Barton-le-Clay

Parish-wide design guidelines and codes

Final Report

November 2023

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Quality information

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Revision History

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3	080823	Group feedback	Carolyn Callen	Clerk to Barton-le-Clay Parish Council
2	120623	Proofreading	Nicholas Pascalli	Graduate Urban Designer
1	090623	Site visit, drawings & report	Stela Kontogianni Ben Lancaster	Associate Urban Designer Graduate Urban Designer

Executive Summary

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

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

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

Research, such as for the Government's Commission for Architecture and the Built Environment (now part of the Design Council; see, for example, The Value of Good 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.

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

***Chapter 1** sets the scene by explaining the importance of good design, followed by a brief summary of the scope of this report as well as the steps followed upon its completion (Final report).*

***Chapter 2** outlines the local context and key characteristics of Barton-le-Clay by exploring green infrastructure, built environment, streetscape, heritage, local vernacular, views, topography etc. The analysis will begin with a parish-wide focus to understand the wider context and then have a closer look to Barton-le-Clay village settlement. The findings will then inform and shape the design guidelines and codes (included in Chapter 3) influencing future development. Those design guidelines and codes will also be consulted with the wider community during a drop-in event organised by the NP Steering Group.*

***Chapter 3** presents two sets of design guidelines. The first is a set of general design considerations that should be addressed by applicants and their design teams as appropriate for Barton-le-Clay's character. The second is a set of design guidelines and codes regarding key characteristics of Barton-le-Clay. Both sets have been informed and shaped by the local character analysis of the parish aiming to guide future development, of any scale, including infill developments, house extensions or larger developments.*

***Chapter 4** explains why this report is a valuable tool in securing context-driven, high-quality development in the parish and offers recommendations of various ways that this document could be used by each actor in the planning and development process.*

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

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

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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 Barton-le-Clay Parish Council. The support is intended to provide design guidance and codes based on the character and local qualities of the parish to help ensure future development, particularly forthcoming housing, coheres with and enhances Barton-le-Clay.

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 aims to offer guidance in future development that promotes good design and respects and preserves local characteristics, while encouraging modern and innovative design.

Following the analysis of the parish, a set of architectural and design qualities will be created. This set of qualities combined with good design practice will inform the design guidelines and codes that any development within Barton-le-Clay should follow in order to comply with this parish-wide design guidance.

1.2 The purpose of this document

The NPPF 2021, paragraphs 127–128 states that:

'Plans should... set out a clear design vision and expectations, so that applicants have as much certainty as possible about what is likely to be acceptable. Design policies should be developed with local communities so they reflect local aspirations, and are grounded in an understanding and evaluation of each area's defining

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

characteristics. Neighbourhood planning groups can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development....'

'To provide maximum clarity about design expectations at an early stage, 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 guidance in order to set standards for design upfront and provide firm guidance on how sites should be developed.

Barton-le-Clay is situated in Central Bedfordshire between Bedford and Luton, 32 miles (51 km) north of London. Nearby villages include Sharpenhoe, Pulloxhill Silsoe, Hexton and Streatley. The A6 which runs from Luton bypasses Barton and continues through Bedford to Carlisle. Barton benefits from a range of shops, pubs and restaurants which line Bedford Road and provide a natural hub for the village. Both the lower and middle schools are located within easy walking distance of all residential areas, and funded transport is provided to Harlington Upper School. A GP practice, opticians and dentists provide for personal health care with veterinary clinic catering for pets' needs. There is an Anglican and a Methodist church, and a recreational ground that offers a range of activities for both the young and old.

In the southeast of the parish are the Barton Hills, which form the northeast extremity of the Chiltern Hills. Much of this area of chalk downland is now a nature reserve managed by Natural England. To the west of the village is the Sharpenhoe Clappers; a classic chalk escarpment which is part of the Chilterns Area of Outstanding Natural Beauty.

The Central Bedfordshire Local Plan (2015–2035) allocates approximately 500 homes within Barton-le-Clay, with an outline planning application already submitted at the time of writing.

Barton-le-Clay's vision is to enhance the area as an exciting place to live and to provide an environment that engenders a true community spirit for all the residents of Barton-le-Clay.

The Conservation Area, nearby Area of Outstanding Natural Beauty (AONB), woodlands and surrounding landscape, as well as the richness in architectural styles and details, should be protected and promoted in any new development of any scale.

Design guidance will ensure that new developments within the parish, follow good design practice. This too will include guidance relating to conversions and extensions which can significantly impact the local vernacular. Subsequently, guidance will contribute to a sustainable and thriving community that retains its valued character.

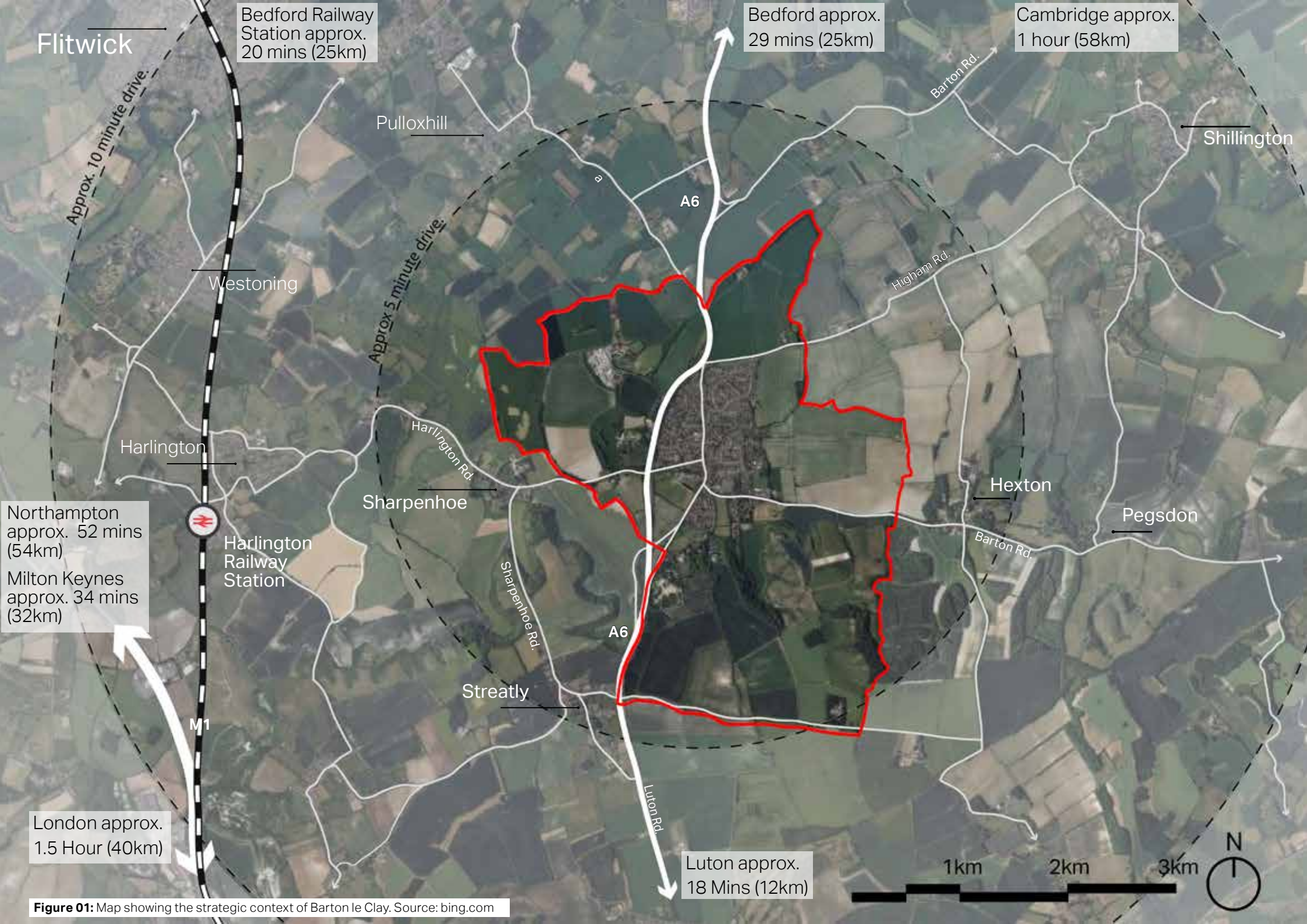
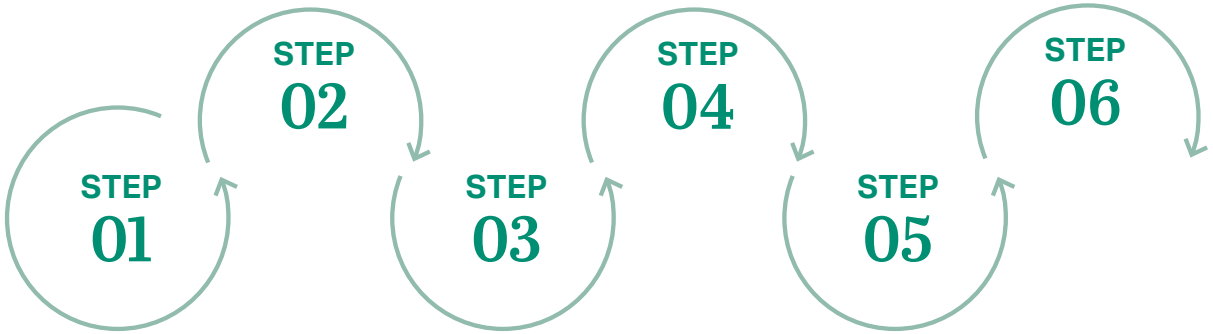


Figure 01: Map showing the strategic context of Barton le Clay. Source: bing.com

1.3 Preparing the design guidelines and codes

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



STEP 1

Initial meeting between AECOM and the Barton-le-Clay NP Steering Group followed by a site visit

STEP 2

Review of existing baseline documents

STEP 3

Urban design and local character analysis of Barton-le-Clay

STEP 4

Preparation of the draft parish-wide design guide

STEP 5

Submission of the draft parish-wide design guide to the NP Steering Group for review

STEP 6

Submission of the draft final report to Locality for review. Submission of the final report to the NP Steering Group

Local character analysis

02

2. Local character analysis

This chapter details the local context and key characteristics of Barton-le-Clay by exploring its heritage, built environment, streetscape, views, landscape and topography.

2.1 Parish-wide analysis

2.1.1. Access and movement

Barton-le-Clay is located approximately 8 miles north of Luton, 13 miles south of Bedford and 20 miles southeast of Milton Keynes. Despite its rural setting, the village is well connected owing to its proximity to major routes and access to regular rail and bus links.

Major routes: Barton-le-Clay is in close proximity to key vehicular routes for onward travel to surrounding towns and cities. The village lies along the A6, a major north–south route that connects Barton-le-Clay with Luton and Bedford. Here, the presence of a bypass ensures high levels of traffic along this route avoids the parish's narrow high street. Additionally, there is easy access to the M1 for journeys to London, Northampton, Milton Keynes and other major cities to the north.

Local routes: Access to major routes is sustained by a network of local routes, residential streets and country lanes. The most prominent of these are Hexton Road and Harlington Road. While rural in nature, they are critical for vehicular movement towards onward destinations to the east and west of Barton-le-Clay.

Bedford Road runs perpendicular to these routes and acts as the main high street through the village. Along this route are multiple commercial and leisure frontages with high levels of footfall and on-street activity. This route is critical for access to the surrounding residential streets and cul-de-sacs. Additionally, Higham Road provides a key east–west link to the north and forms a gateway into Barton-le-Clay where it meets the A6 bypass.

Beyond these examples, the majority of routes around the village serve as residential streets and cul-de-sacs. Some of these situated towards the periphery of the village core, where the built-up area meets the surrounding countryside, are country lanes and private roads with access to houses and some agricultural buildings. The most notable route of this type is Church Road, leading to St Nicholas' Church and onto a bridleway within the Barton Hills Nature Reserve.

Public Rights of Way: Owing to its rural setting, Barton-le-Clay is surrounded by a wide array of Public Rights of Way, byways, footpaths and bridleways around its rural hinterland. Pedestrian movement within the village core is also well catered for, with a wide array of footpaths and desire lines between neighbourhoods and individual housing developments. In most instances, these provide permeability for pedestrians in areas where cul-de-sacs are the prevailing street typology.

Railway and bus services: Multiple bus services operate within Barton-le-Clay with varying degrees of frequency. Regular services include the MK1 between Luton Airport Parkway and Bedford, and the 79 between Shefford and Luton. Less frequent routes also operate to Milton Keynes and Hitchin. The nearest railway station is Harlington, running regular Thameslink services to London, Bedford, Brighton and Luton Airport Parkway.

2.1.2 Heritage & Green Infrastructure

Despite its strong links with surrounding urban centres and sprawl of latter 20th Century housing, Barton-le-Clay has abundant natural and heritage assets. These underpin the village's unique character and are cherished and valued assets of the community.

Listed buildings: There are 4 main clusters of listed buildings located around the village. The bulk of these makes up much of the Barton-le-Clay Conservation Area. The greatest concentration is located along Bedford Road, in the area which makes up the high street and commercial centre. Listed buildings within this area include 17th Century timber framed cottages as well as the Bull Inn.

There is another concentration of listed buildings along Manor Road and Church Road to the southeast of the village. Included within this area is the Grade I listed Church of St Nicholas, featuring a range of architectural details from multiple eras between the 12th and 15th Centuries. Its most prominent features include rubble limestone walls and a flint and limestone chequerwork tower. Other listed properties include timber framed 17th Century cottages with a mix of material palettes including thatch, red brick and off-white render.

To the west of the village, within the rural hinterland of the parish, is a collection of Grade II listed barns and farmhouses. Most notably, this includes the Barton Mill, which has been retained and incorporated into the Olde Watermill Shopping Village, as well as the Faldo Farmhouse.

Scheduled monuments: The moated site around Faldo Farm is the only scheduled monument in Barton-le-Clay. The site features a square moat, approximately 60m by 50m. Contained within it is the 16th Century Faldo Farmhouse, though there is evidence of older buildings on this site.

Designated landscape areas: There are multiple statutory and non-statutory landscape designations around Barton-le-Clay. Primarily, the village core is surrounded by a green belt that covers much of the rural periphery within the parish boundary. There are also multiple statutory designations within Barton-le-Clay itself, underscoring the value of green space and the countryside which surrounds the village. Most notably, the area south of the village core lies within the Chilterns AONB. Within this area are multiple RAMSAR sites and Sites of Special Scientific Interest (SSSI).

Furthermore, within this area is the Barton Hills Nature Reserve which falls within the parish boundary. The parish is also bounded to the south by the Pegsdon Hills and Hoo Bit Nature Reserve and Sundon Hills Country Park.

Ancient woodlands: In addition to statutory designations, the parish is abundant with dedicated habitats. Crucially, these being areas of ancient woodland which are most prominent bounding the village core to the south of the parish. Within these areas as well are small sections of traditional orchards, emphasising the value of natural assets and biodiversity within the parish.

Flood risk: There is minimal flood risk in much of Barton-le-Clay. Higher risk areas are along minor streams running adjacent to the A6 bypass and bounding the north of the parish.

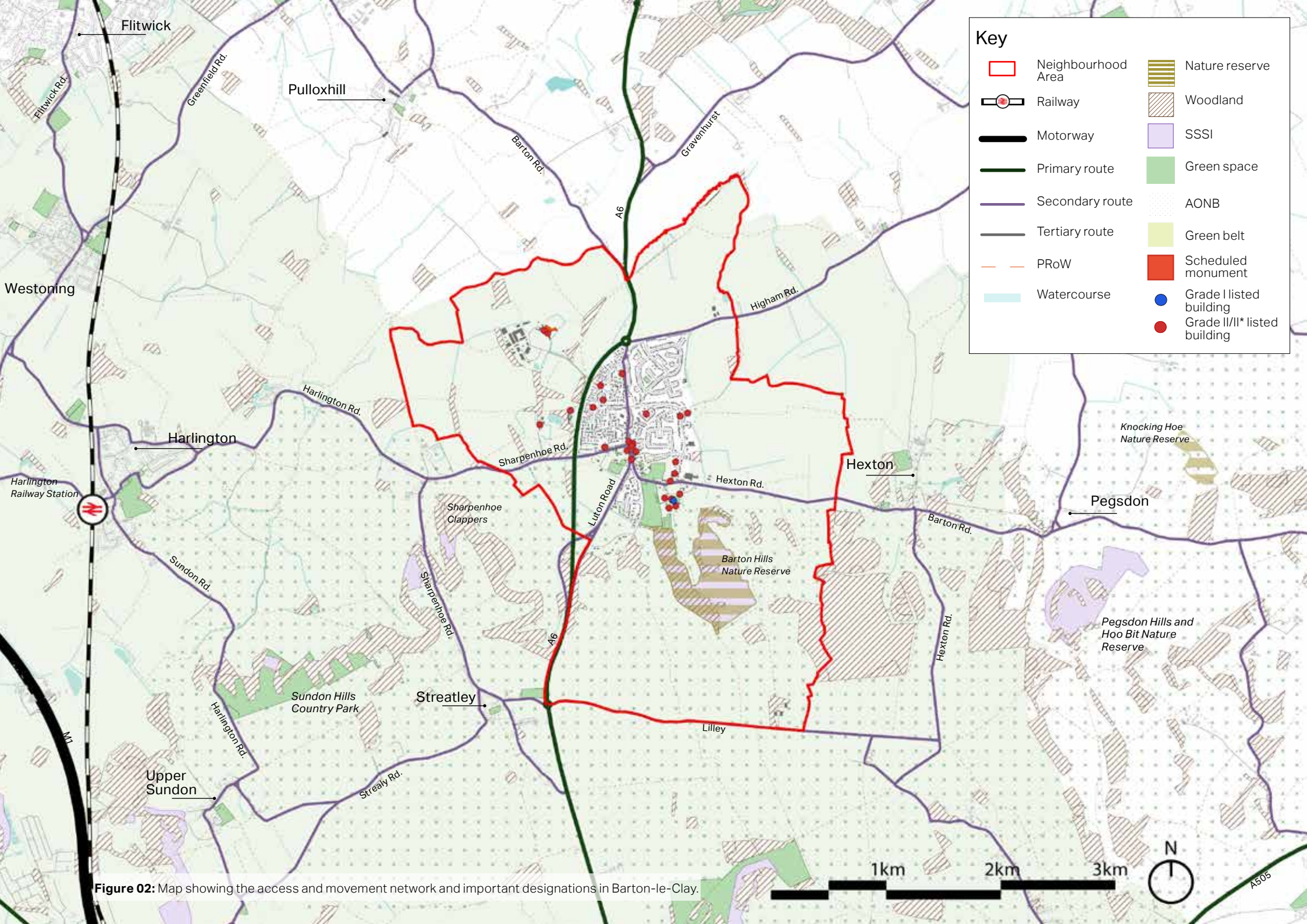


Figure 02: Map showing the access and movement network and important designations in Barton-le-Clay.

2.2 Character areas

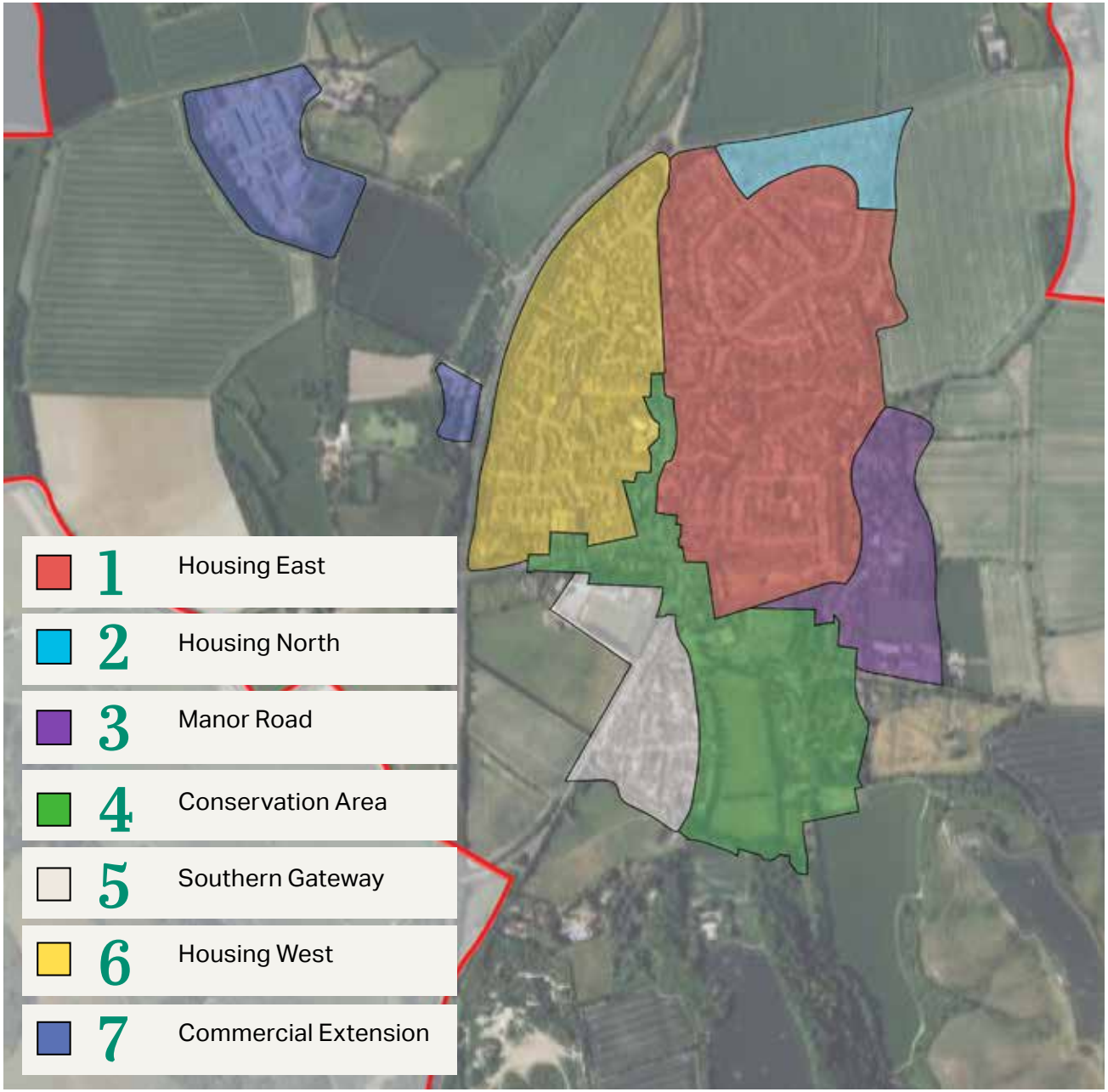
Following on from the analysis set out in the previous section, this section focuses on the different character areas within Barton-le-Clay.

Barton-le-Clay's character and identity is not defined by only one style. There is a mixture of architectural styles, details, settlement patterns and building layouts that conjointly contribute to the unique character of the area.

The design guidelines and codes, presented in the next chapter, highlight the variety of those characteristics and structure a useful guide for any future development in the parish.

The next pages will present an analysis for each character area, accompanied by photos and maps.

It is important to note, while some of the character areas are clearly defined and have very fixed boundaries, there is often an overlap of character areas and an element of mixing.



1 Housing East

This character area is the largest within the parish. It is primarily residential with a shopping parade along Windsor Road and a preschool behind Norman Road to the east of the parish. The area is characterised by its abundance of post-war council houses, many of which built in the 1960s. There are cases where properties were redeveloped with more contemporary finishes.

Development patterns	The main development patterns found here are perimeter blocks (e.g. Norman Road or Osborn Road) and cul-de-sacs, while the properties set along Bedford Road follow a more linear pattern.
Building lines, plots & setbacks	Building lines and orientations are more consistent in the neighbourhoods north of Manor Road, with a higher level of informality to the south. For example, building lines are less regular, while plot sizes and widths show more variations. Building setbacks are generous and allow space for well-sized front gardens. These range predominantly between 6-10m, however, there are cases where larger setbacks are found such as observed along Higham Road. In addition to this, the green spaces within the neighbourhood contribute to an overall sense of openness in the area.
Roofline	Pitched roofs are the prevailing typology within the character area, including some with dormer extensions. Some properties include gable fronts and there are a few instances of gable intersected mansard roofs and hipped roofs.
Building heights	Building heights are fairly consistent throughout the character area, with variations stemming from minor differences of the roof line. These include instances of pitch height variation or areas with small concentrations of single-storey buildings and bungalows. The shopping parade along Windsor Road is the only three-storey building in the area, consisting of ground floor shop fronts with two floors of apartments above.

Local vernacular

Many of the buildings within the character area feature red, brown and sand bricks, with architectural styling typical of post-war social housing.

There is an abundance of uPVC casement windows, and roofs that prominently use clay tiles and pantiles.

Differentiation within facade treatments is created with variants of render, pebbledash and weatherboard exterior finishes.

Natural boundary treatments prevail with bushes, trees, hedges and flowerbeds decorating most gardens.

Semi-detached houses with render and red brick plinth base. Also features pitched roof with adjoining intersecting gable.

Ground floor shopfronts of differing styles along the shopping parade. Above floors with brown brick and uPVC casement windows.

Greenery along Windsor Road is the primary public realm intervention with some occurrences of street furniture and mature trees.

Contemporary house that contrasts with the area's primary typology. Features gable dormers, jerkinhead roof and curved lintels.

Early post-war semi-detached house with hipped tiled roof and bay windows. Additional Hipped porch extension.

Mixed exterior finish including sand brick, render and brown tiles. Also features intersecting gable roof and gable dormer.

Instance of deep setbacks, some with paved drives or landscaped lawns.

Contemporary bungalow with hipped, red clay tile roof and protruding gable front.

Hipped, clay pantiled roof with dormer and gable dormer windows. Render finish with weatherboarding and casement windows.

Varied facade treatments including red tiles, brick, weatherboarding and render.

Shop fronts with a wide variety of fascia styles along Bedford Road. Many with enhanced setbacks used for parking.

Bungalow with intersecting pitched roof and low brick wall boundary treatments. Additionally features clay tile roof and red brick exterior finish.

2 Housing North

Housing North covers a small area to the northeast of the main village envelope. It is characterised by a homogeneity of development, featuring a high concentration bungalows or "chalet style" properties with roof conversions featuring dormers. The area is exclusively residential with development emerging here from the mid-20th century.

Development patterns	The character area is primarily made up of a large perimeter block, bounded by routes of varying character. Higham Road, a country lane and key thoroughfare into forms the area's northern edge. This edge is surrounded by open fields with houses along this route benefiting from key views. Windsor Road and Norman Road are meandering residential routes forming the western and southern edges, while the eastern edge is made up of a semi-private route, enabling access to the Orchard School and Nursery. Additionally, King William Close forms an small intersecting cul-de-sac stemming from Norman Road.
Building lines, plots & setbacks	Overall, the building line is consistent around the large perimeter block. However, there is one exception along Higham Road, where a small stretch of properties feature enhanced setbacks within four square lawns.
Roofline	Pitched and hipped roofs form the bulk of the roof line, though with a wide variety of additional decorative features. There are regular instances of flat-roof and pitched dormers, as well as intersecting gable fronts. The area almost exclusively features pantiles.
Building heights	There is an abundance of bungalows, though there are many houses within the area with "chalet style" roof extensions and dormers, which create a second storey.

Local vernacular

The character area's vernacular is very similar to that of Housing East.

The area features red, brown and sand bricks, with mid-20th century architecture.

Casement windows with uPVC frames are common with some differentiation in facade treatments in the form of a rough cast or render finish.

Soft boundary treatments are common and often used alongside harder interventions such as low brick walls or wooden fences.

Renovations add to the local vernacular, providing a more contemporary feel.

Soft boundary treatments are commonly found throughout the area.

Bungalow with hipped roofs enhancing the overall character within the area.

Street character along King William Street inclusive of generous pavements, grass verges and mature street trees.

View of open fields viewed from Higham Road to the north of the character area. Source: https://www.bing.com/maps?cp=51.974847~-0.419169&lvl=17.1&pi=-5.8&style=x&dir=331.4

View of large trees and green verge forming a gateway onto Norman Road at the junction with Windsor Road. Source: www.geograph.org.uk-Christine Johnson. Copyright and licensed for reuse under Creative Commons License.

3 Manor Road

Manor Road is a primarily residential area on the eastern periphery of the village envelope, buttressing the countryside within the parish. Subsequently, there is a semi-rural feel with leafy boundary treatments that provide enclosure along a stretch of ribbon development which makes up the area. The area is abundant in heritage assets, as well as a mix of architectural styles, material palettes and periods of development.

Development patterns	Manor Road is a linear development, with large detached buildings set along a narrow country-style lane. It is of a meandering character, with two small cul-de-sacs intersecting this route. The size of houses and the presence of Ramsay Manor and Arnold Academy schools give the area a coarse grain, in contrast to much of Barton-le-Clay's village core.
Building lines, plots & setbacks	Owing to the meandering character of Manor Road, the building lines are irregular and generate a more informal character compared to other parts of Barton-le-Clay. Additionally, there is greater variation of setbacks along the route. Plot sizes are larger than the standard within the village core, with generous front and back gardens. Building lines and plot sizes within cul-de-sacs are more consistent in comparison to the rest of the village. In addition to this, the character area is much greener compared to the surrounding neighbourhoods, with large trees, high hedges and rich vegetation bordering the country lane as well as decorating the gardens. At places between properties, long-distance views towards the countryside to the east can also be appreciated.
Roofline	There is a high degree of differentiation within the roofline of this character area, with instances of hipped and pitched roofs throughout and examples of unique additional detailing from building to building. There are instances of intersecting hipped roofs and gable fronts, in addition to some flat and hipped dormers. The roofline often gets interrupted due to gaps between the buildings and tall vegetation.
Building heights	As there is no single architectural style, building heights are less consistent here than in other areas of the village. Typically, buildings will be of one to two floors, though the differentiation in roof types and storey heights add an interesting variety to the overall scale.

Local vernacular

The vernacular of this character area is distinctively varied, underpinned by multiple eras of infill development along this route.

Manor Road features multiple listed buildings such as Elm Tree Cottage and Walnut Tree Cottage that have timber frame, render and thatched roofs. Similarly, Manor House features a mix of red brick, timber frame and render facade treatments.

More recently built properties also use variations of these materials.

Flemish bond red brick, with black weatherboard extension. Wooden casement windows.

More contemporary finish with white render and grey window frames and matching cornice.

Red brick garden wall with lychgate. Facade with mix of Flemish and stretcher bond brick work. Gable fronts with timber frames.

Barton Manor with mixed red brick, clay roof tiles and white render exterior finishes.

20th Century detached and semi-detached housing featuring integrated garages.

Brick terrace houses with pitched slate roof and curved lintels above front doors and ground floor windows.

More contemporary exterior finishes including red brick, light grey render, and slate colour window frames and cornice.

Red brick with sandy brick detailing including quoins and soldier course lintels.

Long private gravel driveway with lawns on both sides. High brick walls and decorative hedges serve as primary boundary treatments.

20th Century housing with high pitched roofs, gable fronts and extruding gable porches.

Contemporary detached house with slate tile roofs, weatherboarding finish on gable dormers and a dormer porch. Sand brick is used with brick course detailing.

Elm Tree Cottage with T-plan, clay tile roof, off cast render and timber frame. Small gable dormers feature wooden casement windows.

4 Conservation Area

This character area covers the historic core of Barton-le-Clay and follows the boundary of the designated Conservation Area. Owing to the various eras of development within the village, there is a wide variance of architectural styles, material palettes and historical features found here. The area contains the greatest concentration of listed buildings within the village, and due to its coverage of much of Barton-le-Clay's commercial core, the area underpins much of the village's overall character.

Development patterns	The area consists of 4 main lines of ribbon developments organised into clusters that front Sharpenhoe Road, Bedford Road, Hexton Road and Church Road. From these key routes, a number of streets branch out, leading to short cul-de-sacs and backland developments. There is a fine-grain pattern to the development, with the greatest concentration of buildings, and thus highest density, along Bedford Road.
Building lines, plots & setbacks	The properties set along Bedford Road and Hexton Road follow a meandering arrangement due to the character of the street, and thus the building lines are slightly irregular. However, due to the higher density, the gaps between the buildings are smaller, causing the general arrangement to appear more uniform. The properties along Sharpenhoe Road follow a more linear arrangement, with buildings either being setback from the street or facing directly onto the pavement. The most notable example of the latter is the row of terraced houses. To the western end of the street, properties have larger setbacks and more generous front gardens which, combined with the open countryside to the south, creates a feeling of openness and connection to nature. Church Road offers a quite different and more rural setting with larger plots, generous back gardens backing the Recreation Ground and smaller setbacks as the properties front directly onto the street. This setting, combined with the rich vegetation that borders the street on the eastern side, generates high levels of enclosure.
Roofline	There is a wide variety of roof types due to the wide range of architectural styles and eras of development. Typically, older cottages will feature hipped roofs and pitched roofs with eyebrow dormers, intersected gable fronts and gable dormers. Older terraces are more homogeneous with pitched roofs and paired chimneys. St Nicholas' Church deviates notably from the roofline with its battlement tower. Where there is a higher concentration of buildings, the roofline is continuous, however, there are also cases where it gets interrupted, either due to larger gaps between buildings or due to the rich vegetation.
Building heights	Building heights within the Conservation Area are exclusively one to two storeys, with a modest scale typical of older buildings that are abundant in the area. The Tower of St Nicholas' Church is the major outlier, standing out as a tall, prominent landmark within the townscape.

Local vernacular

There is a wide array of material palettes used within the conservation area, again owing to differing architectural styles and periods of development.

A mix of red and sand brick is used throughout the area, with examples of English and Flemish bonding and varied bonding frequently observed.

Additionally, there are many examples of timber framed and rendered exterior finishes.

Muntins and sash windows are common, as well as a range of front door casings.

Sand brick terrace with decorative quoins and cornice. Low brick walls and detached coach house to the rear in a similar style.

Cottage with white render and Tudoresque black timber framing. Features a pitched roof with eyelid dormers and clay tiles.

Varied use of brick, render and weatherboarding along Sharpenhoe Road with a consistent building line that fronts directly onto street.

St Nicholas Church with a distinct battlement roof and flint and limestone chequerwork.

Example of thatched roof with decorative ridges and eyebrow dormer.

Decorative painted lintels of varying styles.

17th Century cottage with timber frame and colourwashed brick nogging.

Semi-detached cottages with a Tudoresque black timber frame set within a white render.

Contemporary mews with sensitive exterior finises such as brick stretcher-bond and wooden sash windows.

Painted Flemish bond brick work with decorative course. Gridded sash windows and deco porch.

Methodist church with redbrick and stonework decorative features.

Rendered cottage with gridded casement windows and vegetation growing up the wall.

5 Southern Gateway

The Southern Gateway is a dense area of residential development on the southern edge of the area. It is bounded by two key routes, Luton Road and Old Road, which are the main thoroughfares into Barton-le-Clay from Luton and Hexton, converging towards the main high street. Featured within the character area is the Barton Rovers football ground and the Bowls Club, both key landmarks and leisure facilities in the area. Additionally, there is a mix of architectural styles and typologies, including apartments.

Development patterns	The area is bounded by Luton Road and Old Road forming a super-block of fine-grain residential properties. Luton Road features a stretch of ribbon development along its eastern side and a portion of backland development at Stanbridge View. Conversely, cul-de-sacs stem from Old Road, with a chamfered gateway along Washbrook Close for onward access to additional residential routes and an instance of Radburn development. There are a series of terraced maisonettes at Gale Court and coarse-grain leisure buildings associated with the Bowls Club and Barton Rovers football ground.
Building lines, plots & setbacks	Plot sizes are consistent throughout the character area, predominantly featuring detached and semi-detached housing. However, there are larger plots along the southern section of Luton Road where properties feature larger back gardens. In contrast, plots around the Bowls Club and the football ground are naturally larger. The building line is relatively consistent, particularly along Luton Road and Old Road as most properties are set along these key routes.
Roofline	The roofline within the area is varied, featuring a mix of hipped and pitched roofs, many with intersecting gables or gable-fronted dormers. The main differentiation in the roofline is set around the Barton Rovers football ground, as many of the stands and associated buildings feature flat roofs.
Building heights	Building heights are relatively consistent, with buildings having either one or two storeys. Any variation stems from differences in roof pitch or individual storey heights.

Local vernacular

The area features a wide range of architectural styles from multiple eras of development.

These range from mid-20th to early-21st Century typologies.

Subsequently, materials include red and sand brick with render, mock Tudor and weatherboarding commonly used as exterior finishes.

Higher density housing, including maisonettes and terraces, in a typical post-war style.

Wide grass verges buffering key vehicular residential routes with mature trees and segregated pavements.

M-Style intersecting gable roofs with mixed exterior finishes, including render and pebbledash.

Semi-detached house with a shared gable front and a mix of hipped and jerkinhead roofs.

Semi-detached cottage with hipped porch extension, cream render and casement windows.

Detached house with an uncommon example of a mansard roof, bay windows and rounded lintel above the front door.

Semi-detached housing with brown and red brick mixed with pebbledash render used for facade treatments.

Barton Rovers football ground. A major influence on vernacular with open spaces. Use of pre-fabricated and flat roof buildings.

Detached house with gabled dormers and an external garage. Hedgerows, fencing and brick walls used as boundary treatments.

Use of black weatherboard for small pitched dormers and the rare use of a catslide jerkinhead roof.

More contemporary architectural styles stand out among later 20th Century properties. Primary use of brick and clay roof tiles provide the distinction.

Sensitive renovations and extension to post-war housing. Utilising render and brick with extension to the side matching the scale and architectural features.

6 Housing West

This character area covers a large region to the west of Barton-le-Clay characterised by its sprawl of latter 20th and early 21st Century housing. Buildings are set primarily along cul-de-sacs, though there is a section of ribbon development along the northern portion of Bedford Road which runs through the area. The area is primarily residential, though exceptions include the Waggon & Horses pub and Co-operative supermarket.

Development patterns	The area almost exclusively features fine-grain development set along cul-de-sacs. These predominantly stem from Grange Road, a long residential route, which lacks any through connectivity to adjoining major routes apart from the northern access point to Bedford Road. To the west of the area, development buttresses up against the A6 bypass, and to the east there is ribbon development along Bedford Road. There is a good number of footpaths allowing pedestrian connectivity between neighbourhoods, as well as Bedford Road and therefore to other neighbourhoods to the eastern side of the area.
Building lines, plots & setbacks	In general, this character area matches the style of character area 1 (Housing East) in terms of building lines, plots, orientations and setbacks. More specifically, a level of informality is introduced by the meandering character of Grange Road and the irregular building lines and orientations. However, the plot sizes are smaller compared to the rest of the village, due to the higher building density, which results in smaller front and back gardens. Exceptions to this include the two houses, the manor in the corner of Grange Road and Grange Farm Close and the listed cottage at the intersection of Grange Road and Fisher Close. Both of these are characterised by generous setbacks and are bordered with rich vegetation that mitigates any views from surrounding properties. The green spaces integrated within the built environment offer pedestrian links between neighbourhoods and are a positive element that enhances the feel of openness in the area.
Roofline	The vast majority of buildings within the area feature pitched roofs. Many of these show additional detailing including gabled dormers and intersecting gable fronts. A few properties feature mansard roofs and hipped roofs, though these are uncommon.
Building heights	Building heights within this character area are exclusively one to two storeys with very little deviation through differing storey and roof pitch heights.

Local vernacular

It is very clear that the materials and styles used in this character area were done with respect to the local vernacular of the area.

Despite homogeneity of building types, a range of material palettes have been leveraged throughout.

Around the character area are instances of red and sand brick with additional quoin and corbel detailing. Additional facade treatments include white render and mock Tudor timber frames.

There is an abundance of uPVC casement windows and clay pantile roofs around the area as well.

Semi-detached houses arranged at the end of a cul-de-sac. Light brick with red brick course and quoin detailing.

Red brick semi-detached housing with brick corbels and a mix of side and front facing porches.

Semi-private brick paved street with setbacks for lawns and on plot parking. Mixed facade treatments such as brick, render and tile.

Red brick detached house with corbel detailing, wide rounded lintels and a prominent porch.

Distinct row of terraced houses with wide front facing porch set within a slate tile catslide roof. Rare use of weatherboarding.

Large detached house with hipped roof and intersecting gable. Also features internal garage and bay windows.

Rare mix of red brick and black weatherboard. Ample setbacks for driveways and lawns. Features slate tile roof with gable dormers.

Picket fence, hedgerows and trees used as boundary treatments while allowing for transparency of use.

Consistent rhythm of gable fronts reinforce the vernacular. Off -plot parking creates distinction within the street's character.

Contrasting detailing and material palettes broadly retain the overall architectural style, reinforcing the vernacular.

Infrequent clusters of mock Tudor style with timber framing and render mixed with redbrick. A further example of slate tile catslide roof.

Terraces with off-plot parking front onto a play space bounded by hardscaped path with grass verge.

7 Commercial Extension

This area covers Barton Industrial Estate and the Old Watermill. These areas are set away from the main village envelope within large secluded plots, buttressed by fields and the busy A6 bypass. Its character predominantly lies in stark contrast with that of the rest of the village, which has more residential land use and human scaled features. This is particularly the case within Barton Industrial Estate, where the dominant typology includes offices and warehouses. Furthermore, the Old Watermill, a Grade II listed, 18th Century building demonstrates the village's heritage value.

Development patterns	The area consists of predominantly coarse-grain commercial warehouses arranged in a rectilinear pattern within Barton Industrial Estate. This is a large, secluded light industrial estate set away from the main village envelope and accessed solely from Faldo Road, which links to directly with the A6 bypass. Another secluded portion within the character area includes the Old Watermill, which has recently been converted into a small shopping centre. There are two pedestrian paths leading onto the A6, however, these are not formal pedestrian crossings, and thus discourage people from using them.
Building lines, plots & setbacks	Building plots are uniformly large owing to the prevailing building use within the character area. Additionally, there are large areas dedicated for surface parking and use for loading and servicing. As there is no formal relationship with any particular route, there is no discernible setback. However, the rectilinear building pattern ensures a consistent building line.
Roofline	Within the Barton Industrial Estate, many of the warehouses feature pitched roofs, with standout examples of sawtooth and flat roofs. Contrastingly, around the Old Watermill, there is a variety of roof types, including gambled, pitched and skillion roofs.
Building heights	Buildings within the Commercial Extension character area are typically taller than the rest of the parish. While some warehouses may have one or two storeys, their commercial use subsequently requires greater height within each storey. Additionally, the Old Watermill features a taller three storey building.

Local vernacular

Around Barton Industrial Estate is an abundance of corrugated steel and cladding.

These are often used alongside red, sand and brown brick. Fenestration includes steel shutters, as well as jalousie and casement windows which contribute to the industrial character.

The Old Watermill features material palettes that demonstrate the building's heritage value.

These include black and white weatherboarding, red and sand stretcher bond brick work, black framed sash windows with muntins and a projecting gabled hoist.

Exposed warehouse with corrugated steel pitched roof.

Brick and cladding mix with windows. Mixed light industrial and office use.

Mix of corrugated steel and brick work. Lack of windows enhances the industrial feel.

Wide and open road with sporadic parking. No delineated parking bays or pedestrian areas.

Distinct row of terraced black weatherboarding and mix of brick colours used as facade treatments.

Gravel parking and light landscaping around the Old Watermill Shopping Village.

White weatherboarding with gridded black windows. Projecting hoist previously used for industrial purposes.

Sawtooth roof style with gridded casement windows. A light industrial building featuring more architectural interest.

Grass verges serve as boundary treatments around commercial industrial estate.

Corrugated steel facade treatments on extension to a more prominent office building.

Gable porch with uPVC windows. Main building featuring a flat roof.

A mix of brick and other cladding. Example of commercial branding serving as a prominent feature on a building facade.

Summary table (positive characteristics)

Positive characteristics in Barton-le-Clay that could act as references in future development	Relevance to the design guidelines and codes in Chapter 3
Barton-le-Clay's rich local vernacular should be appreciated and promoted in new developments. There is a great variety in roof types and materials, wall finishes, boundary treatments and other decorative features.	DG.1 Materials & architectural details DG.3 Development in close proximity to heritage assets
Natural boundary treatments prevail in the area. These should be preserved and encouraged in new developments. However, harder surfaces like low-height timber fencing or brick walls are also welcomed to offer some variety along the streetscape.	DG.11 Promoting biodiversity in private properties
There is a variety of street qualities within Barton-le-Clay that create different atmospheres and characters along the streetscape. These characters include main roads, secondary streets, country lanes, tree-lined streets, 'shared' lanes, well-vegetated streets with large green verges and pavements etc. These street qualities found in Barton-le-Clay need to be preserved and used in future developments.	DG.4 Patterns of growth DG.9 Parking and servicing
The levels of enclosure vary throughout Barton-le-Clay which creates visual interest along the streetscape. The different levels of enclosure are generated by the width of the road, the setback of the buildings and green elements featured along the streets. This variety should be preserved in new developments.	DG.4 Patterns of growth DG.5 Development edges in the rural landscape
Barton-le-Clay is generally a 'green' village surrounded by woodlands and in close proximity to the AONB area, while natural boundary treatments prevail within the built environment as well. Green assets should be preserved and enhanced in any new development.	DG.5 Development edges in the rural landscape DG.11 Promoting biodiversity in private properties
Topography is a key characteristic of Barton-le-Clay, allowing for views to the surrounding countryside which should be considered in any new development.	DG.8 Views
There are different development patterns in Barton-le-Clay, each one creating a distinct sense of place. These patterns are influenced by street layouts, the proximity or distance to the open fields and woodland areas, the landscape and the scale of development. Any new development should understand the local patterns of development before suggesting any design.	DG.4 Patterns of growth DG.5 Development edges in the rural landscape
There is a mixture of housing sizes that should be preserved and enhanced by any new development to ensure overall compliance with the housing needs survey.	DG.2 Housing mix

Summary table (potential threats and issues)

Characteristics in Barton-le-Clay that are considered as issues and threats and should addressed by design guidelines and codes	Relevance to the design guidelines and codes in Chapter 3
While infill development is preferred compared to larger developments, issues of overlooking, site coverage, architecture and housing mixes should be considered in future designs.	DG.6 Infill development DG.1 Materials & architectural details
The setting of the listed buildings or unlisted buildings of great historic significance should be respected by potential nearby developments. New developments should be sensitive in terms of materials, scale and massing whilst ensuring all important views are not blocked.	DG.3 Development in close proximity to heritage assets
There should be a housing mix in the area to meet the needs of the wider community. At the same time, any new development, of any scale, should be sensitive in scale and massing with the surrounding environment.	DG.2 Housing mix
Views towards woodlands and open fields are under threat in new developments.	DG.7 Building scale & massing DG.8 Views
Gates or high walls with no gaps should be avoided as they erode the general character of the area and also block the movement of wildlife.	DG.4 Patterns of growth
Provision of car parking should be appropriate of the development to avoid having cars parked on the pavement or green verges. All new parking area's formed for any development should be permeable SUDS Design based surfaces.	DG.9 Car parking
Loss of character due to new developments that are out of keeping with the general rural and mixed environment. Some examples are the use of materials which do not reflect the local vernacular, 'executive' style houses that bring no variety in the local context, lack of mixture of housing sizes, flat roofs instead of pitched roofs, smaller building plots etc.	DG.1 Materials & architectural details

Design guidelines and codes

03

3. Design guidelines and codes

This chapter provides design guidance aiming to shape future development, of any scale, in the parish including infill development and house extensions or conversions. Where possible, images and diagrams are used to exemplify the design guidelines.

The Central Bedfordshire Design Guide (Jan 23) presents a number of design guidelines and codes that should be applied in the county[1].

This design guidance refers to context & identity, built form, movement, nature, public spaces, uses and homes & buildings.

3.1 Introduction

The CB Design Guide (Jan 23) is based on the 10 characteristics of good places that contribute to good design outlined by the National Design Guide.

AECOM's Design Guide intends to add to the CB Design Guide with guidance that refers specifically to Barton-le-Clay Parish.

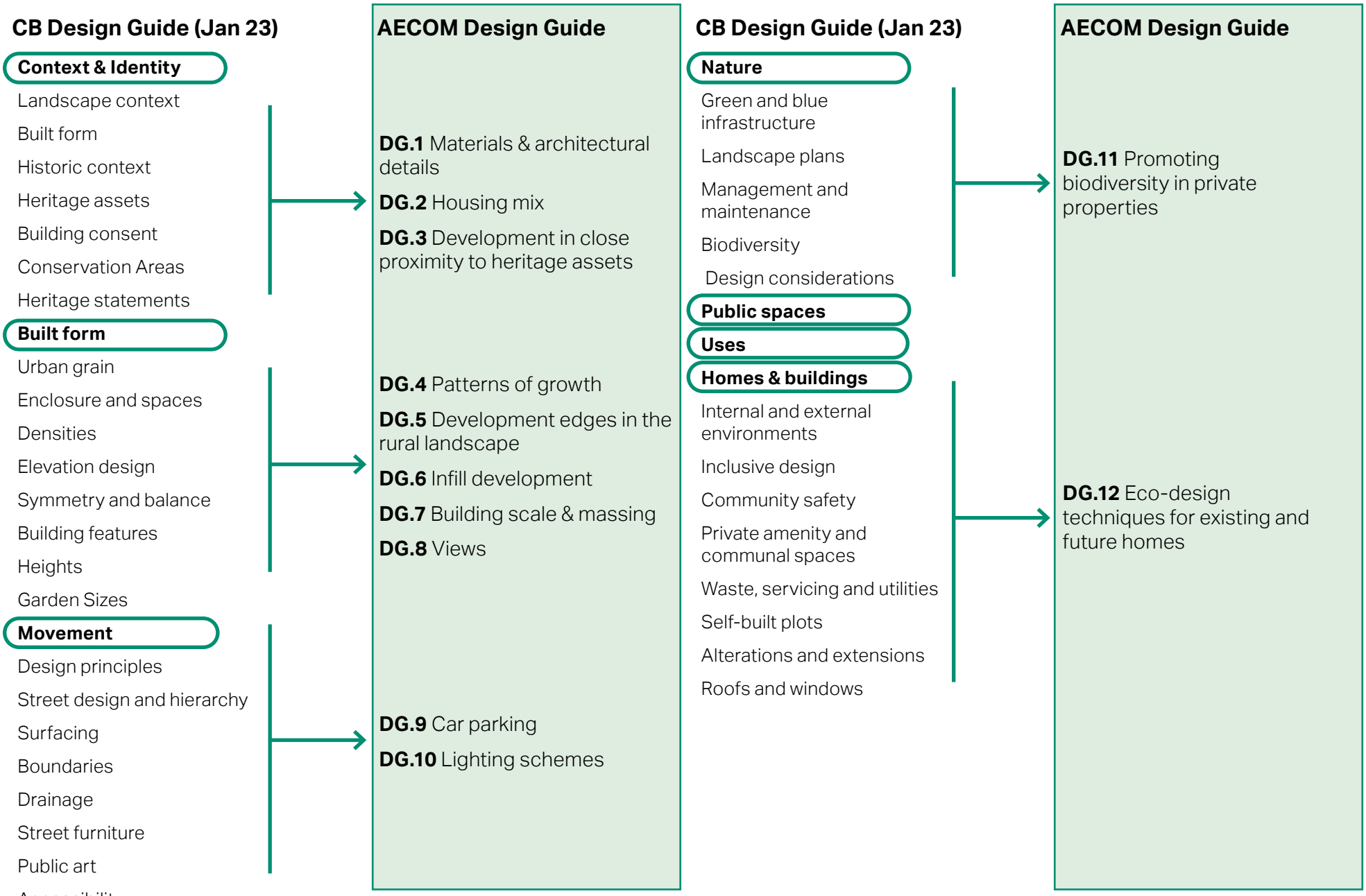
A set of design guidelines and codes will be presented, regarding key aspects/ characteristics of the area. Those guidelines are not fully covered by the CB Design Guide or other planning documents and thus, more detailed guidance is required.

Overall, both design guides should be taken into consideration when planning for future developments of any scale.

The table on the next page offers an overview of the design guidelines and codes presented in Chapter 3.

Figure 03: The 10 characteristics of well-designed places. (Source: National Design Guide, page 8).

1 Central Bedfordshire Design Guide. Available at: https://www.centralbedfordshire.gov.uk/info/44/planning/442/design_guide


CB Design Guide (Jan 23)
Context & Identity
Landscape context
Built form
Historic context
Heritage assets
Building consent
Conservation Areas
Heritage statements
Built form
Urban grain
Enclosure and spaces
Densities
Elevation design
Symmetry and balance
Building features
Heights
Garden Sizes
Movement
Design principles
Street design and hierarchy
Surfacing
Boundaries
Drainage
Street furniture
Public art
Accessibility
AECOM Design Guide
DG.1 Materials & architectural details
DG.2 Housing mix
DG.3 Development in close proximity to heritage assets
DG.4 Patterns of growth
DG.5 Development edges in the rural landscape
DG.6 Infill development
DG.7 Building scale & massing
DG.8 Views
DG.9 Car parking
DG.10 Lighting schemes
CB Design Guide (Jan 23)
Nature
Green and blue infrastructure
Landscape plans
Management and maintenance
Biodiversity
Design considerations
Public spaces
Uses
Homes & buildings
Internal and external environments
Inclusive design
Community safety
Private amenity and communal spaces
Waste, servicing and utilities
Self-built plots
Alterations and extensions
Roofs and windows
AECOM Design Guide
DG.11 Promoting biodiversity in private properties
DG.12 Eco-design techniques for existing and future homes

Context & identity

DG.1 Materials & architectural details

Barton-le-Clay Parish has a wide variety of architectural styles and details, presented in Section 2.2, that can act as references for new developments.

New developments should be respectful of architectural styles and use of materials of surrounding housing, while ensuring that a mix of styles are provided that is in keeping with the Barton-le-Clay Parish style and colour palette. Some design guidelines for new developments are:

- Architectural design in new developments shall reflect the high quality local design references in both the natural and built environment and make a valuable contribution to the character of the area;
- Buildings should be finished with materials appropriate to the local context. Special consideration should be given to materials particularly representative of Barton-le-Clay's vernacular: red and yellow brick, limestone, render, tile and brick detailing, weatherboarding and timber frames with brick and render infills;
- The choice of colour and finish of materials is an important design factor in reducing the impact of the buildings on the surrounding landscape. Generally, large areas of intense strong colours do not blend well with the rural landscape. Muted and darker tones could be a better option;
- The use of traditional, natural and preferably locally sourced materials is generally more appropriate than man-made synthetic, pre-coloured materials, as these lack the variation in colour and texture found in natural materials; and
- Architectural details appropriate to the local vernacular can be used, for example there are instances of pitched and hipped roof dormers on buildings across the parish, which add informality and interest to the roofline. Dormers should be of an appropriate form, scale and material. See DG.7 for more information on dormer design.

Figure 04: Example of the local vernacular of Barton-le-Clay: use of limestone.

Figure 05: Positive example of development that enhances the local vernacular of the area: timber frame with render and brick infills.

Context & identity

DG.2 Housing mix

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

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

- New development should propose a mix of housing to include a range of house types and sizes, both developer and self built, to allow for a variety of options and bring balance to the population profile. The existing mix of housing in the village should also be enhanced; 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 06: Local example of a bungalow.

Figure 08: Local example of detached houses.

Figure 07: Local example of terraced housing.

Figure 09: Local example of semi-detached houses.

Context & identity

DG.3 Development in close proximity to heritage assets

There is a good number of heritage assets and non-designated buildings of historic significance in Barton-le-Clay that contribute to the local vernacular, as well as green assets such woodlands, hedgerows, hedges and trees. Thus, it is very likely that new developments will be in close proximity to those assets and for that reason design guidelines are needed to ensure that any new design stimulates ways in which they could be further promoted and protected:

- New developments in close proximity to a heritage asset must respect its significance and demonstrate how local distinctiveness is reinforced. For example, the new development should allow for a generous setback from the asset and be of a massing and scale that is sensible to the neighbouring structure;
- New development proposals should not block key views to and from heritage assets. This should be achieved through proposing appropriate density and design features including footpaths and green links;
- New developments should retain the existing open spaces, vegetation and trees to preserve the historic form and pattern of development close to the asset; and
- New developments should propose architectural details and materials that match the ones used in the surrounding heritage assets to preserve and respect the local vernacular. More details on the local vernacular and materials are found in Section 2.2 and DG.1.

Figure 10: Local example of soft edge treatment, rich vegetation and low density retain the openness and the natural character.

Figure 11: Positive local example of recent development in close proximity to a listed building. The massing of the newer buildings and their generous distance from the heritage asset allows for clear and unobstructed views. In addition, the natural boundary treatments around the site enhance the setting and offer an extra level of buffer with the surroundings.

Figure 12: Positive local example of edge treatment and setting of a landmark building in the area. The building is setback from the main road and bordered with a rich high hedge, allowing for a generous gap between itself and the rest of the built environment as well as improving the natural environment of the area. The setting of the building establishes it as a focal point within the area.

Built form

DG.4 Patterns of growth

As analysed in Section 2.2, there are 3 main patterns of growth within Barton-le-Clay; the linear layouts, permeable blocks and cul-de-sac developments, with each one presenting different qualities in terms of street layout, buildings lines, plot sizes and widths. In addition to this, the close relationship with the countryside contributes to the character of these patterns. Thus, any new development should suggest design that matches the existing patterns of growth. Some design guidelines are:

- New developments must demonstrate a good understanding of the different patterns of growth, building orientation, building lines and building setbacks of the surrounding built environment and propose design that is sensitive to the local context. For example, small-scale developments within the existing fabric should suggest design that matches the neighbouring streets and neighbourhoods, while larger scale developments should propose a mixture of all three patterns to reflect the character of the area;
- New developments must demonstrate a good understanding of the scale and massing of the surrounding built environment and avoid proposing design that exceeds the surrounding roofline and creates unpleasant views to the existing properties;
- The building densities of the new developments should be sensitive to the surrounding area. In general, the average density in the area should be around 35 dph (dwellings per hectare). This density fits with the prevailing character of the settlement, but still seeks to maintain efficient use of land. In case of higher densities, for instance in the central core along the main road, density could go slightly higher to around 45 dph. Towards the edges, any design proposal should be around 25-30 dph to allow for a smooth transition into the countryside. In general, any proposal that would adversely affect the environment, or give rise to an unacceptable increase in the amount of traffic, noise or disturbance, must be avoided;
- Building setbacks and building lines should be slightly irregular to match the general character of the area. Long stretches of regular building lines must be avoided as they distract from the local context;
- The size of plots and their patterns should be varied to reflect the character of the area;
- The sizes of front and back gardens should be varied to reinforce the character of the area. Any developments along the edges should propose larger back gardens to allow for green buffers with the surroundings countryside;
- Existing hedges, hedgerows and trees should be integrated into design, while more planting and vegetation is encouraged to form part of the green network strategy; and
- Appropriate signage should be incorporated along the road to indicate the low speed limits or provide navigation.

Built form

Figure 13: Local example of a generous front garden covered with greenery, permeable paving for parking and flowerbeds and trees. This is a positive example that enhances biodiversity, while also improving the aesthetics of the area.

Figure 14: Local example of generous green verges fronting some local shops and improving the surrounding environment as well as creating a feel of openness in the area.

Figure 15: Local example of houses set along a driveway, which is bordered with railings, trees and flowerbeds, to free up the space required for footways and green verges as well as to mitigate views of vehicles.

Figure 16: Local example that illustrates a variety of building orientations and irregular building lines that create interest along the streetscape.

Figure 17: Local example of a linear layout characterised by regular building lines and smaller or lack of front gardens.

Figure 18: Local example of a rural lane where nature prevails over the built environment.

Built form

DG.5 Development edges in the rural landscape

Barton-le-Clay is surrounded with natural landscape and open fields that offer long distance views to woodlands and other landmarks such as Barton Hills. The existing built environment treats the edges in two ways; either fronting the open countryside, for example along Higham Road, or backing it with green buffers to offer a smooth transition into it. Both approaches aim to protect the countryside and any future development should follow the same example. Some design guidelines on how new development should treat rural development edges are:

- New developments should conserve existing native trees and shrubs along the lanes and within any potential development site and incorporate any green/ecological asset within design. Any unnecessary loss of flora should be avoided. For example, the development along Hanover Place fronts onto a generous green verge with large trees that offers a green buffer between the built environment, the main road and the open fields;
- New developments that back the countryside should be bordered with rich vegetation, including native trees and hedgerows, as shown in Figure 19. Abrupt edges with little vegetation or landscape on the edge of the developments should be avoided. An example is how the western neighbourhoods are bordered with a green buffer which mitigates the noise coming from the A6 and any views to the built environment;
- New developments that front onto the open countryside should propose edge lanes that have a more informal, shared, character, while building lines should be slightly irregular to create a countryside feel, as shown in Figure 21.
- Edges must be designed to link rather than segregate existing and new neighbourhoods. Therefore, green corridors should be proposed to provide additional pedestrian and cycle links that will improve connectivity between neighbourhoods and contribute to the successful integration of any new developments within the parish; and
- New developments adjoining public open spaces should face onto them, as shown in Figure 20, to improve natural views and vistas.

Built form

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

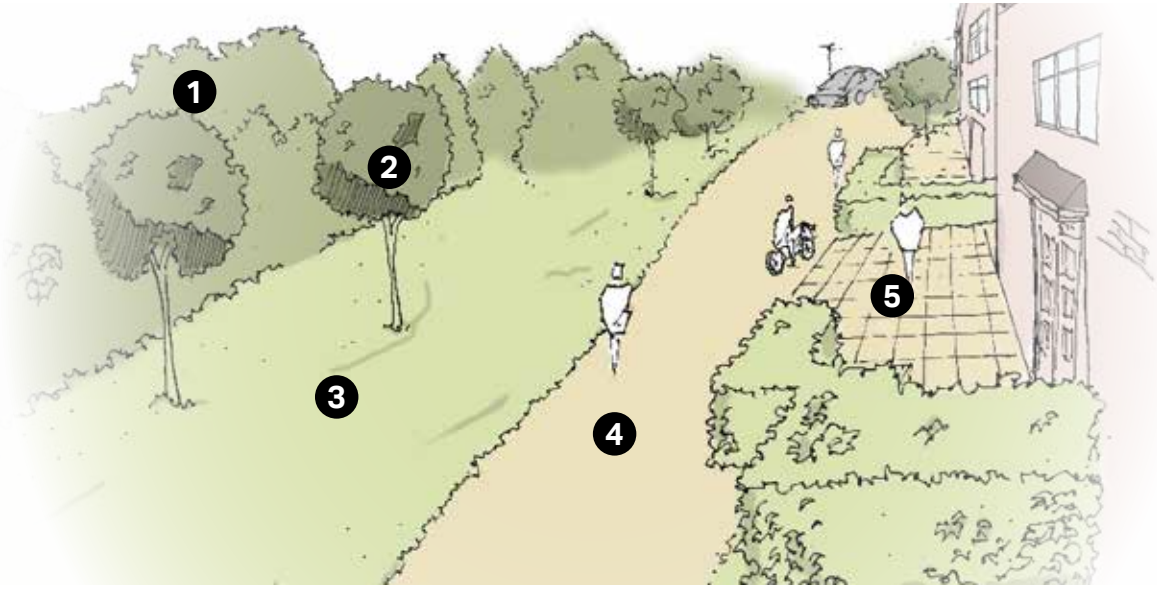


Figure 19: Sketch to illustrate some principal design guidelines that should be followed when new development backs the open countryside.

Figure 20: Local example of houses fronting onto an open green space. This setting creates a feel of openness in the neighbourhood, while enhancing natural surveillance.

Figure 21: Example of an edge lane, elsewhere in UK, where buildings front the landscaped area. The shared surface allows different users to co-exist peacefully.

Built form

DG.6 Infill developments

There is a good number of infill developments in the area. In general, the design of smaller scale developments can be challenging as it needs to sit sensitively within the surrounding context. Some design guidelines for infill sites are:

- Infill developments should complement the street scene into which it will be inserted. It does not need to mimic the existing styles, but its scale, massing and layout need to be in general conformity with the surroundings. In particular, infill development should not be located too close to existing buildings and should not be of a larger scale which dwarfs neighbouring properties and/or presents overlooking issues;
- The building to plot size ratio of infill developments should ensure a good amount of outdoor amenity space. There are varying sizes of front and back gardens in Barton-le-Clay, though in general most properties are set back to include both, front and back garden. At the edges of development where it is more rural, larger gardens are more common. Infill development should follow the existing context while also meeting national standards;
- The building line of new development should be in conformity with the existing. Where there is an existing strong building line, for example with terraced or dense groupings of houses, the building line or infill should be similar in order to preserve the character of the street. In other cases where the building line is more informal, for example in less dense areas, a more varied building line is acceptable;
- The density of any new infill development should reflect its context and its location in the area. The optimal density will respond to surrounding densities while making efficient use of the land; and
- Where there are opportunities for infill development, proposals should retain existing views and vistas between buildings and along view corridors wherever possible.

Figure 22: Local example of a positive infill development which matches the surrounding context in the figure 23 below.

Figure 23: Apart from the local materials, the scale, massing and setting of the infill development respects the surrounding properties and adds to the local vernacular.

Built form

Backland development

Backland development is generally found in the area and shares similar challenges like the ones in the case of infill developments. Other issues with forms of backland development arise from loss of privacy, daylight and access, as well as parking problems. Therefore, if possible, backland development is generally discouraged. Any proposals must consider the effect on wildlife, biodiversity, street scene, traffic and amenity space of neighbouring properties.

Some additional design guidelines, apart from the ones covered with infill developments, are:

- Road safety for backland development should be ensured. New developments should not be accessed from main roads or at points in the roads with limited visibility, such as junctions. For example, the infill development along Bedford Road, opposite to The Shack, offers a courtyard parking which serves the backland development south of it, while the latter is only accessed via a footpath from the main street. This arrangement meets the parking requirements and ensures safety; and
- Backland development should be bordered with rich vegetation to avoid causing privacy issues to the surrounding properties.

Figure 24: Local example of backland development that respects the surrounding context of the area, adding positively to the local vernacular (3). The footpath (1) leading to the development is bordered with hedges and trees, offering a level of privacy to the surrounding properties while enhancing the environment. Lastly, the courtyard parking (2) located, in the infill development to the north, meets the car parking requirements as well as avoiding an access road from the main street.

Built form

Privacy and space between buildings

Any proposed backland or infill development must not cause an unacceptable impact on the residential amenities of adjacent residential properties.

Hedges and fences usually protect privacy at ground floor level, so any privacy issues tend to arise from upstairs windows either looking into neighbours' windows or down into their private garden space.

To avoid overlooking of habitable rooms and gardens, a minimum distance of 15m should be achieved between dwellings where a side elevation of one dwelling faces a rear elevation of another. If, however, both sides have habitable room windows then, the distance should be 21m. Where a side elevation is windowless, the separation distance can be reduced to 12m.

Where dwellings with facing elevations are positioned on different levels, the above separation distances should be increased by 2m for every 1m difference in level. This rule does not apply to single storey elements.

Where there is a level difference and distances are increased, the lower dwelling should have the longer garden to compensate for any slopes or retaining structures.

Future housing developments should design the spacing between dwellings to allow for retrospective introductions of garden and cycle storage as well sustainable measures such as air source heat pumps.

CB Design Guide (Jan 23) includes minimum garden spaces requirements for each typology (from 1 bed - 5 bed houses)[2].

2 https://www.centralbedfordshire.gov.uk/info/44/planning/442/design_guide

Space between side elevations should allow for breaks in the building line to protect views and provide adequate space for access and storage

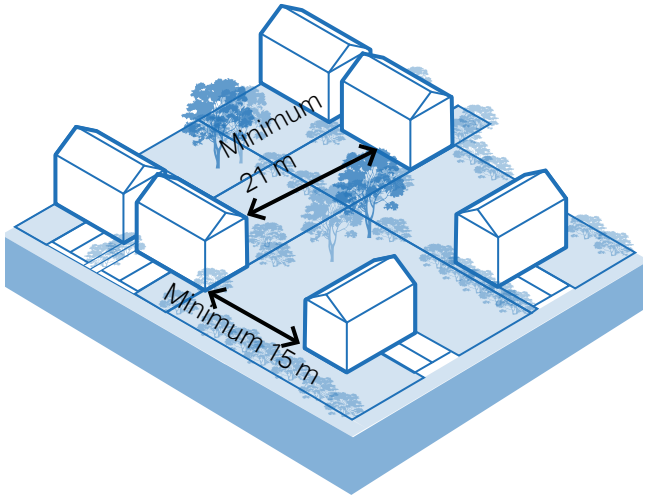


Figure 25: Diagram showing privacy and space between buildings

Built form

DG.7 Building scale and massing

Building heights in Barton-le-Clay are predominantly one and two storeys. Some guidelines for new development are:

- New buildings should be sympathetic in scale to the context of the site and its surroundings to preserve the character of the area. For example, if there are woodlands or backdrop vegetation, the massing of the new buildings should be lower to allow for views towards those green assets;
- The massing of new buildings must ensure a sufficient level of privacy and access to natural light for their occupants and avoid overshadowing existing buildings. New buildings must not significantly compromise existing property views of open and green spaces and big skies;
- Subtle variations in height should be created by altering eaves and ridge heights to add visual interest. The bulk and pitch of roofs, however, must remain sympathetic to the tree canopy, the local vernacular and the low-lying character of the area. Another way to achieve visual interest could be by varying frontage widths and plan forms; and
- Landmark buildings and focal points at junctions and corners could be of slightly larger scale compared to the rest of the development, however, those should not detract from the overall character of the area.

Figure 26: The consistent building massing is also characterised by subtle variations generating a roofline that respects the surrounding context.

Built form

DG.8 Views

The location of the parish allows for extensive views to the surrounding countryside as well as rich backdrop vegetation and woodlands. In addition to this, there is a number of short-distance views towards local green spaces and buildings of historic importance.

Any new development needs to acknowledge the existence of all those elements and stimulate ways in which those assets could be further promoted and protected. Some design guidelines are:

- New development proposals should maintain open views towards the surrounding landscape, for example Barton Hill Nature Reserve. Development density should allow for spaces between buildings to preserve views of the countryside setting and maintain the perceived openness of Barton-le-Clay;
- Scenic and tranquil views to the countryside should be retained and enhanced in future development. For example, footpaths bordered with rich vegetation can help protect particular views while improving walkability in the village;
- The roofline of any new development should be set lower than the backdrop vegetation, avoiding hard lines of the silhouette against the sky;
- The roofline of any new development should not create unpleasant visual impacts on surrounding neighbourhoods. Vegetation should be proposed to act as a buffer between existing and new developments; and
- Creating short-distance views broken by buildings or trees helps to create landmarks and memorable routes. New buildings should not obstruct views that are framing the woodlands backdrop of the area, which are deemed important locally.

Figure 27: A positive local example of a well-vegetated footpath which also offers long-distance views to the neighbouring communities.

Figure 28: A positive setting, within the Conservation Area, where the long-distance view towards Barton Hill Nature Reserve is preserved and enhanced by the tree-lined road.

Movement

DG.9 Parking and servicing

Although the aim to create a good network of walking and cycling routes within Barton-le-Clay 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 on-plot garage parking, parking courts and on-street parking.

The design guidelines on the next pages will focus on the above mentioned typologies.

Guidelines for on-plot & front car parking

- Parking should be well-integrated into the design, 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 character of the parish; and
- Hardstands and driveways must be constructed from porous materials to minimise surface water run-off and to help mitigate potential flooding.

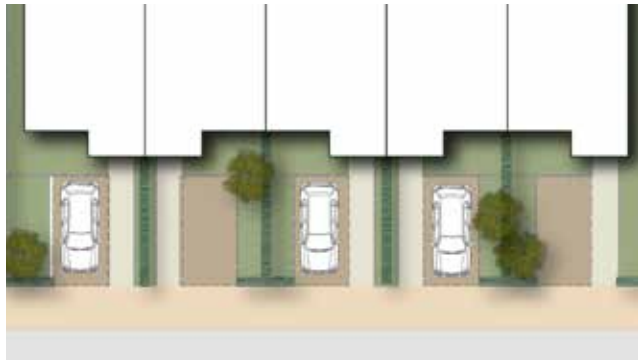


Figure 29: Illustrative diagram showing an indicative layout of on-plot front parking.

Figure 30: Positive example of on-front car parking with natural boundary treatments and permeable paving, Barton-le-Clay.

Guidelines for parking courts

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

Figure 31: Positive example of court parking bordered with hedges and trees and overlooked by properties to offer natural surveillance, Barton-le-Clay.

Movement

Guidelines for on-street car parking

- The streetscape should not be dominated by continuous on-street parking spaces. Where possible, tree planting and grass areas can be incorporated between parking bays to improve aesthetics;
- On-street parking can be parallel or perpendicular 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 the ability to charge electric vehicles.

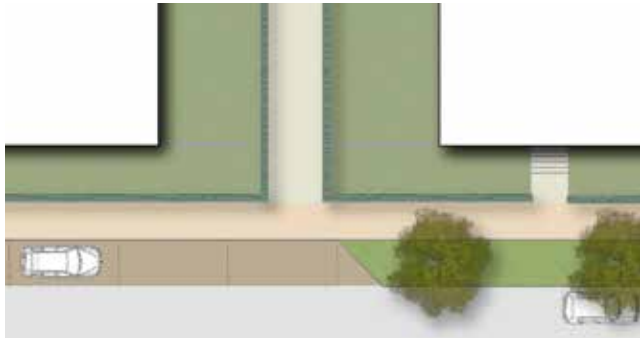


Figure 32: Illustrative diagram showing an indicative layout of on-street inset parking.

Figure 33: Example of on-street parking with parking bays and street trees to mitigate the impact of cars on the streetscape, Poundbury.

Figure 34: Positive example of on-street parking bordered with hedges to mitigate views of the vehicles, Barton-le-Clay.

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 a minimum of 3m x 7m internal space to park a car and provide space for storage to avoid the garage to be used for storage purposes only.

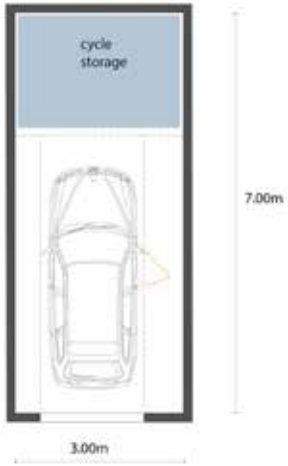


Figure 35: Indicative layout of a garage with a cycle storage area.

Movement

Cycle parking

Houses without garages

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

Houses with garages

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

Figure 36: Example of cycle parking for houses without garages, Cambridge.

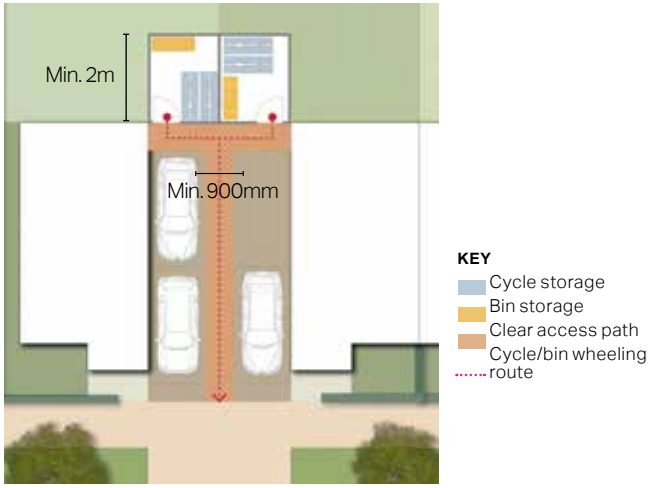


Figure 37: Indicative layout of a bicycle and bin storage area at the back of semi-detached properties.

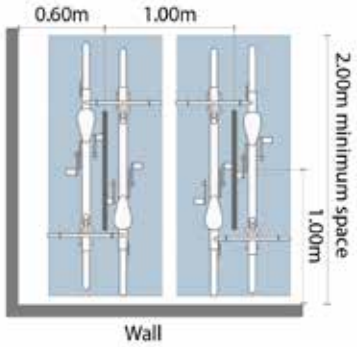


Figure 38: Sheffield cycle stands for visitors and cycle parking illustration.

Movement

DG.10 Lighting schemes

The incorporation of street lighting in any new development should be carefully considered and designed in order to preserve the rural character of Barton-le-Clay and minimise light pollution to benefit both people and wildlife.

In order to meet the need for adequate street lighting within residential areas, while also retaining dark skies and the rural character of the parish, low-level lighting solutions can be applied. This includes lighting schemes that could be turned off when not needed ('part-night lighting') as well as down looking lighting. Examples of low-level lighting solutions are shown on this page.

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

Figure 39: Example of up-lighting which is used to illuminate the trees within a property.

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

Figure 41: Example of down-lighting which was used to illuminate the pathway.

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

Figure 40: Example of backlighting used at the back of a bush to create a glowing effect.

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

Figure 42: Example of down-lighting which was used to illuminate the pathway.

Nature

DG.11 Promoting biodiversity in private properties

The area contains a rich variety of natural habitats of a local, national and international importance. The opportunity to avoid dangerous levels of global warming is closing and action is required at all levels from the international to the individual. Biodiversity could be highly impacted and should be protected through design. Some design guidelines are presented below:

- Development should protect and enhance the existing habitats, for example traditional orchards, woodlands and hedgerows, as well as local species. In particular, development should help increase movement between isolated populations and provide escape cover from predators and shelter during bad weather;
- A variety of measures could be retrofitted into existing front and rear gardens to enhance biodiversity and movement of species. For instance, bird boxes, pollinator gardens, bat boxes, hedgehog houses or bug hotels. These additions, apart from enhancing biodiversity, could improve the surrounding environment;
- Development should respect the existing natural boundary treatments, while new ones should be designed to allow for the movement of wildlife and provide habitats for local species e.g. hedgehogs. For instance, trees, hedges and hedgerows should be preserved;
- Boundary treatments at properties should encourage the movement of species and avoid blocking it. For example, timber fencing, although generally recommended, should have gaps between the panels to allow for permeability;
- The open landscape around Barton-le-Clay should be protected. In addition, footpath links should be bordered with rich vegetation to allow for the movement of species; and
- Blue assets can also contribute to biodiversity connectivity. Proposals for pond habitats and rain gardens could be implemented into existing open spaces and enhance biodiversity, while also improving the aesthetics of the environment.

Nature

Figure 43: Example of a structure used as a frog habitat corridor located in an outdoor green space.

Figure 44: Example of a bug hotel that could be placed in the front or rear garden of a property.

Figure 45: Example of a bat box placed in the front or rear garden of a property,

Figure 46: Example of a bird feeder located on a grass area opposite a public footpath.

Figure 47: Example of a pollinator garden that could be placed in a communal green space within the built environment.

Figure 48: An example of a SuDS corridor - Upton Urban Extension, Northampton.

Homes & buildings

DG.12 Implementing eco-design principles into homes

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

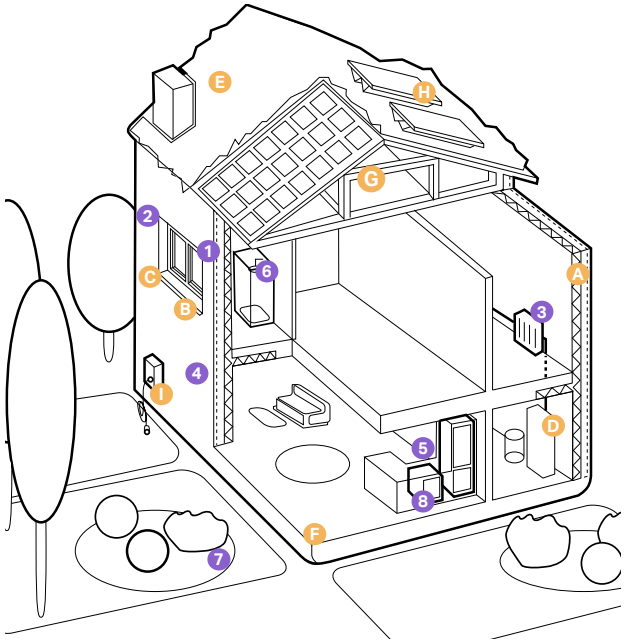


Figure 49: Diagram showing low-carbon homes in both existing and new build conditions.

Existing homes

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

Additional features for new build homes

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

Some additional design guidelines and suggestions for properties to improve their energy efficiency are the ones presented in the next pages.

Site analysis

- Determine the position of the sun throughout the year;
- Identify the direction of the prevailing wind;
- Determine seasonal characteristics; and
- Identify topographical features that might optimise or degrade the performance of the buildings. For instance, slopes, tree belts and the shape and orientation of the site.

Building orientation

- One of the main glazed elevations should be within 30° due south to benefit from solar heat gain. Any north-facing facades might have a similar proportion of window to wall area to minimise heat loss on this cooler side;
- If houses are not aligned east–west, rear wings could be included so that some of the property benefits from solar passive gain;
- Neighbouring houses to the east and west can provide protection from low east and west sun; and
- Homes should be designed to avoid overheating through optimisation of glazed areas and natural ventilation strategies, including high and low-level openings, longer roof overhangs, deep window reveals and external louvres/ shutters to provide shading in the hotter summer months.

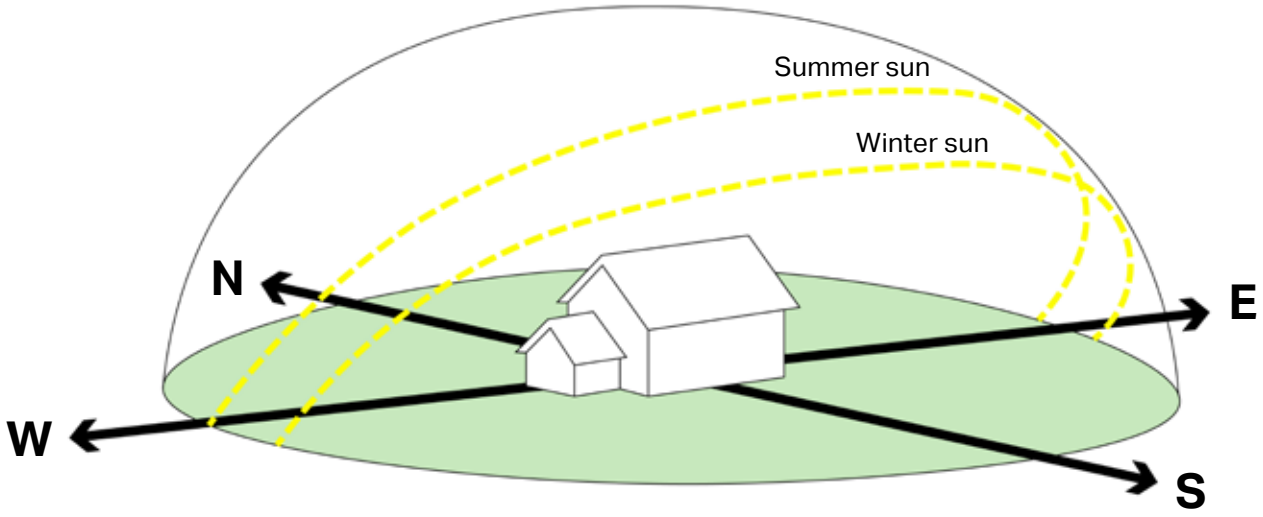


Figure 50: Diagram showing setting of the sun during summer and winter periods. In cooler months. The lower position of the sun can heat the indoors.

Building form

- Design should minimise the building surface to volume area;
- Terraced housing and blocks provide more efficient envelopes compared to semi-detached and detached houses;
- Building layouts should suggest cooler service spaces to be located with a northerly aspect and habitable rooms to be located to the warmer southerly aspect;
- Exposed areas of the site with no natural shelter should be avoided;
- Narrow frontages should be facing the direction of the prevailing wind;
- Vegetation on the walls could provide an additional thermal layer;

Figure 51: Local example of a south facing property (approx. 30 degrees) that maximises the solar gain, while plantation to the north offers protection from cold northerly winds.

Figure 52: Local example of terraced housing. This typology provides more efficient envelopes compared to semi-detached or detached houses.

Figure 53: Example of a property with vegetation of the facade, elsewhere in UK.


Delivery
04

4. Delivery

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

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

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

Table 01: delivery

About AECOM

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

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