

Capel Design Guidelines and Codes

Final Report

October 2022

Delivering a better world



Quality information

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Executive Summary

This document has been prepared by AECOM Limited ('AECOM') in accordance with its contract with Locality (the 'Client').

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

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

Research, such as for the Government's Commission for Architecture and the Built Environment (now part of the Design Council; see, for example, The Value of Good Design¹) has shown that good design of buildings and places can improve health and well-being, increase civic pride and cultural activity, reduce crime and anti-social behaviour and reduce pollution. Therefore, this document seeks to harness an understanding of how good design can make future development as endearingly popular as the best of what has been done before.

Chapter 1 sets the scene by explaining the importance of good design and the purpose of the design guidelines and codes, followed by a brief summary of the scope and purpose of this report as well as the steps that were followed till its completion (final report).

Chapter 2 sets the policy context by presenting a series of policy documents that should be used as reference for this document and future development.

Chapter 3 provides an analysis of the parish regarding the movement networks, landscape designations, historic evolution and settlement pattern, followed by a character analysis of Five Oak Green village and smaller settlements.

Chapter 4 presents a summary of the feedback gathered during the workshops undertaken with residents of Capel parish.

Chapter 5 presents a set of Design Guidelines and Codes that have been informed and shaped by the local character and landscape of the parish celebrating its rural character and distinctive landscape setting.

Chapter 6 explains why this report is a valuable tool in securing context-driven, high quality development in the parish and offers recommendations of various ways that this document could be used by each actor in the planning and development process.

It is intended that this report become an integral part of the Neighbourhood Plan and be given weight in the planning process.

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

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1. Introduction

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

1.1 The importance of good design

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

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

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

Following the analysis of the parish, a set of architectural and design qualities have been created. This set of qualities combined with good design practice have shaped the design principles that any development within Capel parish should follow in order to comply with this Design Guidelines and Codes document.

1.2 What is a design code

The Governments Planning Policy Guidance defines design codes as:

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

^{1. &}lt;u>https://www.designcouncil.org.uk/sites/default/files/asset/</u> <u>document/the-value-of-good-design.pdf</u>

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

1.3 The purpose of this document

The NPPF 2021, paragraphs 127-128 states that:

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

'To provide maximum clarity about design expectations at an early stage, plans ... should use visual tools such as design guides and codes. These provide a framework for creating distinctive places, with a consistent and high quality standard of design. However their level of detail and degree of prescription should be tailored to the circumstances in each place, and should allow a suitable degree of variety where this would be justified.'

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

Despite the opposition of Capel Parish Council and the community, the emerging Tunbridge Wells Strategic Local Plan (TWSLP) has allocated 2, 060 dwellings in East Capel and Paddock Wood and a new settlement at Tudeley rising to 2,800 beyond the plan period. Thus, it is crucial to both existing and future residents of Capel parish that any new development is planned and designed in a way that respects the character of the existing village settlements and hamlets and caters for their needs and aspirations.

This design codes and guidelines report provides an additional and more detailed framework for creating a distinctive place, with a consistent and high quality standard of design.



1.4 Preparing the design code

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



AECOM

1.5 Area of study

Capel is a civil parish in the county of Kent, located in the South East of England and covers an area of approximately 2,600 hectares. The parish includes a number of hamlets: Capel, Colts Hill, Five Oak Green, Tudeley, Tudeley Hale, Whetsted and Crockhurst Street.

The B2017 is the principal route running east west through the parish, linking to Paddock Wood in the east and Tonbridge in the west. Additionally, the A21 runs through the parish in the west and the A228 in the east providing access north to the M25 and M20 respectively.

The Southeastern railway line runs through the parish with the nearest stations at Paddock Wood and Tonbridge. These are further connected to railway lines traveling north and south connecting to Maidstone, Sevenoaks and Royal Tunbridge Wells.

Originally Capel parish was formed of two parishes: Tudeley and Capel, each with a Church - All Saints Parish church in Tudeley and St Thomas à Becket in Capel. Tudeley is a more ancient community and is mentioned in the Doomsday Book as Tivedele, Saxon for 'Ivy Meadow'.

The two parishes were administratively united in 1885 and parts of the parishes of Southborough, Pembury and Tonbridge Rural were added later in 1934.

During the middle of the 19th century Five Oak Green started to become the focus for settlement. By the 1880s one third of the parish's population was located there and since then the majority of industry and housing has been based in the hamlet.

Towards the end of the 19th century Five Oak Green experienced commercial decline and suffered the loss of many businesses over the following decades, ceasing to be a self-supporting community.

The parish has a rich agricultural heritage and there were historically numerous farms and small holdings supporting almost the entire parish population. The rural fields of the parish which used as a patchwork of mixed farming including orchards and hop gardens, are now increasingly used to grow rape, beans and linseed.

Today, there are few working farms remaining and many agricultural buildings have been converted into housing. Local community facilities and services are concentrated in Five Oak Green including Capel Village Hall, a community recreation ground and a convenience store.

There are two schools within the parish: Capel Primary School located at the edge of Five Oak Green and Somerhill Independent School off Tudeley road in the east of the parish.





2. Policy and design guidance

This chapter will present the existing policy context, describe what is the current situation and also present a series of policy documents that will be used as reference for this document and future development.

<u>2021 - National Planning Policy</u> <u>Framework</u>

MHCLG

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

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.

2020 - Building for a Healthy Life Homes England

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

2019 - National Design Guide MHCLG

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





Anistry of Housing, Communities & Local Government

National Planning Policy Framework

NATIONAL LEVEL

2015 - The Setting of Heritage

<u>Assets</u>

Historic England

This document sets out guidance, against the background of the National Planning Policy Framework (NPPF) and the related guidance given in the Planning Practice Guide (PPG), on managing change within the settings of heritage assets. It gives general advice on understanding setting, and how it may contribute to the significance of heritage assets and allow that significance to be appreciated, as well as advice on how views contribute to setting.

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.





2019 - Tunbridge Wells Borough Pre-Submission Local Plan (Reg 19)

Tunbridge Wells Borough Council

The Local Plan is a long-term strategic planning document, which sets out the spatial vision, strategic objectives and the overarching development strategy for an area, including Paddock Wood, and establishes the planning policy framework to deliver them.

2019 - Tunbridge Wells, 2019 -Strategic sites masterplanning & Infrastructure study

Tunbridge Wells Borough Council

This report explains the work undertaken to deliver the studies, including consultation, and sets out the key findings and recommendations. The purpose of the commission is to gather evidence on whether specified scales of development at the locations identified in the DLP are deliverable from a masterplanning, infrastructure and viability perspective. The report forms a part of TWBC's evidence base for the Local Plan.

DISTRICT LEVEL



2019 - High Weald Housing Design Guide

High Weald Joint Advisory Committee

The High Weald Housing Design Guide sets out guidance to ensure new development conserves the strong sense of place that defines the High Weald. The guidance has been written to be used as a tool for developers, regulators and local communities. The design guidance covers the site and landscape context, built form details, parking strategies, storage, detailing the street and the local planting character and habitats.

2019 - Strategic Flood Risk Assessment (SFRA)

Tunbridge Wells Borough Council

This report provides up to date information and guidance on flood risk for Tunbridge Wells Borough, considering the latest flood risk information and the current state of national planning policy. It also determines the variations in risk from all sources of flooding and identifies the requirement for site-specific flood risk in assessments.



2018 - Open Space, Sport and **Recreation Study**

Tunbridge Wells Borough Council

This study examines existing and projected needs for open space, sport and recreation provision, using a variety of data sources, together with independent investigation, stakeholder and community consultation and surveys.

2008 - Tunbridge Wells Local **Biodiversity Action Plan, Part 1** - Habitats and Part 2 - Proposed Actions

Tunbridge Wells Borough Council

This report contains individual habitat and species action plans and includes both nationally threatened and locally significant habitats and species. The objectives of the plan include "to identify threats and opportunities to habitats and species within the borough", "to increase public understanding and awareness of biodiversity conservation" and "to promote the long-term protection and enhancement of biodiversity in Tunbridge Wells borough".

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2000 - Kent Design Guide Kent Design Initiative

This report sets out a series of objectives and guality initiatives in respect of architectural guality with a focus on the delivery of great buildings and memorable and attractive places that reinforce Kent's distinctive character. Development proposals should take those guidelines into consideration when designing for streets, buildings, open spaces, landscape, parking, servicing and sustainability.

2020 - A Vision for Capel

Capel Parish Council

CAPIL PARASI COUNCIL

A Vision for Capel

This report is based on the responses of residents to a questionnaire distributed in August 2020. It is a representative of the local community and details issues within the Parish including green belt protection, sustainable development, flooding and traffic. The report also gives a brief overview of the context and history of Capel.

ARISH LEVEL





3. Baseline Study

This chapter will aim to describe the local context and key characteristics of Capel parish related to built environment, landscape, environmental designation, land uses, building heights and topography.

3.1 Parish structure, access and movement

• Historic growth of the parish¹

Most of Capel parish lies in the low Weald to the south of the River Medway. It reaches the edge of Tonbridge in the west, and the edge of the built development of Paddock Wood in the east.

The more densely wooded south of the parish is within a designated Area of Outstanding Natural Beauty. It adjoins Southborough, Sherwood, and Pembury.

The present civil parish came into being as a result of the 1894 Local Government Act which set up Parish Councils in rural areas. It covers Tudeley, Five Oak Green, Capel, Whetsted, Colts Hill, Castle Hill, and Crockhurst Street. Until 1974 it came under the control of Tonbridge Rural District Council - now it is part of the Borough of Tunbridge Wells. In the medieval period the parish of Capel was a sparsely populated, low lying, forested and heavily waterlogged area. Its principal building was the church at Tudeley, originally built in the 7th century.

The agricultural industry in Capel has shaped the parish into the rural community it is today.

• Rural identity²

Capel parish, shaped in the most recent past by the hopping industry remnants, is still a rural community, even if there is only one working hop garden left.

There is pleasure and pride in Capel's rural environment from the floodplains south of the Medway which flows just to the north of the parish boundary, to the wooded picturesque Low Weald AONB in the south, sparsely populated but valued by walkers and birdwatchers alike.

^{1.} A Vision for Capel, Capel Parish Council, November 2020. 2. A Vision for Capel, Capel Parish Council, November 2020.

Street hierarchy

Three main roads dominate the parish; the A-roads (A21 and A228) and the B-road (B2017), whilst the rest of the streets have a countryside character.

As the parish sits between Tonbridge in the west and Paddock Wood in the east, the B2017 connects the two towns across Capel, which results in concerns about traffic speed and volume through the village settlements along the B2017, as well as along other rural lanes such as Alders Road and Whetsted Road. There are also substantial numbers of HGVs throughout the Capel parish.

The A-roads offer connections to neighbouring towns and cities, for instance Pembury and Royal Tunbridge Wells to the south, Tonbridge to the west and Sevenoaks to the north-west.

• Footpaths and access to countryside

There is a substantial network of public footpaths in the parish offering access to the surrounding countryside, open fields and hamlets.

However, it is a consensus that there are a lack of cycle ways as well as pedestrian connections particularly towards Paddock Wood.

Railway

The railway line runs through Capel parish with a station at Tonbridge and at Paddock Wood, approximately 2.7 miles and 4.6 miles distance respectively from the centre of the parish.



Figure 03: The B2017 road through Five Oak Green.



Figure 04: Informal track and public footpath in Whetsted.



3.2 Landscape and Heritage

There is a good number of land-based designations within the Capel parish, which contribute to its rural character and open landscape. These designations are:

• High Weald Area of Outstanding Natural Beauty

This area covers the south of the parish and it is characterised by rolling hills, abundant, interconnected ancient woods and hedges, scattered farmsteads and hamlets.

London Metropolitan Green Belt

The London Metropolitan Green Belt covers almost the whole of the Neighbourhood Plan area with the exclusion of Five Oak Green village and a small area in the southeast of the parish.

Woodlands

There are a number of areas of ancient woodlands, with larger woods, as well as deciduous woodlands to the south of the parish.

• Somerhill Park

Somerhill Park, grade II registered Park and Garden, is a 75 hectares, late 18th to early 19th century park with 6 hectares of 19th century formal garden found to the west of the parish.

Listed buildings and scheduled monuments

There are many listed buildings within the parish including three grade I listed buildings:

- Somerhill on Tudeley Lane (LEN 1253489) a 16th century H-plan mansion;
- Church of St Thomas à Becket (LEN 1262867); and
- Church of All Saints (LEN 1261437) a church of late medieval origin in Tudeley

Castle Hill earthworks (LEN 1005191) off the A21 is the only scheduled monument within

the parish.

• Flood risk zones

The lands to the north of the parish, as well as some lands to the east, are susceptible to flooding. The main sources of flooding are the Alders Stream that runs through Capel hamlet and Five Oak Green and the Tudeley Brook that drains the eastern side of the parish near the boundary with Paddock Wood. Both flow in a northerly direction into the Medway.



Figure 06: Church of St Thomas à Becket in Capel.



3.3 Five Oak Green village and small settlements

Within the parish there is the main village settlement area of Five Oak Green, six main settlements and hamlets of varying sizes; Capel, Whetsted, Colts Hill, Crockhurst Street, Tudeley and Tudeley Hale and other smaller settlement areas including Postern and Badsell.

Figure 8 shows the location of each of these settlements and how they relate to each other spatially.

The analysis over the next pages includes, firstly, an analysis of Five Oak Green village and then, an analysis of the smaller settlements which have been grouped in this section as they share similar qualities and characteristics.





3.3.0.1 Five Oak Green village

Five Oak Green village is located to the east of Capel parish and forms the main settlement within Capel.

Access and movement

Five Oak Green Road (B2017), which becomes Badsell Road towards the east, is the primary access road to the village carrying local traffic, as well as traffic coming from Paddock Wood and Tonbridge. In particular, the traffic along the main road is quite heavy and the speed often exceeds the 30 mph warning sign. The road is onelane permitting two-way travel and including narrow pavements on both sides and occasional green verges.



Figure 09: View along Five Oak Green Road towards the west showing the main two-way travel street equipped with narrow pavements on both sides.

Secondary roads, for instance Whetsted Road, Sychem Lane and Church Lane, have the character of a countryside lane with no pavements on either side offering connections to Whetsted and Capel settlements.

Bus stops are available along Five Oak Green Road, however, the services are not very frequent discouraging the locals from using the public transport.

The network of public footpaths, on the other hand, is quite extensive offering connections to Capel, Colts Hill, Tudeley Hale, open countryside, as well as Paddock Wood.

Land uses

The village is mainly residential, however, retail, commercial uses and services can be found along Five Oak Green Road. In addition, other land uses include: Capel Primary School, Capel Village Hall, a pub, Capel United Church and Orchard Business Park.

Pattern of growth and layout of buildings

There are three main patterns of growth within the village settlement. The linear layouts can be found along Five Oak Green Road and Whetsted Road, where the buildings are set along meandering streets which offer evolving views along the streetscape and the surrounding countryside. The building lines are generally irregular introducing a level of informality that contributes to the rural feel of the area, whilst the irregular plot sizes and widths also enhance the surrounding informal context. In addition, building density is relatively low, approximately between 13-19 dph (dwellings per hectare), allowing for gaps between buildings and views to the backdrop vegetation or the surrounding countryside. This meandering character of the lanes is a particular characteristic of the parish and it is a result of historic growth.

Another patten of growth is the cul-de-sac layouts found to the north and south of Five Oak Green Road, for instance along Nortons Way, Sychem Place, Falmouth Place, Ellis Close or Forge Close. The two last ones



Figure 10: Example of linear development where building setbacks are generally regular with subtle variations, whilst the continuous frontages create a level of enclosure along the streetscape.



Figure 11: Example of a cul-de-sac layout where buildings are set along a meandering street creating evolving views along the streetscape.

are recently built developments. The building lines are irregular with variations on building rotations too, whilst the plot sizes are smaller compared to the ones in the linear development layouts, with exception being Sychem Place where plot sizes are generously large with wide green verges fronting the properties. The building density varies in the older cul-de-sac developments ranging approximately between 18-25 dph (dwellings per hectare), whilst the density in most recent developments goes higher approximately 36-55 dph (dwellings per hectare). Those higher densities leave smaller gaps between the buildings, as well as less space for green verges, front and back gardens constrasting the surrounding rural environment.

On the contrary, the eastern end of the village, along Badsell Road is characterised by an organic growth of housing development, whilst there are some working farms and farmlands. This area of the parish suffers from a feeling of separation from the main village; it is not a hamlet in its own right nor is the area across the roundabout towards Paddock Wood which is part of Five Oak Green too. The building lines are irregular, there are generous gaps between the buildings and large front and back gardens. The houses blend well with the rural environment due to the significant amount of trees and vegetation in the gardens.

This part of the village, with approximate building density of 13 dph (dwellings per hectare) forms the rural entrance to the more urban built up area of Five Oak Green.

Open spaces

The recreation ground, located to the east of the village settlement, is the main public green space, identified as Local Green Space in the Pre-Submission Tunbridge Wells Local Plan, with a popular all-weather path leading around the park, a Multi-Use Games Area (MUGA) and a new play area. The green space is surrounded by tall and well-established hedges which gives a pleasant enclosed, as well as a rural feel. The recreation ground is used by football teams in the winter, whilst there is also a cricket square that came back into use after 40 years in 2012. The Cricket Club is very active in the summer months with boys and girls training on Sunday morning and a bar open to members on match days and Friday evenings.

The space is also used by the community as a venue for the fete, the visiting fair and the community picnic. The parish council recently placed a plaque on the side of the Pavilion recording the gift of the land to the parish in 1932.

Car parking

The prevailing car parking typology is onplot side and garage parking, whilst there are also examples of on-street parking and parking courts.



Figure 12: The large green spaces and green verges in Sychem Place create a feel of openness in the area and contribute to the rural feel of the village.



Figure 13: View to the play area in the recreation ground.

Boundary treatments and public realm

Being a rural village, there is a good amount of trees and vegetation along the streetscape. The eastern end of the village settlement, along Badsell Road, is greener compared to the entrances to the north, along Whetsted Road or to the west, along Five Oak Green Road. In particular, the eastern entrance, due to the rich vegetation and large street trees, creates a feel of an enclosed environment, whilst the northern and western entrances enhance the feel of openness allowing for long-distance views towards the open countryside. Regarding the individual properties, there is a combination of soft (hedges, hedgerows, trees and bushes) and hard (low height brick walls) boundary treatments, however, the first seems to prevail reinforcing the rurality of the place.

Building heights and roofline

Building heights across the village settlement range between 1-2.5 storeys. In general, the roofline lacks uniformity, as a consequence of the irregular buildings setbacks, rotations and roof styles, as well as being interrupted with vegetation. However, along the cul-de-sac layouts, the roofline becomes more regular and continuous, since the density goes higher compared to the rural linear layouts along Five Oak Green Road and Badsell Road.

There is a variety of roof types, for instance hipped, gabled, mansard and clipped gable roofs.



Figure 14: Example of properties bordered with low height red brick walls combined with trees, bushes and flowers beds.



Figure 15: Example of inconsistent roofline which gets interrupted due to the gaps between buildings and the vegetation.



Figure 16: Example of linear layout which results in a less informal and continuous roofline.

Local vernacular (materials and architectural details)

There is a mixture of housing typologies within the village. In particular, there is a range of bungalows, detached, semidetached and terraced housing typologies which offers a visual interest along the streetscene and a mixture of sizes catering for the variety of needs.

Regarding the architectural styles and materials, again, there is a mixture of different styles and techniques. In particular, red, multi-coloured, brick has been extensively used throughout the village, along Sychem Place, Five Oak Green Road, at places, Nortons Way, Whetsted Road and Badsell Road. Blue brick headers and banding is another notable detail found in the parish, whilst other techniques and materials include clay tile hanging, although there are also modern examples of concrete tiles, off-white painted brickwork, black (tarred, on agricultural buildings) and white (originally lime washed, on residences) weatherboarding and timber frames with off-white rendered infills.



Half-hipped roof & clay tile hanging



Hipped dormer



Red light multi brick with blue brick banding



Timber frames with render infills



Pitched slate roof (continuous due to terraced typology)



Flat roof (community building)



Off-white painted brickwork



Modern example of red brick



Hipped roof and blue brick header detailing



Black weatherboarding on first floor



White weatherboarding



Modern example of tile hanging (concrete tiles)



3.3.0.2 Capel, Whetsted, Colts Hill, Crockhurst Street, Tudeley and Tudeley Hale.

There are six other study areas of varying sizes within the parish; Capel, Whetsted, Colts Hill, Crockhurst Street, Tudeley and Tudeley Hale.

Access and movement

Five Oak Green Road (B2017) services Tudeley and Crockhurst Street; Alders Road services Capel; Hartlake Road services Tudeley Hale and Whetsted Road services Whetsted. The B-road is wider than the rest of the lanes, however, all roads have the character of countryside lane with no pavement on either side.

Bus stops are available along Five Oak Green Road servicing only Tudeley and Crockhurst Street, however, the services are not very frequent discouraging the locals from using the public transport.



Figure 18: View along Hartlake Road, a rural lane that offers long-distance views to the open countryside.

The network of public footpaths, on the other hand, is quite extensive offering connections between the main village and the smaller settlements, the open countryside, Paddock Wood and the River Medway, which is just outside the parish. However, there are cases where the routes are not direct or in a bad condition making it harder for the locals to walk or cycle through to other small settlements/villages.

Land uses

All the study areas in this section are mainly residential, however, there are some other land uses as well; there is a church and a community building, Goldsmid Hall at Tudeley, a pub at Tudeley Hale, a pub and church at Capel. In addition, there is an Indian restaurant in Crockhurst Street and a pub between there and Five Oak Green.

Pattern of growth and layout of buildings

All the study areas in this section are extremely rural, located within the London Metropolitan Green Belt, including rich vegetation, narrow meandering countryside lanes and low rise properties.

The patterns of growth that characterise those study areas are two. On one hand, there is a good number of detached properties with irregular setbacks, lines and rotations, where plot sizes are large allowing for generous front and rear gardens, whilst the gaps between buildings are also generous allowing the vegetation to establish itself. However, on the other hand, there are also examples of houses with smaller setbacks or houses that front directly onto the street, which are of terraced or semi-detached typologies, where plot sizes are relatively smaller and plot widths are narrower. This meandering character of the lanes is a particular characteristic of the parish and it is a result of historic growth.

Those patterns also reflect the variety of building typologies that are associated with farm workers and generally farming, for instance terraced cottages, estate terraced cottages, farmsteads including a variety of building forms, oast houses, hoppers huts as well as more modern farm buildings such



Figure 19: Local example of a property facing directly onto the rural lane, Whetsted.



Figure 20: Local example of a property setback from the main road equipped with a front garden and natural boundary treatments, Tudeley.

as dairies or cold stores. There is also the grand house at Somerhill which also has a model farm.

In both cases, the patterns are developed along meandering lanes, with Whetsted hamlet being an exception as there are three lanes with a small pond and open space in the middle shaping its layout.

The building density in all settlements is quite low compared to Five Oak Green village, approximately between 10-15 dph (dwellings per hectare) contributing to the rural feel of the area. In general, low densities allow for bigger gaps between buildings which enhances the feel of openness.

Open spaces

There are no designated open green spaces within the study areas and therefore, there is not any focal point to gather people together. However, all the settlements have immediate access to the countryside through the network of footpaths and bridleways allowing for a range of activities like dog walking, horse riding, cycling and running.

Car parking

The only car parking typology found in those study areas is on-plot parking, which is a typical typology for rural settlements.

Boundary treatments and public realm

All the study areas in this section have an extremely rural character and therefore, vegetation is richer compared to Five Oak Green village.

More particularly, thick hedges, hedgerows and large trees are the typical boundary treatments that can be found in these areas. In some cases, due to the large building setbacks, the vegetation clearly prevails acting as a screening to the properties. However, there are also cases, where buildings front directly onto the street and have low-height brick walls. This combination of hard and soft surfaces, with the prevalence of the latter, preserves the rural feel of the parish and adds some visual interest along the streetscape.

In terms of lighting, there is no street lighting along the countryside lanes. This, although helps protect the local wildlife and the dark skies, also results in an unsafe environment where drivers accelerate speed.

Building heights and roofline

Historically, the main building typologies in these study areas were farmhouses and farm cottages (small terrace cottages). A good number of them have been converted to residential, whilst there is also a number of detached and semi-detached properties.

Therefore, the average building height goes up to 2.5 storeys, with the exception being the oast houses, found in Whetsted and Capel, that stand out from the existing backdrop vegetation and roofline.

The roofline is less regular and continuous compared to the rooflines found in Five Oak Green village, as a consequence of the large building setbacks and rich and thick vegetation.

There is a variety of roof types, for instance hipped, gabled, cross gabled and cat slide roofs.



Local vernacular (materials and architectural details)

The main architectural styles in these study areas are terraced cottages and estate cottages where farm workers used to live, as well as farmhouses, barns, oast houses and hoppers huts. Many of those typologies have been preserved over time and others have been converted into residential properties.

Therefore, the main materials used in those settlements include black cladding (weatherboarding), in agricultural buildings, red, multi-coloured, brick and clay tile handing on facades. There are also some examples that combine black weatherboarding on the first floor and red, multi-coloured, brick on the ground floor. Classic Tonbridge brick can also be seen throughout the study areas in either Stretcher or Flemish bond, but not using contrasting coloured bricks. There are examples of Flemish bond brick pattern which feature red brick interspersed with black half bricks, though these are common throughout the country and not specific to Capel's local vernacular.

In terms of roofing materials, Kentish peg tiles and grey slates are widely used in the hamlets



Hipped roof with Kentish peg tiles and details such as ornamentation of chimney, ridge line and timber work



Half-hipped roof



Chimney on the side



Half weatherboarding & half red

Red. multi-coloured. brick

Oast house

brick



Black weatherboarding & cat slide roof



AECOM

Clay tile hanging





Figure 23: Map showing elements of the built environment within the small settlements of the parish



4. Community engagement

This chapter presents a summary of the feedback gathered during the workshops undertaken with residents of Capel parish.

4.1 Introduction

A workshop was held at Capel Village Hall in Five Oak Green on the 13th April 2022. This community workshop built on the work of the Capel Neighbourhood Plan working party over the last two years including:

- Capel Vision Survey and Report Autumn 2020;
- Policy intentions workshop Summer 2021;
- Place making reconnaissance/ walkabout Autumn 2021; and
- Working party evidence gathering Winter 2021/2.

The aim of the workshop was to:

- Generate the community's shared vision for the area; and
- Discuss the existing character of the settlements and rural hinterland and the implications for the design of future developments.

4.2 Visioning exercise

Participants were invited to imagine themselves in Capel in 2038 (approximately 15 years' time) and as three divided groups write down on posters what key words or phrases they might use to describe the parish that they would want to see in the future. The posters were then displayed and all participants were invited to vote for their favourite overall vision. The winning poster's vision was as follows:

Capel in 2038 will be rural, calm and quiet. A well connected, functional, friendly village community. Capel will be a happy and healthy community with enjoyable family activities such as the village fete. It will be playful, inviting and bike friendly with no lorries and safe roads for all. There will still be great views, protected heritage, green space, high biodiversity and functioning working farms. Capel will remain separate from nearby towns and be a satisfying, rural and sustainable community of villages including protected and diverse countryside with wildlife at its heart.



Figure 24: Image to show the key words and phrases from the visioning exercise.



Figure 25: Photo taken during the first community workshop.



Figure 26: Photo taken during the first community workshop.
4.3 Issues and options

	Community facilities	Heritage and built form	Local green spaces	Public views	Transport and movement
Capel and Tudeley	- Small communities with little facilities - Capel has a pub	 Capel is late Georgian Need to preserve hoppers' heritage Tudeley has the oldest homes in the area Built form characteristics include: oast houses. half-weather boarding, beams, half-hipped roofs, cat slides roofs, Kentish peg tiles, Kentish bond bricklaying Boundary treatment: hedges, not fences or walls Affordable housing could reflect traditional farmworkers cottages 	 Open space is abundant River Medway is a really important aspect, it is accessible, but could be improved Ancient oak forest (west of Five Oak Green) 	- Views near Capel of 'postcard' landscape	 Roads follow farm edges Footpaths are well signed, there are 12 rural walks Hard to navigate without a car as footpaths are muddy tracks
High and Low Weald	- Lack of amenities - High Weald is more isolated/ less inhabitated	- Oasts and barns - Dispersed farmsteads - Boundary treatment: hedges, not fences	- Low weald: dispersed farmsteads, high weald: more woodland	- Long views between high and low weald - Views into and out of AONB	- Historic settlement routeways - Accessibility issues
Five Oak Green and Whetsted	 Whetsted lost its pub and its heart, the village needs a focal point i.e. a village green, a pond and a bench Five Oak Green needs to be made into a proper place 	 Conversions of oasts, barns and farmhouses are done well Mixture of homes and varied building line No new developments in Whetsted since early 20th century No 3 storey buildings Small blocks of development Spaced out houses are better Badsell manor should be grade I listed Colour palette - no yellows/ greens/ blues 	- Possibly want a public space for the community in Whetsted	- Long distance views west of Five Oak Green	 Well connected through the village but not well maintained Routes aren't always direct, difficult to cycle/walk through to other hamlets Patchy pavement provision which is unsafe Poor public transport provision

Design guidelines and codes



5. Design guidelines and codes

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

5.1 General principles for rural settlements

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

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

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

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

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

- Respect surrounding buildings in terms of scale, height, form and massing;
- Provide adequate open space for the development in terms of both quantity and quality;
- Preserve views towards the open countryside as well as views from the countryside towards the village settlement;
- Reinforce or enhance the character of streets, greens, and other spaces;
- Relate well to local topography and landscape features, including prominent ridge lines and long-distance views;
- Reflect, respect, and reinforce local architecture and historic distinctiveness;
- Retain and incorporate important existing features into the development;
- Make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation,

and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours;

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

5.2 Capel design guidelines and codes

This section introduces a set of design guidelines and codes that are specific to Capel parish. These are based on:

- Baseline analysis of the area in Chapter 2;
- Understanding national design documents such as National Design Guide, National Model Design Code, Manual for Streets, and Building for Healthy Life which informed the principles and design codes; and
- Discussions, during two workshops, with members of the Neighbourhood Plan Steering Group.

The design guidelines and codes are divided into **4 sections**, shown on this page, each one with a different number of subsections. Each section and subsection is numbered (e.g DC.01 and 1a) to facilitate its reading and consultation.

The design guidelines and codes are mainly applicable to medium and large developments within the parish, however there is also design guidance for smaller developments, for instance infill schemes or building extensions and conversions.

Theme	Number	Title		
	1a	Consider the context		
DC 01 In keeping	1b	Set in rural landscape		
with local	1c	Patterns of growth within the rural landscape		
character	1d	Views, landmarks and legibility		
	1e	Development affecting heritage assets		
	2a	Prioritise walking and cycling and access to the countryside		
DC.02 Acess and movement	2b	People friendly streets		
	2c	Parking and servicing		
	За	Create a green network		
DC.03	Зb	Promote biodiversity		
sustainability	Зс	Water management		
	3d	Eco-design		
	4a	Boundary lines, boundary treatments and corner treatment		
	4b	Continuity and enclosure		
DC 04 Built form	4c	Building heights, density and housing mix		
DG.04 Built form	4d	Housing extensions and conversions		
	4e	New houses and infill development		
	4f	Materials and architectural details		

1a. Consider the context

Capel parish boasts high quality natural areas. More specifically, Green Belt, AONB, water elements, Public Rights of Way, woodlands and listed buildings are some characteristics of the landscape that need to be taken into consideration in the design process. Thus, some design guidelines for future development are:

- New development should have a good understanding of the existing character areas within the parish, as analysed in Section 3.3, and reference the variety of qualities and styles in the new design. The existing 'rus in urbe' feel in the parish and characteristic long distance views should be retained and reflected in any new design. Existing road layouts, development patterns, densities, boundary treatments, massing and materials within the parish should be carefully analysed to make sure that new developments, of any scale, sit sensitively within the rural context and next to existing properties;
- New development, either large or small, should respect the existing heritage and make sure actions are taken to mitigate any impact. For example, should any new development takes place in close proximity to a heritage asset, then careful consideration needs to be taken in terms of views, landmarks, massing, density, enclosure and architectural details. Please see <u>1d and 1e</u> for more details on how to protect heritage assets and views;
- New development should make sure that any possibility of coalescence with surrounding settlements or towns is avoided. More specifically, local concerns are focused on any proposed development to the east between Paddock Wood and Capel parish. For that reason, large green spaces should be implemented to act as green gaps, whilst the new designs should reflect the styles and details found in each parish to visually create another level of separation between these two settlements;
- New development should respect and retain the existing green assets of any form of woodlands, trees, hedges and hedgerows, whilst also proposing new green links to enhance the existing network and improve biodiversity. All green assets should be integrated into the design process and shape the design outcome. Please see <u>3a</u> for more details on the benefits of green networks within built environments;
- New development should enhance connections with the surrounding countryside and other settlements within the parish by improving the existing links or creating new ones. In edge locations, it is important to connect all streets to the network of public footpaths. Please see <u>2a and 2b</u> for more details on how to prioritise walking and improve access to the countryside; and
- New development could benefit from a parish-wide drainage plan to mitigate against risk of flooding, mainly to the north and east of the parish. In addition

to this, new developments located in flood risk zones should incorporate green buffer zones or Sustainable Urban Drainage Systems (SuDS) as measures to protect against potential flood risks. Please see <u>3c</u> for more details on water management.





Figure 27: Map to show all the land-based designations, heritage assets and key views in the parish that need to be protected and taken into account in new development.

1b. Set in rural landscape

Capel parish has a strong rural landscape which is representative of its local character and thus, it should not be undermined by any new development, either large of small. Some design guidelines on how new development should treat development edges are:

- New development should gain deep understanding of the existing pervading rural character of the parish and ensure the tradition of 'rus in urbe' is retained and reflected in any new design. Any proposal should create the feel that the countryside permeates the settlement allowing for long-distance views towards the landscape. For that reason, excessive, new, screening is not recommended as it would undermine the extensive views towards the countryside. In addition, guidelines related to building massing, density and roofline are equally important to help preserve the 'rus in urbe' feel in the parish and they will be covered in the following pages;
- New development within or in close proximity to the AONB area need to take into account additional design guidance set by High Weald Housing Design Guide (2019), as well as the AONB management plan and its objectives;
- New development should conserve existing native trees, shrubs, woodland blocks, shaws, hedgerows and watercourses/ditches and incorporate them into the new design, whilst any unnecessary loss of flora should be avoided. For example the well-vegetated rural lanes, the large street trees or the green verges along main roads in Five Oak Green village or the rich vegetation in the more rural settlements within the parish should be preserved and be part of the baseline in any new design;
- Abrupt edges to development with little vegetation or hard surfaces on the edge of the development should be avoided. Rich vegetation should provide a transition from built-up areas to the rural landscape without, however,

blocking any important views towards the countryside. For example, the recent infill development along Ellis Close clashes with the surrounding rural environment as the presence of green elements, within the development and along the edges, is kept to a minimum;

 Edges must be designed to link rather than segregate existing and new neighbourhoods. Therefore, green corridors should be proposed to provide pedestrian and cycle links that will improve connectivity with surrounding settlements and contribute to the successful integration of the new development within the parish. Those corridors should connect to the existing footpath network to allow for wider connections as well. Please see <u>2a and</u> <u>2b</u> for more design guidelines and codes on pedestrian and cycle links; and

 Landscape schemes should be designed and integrated with the open fields to avoid coalescence with other neighbouring settlements, for instance with Paddock Wood. It is important that each settlement, hamlet, village or town, is perceived as a separated entity with its own character and identity and any potential large development does not undermine the character and setting of nearby settlements.



Figure 28: Part of the rural landscape of Capel parish including large woodland blocks, mature trees, hedgerows, shaws and watercourses. Those elements, as well as the views towards the AONB landscape, need to be preserved and integrated into any new design.



Figure 29: Example, from elsewhere in rural UK, of a recent development which preserves the existing trees and vegetation along the edges, while also proposing additional 'soft' surfaces and low housing density within the built environment to retain the rural feel.



Figure 30: Local example of a recent development in Five Oak Green, where there is little vegetation provided resulting in creating a 'hard' landscape with an abrupt transition to the countryside, Ellis Close.

1c. Patterns of growth within the rural landscape

The parish owes much of its rural character to the historic pattern and layout of the roads and buildings, as well as its close relationship with the surrounding countryside. The variety of building patterns and typologies found in the parish, for instance farmsteads, farmed estate development, modern estates, cul-de-sacs and linear developments, offer an interesting mixture which summarises the local character of the parish and create the 'rus in urbe' feel. Thus, any new development, of any scale, needs to suggest design that matches the existing patterns and layouts in order to protect the local character of the parish. In addition, more information on the historic morphology of each settlement is presented on the next pages. Some design guidelines and codes are:

New development must demonstrate

 a good understanding of the historic
 morphology of each settlement,
 appreciate the existing variety of plot
 sizes and widths and suggest design that
 retains this variety, and juxtaposition, to
 preserve the local character and create
 visual interest along the streetscene.

For example, the plot widths in Five Oak Green village range between 7-15m, with some older properties reaching up to 25m. However, in more rural settlements plot widths show large discrepancies, due to the variety of building typologies; farm estates or historic buildings have over 50m plot widths, whilst there are cases of terraced cottages that have 3m of plot widths. This variety in the plot sizes and widths is also closely related to the building typologies and thus, more guidelines will also be included in <u>4c</u>;

- New development must demonstrate a good understanding of the scale, building orientations and levels of enclosure within the built environment and suggest design that reflects the existing character. For example, the parish offers a great variety of different levels of enclosure along the streets, as shown in <u>4b</u> in more details;
- Development densities in new schemes should reflect the character of their surroundings. For instance, the building density varies within the parish, since the average density in Five Oak Green village is relatively higher compared to the rest of the smaller rural settlements and therefore, the density in any new design

should match this variety depending on the surrounding context in each case. More details on density can be found in <u>4c</u>;

- New development should create a diversified building line to allow for a variety in sizes for front gardens, visual interest and short and long-distance views along the streetscene;
- The meandering character of the lanes which is a result of historic growth, as mentioned in <u>Section 3.3</u>, needs to be done appropriately to respect the existing character, for example working round topography or framing open spaces or other communal places. Examples of new developments with artificial meandering layouts, illegible road layouts and dead ends should be avoided; and
- New development must gain a deep understanding of the existing street typologies and propose design that overall celebrates the rural character of the parish. Any proposal that would adversely affect the physical appearance of a rural lane, or give rise to an unacceptable increase in the amount of traffic, noise, or disturbance must be avoided.

Local examples of plot widths



Figure 31: Building properties in Five Oak Green village offer a variety of plot widths depending on the building typologies which range between detached properties, semi-detached and terraced housing.

Local examples of building massing and scale

Figure 33: Local example of large detached property with generous setback from the street set within the rural landscape. Due to the low density of the surrounding environment, this property stands out and thanks to its architectural details and use of local vernacular, it also acts as a landmark for the area.

Local examples of street typology



Figure 35: Example, from elsewhere in rural UK, of a recent development which preserves the existing trees and vegetation along the edges, while also proposing additional 'soft' surfaces and low housing density within the built environment to retain the rural feel.



Figure 32: Building properties in Tudeley settlement offer a larger variety of plot widths, compared to Five Oak Green village, due to the building typologies which range between large detached properties, terraced cottages and farm estates.



Figure 34: Local example of terraced housing within Five Oak Green village, where properties are slightly setback from the road allowing for small-sized front gardens.



Figure 36: Local example of a cul-de-sac layout, mainly found in Five Oak Green village, where properties are set along a slightly meandering street which offers on-street parking.

Historic morphology

The civil parish of Capel was formed in 1894 covering Capel, Tudeley, Five Oak Green, Whetsted, Colts Hill, Castle Hill and Crockhurst Street. The largest of these historic settlements is Five Oak Green. Of the settlements, only Tudeley appeared in the Domesday Survey of 1086. The north boundary of the parish is formed by the river Medway and its alluvial deposits, the southwest border is defined by the High Weald and the south-east abuts the parish of Paddock Wood in the Low Weald. During the early medieval period, the western section of the parish was included within the Lowy of Tonbridge, an area of land granted to a castle or fortified settlement.

The study area is characterised by dispersed medieval and post-medieval farmsteads. Historic Landscape Character is now predominantly modern field amalgamation, boundaries having been lost as result of modern farming techniques. Fragments of formal field layouts survive around Five Oak Green and consolidated strip fields are indicated by the field pattern at Tudeley Hale. The south-west is dominated by parkland associated with Somerhill medieval manor and hunting chase. The parishes economy was agriculturally based, the arrival of the railway in 1842 enabling the growth of the hopgrowing industry.

Five Oak Green

At the time of the 1872 Ordnance Survey, the settlement was dispersed over three principal streets to the south of the railway. Two smithies, a post office [NHLE 1262884] and a public house are identified. By 1898, St Lukes Mission Church and a congregational church had been added. The settlement remained relatively unchanged until the post-war period in which it became the focus for residential development in the parish.

Tudeley

Tudeley is shown on the 1868 Ordnance Survey map to comprise of the Church of All Saints [NHLE 1261437] and its churchyard, the vicarage, a girl's school and several farmsteads. On the 1898 OS map a village hall is shown to the south of Gate Farm in addition to a number of small terraced cottages, one of which is labelled as a Police station on a 1964 map. There has been little modern development, excluding expansion of the post-medieval farmsteads.



Figure 37: 1898 OS map.

Capel

At the time of the 1878 Ordnance Survey, Capel comprised of the Chruch of St Thomas A Becket [NHLE 1262867] and churchyard, vicarage, a national school and several post-medieval farmsteads. The 1897 OS map shows a fever hospital to the east. The 1907 OS map shows the addition of several orchards. Modern expansion is limited to farmsteads.

Whetsted

Wheststed is shown on the 1872 OS map to comprise of Chequers Inn and several farmsteads. The settlement has changed little, modern development has taken the form of dispersed houses and farmsteads along Whetsted Road.





Figure 38: 1872 OS map.

Figure 40: 1907 OS map.



Figure 39: 1898 OS map.

1d. Views, landmarks and legibility

The surrounding natural landscape of Capel parish which permeates the settlements offers long-distance views to the open fields and particular landmarks. As well as being important to the rural character of the parish these long-distance views help with legibility and visual landmarks can serve as wayfinding devices and emphasise the hierachy of the place.

In general when places are legible and well signposted, they are easier for the public to understand and therefore, likely to both function well and be pleasant to live in or visit. Thus, some design guidelines on new development are:

Scenic values and tranquillity of the countryside views should be retained and enhanced in future development. In particular, there are many important views in Capel parish, owing to the surrounding High and Low Weald landscape, for instance, views into and out of the AONB, across the Medway valley north from Capel and north east

All Saints from Tudeley, from the top of Sherenden Road, north from Amhurst bank road and of Hopper's Huts;

- Development density should allow for spaces between buildings to preserve the views towards the countryside setting and maintain the perceived openness of the settlements. Any proposal that is visually intrusive and out of scale compared with the surrounding context must be avoided;
- New development should aim to create both short and long-distance views.
 Short-distance views broken by buildings, trees or landmarks create memorable routes and help people navigate around, whilst long-distance views and vistas allows to visually link places and admire the surrounding landscape;
- Gaps between buildings, open views and vistas could also help to demonstrate the significance of a landmark asset.
 Buildings, as well as public art, historic signage totems or an old and sizeable tree can act as landmarks;

- Buildings which are located at corners, crossroads or along a main road could play a signifcant role in navigation. For that reason, the architectural style of those buildings could be slightly differentiated from the rest to help them stand out;
- Potential employment buildings within the rural landscape should be setback from the road and bordered with rich vegetation to mitigate any visual impact from the road. In addition, the height of new employment buildings should be sensitive to the surrounding landscape and not generally exceed 3 storeys to avoid impacting on existing views. For instance, Orchard Business Park, is a positive example of employment building that is well buffered with rich vegetation and trees;
- Signage could be strategically located along walking and cycling routes to signalise the location of local assets or other important destinations. For instance, local amenities such as the school, Five Oak Green recreation

ground, the Capel village hall, community orchard and allotments, as well as the locations of smaller settlements in the parish could be highlighted on sign posts to show the walking and cycling distances improving awareness and navigation;

- New signage design should be easy to read. Elements like languages, fonts, text sizes, colours and symbols should be clear and concise, and avoid confusion; and
- Applicants are encouraged to use wooden, hand painted and non illuminated signage, avoiding the use of garish or day-glow colours. Overall, the signange must be sensitive to the rural environment and blend nicely with the existing rich vegetation.



Figure 41: Example of signage that could be implemented along footpaths within the open countryside to navigate people towards important destinations.



Figure 42: Example of a wooden sign post which would be well suited to the surrounding rural environment of Capel parish.



Figure 43: Example of a sign post indicating the location of public footpaths, whilst the wooden material fits perfectly into the surrounding rural context.

1e. Development affecting heritage assets

There are several elements of historic significance in Capel parish which make a positive contribution to the character of the area. In particular, the grade I, II and II* listed buildings, scattered amongst the smaller rural settlements, including historic landmarks like the Church of St Thomas à Becket, Church of All Saints and Somerhill mansion, as well as other unlisted heritage features of interest which are valuable assets to the parish and part of the local listing scheme.

Additionally landscape elements form part of Capel's heritage and include one designated ancient monument, Somerhill historic park and garden, areas of ancient woodlands, rural lanes, veteran trees and historic farmsteads.Therefore, design guidelines should be in place to guide development in close proximity to the above assets. These guidelines are:

- New development in close proximity to designated and non-designated heritage

assets must acknowledge the nature of those assets, their setting in relationship to the street and vegetation and draw the qualities that could inform new development;

- New development proposals should not be visually intrusive or block key views to and from heritage assets. This should be achieved through proposing appropriate scale and setback. For instance, it is important that the historic churchyard of St Thomas à Becket and the views from it over the Medway valley are protected from any future nearby development. Therefore, any adjacent development should be of low scale and setback from Alders Road to minimise any potential visual intrusion;
- New development should retain the existing open spaces, vegetation and trees, where possible, to preserve the historic form and pattern of development in the parish. New development should be sensitively designed to avoid negative impact upon the existing network of rural lanes. Figure 46 is a positive example,

from rural UK, where the existing green assets where preserved (photo below), whilst the new infill development was set back from the main street to respectfully sit next to listed buildings (photo above) minimising any visual impact;

- The scale and massing of new development should be sensitive to the surrounding heritage assets;
- New developments should suggest density that respects the surrounding context and allows for general gaps between buildings to preserve open views and vistas and aim to demonstrate the significance of the asset; and
- New development should propose architectural details and materials that are sensitive to the ones used in the surrounding heritage assets to preserve and respect the local vernacular.



Figure 44: Any new development in close proximity to All Saints church should propose design of smaller scale and add vegetation to act as screening.





Figure 45: Local example of a short-distance view to the oast house, where the small pond acts as focal point around it, Whetsted.



Figure 46: Positive example of edge treatment of a recent infill development (photo below) next to the historic asset (photo above), elsewhere in rural UK. The infill property is setback from the main street allowing for a generous gap between itself and the neighbouring listed building which faces directly onto the pavement. As a result, the recent addition is discrete and not visually intrusive, as it is also surrounded with rich vegetation and large trees, respecting the scale and massing of the listed building.



Figure 47: Positive example of an infill development (shown to the left in the photo) which does not obstruct the views towards the church along the street. Its scale, roofline and boundary treatments respect the surrounding rural context and create a sympathetic addition into the built form, elsewhere in rural UK.



Figure 48: Map to show the heritage assets, views and landmark features, in the parish, that need to be protected and taken into account in new development.

Figure 49: Long-distance view to the countryside from Capel.

2a. Prioritise walking and cycling and access to the countryside

Routeways in Capel parish have a distinctive character with an often idiosyncratic geometry likely founded on medieval land use and ownership, as well as responses to topography. It is important that this character in the routeways is retained and that new routeways readily respond to the landscape and are not surplanted by standard highways geometry.

Across Capel parish, there is a relatively well-established network of footpaths which offers good rural walks and long-distance views to the open fields. However, there are accessibility issues as footpaths are often muddy tracks, whilst some settlements are less connected than others. Therefore, new developments should aim to improve the existing pedestrian and cycle networks and provide safe routes for both users. Some guidelines are:

 It is important that the distinctive character of the routeways is retained and that new routeways readily respond to the landscape and are not surplanted by standard highways geometry in order to preserve local character and add interest along the streetscape;

- Where possible, newly developed areas must retain or provide direct and attractive footpaths between neighbouring streets and local facilities and amenities. Establishing a robust pedestrian network across new developments and among new and existing development is key in achieving good levels of connectivity and promoting walking and cycling. For instance, there is a desire for the open countryside in the parish to be more walkable and cycleable, to create more links towards Paddock Wood, to better connect Whetsted and Five Oak Green with the rest of the settlements, as well as to improve access to the River Medway to the north or the woods to the south west. These desires need to be taken into account in new development;
- Footpath networks need to be in place before first occupation of houses on the sites and walking/ cycle routes within new communities should be the primary network and first consideration, whilst roads should be secondary;
- Pedestrian and cycle links within residential communities should always be overlooked by properties to create natural surveillance and offer good sightlines and unrestricted views to make people feel safer;
- In case of cul-de-sac layouts, those should always be connected to footpaths to avoid blocking pedestrian and cycle flow;
- Design features such as barriers to vehicle movement, gates to new developments, or footpaths between high fences must be avoided;
- Cycle parking should be implemented in both private or public spaces, next to amenities or even along cycle lanes within the countryside, to encourage cycling in the parish;

- Paving used along the pedestrian and cycle links should, in principle, be permeable to help absorb surface water and mitigate flooding. Thus, any kind of impermeable paving, as shown in Figure 50, should be avoided. In addition, in terms of materials, those can vary depending on the context, however, an overall earthy palette is recommended to fit nicely to the rural surroundings. For example, different colours and shapes of stones can be used within the built environment, whilst edge lanes or footpaths within the countryside can have a less formal character using mainly gravel, as shown in Figure 49;
- A robust green network should be created, as shown in Figure 51, from new and existing pedestrian and cycle links aiming to encourage people using it on a daily basis. To this signage, can play a significant role in informing people about important destinations, nearby settlements, including the different hamlets in the parish and the surrounding towns of Paddock Wood



Figure 50: Positive examples of permeable paving. The top and middle photo show examples of paving that could be used within the built environment, whilst the photo to the bottom shows an example of edge lane that uses gravel, in earthy palette, which could also be used in footpaths within the countryside.

Figure 51: Example of footpath that connects the newly built neighbourhood with the surrounding countryside at the background. The materials used for the signposts respect the rural character of the village, elsewhere in UK.

and Tonbridge, local facilities and natural features (watercourse, woodlands). However new signposts must respect the rural character of the parish and avoid creating visual clutter. Details on signage can be found in <u>1d</u>; and

 Widths for the green links can vary depending on the context, they should be a minimum of 2m if located within residential developments, whilst they can go over 2m if located in open countryside or if they are integrated into the road in the form of a shared lane. Shared lanes are recommended within the residential developments, however, for wider networks and connections dedicated cycleways are preferred, in their own right, to encourage people to use them as they have a safer feel.



Figure 52: Opportunities for new or improved green links around the parish aiming to encourage walking and cycling between the settlements and the surrounding towns as well as to green spaces and the river. The circles indicate an 800m distance (approx. 10min walk).

2b. People friendly streets

It is essential that the design of new development includes streets that incorporate the needs of pedestrians, cyclists, as well as public transport users. Some design guidelines and codes for future development are:

- Streets must meet the technical highways requirements incorporating the needs of pedestrians, cyclists, and if applicable, public transport users;
- Streets should be considered a 'place' to be and contribute to the local character of the parish. Thus, a good understanding of the existing street typologies and characteristics, widths and enclosure, is needed so that any new design reflects the existing rurality;
- A gentle meandering character, where appropriate, is welcome to offer evolving views either along the streetscape, built environment or surrounding countryside. However, as this is a characteristic of historic growth in the parish, it should not be done in an artificial way in new developments, but more naturally, as mentioned in <u>1c</u>;

- Within the development boundaries, streets should have a secondary role, giving priority to the pedestrian and cycle network. They should not be built to maximise vehicle speed or capacity and should discourage rat-running which is an issue within the parish. For that reason, traffic calming measures, shown in <u>Figures 52 and 53</u>, like speed cushions and bumps, speed tables or appropriate signage to indicate the speed limits, should be implemented;
- Although the prevailing parking typology is on-plot parking, it is important that where on-street parking is introduced, it does not impede the access for pedestrians and other vehicles and it is well-vegetated to retain the rural character; and
- Routes should be laid out in a permeable pattern, allowing for multiple choices of routes, particularly on foot and bike. Any cul-de-sacs should be relatively short and provide onward pedestrian links.



Figure 53: Example of an interactive signage to indicate speed limits within a residential area, elsewhere in UK.



Figure 54: Example of a speed cushion.

Having an hierarchy of streets within a new development helps create well-connected streets of varied character that filter traffic and speed.

The suggested street hierarchy is based on the existing street typologies in the parish, whilst some new ones, related to rural environs, are suggested.

This and next pages present illustration examples of these street typologies.

Residential street 1 (Primary & secondary roads)

- The width of the carriageway should reflect the context of the street. For instance, it should be approximately 4.8m if it serves only a cluster of houses, whilst if it connects neighbourhoods or carries public transport traffic it should be approximately 5.5m. On-street parking may be on-plot or accommodated on the street or inset into green verges;
- Carriageways should be designed to be shared between motor vehicles and cyclists. Vertical traffic calming features such as raised tables may be introduced;

- Where possible, those streets should be tree-lined on both sides to create enclosure. The level of enclosure should be decided depending on the surrounding context; and
- Solutions on sustainable drainage for this street typology is provided in <u>Appendix A</u>.



Figure 55: Cross-section to illustrate some dimensions for residential streets 1.

Residential streets 2 (tertiary & cul-desacs)

- Residential streets should be designed for low traffic volumes and low speeds, ideally 20 mph;
- These streets must be designed for cyclists to mix with motor vehicles. Traffic calming features such as raised tables can be used to prevent speeding;
- Residential streets should be formed with a high degree of built form enclosure, with consistent building lines and setbacks;
- Street trees should be provided with suitable gaps, wherever possible; and
- Solutions on sustainable drainage for this street typology is provided in <u>Appendix A</u>.



Figure 56: Cross-section to illustrate some guidelines for residential streets 2.

Edge lanes

- All the edges of new development areas should be served by continuous edge lanes to provide high level of connectivity;
- Edge lanes are low-speed streets that front houses with gardens on one side and a green space on the other. Carriageways typically consist of a single lane of traffic in either direction, and are shared with cyclists. For wider connections within the parish, the cycle lanes will be segregated; and
- Variations in paving materials and textures can be used instead of kerbs or road markings, which need to follow specific standards as mention in <u>2a</u>.

Green links

- Green links should be located within minimum 7.5m wide corridor adjacent to retained green assets;
- Shared or segregated footpath and cycleway, depending on the context, to be provided within corridor and to be minimum of 3.0m; and
- Where required, SUDs features to be incorporated into corridor beside the surface of shared footpath and cycleway. Additional solutions on sustainable drainage for this street typology is provided in <u>Appendix A</u>.



Figure 57: Cross-section to illustrate some dimensions for edge lanes.



Figure 58: Section to illustrate some dimensions for green links.

Design guidelines and codes for street planting

An important feature of the streets, not only in terms of good design practice, but also regarding the rural context of Capel parish, is the trees. Street trees are a distinctive characteristic of the rural lanes within Capel parish contributing to the strong sense of enclosure. In addition, large street trees can also be found in well-sized green verges along Five Oak Green Road.

In general, street planting helps maintain visual consistency along the public realm or the rural character along countryside lanes, whilst it offers other benefits like better mental health and well-being by reducing stress, lessening heat islands, and providing protection from natural elements such as wind and rain.

For all the above mentioned reasons, existing trees must be preserved in new development, whilst new ones need to be proposed. Some guidelines are:

- New development should aim to preserve existing mature trees and hedges by incorporating them in the new landscape design, particularly trees protected by Tree Preservation Orders (TPOs) across the parish. There is a range of mature trees, largely oak, in the village which should also be preserved in new development;
- Tree planting must be a primary consideration in the new design and not an afterthought. More specifically, tree planting must be carefully planned in conjunction with parking, buildings and street lighting. For example, the suggested deepening for green verges and front gardens should be decided based on the size of the tree. Adequate space should be provided to ensure there is enough space for medium and large growing species;
- The size of the tree can also play an important role in wayfinding, marking reference points and signifying edges of development, since it can act as a

landmark for an area that can be seen from distance. Thus, any decision on the size of the tree should be also made in conjunction with the overall design proposal;

 To ensure resilience and increase visual interest, a variety of native tree species is preferred over a single one. This variety should be decided based on the existing tree species in the parish;



Figure 59: Local example of wide verges, planters and mature willow tree in Oak Road.

- Flower beds, bushes and shrubs should be welcomed in new developments, since they contribute to the livelihood of the streetscape and create visual interest and colour to their surroundings; and
- 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.

Additional design guidelines and codes for street planting and lighting

As mentioned, street planting should be considered in conjunction with, amongst other elements, street lighting. Street lighting can result to be harmful to adjacent trees, as it can alter a plant's normal growth pattern by exposing the tree to more light than it needs. In addition to this, if not done appropriately, the trees tend to grow and cover the street light requiring regular pruning which is not efficient. It is also important to note that due to the strong rural context of Capel parish, any potential lighting will only be proposed within the built environment. Thus, some design guidelines to help prevent those conflicts are:

- Trees, depending on their growing size, should be placed at a specific distance from the light source. For example:
 - If the light is less than 4.5m away from the tree and shorter than 6m, then large-maturing trees should be trained to grow over it, allowing the light to shine beneath the canopy. Long term management will be need to secure early pruning. Medium sized trees are not recommended near low lights as they will block the light;
 - If the light is less than 4.5m away from the tree and between 7-12m tall, then large or medium trees may not be suited for planting, as their branches will grow into and block the light;
 - If the light is less than 4.5m away from the tree and more than 12m tall, small

and medium-sized trees are well suited for planting, as their canopies will not grow into and block the light; and

- If the light is over 12m away from the tree, then almost any tree is suited for planting.
- Apart from the conventional light columns, there are other innovative ways to light up the outside space, with careful consideration to light pollution and preserving dark skies in the parish. Those include up-lighting, downlighting, path lighting and backlighting. Those lighting techniques offer efficient direction in movement signalising access points and paths around the properties, security, usability allowing the outdoor spaces to be used at night as an extension of the inside as well as improving the aesthetics. Those lighting techniques should be part of the design process from early on, rather than an afterthought.

Up-lighting. Focus light and attention on an object or tree from a low fixed location.



Figure 60: Example of up-lighting which is used to illuminate the trees within a property.

Path lighting. Use of low fixtures which direct illumination downward and outward.



Figure 62: Example of path lighting where all lights are directed downwards, whilst the light sources are obscured.

Backlighting. Fixtures placed at the back of an object to create a 'glowing' effect.



Figure 63: Example of backlighting used at the back of a bush to create a glowing effect.

Cat's-eye lighting. This technique can be used along footpaths and cycleways.

Downlighting. Bullet type fixture placed well above eye level on an object or tree.



Figure 61: Example of down lighting which was used to illuminate the pathway.

Figure 64: Example of a foot/cycle path which is lit by solar cat's-eye providing some light for pedestrian and cyclists without creating any disturbance to the nearby properties or unacceptable levels of light pollution.

Additional design guidelines for street lighting

As mentioned earlier, Capel parish has a strong rural character and thus, dark skies is one of its characteristics as well. Therefore. although artificial light provides valuable benefits and it makes areas feel more welcoming at night-time, it is important for new development to minimise any potential impact on street lighting or house lighting to the natural habitat and light pollution. The following guidelines aim to ensure there is enough consideration given at the design stage of new developments:

- Lighting schemes should be part of a strategic approach where all light sources, including columns, bollards, switch off, PIR, porch lights, solar cat's eyes, up-lighting, path lighting, backlighting and downlighting, are put in an hierarchical order based on their use. This order will define the light levels and switch off times:

- Light sources should be less than 3000K to ensure appropriate levels of light spill and glare. Light shields can also be used at light sources for additional protection over glare and light spill and thus dark skies;
- Choice of lighting should be energyefficient and sustainable. The installation of carefully directed motion sensors should be encouraged;
- Lighting schemes should be directed downward to avoid reducing dark skies or disturb neighbours or passers by, as shown in Figures 59-62; and

Figure 65: Diagram to illustrate the different components of light pollution and what 'good' lighting means

- Foot/cycle path light should be in harmony with surrounding rural landscape. Lighting such as solar cat'seye lighting, reflective paint and groundbased lighting could be introduced, as shown in Figure 60.

2c. Parking and servicing

Although, the aim to create a good network of walking and cycling routes within Capel parish is a priority, with no immediate railway station nearby (the nearest a drive away in Paddock Wood) and a limited bus service, the demand for private cars still remains high. Therefore car parking has to be carefully integrated into the design of developments. In addition, energy efficiency is also an important consideration and the need for more electric cars is rising.

There are issues within the parish around parking which should be addressed, for example pavement parking in the village and a lack of parking outside the school.

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

Guidelines for on-plot or on front car parking

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

Figure 66: Illustrative diagram showing an indicative layout of on-plot side parking.

Figure 67: Local example of on-plot side parking and on-plot front parking with vegetation to provide screening. These parking solutions avoid cluttering the front façade of the house.

Guidelines for on-street car parking

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

Figure 68: Illustrative diagram showing an indicative layout of on-street inset parking.

Figure 69: Example of on-street parking with parking bays and street trees to mitigate the impact of the cars on the streetscape, Poundbury.

Figure 70: Example of on-street electric vehicle charging points.

Guidelines for parking courts

- Parking courts, such as on Falmouth Place, should be acceptable for small building clusters and permeable paving should be used where possible;
- Parking courts must be overlooked by properties to increase natural surveillance;
- Planting and vegetation should be integrated into design to soften the presence of cars and preserve the rural character of the area; and
- Car charging points within parking courts are highly supported, since they can serve more than one vehicles.

Figure 71: Local example of electric vehicle charging points within the parking court of The Poacher and Partridge pub in Tudeley Hale.

Guidelines for garages

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

Figure 73: Example of a cul-de-sac street which includes only on-plot garage parking typologies, however, the strong presence of vegetation enhances the softness and rurality of the area mitigating any feeling of a car-dominated environment, elsewhere in UK.

Figure 72: Example of an on-plot garage parking within a rural environment which is 'hidden' behind the rich vegetation along the building frontage mitigating any visual impact, elsewhere in UK.

Figure 74: Indicative layout of a garage with a cycle storage area.

Servicing

With modern requirements for waste separation and recycling, the number and size of household bins has increased, posing a problem with the aesthetics of the property and the management of the bins. Additionally in Capel, where older builds predate the need for such storage areas there is no space provided on plot and bins obstruct the pavement, for example along Badsell road. Therefore, new development should cater for integrating waste storage whilst, retaining the rural context of the village. Some guidelines for new development are:

 When dealing with waste storage, servicing arrangements and site conditions should be taken into account. In some cases waste management should be from the front of the building and in others, from the rear. It is recommended that bins are located away from areas used as amenity space;

- A specific enclosure of sufficient size should be created for all the necessary bins;
- Bins should be placed within easy access from the street and, where possible, with the ability to open on the pavement side to ease retrieval;
- Bins should be placed as close to the dwelling's boundary and the public highway, such as against a wall, fence, hedge but not in a way as to obstruct the shared surface for pedestrian and vehicle movements;
- Soft surfaces could be added on or around the bins, not only to improve the aesthetics of the front garden, but also to enhance biodiversity; and
- Wheelie bin storages are recommended to improve the aesthetics of the environment.

Figure 75: Example of bin storage surrounded by flowers and plants improving the surroundings and enhancing biodiversity.

Figure 76: Local example where the bins are stored under the shed, whilst the side wall is decorated with flowers and plants to improve the environment. This arrangement combined with the particular permeable paving contributes to the rural feel of the village.

Cycle parking

Houses without garages

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

Houses with garages

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

Figure 78: Indicative layout of a bicycle and bin storage area at the back of semi-detached properties.

Figure 77: Example of cycle parking storage that fits sensitively within a rural environment, elsewhere in UK.

Figure 79: Sheffield cycle stands for visitors and cycle parking illustration.

DC.03 Landscape and sustainability

3a. Create a green network

Capel parish is home to a wide variety of green and blue infrastructure for recreational purposes, whilst it also serves as a vital wildlife corridor.

The term green and blue infrastructure includes a variety of elements ranging between trees, green verges, bushes, flower beds, hedgerows, front and rear gardens, open green spaces, open fields, woodland blocks, countryside and river and streams. Those elements define the green network and the more connected they are, the better for the environment.

Thus, new developments should aim to strengthen the existing green network and avoid proposing design that limits vegetation and impedes the movement of species. Opportunities should be sought to introduce green assets into design and contribute to biodiversity. Some design guidelines on green networks are:

- New design proposals, of any scale, should be aligned with the high level strategy for creating a robust green network of new or improved green corridors, shown in <u>Figure 51</u>. New developments should link existing and newly proposed street trees, green verges, front and rear gardens, open spaces, habitat sites and the countryside and chalk streams together through those green corridors;
- New development should ensure that small and isolated woodlands in the parish are linked to larger green areas nearby to protect connectivity of habitats and biodiversity. Some examples of small areas of ancient woodland throughout the parish are the woodland area off Five Oak Green road near the George and Dragon pub, the woodland area off Sherenden road opposite Bank Farm and the woodland area off Hartlake road near All Saints Church in Tudeley. These areas could be integrated into the new design from the outset of the project;
- New development should avoid threatening existing ecological assets, for instance, the Metropolitan Green Belt, especially at the parish boundary between Capel and Paddock Wood to prevent the convergence of Paddock Wood and Five Oak Green and preserve the clear distinction between rural and urban setting which this provides;
- The multifunctionality of the green network, and how different typologies might work together, should be shout and new developments should take any opportunity to maximise its gains. Green networks apart from enabling walking and access to the countryside, they enhance the movement of a variety of species, improve people's mental health, retain the local rural character of the area. and can accommodate SUDs solutions to mitigate surface water and flooding. Regarding the latter, surface features are widely preferred over underground ones, for instance proposing ponds, rain gardens, bioretention trees or aligning drainage routes with pedestrian/cycle paths;

DC.03 Landscape and sustainability

- New development should facilitate the access, for all groups of people, to the public parts of the green network, for instance footpaths, cycle paths, open green spaces, open fields and river and streams. For instance, footpaths and cycle paths should be well-integrated into the existing footpath network to encourage people using then, whilst strategic signage, as mentioned in 1d should improve legibility and inform people about the possible entrances to the footpath network and important destinations within the parish or nearby towns. In addition, paving materials should be appropriate, as mentioned in 2a, to facilitate walking for all age groups. Currently, there is a number of muddy footpaths that become tricky to walk along during rainy seasons; and
- Where new development is adjacent to any green corridor, either green or blue assets, it is important it fronts onto it to maximise open views.

Figure 80: Diagram to illustrate the green assets that can play an important role as wildlife corridors.

Figure 83: Rain garden along the building edge (source: © DASonnenfeld commons.wikimedia.org (CC BY-SA 4.0).

Figure 82: Example of a bioretention tree along a residential street. Those trees could also be retrofitted into existing roads.

Figure 81: Green space overlooked by properties improving the environment, whilst also acting as a SuDS corridor.
Additional design guidelines for open spaces

Public open spaces play a vital role in the success of the green network, whilst creating a positive environment and preserving the feel of openness and rural character of an area like Capel. In addition, open spaces reinforce civic pride in a place, as they encourage communities to gather and engage - creating lively, harmonious and diverse neighbourhoods. Some local examples are the recreation ground at Five Oak Green, the community orchard and the allotments. Thus, new development should prioritise the design of open spaces to maximise those gains and some key design guidelines are:

- The location of new open spaces within new development should be decided based on the location of the existing ones considering the needs of the existing and new population;
- Landscape should not be used as a divisive measure between new and existing development, however, green

buffer zones between older and new development are acceptable. This can be achieved by procuring a landscape consultant early on in the design process;

- Recreational space should be provided to include woodland walks and play areas to cater for the needs of the existing and new population. In addition, all recreational spaces should be designed to link up with each other and also link up with existing adjoining sites taking particular note of enhancing the green network;
- Surrounding buildings should overlook play areas and public green spaces to encourage movement, activity and natural surveillance;
- Open spaces should be equipped with good quality of street furniture to create pleasant seating areas, shaded spaces avoiding hidden spots; and
- The materials and style of any street furniture in the open spaces should be consistent throughout the parish and aim to proudly represent the local character.



Figure 84: Example of a children's play area with many activities for the whole family, Royal Tunbridge Wells.



Figure 85: Properties overlooking a public open space which is equipped with grass areas, large green trees and street furniture, elsewhere in UK.

3b. Promote biodiversity net gain

Under the wider backdrop of climate change and global warming, protection of biodiversity is becoming an important priority and should start at the local level. Biodiversity has multiple benefits as it can protect the natural environment, educate and increase scientific knowledge, increase community involvement and boost local economy.

The objectives set by Tunbridge Wells Local Biodiversity Plan are:

- To improve the knowledge of what habitats and species exist in the area, their current condition, the extent and population;
- To identify habitat and species that are of national and local importance in Tunbridge Wells borough;
- To identify threats and opportunities to habitats and species within the borough;

- To develop targets and actions to protect and enhance Tunbridge Wells borough biodiversity;
- To form a biodiversity partnership to bring together all action taking place for biodiversity in Tunbridge Wells borough;
- To increase public understanding and awareness of biodiversity conservation;
- To promote the long-term protection and enhancement of biodiversity in Tunbridge Wells borough;
- To target biodiversity action to enable biodiversity to adapt to climate change; and
- To raise understanding and awareness of biodiversity conservation within the Council and ensure that the Council has regard to the purpose of conserving biodiversity in all its actions.

Capel parish has set a target of 10% biodiversity gain. Biodiversity net gain is an approach which aims to leave the natural environment in a measurably better state than beforehand. Thus, any new development within Capel parish needs to do its part and aim to promote biodiversity, through, to contribute to the overall target. Some design guidelines are:

- Any new development, of any scale, in close proximity or within the High Weald landscape should have a good understanding of the characteristics and priority habitats and species and ensure that any new design will not undermine the current situation, but it will enhance it. More specifically, the High Weald landscape includes remnants of a medieval landscape, with rolling hills, sunken lanes, rocky outcrops, small irregular fields, abundant woods and hedges and scattered farmsteads which should be preserved and integrated into the new design;
- The Low Weald landscape is good for amphibians and thus, any new development should have amphibian friendly gullies and kerbs to facilitate their movement;



Figure 86: Map showing the landscape and habitat types within Tunbridge Wells Borough.

- New development should protect the identified priority habitats in the borough, like low weald farmland, forested plateau, meadows, hedgerows and woodland blocks, as shown in Figure 85. Additional actions to protect the specific habitats are set out in Tunbridge Wells Local Biodiversity Plan (part 2);
- New development should help increase _ movement of species between isolated wildlife populations. This strategy could also inform any high level green network strategy, as the one shown in Figure 51, in order to create a sustainable approach with multiple benefits towards people, species and habitats. For example, the movement of amphibians and small mammals should be maintained through vulverts under roads and cycle tracks or arboreal connections with proposals for retention and planting of mature trees close to routeways in key locations. Planting should make provision for target species such as dormice and turtle doves as appropriate;



Figure 87: Example of a structure used as a frog habitat corridor located in an outdoor green space.



Figure 89: Example of a bat box placed in the front or rear garden of a property,



Figure 88: Example of a bug hotel that could be placed in the front or rear garden of a property.



Figure 90: An example of a hedgehog tunnel within a garden fence.

- New development can propose small interventions into the built environment to provide species with cover from predators and shelter during bad weather. Some examples, shown in Figure 86-<u>89</u>, are, bat boxes, bug hotels and frog houses. Those interventions can also help create new habitats and wildlife corridors;
- Biodiversity, woodlands, hedgerows, ditches should be protected and enhanced where possible and be an integrated part of the design process rather than an afterthought. For examples, existing green assets should be integrated into the new proposals and help define the location of green spaces, green buffers, aligned back and front gardens or development edges;
- Gardens and boundary treatments should be designed to allow the movement of wildlife and provide habitat for local species, as well as to retain the rural character of the parish. For that reason, rich vegetation and plantation



Figure 92: Example of a pollinator garden that could be placed in a communal green space within the built environment. Figure 93: Example of a pollinator garden that could be placed in a communal green space within the built environment.

Figure 93: Example of signage located within the countryside to provide information on the species that can be found in the area, elsewhere in UK.

is suggested, whilst less permeable boundaries like brick walls and timber fencing should be used less and allow for regular gaps to facilitate movement for species. Timber fencing with no gaps between panels should not be accepted;

- Biodiversity interventions in the public space could help improve the environment as well as inform and educate the community about the existing species and habitats. For instance, having hedgehog streets, wildlife friendly show gardens or designated areas within green space for wildlife could raise awareness about biodiversity. In addition, interactive signage, shown in Figure 92, could be placed next to those interventions to offer more information and photos about the available species and habitats in the area;
- Blue assets can also contribute to biodiversity connectivity. Therefore, the existing ditches and streams should be considered in design proposals, in the form of ponds or pollinator gardens, as the one shown in <u>Figure 91</u>, when planning for wildlife corridors; and
- All areas of biodiversity that require further planting/ enhancement should be planted before the start of construction.

Additional guidelines for individuals, community groups and landowners and farmers can be found in Tunbridge Wells Local Biodiversity Plan.

3c. Water management

Sustainable drainage solutions (SuDS)

The River Medway lies just outside Capel's northern boundary. Two of its tributaries flow through the parish to meet it. The Alders Stream runs through Capel and Five Oak Green and the Tudeley Brook drains the east of the parish. As a result some parts of the parish are more prone to high to medium levels of flooding than others.

Overall, flooding has been a big issue for Capel parish over the last decade due to a combination of factors including flooding of the Alders Stream, pluvial/ surface water run-off caused by intense rainfall linked to issues of poor drainage and the naturally high groundwater table level of the parish.

Thus, impacts of increased flood risk should be considered in the design and location of any new development. Development should be located outside the highest flood risk areas and where development is necessary in such areas, it should be made safe for its lifetime without increasing flood risk elsewhere in the parish.



Figure 94: Flooding of the Solar Farm.



Figure 96: Flooding in Tudeley in winter 2013.



Figure 95: Flooding on Sherenden road.

The introduction of some sustainable drainage systems, known as SuDS, could be beneficial to the village in mitigating against flood risk.

The most effective type or design of SuDS would depend on site-specific conditions such as underlying ground conditions, infiltration rate, slope, or presence of ground contamination. However, a number of overarching principles that could be applied in new development are:

- Manage surface water as close to where it originates as possible;
- Reduce runoff rates by facilitating infiltration into the ground or by providing attenuation that stores water to help slow its flow down, so that it does not overwhelm water courses or the sewer network;
- Improve water quality by filtering pollutants to help avoid environmental contamination;
- Integrate into development and improve amenity through early consideration

in the development process and good design practices;

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



Figure 97: Example of swales check dam integrated with a crossing point, somewhere in UK.



Figure 98: Example of SuD designed as a public amenity and filly integrated into the design of the public realm, Stockholm.

Storage and slow release

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

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

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



Figure 99: Examples of water butts used for rainwater harvesting in Reach, Cambridgeshire.



Figure 100: Example of a gravity fed rainwater system for flushing a downstairs toilet or for irrigation.



Figure 101: Diagram illustrating rainwater harvesting systems that could be integrated into open space and residential developments.

Permeable paving

Most built-up areas, including roads and driveways, increase impervious surfaces and reduce the capacity of the ground to absorb runoff water. This in turn increases the risks of surface water flooding.

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

- The choice of permeable paving units must be made depending on the local context; the units may take the form of unbound gravel, clay pavers, or stone setts; and
- Permeable paving can be used where appropriate on footpaths, private access roads, driveways, car parking spaces (including on-street parking) and private areas within the individual development boundaries.

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

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



 CIRIA (2015). The SuDS Manual (C753).
Great Britain. Ministry of Housing, Communities & Local Government (2008). Guidance on the Permeable Surfacing of Front Gardens. Available at:<u>https://assets.publishing.service.gov.uk/</u> government/uploads/system/uploads/attachment_data/file/7728/ pavingfrontgardens.pdf



Figure 102: Diagram illustrating the function of a soak away.



Figure 103: Example of a permeable paving that could be used from driveways.

3d. Eco-design

Minimising energy use

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

There is a good number of energy efficient technologies that 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.

Figure 103 features an array of sustainable design features, where the top ones are strongly encouraged to be implemented into existing homes, while those on the bottom show additional features that new build homes should be encouraged to incorporate from the onset.

Lifetime and adaptability

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

'Lifetime' homes means designing in the flexibility and adaptability needed to allow for easy incorporation of wheelchair accessibility, addition/removal of internal walls, and ease of extension - both vertically and horizontally. This is particularly important for the aged, infirm or expanding/ contracting families who may be dependent on nearby friends and family for emotional and physical support.

The HAPPI (Housing our Ageing Population Panel for Innovation) principles, based on 10 key design criteria, should be taken into consideration in any new development. Those criteria reflect space and flexibility, daylight in the house and shared spaces, balconies and outdoor space, adaptability, natural environment, energy efficiency etc.

Building fabric

Thermal mass

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

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

Insulation

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

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

Airtightness

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

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



Figure 104: Diagram showing low-carbon homes in both existing and new build conditions.

Existing homes



Building orientation

The orientation of buildings within the plot, along with the site topography must be considered to maximise solar gain, while keeping a consistent frontage to the street.

In addition, living spaces within each typology should be oriented according to the expected use of each room, e.g. sun in the morning for kitchens, during the day for living areas, and in the evening for bedrooms;

In general, the design of new developments must maximise the use of energy efficiency and energy conservation fixtures, fittings and technology. Passive methods of heating and cooling and the use of renewable energy technologies such as ground source and air source heat pumps, biomass heating, photovoltaics and solar panels must be considered for new developments. Opportunities for the use of the same technologies in existing buildings, when undergoing refurbishment, will also be expected. Appropriate materials and detailing should also be considered to minimise heat loss, whilst direct entry from the street to an interior living space should be avoided where possible.

Solar access along the south façade should be maximised and openings on the north one minimised. Appropriate shading elements and cross ventilation should be employed in new and existing buildings.



Figure 105: Illustration to show the appropriate building orientation so as to maximise solar gains. Windows should be placed mainly on the southern side whilst fewer openings should be located on the northern. A deep roof overhang can offer some shading. This can also be improved with some trees and vegetation around the house. (Source: https://nextdayinspect. com/building-orientation-for-optimum-energy/).

Heating

Heading towards a more ecological agenda, it is expected that the use of fossil fuels will be deprecated and other techniques, for instance air/ground source heat pumps will be preferred over gas boilers. These draw in heat from the air or the ground around the houses and use that to warm the inside of the house, whilst they cool by pulling the warm air our of the house, rather than using energy to cool air from outside. Electric heat pumps are not only used during winter, but also during summer for cooling.



Figure 106: Example of an electric heat pump that is placed to the back of the house, whilst its grey colour fits nicely with the black weatherboarding of the property.

Roof solar panels

Solar panels over a rooftop can have a positive environmental impact, however their design and installation should be done carefully. Preserving the character of the village should be a priority.

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.

On retrofits

- Analyse the proportions of the building and roof surface in order to identify the best location and sizing of panels;

- Consider introducing other tile or slate colours to create a composition with the solar panel materials;
- Conversely, aim to introduce contrast and boldness with proportion. There has been increased interest in black panels due to their more attractive appearance.
 Black solar panels with black mounting systems and frames can be an appealing alternative to blue panels;
- Carefully consider the location of solar panels on buildings within the High Weald AONB. It might be appropriate to introduce solar panels to areas of the building that are more concealed in order to preserve the character and appearance of more sensitive area; and
- Solar panels can be added to listed buildings, but they need to be carefully sited and consent will be required.



Figure 107: Use of shingle-like solar panels on a slate roof, with the design and colour of the solar panels matching those of the adjacent slate tiles.



Figure 108: Local example in Ellis Close of implementing solar panels since the design stage.

Minimising construction waste

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

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

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

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



Figure 109: Diagram to illustrate the 4 main stages where waste management practices can be implemented.

Recycling materials and buildings

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

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

demountability ✓ reparability possible substitution with new technologies EARTHQUAKE recycling LIFE reuse ✓ sustainable materials CYCLE ✓ dry techniques ✓ precasting THINKING NEW end of life **FUNCTIONS** ECO-EFFICIENT SEISMIC RESISTANT ✓ adaptability RESHAPED downcycling recyclina reuse demolition

Figure 110: Diagram to illustrate the life cycle thinking for recycling materials and buildings. (Source: https://www. researchgate.net/publication/319464500_Combining_seismic_retrofit_with_energy_refurbishment_for_the_sustainable_renovation_of_RC_buildings_a_proof_of_concept)

4a. Building lines, boundary treatments and corner treatment

Together with the creation of potential local landmarks, three more crucial aspects of a successful streetscape and urban form is the issue of corners, boundary lines and boundary treatments. Therefore, the following guidelines should be applied in new development, of either large or small scale.

Building lines and boundary treatments

- Buildings should front onto streets. The building line should have subtle variations in the form of recesses and protrusions to enhance the rural context;
- 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;
- Natural boundary treatments should be preferred to reinforce the sense of continuity of the building line and help

define the street, appropriate to the rural character of the area. They should be mainly continuous hedges, but they could also be combined with low height walls, as appropriate, made of traditional materials found elsewhere in the parish such as red bricks;

- In the case of edge lanes, natural boundary treatments can act as buffer zones between the site and the countryside and offer a level of protection to the natural environment;
- All the façades overlooking the street or public space should be treated as primary façades. They should have some form of street contact in the form of windows, balconies, or outdoor private space; and
- Road layouts should have a meandering character to reinforce rurality and be designed to slow traffic and advantage pedestrians and cyclists over vehicles.

Corner treatment

- Buildings should be designed to turn corners and terminate views. Corner buildings should have both side façades animated with doors and/or windows.
 Exposed, blank gable end buildings with no windows fronting the public realm should be avoided;
- The form of corner buildings should respect the local architectural character. Doing so improves the street scene and generates local pride. Also, given their prominence, decorative architectural elements should also be considered.
 Please see <u>4f</u> for more details on materials for new development; and
- 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.



Figure 111: Local example of low height red brick wall and hedgerow boundary treatment, Five Oak Green road.



Figure 112: Local example of a building at a corner junction in Tudeley Hale with decorative architectural details.



Figure 113: Local example of a linear pattern which, combined with planting as boundary treatment, creates a consistent building line, while preserving the rural character of the area.



Figure 114: Example of a corner building where both façades have windows to allow for natural surveillance, elsewhere in rural UK.



Figure 115: Local example of buildings that overlook the open space creating active frontages and improving natural surveillance.



Figure 116: Local example of buildings that overlook the small pond allowing for long-distance views towards the road and therefore, improving natural surveillance.

4b. Continuity and enclosure

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

 When designing building setbacks, there must be an appropriate ratio between the width of the street and the building height. Ratios between 1:2 and 1:3 (building height/street width) will generally create spaces with a strong sense of enclosure. However, lower levels of enclosure are also acceptable within the parish, in particular locations where the feel of openness must be preserved such as in the smaller settlements where housing density is lower;

- Careful positioning of walls, landscaping and paving can achieve visual continuity and well-defined open spaces to link buildings together and define public and private spaces;
- 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; and
- In the case of terraced and adjoining buildings, it is recommended that a variety of plot widths, land use, building heights, and façade depths should be considered during the design process to create an attractive streetscape and break the monotony.



Figure 117: A ratio of 1:2 (top) - found in the Nook, or 1:3 (bottom) - found in the Linear Countryside character area, are generally appropriate for residential streets. In addition, enclosure can be defined by trees instead of buildings.

Local examples of enclosure



Figure 118: Local example of 1:2 enclosure, which is created by the narrow road bordered with active frontage on one side and rich vegetation on the other side, Whetsted.

Figure 119: Local example of 1:3 enclosure, which is created by the narrow 2 lane road in combination with varied building setbacks, small front gardens and 2-storey buildings heights.

Figure 120: Local example of 1:6 enclosure, which is created by the use of green verges between the pavement and the road in combination with front gardens, the road and buildings with varied setbacks.

4c. Building heights, density and housing mix

Building heights

Properties tend to be of 1-2.5 storeys, with the exception of the oast houses, and have decent sized rear gardens. The rooflines are irregular and either continuous, where there are clusters of houses, or interrupted with nature, where gaps between buildings are generous. Maintaining gaps in the roofline is important in Capel parish to preserve the rural context of the area. Additionally, the roofline should allow for long-distance views towards the surrounding countryside and respect the existing context. Therefore, some design guidelines are:

- Any residential development in the more rural settlements should propose more irregular roofline with a good amount of interruption in the form of setbacks and vegetation to maintain the rural character of the area;
- Monotonous building elevations should be avoided, therefore subtle changes in the roofline should be ensured during the design process;

- The scale of the roof should always be in proportion with the dimensions of the building. Flat roofs for buildings, front and side extensions and garages should be avoided;
- Across Capel there are a variety of roof types including hipped, gabled, crossgabled, mansard and cat slide roofs.
 Thus, any new development should use local examples to inform roof design;
- Local traditional roof detailing elements should be considered and implemented where possible. Please see <u>4f</u> for more details on roof materials;
- Roofs should also be designed with photovoltaic taken into consideration, either as part of the initial design or for future retrofit. The orientation and available roof space should also be considered. Please see <u>3d</u> for more details on building orientation; and
- Roof shapes and pitches must employ a restrained palette on a given building, whilst overly complex roofs must be avoided.



Figure 121: Local example of a continuous roofline of 2-storey buildings, interrupted by chimneys along Five Oak Green road.



Figure 122: Local example of irregular roofline, interrupted due to the sparse layout of building footprints and prevalence of vegetation, Tudeley Hale.

Density

The concept of density is important to planning and design as it affects the vitality and viability of the place. Overall the density within the parish is quite low which is justified by its rural character. Housing density is highest in the more built-up area of Five Oak Green village and much lower in the very rural settlements like Capel, Tudeley and Whetsted. Therefore, some guidelines for new development are needed to ensure that the existing housing density numbers are respected:

- Density should be appropriate to the location of any new development and its surroundings and enhance the character of the existing village and smaller settlements. In addition, green buffers between existing and new developments are important to mitigate visual impact or affect buildings of historic significance;
- Slightly higher densities could be proposed around key movement intersections, neighbourhood centres or along main roads. In addition, higher densities could support the viability of potential local services and facilities in the parish;

- Housing densities should be reduced towards development edges and along rural edges in order to create a gradual transition towards the open countryside;
- Across the parish there is a variety of typologies including farmsteads, farm estates, cottages, terraces, linear development and modern estates. Therefore new development should show a similar variety and juxtaposition in housing density to maintain interest and character;
- Pedestrian and cycle movement should be a priority and taken into account in larger development schemes to secure permeability for users. Housing density should support a 'human scale' development; and
- Small scale development and in-fills are encouraged, because they follow the scale and pattern of existing grain and streets and therefore, retain the character of the area. In particular, design guidelines for those two scenarios can be found in <u>4e.</u>



Figure 123: Local example of a low density settlement (approx. 10-15 dph) with generous gaps between properties and good-sized rear gardens, Tudeley. Any new development in close proximity should respect the existing properties and sit sensitively next to them in terms of scale, roofline, massing and architectural details. Green buffers are welcomed to mitigate potential visual impact.



Figure 124: Example of a higher density settlement (approx. 35-40 dph) with reduced gaps between properties, whilst the size of rear gardens is smaller, Five Oak Green village. Any new development in close proximity needs to reflect the surrounding density, whilst go lower on the edges to allow for smooth transition to the countryside.

Housing mix

There is an aspiration for the parish to create a strong rural economy based on farming, horticulture, services and other types of business with infrastructure to support education, health, commerce and entertainment. Residents want housing which is of a type and quantity appropriate to the needs of the parish and local people. Therefore:

- New development should propose a mix of housing to include a range of house types and sizes with preference given for smaller 2-3 bedroom starter homes over flats and 4-5 bedroom houses. These should consist of both developer and self built, to allow for a variety of options and bring balance to the population profile; and
- Affordable housing should be a priority in new development and its quality and architectural design should be of high standards to complement the local vernacular.



Figure 125: Eclectic mix of houses has grown up organically along Five Oak Green road to give the area a unique character.



Figure 126: Example of barn converted into residential which is a prominent part of the rural settlements within the parish.



Figure 127: Example of the cottage style of housing, which is a prominent part of the local housing mix.



Figure 128: Example of bungalows on Whetsted road.

4d. Housing extensions and conversions

Extensions

There are multiple ways to create extra space within a building using different types of extensions. Extensions must be designed to an appropriate scale to the original building.

The pitch and form of a building's roof forms part of its character; therefore, extensions should respond by enhancing the existing character. Extensions should consider the materials, architectural features and proportions of the original building and designed to complement these existing elements.

Many household extensions are covered by permitted development rights, meaning that they do not need planning permission. There are exceptions, though, that will be relevant here, such as Conservation Areas. Check the latest guidance here: <u>https://www. planningportal.co.uk/info/200130/common_ projects/17/extensions</u>.

- The character of the existing building, along with its scale, form, materials and details should be taken into consideration when preparing proposals for alterations and/or extensions;
- External extensions should respect or enhance the visual appearance of the original buildings and the character of the wider street scene;
- Extensions should be subordinate in terms of scale and form and shall not be visually dominant or taller than the existing building;
- Extensions should be designed using materials and details to match the existing building or alternately, use contrasting materials and details with a contemporary design approach. However, in either case, extensions should create a harmonious composition overall and a strong degree of unity with the original building;

- Extensions should safeguard the privacy and daylight amenity of neighbouring properties;
- Extensions should retain on-site parking capacity and a viable garden area to meet the needs of future occupiers; and
- Extensions of existing buildings should reduce carbon emissions by complying with high energy efficiency standards and utilising low energy design.

In addition, Kent Guide Design (2000) includes additional design guidance on building alterations and extensions.

Front extensions

 These extensions are generally not acceptable. If proposed, front extensions should take the form of the existing building, mirroring the roof pitch, replicate or have lower cornice height and their ridge should be below the existing ridge height. The extension should be small in scale, appear subordinate to the main building and should not cover more than 50% of the front elevation.

Side extensions

- Side extensions should not detract from the appearance of the building, its surroundings and the wider rural setting;
- Single-storey and double storey side extensions should be set back from the main building and complement its materials and detailing, whilst the roof of the extension should harmonise with that of the original building; and
- Side windows should also be avoided unless it can be demonstrated that they would not result in overlooking of neighbouring properties.



Figure 129: An example diagram of a front extension.



Figure 131: An example diagram of a side extension.



Figure 130: Local example of front extension to a building in Five Oak Green.



Figure 132: Positive example of a side extension that respects the existing building in terms of scale and building materials. In particular, the use of weatherboarding positively reflects back to the typical appearance of barns and outbuildings, elsewhere in rural UK.

Rear extensions

- Single storey rear extensions are generally the easiest way to extend a house and provide extra living space. The extension should be set below any first-floor windows and designed to minimise any effects of neighbouring properties, such as blocking day light. Gabled, hipped and flat roof styles are generally acceptable for a single storey rear extension; and
- Double storey rear extensions are becoming more common but they can affect neighbours' access to light and privacy, however, sometimes the size and style of the property allows for a twostorey extension. In these cases, the roof form and pitch should reflect the original building and sit slightly lower than the main ridge of the building.



Figure 133: An example diagram of a rear extension.





Both extensions present a negative approach when considering how it fits to the existing building. Major issues regarding roofline and building line.

Conversion of agricultural buildings into residential

Farmsteads and oast houses are dominant features of the parish preserving the long agricultural history of the area. However, over time the working buildings of farms fell out of use and became extinct, except for some that have been converted into residential properties. These are positive examples because there has not been any change to their historic fabric and thus, they significantly contribute to the local vernacular of the village telling a story about the development of Capel's farming community. Therefore design guidance is needed to ensure that any other future conversion does not undermine the original use of the farm building. Some design guidelines are:

 Features and general layout of the building setting that are characteristics of historic working buildings need to be retained and not filled in. For instance, loose courtyard arrangements of buildings, physical boundary treatments, openings or wagon doors. New openings should generally be avoided and kept to a minimum when necessary;

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







Figure 134: Example of a barn that was converted into residential retaining the existing characteristics and materials of its former use, elsewhere in rural UK.

4e. New houses and infill development

It is a general consensus that small scale and infill developments are encouraged, since they follow the scale and pattern of the existing grain and therefore, maintain the rural character of the parish.

However, any proposed design for small or infill development should be appropriate and sensitive to the surrounding setting of the village and therefore, some design guidelines are needed and presented below:

- Small infill developments should complement the street scene into which they will be inserted. The new design needs to reflect the materials, scale, massing and layout of the surrounding properties. Thus, a good understanding of the character of the main village and the rural small settlements, as analysed in <u>Section 3.3</u>, is need, before proposing any new design;
- In case of cul-de-sacs, pedestrian and cycle links should be proposed to allow for permeability for the users;

- Small infill developments need to be considered in relation to topography, views, vistas and landmarks. In particular, important views identified in <u>Figure</u> <u>23</u> should not be blocked by any new development;
- New building lines should be reasonably consistent along a street with existing buildings and offer subtle variations to enhance the rural context; and
- Natural boundary treatments are recommended to preserve the character along the streetscene and improve biodiversity.



Figure 136: Positive example of small scale development within a rural village elsewhere in UK that respects the surrounding density, while also using the local vernacular as reference and integrating physical boundary treatments to create a pleasant visual outcome and a green buffer with surrounding existing properties.





Figure 137: Positive example of a recent infill development (photo above) in a rural village elsewhere in UK that fits nicely into the local context (photo below) in terms of scale, massing, architectural styles and details.



Figure 138: Illustration to show a linear development highlighting design elements, related to the pattern and layout of buildings.

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

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



4f. Materials and architectural details

Capel parish has a wide variety of architectural styles and details that can act as references for new developments. New developments should be respectful of architectural styles and use of materials of surrounding housing, whilst ensuring that a mix of styles are provided that is in keeping with the Capel palette. A summary table on the next page provides an overview of the commonly recurring materials seen across the main village settlement and the rural smaller settlements, whilst more details on local vernacular can be found in <u>Section 3.3.</u>

Some design guidelines for new development are:

 Architectural design in new developments shall reflect the high quality local design references in both the natural and built environment and make a valuable contribution to the rural character of the parish;

- Regarding the natural environment, the number of trees in the village contribute to its rural character and reinforce biodiversity. Therefore, any new development should make sure it proposes a similar level of greenery in the new design to create a consistent setting;
- Regarding the built environment, new development should use materials that contribute to the local vernacular. These materials may include; red brick, classic Tonbridge brick, timberframing with rendered infill, tile hanging, local sandstone, black and white weatherboarding, depending on the context, Kentish peg tiles, grey slate and white render. In addition to this, modern materials are also welcome as long as they are sensitive to the surrounding context and visually pleasing;
- New development can propose a combination of soft, natural, and hard boundaries to match the surrounding styles along the streetscape. In particular, there are stretches of brick walls

bordering some properties in the village combined with either trees or hedges and bushes;

- The choice of colour and finish of materials is an important design factor in reducing the impact of the buildings on the surrounding landscape. Generally very light colours, like white or cream, and large areas of intense strong colours do not blend well with the rural landscape. Thus, muted and darker tones could be a better option; and
- The use of traditional, natural and preferably locally sourced materials is generally more appropriate than manmade synthetic, pre-coloured materials, as there lack the variation on colour and texture found in natural materials.

This table summarises some of the key materials and finishes found across the main village settlement and the rural smaller settlements (where materials are seen recurring in a character area, cells are marked with " \mathbf{x} "):

	Five Oak Green village	Rural smaller settlements
Gabled roof	X	X
Hipped roof	X	X
Half-hipped roof	X	
Cat slide roof		x
Grey slates	x	X
Kentish peg tiles	X	X
Oast house		X
Timber frame facade	v	v
feature	Χ	×
Weatherboarding (white)	X	X
Weatherboarding (black)		X
Half weatherboarding		X
Off-white rendered brick	X	X
Red brick	x	x
Flemish bond brick	X	X
Classic Tonbridge brick	X	x
Tile hanging	x	x



Figure 140: Red brick is used extensively in Five Oak Green village and thus, it should be one of the main materials to be used in new developments. However, a level of variety is necessary to create visual interest and not monotonous façades.



Figure 141: Weatherboarding or half weatherboarding and half red brick is a common technique used in the rural settlements in the parish and thus, new development should replicate this style to create a sensitive design outcome that respects the surroundings.

5.5 Checklist

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

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

1

Street grid and layout:

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

2 (continued)

Local green spaces, views & character:

- What are the particular characteristics of this area which have been taken into account in the design; i.e. what are the landscape qualities of the area?
- Does the proposal maintain or enhance any identified views or views in general?
- How does the proposal affect the trees on or adjacent to the site?
- Can trees be used to provide natural shading from unwanted solar gain? i.e. deciduous trees can limit solar gains in summer, while maximising them in winter.
- Has the proposal been considered within its wider physical context?
- Has the impact on the landscape quality of the area been taken into account?

- In rural locations, has the impact of the development on the tranquillity of the area been fully considered?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- Can any new views be created?
- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?

2

Local green spaces, views & character:

- Have opportunities for enhancing existing amenity spaces been explored?
- Will any communal amenity space be created? If so, how this will be used by the new owners and how will it be managed?
- Is there opportunity to increase the local area biodiversity?
- Can green space be used for natural flood prevention e.g. permeable landscaping, swales etc.?
- Can water bodies be used to provide evaporative cooling?
- Is there space to consider a ground source heat pump array, either horizontal ground loop or borehole (if excavation is required)?

3

Gateway and access features:

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

4 (continued)

Buildings layout and grouping:

- What are the typical groupings of buildings?
- How have the existing groupings been reflected in the proposal?
- Are proposed groups of buildings offering variety and texture to the townscape?
- What effect would the proposal have on the streetscape?
- Does the proposal maintain the character of dwelling clusters stemming from the main road?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?
4

Buildings layout and grouping:

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

5

Building line and boundary treatment:

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

6

Building heights and roofline:

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

Household extensions:

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

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

8 (continued)

Building materials & surface treatment:

- What is the distinctive material in the area?
- Does the proposed material harmonise with the local materials?
- Does the proposal use high-quality materials?
- Have the details of the windows, doors, eaves and roof details been addressed in the context of the overall design?
- Does the new proposed materials respect or enhance the existing area or adversely change its character?
- Are recycled materials, or those with high recycled content proposed?

8

Building materials & surface treatment:

- Has the embodied carbon of the materials been considered and are there options which can reduce the embodied carbon of the design?
 For example, wood structures and concrete alternatives.
- Can the proposed materials be locally and/or responsibly sourced?
 E.g. FSC timber, or certified under BES 6001, ISO 14001 Environmental Management Systems?

9

Car parking:

- What parking solutions have been considered?
- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?
- Has planting been considered to soften the presence of cars?
- Does the proposed car parking compromise the amenity of adjoining properties?
- Have the needs of wheelchair users been considered?
- Can electric vehicle charging points be provided?

- Can secure cycle storage be provided at an individual building level or through a central/ communal facility where appropriate?
- If covered car ports or cycle storage is included, can it incorporate roof mounted photovoltaic panels or a biodiverse roof in its design?



6. Next Steps

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

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

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



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7. Appendix A

Sustainable drainage into new residential streets Residential street 1



Figure 142: Residential street 1 typical drainage section.

Sustainable drainage into new residential streets Residential street 2 (cul-de-sacs)



Figure 143: Residential street 2 typical drainage section.

Sustainable drainage into new edge lanes



Figure 144: Edge lane typical drainage section

About AECOM

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

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