly encouraged in existing homes, while those on the bottom show additional features that new build homes are encouraged to incorporate from the onset.

The fastest route to building a functional, supportive, neighbourly community is to build homes that people can and want to live in for most of their lives instead of having to move every time domestic circumstances change.









'Lifetime' homes means designing in the flexibility and adaptability needed to allow for easy incorporation of wheelchair accessibility, addition/removal of internal

walls, and ease of extension - both vertically and horizontally. This is particularly important for older people and people with disabilities, or expanding/contracting families who may be dependent on nearby friends and family for emotional and physical support.

DC.04 Sustainable design and environment



Existing homes

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

Additional features for new build homes










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

Figure 127: Diagram showing low-carbon homes in both existing and new build conditions.

DC.04 Sustainable design and environment

Building fabric and orientation

Thermal mass

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

Insulation

- New development should provide thermal insulation to any wall or roof to the exterior to prevent heat losses. Pay particular attention to heat bridges around corners and openings in the design stage.
- New development should provide acoustic insulation to prevent the transmission of sound between active (i.e: living room) and passive spaces (i.e: bedroom).
- New development should provide fire

insulation and electrical insulation to prevent the passage of fire between spaces or components and to contain and separate electrical conductors.

Air tightness

Airtight constructions help reduce heat loss, improving comfort and protecting the building fabric. Some guidelines for new development are:

- Form an airtightness layer in the floor, walls and roof.
- Seal the doors, windows and rooflights (if applicable) to the adjacent walls or roof.
- Link the interfaces between walls and floor and between walls and roof.
- Seal penetrations through the air barrier. Consider waste pipes and soil pipes, ventilation ducts, incoming water, gas, oil, electricity, data and district heating, chimneys and flues, including air supplies to wood burning stoves or similar, connections to external services, such as entry phones, outside lights, external taps and sockets, security cameras, satellite dishes.

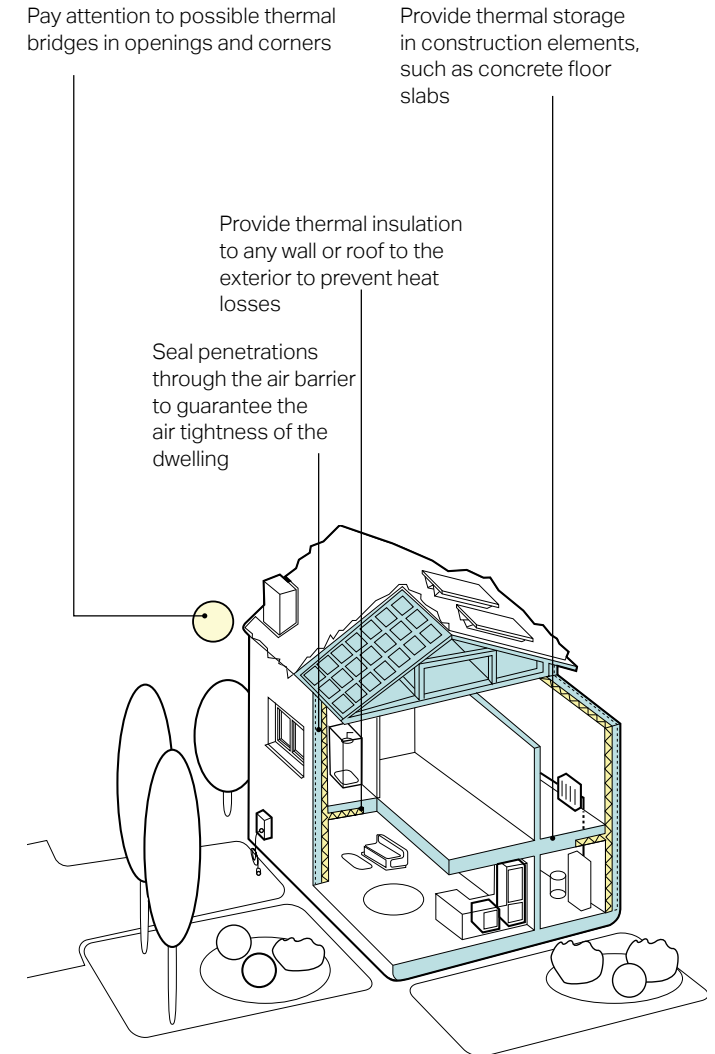


Figure 128: Diagram showing design guidelines on building fabric.

DC.04 Sustainable design and environment

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. Those principles include:

- 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.
- If houses are not aligned east-west, rear wings could be included so that some of the property benefits from solar passive gain.

- 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
- North facing single aspect units should be avoided or mitigated with the use of reflective light or roof windows.

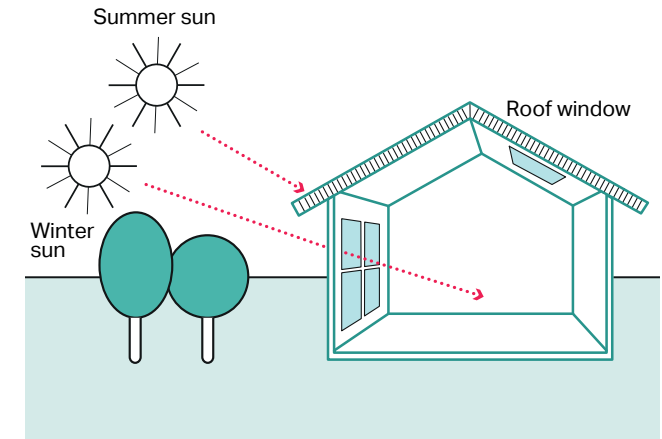


Figure 129: The use of roof window, pitch roof, location and size of windows in favour of maximising solar gain.

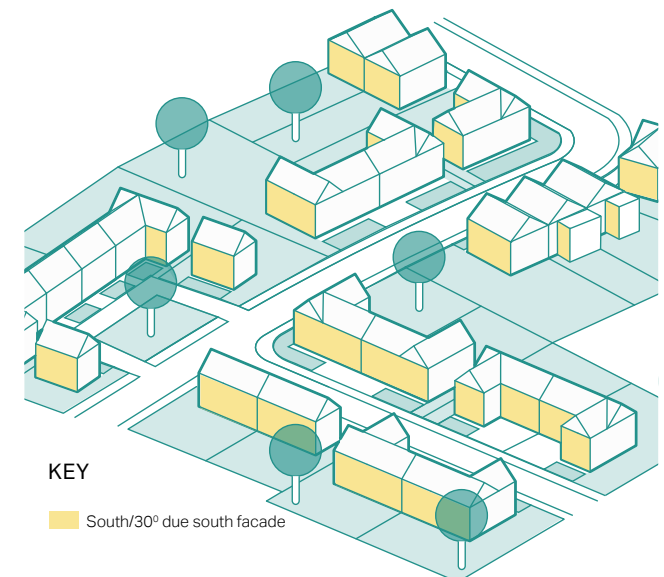


Figure 130: Elevations that would benefit from passive solar gain.

DC.04 Sustainable design and environment

Renewable/low carbon energy

The use of renewable/low carbon energy solutions such as air and ground source heat pumps, district heating, and solar panels are strongly encouraged.

District heat networks may play an important role in the transition to low carbon energy. Centralised energy production systems are more efficient than individual heating systems and generate less carbon emissions.

The design and installation of solar panels should be done carefully considering potential implications within Conservation Areas; preserving the character of the town should be taken into account.

Some solutions of sensitive implementation of solar roof panels are suggested as follows:

On new builds:

- Design solar panel features from the start, forming part of the design concept. Some attractive options are solar shingles and photovoltaic slates; and
- Use the solar panels as a material in their own right.



Figure 132: Positive example of implementing solar panels from the design stage.



Figure 131: Use of single-like solar panels on a slate roof with the design and colour of the panels matching those of the adjacent slate tiles



Figure 133: Positive example of implementing solar panels from the design stage.

DC.04 Sustainable design and environment

Minimising construction waste

As part of the environmental management system it is important that the waste generated during construction is minimised, reused within the site or recycled.

Developers should plan to re-use materials by detailing their intentions for waste minimisation and re-use in Site Waste Management Plans. The actions that this plan will include are:

- Before work commences, the waste volumes to be generated and the recycling and disposal of the materials will be described;
- On completion of the construction works, volumes of recycled content purchased, recycled and landfilled materials must be collated;
- Identify materials used in high volumes; and

- The workforce should be properly trained and competent to make sure storage and installation practices of the materials are done under high standards.

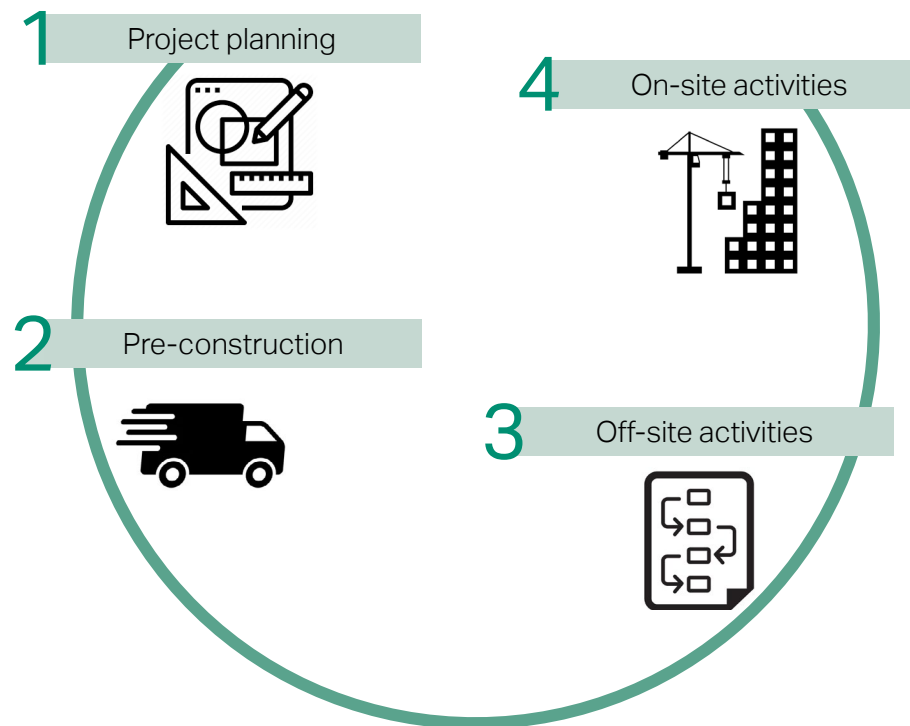


Figure 134: Diagram to illustrate the 4 main stages where waste management practices can be implemented.

DC.04 Sustainable design and environment

Recycling materials and buildings

To meet the government’s target of being carbon neutral by 2050, it is important to recycle and reuse materials and buildings. Some actions for new development are:

- Reusing buildings, parts of buildings or elements of buildings such as bricks, tiles, slates or large timbers all help achieve a more sustainable approach to design and construction;
- Recycling and reuse of materials can help to minimise the extraction of raw materials and the use of energy in the production and transportation of materials; and
- Development should also maximise the re-use of existing buildings (which often supports social, environmental and economic objectives as well).

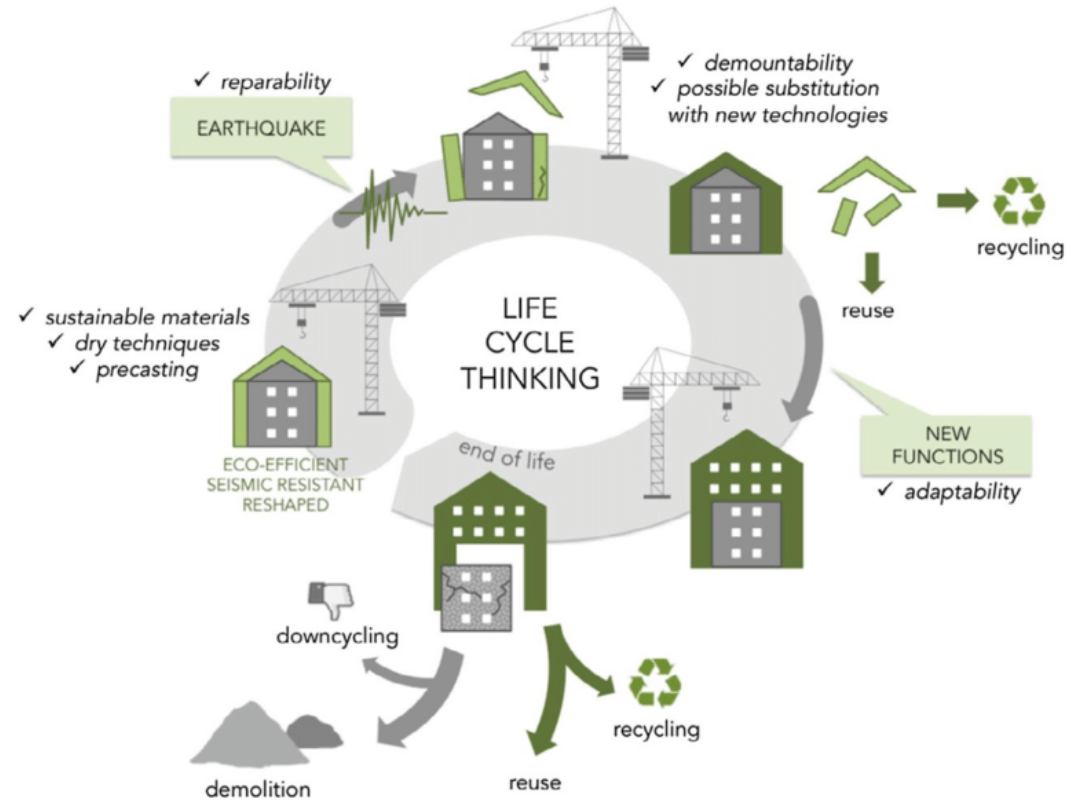


Figure 135: Diagram to illustrate the life cycle thinking for recycling materials and buildings. (Source: https://www.researchgate.net/publication/319464500_Combining_seismic_retrofit_with_energy_refurbishment_for_the_sustainable_renovation_of_RC_buildings_a_proof_of_concept)

3.5 Checklist

Because the design guidance and codes in this document cannot cover all design eventualities, this chapter 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 considered 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 guidance for new development'. Following these ideas and principles, several questions are listed for more specific topics on the following pages.

1

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?

2 (continues)

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?
- Can any new views be created?
- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?

2

Local green spaces, views & character:

- Have opportunities for enhancing existing amenity spaces been explored?
- 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)?

3

Gateway and access features:

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

4 (continues)

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?

4

Buildings layout and grouping:

- 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?

5

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?

6

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?

7

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?

8 (continues)

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?

8

Building materials & surface treatment:

- 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?

9

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?

Delivery

04

4. Delivery

The Design Guidelines & Codes will be a valuable tool in securing context-driven, high quality development in Hermitage, especially on potential sites that might come forward in the future. They will give more certainty to both developers and the community in securing developments that are designed to the aspirations of the community and potentially speed up the planning process.

The opposite table summarises the various ways that this document can be used by each actor in the planning and development process.

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

Table 01: delivery

About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle — from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a *Fortune 500* firm and its Professional Services business had revenue of \$13.2 billion in fiscal year 2020. See how we are delivering sustainable legacies for generations to come at [aecom.com](https://www.aecom.com) and [@AECOM](https://twitter.com/AECOM).

