Great Tey

Design Guidelines and Codes

Final Report

March 2022

Delivering a better world

Quality information

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Revision History

Issue no.	Issue date	Details	Issued by	Position
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5	17/01/22	Review	Marian Hamer	Great Tey Neighbourhood Plan Steering Group
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1	25/10/21	Research, site visit, drawings	Giuseppe Verdone	Principal Urban Designer
0	25/10/21	Research, site visit, drawings	Daniel Mather	Graduate Urban Designer

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Introduction

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1. Introduction

Through the Department for Levelling Up, Housing and Communities (DLUHC) Programme led by Locality, AECOM was commissioned to provide design support to Great Tey 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 Design[1]) 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 an analysis of the Parish and good practice, those elements of good design are set out clearly as design principles which any development within Great Tey Parish should follow in order to comply with this Design Guidelines and Codes document.

1.2 What is a design code

The Government's 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. https://www.designcouncil.org.uk/sites/default/files/asset/document/the-value-of-good-design.pdf

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, at the most appropriate level, set out a clear design vision and expectations, so that applicants have as much certainty as possible about what is likely to be acceptable. Design policies should be developed with local communities so they reflect local aspirations, and are grounded in an understanding and evaluation of each area's defining characteristics. Neighbourhood planning groups can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development, both through their own plans and by engaging in the production of design policy, guidance and codes by local planning authorities and developers…'*

'To provide maximum clarity about design expectations at an early stage, all local planning authorities should prepare design guides or codes consistent with the principles set out in the National Design Guide and National Model Design

Code, and which reflect local character and design preferences. Design guides and codes provide a local framework for creating beautiful and distinctive places with a consistent and high quality standard of design. Their geographic coverage, level of detail and degree of prescription should be tailored to the circumstances and scale of change in each place, and should allow a suitable degree of variety.'

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

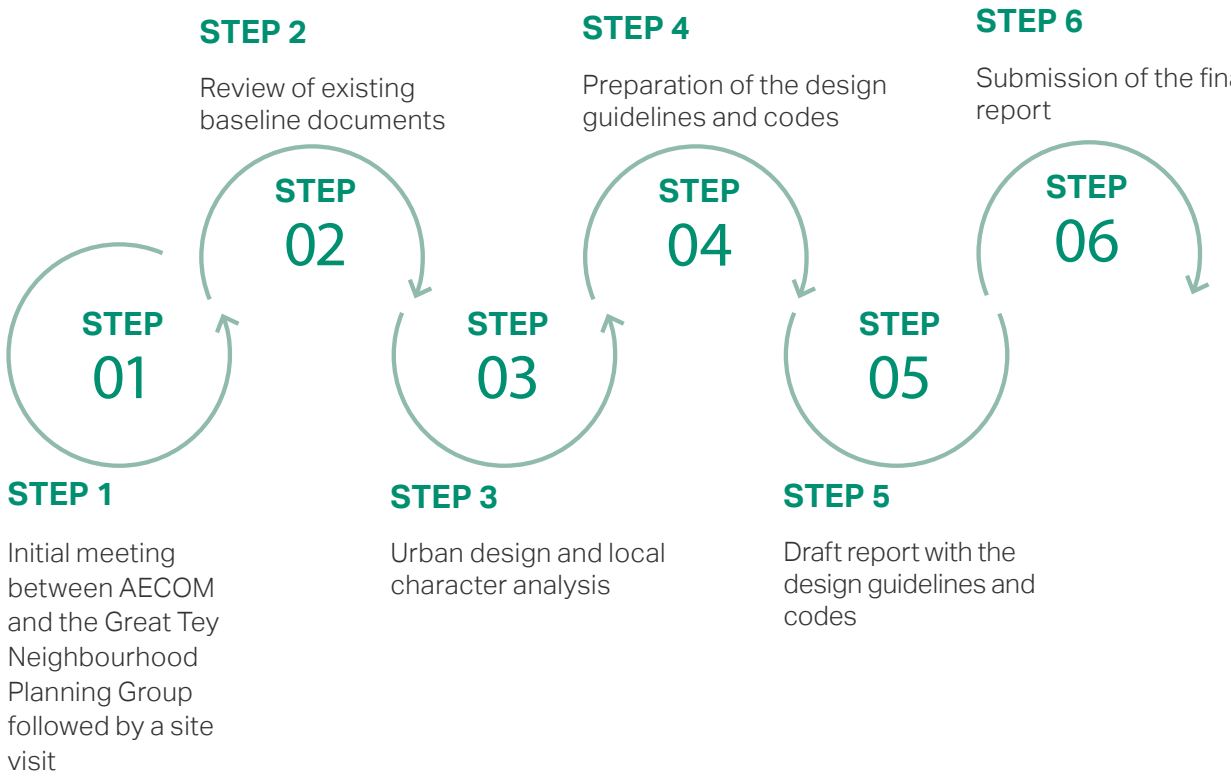
Colchester Councils draft Local Plan proposes 2 site allocations which fulfil the housing requirement of 45 homes. The general design guidance and codes are intended to inform the design of homes which come forward on these sites as well as through any speculative proposals.

Thus, this Design Guidelines and Codes report will provide an additional and more detailed framework to make sure any design proposal contributes to a distinctive place with a consistent and high quality standard of design.

It is intended that the Design Guidelines and Codes report becomes an integral part of the Neighbourhood Plan and be given weight in the planning process.

1.4 Preparing the design code

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



1.5 Policy and design guidance

The following documents have informed this document. Some of these guidelines have been produced at national, district or parish level.

Any new development application should be familiar with these documents and make explicit reference to how each of them is taken into account in the design proposals.

NATIONAL LEVEL

2021 - National Planning Policy Framework

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 locally-prepared plans for housing and other development can be produced.

2021 National Model Design Code

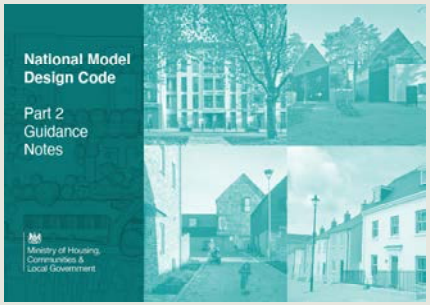
MHCLG

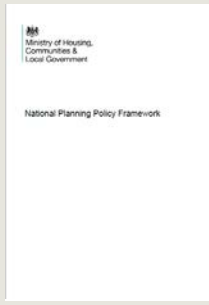
This report provides detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on 10 characteristics of good design set out in the National Design Guide.

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.





NATIONAL LEVEL

2019 - National Design Guide
MHCLG

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

2007 - Manual for Streets
Department for Transport

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

DISTRICT LEVEL

2018 Essex Design Guide - Essex County Council

The Essex Design Guide is a web-based reference for creating high quality places with an identity specific to the context of Essex. While the most recent version of the Essex Design Guide (2018) has not been adopted by Colchester Borough Council, the guide remains informative in setting out best practice principles, covering a range of topics including emergency services, layout, highways, air quality, new communities, parking design, SuDS, built context and architectural details.

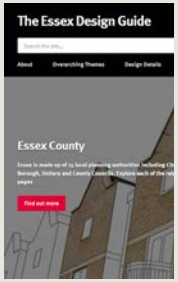
Colchester Adopted Local Plan (Development Plan Documents) 2001-2021 - Colchester Borough Council

The adopted Development Plan Documents (DPD) in Colchester that guides growth and development up to 2021 consists of:

- Core Strategy (adopted 2008, amended 2014);
- Site Allocations DPD (adopted 2010);
- Development Policies DPD (adopted 2010, amended 2014;
- Proposals Map (adopted 2010);
- Tiptree Jam Factory DPD (adopted 2013); and
- Adopted Neighbourhood Plans.

It should be noted that the adopted North Essex Authorities' Shared Strategic Section 1 Plan also forms part of the adopted planning framework in Colchester. In addition,existing Supplementary Planning Documents (SPD) also forms part of the adopted planning framework in Colchester. SPDs relevant to this design code are:

- Provision of Open Space, Sport and Recreational facilities (July 2006. charged updated 2012);
- Car Parking Standards (Essex County Council) (September 2009);
- Shopfront Design Guide (June 2011);



- Sustainable Drainage Systems Design Guide (April 2015); and
- Sustainable Construction (June 2011).

Appendix A provides a detailed review of the key adopted and emerging planning policies relevant to the design codes of this document. .

Colchester Borough Local Plan 2013-2033: North Essex Authorities' Shared Strategic Section 1 Plan - Tendering District Council, Colchester Borough Council and Braintree District Council

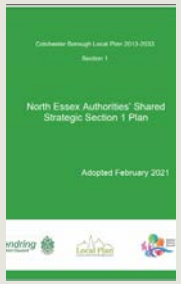
Adopted in February 2021, the North Essex Authorities' Shared Strategic Section 1 Plan sets out a joint-up development strategy for Tendering, Colchester and Braintree. The Section 1 Plan highlights the key strategic vision of the area to deliver significant growth to 2033 that build well-designed new homes. It sets out key growth locations and infrastructure needed to support existing and new communities, including a new garden community. It replaces in part a number of strategic policies contained within the Colchester Borough Core Strategy.

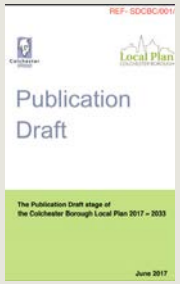
Emerging Colchester Local Plan 2017-2033 - Colchester Borough Council

The emerging Local Plan for Colchester (including the adopted Section 1 Plan) will provide the spatial growth strategy for the Borough up to 2033, The Plan includes adopted strategic policies and allocations jointly prepared with Tendering and Braintree Councils and emerging Colchester specific allocations and policies in Section 2. The emerging Local Plan was submitted to the Planning Inspectorate in October 2017. Section Two of the Local Plan is currently under examination. Once adopted, it will replace the Colchester Borough Local Plan in full.

The emerging Local Plan is supported by a range of Evidence Base documents, including:

- Townscape Character Assessment of Colchester, Tiptree, West Mersea and
- Colchester Borough Council Assessment of Open Countryside between Settlements in the Borough of Colchester (July 2009);
- Colchester Characterisation Report 2009; and
- Colchester Borough Council Landscape Character Assessment 2005.





DISTRICT LEVEL

1.6 Area of study

Great Tey is a village and parish in the south east of England. It is Located approximately 50 miles north east of London and 7 miles west of the historic city of Colchester.

The major routes that service the area are the A120 (a Roman road) located in the south of the parish, the A1124 which is due just north of the site and the A12. These connections serve as routes to Colchester as well as to places such as London, Cambridge the east coast, and Stansted.

There is one railway station within close proximity to the boundary of the Parish; this is a mainline to London and Norwich. The main stations are in Marks Tey and Colchester.

There are several local facilities and services in the Parish. St Barnabas Church, The Chequers, The Kings Arms, The Barn Brasserie, Great Tey Village Hall and several farms can be found in the parish. There are also small employment sites at Tey Brook, East Gores, Upp Hall Farm, Marshalls Farm and Warren Farm. In addition, there are educational facilities, including a nursery and the Great Tey C of E Primary School. This makes it a good area for families to live.

Great Tey Parish is situated in the middle of agricultural land that has been farmed for centuries, explaining the large number farmsteads. As result, fields are predominanlty used for arable farming with few exeptions used for grazing.

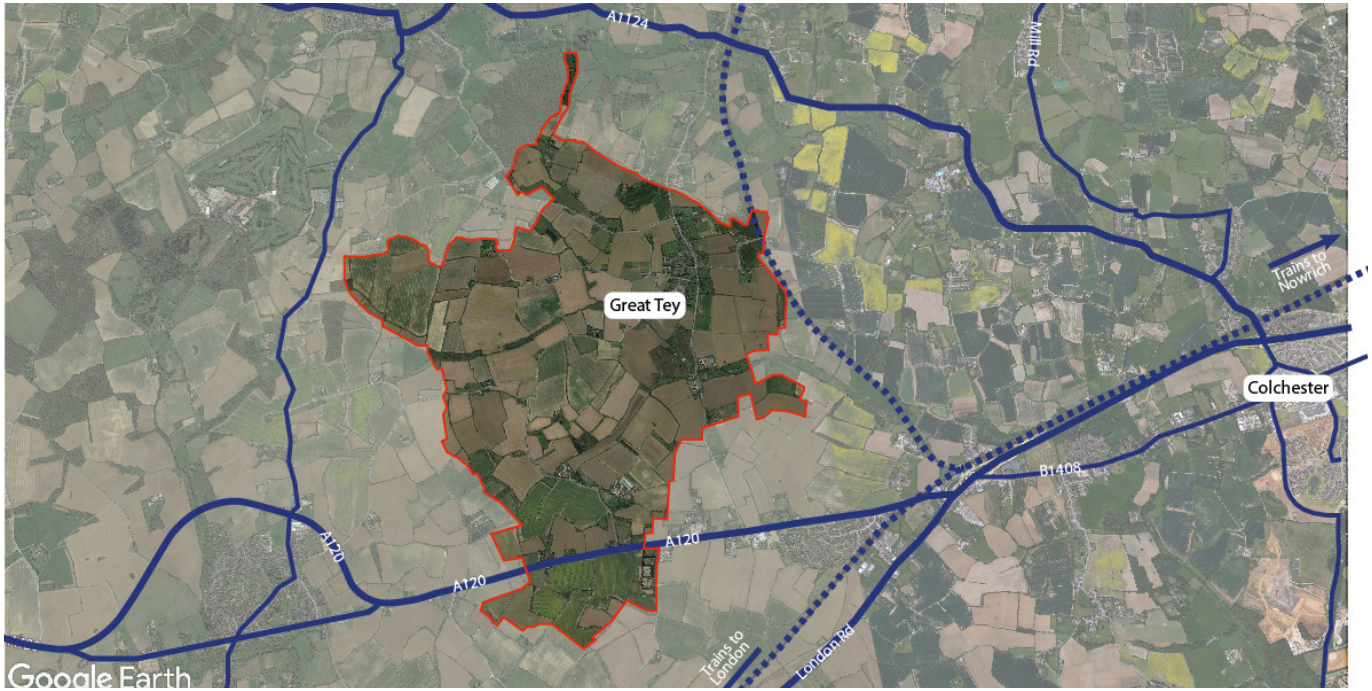


Figure 01: Great Tey Parish in the wider context.

Local character analysis

02

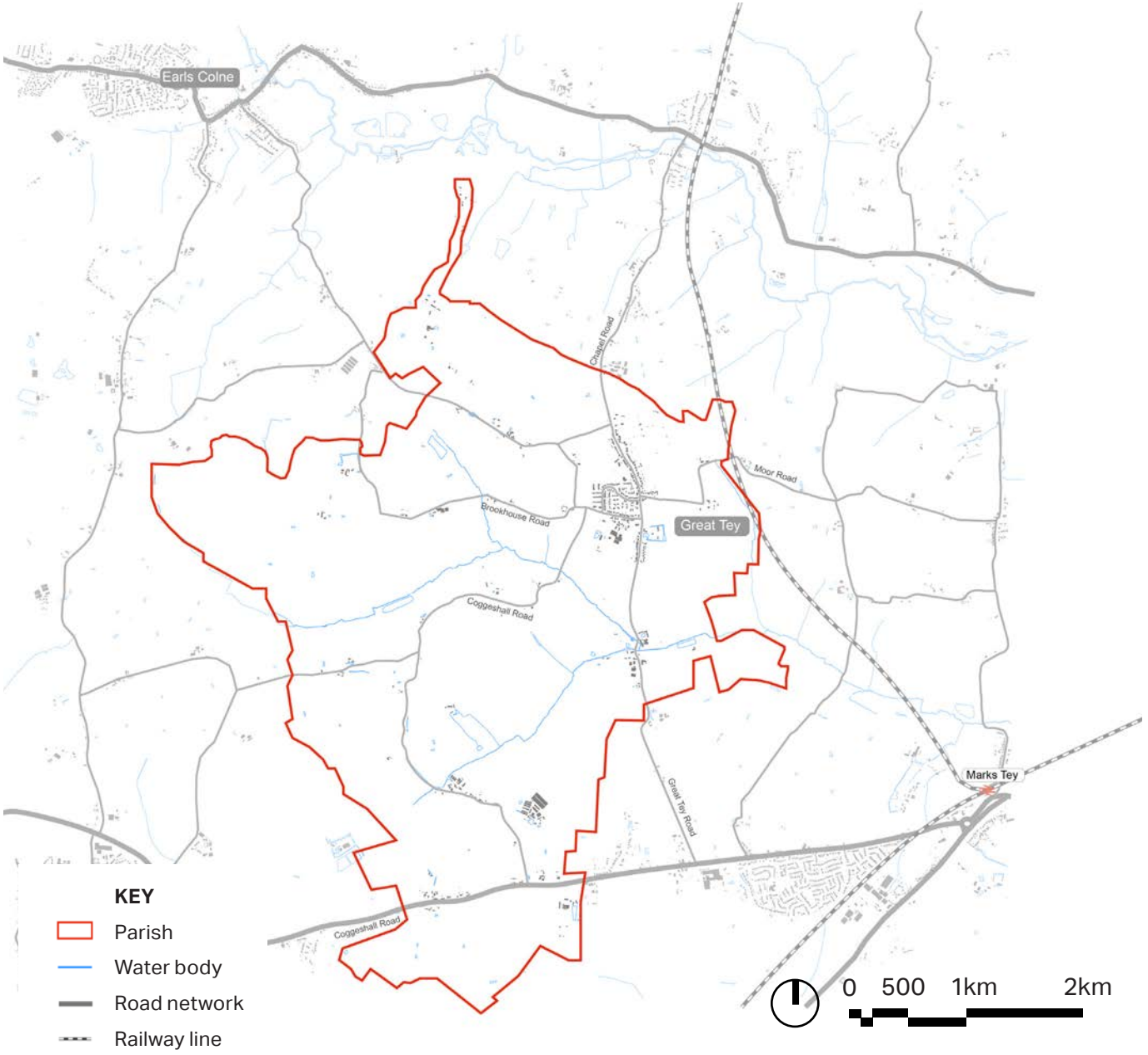
2. Local character analysis

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

2.1 Parish structure

Great Tey is located in the middle of agricultural land that has been farmed on for many centuries, with development dating back towards the Roman times. This is still the case today with the majority of the buildings in the parish outside the village being residential or related to a farming land use.

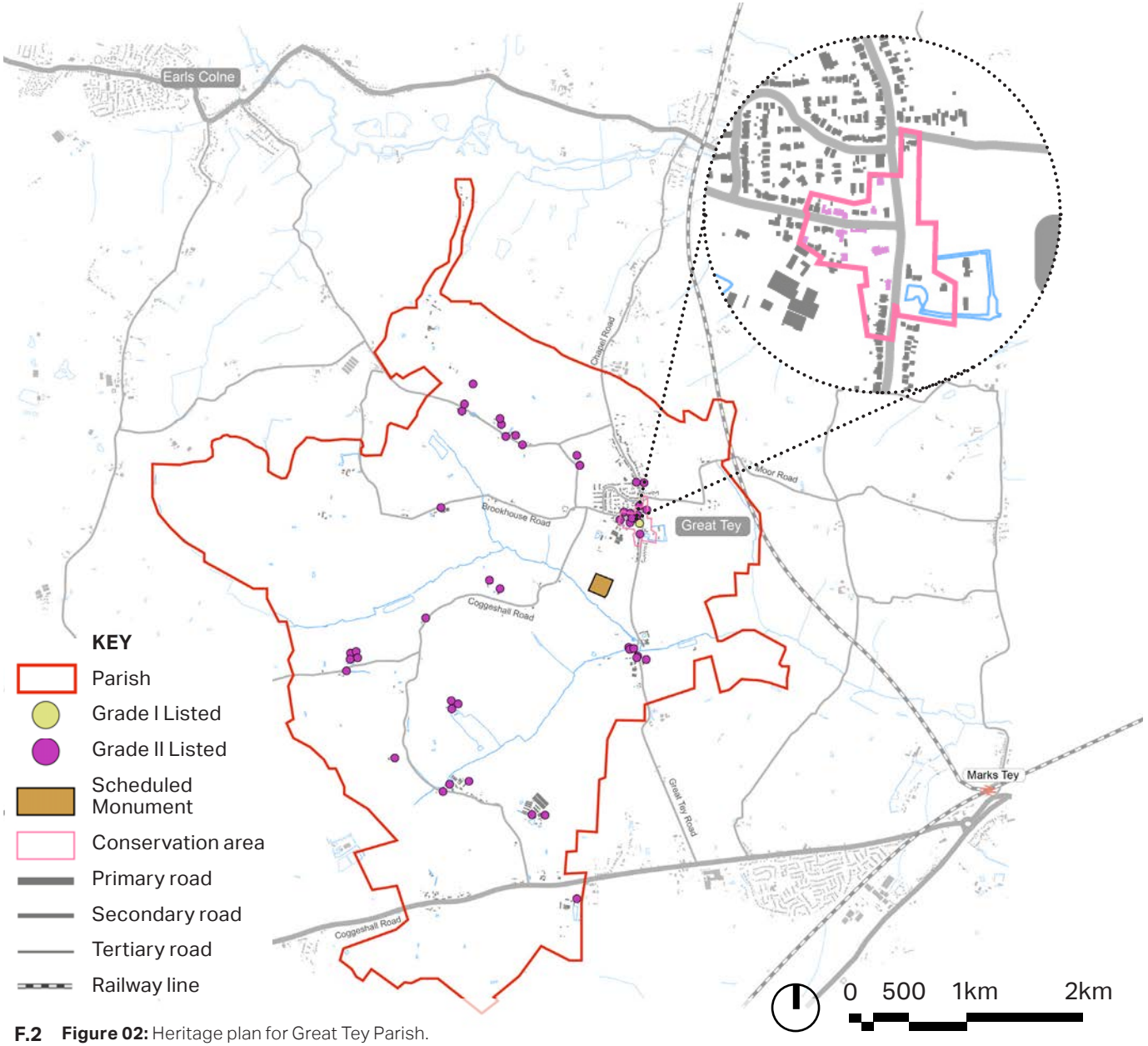
There are small hamlets and groups of houses around the parish but the village of Great Tey is the only significant settlement. The A120 runs east-west through the southern part of the parish and otherwise the B roads that cut through the rest of the parish intersect in the village.



2.2 Heritage views and landmarks

There are number of listed buildings in the parish, the most significant of these being the St Barnabas Church which is Grade I listed. One of the reasons for its listing was the fact that a lot of the materials used to build the church were from the ruins of an ancient roman villa which was located a few hundred metres down the road. The site of this villa is designated as a scheduled monument.

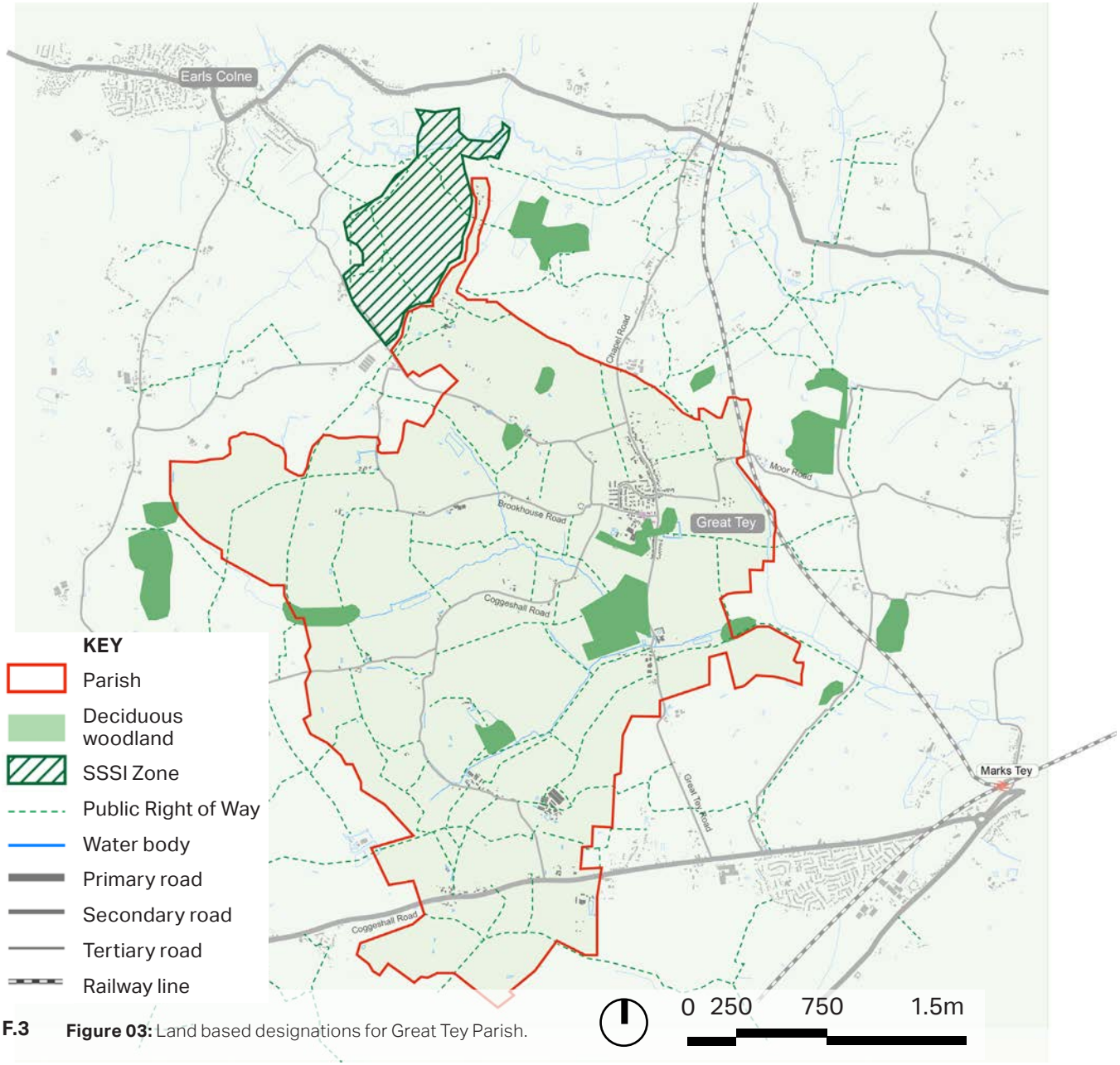
Much of the character that epitomises Great Tey is from the panoramic views outwards of the village towards the countryside. The tower of St Banabas Church is a view that can be seen from various spots outside of the village and is an asset that should be preserved.



F.2 Figure 02: Heritage plan for Great Tey Parish.

2.3 Land-based designations

The parish is set in the beautiful countryside of east Anglia, with arable farming land encompassing the village of Great Tey. The farmland is interspersed with areas of woodland, One such example is the ancient Chalkney Wood, which is managed woodland. Located just north of the parish, the wooded area is classified as a SSSI because of its high biological value.



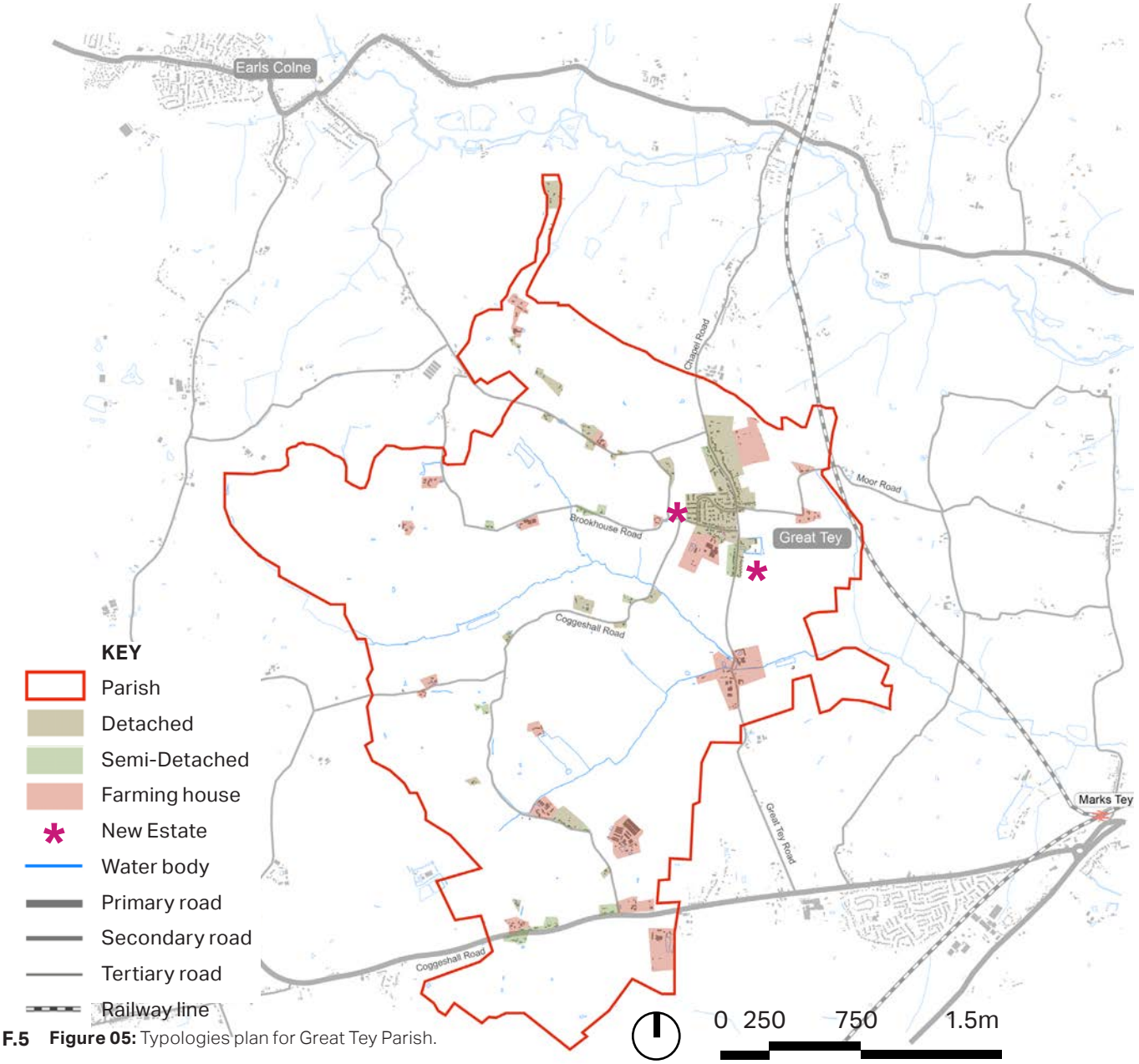
F.3 **Figure 03:** Land based designations for Great Tey Parish.

2.4 Building typologies

The parish has developed over hundreds of years, and this is reflected in the wide mix of building typologies. Semi detached, detached and farm buildings can all be found within the neighbourhood plan area.

The fact that the buildings throughout the village have been developed over hundreds of years means that the building designs, set backs and boundary treatment varies massively.

There are two sites allocated for residential development, one which is at consultation stage (Land to the East of Newbarn Road), and a new small scale housing development in the south of the village which is now completed (Land at Brook Road). This takes on a predominantly semi detached form with a couple larger detached houses, mirroring what is seen in the rest of the village.

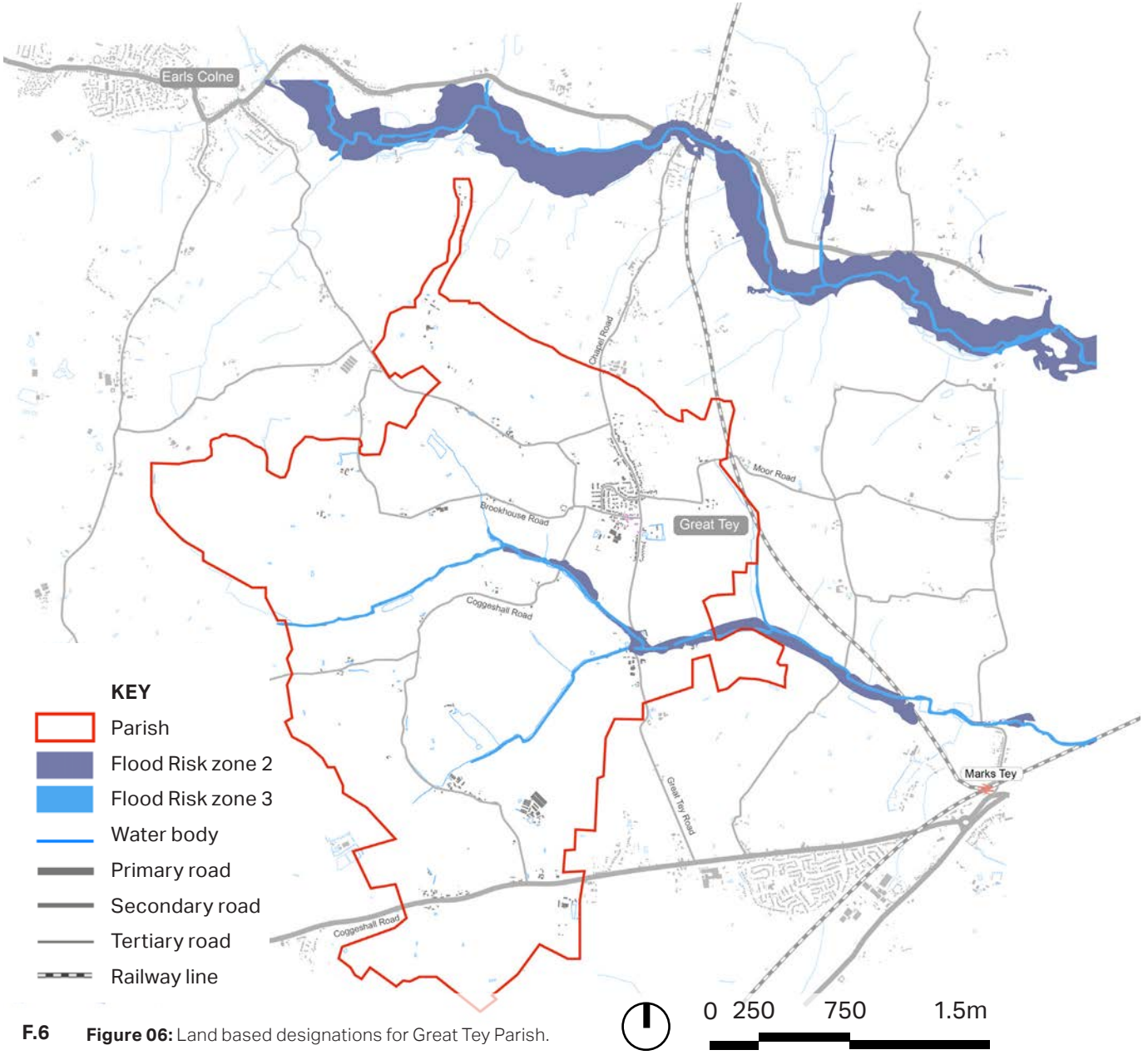


F.5 **Figure 05:** Typologies plan for Great Tey Parish.

2.5 Flood risk mapping

There are flood risk zones 2 and 3 that are both inside and in the surrounding area of the parish. The main contributors to this are the river colne located north of the NP area and the roman river that flows straight through the site. Essex Wildlife Trust have recently published a document saying that the Roman River needs to be protected.

Drainage on the roads surrounding Great Tey is not currently sufficient with flooding frequently occurring at the bottom of Newbarn Road. In the winter this quickly turns into ice creating a dangerous prospect for both pedestrian and drivers.



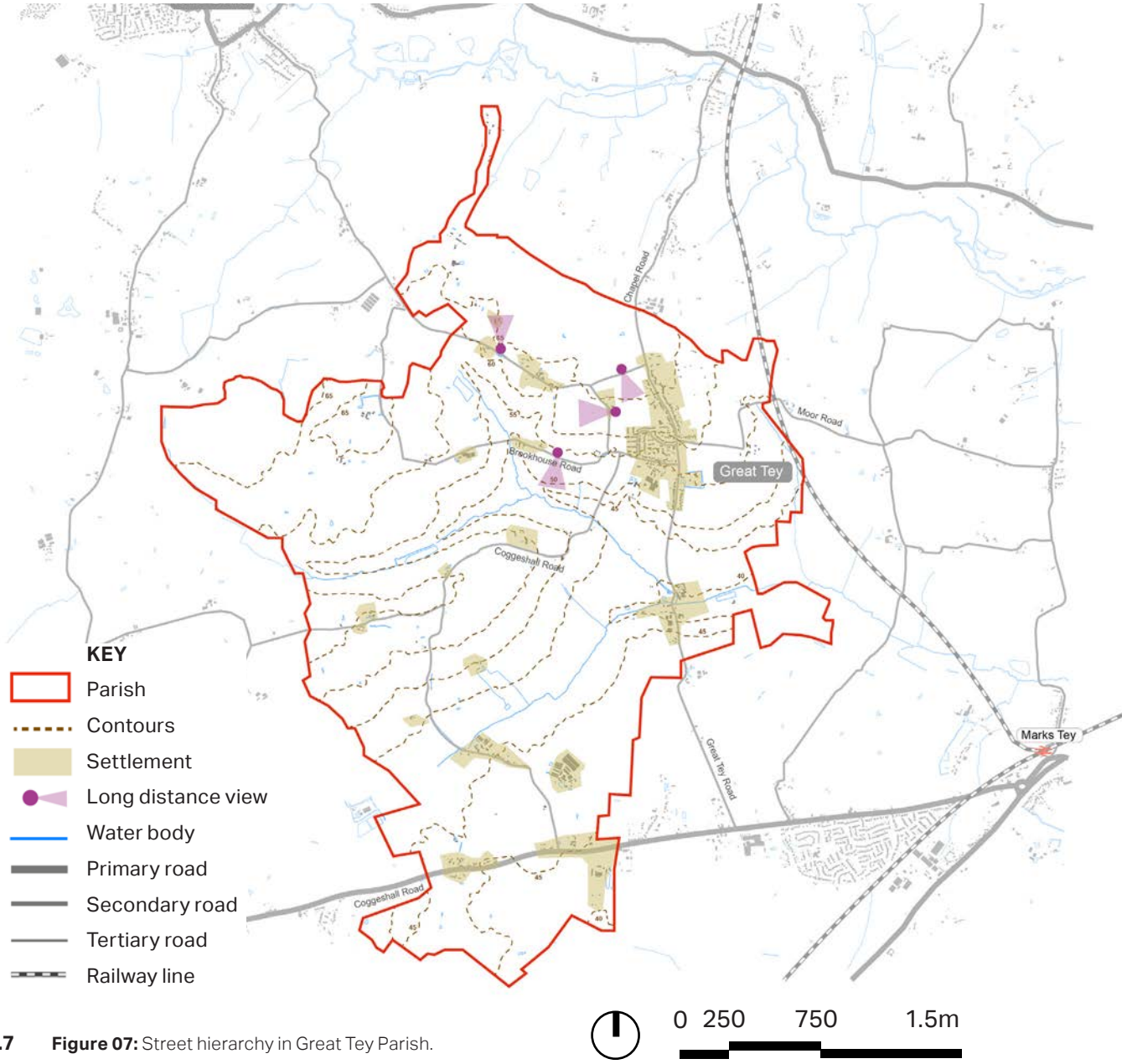
F.6 **Figure 06:** Land based designations for Great Tey Parish.

2.6 Topography and views

The land on which Great Tey parish is situated on is not dramatically undulating and therefore there are not elevated viewing points that offer panoramic views across the countryside. However, this does not mean that there are not locally valued views that need to be protected.

The Church is a landmark in Great Tey and can be identified from many settings outside of the village and therefore it is important for any potential development to respect these viewing corridors.

As well as this there are other countryside views and an extensive network of bridle ways and footpaths, including miles of the historic Essex Way, running from south west to north east through the parish. Such examples include views south towards Coggeshall, north towards Chalkney Wood, and north from the A120.



F.7 **Figure 07:** Street hierarchy in Great Tey Parish.

Design guidelines & codes

03

3. Design guidelines and codes

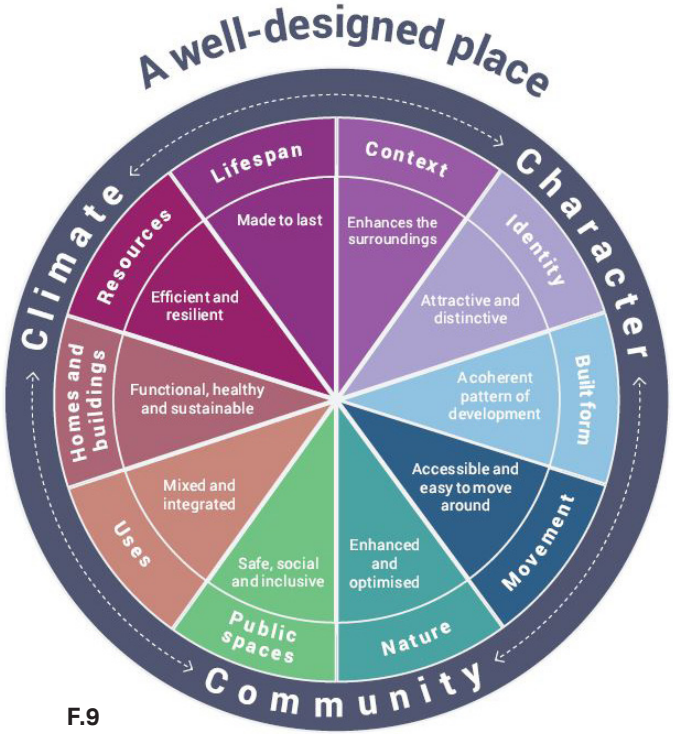
This chapter provides guidance on the design of development, setting out the expectations that applicants for planning permission in the Parish will be expected to follow.

3.1 Place making

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

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

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

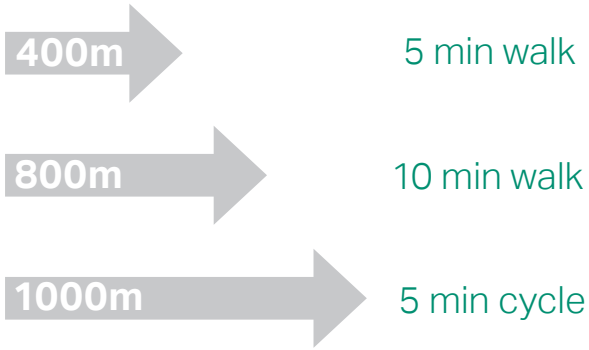


F.9

Figure 09: The 10 characteristics of well-designed places. (Source: National Design Guide, page 8).

3.2 Walkable places

Creating new walking routes which are well connected to the existing network should be a prerequisite for any new development in Great Tey Parish. It is important to create short connections between the Great Tey village and the rest Parish itself and surrounding settlements like Colchester and Little Tey.



3.3 General principles and guidelines

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

The guidelines and codes developed in the document focus on residential environments including new housing development in Great Tey.

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

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

- Respect the existing pattern of the village and the surrounding hamlets 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 within and outside the conservation area;
- Integrate with existing paths, streets, circulation networks and reinforce or enhance the established character of streets, greens and other spaces;
- Harmonise and enhance existing village and hamlets 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 enhance infrastructure without causing unacceptable harm to retained features; and
- Aim for innovative design and eco-friendly buildings while respecting the architectural heritage and tradition of the area.

3.4 Great Tey design guidelines and codes

This section introduces a set of design principles that are specific to Great Tey 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 and Building for Healthy Life 12 documents which informed the principles and design codes; and
- Discussion with members of the Neighbourhood Plan Steering Group informed by their engagment with the wider community.

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

Design Codes for Great Tey village

Theme	Code	Title
DC.01 In keeping with local character	1	Heritage, views and landmarks
	2	Development affecting heritage assets
	3	Set in rural landscape/ development edges
	4	Patterns of growth within the rural landscape
	5	Housing extensions and conversions
	6	New houses and infill development

Design Codes for new development on larger sites

Theme	Code	Title
DC.02 Access and movement	7	Accessible and attractive footpath network / access to the countryside
	8	Prioritise walking and cycling
	9	People friendly streets
	10	Parking and servicing
	11	Cycle parking
DC.03 Landscape, nature and open space	12	Create a green network
	13	Biodiversity
	14	Water management
	15	Trees
	16	Open spaces

Theme	Code	Title
DC.04 Built form	17	Development layout
	18	Building heights
	19	Density
	20	Housing mix
	21	Continuity and enclosure
	22	Legibility and wayfinding
	23	Boundary lines, boundary treatment & corner treatment
	24	Materials and architectural details
	25	Hard landscaping, materials and street furniture

Design Codes on sustainability for new developments in Great Tey Parish

Theme	Code	Title
DC.05 Sustainability	26	Minimising energy use
	27	Lifetime and adaptability
	28	Minimising construction waste
	29	Recycling materials and buildings
	30	Electric vehicle charging points
	31	Storage and slow release
	32	Permeable paving
	33	Reducing car use

Design Codes for Great Tey

Code.1 Heritage, views and landmarks

Great Tey Parish has a rich heritage dating back to pre-history times both in terms of structures, buildings, landscape, views and landscape features. Therefore, any new development needs to be aware of their existence and stimulate ways in which those assets could be further promoted and protected. Some design guidelines are:

- Scenic values and tranquillity of the countryside views should be retained and enhanced in future development;
- New development proposals should maintain visual connections to the surrounding landscape and long views out of the Parish. Development density should allow for spaces between buildings to preserve views of countryside setting and maintain the perceived openness of the hamlets;
- Creating short-distance views broken by buildings, trees or landmarks helps to create memorable routes. Creating views and vistas allows easily usable links between places; and
- Gaps between buildings, open views and vistas should be respected and aim to demonstrate the significance of a landmark asset.

F.10

Figure 10: Above the former "Guildhall", subsequently the Great Tey workhouse, which is now a residential property.

F.11

Figure 11: Long-distance view to the countryside

Code.2 Development affecting listed and unlisted heritage assets

There are several elements of historic significance in Great Tey 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 hamlets, which include historic landmarks like St Barnabas Church, the Old Vicariage as well as other unlisted heritage features of interest. Therefore, design guidelines should be in place to guide development in close proximity to the above assets. Those guidelines are:

- New development in close proximity to designated and non-designated heritage assets must propose green screenings to mitigate any unpleasant visual impact;
- New development proposals should not be visually intrusive or block key views to and from heritage assets, as shown in F.2. This should be achieved through the appropriate scale and design including screening where appropriate;
- New development should retain the existing open spaces, vegetation and trees to preserve the historic form and pattern of development in the Parish;
- The scale and massing of new development should be sensitive to the surrounding heritage assets; and
- Gaps between buildings, open views and vistas should be respected and aim to demonstrate the significance of the asset.

Figure 12: Examples of listed buildings within Great Tey Parish that should be respected and appropriately integrated into new development through proposals for rich physical boundary treatments and generous gaps.

Code.3 Set in rural landscape/ development edges

Great Tey Parish has a strong rural landscape which should not be undermined by new development. Some design guidelines on how new development should treat development edges are:

- Development adjoining public open spaces and important gaps should either face onto them to improve natural surveillance or have a soft landscaped edge;
- New development should conserve existing native trees and shrubs along the lanes as well as incorporating any green asset within design.
- Abrupt edges to development with little vegetation or landscape on the edge of the development should be avoided;
- screening and barrier between the village and rural countryside;
- Ensure that small and isolated woodlands in the parish are linked to larger green areas nearby to protect connectivity of habitats and biodiversity;
- Landscape schemes should be designed and integrated with the open fields to avoid coalescence with other neighbouring settlements; and
- Edges must be designed to link rather than segregate existing and new neighbourhoods. Green corridors can provide additional pedestrian and cycle links that will contribute to the successful integration with the Parish.

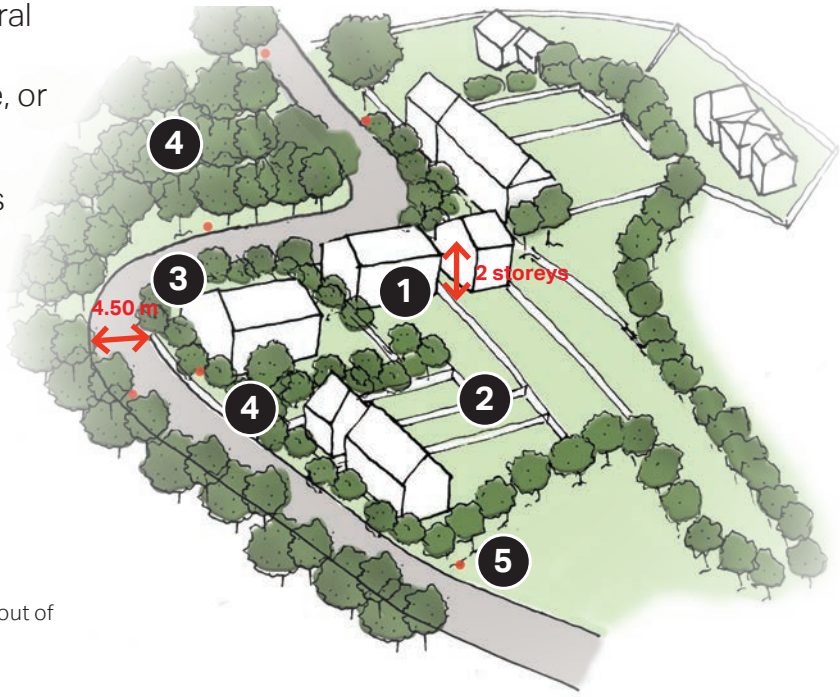
Figure 13: Positive example of an edge lane from elsewhere, where buildings front the landscaped area, while shared surfaces allow different users to co-exist peacefully.

Figure 14: The rural character of Brookhouse Road offers a gradual transition from the urban environment to the rural countryside.

Code.4 Patterns of growth within the rural landscape

The Parish owes much of its character to the historic pattern and layout of the roads and buildings as well as its close relationship with the surrounding countryside.
Some design guidelines for small scale development within Great Tey village and the surrounding hamlets are:

- New development should preserve the landscape setting of Great Tey Conservation Area and the transition between the settlement fringe, the open countryside and the landscape gap between the village and any proposed development west of Colchester;
- New development in close proximity to designated and non-designated heritage assets must propose green screenings to mitigate any unpleasant visual impact, while also preserving key views;
- New development must demonstrate a good understanding of the scale, building orientation and enclosure of the surrounding built environment (no.1);
- Development densities should reflect the character of the village and surrounding hamlets;
- The size of plots and their pattern should be varied to contribute to the rural character (no.2);
- New development should create a diversified building line to shape short and long-distance views (no.3);
- 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.
- Existing hedges, hedgerows and trees should be integrated into design, whilst more planting and vegetation is encouraged to form part of the green network strategy (no.4); and
- Appropriate signage should be incorporated along the road or in central 'village greens' to indicate the low speed limits or provide navigation (no.5).
- The layout of any new development should have affordable homes integrated with private dwellings to reflect existing dwellings in the village and promote a sense of community.



F.15

Figure 15: Illustrative plan for a rural edge development highlighting design elements, related to the pattern and layout of buildings.

Code.5 Conversions of agricultural buildings into housing and housing extensions

Conversions

Great Tey Parish has a rich history in farming and agriculture; therefore, a good percentage of the built environment is composed by agricultural building units.

Buildings should be allowed to evolve and move with modern times, and adapt to allow for climate change. For example, existing windows on listed properties can be problematic.

Conversion of agricultural buildings to residential is sometimes allowed without planning permission under permitted development rights. Applicants should check with Colchester Borough Council when considering works.

A good number of barns have been converted into housing and therefore design guidance is needed to ensure that the outcome does not undermine the original use of the building. Some design guidelines are:

- Conversions should be in line with the general character of the property/ surroundings, but allow for the sensible use of modern materials and/or styles to improve energy usage.
- Avoid domestic add-ons such as chimneys, porches, satellite dishes, domestic external lighting and hanging baskets;
- Retain features characteristic of historic working buildings such as openings, which should not filled in, ventilation slots and any use-specific historic additions;
- New openings should generally be avoided, and kept to a minimum when necessary;
- Avoid features such as dormer windows. If rooflights are used, they should be sited discreetly so as to not become a feature in the landscape;
- Existing brickwork should be reused or reclaimed. Consideration should be given to the material source and matching
- 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 16: Positive example of conversion of agricultural buildings in the conservation area.

Extensions

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

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

Side extensions

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

Rear extensions

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

Figure 17: Positive example of side extension, Chappel Rd

Figure 18: Positive example of side extension, Harvesters'Way

Code.6 New houses and infill development

Infill development is generally accepted within the Parish, because it helps preserve the pattern of growth and building lines. However, proposed designs should be appropriate and sensitive to the rural setting and therefore, some design guidelines are needed and presented below:

- Infill development should complement the street scene into which it will be inserted. It needs to reflect the materials, scale, massing and layout of the surrounding properties;
- The above elements also need to be considered in relation to topography, views, vistas and landmarks.
- New building lines should be reasonably consistent along a street with existing buildings.

Figure 19: Positive example of a recent infill development in Great Tey village that fits nicely into the local context in terms of scale, massing, architectural styles and details.

Figure 20: Positive examples of infill development in Great Tey village that complement the local context through the use of local architectural styles, scale and massing, physical boundary treatments.

Code.7 Accessible and attractive footpath network/ access to the countryside

There is a number of footpaths within Great Tey Parish which link the hamlets with the surrounding countryside, while also providing scenic walks. Footpaths allow people to get closer to nature, enjoy a tranquil environment and do physical exercise by walking. Therefore, protection, improvement and design of new footpaths should be considered in new developments and some design guidelines are:

- Where possible, newly developed areas must retain or provide direct and attractive footpaths between neighbouring streets and local facilities. Establishing a robust pedestrian network across new developments and among new and existing development is key in achieving good levels of connectivity and promoting walking and cycling;
- Where possible, new proposed footpaths should link up green spaces and woodlands to create a network of green walking routes and promote biodiversity. For example, the Strategic Wildlife Corridors, as shown in F.44, could include footpath connections and other green links that could connect new development and form part of an integrated green infrastructure network;
- Design features such as gates or barriers to footpaths must be kept at a minimum and the latter must be avoided;
- Strategically placed signposts can assist pedestrians and cyclists with orientation and increase awareness of publicly accessible paths beyond the parish. However, new signposts must respect the rural character of the parish and avoid creating visual clutter; and
- Footpath network needs to be in place before first occupation of houses on the site.

Figure 21: Signage to indicating the footpath within the Parish

Figure 22: Appropriate signage to indicate the footpath/cycle lane within a rural landscape, elsewhere in UK.

Code.8 Prioritise walking and cycling

There is a number of public footpaths in the Parish. New developments should introduce well connected and attractive pedestrian and cycling routes to encourage residents to walk and cycle. Some guidelines for future development are:

- Varied links should be enabled and created to favour pedestrian and cycle movement. These routes should be always overlooked by properties to create natural surveillance and offer good sightlines and unrestricted views to make people feel safer;
- Cul-de-sac development pattern should be avoided in new developments. However, if it is proposed then it should be connected to footpaths to avoid blocking pedestrian and cycle flow;
- Design features such as barriers to vehicle movement, gates to new developments, or footpaths between high fences must be avoided; and
- All newly developed areas must provide direct and attractive footpaths between neighbouring streets and local facilities. Streets must be designed to prioritise the needs of pedestrians and cyclists.

Figure 23: Edge of a settlement fronting a landscaped area, with footpaths/cycle lanes, grass areas, street furniture and trees, encouraging walking and cycling, elsewhere in UK.

Figure 24: Footpath integrated within residential development offering alternative walking and cycling routes to people, Great Kneighton, Cambridge.

Figure 25: Example of a green link (source: https://www.sustrans.org.uk/our-blog/opinion/2020/august/how-does-the-uk-government-s-gear-change-relate-to-the-national-cycle-network).

Code.9 People-friendly streets and green links

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

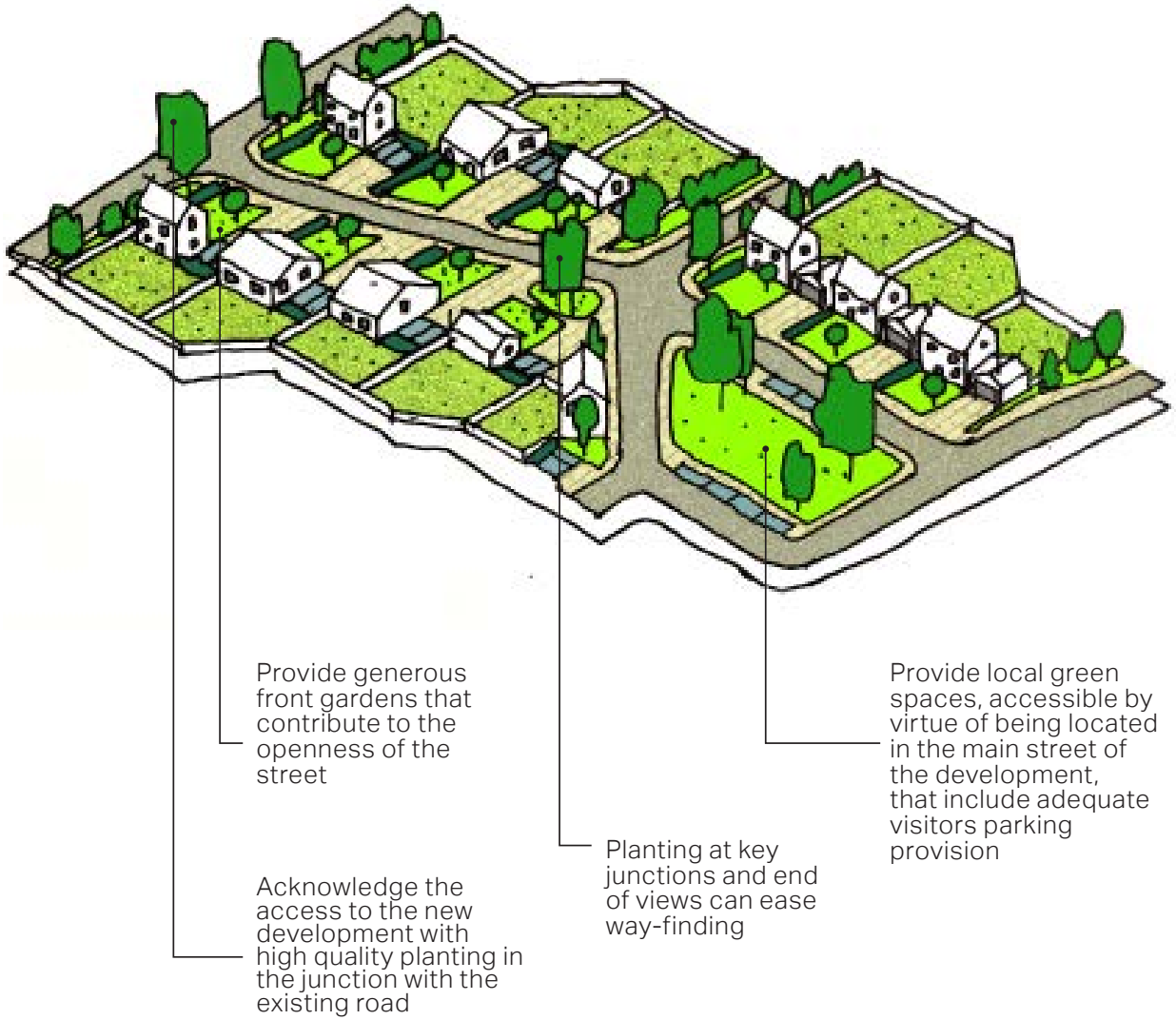
- Streets must meet the technical highways requirements, as well as being considered a 'place' to be used by all. It is essential that the design of new development includes streets and junctions that incorporate the needs of pedestrians, cyclists, and if applicable, public transport users;
- Within the development boundaries, streets should not be built to maximise vehicle speed or capacity. A range of traffic calming measures could be introduced by design;
- New streets should be linear with gentle meandering, while also providing evolving views to the surrounding countryside;
- Routes should be laid out in a permeable pattern, allowing for multiple choices of routes, particularly on foot. Any cul-de-sacs should be relatively short and provide onward pedestrian links;
- Streets must respect the existing vegetation, while also incorporating new opportunities for landscaping, green infrastructure, and sustainable drainage; and
- Any new development should provide well-connected streets of varied character. A legible street hierarchy should include primary, secondary, tertiary roads and edge lanes. The next pages present illustrations examples of those street typologies.

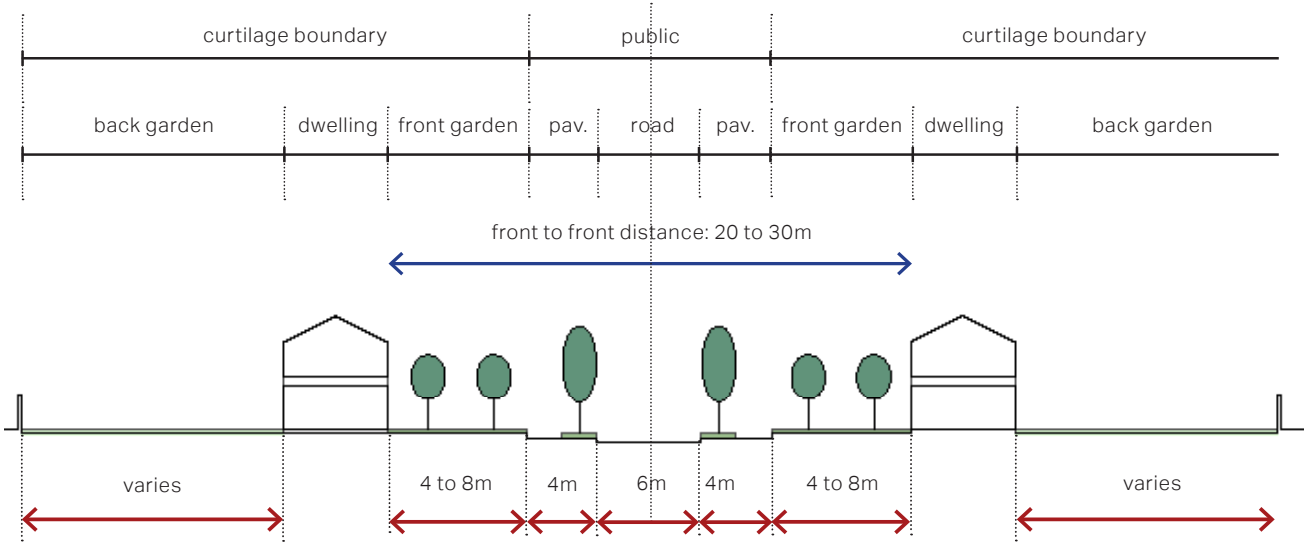
Access street

This street provides the main access spine of an area or a new development. It connects the development to the rest of the settlement.

Main features:

- Provide generous front gardens and street planting that contribute to the general feeling of openness.
- Locate parking to the side of properties and consider using garages to mitigate the impact of cars on the streetscape.
- Main street serves as the access to the new development and that can be acknowledged by providing planting in the junction with the existing road. Buildings in the access and ending can have special features to provide interest to the main spine.
- Local open spaces can ease way-finding as planting in corners, intersections with other streets and end of views, but also as separate open spaces in their own right. Provide those local green spaces, that are made accessible by being on the main structuring spine of the development.





Greenfield Dr. Example of a local access street

Access street dimensions

The nominal dimensions on the diagrams to the left are a guidance on the key elements and proportions to be provided on the main access street.

- Building height: maximum building height is 2 levels + pitch roof.
- Pavements: a generally acceptable width of pavements is 2m. An additional 2m is provided for street planting if required.
- Front gardens: minimum depth of front gardens is 8m. Tree planting is encouraged.
- Back gardens: minimum depth of back gardens is 15m.
- Front-to-front distance: the resulting street corridor width is in the range of 30m, contributing to the openness of the streetscape.

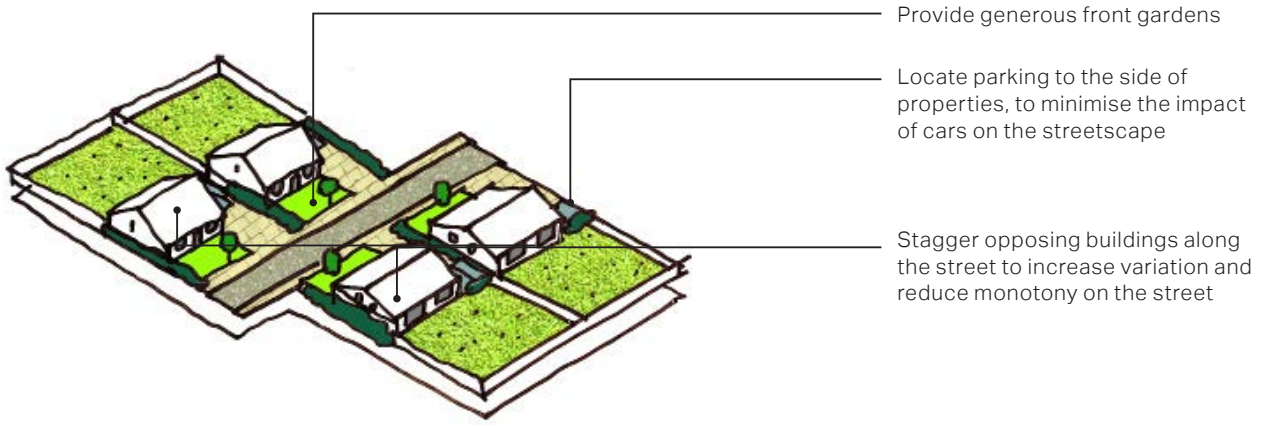
Examples

Greenfield Dr, to the left, is a local example of an access street. The green character of the scene could be improved with additional tree planting on the pavement. In this case, the street does not include parking provision, which sometimes results in cars parked on the street.

Residential street

Main features:

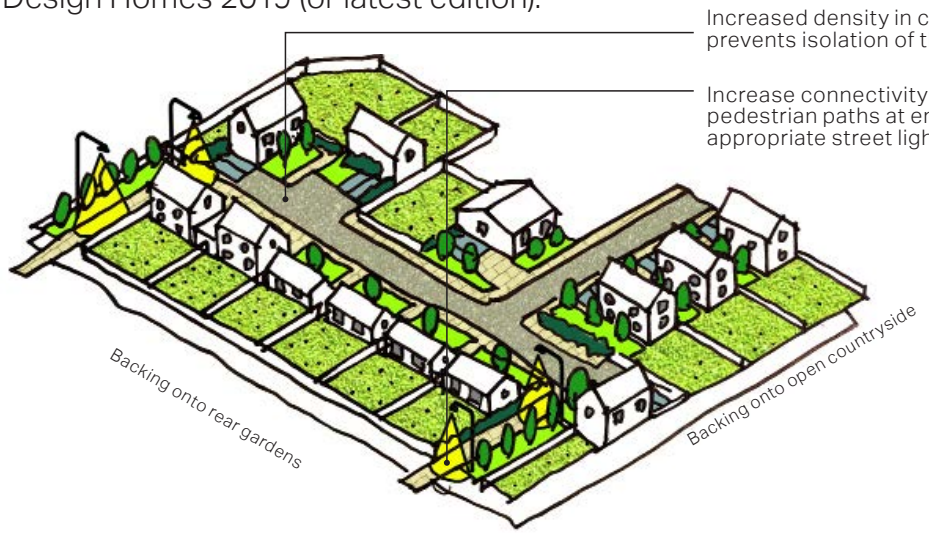
- Provide generous front gardens that contribute to the general feeling of openness.
- Locate parking to the side of the property to mitigate the impact of cars on the streetscape.
- Residential streets branch out from the main street, it is good practice to stager branching streets organically to avoid excessive long views.
- It is also advisable to stagger opposing buildings along the street so they are not directly facing each other, and therefore reduce the monotony along the streetscape.

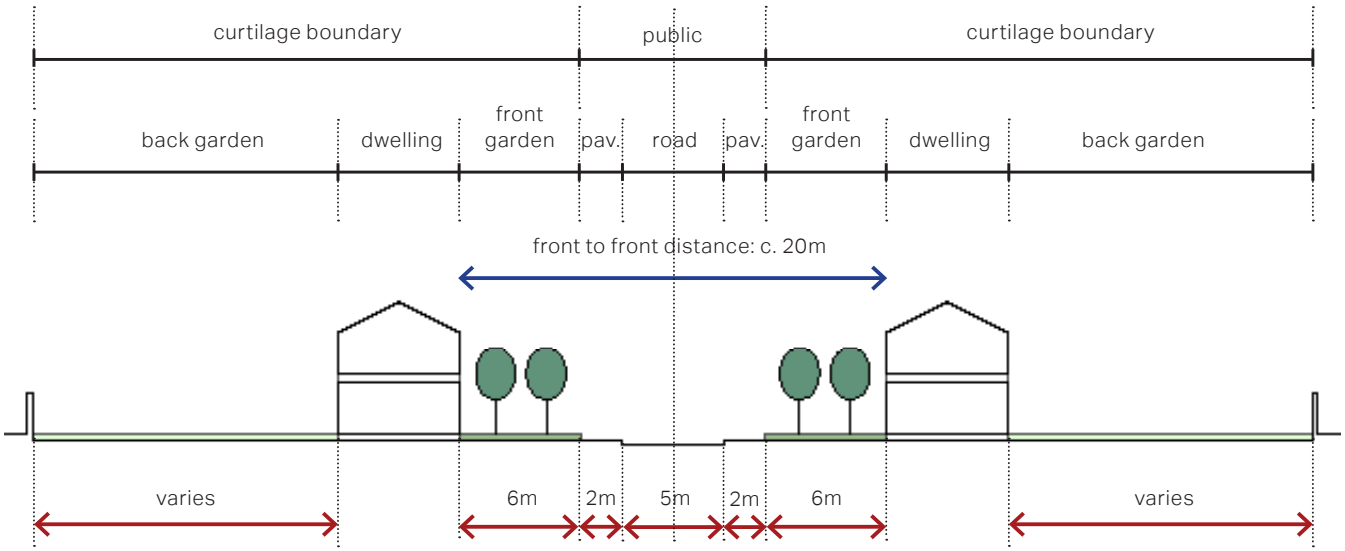


Cul-de-sac street

Main features:

- It is generally acceptable to increase the density and decrease the spacing of buildings in cul-de-sacs to favour activity and prevent them from becoming isolated, parking can be at the front of properties in this case. Garages separate from dwellings are not acceptable and neither are parking courtyards.
- Cul-de-sacs should have pedestrian paths that connect them to surrounding areas and increase their connectivity access and overlooking. Careful consideration should be given to the landscaping and lighting of these paths to increase their safety. Follow Secure by Design principles included in Secure by Design Homes 2019 (or latest edition).
- Cul-de-sacs are typically backing onto the open land in the area. This is generally not advisable. It is generally advisable to back onto gardens of other properties. A side dwelling typology is suggested here as an alternative when properties back onto the open countryside. It provides distant views to the open land.





Greenfield Dr. Example of a local access street

Residential street key dimensions

The nominal dimensions on the diagrams to the left are a guidance on the key elements and proportions to be provided on both residential and cul-de-sac streets.

- Building height: maximum building height is 2 levels + pitch roof.
- Pavements: a generally acceptable width of pavements is 2m. An additional 2m is provided for street planting if required.
- Front gardens: minimum depth of front gardens is 6m. Tree planting is encouraged.
- Back gardens: minimum depth of back gardens is 12m.
- Front-to-front distance: the resulting street corridor width is in the range of 20m, contributing to the general openness of the streetscape.

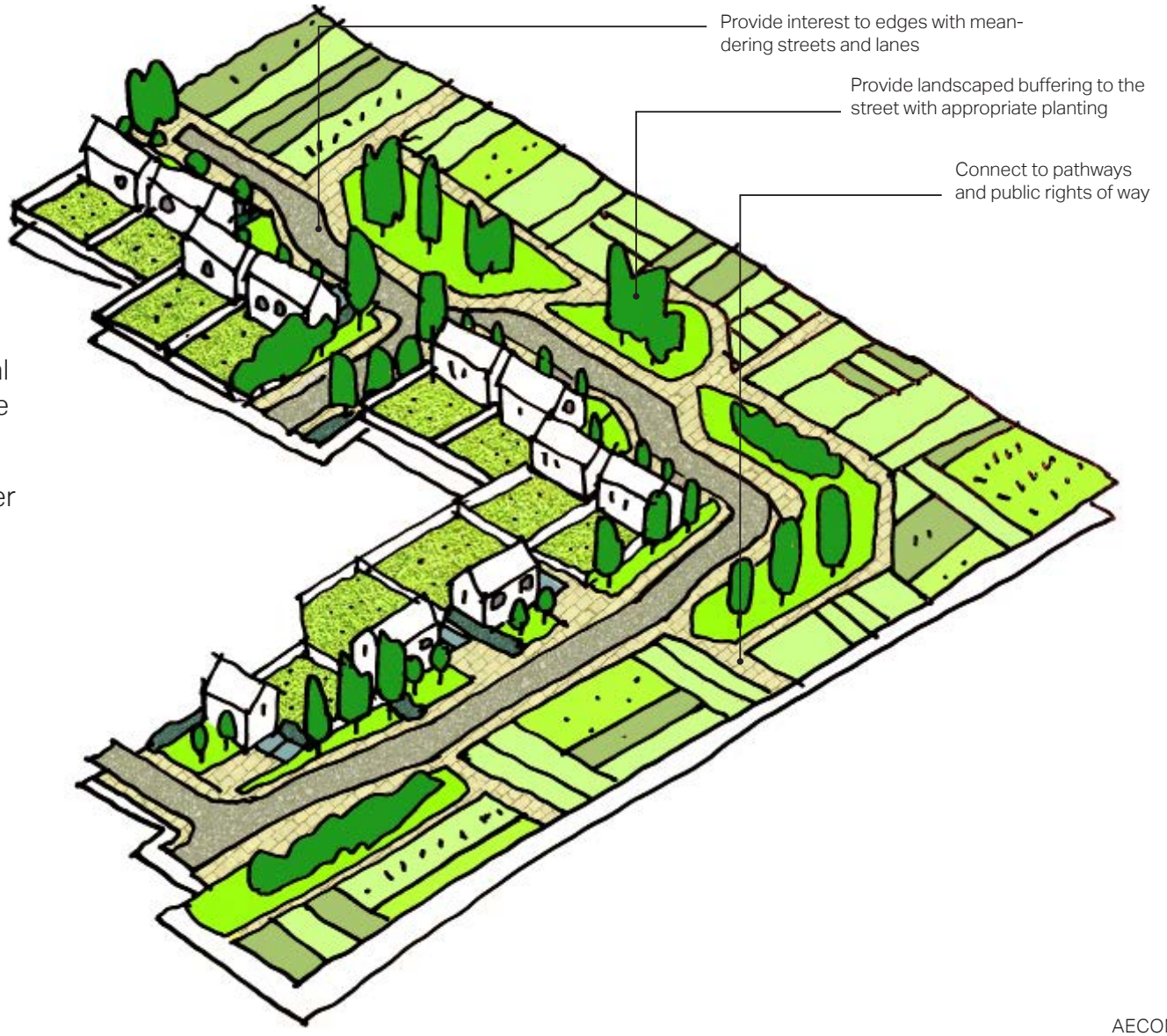
Examples

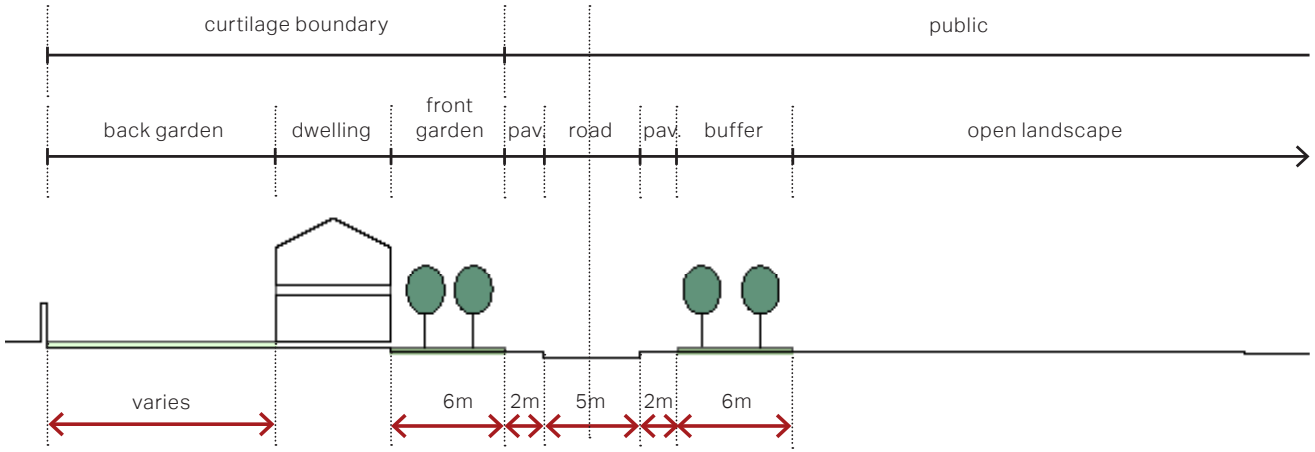
Chrismund Way, to the left, is a local example of a cul-de-sac that is well overlooked and includes some landscape. However, the safety of the pedestrian could be improved with pedestrian connections to surrounding areas.

Edge lane

Main features:

- Edge lanes are a suitable way of fronting the surrounding countryside making it accessible to most users.
- These streets can have gentle meandering, providing interest and evolving views while helping with orientation.
- Carefully consider landscaping as a buffer between development and the open countryside. This buffer future proofs the development against potential development that might front to the edge lane in the future.
- Connect the edge lane to paths and other public rights of way.





Moor Rd. Example of a local access street

Edge lane key dimensions

The nominal dimensions on the diagrams to the left are a guidance on the key elements and proportions to be provided on the main access street.

- Building height: maximum building height is 2 levels + pitch roof.
- Pavements: a generally acceptable width of pavements is 2m.
- Front gardens: minimum width of front gardens is 6m. Tree planting is encouraged.
- Back gardens: minimum width of back gardens is 12m.
- Buffer landscaping: this buffer guarantees separation from the open countryside, and from potential new developments that might come forward beyond the boundary of the current site. A minimum buffer distance of 6m is represented in this diagram.

Examples

Moor Rd, to the left, is a local example of an edge lane. The connectivity to pathways and the landscape beyond could be improved.

Code.10 Parking and servicing

Although, the aim to create a good network of walking and cycling routes within Great Tey Parish is a priority, the demand for private cars still remains high, at the time of writing, and therefore car parking has to be carefully integrated into the design.

The car parking typologies found in the Parish are mainly on-plot parking; however, there are also cases of parking courts, on-plot garage parking and on-street parking.

Therefore, the design guidelines one the next pages will focus on the above mentioned typologies.

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; and
- Hard standing and driveways must be constructed from porous materials, to minimise surface water run-off and therefore, help mitigate potential flooding.

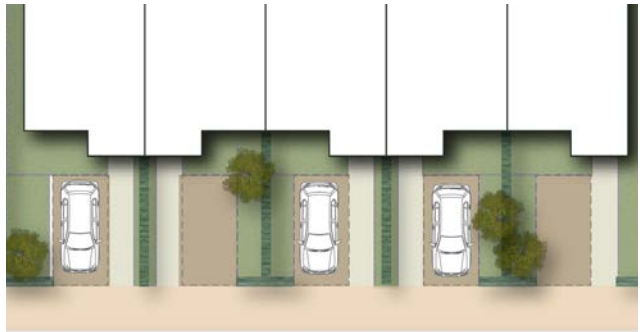


Figure 26: Illustrative diagram showing an indicative layout of on-plot front parking.

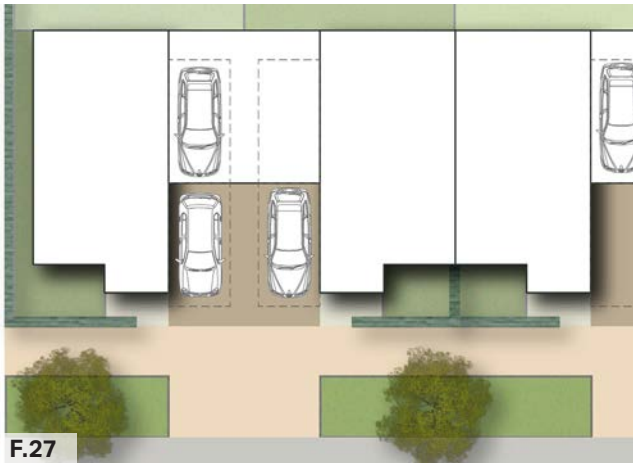
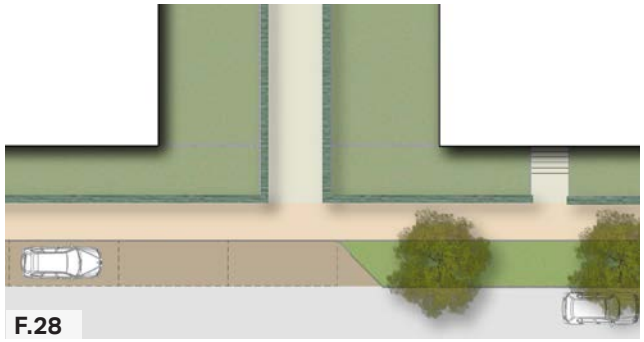


Figure 27: Illustrative diagram showing an indicative layout of on-plot side parking.

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 can be parallel, perpendicular, or echelon in relation with the traffic speed and the traffic volume;
- On-street parking must be designed to avoid impeding the flow of pedestrians, cyclists and other vehicles; and
- On-street parking should be wired to allow each bay to be able to charge electric vehicles.



F.28

Figure 28: Illustrative diagram showing an indicative layout of on-street inset parking.

F.29

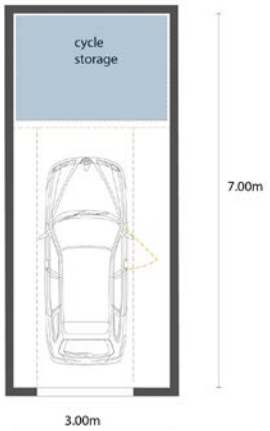
Figure 29: Example of on-street parking with parking bays and street trees to mitigate the impact of the cars on the streetscape, Poundbury.

F.30

Figure 30: Example of on-plot garage parking, Cambridge.

Guidelines for garages

- The use of garages should be avoided, if possible;
- Garages must not dominate the appearance of dwellings and must not reduce the amount of active frontage to the street; and
- They 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.



F.31

Figure 31: Indicative layout of a garage with a cycle storage area.

Code.11 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 form the front of the building either in a specially constructed enclosure or easily accessible garage;
- The design of any enclosure should integrate well with the surroundings; and
- The bicycle must be removed easily without having to move the vehicle.

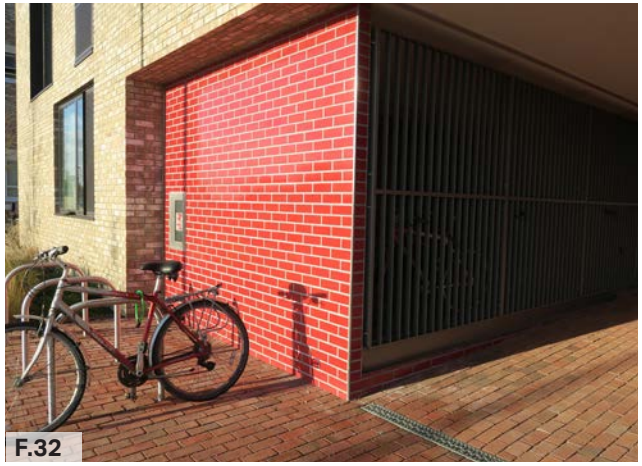


Figure 32: Example of cycle parking for houses without garages, Cambridge.

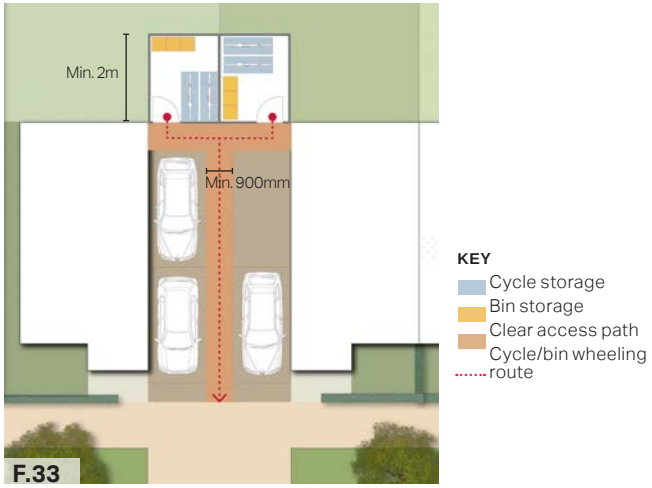
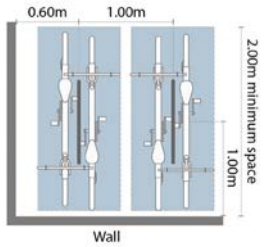


Figure 33: Indicative layout of a bicycle and bin storage area at the back of semi-detached properties.



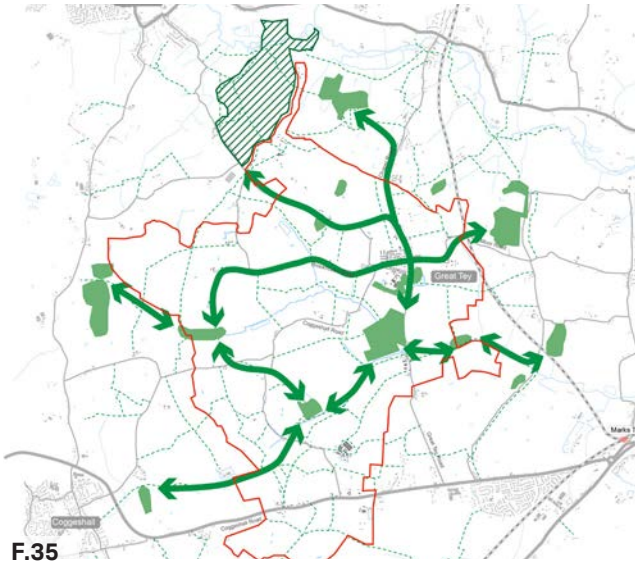
F.34

Figure 34: Sheffield cycle stands for visitors and cycle parking illustration.

Code.12 Create a green network

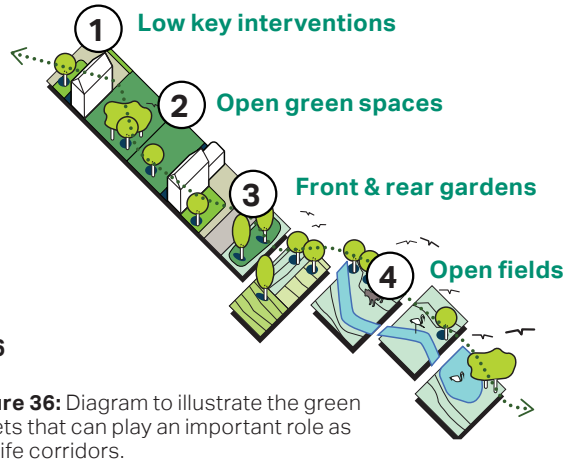
A well connected green network should be created throughout the new developments to provide links to the countryside for people as well as habitats. Opportunities should be sought to introduce green assets into design and contribute to biodiversity. Some design guidelines on green networks are:

- Green networks should link existing and newly proposed street trees, green verges, open spaces, villages and the countryside together;
- SuDS should be introduced, where possible, and incorporated into design of the green network to mitigate any flooding issue;
- New development should front onto green assets and pedestrian access should be granted for all groups of people;
- The proposed wildlife corridors and landscape gap could also taken into account when designing for a green network; and
- Green networks could contain some formal provision, such as a Neighbourhood Equipped Area of Play (NEAP), playing fields and an area for active recreation. Their many benefits include the improvement of the health and well-being of individuals and promotion of the development of inclusive communities.



F.35

Figure 35: Seek opportunities to create green networks within the Parish through woodlands, ditches, wildlife corridors, tree corridors and public rights of way.



F.36

Figure 36: Diagram to illustrate the green assets that can play an important role as wildlife corridors.

F.37

Figure 37: An example of a SuDS corridor - Upton Urban Extension, Northampton.

Code.13 Biodiversity

In July 2019 Colchester District Council declared a Climate Emergency. The opportunity to avoid dangerous levels of global heating is closing and action is required swiftly at all levels from the international to the individual. Biodiversity could be highly affected and therefore new development should prioritise its enhancement through design. Some design guidelines are:

- New development should protect and enhance the existing habitats and biodiversity corridors (as identified by the Colchester District Council). In particular, help increase movement between isolated populations and provide escape cover from predators and shelter during bad weather;
- Biodiversity and woodlands should be protected and enhanced where possible. The woodland on the western side of Drayton Lane for example is home for owl and bat habitats;
- New development proposals should aim for the creation of new habitats and wildlife corridors, e.g. by aligning back and front gardens or installing bird boxes or bricks in walls;
- Gardens and boundary treatments should be designed to allow the movement of wildlife and provide habitat for local species. For that reason, rich vegetation and plantation is suggested;
- Blue assets can also contribute to biodiversity connectivity. Therefore, the existing ditches and lakes should be considered in design proposals when planning for wildlife corridors; and
- All areas of biodiversity that require further planting/ enhancement should be planted before start of construction.

Figure 38: Example of a structure used as a frog habitat corridor located in an outdoor green space.

Figure 39: Example of a birdbox located on a grass area opposite a public footpath.

Code.14 Water management (SuDS)

Due to the presence of a good number of ditches throughout the Parish, there are areas that sit within flood risk zones. Therefore, the use of sustainable drainage systems, known as SuDS, is needed to manage water, reduce flood risk and improve water quality.

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 40: Example of swales check dam integrated with a crossing point.

Figure 41: Example of SuD designed as a public amenity and filly integrated into the design of the public realm, Stockholm.

Code.15 Trees

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

- Aim to preserve existing mature trees and hedges by incorporating them in the new landscape design;
- To ensure resilience and increase visual interest, a variety of native tree species is preferred over a single one;
- Flower beds, bushes and shrubs should be welcomed in new developments, since they contribute to the livelihood of the streetscape and create visual interest and colour to their surroundings;
- Hedgerows can be planted in front of bare boundary walls to ease their visual presence or they can be used to conceal on-plot car parking and driveways within curtilages;
- Native trees can normally be used to mark reference points and as feature elements in the streetscape;
- Native trees should also be present in any public open space, green or play area to generate environmental and wildlife benefits; and
- The success of tree planting is more likely to be achieved when it has been carefully planned to work in conjunction with all parts of the new development, parking, buildings, street lights etc.

Figure 42: Example of street planting along main road with green verges and open views to the surrounding countryside encouraging walking and cycling , Eddington.

Code.16 Open spaces

Open spaces play a vital role in creating a positive environment. These are places fostering community and gathering, thus creating lively places in neighbourhoods. Therefore, new development should prioritise the design of open spaces and some design guidelines are:

- The location of new open spaces within new development should be decided based on the location of the existing ones considering the needs of the existing population too;
- All recreational spaces should be designed to link up with each other and also link up with existing adjoining sites.
- Substantial recreational space should be provided to include woodland walks, lake waks, sport pitches and play areas;
- Surrounding buildings should overlook play areas and public spaces to encourage movement 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 43: Positive example of an open space overlooked by properties including a small pond, flowers and vegetation

Figure 44: Example of good quality street furniture that accommodate the open green space offering places for gathering and resting.

Figure 45: Properties overlooking a public open space which is equipped with grass areas, large green trees and street furniture, Poundbury.

Code.17 Development layout

Any new development within the Parish should preserve its rural qualities and close relationship with the countryside, while also respecting the existing building layouts and patterns of growth. Therefore, some design guidelines are:

- New development should create a smooth transition, in terms of density and vegetation, from urban Colchester City towards rural Great Tey village;
- Physical boundaries such as hedgerows, should enclose and define each street along the back edge of the pavement, adhering to a clear building line that can allow minor variations for each development group;
- New development should propose routes laid out in a permeable pattern, allowing for multiple connections and choice of routes, particularly on foot. Any cul-de-sacs should be relatively short and provide secure and overlooked onward pedestrian links;
- Perimeter blocks must be employed consistently throughout the new developments in Great Tey. Their sizes and shapes should respond to the uses, existing landscape features, topography and residential density. Mews and courtyards should be used within large blocks to create interesting and efficient arrangements;
- New developments must demonstrate an understanding of the scale, building orientation, enclosure, and façade rhythm of the neighbourhing hamlets to respect their character;
- New development should create good street rhythm by addressing the roofscape and keeping regular plot widths;
- Properties should maintain a proper distance between building face to building face at the rear of dwellings to provide residential privacy. Garden sizes should reflect the local context;
- The layout of new development should optimise the benefits of daylighting, through the use of solar panels, and passive solar gains, through building orientation, as this can significantly reduce energy consumption; and
- New developments should have regard to the future climate change implications.

Figure 46: Example of a perimeter block where back to back properties are facing the street creating active frontages and optimising the use of rear gardens, Great Tey.

Code.18 Building heights

There is a low housing density in the Parish reinforcing the rural character of the hamlets. More specifically, properties tend to be 1- or 2-storeys high with decent-sized rear gardens. The rooflines are irregular and either continuous, where there are clusters of houses, or they get interrupted with nature, where gaps between buildings are generous. Chimneys decorating the roof also interrupt the roofline offering a visual interest.

Maintaining a consistent roofline within Great Tey Parish is important to allow for long-distance views towards the surrounding countryside and respect the existing context. Therefore, some design guidelines are:

- New development should propose maximum height of 2.5 storeys;
- Monotonous building elevations should be avoided, therefore subtle changes in roofline should be ensured during the design process;
- Roof shapes and pitches must employ a restrained palette on a given building; overly complex roofs must be avoided; and
- Locally traditional roof detailing elements such as roofing materials, chimney stacks and edge treatments should be considered and implemented where possible in cases of new development.

Figure 47: Local example of continuous roofline, of 2-storey buildings, interrupted by chimneys.

Figure 48: Local examples of roof materials that could be used in new development, e.g. grey slate and clay peg tiles.

Code.19 Density

The concept of density is important to planning and design as it affects the vitality and viability of the place. The density within the Parish is quite low which is justified by its rural character. Therefore, some guidelines for new development are needed to ensure that the existing housing density numbers are respected.

- Slightly higher densities could be proposed around key movement intersections or along main roads closer to Colchester City. In addition, higher densities could support the viability of potential local services and facilities in the Parish.
- Density should be appropriate to the location of any new development and its surroundings and enhance the character of the existing village and hamlets;
- Housing densities should be reduced towards development edges and along rural edges in order to create a gradual transition towards the countryside;
- Pedestrian and cycle movement should be a priority and taken into account in larger development schemes. 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 Code 4.

Figure 49: Local example of a farm, Great Tey.

Figure 50: Example of a newer urban settlement with reduced green spaces and gaps between properties, Great Tey.

Code.20 Housing mix

The aspiration for the Parish is 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. Therefore, a mix of new housing is proposed to attract a wide group of people. Some design guidelines for new development are:

- New development should proposed a mix of housing to include a range of house types and sizes, both developer and self built, to allow for a variety of options and bring balance to the population profile; 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 51: Semi-detached building example in Great Tey

Figure 52: Detached house

Figure 53: Single storey building in Great Tey.

Code.21 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 are:

- When designing building setbacks, there must be an appropriate ratio between the width of the street and the building height;
- Buildings should be designed to turn corners and create attractive start and end points of a new street or frontage;
- Generally, building façades should front onto streets. Variation to the building line can be introduced to create a more informal character;
- In the case of terraced and adjoining buildings, it is recommended that a variety of plot widths, land use, building heights, and façade depth should be considered during the design process to create an attractive streetscape and break the monotony of the street wall; and
- Trees, hedges, and other landscaping features can help create a more enclosed streetscape in addition to providing shading and protection from heat, wind, and rain.

Figure 54: The relationship between the buildings, the trees and width of the footway creates a sense of enclosure for the pedestrians, Poundbury.

Code.22 Legibility and wayfinding

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

- A familiar and recognisable environment makes it easier for people to find their way around. Obvious and unambiguous features should be designed in new development;
- Buildings which are located at corners, crossroads or along a main road could play a significant role in navigation. For that reason, the architectural style of those buildings could be slightly differentiated from the rest to help them stand out;
- Landmark elements could also be a public art, historic signage totem or even an old and sizeable tree;
- New signage design should be easy to read. Elements likes languages, fonts, text sizes, colours and symbols should be clear and concise, and avoid confusion;
- Signage can also help highlight existing and newly proposed footpaths and cycle lanes, encouraging people to use them more; and
- Signage could be strategically located along walking and cycling routes to signalise location of local and heritage assets and raise people's awareness.
- Provision for people with visual impairment, for instance tactile paving or tactile lettering on signs.

F.55

Figure 55: Example of signage that could be integrated along footpaths to navigate people towards important destinations, like Great Tey village and other hamlets, as well as provide information about habitats and other species in the area.

F.56

Figure 56: Example of signage posts within the urban fabric to help navigate people, Diss.

F.57

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

Code.23 Boundary 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.

- Buildings should front onto streets. The building line should have subtle variations in the form of recesses and protrusions but should generally form a unified whole;
- Buildings should be designed to ensure that streets and/or public spaces have good levels of natural surveillance from buildings. This can be ensured by placing ground floor habitable rooms and upper floor windows facing the street;
- Natural boundary treatments should reinforce the sense of continuity of the building line and help define the street, appropriate to the character of the area. They should be mainly continuous hedges and low walls, as appropriate, made of traditional materials found elsewhere in the Parish such as local bricks and tiles;
- 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;
- If placed at important intersections the building could be treated as a landmark and thus be slightly taller or display another built element, signalling its importance as a wayfinding cue;
- The form of corner buildings should respect the local architectural character. Doing so improves the street scene and generates local pride;
- All the façades overlooking the street or public space should be treated as primary façades; and
- Road layouts should be designed to slow traffic and advantage pedestrians over vehicles.

Figure 58: Slight meandering residential road with green elements to improve the aesthetics of the environment, York.

Figure 59: Positive example of properties with small front gardens overlooking the adjacent open space, Great Tey.

Code.24 Materials and architectural details

Great Tey Parish has a wide variety of architectural styles and details that can act as references for new development. In particular, pitched roofs with either artificial slate or plain tiles and elevations where brick, render or boarding are predominant.

Some design guidelines for new development are:

- Architectural design shall reflect high quality local design references in both the natural and built environment; and
- Any new development should demonstrate that the palette of materials has been selected based on an understanding of the surrounding built environment.

Roofing

Grey slate tiles

Handmade clay peg tiles

Thatched roof (made from straw)

Walling & building facades

Flint work with flint chipping (galleting) to the joints

Knapped flint

Half timber framing and half flints combined with red bricks

Low height flint and brick wall

Render

Whole beach peddles set in lime mortar, with red brick

Windows

Casement windows

Sash window

Dark brown frame on casement & cottage style window

Arched shape window

Front doors (timber and painted)

Code.25 Hard landscaping, materials and street furniture

Streets are the most important components of public space and these are referenced in the hierarchy of movement section.

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

High quality materials such as stone, gravel and brick can provide a durable and attractive hard surface, although there is an extensive range of modern materials that can contribute positively to the quality of outdoor spaces if chosen with care. The laying pattern and materials used should make a significant contribution to the overall appearance, quality and success of a scheme. If laying patterns used random bond, broken bond, gauged width, and the European fan should be preferred .

Some overall design guidelines on good quality of public realm are:

- The public realm should provide high quality paving sensitive to the surrounding context using sustainable and durable materials;
- Permeable paving is encouraged to contribute to rain water infiltration;
- Street trees and grass verges, where appropriate, should be integrated into the design of the public realm;
- Street furniture should be added in the public realm only if they serve a purpose, whilst unnecessary features should be avoided; and
- Large unbroken areas of a particular surface material should be avoided, especially tarmac. Areas can be made distinctive by using materials of a similar colour but with different textures.

Figure 60: Examples of quality materials and visually pleasing layout patterns that could be considered for public realm surfacing.

Design Codes on sustainability for new developments in Great Tey Parish

Great Tey Parish aspires to become a carbon neutral example in the next years. The codes 27-34, include some design guidelines that could have a positive impact to the environment.

In order to reach the above goal, the current utilties network would need to be improved significantly and new developments would provide an opportunity to do so.

Code.26 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.

F.74 features an array of sustainable design features. Those on the top show the features that should be strongly encouraged in existing homes, while those on the bottom show additional features that new build homes should be encouraged to incorporate from the onset.

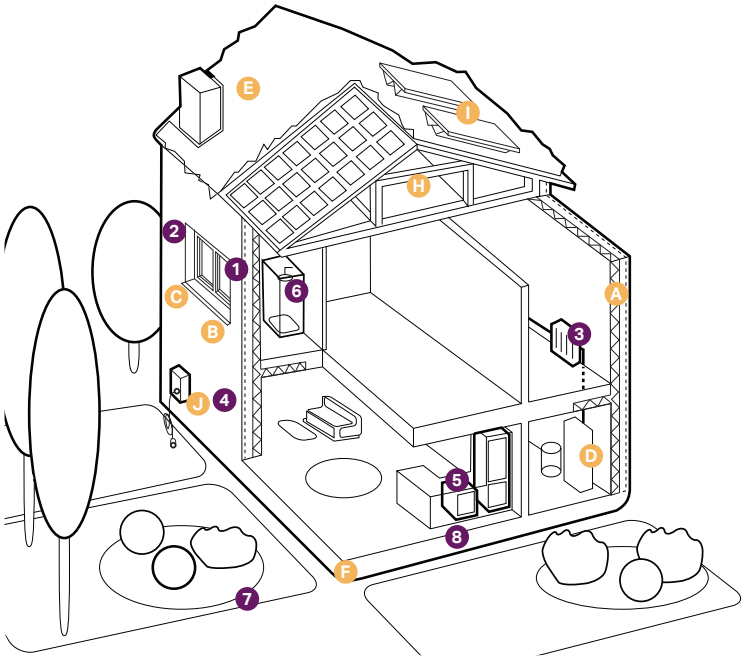
Code.27 Lifetime and adaptability

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.

Figure 61: 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 62: Positive example of integrating solar panels at the design stage.



F.63

Existing homes

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

Additional features for new build homes

A. **High levels of airtightness**

B. **More fresh air** with the mechanical ventilation and heat recovery, and passive cooling

C. **Triple glazed windows and external shading** especially on south and west faces

D. **Low-carbon heating** and no new homes on the gas grid by 2025 at the latest

E. **Water management and cooling** more ambitious water efficiency standards, green roofs, rainwater harvesting and reflective walls

F. **Flood resilience and resistance** e.g. raised electrical, concrete floors and greening your garden

H. **Construction and site planning** timber frames, sustainable transport options (such as cycling)

I. **Solar panel**

J. **Electric car charging point**

Figure 63: Diagram showing low-carbon homes in both existing and new build conditions.

Code.28 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.

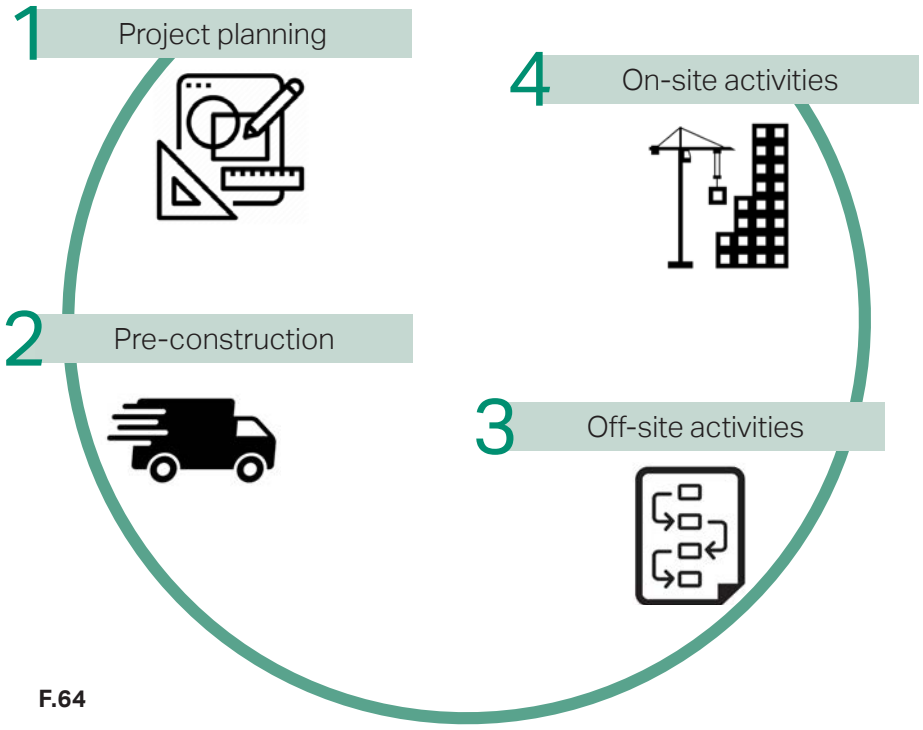


Figure 64: Diagram to illustrate the 4 main stages where waste management practices can be implemented.

Code.29 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.

Code.30 Electric vehicle charging points

Great Tey Parish strongly supports proposals for in private transport using electrically and other non fossil fuel powered vehicles. Those can be integrated both on and off street. Some design guidelines on how new development should design for electric vehicle charging points are:

On-street car parking or parking courts

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

Figure 65: Example of on-street electric vehicle charging points.

Figure 66: Example of electric vehicle charging points in a parking court.

Off-street car parking

- Mounted charging points and associated services should be integrated into the design of new developments, if possible with each house that provides off-street parking; and
- Cluttering elevations, especially main façades and front elevations, should be avoided.

Figure 67: Example of off-street electric vehicle charging points.

Code.31 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 68: Examples of water butts used for rainwater harvesting in Reach, Cambridgeshire.

Figure 69: Example of a gravity fed rainwater system for flushing a downstairs toilet or for irrigation.

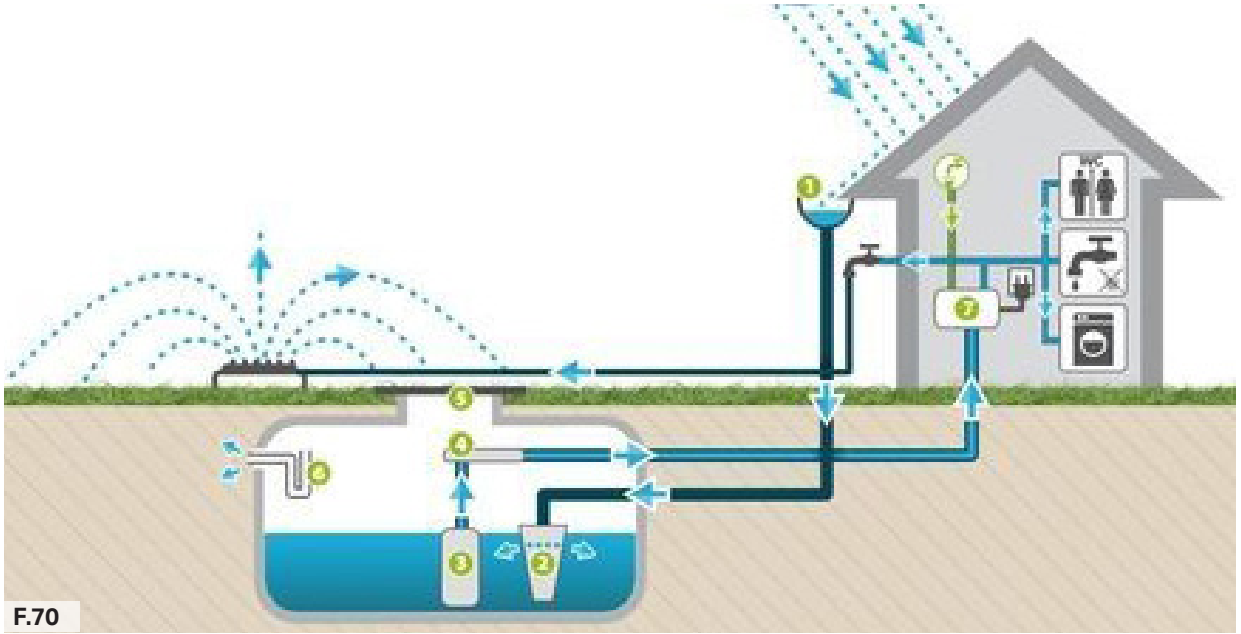


Figure 70: Diagram illustrating rainwater harvesting systems that could be integrated into open space and residential developments.

Code.32 Permeable paving

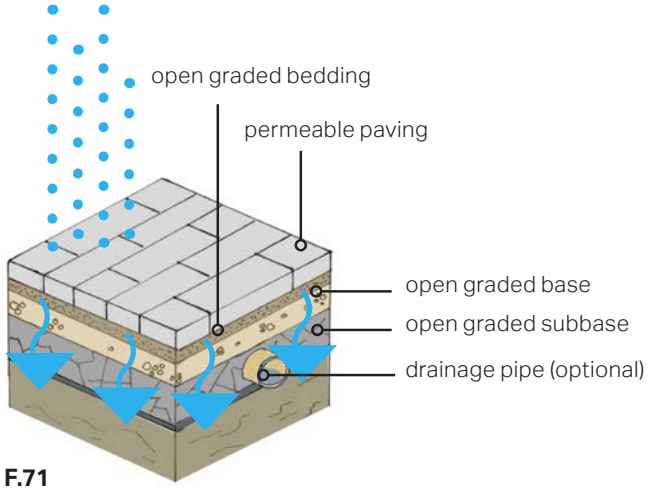
Most built-up areas, including roads and driveways, increase impervious surfaces and reduce the capacity of the ground to absorb runoff water. This in turn increases the risks of surface water flooding.

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

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

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

- Sustainable Drainage Systems - non-statutory technical standards for sustainable drainage systems[1].
- The SuDS Manual (C753)[2].
- Guidance on the Permeable Surfacing of Front Gardens[3].



F.71

Figure 71: Diagram illustrating the function of a soak away.

F.72

Figure 72: Example of a permeable paving.

1. Great Britain. Department for Environment, Food and Rural Affairs (2015). Sustainable drainage systems – non-statutory technical standards for sustainable drainage systems. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf
2. CIRIA (2015). The SuDS Manual (C753).
3. Great Britain. Ministry of Housing, Communities & Local Government (2008). Guidance on the Permeable Surfacing of Front Gardens. Available at:https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7728/pavingfrontgardens.pdf

Code.33 Reducing car use

- Developments which do not require the use of a car to reach local facilities or enjoy a high quality of life will help reduce traffic, pollution, road accidents and environmental impact for all the community. They will also encourage healthy activities such as walking and cycling and enable more social interaction and neighbourliness; and
- If developments incorporate local shops and facilities, are close to public transport, and include attractive, safe pedestrian and cycling routes, this will help reduce car usage without reducing car accessibility or car ownership. It will also enable a high quality of life for those least likely to own a car – the very young and the very old.

3.2 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

General design guidelines for new development:

- Integrate with existing paths, streets, circulation networks and patterns of activity;
- 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;
- Respect surrounding buildings in terms of scale, height, form and massing;
- Adopt contextually appropriate materials and details;
- Provide adequate open space for the development in terms of both quantity and quality;
- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;
- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;
- Positively integrate energy efficient technologies;
- 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.

2

Street grid and layout:

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

3 (continues)

Local green spaces, views & character:

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

3

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)?

4

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?

5 (continues)

Buildings layout and grouping:

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

5

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?

6

Building line and boundary treatment:

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

7

Building heights and roofline:

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

8

Household extensions:

- Does the proposed design respect the character of the area and the immediate neighbourhood, and does it have an adverse impact on neighbouring properties in relation to privacy, overbearing or overshadowing impact?
- Is the roof form of the extension appropriate to the original dwelling (considering angle of pitch)?
- Do the proposed materials match those of the existing dwelling?
- In case of side extensions, does it retain important gaps within the street scene and avoid a 'terracing effect'?
- Are there any proposed dormer roof extensions set within the roof slope?
- Does the proposed extension respond to the existing pattern of window and door openings?
- Is the side extension set back from the front of the house?
- Does the extension offer the opportunity to retrofit energy efficiency measures to the existing building?
- Can any materials be re-used in situ to reduce waste and embodied carbon?

9

Building materials & surface treatment:

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

9

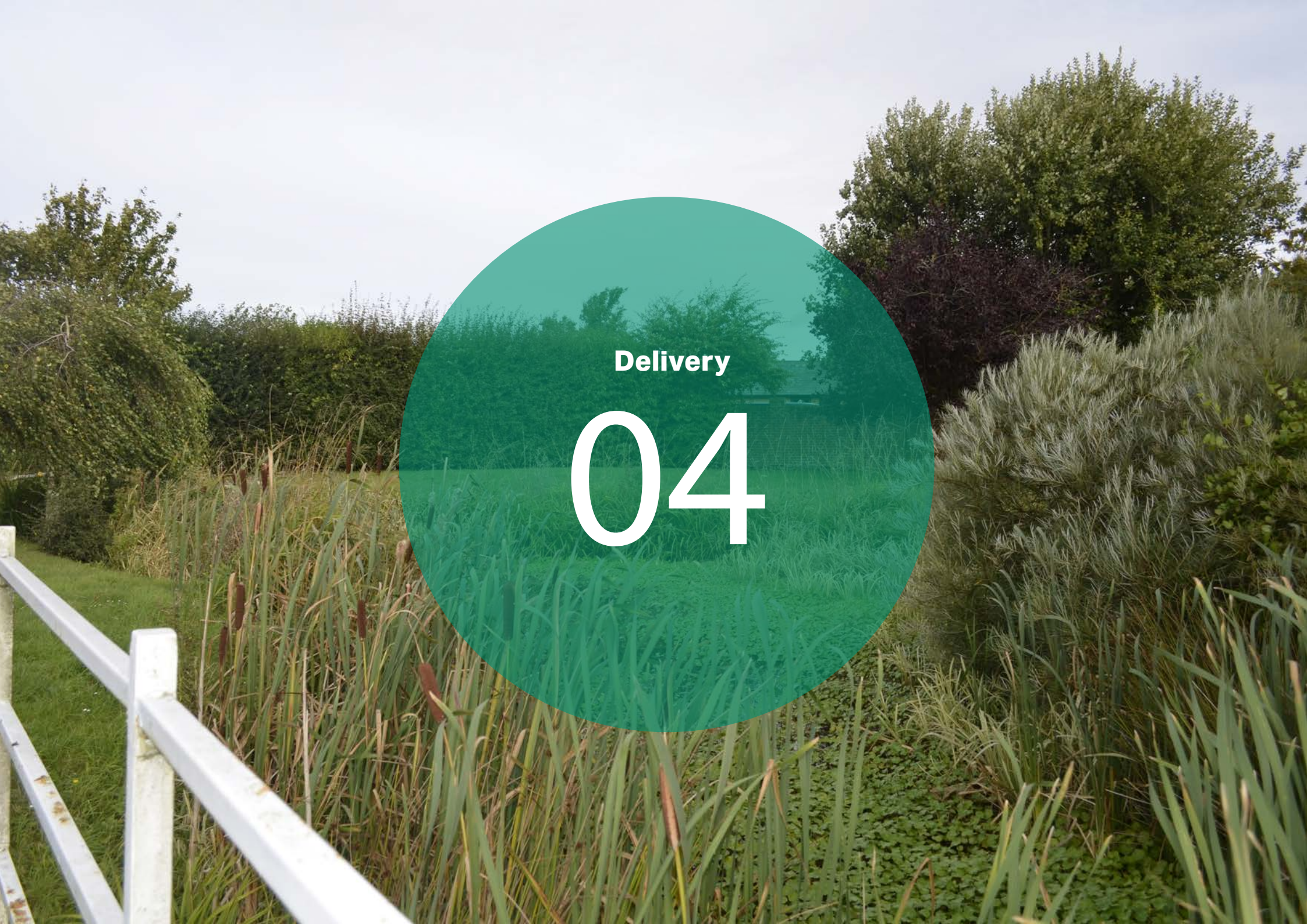
Building materials & surface treatment:

- 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?

10

Car parking:

- What parking solutions have been considered?
- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?
- Has planting been considered to soften the presence of cars?
- Does the proposed car parking compromise the amenity of adjoining properties?
- Have the needs of wheelchair users been considered?
- Can electric vehicle charging points be provided?
- Can secure cycle storage be provided at an individual building level or through a central/ communal facility where appropriate?
- If covered car ports or cycle storage is included, can it incorporate roof mounted photovoltaic panels or a biodiverse roof in its design?


Delivery
04

4. Delivery

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

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

Table 01: delivery

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