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DESIGN GUIDANCE AND CODES

PEMBURY

FINAL REPORT | SEPTEMBER 2022

Revision History

Revision	Revision date	Details	Name	Position
3	220915	Final review	Ben Castell	Director
2	211014	Review	Alison Eardley	Pembury Neighbourhood Plan Steering Group
2	211014	Review	Ben Castell	Director
2	211014	Review	Luis Juarez	Associate Director
2	211014	Review, research	Sheina Rijanto	Graduate urban designer

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Introduction

01

1. INTRODUCTION

Through the Ministry of Housing, Communities and Local Government (MHCLG) Neighbourhood Planning Programme led by Locality, AECOM has been commissioned to provide design support to Pembury Neighbourhood Plan Steering Group.

1.1 Background

Within the context of the Local Plan review and new sites being allocated for potential development in Pembury Village, the Neighbourhood Plan Steering Group has sought to develop a set of design codes guiding any future development in the village.

Additionally, concept masterplans have also been developed for the potential sites to understand the capacity of said sites, the possible form and layout these might take and to exemplify the design codes that could also apply elsewhere in the village.

This document provides the design guidance and codes informing new development that will likely come forward on the allocated sites, and other development elsewhere in Pembury.

Any development proposal is expected to observe and refer to the guidance outlined in this document.

1.2 Objective

The main objective is to develop design codes informing the development of sites being allocated in the Local Plan and other parts of the village. The guidance and codes underpin Neighbourhood Development Plan (NDP) policies P3 (Character of Development) and P4 (Energy Efficiency and Design). As such, they are an integral part of the NDP, part of formal policy.

The codes' main purpose is to provide guidance encouraging the creation of distinctive places that are well-integrated with the existing settlement in Pembury and to promote high-quality built forms.

1.3 Process

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The following steps were undertaken to produce this report:

1 Initial meeting between AECOM and the Pembury Neighbourhood Planning Steering Group;

2 Analysis of the village and character elements defining the built form; as well as analysis of the sites with potential for development;

3 Development of concept masterplans for the sites and early submission for feedback;

4 Development of design codes based on masterplanning work and analysis and submission for feedback;

5 Submission of the final report (this document).

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1.4 The area of study

The area the study encompasses is the built up area of Pembury and immediate context in general, as well as the four sites with potential for development.

The Design Code document will focus within the settlement boundary of the village itself, where new development is likely to take place. However, the codes will also be applicable to inform development within the wider parish.

The four sites with potential for development form part of the Local Plan Allocation, identified within the emerging Local Plan.

A review of the policies applicable to these sites is included in Section 4 of this document.

KEY

- ⬚ **PARISH ADMIN. & NEIGHBOURHOOD PLAN AREA BOUNDARY**
- ••••• **PROW (Public Rights of Way)**
- ──── **MAIN ROADS**
- ▪▪▪▪▪ **RAILWAY**
- ▮ **POTENTIAL DEVELOPMENT SITES FOR MASTERPLANNING**
- ▢ **High Weald AONB (Area of Outstanding Natural Beauty)**

PE4

PE1 PE2 PE3

0   1   2km
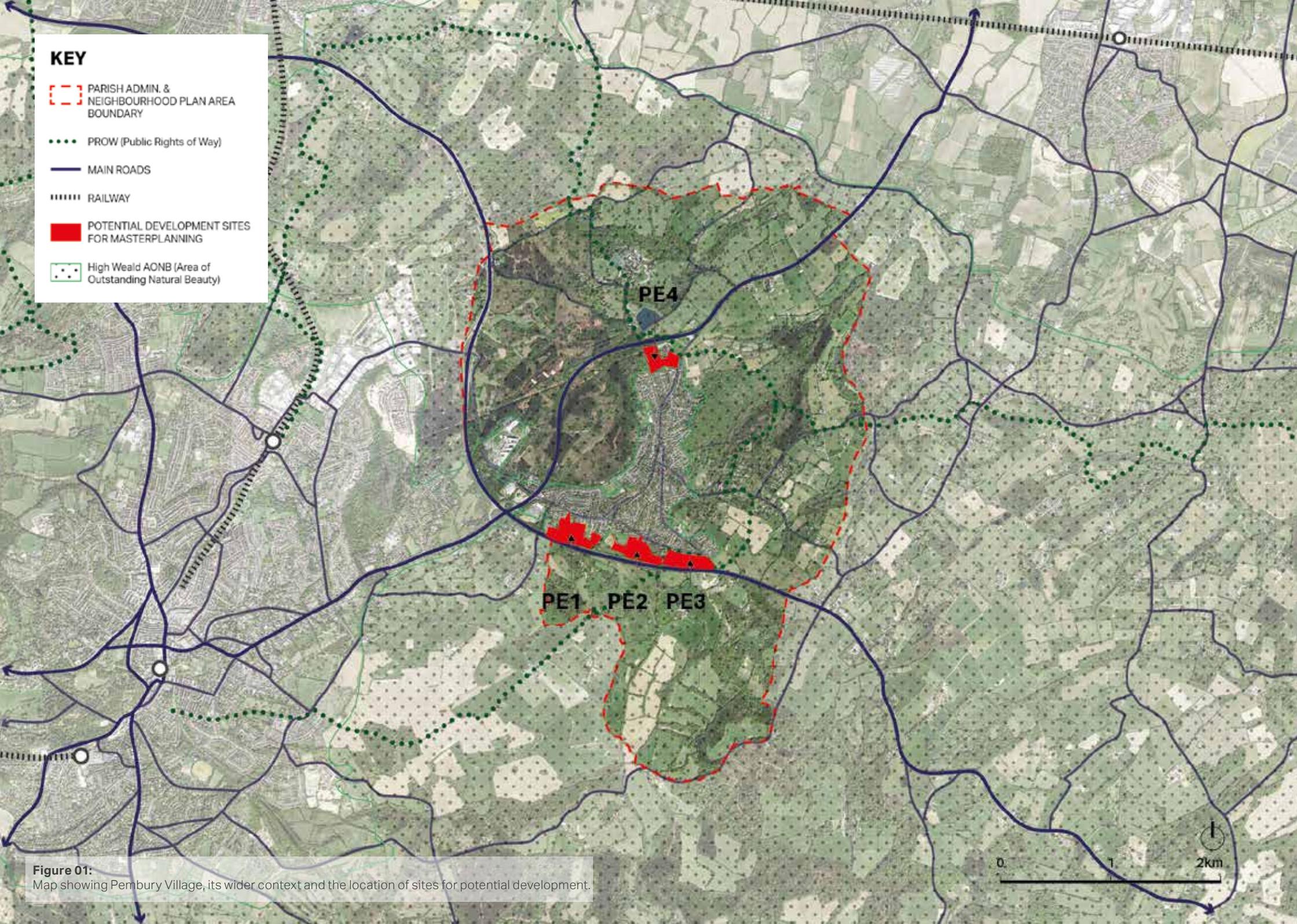
Figure 01:
Map showing Pembury Village, its wider context and the location of sites for potential development.

01

1.5　National and local guidance to follow

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

When these building standards and guides are updated or superseded, the Neighbourhood Plan should use the updated standards for good quality, well-designed homes and neighbourhoods.

2019

National Planning Policy Framework
MHCLG

Development needs to consider national level planning policy guidance as set out in the National Planning Policy Framework (NPPF) and the National Planning Policy Guidance (NPPG), recently updated in July 2021. In particular, NPPF Chapter 12: Achieving well-designed places stresses the creation of high-quality buildings and places as being fundamental to what the planning and development process should achieve. It sets out a number of principles that planning policies and decisions should consider ensuring that new developments are well-designed and focus on quality.

2019

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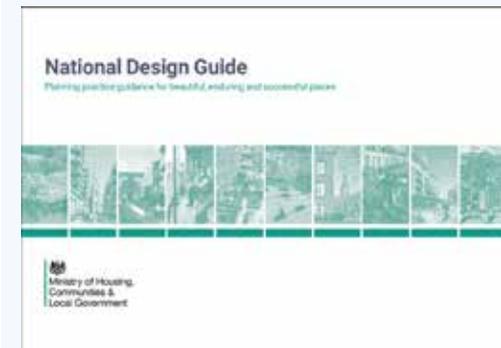
The National Design Guide (Ministry of Housing, Communities and Local Government, 2019) illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.

2007

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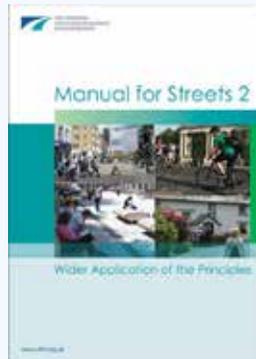
Development is expected to respond positively to the Manual for Streets, the Government's guidance on how to design, construct, adopt and maintain new and existing residential streets. It promotes streets and wider development that avoid car dominated layouts but that do place the needs of pedestrians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

2020

Building for a Healthy Life:
Homes England

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

2021

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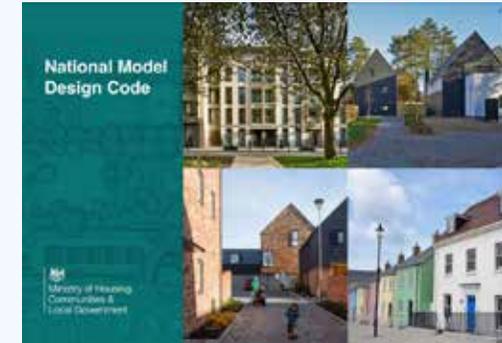
This report provides detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on 10 characteristics of good design set out in the National Design Guide. This guide should be used as reference for new development.

01

01

2008

Kent Design Guide
Kent County Council

This guide seeks to provide a starting point for good design while retaining scope for creative, individual approaches to different buildings and different areas. It aims to assist designers and others achieve high standards of design and construction by promoting a common approach to the main principles which underlie the Local Planning Authorities' criteria for assessing planning applications.

2019

High Weald Housing Design Guide
High Weald AONB Partnership
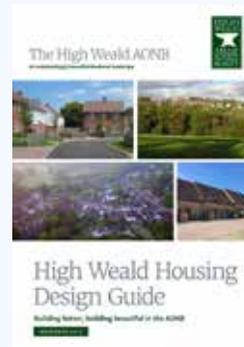
This housing guide is aimed at all those involved in managing the built environment within the High Weald AONB. These include designers, developers and highway engineer rs through to planning decision makers. The document aims to help development meet the requirements of the NPPF with regard to achieving well-designed places and the conservation and enhancement of the AONB.

2017

High Weald Area of Outstanding Natural Beauty. **Guidance on the selection and use of colour in development**

The purpose of this document is to provide direction and guidance on the selection and use of colour in development within the High Weald AONB. 'Development' includes any building work, ranging from home extensions and conversions through to house building, fencing, agricultural and industrial premises, retail and office buildings. It also includes infrastructure associated with transport and utilities.

01

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Context
analysis

02

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2. CONTEXT ANALYSIS

This chapter outlines the character analysis for Pembury Village as well as the sites for potential development

2.1   Surrounding context

Pembury Village is adjacent to Tunbridge Wells. It is surrounded by a strong structural landscape formed by agricultural land and woodland; all part of the High Weald AONB. The village is also immediately surrounded by green belt designated areas as well as woodland. The Parish is made up of several discrete hamlets, with no historical nuclear village. This green infrastructure network creates a sense of separateness, which is also accentuated by the severance created by existing roads (A21 Hastings Rd and A228 Northern Bypass) which surround the village. It is only in the last 150 years or so, and particularly since the mid-20th century, that the urban area we know today has been created by the extensive residential building.

Pembury's arrival space is the Village Green. Around this, most services and facilities are located as well as important buildings such as the listed Upper Church of St Peters (located by the Green) and the Old Church in Old Church Road a mile and a half away which is an ancient monument, the Almshouses along with the Black Horse and Camden Arms. This cluster creates the heart of the village.

Another important area in modern Pembury is half a mile north of the Upper Green at Lower Green, although the Green itself no longer exists. Here other facilities can be found, namely, the primary school (dated 1872), the doctors' surgery (modern) and the library which is housed in a building that, until 1872, was the National School. There is also a thriving Baptist Church dating from 1835, a general store and a takeaway in the area. Other hamlets included Romford, Hawkwell & the Parish Church, Henwood Green and Woodsgate, though historically this was in Tonbridge parish.

Figure 02:
Example of countryside environment surrounding Pembury.

Figure 03:
A21 Hastings road creating separation between the village and green areas to the south.

Figure 04:
Photograph of The Green.

02

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KEY
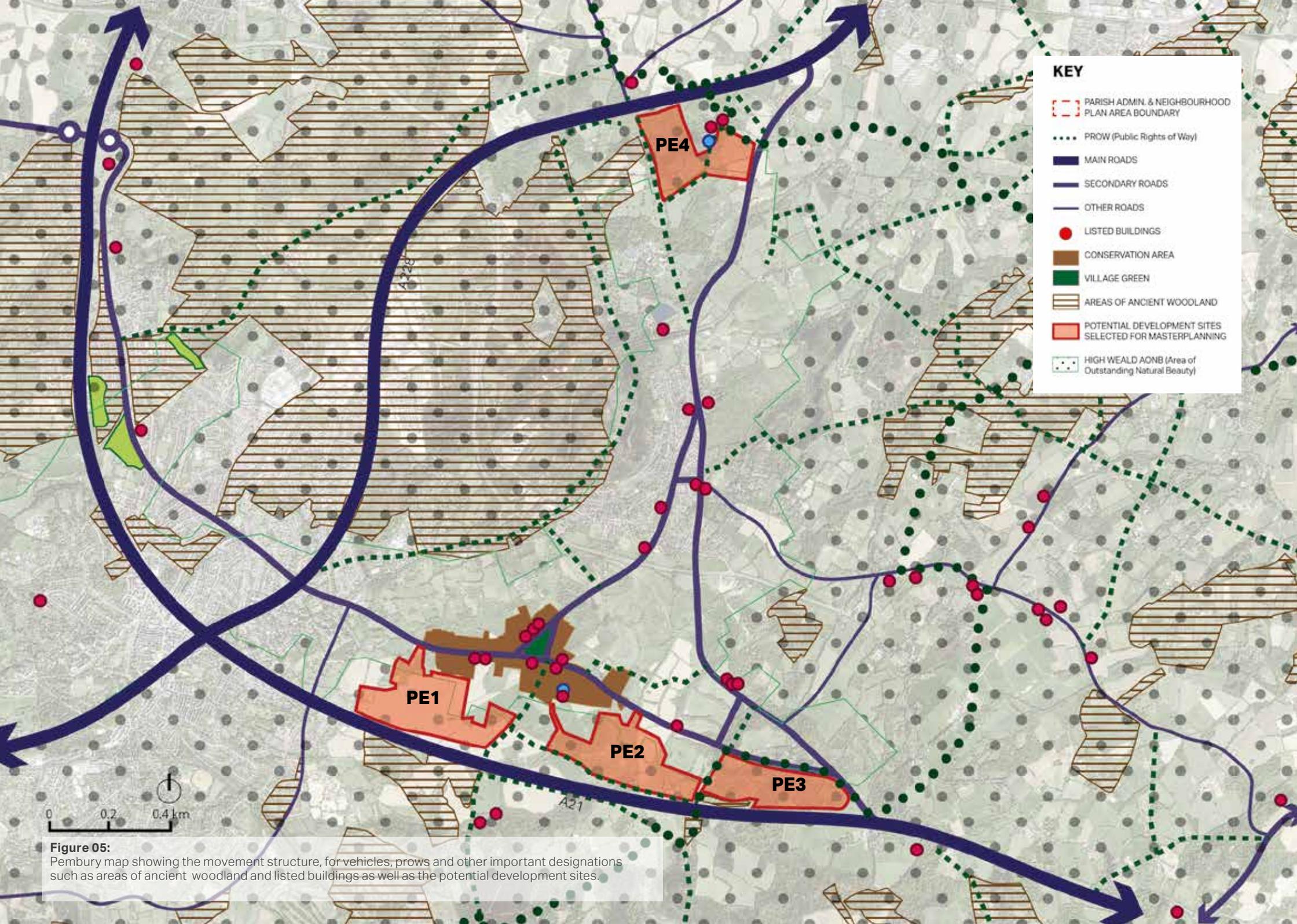
- PARISH ADMIN. & NEIGHBOURHOOD PLAN AREA BOUNDARY
- PROW (Public Rights of Way)
- MAIN ROADS
- SECONDARY ROADS
- OTHER ROADS
- LISTED BUILDINGS
- CONSERVATION AREA
- VILLAGE GREEN
- AREAS OF ANCIENT WOODLAND
- POTENTIAL DEVELOPMENT SITES SELECTED FOR MASTERPLANNING
- HIGH WEALD AONB (Area of Outstanding Natural Beauty)

PE4

PE1

PE2

PE3

A228

A21

0   0.2   0.4 km
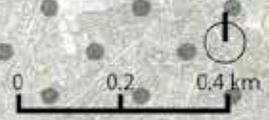
Figure 05:
Pembury map showing the movement structure, for vehicles, prows and other important designations such as areas of ancient woodland and listed buildings as well as the potential development sites.

2.2   Movement Structure

The settlement in Pembury is structured by three main roads which connect and form a sort of triangle (High Street / Hastings Road, Lower Green Road, and Henwood Green Road).

Each road contains a wide, variety of buildings of various ages and size. The majority of listed and historic buildings are concentrated along Lower Green Road, Henwood Green Road and around the Green.

Stemming from these main roads, the village has meandering streets with gentle curves allowing for sequential view of buildings as well as several cul-de-sacs.

There are a number of public rights of way from various points in the village into the surrounding Green Belt and AONB, and there was always an extensive network of footpaths and tracks throughout the parish for general use. However, there is currently no easy permeability for horse riders, which is a common local activity in Pembury.

The following pages show the types of streets as well as other features of the built environment present in Pembury that will set out some precedents for the design code.

Figure 06:
Horse rider in Pembury (left). Plaque on The Green, showing the main road structure and places in Pembury (right).
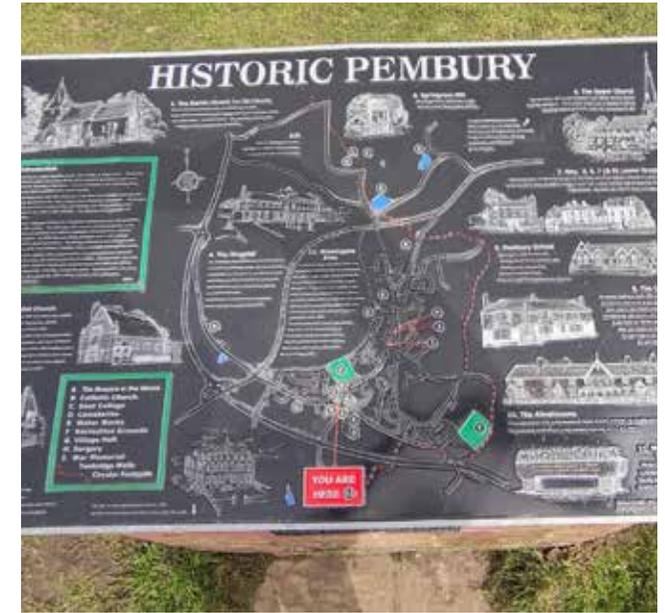

Figure 07:
Minor road (left) and aspect of the linear High Street (right).

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02

2.2.1 Main Streets

Main access streets provide the main routes into and out of the village. Although historically these were never main roads, their configuration and accessibility have made them the articulating roads in the village and thus the busiest. These streets also concentrate mixed uses, services and amenities.

In highway terms, they are considered 30mph roads, but the aspiration is to reduce the speeds to 20mph with an emphasis on cycling pedestrian movement. Because of their historic nature, these streets have developed parking problems that should be addressed by the design code proposals, in line with today's best practice encouraging these types of streets to provide for cyclists in the form of marked or segregated cycle routes (the latter being preferred), and sufficient space for pedestrians on pavements. Local aspirations seek to further reduce the speed limit through the village to 20mph, reflecting the need for pedestrian and cycle prioritisation.

Figure 08:
Desirable characteristics for main streets. The example shows Pembury High Street. As it is a historic street, any cycleroute would be marked at the expense of the existing carriageway space. However, new streets of this type should consider segregated routes from the early designs.

1 Pedestrian footpaths on both sides of the road with a good width;

2 Sufficient carriageway for two-way traffic and cyclists;

3 Consistent boundary treatments separating public and private thresholds with low walls, iron fencing and well kept hedges and planting;

4 Properties with windows and main doors facing the street.

2.2.2 General Streets

General streets make up the majority of the street network acting as through roads to get to different parts of the village. Although traffic levels can vary along these streets depending on the time of day, best practice today encourages a 20mph design speed. Also, these streets should provide a pleasant environment for pedestrians and cyclists. An option for these streets is a special cycleroute adjacent to the footway and segregated from the carriageway, allowing cyclists and pedestrians to share the footway space.

1 High quality pedestrian footpaths on both sides of the street;

2 Well-kept front gardens with and without boundary definition, though the former is preferred;

3 Carriageway wide enough for two way traffic and on-street parking;

4 On and off street parking.

02

Figure 09:
Desirable characteristics for general streets. As this is an established street, there is no cycleway next to the footway. However new streets of this type should consider this typology from the early designs.

02

2.2.3 Edge Lanes

Edge lanes can be used at the boundaries of a built up area/settlement to create a soft transition from the neighbourhood to the surrounding countryside. Edge lanes are generally quiet and are predominantly used by the residents. A key characteristic of an edge street is that the houses face outwards to overlook the surrounding countryside.

1. Countryside surrounding the village.

2. Shared carriageway with vehicles travelling at a low speed, cyclists and pedestrians.

3. Dwellings orientated towards the street.

4. Dwelling orientated to allow for filtered views to and from the countryside.
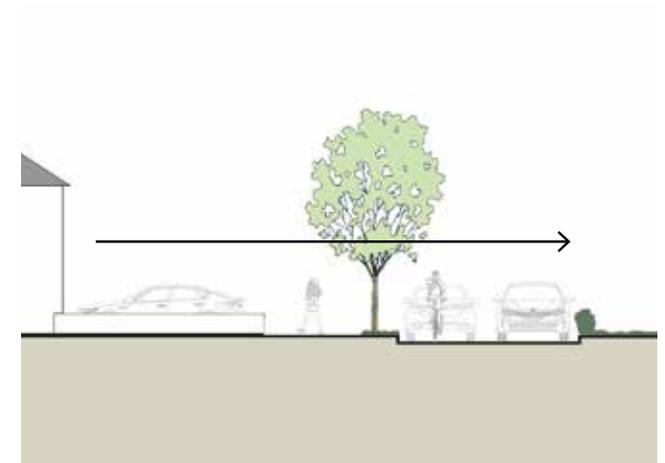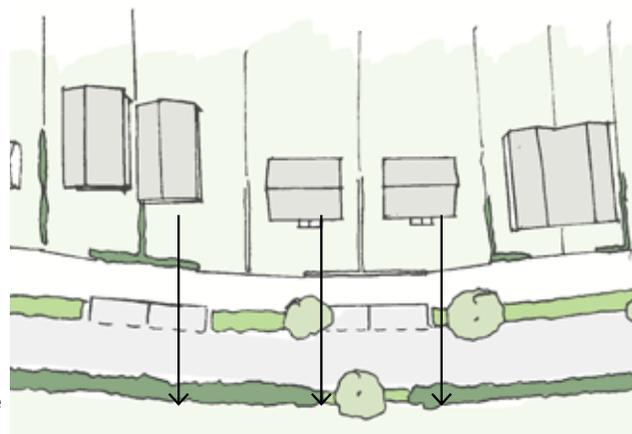
Figure 10:
Desirable characteristics for edge lanes. The example shows Romford Road in Pembury.

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Figure 11:
Example of large front gardens without boundary treatment.

2.3   Landscape features

Most houses in Pembury have some form of set back from the road with variable dimensions. Identified types include: large front gardens with and without boundary (here trees are also a strong feature), and small privacy strips formed by railings, hedges or small walls marking their boundaries. Others have no clear boundary. There is a general sense of greenery around the village due to gardens, landscape and green open spaces.

Figure 12:
Example of smaller privacy strips with boundary treatment.

Figure 13:
Open green spaces; Pembury Athletic Youth Football Club.

2.4   Public space

The public spaces within the village are dispersed and are generally not linked to each other via footpaths. Therefore, there is currently not a network of public spaces. The most significant open space / park in Pembury is the village green which provides a focal point and creates a sense of place. The green is overlooked by houses to provide natural surveillance which enhances the perception of safety.

2.5   Fronts and backs

Pembury shows a predominant block structure featuring defined fronts and backs of properties. This in turn is reflected in the blocks and road structure of the village. The majority of the dwellings have their primary facade facing the street and have well defined backs.

There is a strong and consistent alignment of properties along the streets with minor protrusions and indentations that provide a degree of variety and movement.

Figure 14:   Public spaces in Pembury. Lower Green Recreation Ground (left) and Village Green (right).

Figure 15:   Aerial view showing a typical block structure with fronts and backs in pembury (left) and the resulting facade facing the streets (right)

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2.6 Car Parking

Pembury shows a good variety of car parking solutions. This page shows the predominant forms and the ones that will inform the design code. These are focused on residential environments as this is the predominant form of development in the village and the most likely to be added in future. On-street parking is an issue in parts of the village and thus, needs addressing in future developments.

1 On-street front parking

2 On-plot front parking with landscape

3 On-plot garage/ car port with additional parking in front

4 On-plot side parking

Figure 16: Predominant forms of carparking identified in Pembury's residential areas.

02

2.7   Corners

There are some examples within the village of corner buildings that positively address both streets they look on to. This provides natural surveillance at street level and local wayfinding.

2.8   Property boundary

Dwellings have a strong property boundary using a combination of low walls in brick or flint, hedges, railing and timber fencing. Some dwellings do not have a strong property boundary.

2.9   Roofline

Pembury's dwellings have varied roof profiles with undulating heights providing movement and character; being gable, hip and dormer the most common.

Roofs in the area generally have a steep pitch and project well beyond the walls of the building. Chimneys and windows of a vertical proportion are also a common feature.

Figure 17:   Positive example of corner building.

Figure 18:   Positive example of property boundary helping to provide structure and definition.

Figure 19:   Left and right. Examples in Pembury of varied roofline with gable ends.

2.10 Fenestration and facades

Buildings within the village usually have vertical or square proportion windows. There is a strong use of window sills and lintels. Some properties within the village have porches. However, porches are poorly designed in new development due to being out of proportion and inappropriate use of materials. Future development would need to ensure better proportions and coherent materials.

2.11 Ground appearance on plot

The ground appearance on plots is a mixture of natural materials such as grass, gravel and shingles as well as pavers and concrete.

2.12 Landmarks

Several listed buildings can be considered landmarks such as the Camden Arms Pub, or the Pembury sign on the Green. However, the most notable is the church tower of St. Peter's Church which allows people to orientate themselves within the village.

02
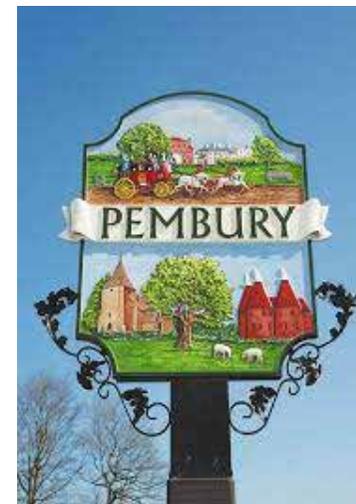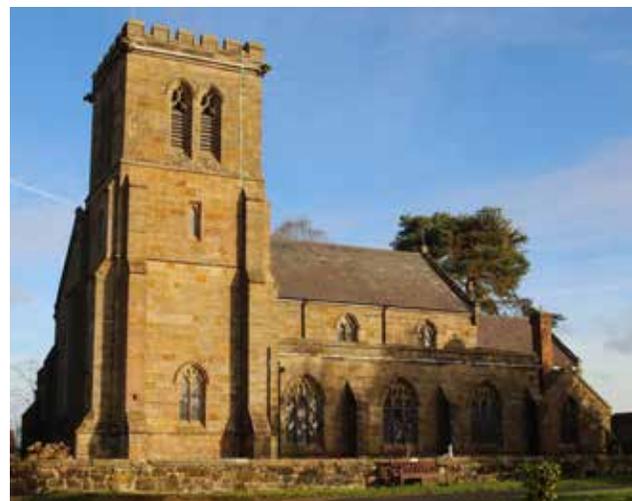
Figure 20: Top left and right; fenestration and ground appearance examples

Figure 21: Bottom left and right; examples of landmarks in Pembury.

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2.13 Architectural details and materials

Pembury consists of a mix of traditional building materials, with local favourites being: hanging tiles, brick, render and occasional weatherboarding. These in turn are the predominant materials linking the different generations of buildings which reinforce the village's heritage. The average height of buildings are 2-2.5 storeys, with some exceptions of taller older buildings along Hastings Road. Over the 60s and 70s various large estates were added to the village providing a wealth of three and four bedroom family homes, as well as accommodation for older people in flats. There are also some four storey Edwardian landmark buildings throughout the village.

The Woodhill Park estate is a characterful example, with properties being well spaced out and with good front gardens and off street parking.

A wide variety of house styles sit in harmony together and replicate the ever changing street scene found in the more established roads within the Village.

02

A well loved characteristic of Pembury is the variety of styles, materials and forms in what is locally known as "hotch-potch" character. In these the vertical proportion of windows predominates as well as the larger proportion of wall over void.

Brick, tile and renders can be seen mixing together on facades and adjacent buildings.

The best examples show landscaped gardens and planting complementing buildings.

Figure 22: This and previous page show some of the best examples in terms of architectural treatment and materials in Pembury.

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Design Guidance and Codes

03

3. DESIGN GUIDANCE AND CODES

The aim of this chapter is to develop design guidelines and codes for future development that consider the local character and can enhance local distinctiveness by creating good quality developments and thriving communities.

3.1   Placemaking

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 asses 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 including Building for a Healthy Life, the National Design Guide and The National Model Design Code, 2021.

Consideration of sustainability in design is also a key principle that will be considered throughout the development processes.

Figure 23:   Diagram showing the elements of a well designed space.

03

3.2   General principles

A brief reference to general design principles will be mentioned before the main part of the design guidance and codes which refer specifically to Pembury Neighbourhood Plan Area.

The guidelines and codes developed in the document focus on residential environments. However, new housing development should not be viewed in isolation. Considerations of design and layout must be informed by the wider context, considering not only the immediate neighbouring buildings, but also the villagescape and landscape 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 with any proposal 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.

As a first step, there are a number of design principles that should be present in any proposal. In particular, new development should:

- Respect the existing settlement pattern in order to preserve the character;

- Integrate with existing paths, streets, circulation networks;

- Reinforce or enhance the established character of streets, greens and other spaces;

- Harmonise and enhance the existing settlement in terms of physical form, architecture and land use;

- Retain and incorporate important existing features into the development;

- Respect surrounding buildings in terms of scale, height, form and massing;

- Adopt contextually appropriate materials and details;

- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;

- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other; and

- Aim for innovative design and eco-friendly buildings while respecting the architectural heritage and tradition of the area.

3.3   Design guidance and codes for Pembury

There are a set of strategic design principles that apply to Pembury.

These are based on the wider analysis of the village, the masterplanning exercise carried out and discussions with members of the Neighbourhood Plan Steering Group.

Those guidelines and codes are organised in four themes as shown opposite. Under these other sub-topics will be addressed.

STRATEGIC PRINCIPLES AND BEST DESIGN PRACTICE

GUIDELINES AND CODES FOR STREET TYPOLOGIES AND PARKING

GUIDELINES AND CODES FOR BUILT FORM

GUIDELINES AND CODES FOR LOW CARBON DEVELOPMENT

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3.4   Strategic principles and best practice

3.4.1   Consider the context

Pembury Village boasts high quality natural areas surrounding the settlement. In fact, the village is surrounded by designated AONB (Area of Outstanding Natural Beauty) as well as areas of ancient woodland. Other issues are the character of the built form as well as the heritage buildings within the village.

This means that new development has to be sensitive to these conditions. Thus, some strategic guidelines are as follows:

- New development should respect and retain as much as possible the existing green assets in the form of trees, woodlands, hedges, hedgerows, wild flowers and other landscape elements. These will inform the baseline for the design process and shape the design outcome;

- New development should be well-integrated into the existing settlement pattern, without isolated amd unconnected spaces. For that reason, practical access points should be

agreed and established at the outset of development proposals. Also, priority should be given to pedestrian and cycle links. This will create accessible places, discourage the use of cars and foster a more cohesive social tissue. Access for equestrian is supported, where this can be achieved safely;

- New development should prioritise creating a well-connected green network and promote alternative forms of transportation. Exisiting and new green spaces should be linked to create a cohesive whole. This is important for three identified sites for development (PE1, PE2 and PE3) as they sit adjacent to each other in a continuous band and each has an existing set of green infrastructure assets. There is also the need to establish a 40m green buffer band parallel to the A21 in order to mitigate visual impact to and from the AONB;

- New development should improve the connection with the surrounding

countryside by enhancing existing links or creating new ones. In edge locations, it is important to connect all streets to the network of public pathways and rights of way. Views toward different landscape characters should also be maintained;

- New development should integrate with the surrounding natural landscape by establishing safe accessible paths based on public rights of way and appropriate signage helping people navigate;

- New development should make sure to protect any site of archaeological significance and propose ways to enhance it, contributing to the distinctiveness of the area in which it is located;

- New development should take local character into careful consideration with designs considering scale, layout, density, mass, materials and architectural features, as well as incorporate a high standard of landscaping adding to the quality of the

Pembury is surrounded by open fields, countryside and ancient woodland. Safe and accessible corridors within these areas can improve the connectivity with the natural environment.

New development needs to be well-integrated into the existing settlement through pedestrian, cycle and equestrian connections. Site PE4, for example, should be encouraged to include connection through the site between FP WT218 (which is a path along the southern edge of the site), through to FP WT231 on the north west of the site and Bridleway WT411.

Figure 24: Map of Pembury exemplifying some of the strategic principles addressing the context.

place;

- New development should respect locally important views (e.g. Heron's Way);

- New development should minimise visual intrusion with neighbouring settlements. For that reason, it is important to include planting areas acting as mitigation;

- New development should make sure that any negative impact from and to the development of the highways and transportation network is minimised through air and noise pollution buffers;

- The existing architectural typologies in the area should be reflected in the new development. In Pembury, there is strong presence of semi-detached, detached and bungalows, some blocks of apartments, and few terraced houses. It is important to consider how these typologies can be reinterpreted in a sustainable and modern way; and

- A mixture of typologies should be encouraged in new development in order to create variety and interest in the streetscape.

The architectural styles, details and materials of the existing settlement need to be used as reference for the new development.

There is an existing woodland in PE3 with a 15m buffer.

A 40m minimum green buffer along the A21 highway needs to be considered.

Existing green assets like woodlands, trees, hedges, and hedgerows, need to be retained and integrated in the design for all identified sites.

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3.4.2 Connect

Streets should be connected with each other and walking and cycling routes are expected to feature. Good practice favours a connected street layout that makes it easier to travel by foot, cycle, and public transport, as well as private car. A more connected pattern creates a 'walkable neighbourhood'.

This should be the priority for any future development on new sites. Some strategic guidelines related to the street network are:

- New development should prioritise pedestrian and cycle movements to reduce car dependence and support healthy mobility choices. This could include the use of twittens that enable only cycle and foot movement. Disabled access needs to be improved by implementing measures like dropped kerbs and ramps, where appropriate. Current thinking favours places designed under the philosophy of 'garden neighbourhoods'; This is, where people can walk or cycle along pleasant environments and tree lined streets;

Main road

Cul-de-sac (non permeable)

2ndry road (permeable all modes of transport)

Twittens (permeable to pedestrians and cycle movement only)

Block structure
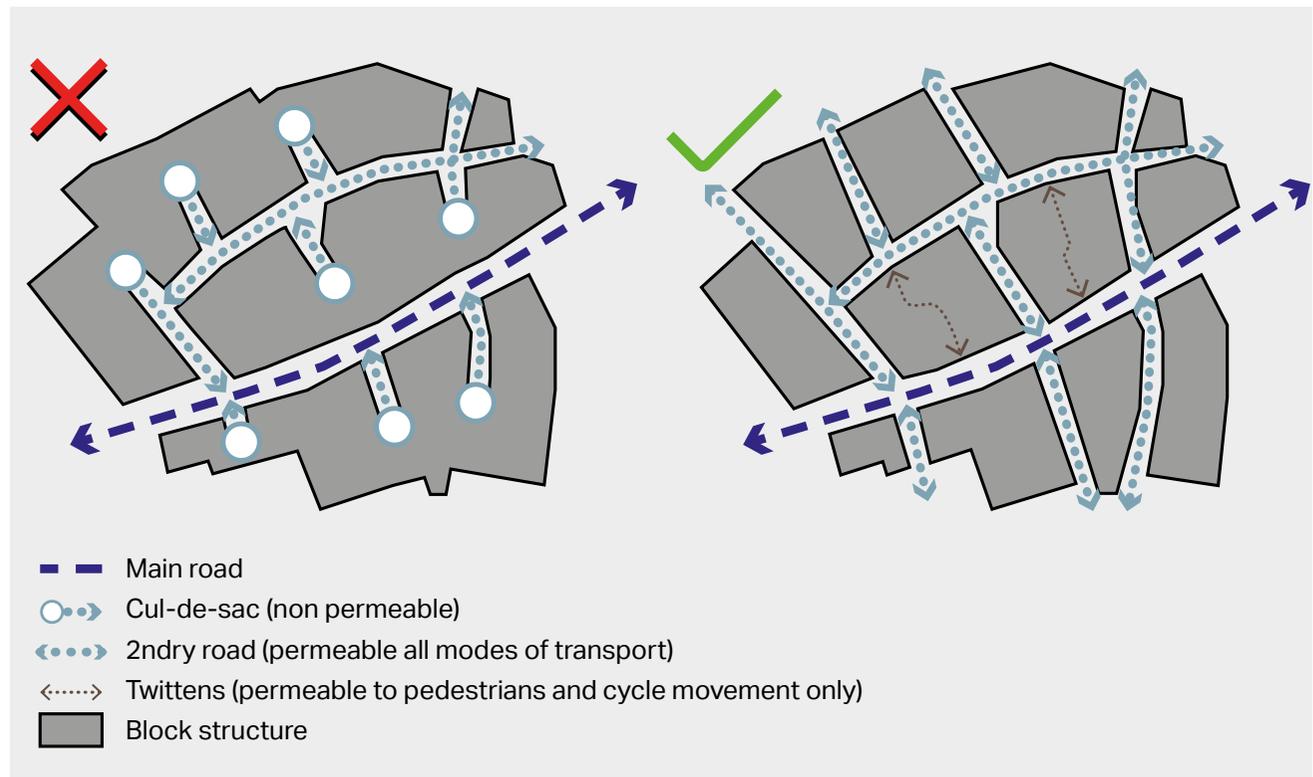
Figure 25: Diagram showing best practice of creating connected streets and spaces as opposed to a segregated pattern based in, for example, cul-de-sac streets. In Pembury, a good alternative to cul-de-sacs is the use of the local typology known as twitten. This is a form of route that allows connectivity for pedestrians and cycles but not cars.

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- New development should provide direct and attractive footpaths between neighbouring streets, existing or new local facilities such as schools and health facilities. Thus, establishing a robust pedestrian network: a) across any new development; and b) among new and existing developments, is key in achieving good levels of connectivity to encourage walking;

- Potential new development in the identified sites should be well integrated into the existing settlement pattern to avoid fragmentation and severance. For that reason, pedestrian and cycle links should be prioritised. This will create accessible places and a more cohesive social tissue, whilst residents of the new or existing settlements will not feel isolated from each other but part of the same community;

- New development should propose short and walkable distances. The success of a place is influenced by how accessible and walkable it is;

- New development should seek to enhance the connectivity to and from existing bridleways;

- The use of twittens should be explored as a local typology of routes that favours pedestrian and cycle movement; and

- Where possible, plan new homes within a 400 metres walking distance (= 5 minutes) of bus stops and within 800 metres (= 10 minutes) of social facilities (e.g. school, surgery, shops, etc). Where this is not possible mitigation measures for non vehicular travel should be explored such as public transport, cycleways and walking routes.
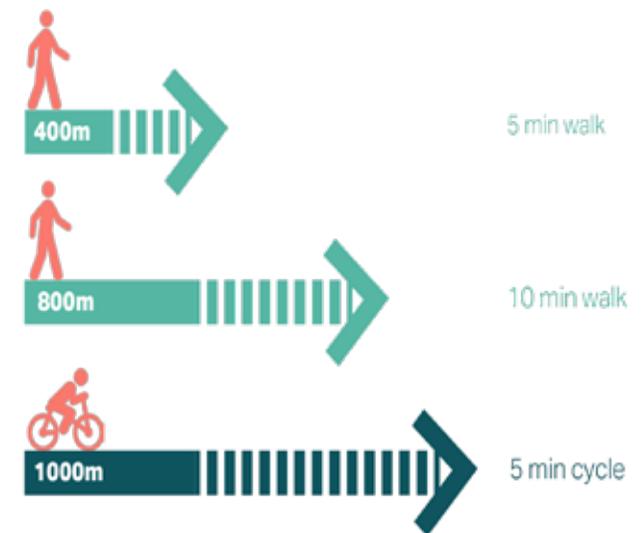
Figure 26: Diagram showing best practice of accessible distance for sustainable modes of transport.

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3.4.3 Perimeter block typology

New development should propose routes laid out in a permeable pattern, allowing for multiple connections and choice of routes, particularly on foot. The use of cul-de-sacs should be minimised where possible and where used these should be relatively short and provide onward pedestrian links, subject to community safety considerations. The use of twittens to maintain pedestrian links is characteristic of Pembury and should be included as part of the movement strategy.

A perimeter block structure with no public access to its centre is a well-proven, flexible approach to the layout of residential and other areas. It contributes to safety by clearly distinguishing between the fronts and the backs of buildings, between public and private space, and by enabling continuous overlooking of the street. It can be very efficient in terms of development density. Back gardens can be private, communal or both.

Most suburban developments in England follow a version of this typology, featuring houses with back to back rear gardens. Considering local preference for housing typologies, this kind of block organisation is suitable for terraced, semi-detached and detached houses. This typology is the most common in residential areas as it provides secure rear garden spaces and avoids creating back gardens along streets. These blocks must:

- Accommodate a range of housing types to create a strong sense of place and legible environment;

- Create good street rhythm by addressing the roofscape and keeping a sense of cohesion and regularity; yet including variation in property styles, roofs and plot sizes to replicate the hotch potch nature of Pembury;

- Define public and private domains within and around these blocks by locating all front entrances facing surrounding streets, resulting in active street frontages; and

- Maintain a proper distance between building face to building face at the rear of dwellings to provide residential privacy.

Figure 27: Pembury. Example of perimeter block in the area of Greenleas and Wood Hill Park.

AECOM

3.4.4 Enable wayfinding

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

- A familiar and recognisable environment makes it easier for people to find their way around. Obvious and unambiguous features should be designed in new development;

- Buildings which are located at corners, crossroads or along a main road could play a significant role in navigation;

- At a local level, landmark elements could be a distinctive house, public art, or even an old and sizeable tree;

- New signage design should be easy to read. Elements such as languages, fonts, text sizes, colours and symbols should be clear and concise;

- Signage can also help highlight existing and newly proposed footpaths and cycle lanes, encouraging more use of them;

- Signage should be strategically located to signalise gateways and access points, creating connections with important places and destinations; and

- Signage elements and techniques should be appropriate to the character of the area and be a nice fit to the existing architectural style and details.

Figure 28: Local examples of landmark buildings and features.

03

03

Use the street layout and sequence of buildings and landscape to form a "chain" of small landmarks to help with wayfinding.

Local landmark buildings or distinct building features -such as towers, chimneys, or porches- at key nodes and arrival points help orientation.
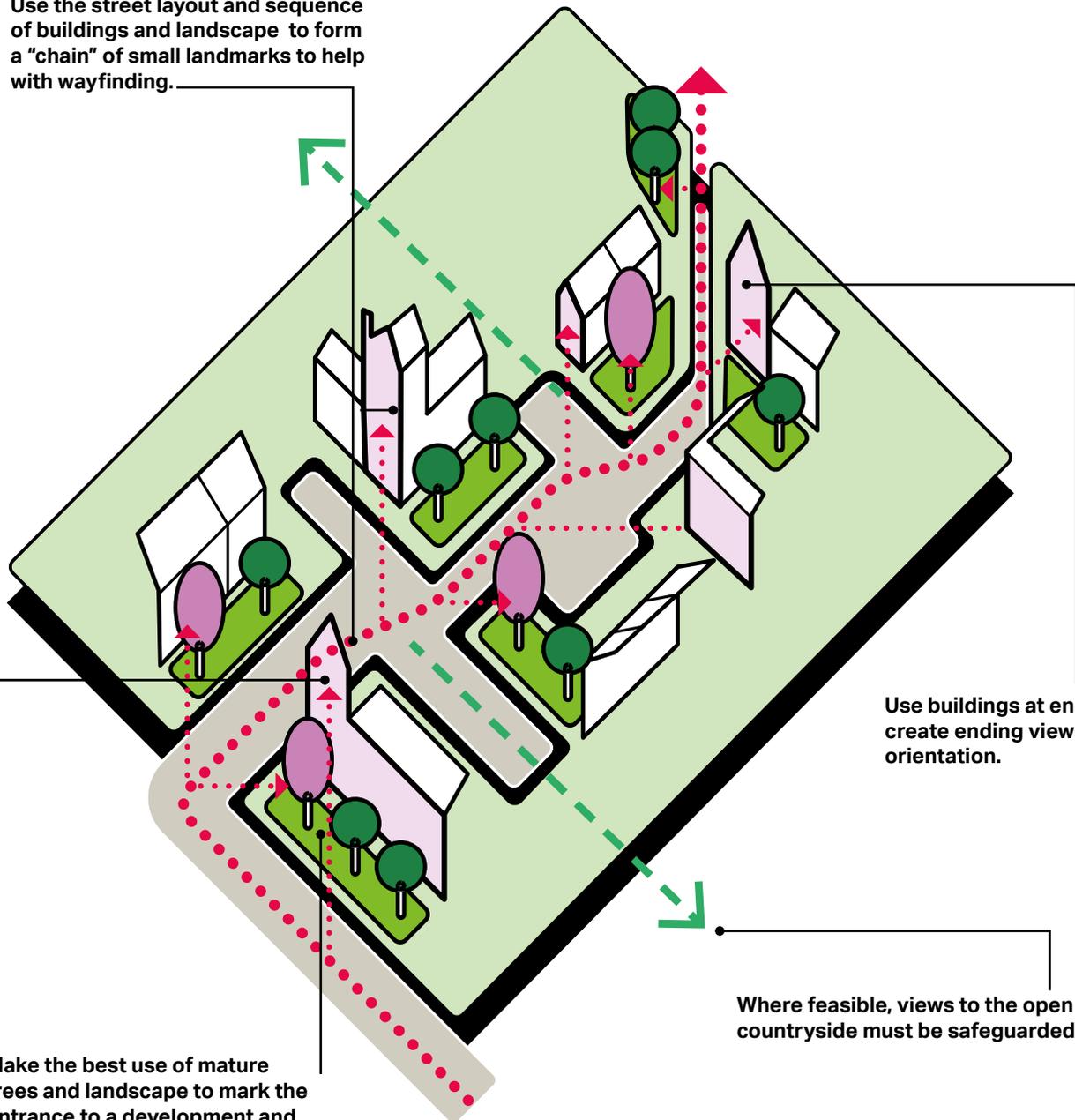
Use buildings at end of streets to create ending views and sense of orientation.

Where feasible, views to the open countryside must be safeguarded.

Make the best use of mature trees and landscape to mark the entrance to a development and general character of streets.

Figure 29: Diagram showing approaches to wayfinding.

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3.4.5 Create a green network

Green networks, corridors and linkages are widely seen as a key mechanism for reversing the effects of fragmentation of biodiversity as well as having a positive impact on communities. Thus, some guidelines for new development are:

- New development should offer a variety of open spaces hosting a diverse range of planting and trees. This landscape also improves air quality and can help to mitigate flooding. Trees play a significant role in mitigating climate change and provides natural shading. Within buffer areas, optimum choices of tree species should be used to provide denser or taller covering where needed;

- New developments should incorporate existing native trees and shrubs and avoid unnecessary loss of flora. Any trees or woodland lost to new development must be replaced;

- Native trees and shrubs should be used to reinforce the more rural character of the fringes of the village. Particular emphasis should be given to the maintenance and improvement of existing hedgerows and the planting of the new ones;

- Landscape in open spaces should be of high quality and incorporate native species that are likely to thrive, thus encouraging local character and civic pride;

- New and existing landscapes and open spaces should be located within walking distance from their intended users and connected via other green and village networks such as footpaths, tree lined streets and public rights of way. Trees and other planting used to line the streetscape should vary in colours and appearance to enhance the aesthetic and diversity;

- These networks are often more useful to create visual amenity, for recreational use and wildlife corridors than isolated parks. These links should reinforce hedges or wood edge lanes typical of Pembury;

- Where direct green links are not possible, it may be appropriate to link these together through green routes, shared surfaces and streets. On these front gardens and their treatment will provide the landscaping continuity. Similarly, tree lined streets can achieve a visual and physical connection to open space;

- New developments when adjoining public open spaces and important gaps should always provide a positive interface in the form of a soft landscape edge made up by front gardens or planted privacy strips around properties; and

- New developments should also consider including other natural features typical of Pembury such as ponds or orchards. This will help continue the sense of character of the village in the new developments.

03

Agricultural fields can provide essential hedgerows and trees and contribute to the resilience of green networks.

Provide generous back and front gardens, with sufficient permeable surfaces to provide planting of local species of trees and shrubs.

Hedgerows, field or hedge trees and copses should be retained or included in new developments to link the countryside and create a rural environment.

03

Local green spaces can be a key element in guaranteeing connectivity of wildlife corridors. They should be carefully located in new developments to maximise their potential as such habitat connectors.

Agricultural fields and areas within the AONB can offer opportunities for a strong green network in conjunction with landscape across the Village.

Natural open spaces and water features should be protected and safeguarded from unnecessary human action.

Agricultural fields/ countryside

Open spaces and gardens

Transitional landscape

Agricultural fields/ countryside

**Natural open spaces and water features**
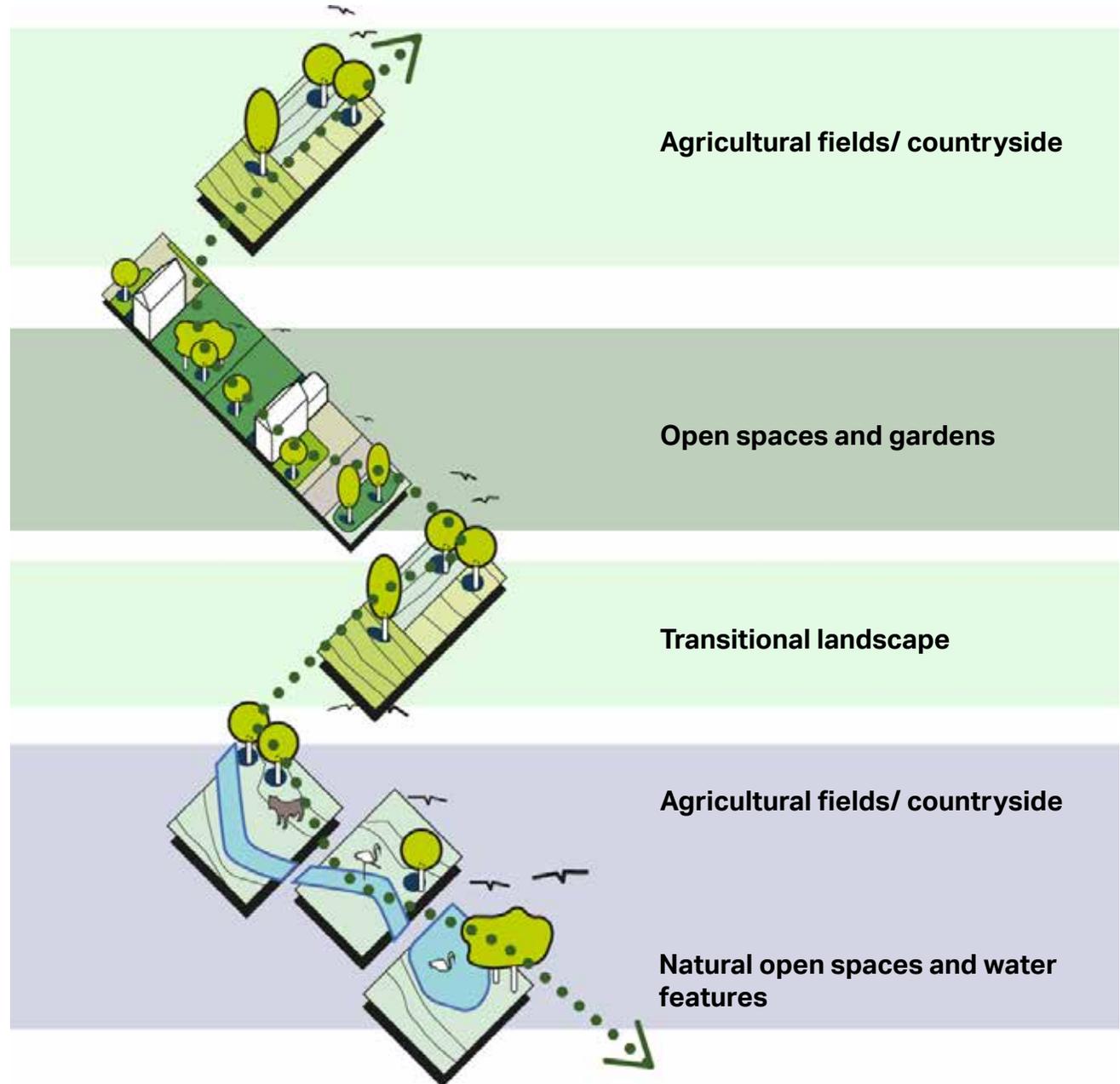
Figure 30: Diagram showing approaches to creating a green network across the village areas.

AECOM

3.5   Guidelines and codes for street typologies and parking

3.5.1 General design principles for street placemaking

1. Green verges along the main street with large street trees to provide shading and create a 'garden' neighbourhood feel. This could include wildflower planting or food growing opportunities;

2. Potential for on-street parking to be interspersed with trees to avoid impeding moving traffic or pedestrians and also mitigate the visual impact of vehicles;

3. On-plot side parking is suggested as the main parking typology in the area;

4. Front gardens are a key element to contribute to the openness of the streetscape with rich vegetation and planting;

5. Corner buildings should act as landmarks in order to create memorable routes and improve the architectural quality of the area;

6. Potential for public art installations that celebrates local heritage in open spaces to improve the aesthetics of the environment and help navigation. The use of materials should consider natural materials such as wood, sandstone or living willow rather than granite or steel.


03
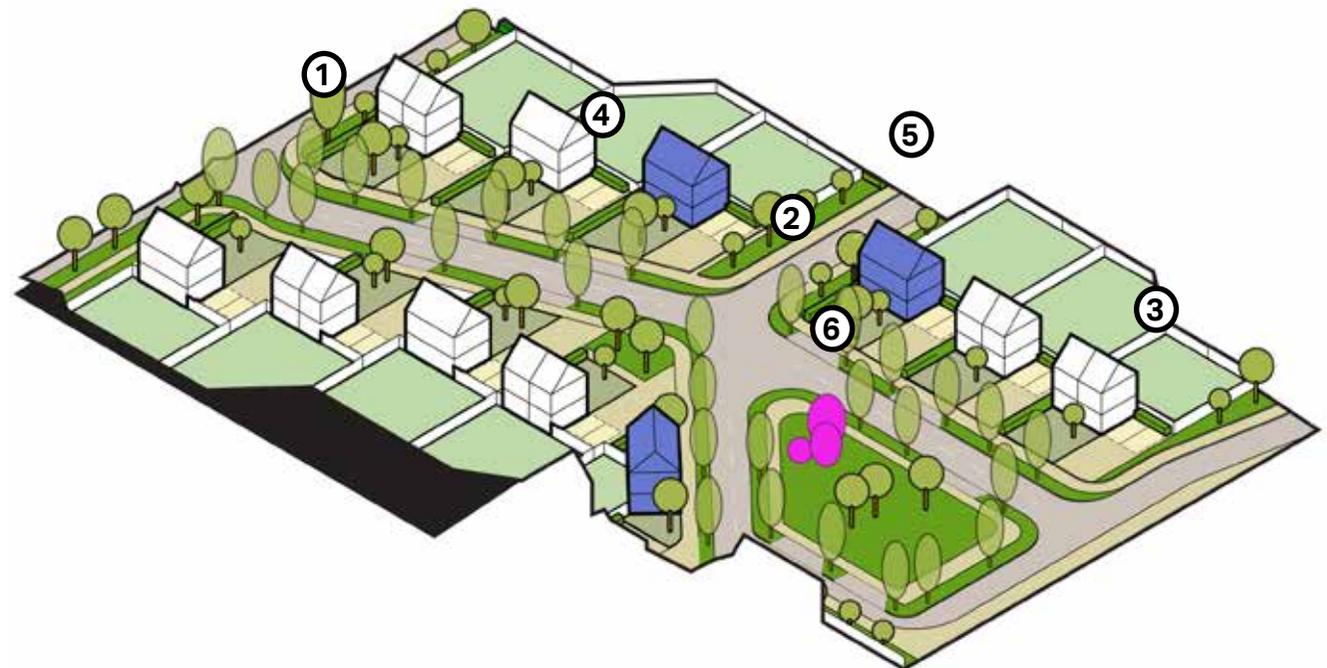
Figure 31:   Diagram showing approaches to creating placemaking on streets.

3.5.2 Main street

This street provides the main access spine of a new development and connects it to the rest of the settlement. It will carry most of the heavy traffic, whilst the rest of the street network will only carry low neighbourhood traffic. Some design guidelines for this street typology are:

- Street needs a design speed of 20mph as a maximum. Appropriate signage will be added to inform drivers about the speed limits;

- Provide front gardens and street planting along the main streets to contribute to the general feeling of openness in the area. Other street boundaries typical of Pembury, such as low fences or walls, can also be used to maintain the sense of character;

- Where possible, locate parking to the side of properties and consider using car ports to mitigate the impact of cars on the streetscape. Planting and vegetation on the front gardens and sides of the properties can also help improve the aesthetics of the environment;

- Main streets serve as accesses to the new development. This role can be highlighted by providing planting and appropriate signage on the junctions with existing roads. This will create a welcoming character. Corner buildings can have special features to provide interest to the main spine and to also be used as landmarks helping navigation;

- Planting on street corners, junctions, and at the end of vistas can help with wayfinding and serve as open spaces in their own right;

- Green verges and street trees should be integrated in the design, where possible, to create attractive neighbourhoods and provide shade to pedestrians and cyclists;

- Where on-street parking is proposed, it should be interspersed with trees to avoid impeding moving traffic or pedestrians;

- Cycle lanes are encouraged on main streets to promote alternative methods of transportation, in so far as this approach aligns with the emerging policy in the Submission Local Plan; and

- In key locations, include electric vehicle charging points (see also section 3.5.7).

Main street - dimensions

The nominal dimensions on the sections in this page are a guide for the key elements and proportions to be provided on the main access street:

- Maximum building heights must reflect the topography and ridge lines ranging from 2 to 2.5 storeys;

- Minimum width of pavements is 2m. An additional 2.1m is provided for street planting and if required on street parking; and

- Minimum depth of front gardens is 4m. width planting encouraged. Width of the carriageway is minimum 5.5m;

1 Shared carriageway (neighbourhood traffic). Traffic calming measures may be introduced at key locations if needed.

2 Footway - utilities typically located underneath.

3 Green verges and street trees.

4 Residential frontage with boundary hedges, fences or walls and front gardens.

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

4 to 6m   2   2.1   5.5   2.1   2   4 to 6m

KEY   Carriageway   Footway   Green verges/on-street parking   Front gardens
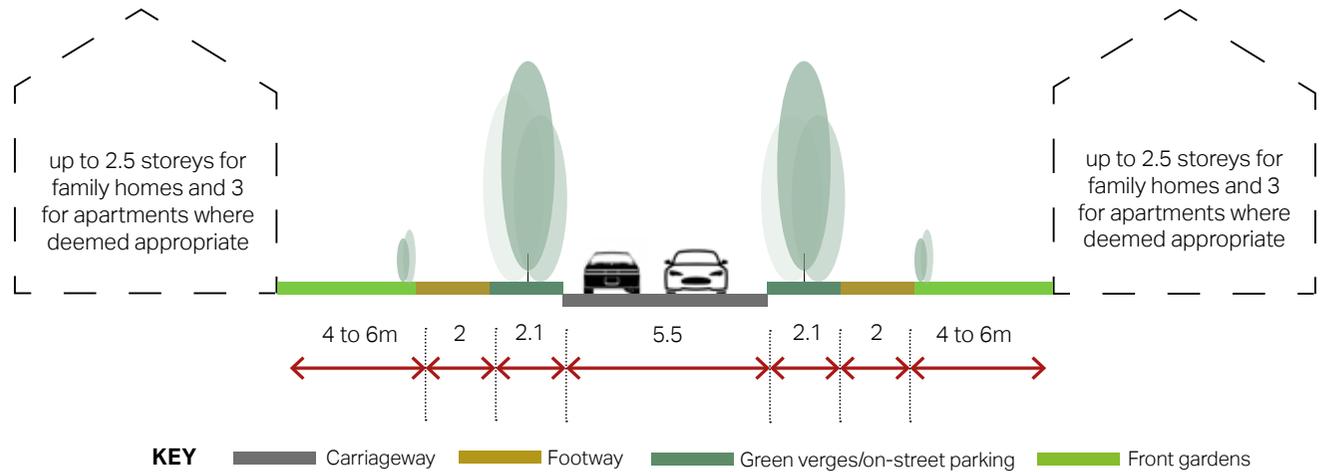

Figure 32: Diagram key dimensions and design elements for main streets.

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3.5.3 Street with cycle lane

This street typology incorporates a cycle lane shared with footway. The design guidelines for this street typology are:

- They must be designed for low traffic volumes and low speed (20mph), including elements supporting lower speeds e.g. minimising the corner kerb radius, raised tables, minimal or no road marking;

- Carriageways should accommodate two-way traffic (no.1);

- Front gardens should be well-vegetated to create an attractive walking environment (no.2);

- Locate parking to the side of the property to mitigate the impact of cars on the streetscape, subject to building typology (no.3);

- Shared footway and cycle lane should be visually separated from carriageway and implement a level difference with it. The shared lane should be placed on the southside of the streets so it can be shaded by north facing properties (no.4); and

- Where possible shared cycle and footways should be avoided where there is room to have a dedicated cycle lane on one side of the road and a footway on the other side.

04
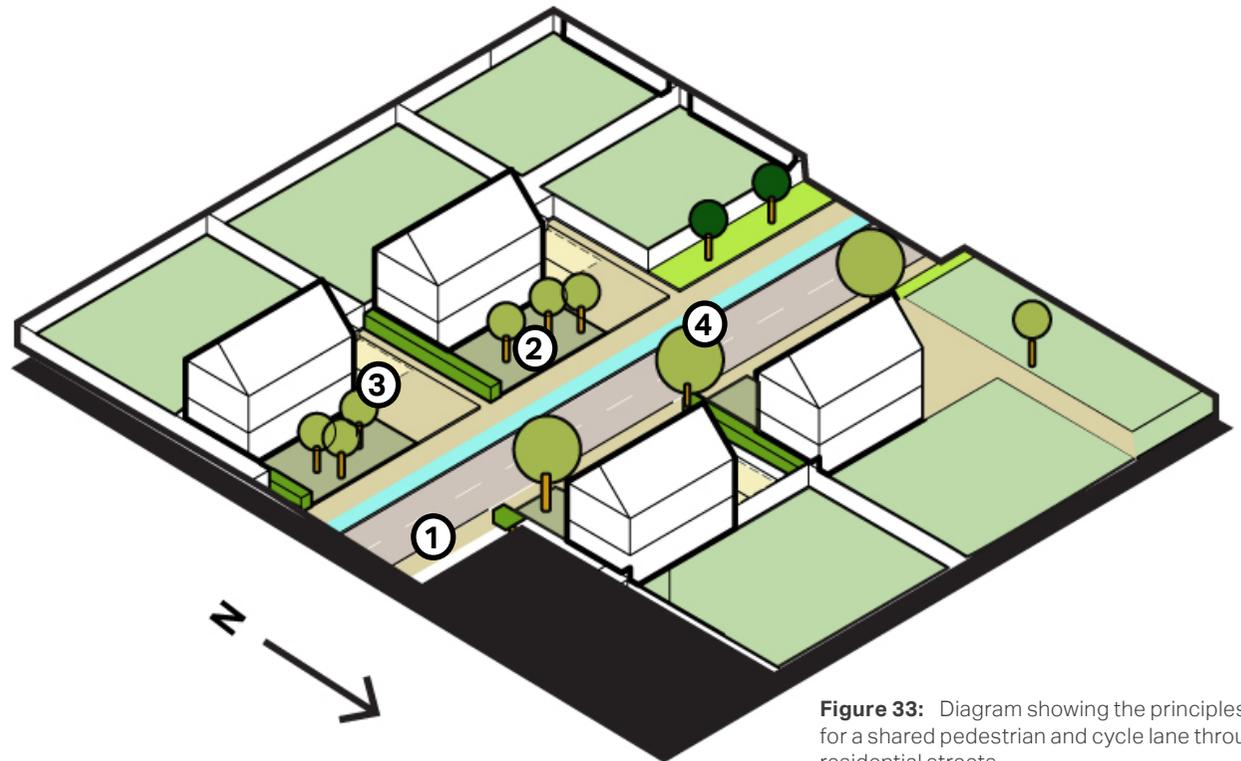
Figure 33: Diagram showing the principles for a shared pedestrian and cycle lane through residential streets.

Street with cycle lane - dimensions

The nominal dimensions on the sections in this page are a guide for the key elements and proportions to be provided for the shared cycle lane:

- Maximum building height is up to 2.5 storeys for family homes and 3 for apartments where appropriate;

- Minimum width of pavements is 2m. An additional 2m is provided for street planting;

- Width of the pedestrian/cycle shared lane is 3.5m. Tree planting and preservation of any existing hedges is encouraged;

- Minimum depth of front gardens is 4m. Tree planting is encouraged; and

- Width of the carriageway is 5.5m.

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

4m   3.5   5.5   2   2   4m

KEY   Carriageway   Footway   Verge   Front gardens   Cycle lane (shared with footway)

03
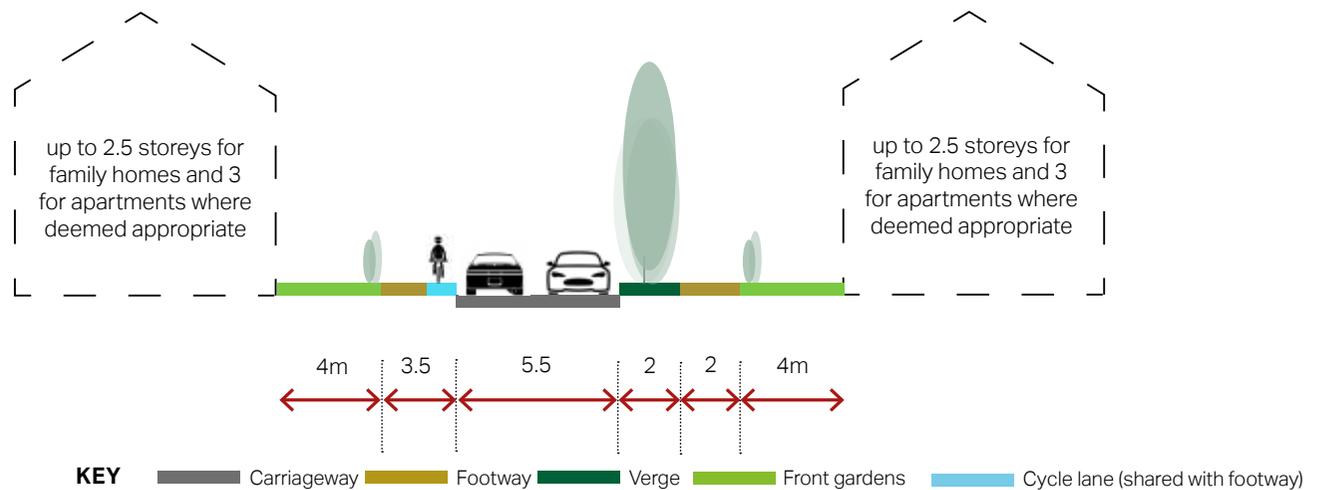
Figure 34:   Top: diagram showing the suggested street section incorporating a shared pedestrian and cycle lane. Bottom an example of the shared cycle lane and footway.

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03

3.5.4 Residential street

Residential streets need to provide a strong residential character and direct access to residences. The design guidelines for this street typology are:

- They must be designed for low traffic volumes and low speed (20mph). They should include design elements that support lower speeds e.g. minimising the corner kerb radius, raised tables, horizontal deflection, and the like;

- Carriageways should accommodate two-way traffic and parking bays should be designed for cyclists to mix safely with motor vehicles;

- Front gardens should be well-vegetated to create an attractive walking environment;

- Preferably, locate parking to the side of the property to mitigate the impact of cars on the streetscape, subject to building typology;

In the case of cul-de-sac development some other design guidelines for this street typology are:

- Cul-de-sacs should have pedestrian paths that connect them to surrounding areas and increase their connectivity, with careful consideration given to the landscaping and lighting of these paths to increase their safety;

- It is generally advisable to back onto gardens of other properties. A side dwelling typology is suggested here as an alternative when properties back onto the open countryside. It provides 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; and

- Parking rear courtyards are generally not acceptable if there's no form of natural surveillance. Front parking areas could be acceptable depending on how well landscaped they are and how cars are grouped.

3.5.5 Residential street variations in design

1. Wide pavements to encourage pedestrian flow and street trees to provide shading and create a 'garden' neighbourhood feel. Existing or new hedgerows in between blocks of terraces or other dwellings parallel to the street can also be used to separate homes from traffic;

2. On-plot side parking is suggested as the main parking typology in the area;

3. Front gardens are a key element to contribute to the openness of the streetscape with rich vegetation and planting;

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 an adequate connection with the footpath networks available in the area (indicated with dashed red arrows in diagram).

03

Typical residential street
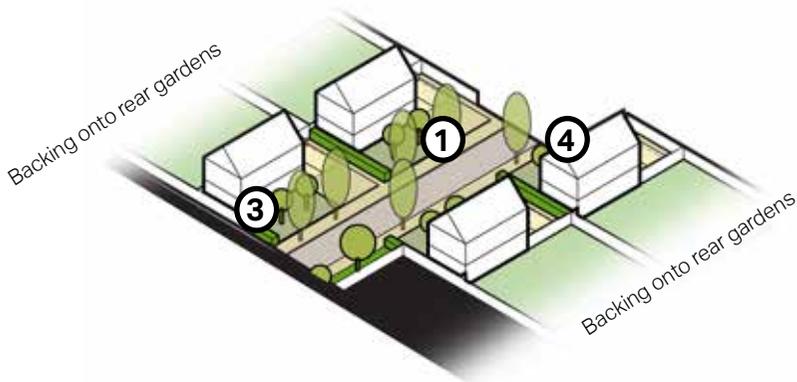
Cul-de-sac street
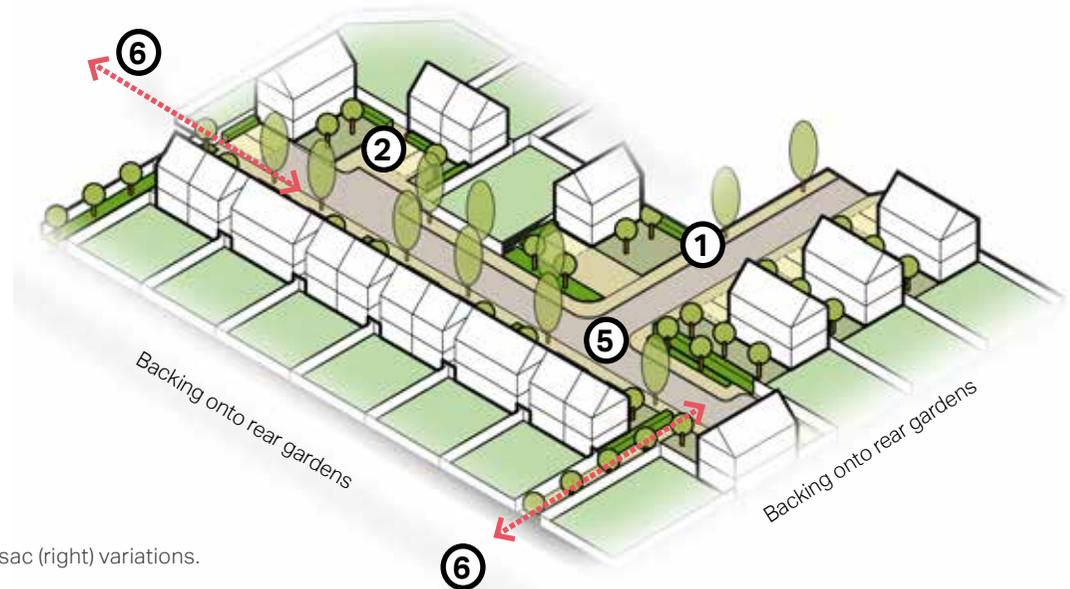
Figure 35: Diagram showing the general street section in through route (left) and cul-de-sac (right) variations.

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Residential street - dimensions

The nominal dimensions on the sections in this page are a guide for the key elements and proportions to be provided on the main access street:

- Maximum building height is up to 2.5 storeys for family homes and 3 for apartments where appropriate;

- Minimum width of pavements is 2m. When verges are included, an additional 2m is provided for street trees;

- Minimum width of front gardens is 4m. Tree planting is encouraged; and

- Width of the carriageway is 5.5m with a 20mph speed design to be able to share with cycles.

04

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

4 to 6m   2   5.5   2   4 to 6m

KEY   Carriageway   Footway   Green verges   Front gardens

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

up to 2.5 storeys for family homes and 3 for apartments where deemed appropriate

4 to 6m   2   2   5.5   2   2   4 to 6m

Figure 36:   Diagram showing the general street section dimensions without (top) and with (bottom) verges for street trees (the latter being preferred).

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3.5.6 Edge lane

Edge lanes should be proposed when a street is adjacent to the countryside or large open spaces. The design guidelines are:

- Edge lanes must be low-speed roads (20 mph or less) edged by front houses with gardens on one side and a green space / countryside on the other. Carriageways typically consist of a single lane of traffic in either direction and could be shared with cyclists; nominally 6 to 8 m wide and no footway;

- Provide a planting buffer and landscaping between the edge of the carriageway and the countryside in order to provide transition and control pedestrian accessibility where required. (no.1). The use of hedgerows where edge lanes face onto agricultural land is particularly encouraged. This buffer futureproofs the development against potential development that might front onto the edge lane in the future;

- These lanes can gently meander, providing interest, providing interest and evolving views while helping with orientation (no.2);

- Connect the edge lane to paths and other public rights of way where possible (no.3);

- The lane width can vary to discourage speeding and introduce a more informal and intimate character. Variations in paving materials and textures can be used instead of kerbs or road markings (no.4). The use of gravel with resin, fine gravel suitable for cycling or hoggin are encouraged; and

- Swales and rain gardens could also be added into the landscaping to address any flood issue (no.5).
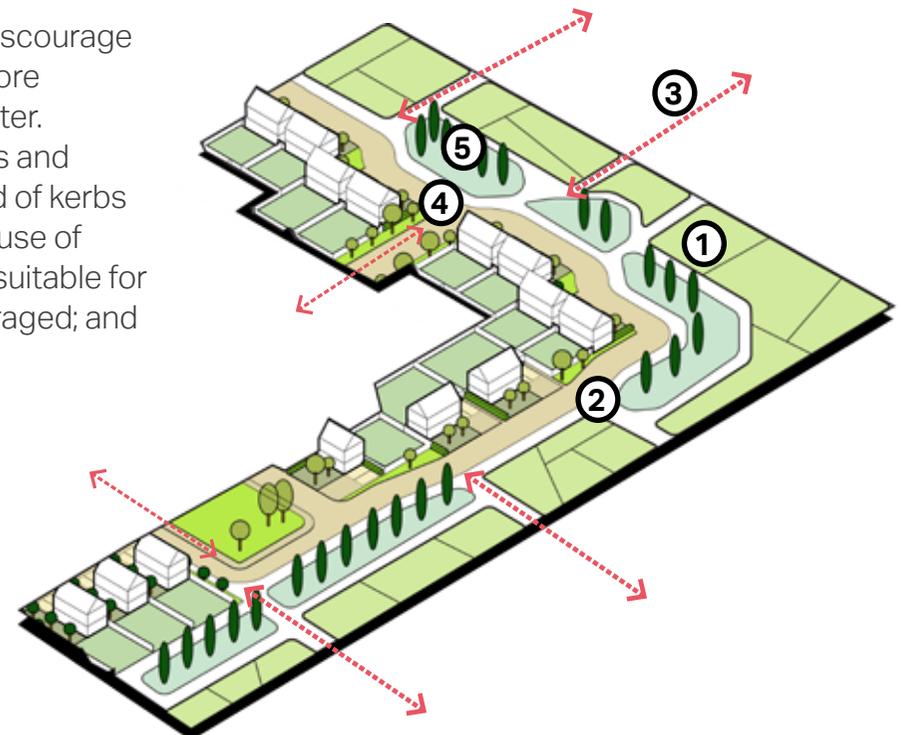
Figure 37: Diagram showing the edge lane design features.

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Edge lane - dimensions

The nominal dimensions on the section on this page serve as a guide for the key elements and proportions to be provided

- Maximum building height is 2-2.5 storeys;

- Width of the shared carriageway is between 6-8 m to accommodate vehicles, cyclists and pedestrians; and

- Minimum width of front gardens is 4m. Tree planting and landscaping is encouraged.

1 Shared carriageway (neighbourhood traffic). Traffic calming measures may be introduced at key locations if needed.

2 Residential frontage with landscaping

3 Meandering route with variations in width.

2 to 2.5 storeys

4 to 6m   6-8m   variable green buffer   countryside

**KEY** ▬ Shared lane ▬ Front gardens
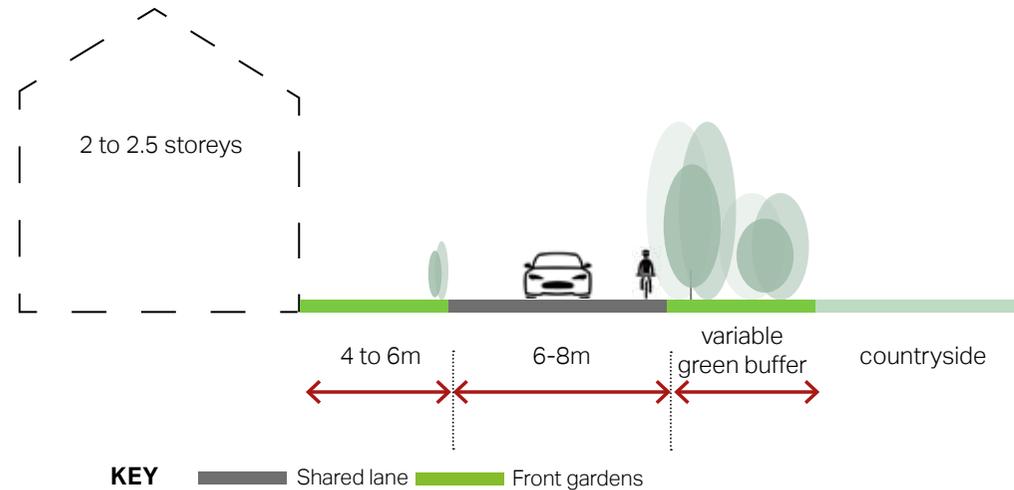
Figure 38: Top diagram showing the edge lane dimensions; bottom picture showing a built example without fencing and/or hedging. The particular site conditions and design intent should dictate what is the best plot boundary treatment.

03

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3.5.7 Car parking solutions

The demand to accommodate private cars still remains high at the time of writing, and therefore car parking has to be carefully integrated into neighbourhoods. A good mix of parking typologies should be provided depending on, and influenced by, location, topography and market demand. The main types to be considered are shown on this page and the next one.

- Vehicle parking should be mainly provided on-site. In general, the approach to the provision of parking should be flexible not only with the types of parking solutions but also the use of parking spaces over time. For example, the use of off-site parking facilities may be adapted depending on the long-term evolution of parking demand to serve different mobility needs such as car clubs, scooters, or bicycle storage;

- Car parking design should be combined with landscaping to minimise the presence of vehicles;

- Parking areas and driveways should be designed to minimise water run off through the use of permeable paving;

- For small dwelling clusters, a front or rear parking court is acceptable. For family homes, cars may be placed at the front or side of the property, the latter being preferred;

- When placing parking at the front, the area should be designed to minimise visual impact and to blend with the existing streetscape and materials. The aim is to keep a sense of enclosure and to break the potential of a continuous area of car parking in front of the dwellings by means of walls, hedging, planting, and use of differentiated quality paving materials;

- A very useful website that helps define appropriate car parking solutions depending on the type of development is http://www.spacetopark.org/. This resource should be used as a design tool in new developments.
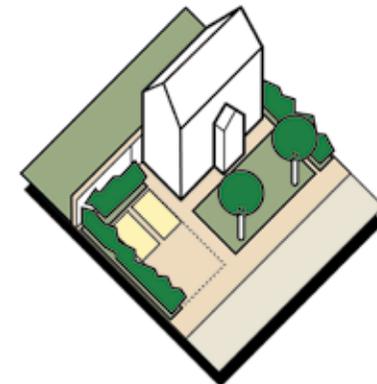
On-plot parking on driveway
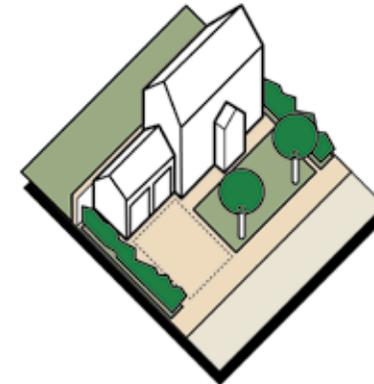
On-plot parking on garage
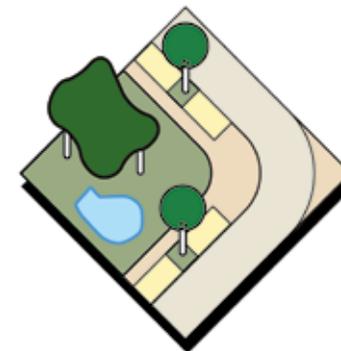
On-street parking adjacent public open space

Figure 39: Diagram showing examples of car parking solutions.

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On-plot side or on front parking

Some guidelines are:

- On-plot parking can be visually attractive when it is combined with high quality and well designed soft landscaping. Front garden depth from the pavement must be sufficient for a large family car;

- Boundary treatment is the key element to help avoid a car-dominated character. This can be achieved by using elements such as hedges, trees, flower beds, low walls, and high quality paving materials between the private and public space; and

- Hard standing and driveways must be constructed from porous materials to minimise surface water run-off.

1. Front parking with part of the surface reserved for soft landscaping. Permeable pavement to be used whenever possible.
2. Side parking set back from the main building line. Permeable pavement to be used whenever possible.
3. Boundary hedges to screen vehicles and parking spaces.

03
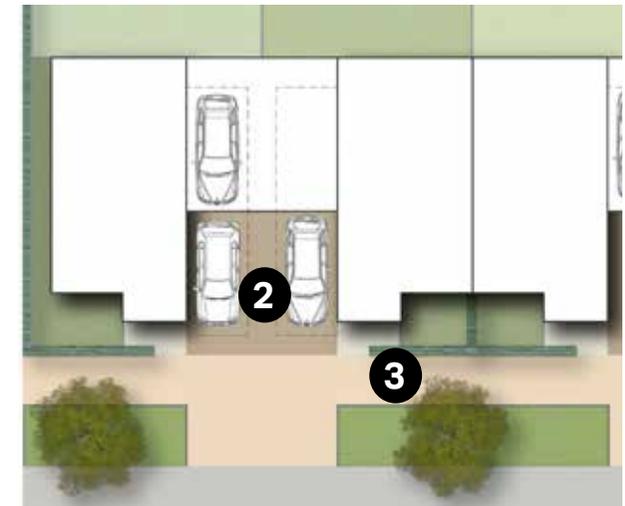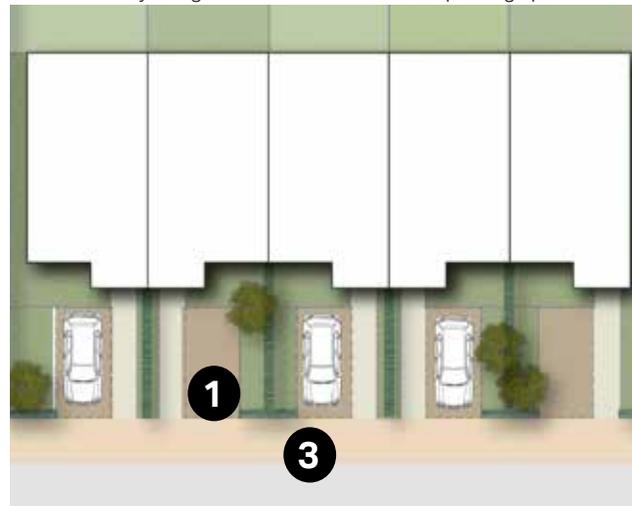
Figure 40: Photos and diagram showing desired features for front and side car parking solutions.

On-plot garages

Some guidelines for future development are:

- Where provided, garages must be designed either as free standing structures or as additive form to the main building. In both situations, it must complement and harmonise with the architectural style of the main building rather than forming a mismatched unit;

- Often, garages can be used as a design element to create a link between buildings, ensuring continuity of the building line. However, it should be considered that garages are not prominent elements and they must be designed accordingly; and

- Consideration must be given to the integration of bicycle parking, electric vehicle charging points, and/or waste storage into garages.

1. Side parking set back from the main building line. Permeable pavement to be used whenever possible.
2. Garage structure set back from main building line. Height to be no higher than the main roofline.
3. Boundary hedges to screen vehicles and parking spaces.
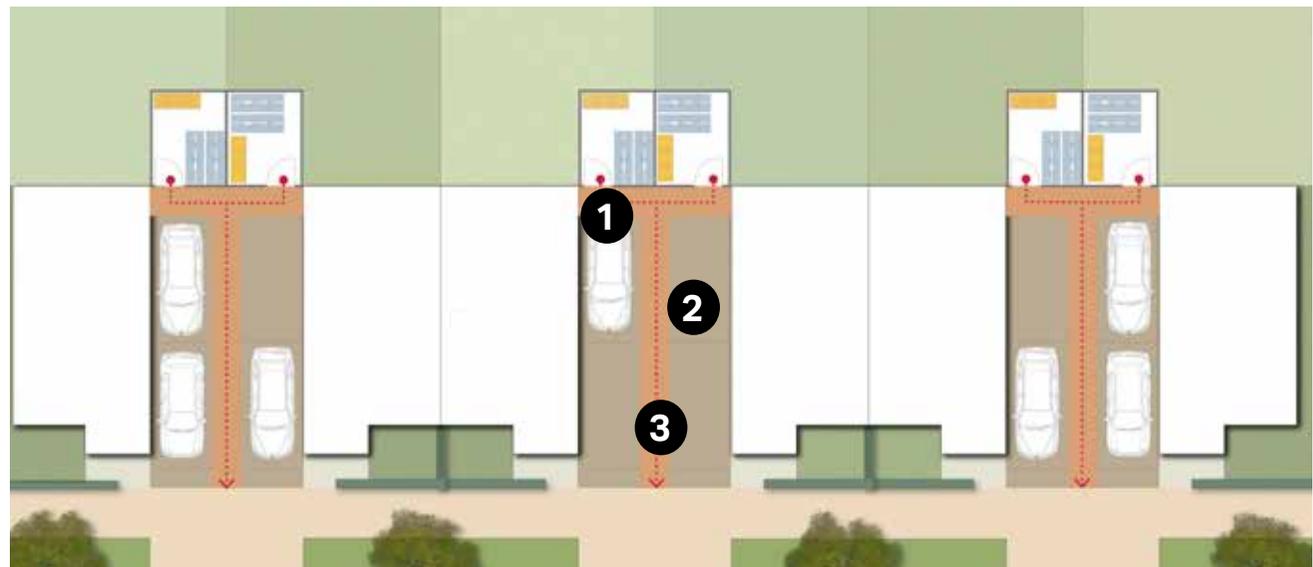
Figure 41: Photos and diagram showing desired features for on-plot parking solutions.

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On street parking

Some guidelines for future development are:

- On-street parking should be allowed along main roads, where most of the facilities are located, in order to support delivery and emergency vehicles;

- The streetscape should not be dominated by continuous on-street parking spaces. Where possible, tree planting and other gaps between parking bays should be incorporated;

- On-street parking must be designed to avoid impeding the flow of pedestrians, cyclists, and other vehicles, and can serve a useful informal traffic calming function;

- Parking bays can be inset between kerb build outs or street trees. Kerb build outs between parking bays can shorten pedestrian crossing distances and can host street furniture or green infrastructure. They must be sufficiently wide to shelter the entire parking bay in order to avoid impeding traffic; and

- Opportunities must be created for new public car parking spaces to include electric vehicle charging points. Such provision must be located conveniently throughout the village and designed to minimise street clutter.
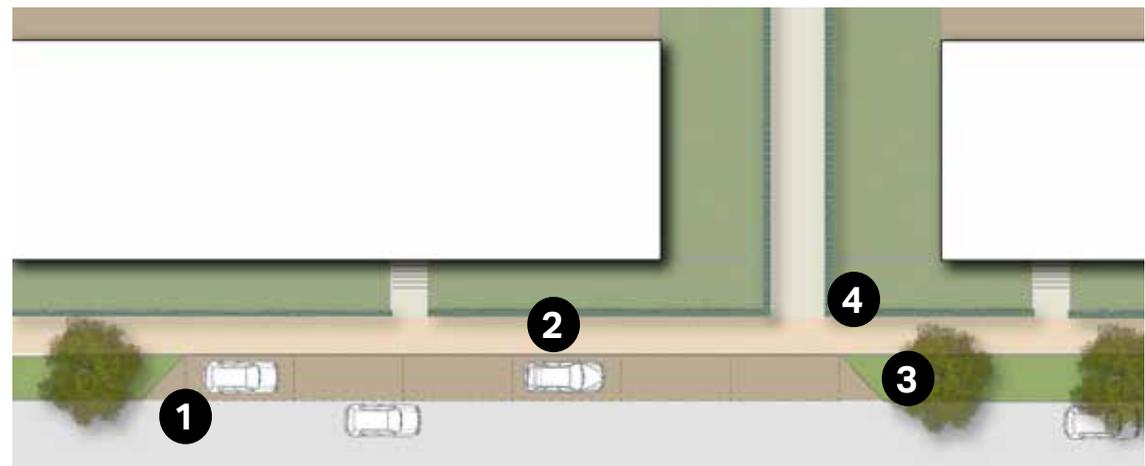
1. On-street parking bay inset between kerb extensions.
2. Footway - additional green verge if street width permits.
3. Planted kerb extensions - width to be sufficient to fully shelter parking bay. Trees are optional but would be positive additions.
4. Boundary hedges.

Figure 42: Photos and diagram showing desired features for on-street parking solutions.

03

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Electric vehicle charging points

On-street car parking

- Car charging points should be provided alongside on-street parking and should always be adjacent to a public open space;

- Where charging points are located on the footpath, a clear footway width of 1.5m is required next to the charging point, for a wheelchair user and a pedestrian to pass side-by-side;

- Charging points should never be placed in such a way that forces drivers to park on the pavement or across spaces for cables to reach the charging point from the vehicle; and

- Charging points should be placed so they can serve as many vehicles as possible. This helps to overcome issues associated with charged vehicles or petrol or diesel vehicles blocking dedicated EV spaces. This can make the charging point unusable for others if the charging cables cannot reach other spaces.

Off-street car parking

- Mounted charging points and associated services should be integrated into the design of new developments, all of which will provide off-street parking. Avoid cluttering elevations, especially main facades and front elevations.

Figure 43: Photos showing desired design features for electric car charging points.

3.5.8 Cycle parking solutions

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

Houses without garages

- Cycle storage must be provided at a convenient location with 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 of at least 900mm width and the clear interior space should be at least 2m deep;

- Cycle parking should be secure, covered and it should be well integrated into the streetscape if it is allocated at the front of the house; and,

- The use of planting and smaller trees alongside cycle parking can be used to mitigate any visual impact on adjacent spaces or buildings;

Houses with garages

- The minimum garage size should be 7mx3m to allow space for cycle storage;

- Where possible cycle parking should be accessed from the front of the building either in a specially constructed enclosure or easily accessible garage;

- The design of any enclosure should integrate well with the surroundings; and

- The bike must be removed easily without having to move the vehicle.
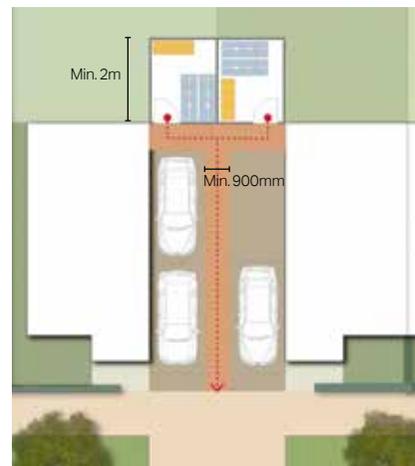
KEY

■ Cycle storage
■ Bin storage
■ Clear access path
‌······· Cycle/bin wheeling route
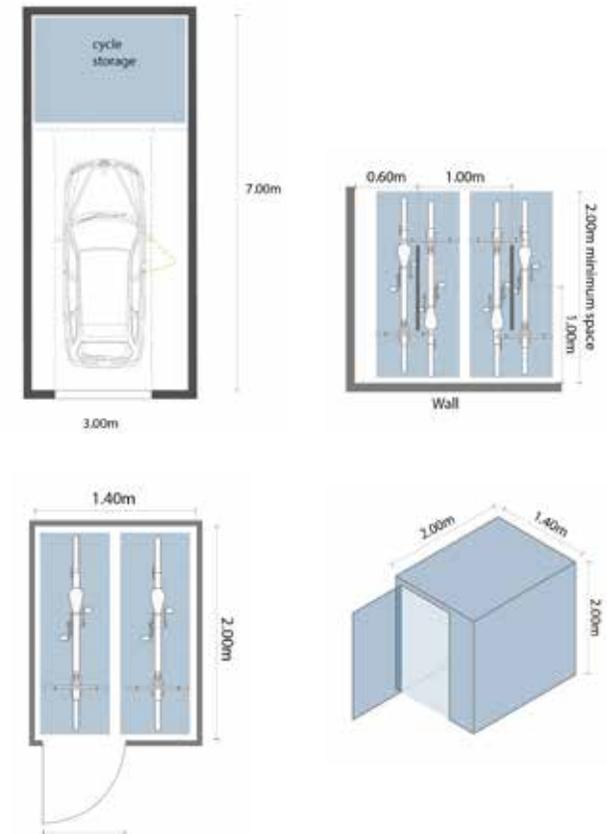
Figure 44: Diagrams showing design features for cycle parking and storage.

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3.5.9 Street planting

New street planting helps maintain visual consistency along the public realm. It is associated with better mental health and well-being by reducing stress, lessening heat islands, and providing protection from natural elements such as wind and rain. Guidelines for street planting are:

- Flower beds, bushes and shrubs should be welcomed in new developments, since they contribute to the livelihood of the streetscape. Normally planted within the curtilage boundary, ornamental species add interest and colour to their surroundings and become an identity and expressive feature of each dwelling;

- Hedgerows can be planted in front of bare boundary walls to ease their visual presence or they can be used to conceal on-plot car parking and driveways within curtilages;

- Trees can normally be used to mark reference points and as feature elements in the streetscape. When planted in intersections and key locations they can help with privacy whilst enhancing the wayfinding and distinctiveness of the area. These tend to be within property curtilages;

- Trees should also be present in any public open space, green or play area to generate environmental and wildlife benefits;

- Retained trees, hedgerows and hedge trees must be considered early in the design process to ensure these fit with and enhance the design proposal as well as ensuring their survival; 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, street lights etc.

Figure 45: Photos showing desired design features for street trees and planting.

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3.5.10 Street lighting

For maximum benefit, the best use of artificial light is about getting the right light, in the right place and providing light at the right time. Lighting schemes can be costly and difficult to change, so getting the design right and setting appropriate conditions at the design stage is important. Some guidelines for new development are:

- Any new development shall ensure that lighting schemes will not cause unacceptable levels of light pollution particularly in intrinsically dark areas in the countryside, in line with the emerging Local Plan policy EN8, Pembury Neighbourhood Plan policy P12 and the High Weald AONB Management Plan;

- New development shall avoid the use of lighting that has a negative impact on health and wellbeing;

- New development must consider lighting schemes that could be turned off when not needed;

- The needs of particular individuals or groups should be considered where appropriate (e.g. the safety of pedestrians, cyclists, drivers or older users);

- Consider the colour temperature of lights. If possible look for bulbs which emit light in the 2,700k to 3,000k range (a 'warm white'). This will avoid the 'blue' white light (in the range 6,000k – 7,000k) which is believed to be worse for wildlife, with moths being particularly affected;

- Shine lights down and avoid upwards reflection; and

- Design of luminaries and lamp posts should be in keeping with the character of the area.
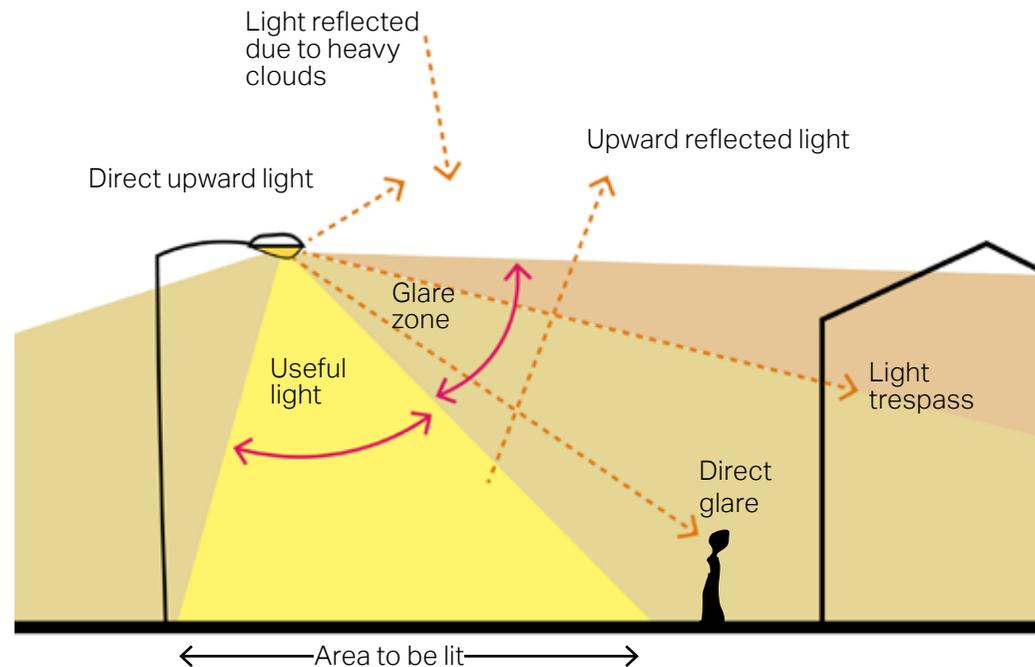
Figure 46: Diagram showing different aspects of light coverage and reflection to be considered during the design stage.

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3.6   Guidelines and codes for built form

3.6.1   Overlooking public space

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

- There should be well-defined routes, spaces and entrances that provide convenient movement without compromising security;

- Routes without surveillance and frontage overlooking should be avoided;

- Main building facades should overlook streets and open spaces to improve natural surveillance. In addition, side windows and driveways should also be well-overlooked;

- Integrate facilities into the open spaces that meet the needs of the people living close by in order to make them attractive;

- Avoid using tall green screening on front gardens in order to allow for some filtered views to the street and the open spaces; and

- Integrate light installations along the streets as well as in the open spaces in order to improve the feeling of safety in the area.

Figure 47:   Photo and diagram showing the benefits of overlooked streets and open spaces.

Make entrances face streets and open spaces. Make clear routes to improve wayfinding and reduce ambiguity on the street. Clear pathways to entrances are particularly relevant in areas with large front gardens.

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

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. Provide good levels of lighting in the public realm.

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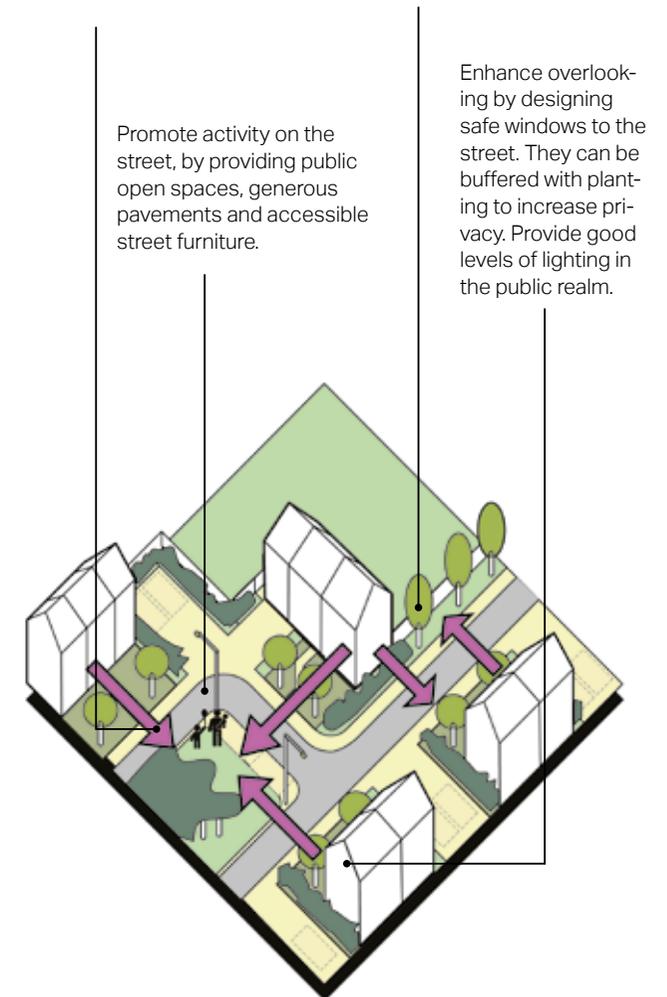
3.6.2 Corner treatment

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

- If placed at important intersections the building could be treated as a landmark and thus be slightly taller or display another built element, signalling its importance as a wayfinding cue;

- The form of corner buildings should respect the local architectural character. Doing so improves the street scene and generates local pride;

- All the facades overlooking the street or public space should be treated as primary facades;

- They should have some form of visual contact in the form of windows, balconies, or outdoor private space; and

- Road layouts should be designed to slow traffic and prioritise pedestrians and cyclists over vehicles.
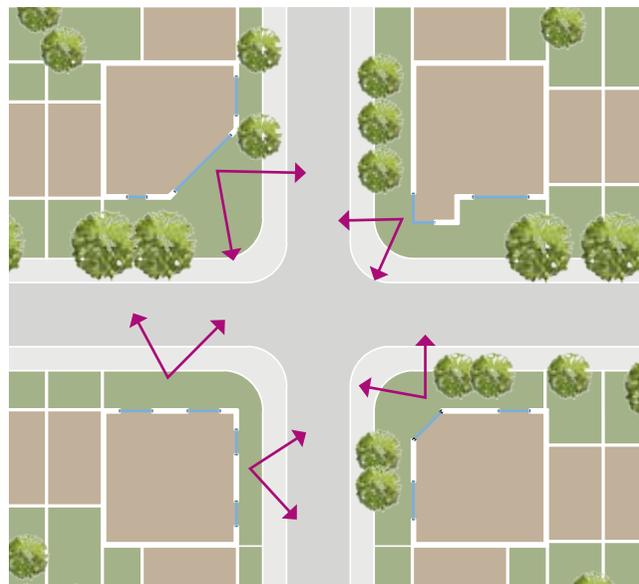
Figure 48: Diagrams showing the desired treatment of corners.

Buildings turning a corner have the opportunity to generate new local character, they are in visible points of the development, and can be key elements to reduce monotony and improve orientation. They can feature architectural elements that underline their special conditions.

In every case, overlooking towards the street and privacy of the dwellings should be carefully balanced.

Windows and other fenestrations create street contact.

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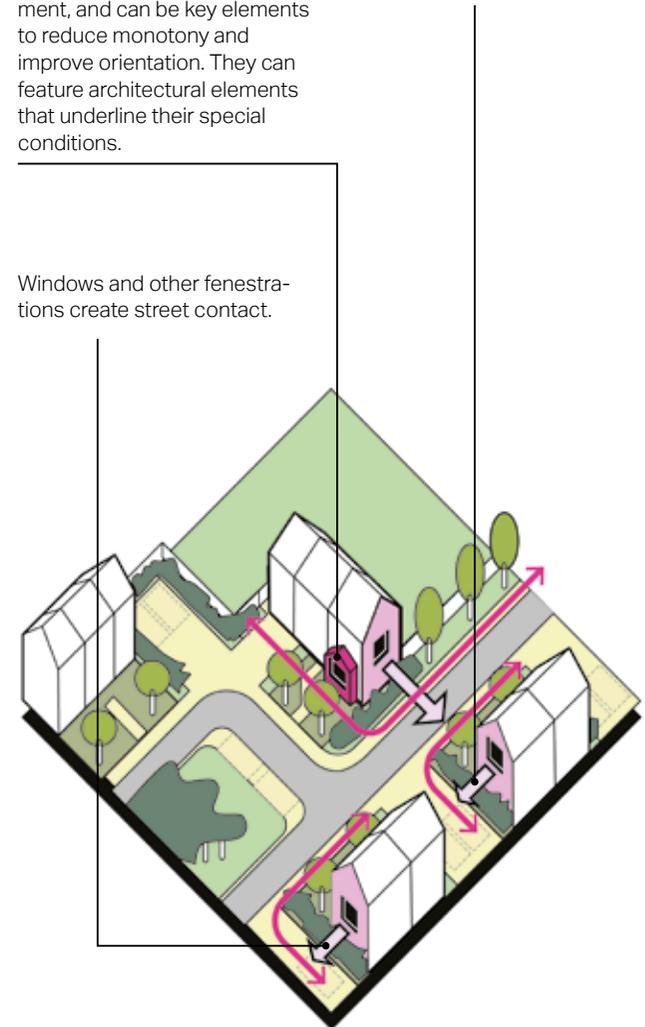
3.6.3 Building lines and boundary treatments

Building line and boundary treatments vary across the village. To respect the existing context, both the building and the boundary features should be consistent with neighbouring properties while enabling enough variations for visual interest.

- Buildings should front onto streets. The building line should have subtle variations in the form of recesses and protrusions but should generally form a unified whole;

- Buildings should be designed to ensure that streets and/or public spaces have good levels of natural surveillance from buildings. This can be ensured by placing ground floor habitable rooms and upper floor windows facing the street; and

- Natural boundary treatments should reinforce the sense of continuity of the building line and help define the street, appropriate to the character of the area. They should be mainly continuous hedges and low walls, as appropriate, made of traditional materials found elsewhere in the village such as local bricks. The use of either panel fencing or metal or concrete walls in these publicly visible boundaries should be avoided. Natural boundary treatments should still enable adequate natural surveillance.

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Boundary walls and treatments should reinforce the sense of continuity of the building line and help define the street.

Building lines could have subtle variations in the form of recesses and protrusions, but should generally form a unified whole.

Where front gardens are limited, flower pots and light vegetation can be added to offer some soft landscaping and aid to the boundary continuity
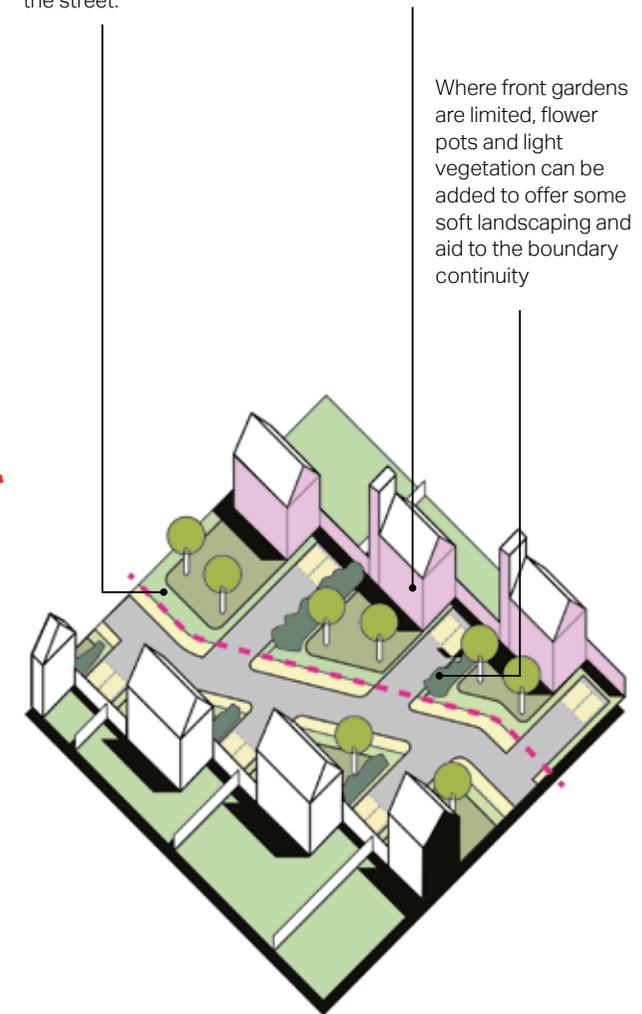
Figure 49: Photo and diagram showing the desired boundary treatment.

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3.6.4 Gateways

- Future design proposals should consider placing gateway elements to clearly mark the access or arrival to any potential developed sites. This is particularly important for developments at the edge of settlements due to their location at the interface between the built-up area and the countryside. Throughout the village, these have generally been achieved by a gentle transition from trees and hedges to buildings;

- The sense of departure and arrival can often be achieved by a noticeable change in scale, enclosure, or road configuration as well as by placing built elements such as gates, arches or similar. The gateway buildings or features should however reflect local character. For example, they must reflect the informal characters of the settlements in the village and their architectural diversity;

- It must be noted that gateway features should mainly be placed to mark a sense of arrival and departure and help with orientation, not to exclude non-residents either physically or symbolically. New developments should also be designed with an open and legible layout rather than an enclosed one; and

- Besides building elements acting as gateways, high-quality landscaping features could be considered appropriate to fulfill the same role.

Figure 50: Photo showing local example of a building acting as a gateway.

3.6.5 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).

The following principles serve as general guidelines that should be considered for achieving a satisfactory sense of enclosure in new development:

- When designing building setbacks, there must be an appropriate ratio between the width of the street and the height of the buildings;

- Buildings should be designed to turn corners and create attractive start and end points to a new street or frontage;

- Generally, building facades should front onto streets. Variation to the building line can be introduced to create an informal character;

- In the case of terraced and adjoining buildings, it is strongly recommended that a variety of plot widths, land use, building heights, and facade depth should be considered during the design process to create an attractive streetscape and break the monotony of the street wall; 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.
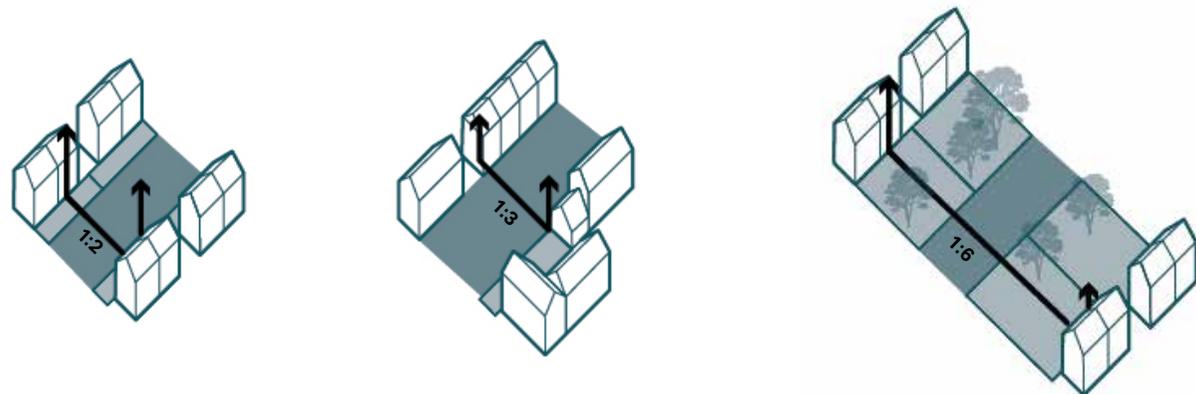

Figure 51: Photo and diagrams showing the desired aspects of enclosure.

3.6.6 Building scale and massing

The average building height in the Pembury existing settlement is 2-2.5 storeys with some exceptions of 3 storey buildings around the village green. Thus,

- New buildings must be sympathetic in mass, height, and scale to the existing context. Any new building above 3 storeys will only be supported in exceptional circumstances, such as significantly lower topography of the land;

- Subtle variation in height is encouraged to add visual interest. The bulk and pitch of roofs, however, must remain sympathetic to the tree canopy, the local vernacular, and the low-lying character of the village. Another way to achieve visual interest could be by varying frontage widths and plan forms; and

- The massing of new buildings must ensure a sufficient level of privacy and access to natural light for their occupants and avoid overshadowing existing buildings. New buildings must not significantly compromise existing property views of open and green spaces and big skies and views over the downs.

Figure 52: Photos showing local examples of desired scale, massing and quality.

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3.6.7 Building heights and roofline

Creating a good variety in the roof line is a significant element of designing attractive places. There are certain elements that serve as guidelines in achieving a good variety of roofs:

- The scale of the roof should always be in proportion with the dimensions of the building itself;

- Monotonous repetitions of the same building elevations should be avoided, therefore subtle changes in roofline should be ensured during the design process;

- Traditional local roof materials, shapes, and detailing should be considered and implemented where possible in cases of new development;

- Dormers can be used as a design element to add variety and interest to roofs. They should be proportional to the dimensions of the roof and facade, and their design should be coordinated with the materials and architectural style used on the rest of the elevation; and

- Building heights should accord with the approach in section 3.6.6 above.

Figure 53: Photos showing a local example of roof variation.

3.6.8 Fenestration

Some guidelines related to fenestration are:

- Fenestration on public/private spaces increase the natural surveillance and enhance the attractiveness of the place. Considerations for natural surveillance, interaction, and privacy must be carefully balanced;

- Corner buildings should incorporate windows on both primary and secondary facades. Long stretches of blank (windowless) walls must be avoided;

- Windows should be of sufficient size and number for abundant natural light;

- Site layout and building massing should ensure access to sunshine, allow for proper ventilation, avoid building overheating and avoid overshadowing neighbouring buildings;

- New developments should also maximise opportunities for long-distance views through careful placement of windows; and

- Consistent window styles and shapes should be used across a given facade to avoid visual clutter and dissonance. Varieties in window types, shapes, and details should however be encouraged across the same development.

Figure 54: Photos showing positive local examples of fenestration.


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3.6.9 Services and utilities

Services and utilities are necessary parts in the operation of public and domestic environments. Poor planning of utilities could hinder the overall quality of the built environment and create unattractive new development schemes. Some guidelines related to utilities in new development are:

- Aim to design shared common trenches for service and drainage runs to minimise disturbance to buildings;

- 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 ensure 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.

Figure 55: Photos showing how to address integrated design of services and utilities.

Concealment of meters and utilities by using sympathetic elements and materials
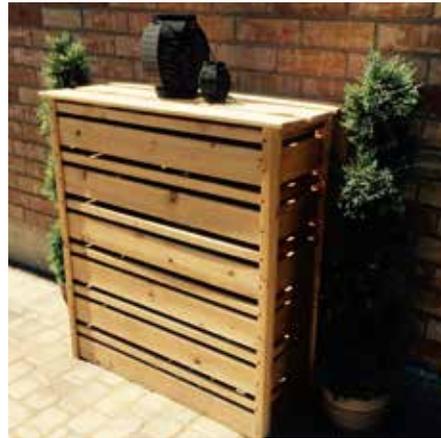
Positive example of sustainable paving materials allowing for natural infiltration

Use clean lines and sympathetic colours for gutters and downpipes

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3.6.10 Ground appearance

Paved areas

Paved areas are a major element within most developments, and their design has a significant impact on the overall appearance and quality of a scheme. Care must be taken when choosing the materials and when detailing paved areas as part of the overall design.

- Materials should be robust, aesthetically attractive and with excellent weathering characteristics defining a sustainable and attractive place for residents and visitors;

- Surface water management should be considered when designing pavements; and

- It is important that where there are large development projects with more than one developer, these different developers adopt the same consistent palette of materials and designs.

Road paving

Tarmac or block paving is generally recommended as road surface. In all cases, large unbroken areas of a particular surface material should be avoided, especially tarmac, and areas can be broken up successfully using materials of a similar colour, but with different textures.

Pavements

- High quality materials such as stone, brick or block paving can all constitute good options for pavements;

- Tarmac pavements are generally the most economical option but can generate monotony and make wayfinding more difficult.

- Repairs should avoid irregular patches creating dissonant streetscapes;

- The laying pattern and materials used can make a significant contribution to the overall appearance, quality and success of a scheme; and

- 45-degree herringbone patterns are less visually pleasing than other laying patterns such as random bond, broken bond, gauged width, and the European fan layout pattern.

Driveways

Permeable paving options can be successfully applied to driveways to maximise the accumulation effect of front garden greenery as a way to enhance the street landscape. Prioritise bigger portions of green within the pavement rather than a very granular paving pattern.

Pavements over driveways

Pavement patterns should prevail over the driveway access. To guarantee a coherent street and a continuous walkable path, parking kerbs should not invade the pedestrian pavement.

Crossings

Consider the use of traditional materials such as pebbles in setts to manage traffic speed and contribute to traffic calming.

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Figure 56: Photos showing examples of how to address paving appearance in streets and driveways.

3.6.11 Architectural details and materials

The materials and architectural detailing used throughout Pembury can be a reference point for new development and contribute to its "hotch-potch" character. The materials that will be used in the new developments should be of a high quality and reinforce local distinctiveness. Development proposals should demonstrate that the palette of materials has been selected based on an understanding of the surrounding built and natural environment. An important source of information for this purpose is the High Weald Area of Outstanding Natural Beauty's Guidance on the selection and use of colour in development.

In new developments, locally sourced bricks or bricks that match the buildings in the surrounding area would be the most appropriate. Particular attention should be given to the bonding pattern, size, colour, and texture of bricks. A useful source of information for relevant materials and approaches is the High Weald Design Code. This section includes examples of architectural details and building materials that contribute to the local vernacular of Pembury and which could be used to inform future development.

Dormer

Chimneys and slate roofs

Variety and material juxtaposition

Hanging tile and painted brick

Hanging tile and patterned brick

Gable roof

Hipped roof

Roofs reminiscent of agricultural past

Hedges and landscape

Landscape and ironmongery

Trees and landscape

Modern interpretation
of local vernacular

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3.7 Guides and codes for low carbon development

3.7.1 Low carbon development

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

The use of such principles and design tools is strongly encouraged to futureproof 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.

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


Existing homes

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

Additional features for new build homes

A. **High levels of airtightness**
B. **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**

Figure 57: Diagram showing potential technologies to be used in new and existing homes.

3.7.2 Building fabric

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 thermal bridges around corners, openings and balconies at 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); and

- 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.

Seal penetrations through the air barrier to guarantee the air tightness of the dwelling

Provide thermal insulation to any wall or roof to the exterior to prevent heat losses

Provide thermal storage in construction elements, such as concrete floor slabs

Pay attention to possible thermal bridges in openings and corners
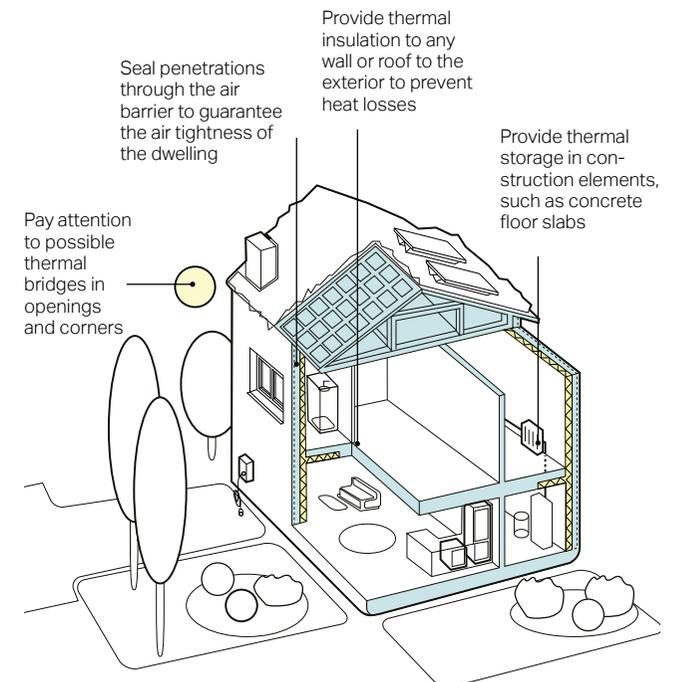
Figure 58: Diagram areas of concern regarding building solutions for thermal mass, insulation and air tightness.

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3.7.3 Renewable low carbon

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 Conservations Areas; preserving the character of the village 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 59: Diagram and pictures showing potential ground source technology and solar panels that fit well with sensitive locations.

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3.7.4 Rainwater harvesting

SUDS

This section outlines a range of sustainable drainage solutions to potential drainage capacity and flooding problems in the village. Although these design interventions can help improve drainage in the village, other solutions might be needed to solve the main drainage issues.

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

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

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

- Infiltration, which allows water to percolate into the ground and eventually restore groundwater;

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

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

- 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;

- Form a 'SUDS train' of two or three different surface water management approaches;

- Integrate into development and improve amenity through early consideration in the development process and good design practices; and

- SUDS are often as important in areas that are not directly in an area of flood risk themselves, as they can help reduce downstream flood risk by storing water upstream.

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- 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 must be designed sensitively to augment the landscape and provide biodiversity and amenity benefits.

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Rainwater harvesting

Rain gardens

Swales

Permeable paving

Ponds

Green roofs & walls
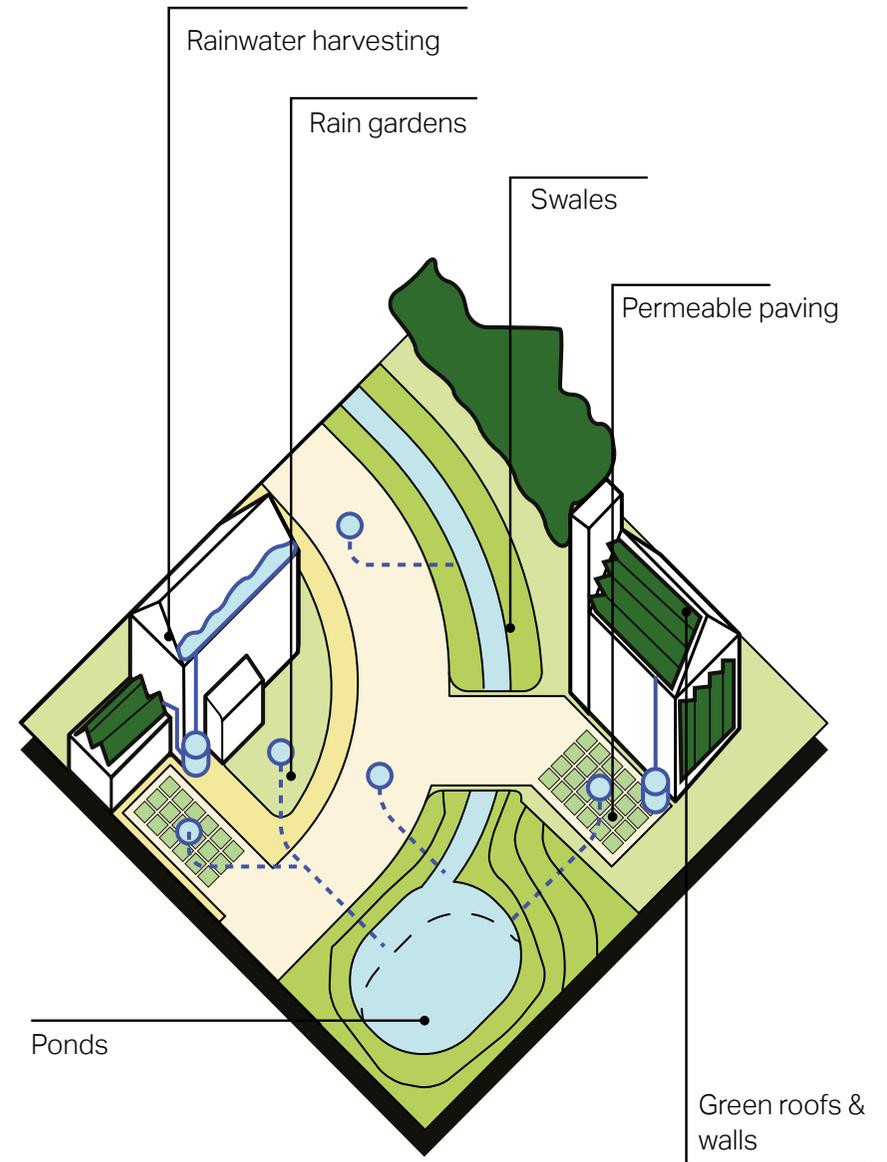
Figure 60: Village pond as part of a SUD system (left). Diagram showing sources of rainwater harvesting and SUDS (right).

3.7.5 Bioretention system

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

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

These planted spaces are designed to enable water to infiltrate into the ground. Less use of downpipes into drainage and, instead, enabling roof water to flow into rain gardens can significantly reduce the runoff into the sewer system.

The UK Rain Garden Design Guidelines provide more detailed guidance on their feasibility and suggest planting to help improve water quality as well as attract biodiversity.[1]
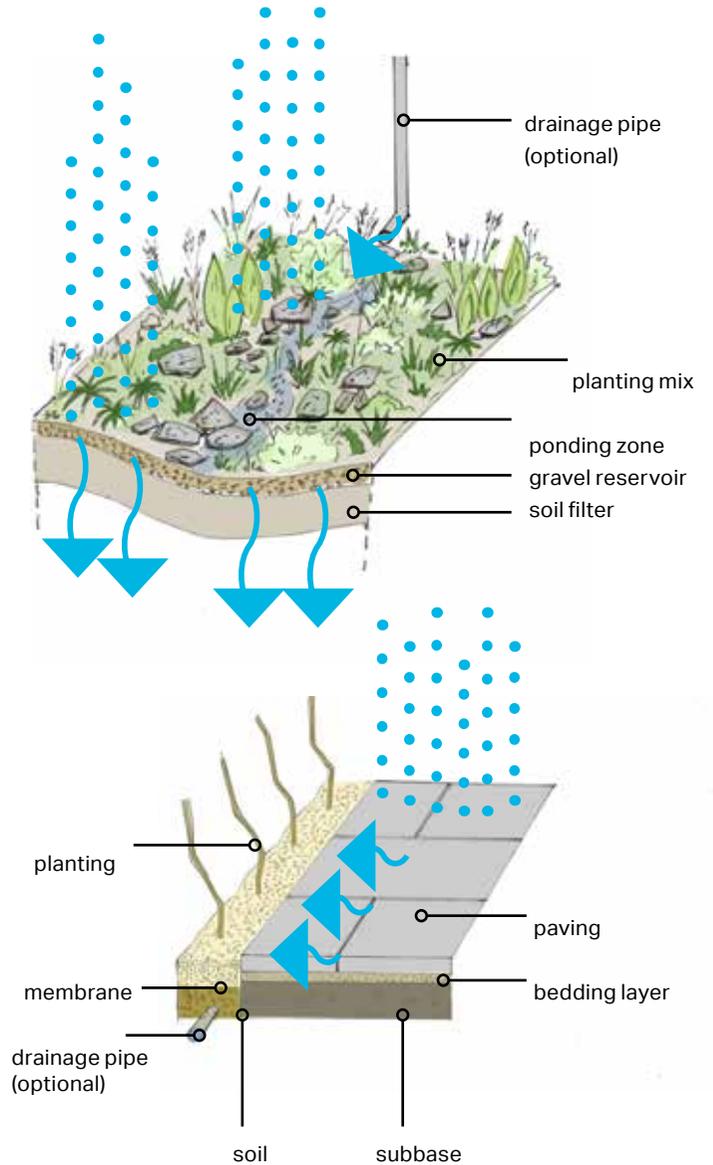
Figure 61: Top. Diagram illustrating the functioning of a rain garden. Bottom. Diagram illustrating the functioning of a soak away garden

drainage pipe (optional)

planting mix

ponding zone
gravel reservoir
soil filter

planting

paving

membrane

bedding layer

drainage pipe (optional)

soil

subbase

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3.7.6 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; and

- North facing single aspect units should be avoided or mitigated with the use of reflective light or roof windows.
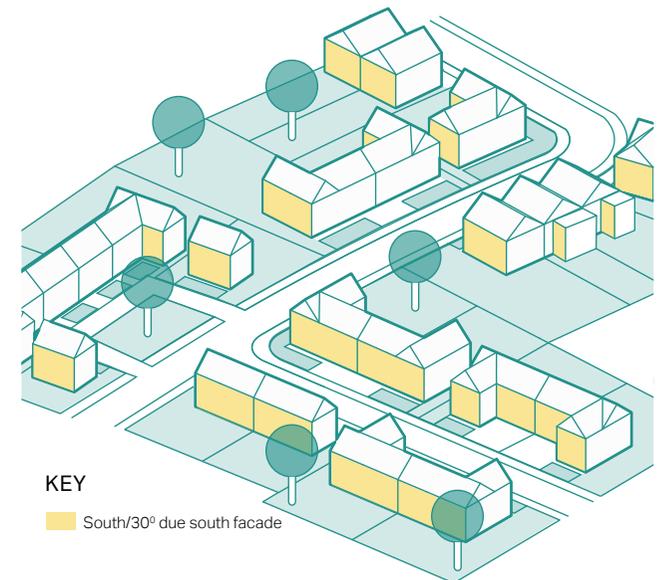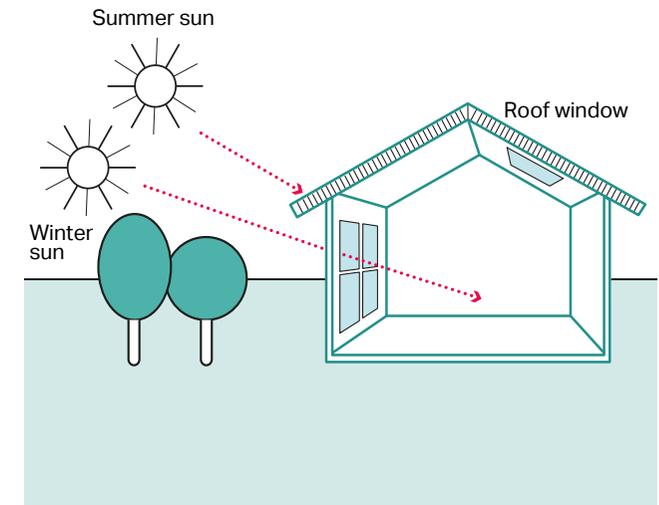
Figure 62: Top. Diagram showing the use of roof window, pitch roof, location and size of windows in favour of maximising solar gain. Bottom. Diagram showing orientation of elevations that would benefit from passive solar gain

KEY

■ South/30⁰ due south facade

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3.7.7 Permeable pavements

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

Permeable paving can be used where appropriate on footpaths, public squares, private access roads, driveways, and private areas within the individual development boundaries. In addition, when permeable pavements are used, these must also consider the following regulations:

- Flood and Water Management Act 2010, Schedule 3[1];

- The Building Regulations Part H – Drainage and Waste Disposal[2]; and,

- Town and Country Planning (General Permitted Development) (England) Order 2015[3];

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

- Sustainable Drainage Systems - non-statutory technical standards for sustainable drainage systems[4];

- The SUDS Manual (C753)[5]; and

- Guidance on the Permeable Surfacing of Front Gardens[6].

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[2] Great Britain (2010). *The Building Regulations Part H – Drainage and Waste Disposal*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/442889/BR_PDF_AD_H_2015.pdf
[3] Great Britain (2015). Town and Country Planning (General Permitted Development) (England) Order 2015. Available at: http://www.legislation.gov.uk/uksi/2015/596/pdfs/uksi_20150596_en.pdf
[4] 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

[5] CIRIA (2015). The SUDS Manual (C753).
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[1] Great Britain (2010). *Flood and Water Management Act, Schedule 3*. Available at: http://www.legislation.gov.uk/ukpga/2010/29/schedule/3

Figure 63: Top. Example of a permeable paving option. Bottom. Diagram illustrating the functioning of a soak away.

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3.7.8 Wildlife friendly environment

Maintaining and creating a wildlife friendly environment is a top priority for the village. The existing green and blue assets give the opportunity for wildlife sites which can be the home of native species and plants. Some guidelines for future development are:

- Biodiversity and woodlands should be protected and enhanced where possible. Hedges, trees, road verges along roads as well as natural tree buffers should be protected when planning for new developments;

- Abrupt edges to development with little vegetation or landscape on the edge of the settlement should be avoided and, instead, a comprehensive landscape buffering should be encouraged;

- New developments and building extensions should aim to strengthen biodiversity and the natural environment;

- Ensure habitats are buffered. Widths of buffer zones should be wide enough and based on specific ecological function;

- New development that would result in the loss of, or the deterioration in the quality of hedgerows, will not be supported, with the exception of removal for vehicular access. In this case, the access should include trees at either end of the retained hedgerow to aid wildlife to cross overhead from crown to crown; and

- New development proposals should include the creation of new habitats and wildlife corridors. This could be by aligning back and front gardens or installing bird boxes or bricks in walls. Wildlife corridors should be included to enable wildlife to travel to and from foraging areas and their dwelling areas.


Figure 64: Top. Example of a bug house located in an outdoor playground facility. Bottom. Example of a structure used as a frog habitat corridor located in an outdoor green space.

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3.7.9 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. To be able to continue to provide benefits, there has to be some headroom within the storage solution.

If water is not reused, a slow release valve allows water from the storage to trickle out, recreating capacity for future rainfall events. New digital technologies that predict rainfall events can enable stored water to be released when the sewer has greatest capacity to accept it.

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

- Conceal tanks by cladding them in complementary materials;

- Use attractive materials or finishing for pipes;

- Combine landscape/planters with water capture systems;

- Underground tanks; and

- Utilise water bodies for storage.

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Figure 65: Examples of water butts used for rainwater harvesting in Reach, Cambridgeshire.

03

planting

drainage pipe

soil

filter layer

overflow outlet

stored water

drainage pipe

water storage

water outlet valve

**Figure 66:** Left. Diagram illustrating the functioning of a stormwater planter.   Right. Diagram illustrating the functioning of a water butt.

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

1

Because the design guidelines and codes in this chapter cannot cover all design eventualities, this section provides a number of questions based on established good practice against which the design proposal should be evaluated. The aim is to assess all proposals by objectively answering the questions below. Not all the questions will apply to every development. The relevant ones, however, should provide an assessment as to whether the design proposal has taken into account the context and provided an adequate design solution.

As a first step there are a number of ideas or principles that should be present in all proposals. These are listed under 'General design guidelines for new development'. Following these ideas and principles, a number of questions are listed for more specific topics.

General design guidelines for new development:

- Does it integrate with existing paths, streets, circulation networks and patterns of activity?

- Does it reinforce or enhance the established settlement character of streets, greens, and other spaces?

- Does it harmonise and enhance existing settlement in terms of physical form, architecture and land use?

- Does it relate well to local topography and landscape features, including prominent ridge lines and long-distance views?

- Does it reflect, respect, and reinforce local architecture and historic distinctiveness?

- Does it retain and incorporate important existing features into the development?

- Does it respect surrounding buildings in terms of scale, height, form and massing?

- Does it adopt contextually appropriate materials and details?

- Does it provide adequate open space for the development in terms of both quantity and quality?

- Does it incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features?

- Does it ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other?

- Does it make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation, and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours?

1 (continued)

2

Street grid and layout:

- Does it positively integrate energy efficient technologies?

- Does it ensure that places are designed with management, maintenance and the upkeep of utilities in mind?

- Does it seek to implement passive environmental design principles by, firstly, considering how the site layout can optimise beneficial solar gain and reduce energy demands (e.g. insulation), before specification of energy efficient building services and finally incorporate renewable energy sources?

- 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?

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03

Local green spaces, views and character:

- What are the particular characteristics of this area which have been taken into account in the design; i.e. what are the landscape qualities of the area?

- Does the proposal maintain or enhance any identified views or views in general?

- How does the proposal affect the trees on or adjacent to the site?

- Can trees be used to provide natural shading from unwanted solar gain? i.e. deciduous trees can limit solar gains in summer, while maximising them in winter.

- Has the proposal been considered within its wider physical context?

- Has the impact on the landscape quality of the area been taken into account?

- In rural locations, has the impact of the development on the tranquillity of the area been fully considered?

- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?

- Can any new views be created?

- Is there adequate amenity space for the development?

- Does the new development respect and enhance existing amenity space?

- Have opportunities for enhancing existing amenity spaces been explored?

- Will any communal amenity space be created? If so, how will this be used by the new owners and how will it be managed?

- Is there opportunity to increase the local area biodiversity?

- Can green space be used for natural flood prevention e.g. permeable landscaping, swales etc.?

- Can water bodies be used to provide evaporative cooling?

- Is there space to consider a ground source heat pump array, either horizontal ground loop or borehole (if excavation is required)?

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4

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Gateway and access features:

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

5

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Buildings layout and grouping

- What are the typical groupings of buildings?
- How have the existing groupings been reflected in the proposal?
- Are proposed groups of buildings offering variety and texture to the townscape?
- What effect would the proposal have on the streetscape?
- Does the proposal maintain the character of dwelling clusters stemming from the main road?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?

- Subject to topography and the clustering of existing buildings, are new buildings oriented to incorporate passive solar design principles, with, for example, one of the main glazed elevations within 30° due south, whilst also minimising overheating risk?
- Can buildings with complementary energy profiles be clustered together such that a communal low carbon energy source could be used to supply multiple buildings that might require energy at different times of day or night? This is to reduce peak loads. And/or can waste heat from one building be extracted to provide cooling to that building as well as heat to another building?

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6

Building line and boundary treatment

- What are the characteristics of the building line?

- How has the building line, especially in respect to keeping some variation of the Hotch Potch, been respected in the proposals?

- Has the appropriateness of the boundary treatments been considered in the context of the site?

7

Building heights and roofline

- What are the characteristics of the roofline?

- Have the proposals paid careful attention to height, form, massing and scale?

- If a higher than average building(s) is proposed, what would be the reason for making the development higher?

- Will the roof structure be capable of supporting a photovoltaic or solar thermal array either now, or in the future?

- Will the inclusion of roof mounted renewable technologies be an issue from a visual or planning perspective? If so, can they be screened from view, being careful not to cause over shading?

8

Household extensions

- Does the proposed design respect the character of the area and the immediate neighbourhood, and does it have an adverse impact on neighbouring properties in relation to privacy, overbearing or overshadowing impact?

- Is the roof form of the extension appropriate to the original dwelling (considering angle of pitch)?

- Do the proposed materials match those of the existing dwelling?

- In case of side extensions, does it retain important gaps within the street scene and avoid a 'terracing effect'?

8 (continued)

- Are there any proposed dormer roof extensions set within the roof slope?

- Does the proposed extension respond to the existing pattern of window and door openings?

- Is the side extension set back from the front of the house?

- Does the extension offer the opportunity to retrofit energy efficiency measures to the existing building?

- Can any materials be re-used in situ to reduce waste and embodied carbon?

9

Building materials and surface treatment

- What is the distinctive material in the area?

- Does the proposed material harmonise with the local materials?

- Does the proposal use high-quality materials?

- Have the details of the windows, doors, eaves and roof details been addressed in the context of the overall design?

- Do the new proposed materials respect or enhance the existing area or adversely change its character?

- Are recycled materials, or those with high recycled content proposed?

- Has the embodied carbon of the materials been considered and are there options which can reduce the embodied carbon of the design? For example, wood structures and concrete alternatives.

03

10

Car parking

- What parking solutions have been considered?

- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?

- Has planting been considered to soften the presence of cars?

- Does the proposed car parking compromise the amenity of adjoining properties?

  Have the needs of wheelchair users been considered?

- Can electric vehicle charging points be provided?

- Can secure cycle storage be provided at an individual building level or through a central/communal facility where appropriate?

- If covered car ports or cycle storage is included, can it incorporate roof mounted photovoltaic panels or a biodiverse roof in its design?

11

Architectural details and design

- If the proposal is within a Conservation Area, how are the characteristics reflected in the design?

- Does the proposal harmonise with the adjacent properties?

- This means that it follows the height massing and general proportions of adjacent buildings and how it takes cues from materials and other physical characteristics.

- Does the proposal maintain or enhance the existing landscape features?

- Has the local architectural character and precedent been demonstrated in the proposals?

- If the proposal is a contemporary design, are the details and materials of a sufficiently high enough quality and does it relate specifically to the architectural characteristics and scale of the site?

- Is it possible to incorporate passive environmental design features such as larger roof overhangs, deeper window reveals and/or external louvres/shutters to provide shading in hotter months?

- Can the building designs utilise thermal mass to minimise heat transfer and provide free cooling?

- Can any external structures such as balconies be fixed to the outside of the building, as opposed to cantilevering through the building fabric to reduce thermal bridging?

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Next Steps

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4. NEXT STEPS

The Design Guidelines and Codes will be a valuable tool in securing context-driven, high quality development within Pembury. They will be used in different ways by different actors in the planning and development process, as summarised in the table.

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

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PEMBURY DESIGN GUIDANCE AND CODES

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