Long Leys

Design Codes and Guidance

Final Report

March 2024

Delivering a better world

Quality information

Prepared by	Checked by	Approved by
John-Michael Chidwick	Nick Beedie	Nick Beedie
Consultant Urban Designer	Urban Design Manager	Urban Design Manager

Revision History

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Contents

Introduction

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1. Introduction

The aim of this document is to help empower the local community to influence the design and character of the Long Leys neighbourhood area and to deliver attractive, sustainable development that meets the needs of local people.

1.1 Background

Long Leys Residents Association (LLRA) has requested support through Locality to establish a design code and guidance document to influence the character and design of new development within Long Leys. Locality is a national membership network that manages the neighbourhood planning process on behalf of the Department for Levelling Up, Housing and Communities.

This document forms part of the evidence base for Long Leys' Neighbourhood Plan on design-related issues. It sets out design standards endorsed by the local community within the context of national and local policies. This document is focused on ensuring that development provides local distinctiveness, connections to green infrastructure, improvements to walking and cycling links and enhancements to sustainability.

1.2 Design objectives

The objectives of the local community can be summarised as follows:

- to present a detailed appraisal of the neighbourhood area's urban and landscape character context;
- to positively influence the character and design of new development within the neighbourhood area;
- to enhance the sense of place and quality of the existing built and natural environments;
- to protect and enhance the green spaces and biodiversity within and around the neighbourhood area;
- to improve the public realm and to ensure that the neighbourhood area remains connected, safe and permeable;
- to integrate and enhance local assets and amenities to ensure that Long Leys remains a desirable residential area; and
- to ensure that development is future-proof in order to address the climate emergency.

Figure 01: Long Leys is a desirable residential neighbourhood with a distinct local identity.

Figure 02: St George's Hospital is a key part of the neighbourhood area's character.

Figure 03: The neighbourhood area has strong connections with its surrounding countryside.

1.3 Neighbourhood area

Long Leys is a mixed-use neighbourhood located to the northwest of Lincoln City Centre in the historic county of Lincolnshire. The neighbourhood area is bordered by the A57 (Saxilby Road) to the west, a large area of common land known as West Common to the south, Burton Road to the east (although not including most of the houses to the west of Burton Road), and historic field boundaries to the north.

A green wedge separates the neighbourhood area's built environment from the rest of Lincoln's urban area. Connections to the city are via Long Leys Road, a primary route from which all of the neighbourhood area's residential streets and amenities radiate. The neighbourhood area's unique form makes it feel both part of Lincoln but with a rural feel arising from its strong relationship with the surrounding green space.

The neighbourhood area's built environment is further contained to the south of the A46, part of Lincoln's ring road, which runs through the neighbourhood area diagonally. The proximity to this road network makes the neighbourhood area well-connected to other nearby towns including Newark-on-Trent (approximately 17 miles to the southwest) and Scunthorpe (approximately 17 miles to the north).

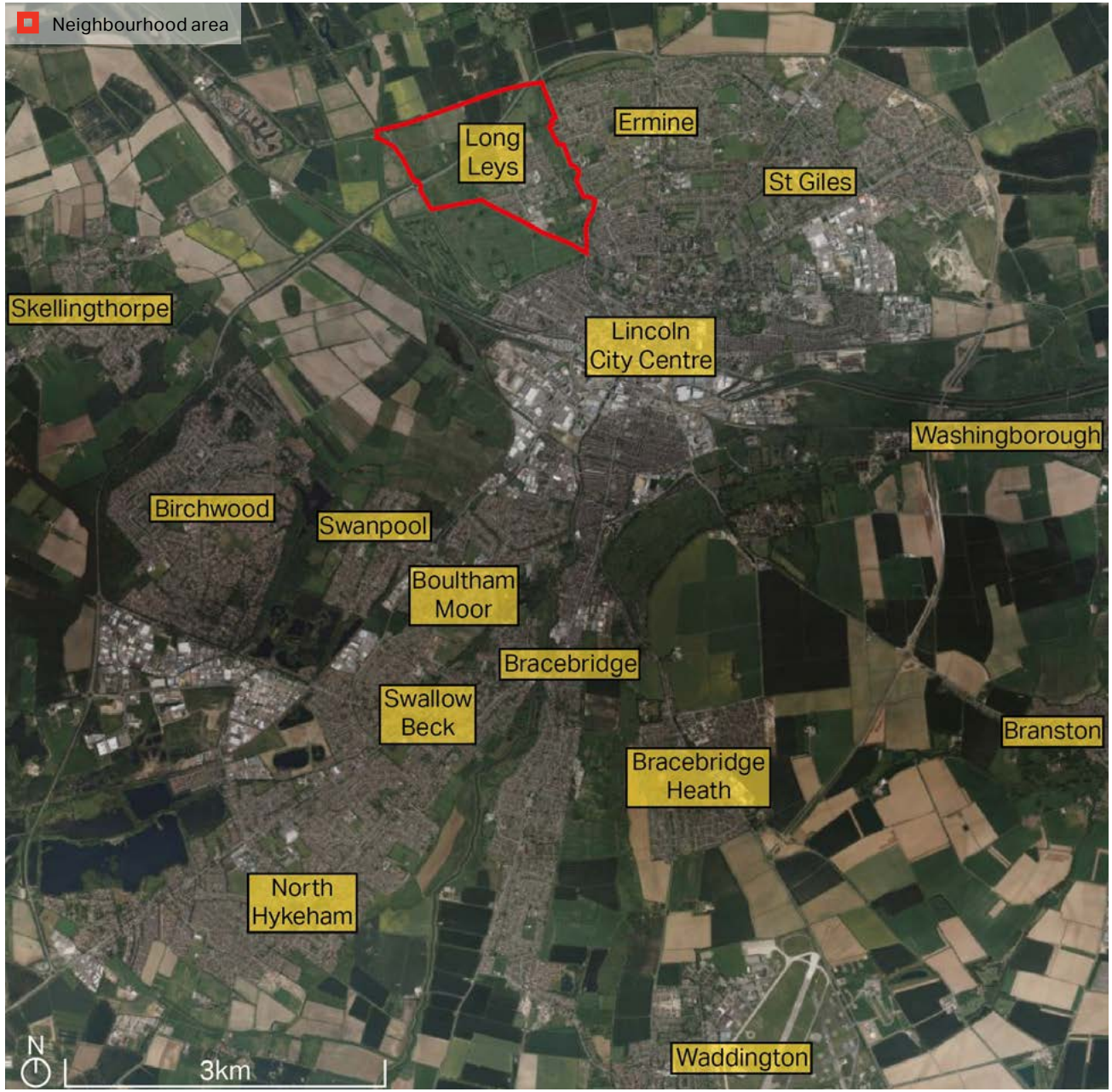


Figure 04: Map showing the neighbourhood area's strategic context within Lincoln.

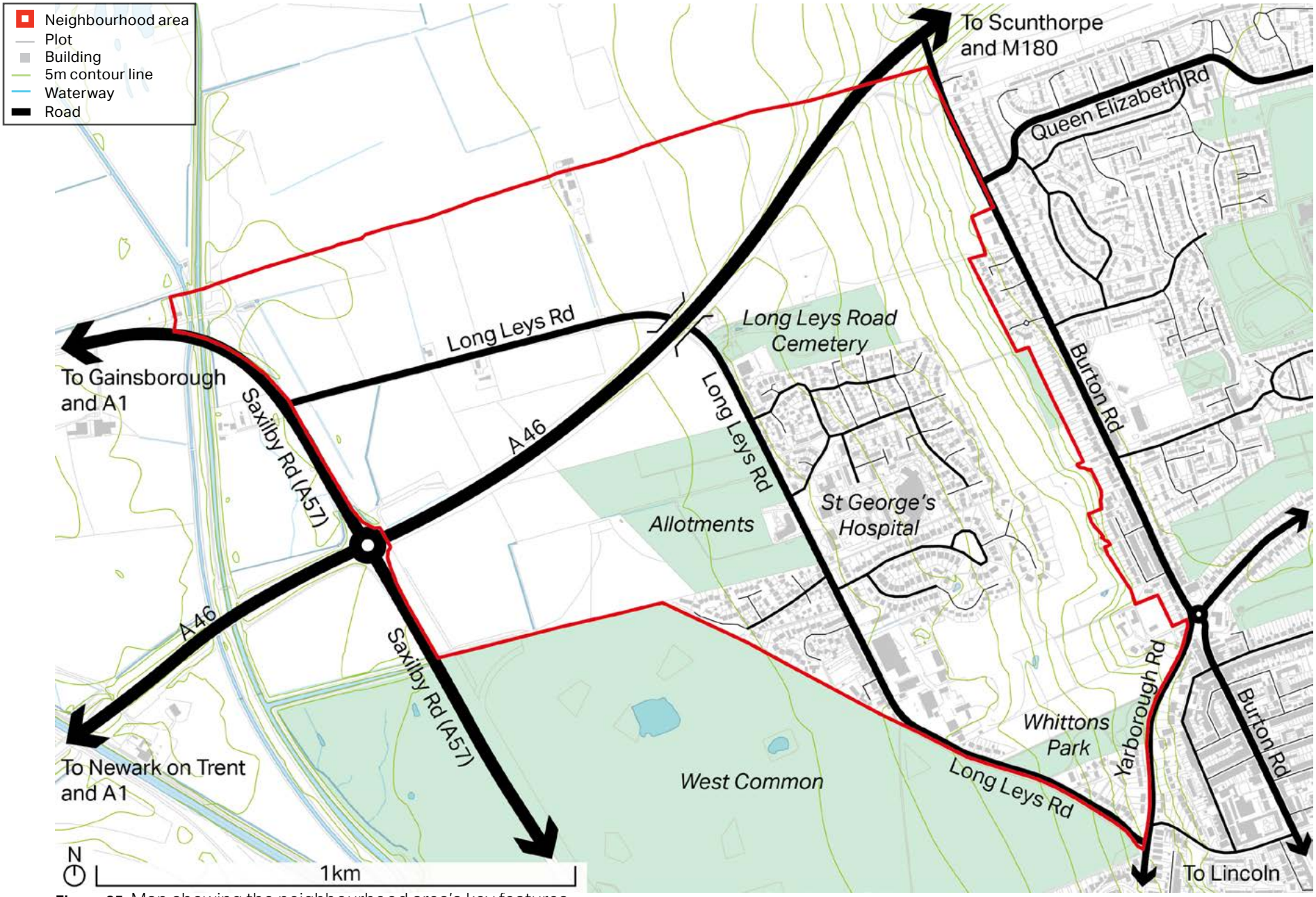


Figure 05: Map showing the neighbourhood area's key features.

1.4 Using the design code and guidance

This document is a valuable tool in securing context-driven, high quality development. It will be used differently by different stakeholders in the planning and development process (see Table 01, opposite).

This document will be effective when used as part of a co-design process, actively involving key stakeholders, to establish local preferences and expectations of design quality.

Through active participation and dialogue, key stakeholders can use this document to shape the key issues and ways to adequately respond to them in future development.

A design code and guidance document alone will not automatically secure quality design outcomes, but it will help to prevent poor outcomes by creating a rigorous process that establishes expectations.

This document raises the standards and expectations for design quality in order to ensure that Long Leys remains a place in which all residents and visitors can be proud.

Potential users	How they will use this document
Applicants, developers, and landowners	As a tool to community and Local Planning Authority expectations on design, allowing a degree of certainty. They will be expected to follow this document as planning consent is sought.
Local Planning Authority	As a reference point, embedded in policy, to help assess planning applications. This document should be discussed with applicants during any pre-application meetings.
Long Leys Residents Association	As a tool to help structure comments on planning applications, ensuring that this document is complied with.
Community groups and local residents	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: Potential users.

1.5 Planning policy and design guidance

Several national and local planning policy and guidance documents were referred to in the development of this document. Most notably the National Design Guide and its 10 Characteristics of a Well-Designed Place and Homes England's adoption of Building for a Healthy Life (formerly Building for Life), which help to frame the requirements of good design for high quality places.

1.5.1 National Planning Policy Framework (revised December 2023)

The National Planning Policy Framework (NPPF) outlines the UK Government's overarching economic, environmental and social planning policies for England. It is a high-level document that attempts to make good design pivotal and to put communities at the heart of planning. The policies within the NPPF apply to the preparation of local and neighbourhood plan areas, and act as a framework against which decisions are made on planning applications.

The NPPF states that a key objective of the planning system is to contribute to the achievement of sustainable development.

The parts of the NPPF which are of particular relevance to this document are:

- Part 2: Achieving sustainable development;
- Part 5: Delivering a sufficient supply of homes;
- Part 8: Promoting healthy and safe communities;
- Part 9: Promoting sustainable transport;
- Part 12: Achieving well-designed and beautiful places;
- Part 15: Conserving and enhancing the natural environment; and
- Part 16: Conserving and enhancing the historic environment.

Part 12 (Achieving well-designed and beautiful places) emphasises the need to create high-quality, beautiful and sustainable buildings and places as fundamental to what the planning and development process should achieve.

It sets out several principles that planning policies and decisions will consider ensuring that new developments are well-designed and focus on quality.

The NPPF notes that "development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes".

This is supported by the National Design Guide, which sets out the ten characteristics of a well-designed place.

1.5.2 National Design Guide (2019)

The National Design Guide (NDG) sets the 10 characteristics of a well-designed place and demonstrates what good design is in practice. The characteristics are: Context; Identity; Built Form; Movement; Nature; Public Spaces; Uses; Homes & Buildings; Resources; and, Lifespan.

This document should be used as an overarching reference for new development where topics are not covered in local guidance. The NDG characteristics were used in the initial analysis to understand local demands and challenges.

The NDG notes that a well-designed place is unlikely to be achieved by focusing only on the appearance, materials and detailing of buildings.

1.5.3 National Model Design Code (2021)

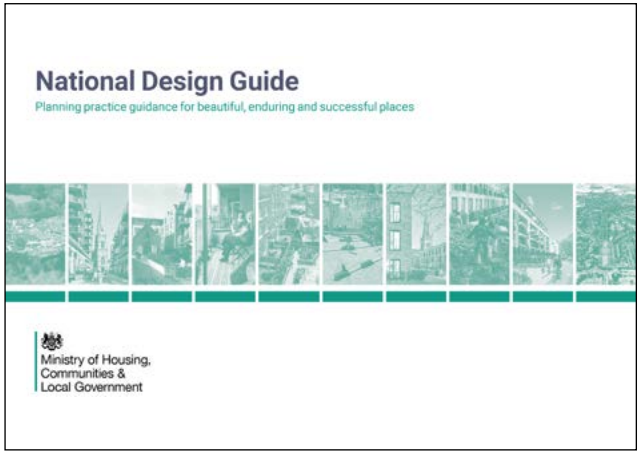
The National Model Design Code (NMDC) sets a baseline for quality and practice. It provides detailed guidance on the production of design codes and the outlining of character areas.

The NPPF is the foundation stone to good design and the NDG sets out the 10 characteristics of well-designed places. This is developed further by the NMDC, which creates the baseline for analysing and visioning places. Design codes help development achieve the requirements of good design and for community benefit.

1.5.4 Building for a Healthy Life (2020)

Building for a Healthy Life (BHL) is the new name for Building for Life, the Government-endorsed industry standard for well-designed homes and neighbourhoods. The new name reflects the key role that the built environment has in promoting well-being.

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 schemes, as well as useful prompts and questions for planning applicants to consider during the different stages of the design process.



1.5.5 Central Lincolnshire Local Plan (2023)

The Central Lincolnshire Local Plan was formally adopted in April 2023, replacing the Central Lincolnshire Local Plan 2012-2036 (which itself replaced the previously separate Local Plans of the City of Lincoln, West Lindsey and North Kesteven). The Local Plan sets out the long term strategy in respect of new developments up to 2040.

The Local Plan sets out a housing requirement for 18 homes in the neighbourhood area. The Local Plan also identifies a 0.56ha allocated site for housing on Long Leys Road for 10 dwellings.

1.5.6 Long Leys Neighbourhood Plan

The Long Leys Neighbourhood Plan is currently being developed and will become the neighbourhood area's community-led development plan used alongside the Local Plan in determining planning applications up to 2040. The Neighbourhood Plan will agree a vision for the neighbourhood area, choose where new homes or commercial premises should be built, protect important open spaces and community facilities and identify community aspirations. The Neighbourhood Plan will specifically address the eight dwellings not covered by the Local Plan's site allocation.

1.5.7 Lincoln Public Realm Strategy (2016)

The Lincoln Public Realm Strategy seeks to enhance public space provision and ensure connectivity between projects in Lincoln City Centre. Although the neighbourhood area doesn't fall within the relevant boundary, the strategy contains useful guidance and best practice that represents the aspirations of Lincoln as a whole and that can be applied across the entire city.

1.5.8 Strategic Review of Allotment Provision (2012)

A Strategic Review of Allotment Provision was commissioned by the City of Lincoln Council in April 2012 to provide strategic direction and a clear action plan to deliver financially sustainable allotment services in the city. The Review is relevant to this document given the large number of allotments in and around Long Leys.

1.5.9 Other Relevant Documents

There are several other documents providing additional guidance covering both thematic and site-specific issues, including:

- the Lincolnshire Local Transport Plan;
- the Central Lincolnshire Developer Contributions SPD;
- the Central Lincolnshire Housing Growth Delivery Plan;
- the Central Lincolnshire Energy Efficiency Design Guide;
- the Central Lincolnshire Biodiversity Net Gain Guidance Note;
- the Central Lincolnshire Health Impact Assessment for Planning Applications; and
- the Central Lincolnshire Five Year Land Supply Report.

1.6 Site visits and engagement

An inception call between AECOM and representatives of LLRA was undertaken on 12 October 2023 to introduce the teams, to explore the community's key aims and objectives and to address any initial concerns.

A site visit was then conducted on 25 October 2023 led by members of LLRA. The visit covered the neighbourhood area including Long Leys Road and other main residential streets, St George's Hospital and other key amenities, the industrial estate, local green spaces and the surrounding countryside.

The visit allowed AECOM to gather an extensive photographic survey and undertake a comprehensive place and character analysis based on a combination of quantifiable data and local insight. This has formed the basis of this document.

LLRA reviewed and inputted into this document during its production in order to ensure that it remains focused on the priorities and aspirations of the local community and supports and complements the aims and objectives of the Neighbourhood Plan.

Figure 06: The site visit included the residential areas of Long Leys.

Figure 07: The site visit included the neighbourhood area's green spaces and connections.

Figure 08: The site visit included the surrounding countryside which provided views over the neighbourhood area and beyond.

Place analysis

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2. Place analysis

Long Leys is a key part of the bustling city of Lincoln. Despite this, it remains intrinsically connected to the surrounding Lincolnshire countryside. This combination of urban connectivity and rural tranquility gives the area a unique and desirable character.

2.1 Context and identity

Long Leys covers an area of approximately 170 hectares at the north of Lincoln. Much of the built environment is residential, predominantly consisting of detached houses along with some examples of terraced and semi-detached homes and apartment buildings. St George's Hospital is located at the centre of the neighbourhood area and there is a small industrial area located at the south.

Long Leys' main expansion took place in the 20th and 21st Centuries. Most houses are arranged in cul-de-sac formations. There are also some examples of Victorian and Edwardian hospital buildings and terraces which contribute to the neighbourhood area's character, along with a relatively consistent use of red brick.

The built environment is surrounded by attractive green space. West Common is a historic stretch of common land adjacent to the neighbourhood area to the south. To the east, sloped woodland links the neighbourhood area to Burton Road offering expansive views over Long Leys and beyond. Whittons Park is a well-maintained public park at the southeast of the neighbourhood area. The park includes a range of activities and provides pedestrian connections to Yarborough Road. Long Leys Road Cemetery is located at the north of the urban area. To the west of Long Leys Road, there is a large area of popular allotments which adds to the neighbourhood area's rural feel. The open spaces are connected by a good green infrastructure network consisting of grass verges and street trees. There are many mature hedgerows, particularly along Long Leys Road, which form an essential part of the neighbourhood area's character.

There are few amenities in the neighbourhood area which, combined with infrequent bus services, can lead to a feeling of isolation for those with limited mobility. There is a strong desire to build a hub containing community facilities and general retail offerings which could act as a walkable focal point for the community.

Figure 09: Terraced houses on Long Leys Road with West Common in the background.

Figure 10: The entrance to Discovery House, part of St George's Hospital.

Figure 11: Allotments give the neighbourhood area a rural feel.

Figure 12: Much of the residential expansion took place in the 20th and 21st Centuries.

Figure 13: Historic buildings in the St George's Hospital complex.

Figure 14: Mature hedgerows line many of the neighbourhood area's key roads.

Figure 15: Historic Victorian cottages on Oakleigh Terrace.

Figure 16: Whittons Park contains various amenities and connects the neighbourhood area with Yarborough Road.

Figure 17: The neighbourhood area has a good green infrastructure network.

2.2 Settlement origins and growth

Lincoln is one of the UK's most historic cities with a heritage that can be traced back as far as 300BC. A thriving Roman colony known as 'Lindum', a key strategic location during the English Civil War and home to one of only four original copies of the Magna Carter. The city's ancient cathedral can be seen from across the neighbourhood area.

Long Leys' history is more recent. Long Leys Road connected Lincoln to a historic race course on the current site of West Common. Buildings started to appear in the 19th Century and included farmsteads, a windmill and several brickworks. The Albion Brick Works was located at the site of the neighbourhood area's current industrial estate. 19th Century houses include the Industrial Cottages off Long Leys Road which exist to this day. These were joined in the early 20th Century by the terraced houses at Oakleigh Terrace.

The City Hospital for Infectious Diseases (now St George's Hospital) opened in the early 20th Century. Following this, numerous houses were built and, by the 1960s, homes lined Long Leys Road and connected the neighbourhood area to other parts of Lincoln.

Figure 18: Views looking towards Lincoln's historic city centre.

Figure 19: Gervas House, built in 1904, as part of the former City Hospital for Infectious Diseases.

Figure 20: The Industrial Cottages, amongst the neighbourhood area's earliest buildings.

Figure 21: The terraced houses at Oakleigh Terrace.

Figure 22: A historic cottage on Long Leys Road.

Figure 23: Villas on Long Leys Road linking the neighbourhood area with other parts of Lincoln.

2.2.1 Settlement pattern today

Over the last century, several developments have fed into Long Leys Road. These can generally be clustered into four sets of cul-de-sacs. The earliest of these includes Albion Crescent and Albion Close at the southeast of Long Leys Road. These streets include bungalows and detached houses dating from the 1960s/1970s along with some more recent expansion.

Oakleigh Drive was constructed in the 1990s alongside the Industrial Cottages at the southwest of Long Leys Road. The street's large detached houses were built in a whimsical postmodern style with playful gables and mottled brickwork.

Mitchell Drive (along with several offshoot cul-de-sacs) was constructed in the early 21st Century at the north east of Long Leys Road. Generally consisting of detached houses, these are built in a range of neo-Georgian and neo-Victorian styles in a mix of red brick and light render.

The neighbourhood area's most recent homes are located at the north of St George's Hospital on a cluster of streets that includes Carram Way and Mercer Drive. These streets include a diverse range of housing types including detached, semi-detached and terraced houses as well as apartments.

Figure 24: 1960s bungalows on Albion Close.

Figure 27: An extension to Albion Close dating from the 2010s.

Figure 25: Postmodern 1990s houses on Oakleigh Drive.

Figure 28: Detached houses in a neo-Victorian style on Mitchell Drive.

Figure 26: The neighbourhood area's most recent houses at the north of St George's Hospital.

Figure 29: Diverse housing styles on Dorrigan Close (off Carram Way), more urban in character.

2.3 Layout and built form

The map at figure 30 shows the layout of buildings in the neighbourhood area. This can highlight interesting urban patterns and help to identify different elements of character. Using this method, the neighbourhood area can be roughly divided into the following categories:

Formal suburban

1960s/1970s houses and bungalows on similarly-sized plots with generally consistent building lines. Architectural styles usually match immediate neighbours. Buildings are laid out in gentle curvilinear arrangements.

Informal suburban

High density detached, semi-detached, terraced and apartment homes in informal block arrangements, mainly constructed between the 1980s and the present day. Variations in set-back, orientation and housing styles provide visual interest.

Linear urban

Terraced, semi-detached and detached houses, mainly dating from the first half of the 20th Century. These houses are set in linear arrangements along main inter-radial routes.

Organic

Detached buildings with organic orientation, set-back and massing based on topography or historic field/road boundaries. This includes farmsteads and other large homes either standing alone or in small clusters.

St George's Hospital

Large irregular blocks of varying shapes and scales built to accommodate specific needs of the hospital. The buildings are separated by internal roads and green spaces and are generally of a much larger scale than the surrounding residential development.

Informal standalone

Large blocks mainly consisting of standalone industrial or agricultural warehouses, often randomly spaced with inconsistent set-backs against the road. Buildings are separated by surface car parks or patches of open space.

Formal suburban

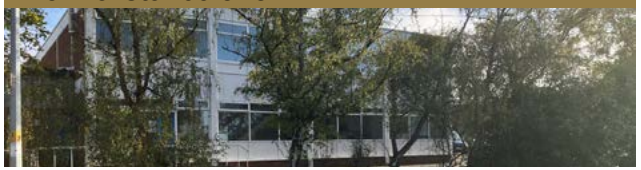
Informal suburban

Linear urban

Organic

St George's Hospital

Informal standalone



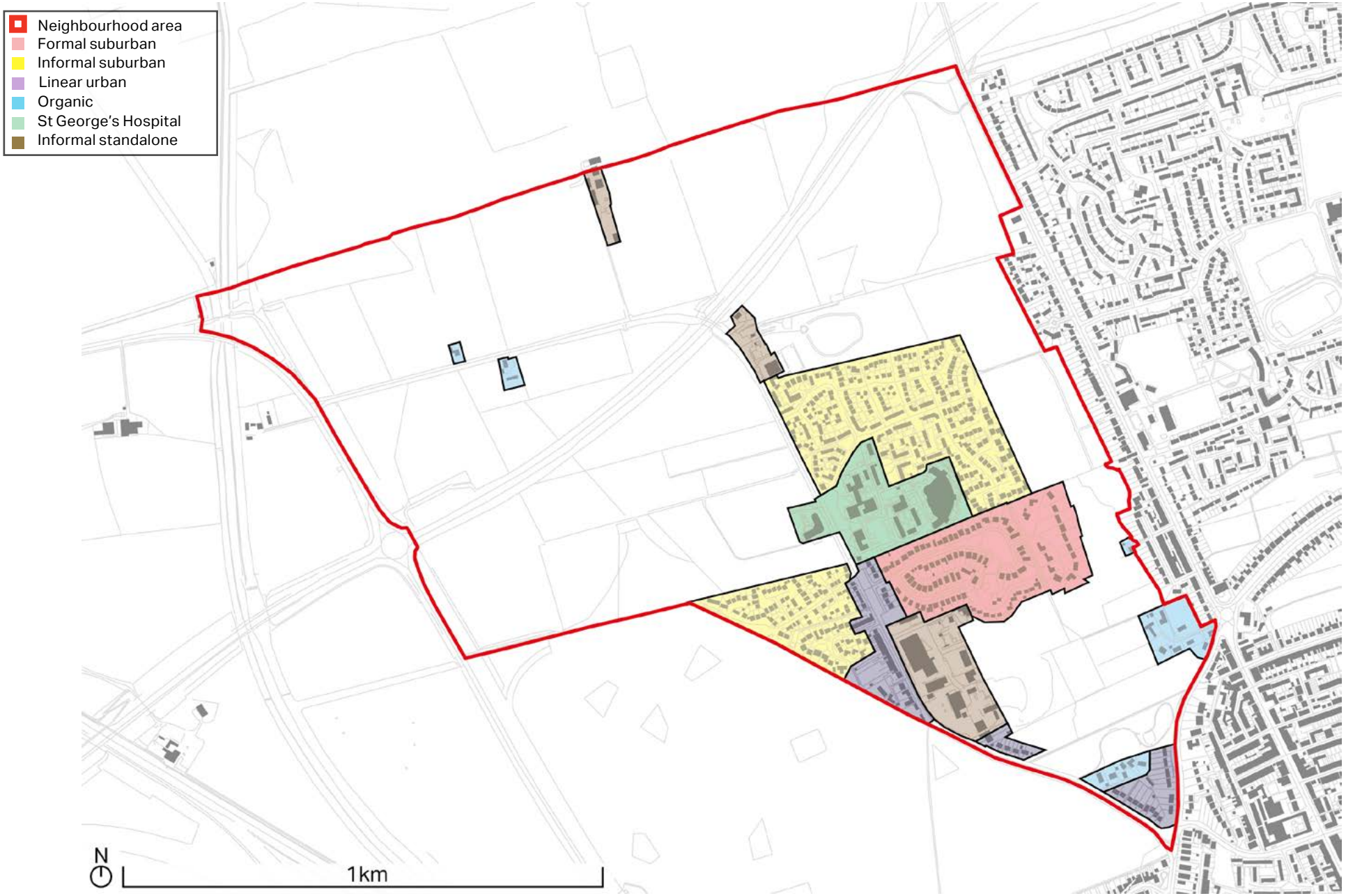


Figure 30: A figure ground map of the neighbourhood area showing urban grain layouts.

2.4 Movement networks

2.4.1 Vehicular movement

An informative picture of movement patterns is generated by distinguishing between different types of routes based on how they are connected within the overall network. Aside from main radial and inter-radial routes, there are three generic types: grid, loop and cul-de-sac. When these are colour-coded on a map, the result shows the degree of connectivity in the neighbourhood area.

By looking at the map at figure 33, the importance of Long Leys Road becomes very clear. This inter-radial route connects the A57 and Yarborough Road and is the only route to which all other streets connect. These streets are mainly loops and cul-de-sacs, none are grids. The consequence is that trips are channelled and concentrated onto Long Leys Road to a higher degree than if there was a grid system with through-connections to other routes across Lincoln.

Long Leys Road is also the access point for assets used by people across Lincoln, namely the industrial estate, the allotments, St George's Hospital and Long Leys Road Cemetery. This creates heavy traffic on Long Leys Road. With relatively few safe pedestrian crossing points, this is a key concern for the local community.

2.4.2 Pedestrian movement

The neighbourhood area is well-served by pedestrian footpaths, usually on both sides of the carriageway. However, there are limited safe crossings over busy Long Leys Road which creates a barrier effect. Pedestrian footpaths and Public Rights of Way extend beyond the road network. This includes connections to Burton Road and Yarborough Road and also through West Common which has two access points on Long Leys Road and one on Mitchell Drive. There is also a snicket connecting the two main residential areas at the east of Long Leys Road. Despite these good links, walking to other parts of Lincoln can be challenging for those with limited mobility due to the steep topography at the east and south of the neighbourhood area. In addtion, many of the Public Rights of Way are unpaved and can become muddy and slippery in poor weather.

2.4.3 Public transport

There is a bus service which connects the neighbourhood area to Lincoln City Centre and the neighbouring village of Saxilby. There are nine services per day on Monday to Saturday between 6.55am and 5.55pm. There is a desire in the community to increase these services to better connect with Lincoln City Centre.

2.4.4 Cycling infrastructure

Despite Lincolnshire's strong reputation as a cycling destination, there is limited cyclist infrastructure in Long Leys. The lack of designated cycle lanes on Long Leys Road means that people ride bicycles and e-bikes on the pavement, particularly children on their way to school. E-scooters are also used despite currently being illegal on public highways.

Figure 31: The 77 bus to Lincoln City Centre.

Figure 32: A Public Right of Way linking Long Leys Road and Yarborough Road.

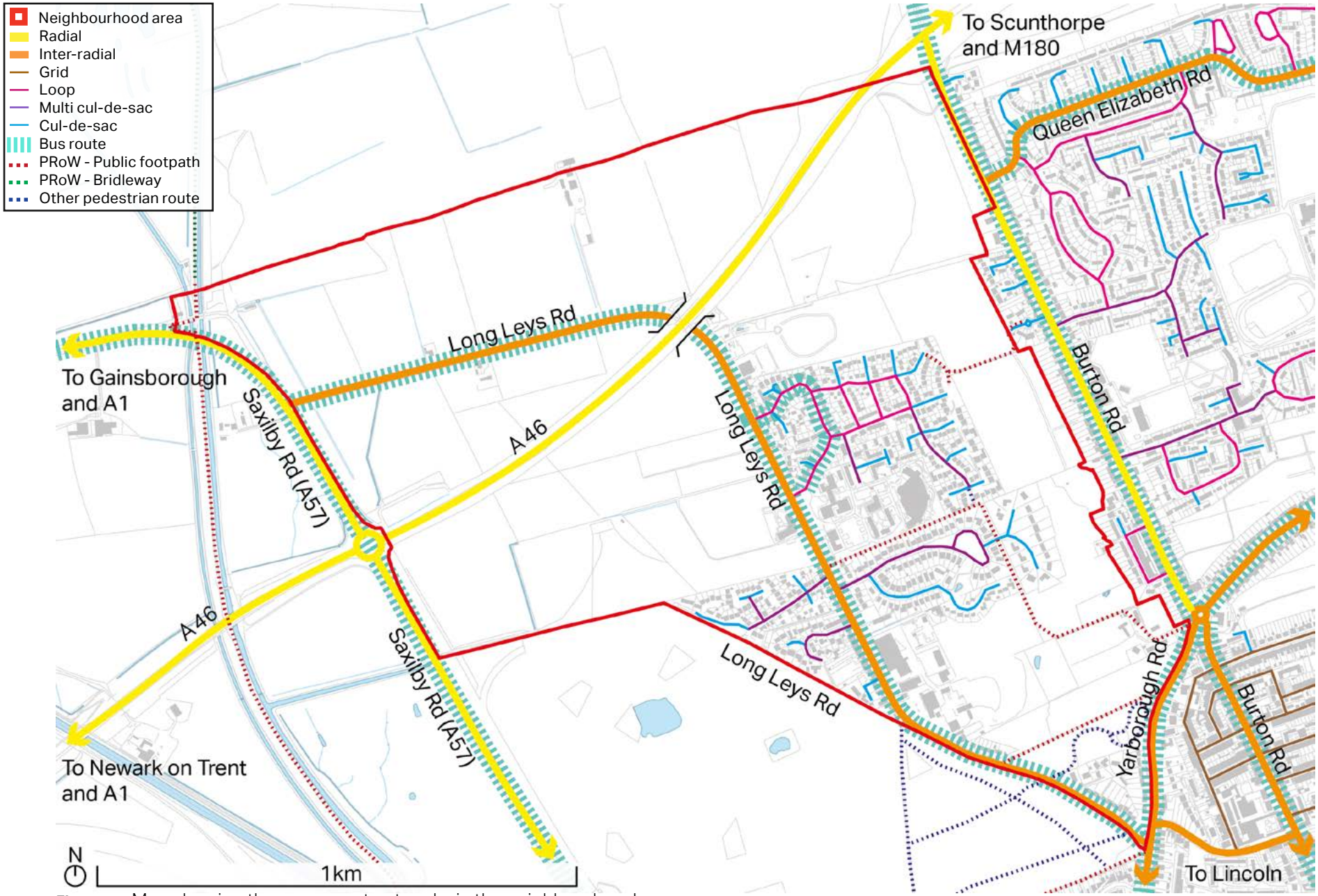


Figure 33: Map showing the movement networks in the neighbourhood area.

2.5 Historic assets

Much of the development of Long Leys took place in the 20th Century and, as a result, there are few historic buildings. There are no listed buildings in the neighbourhood area.

This gives greater prominence to the few historic assets that do exist and which form a key part of the neighbourhood area's character. Within St George's Hospital, Gervas House was built in 1904. Its imposing red-brick façade with limestone detailing sets the tone for the wider area which is predominantly built from red brick.

Other notable red brick buildings include the Victorian terraced cottages along Oakleigh Terrace. Formerly workers cottages, these are distinctive for their brick and wrought iron boundary wall, the passages leading to the back yards and their grey slate roofs. There is also a historic row known as Industrial Cottages. These are either painted or rendered in white.

The wider City of Lincoln is one of the UK's most historic cities. The city's spectacular Cathedral dates from the 11th Century and its gothic towers can be seen from across the neighbourhood area. There are also views of other landmarks such as the Westgate Water Tower and the 18th Century Ellis Mill.

Figure 34: St George's Hospital's Victorian gatehouse (left) and Gervas House (right).

Figure 35: The view of Ellis Mill, built in the 18th Century.

Figure 36: Lincoln Cathedral as viewed from West Common.

2.6 Green infrastructure

The local community is justly proud of Long Leys' extensive green infrastructure network. The built environment is surrounded on all sides by a green wedge designated by the Central Lincolnshire Local Plan.

Within the green wedge, West Common is a popular space used for picnics, dog walking, jogging and cycling, as well as grazing land for horses. This is an important area for biodiversity with a wide range of local flora and fauna.

Within the neighbourhood area boundary, Whittons Park is popular with families due to its diverse range of amenities, including a playground, climbing net, zip wire and basketball court. Long Leys Road Cemetery opened in 2014 and has space for 4,000 burial plots. This is a calm and tranquil place for residents.

There are many allotments within the neighbourhood area and beyond. This reflects Lincolnshire's long history of farming and horticulture.

The open spaces are connected by grass verges, street trees, green pedestrian routes and historic and well-maintained hedgerows.

Figure 37: Characteristic hedgerows alongside Long Leys Road.

Figure 38: Popular allotments to the west of Long Leys Road.

Figure 39: The first burial plots in Long Leys Road Cemetery which has an overall capacity of 4,000.

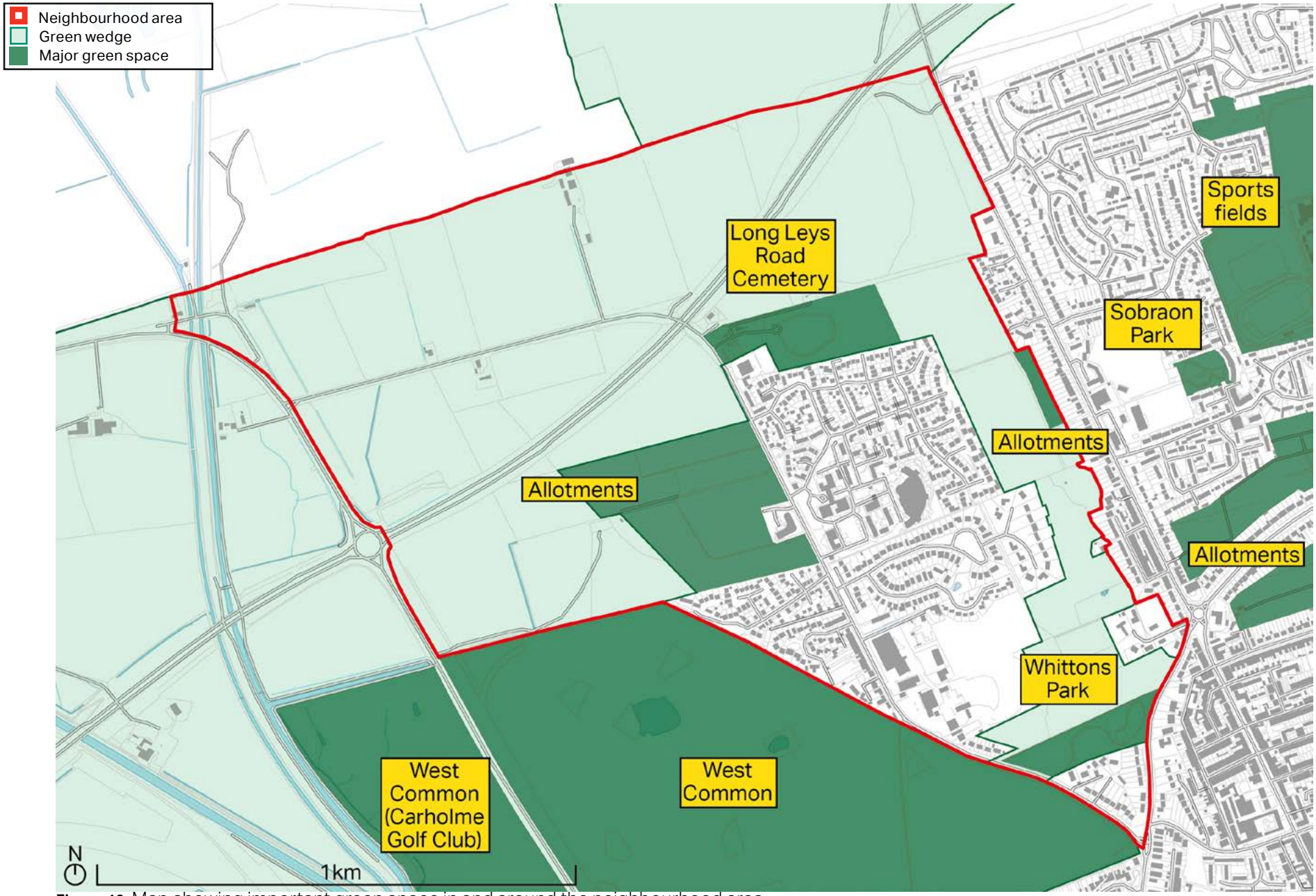


Figure 40: Map showing important green space in and around the neighbourhood area.

2.7 Landscape

Long Leys' topography adds to the distinctiveness of the neighbourhood area. Most of its built environment is located at a significantly lower level than other parts of Lincoln. The west side of the neighbourhood area lies approximately 5m above sea level. This rises quite sharply to the east and along Long Leys Road to approximately 55m.

The inclines on residential streets to the east, including Berilldon Drive, Mercer Drive and Albion Crescent, are another key part of the neighbourhood area's character. Houses along Burton Road and Yarborough Road have very good views across the neighbourhood area and the surrounding Lincolnshire countryside.

Most of the neighbourhood area's flood risk falls in the low-lying non-residential land to the west of the neighbourhood area. This includes areas in Flood Zone 2 (medium probability of flooding) and Flood Zone 3 (high probability of flooding). Flash floods have also been reported during heavy storms at the underpass along Long Leys Road. This, as well as concerns relating to surface water run-off, should be taken into consideration for any new development. Sustainable drainage systems (SuDS) can be seen in some of the neighbourhood area's recent housing developments.

Figure 41: The steep incline looking east from Long Leys Road.

Figure 42: Steep front gardens on Albion Crescent.

Figure 43: Map showing the topography and flood zones of the neighbourhood area.

2.8 Policy designations and allocated sites

The Central Lincolnshire Local Plan includes three designations within the neighbourhood area.

Policy S63 identifies green wedges as open areas around and between parts of a settlement which maintain the distinction between the countryside and built-up area, and which also provides recreational and wildlife protection and enhancement opportunities as part of the green and blue infrastructure and ecological network. The neighbourhood area's built environment is surrounded on all sides by a green wedge which includes West Common and Long Leys Road Cemetery.

The Local Plan sets out a housing requirement for 18 homes in the neighbourhood area and Policies 77-82 identify a 0.56ha allocated site for housing on Long Leys Road for 10 dwellings. The site has been used as a gospel hall for the Plymouth Brethren and is located between Long Leys Road Cemetery and existing housing on Carram Way.

Policy 31 sets out an area along Long Leys Road as an Important Established Employment Area (IEEA). IEEAs are on sites of 2 hectares or more with at least 8,000sqm of ground floor space and with five or more units occupied by different businesses.

Figure 44: West Common, part of the designated green wedge (Local Plan Policy S63).

Figure 45: The allocated site for housing: COL/CAR/004 (Local Plan Policies S77-82).

Figure 46: The Important Established Employment Area (IEEA) E10 (Local Plan Policy S31).

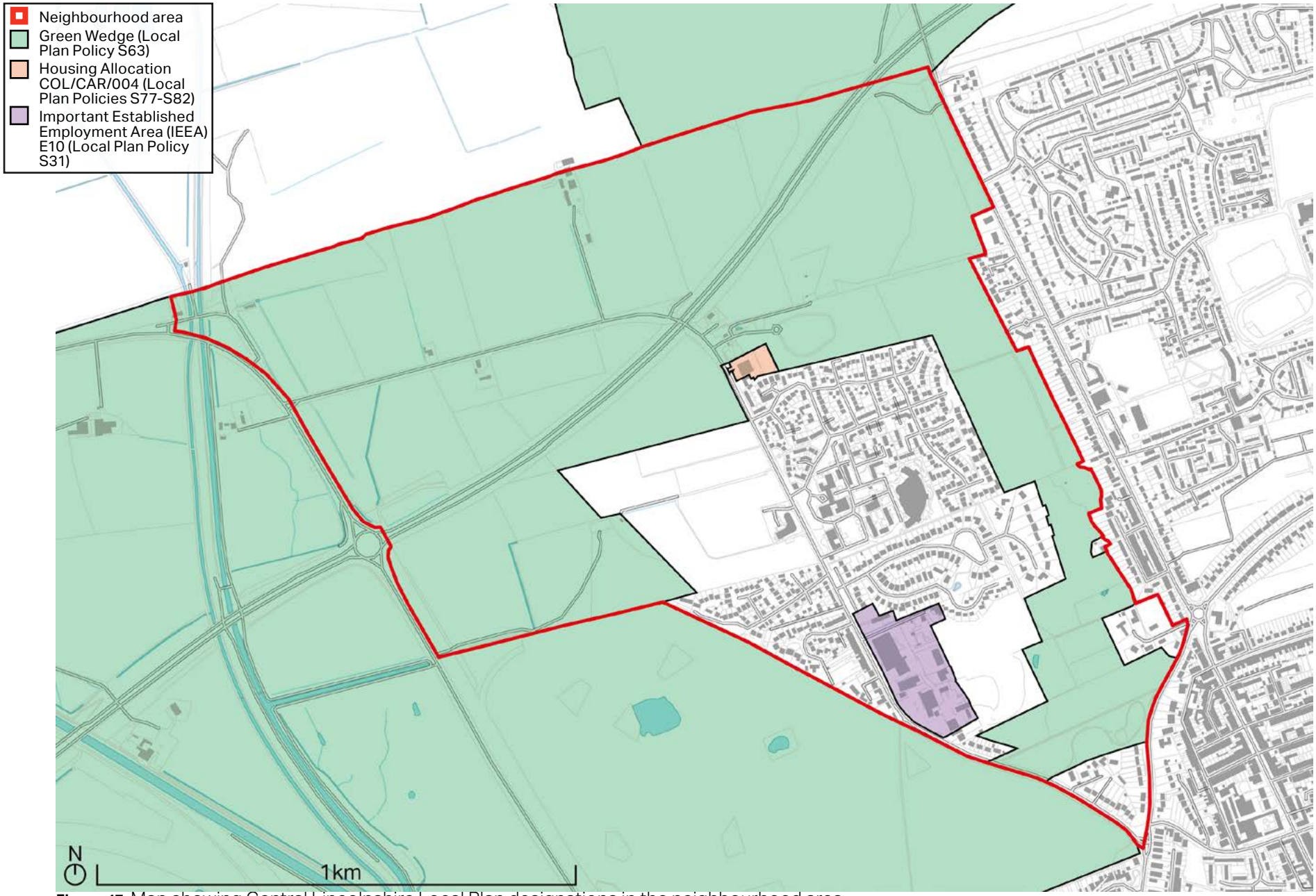


Figure 47: Map showing Central Lincolnshire Local Plan designations in the neighbourhood area.

2.9 Typical house types

There are numerous house types in the neighbourhood area. Long Leys Road is the most diverse as it includes the most historic buildings, notably the Victorian terraced houses known as Industrial Cottages and Oakleigh Terrace.

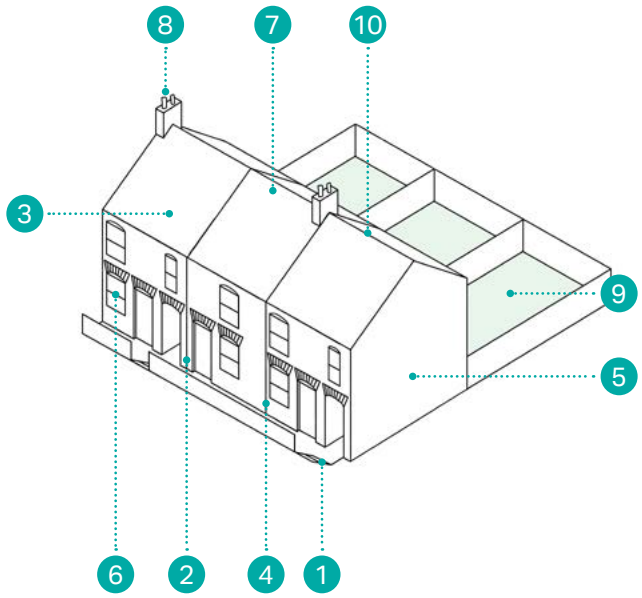
As Long Leys Road continues south, it includes Edwardian semi-detached villas along with later styles that link the neighbourhood area to other parts of Lincoln.

Post-war bungalows (along with detached houses from the same period) can be seen along Albion Crescent and Albion Close. These are built in a minimalist style commonly seen across the UK.

The most recent styles are generally neo-Georgian or neo-Victorian or in a modern detached style that combines features of both. Again, these styles are commonly seen across the UK and take few visual cues from local vernacular.

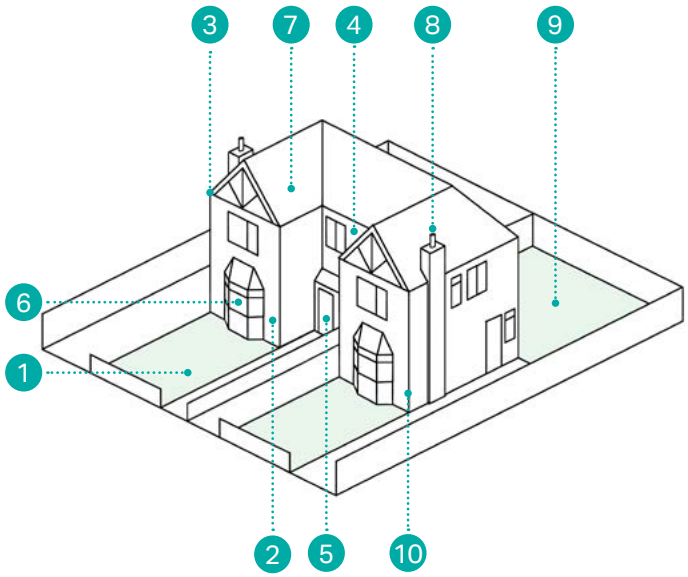
The images on the following pages show some of the housing types typically found in the neighbourhood area along with some key features commonly associated with them.

Victorian terraced



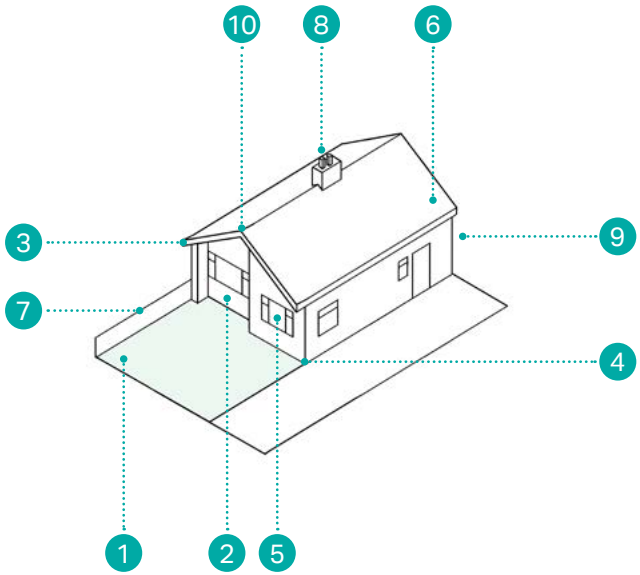
1. Low-level yard accessed by steps.
2. Red brick frontage.
3. Two-storey terraced houses.
4. Repetitive fenestration / façade.
5. Rows of houses.
6. Sash windows.
7. Grey slate tiles.
8. Chimney stack per house.
9. Long back gardens.
10. Pitched gable roof.

Edwardian semi-detached



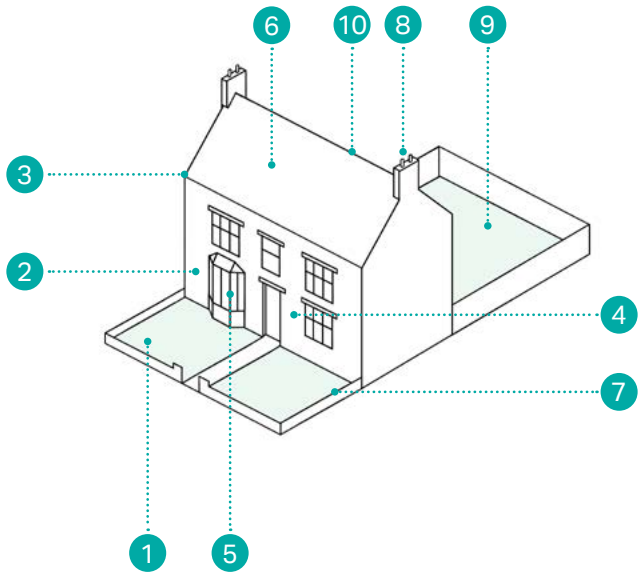
1. Medium front gardens.
2. Red brick frontage.
3. Two-storey semi detached houses.
4. Mirrored façades.
5. Central entrances.
6. Lower ground bay windows.
7. Red pantiles.
8. Chimney stacks.
9. Large back gardens.
10. Half-gabled.

Post-war bungalow



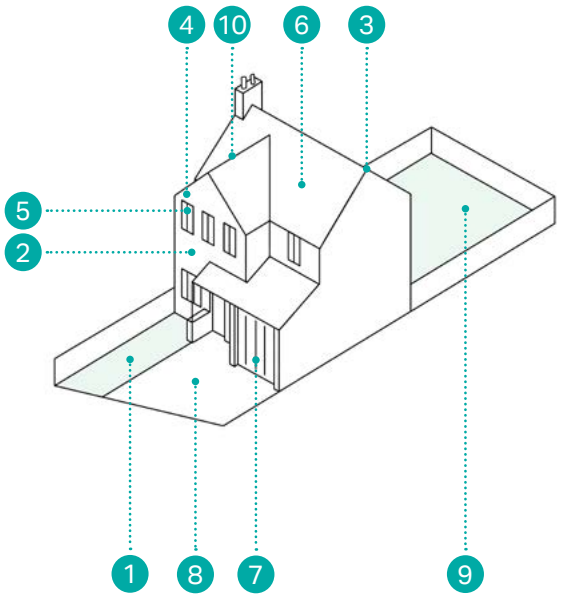
1. Medium to large front garden.
2. Buff or red brick frontage with light render.
3. One-storey bungalow.
4. Rectangular shape.
5. Horizontal windows.
6. Concrete tiles.
7. Varied boundary treatments.
8. One chimney stack.
9. Medium to large back garden.
10. Simple pitched roof.

Neo-Victorian/Georgian detached



1. Small to medium setback / front garden.
2. Red brick or light rendered frontage.
3. Two-storey detached house.
4. Symmetrical fenestration / façade.
5. Sash or bay windows.
6. Red pantiles or grey slate tiles.
7. Low brick wall boundary or hedgerow.
8. Chimney stacks on both or one end.
9. Medium back garden.
10. Pitched gable roof.

Modern detached



1. Irregular shaped front garden.
2. Various colour brick / render frontage.
3. Two-storey detached house.
4. Asymmetrical fenestration / façade.
5. Neo-Georgian/Victorian features.
6. Red pantiles or grey slate tiles.
7. Built-in garage.
8. Driveway.
9. Medium back garden.
10. L-shape pitched roof.

Character analysis

03

3. Character analysis

Achieving quality development starts with a comprehensive understanding of place.

Places have a clear and strong identity and character. They are a combination of their physical form, their activities and their meaning to people. The diagram opposite shows how these factors come together to create a successful place. This character analysis was developed by creating a full picture of the neighbourhood area.

All new development must undertake its own comprehensive analysis of place to understand a proposal's broader context and establish aspirations and place-specific responses to the location, siting and design of new development.

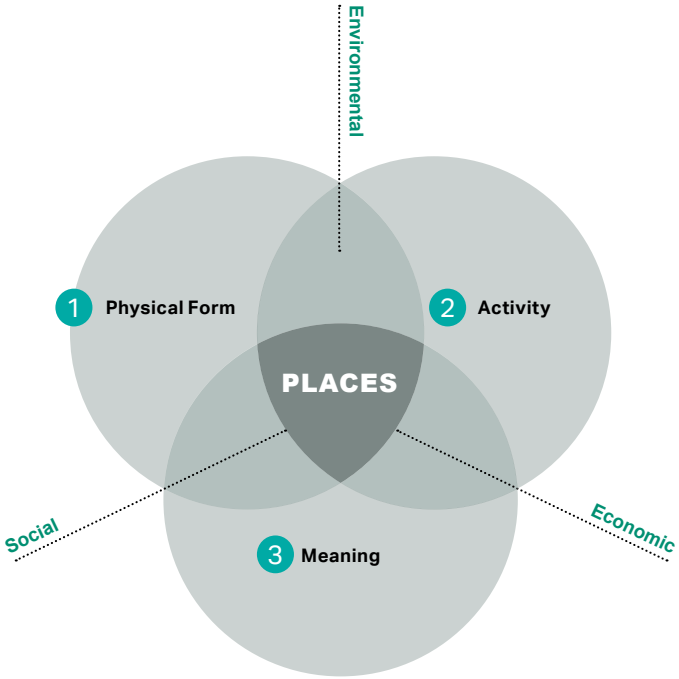
A primary purpose of this document is to help generate sensitive and characterful design responses to existing settlements and their landscape settings.

This character analysis helps understand both the landscape setting and the detailed pattern of settlement growth that underpins the variety of character features across the neighbourhood area.

This analysis has been cross-checked on site as part of this study with a walking tour and photographic study guided by local residents.

Each proposal may require slightly different design detail responses depending on its specific local context within the neighbourhood area, e.g. facing a landscape edge or a main street.

Alternatively, the neighbourhood area may continue to acquire new layers with design approaches and concepts that are innovative and look to meet the future challenges of sustainability and biodiversity net gain. However, these responses must still seek to tie in with the landscape and townscape appeal that help give the neighbourhood area its distinctive character.



1. Physical conditions of existing built development including layout, form, scale, appearance, landscape character, waterways and flood risk.
2. Use, vitality and diversity, including community facilities and local services.
3. How a place is perceived, including local heritage, views inwards and outwards and social histories.

3.1 Urban form

Long Leys achieves a modest level of density suitable for its location at the edge of a thriving city. This allows its urban core to be contained, without sprawling into the surrounding green space.

Most houses are two storeys although there are examples of three storey buildings at key corners and adjacent to St George's Hospital. There are single storey bungalows on Albion Crescent and Albion Close. A generally consistent roofline ensures that no single building dominates the landscape. The exceptions are the buildings of St George's Hospital which, by their nature, occupy large footprints.

Long Leys is at its most characterful when its buildings interact strongly with the street. Street-facing windows and doors, along with good levels of enclosure, increase surveillance and help develop a sense of place. Parts of Long Leys Road have developed a consistent street line, continuing the precedent set by the Victorian Oakleigh Terrace. This improves Long Leys' sense of arrival. There are also good examples of corner buildings that increase legibility in the neighbourhood area, either by clearly defining routes or by acting as way-finding landmarks.

Figure 48: A generally consistent roofline - predominantly two storeys.

Figure 49: There are several three storey buildings including adjacent to St George's Hospital.

Figure 50: Strong enclosure and street interaction established by Oakleigh Terrace.

Figure 51: Newer houses on Long Leys Road enhancing the active streetscape.

Figure 52: Creating an active frontage on what might otherwise be the blank end of a building.

Figure 53: A corner building which might otherwise be occupied by a blank frontage - this aids legibility.

3.2 Building materials

The most common building material in Long Leys is industrial red brick which reflects the fact that several Victorian brickworks were located in the neighbourhood area. The earliest examples include the landmark Gervas House, part of St George's Hospital, and Oakleigh Terrace, both built in the early 20th Century on Long Leys Road. Red brick also dominates much of the neighbouring areas in Lincoln.

The tradition of red brick has continued into the neighbourhood area's more recent estates although there are some variations in colour. The houses on Oakleigh Drive are built from a rustic mottled red brick. Albion Crescent includes examples of buff coloured brick. Mitchell Drive and the streets north of St George's Hospital include a mixture of red, yellow and buff brick. One of the neighbourhood area's newest buildings, the Cloverleaf Care Home, is also built from red brick.

There is also a tradition of light rendering being applied to building façades. The historic Industrial Cottages are the most significant example of this. Several buildings in the newer estates continue this tradition. This provides interesting diversity on streets that might otherwise appear monotonous.

Figure 54: The industrial red brick of Gervas House.

Figure 55: New-build houses in red brick.

Figure 56: The Cloverleaf Care, one of Long Leys' newest buildings.

Figure 57: Varying brick colours on new-build houses.

Figure 58: Light render on the historic Industrial Cottages.

Figure 59: Light render on a new-build house.

3.3 Roofing

There is a range of roofing materials across Long Leys including grey slate tiles, red clay pantiles and modern concrete tiles. Despite this, certain materials make a greater contribution to the neighbourhood area's character.

Grey slate can be seen on some of the neighbourhood area's most historic buildings which is fitting for its industrial heritage. Examples include Oakleigh Terrace, Industrial Cottages and the oldest buildings of St George's Hospital.

There are also numerous examples of red clay pantiles. These tiles are typical of the surrounding Lincolnshire countryside and the combination of grey slate and red clay pantiles well-represents the neighbourhood area's combined urban and rural identity.

Pitched roofs of varying gradients are typical across the neighbourhood area. Some of these, such as the Edwardian semi-detached villas on Long Leys Road, have decorative timber gables.

The newest eco-homes on Albion Close are built in a contemporary style. However, their roof arrangements positively complement their neighbours due to the similarity of heights and gradients.

Figure 60: Grey slate tiles on Oakleigh Terrace (left) and a more recent neighbour (right).

Figure 61: Grey slate tiles on the historic Industrial Cottages.

Figure 62: Red clay pantiles on varying roof types.

Figure 63: Red clay pantiles on buildings from the 1990s.

Figure 64: Decorative timber gables on Edwardian semi-detached villas.

Figure 65: Eco-homes with contemporary roofs that positively contribute to the surrounding character.

3.4 Windows and doorways

With most of Long Leys' buildings dating from the last fifty years, there are few historic buildings that set a clear precedent for windows and doorways in the neighbourhood area.

The windows on Oakleigh Terrace have vertical proportions. Historically these would have been sash windows but modern interventions have negatively impacted this uniformity.

There are also prominent examples of Edwardian bay windows on the semi-detached villas on Long Leys Road.

Many of the neighbourhood area's new-build houses take visual cues from these historic examples. Vertical windows and Victorian/Edwardian style bay windows can be seen across the neighbourhood area.

Many doorways in the neighbourhood area are in a traditional style, reflecting the Victorian-style doorways of Oakleigh Terrace. Oakleigh Terrace also contains several characterful openings that lead to the rear gardens.

Many of the neighbourhood area's streets have strong frontages where windows and doorways directly face the street and provide activity and surveillance.

Figure 66: Victorian style vertical windows on Oakleigh Terrace.

Figure 67: A new-build home with vertical windows that complements its historic neighbours.

Figure 68: Edwardian bay windows on Long Leys Road.

Figure 69: A new-build house with an Edwardian style bay window and traditional door surrounds.

Figure 70: Historic doors and a characterful opening on Oakleigh Terrace.

Figure 71: A traditional style doorway directly facing the street on Mitchell Drive.

3.5 Boundary treatments

The abundance of well-maintained hedgerows is immediately apparent upon entering Long Leys. Notable examples can be seen bordering West Common and Whittons Park at the south of Long Leys Road and bordering the allotments at the north of Long Leys Road.

Hedgerows have been incorporated into several of the new-build estates. They are an important part of the neighbourhood area's green infrastructure network and maintain its strong connections with the surrounding countryside.

Other characterful boundary types include low brick walls. These positively complement the neighbourhood area's predominantly brick buildings. Occasionally these are combined with black railings, for example on the boundary of the Victorian Oakleigh Terrace and surrounding the more recent houses on Oakleigh Drive. There are also examples of stand-alone black railings.

Low walls and narrow railings provide a clear delineation between boundaries but do not obstruct building frontages. This means that surveillance on the streets can remain high which increases safety and a positive sense of place.

Figure 72: A mature hedgerow on Long Leys Road.

Figure 73: Hedgerows alongside the historic Industrial Cottages.

Figure 74: Hedgerows have also been incorporated into the newer estates.

Figure 75: The historic Victorian red brick and black railings of Oakleigh Terrace.

Figure 76: Houses directly fronting the street.

Figure 77: Houses set back further from the street.

3.6 Streets and paths

Long Leys Road is the neighbourhood area's main thoroughfare and it suffers from a number of issues. The industrial estate, St George's Hospital and the numerous cul-de-sacs all contribute to traffic congestion which includes heavy goods vehicles. There are also issues with on-street parking, particularly outside Oakleigh Terrace, where cars frequently overlap the footpath. A relatively low number of crossings makes the pedestrian experience feel hostile at times. This is particularly apparent during school runs when the pavement becomes busy with parents and children, some on bicycles.

Many of the neighbourhood area's residential streets have some good qualities which contribute positively to character. Oakleigh Drive uses different surface types to delineate the road hierarchy and separate the pedestrian footpath. Mitchell Drive contains speed bumps which, along with a good enclosure of buildings, gives the street a village-like feel. Albion Close is lined with generous grass verges which separate pedestrians from the carriageway and enhances the green infrastructure network. The streets to the north of St George's Hospital use a combination of driveways and centre-courtyard parking to minimise on-street parking.

Figure 78: On-street parking overlapping the pavement on Long Leys Road.

Figure 79: A crossing point on Long Leys Road with limited space for strollers and wheelchairs.

Figure 80: Variations in paving materials on Oakleigh Drive.

Figure 81: Speed bumps and good enclosure on Mitchell Drive.

Figure 82: Grass verges on Albion Close.

Figure 83: Internal courtyard parking off Carram Close.

3.7 Green infrastructure

Long Leys' strong green infrastructure network is a key part of its character which gives it a semi-rural feel despite its location on the edge of bustling Lincoln.

Hedgerows line parts of Long Leys Road and Oakleigh Drive. Mature trees also line parts of Long Leys Road. There are fewer trees on the more recent estates although the private front gardens are abundant and very well-maintained. Maturing saplings line the newest residential development along Carram Way and its surrounding streets.

In addition to the large open spaces such as Whittons Park and West Common, there are numerous smaller patches of green space. Examples include the circle at the end of Albion Crescent, the series of public gardens linking Long Leys Road and Carram Way and spaces between Fulmen Close and St George's Hospital.

The Public Rights of Way network varies between paved footpaths and rural grassy lanes. Surrounded by hedgerows and mature trees, these are important links to the surrounding countryside.

Figure 84: Mature trees along Long Leys Road.

Figure 85: The green space at the circle at the end of Albion Crescent.

Figure 86: Maturing saplings in Whittons Park.

Figure 87: The public gardens linking Long Leys Road and Carram Way.

Figure 88: A paved Public Right of Way.

Figure 89: A grassy Public Right of Way.

Design guidance & codes

04

4. Design guidance and codes

This section outlines the expectations for future development in Long Leys. The design codes address the character and quality of new development, sustainable design approaches and other key topics of community importance.

4.1 Introduction

This section supports decision makers and designers when producing or reviewing planning applications in Long Leys. This applies to major development sites or allocated sites, infill development and windfall development, with primary attention on residential areas as well as mixed-use development.

It is acknowledged that there is not always agreement on aesthetic issues and architectural taste. These codes are focused on topics that help designers and decision makers appropriately respond to context. New design proposals can use these codes to enable a clear design process to improve and enhance the setting and sustainability of the neighbourhood area while not detracting from its context and local character or sense of place.

The following topics are addressed by design codes in this section:

- Design Code A - Responsive design
- Design Code B - Sustainability
- Design Code C - Green infrastructure
- Design Code D - Settlement edge
- Design Code E - Open countryside
- Design Code F - Connectivity

Figure 90: A characterful public route in Long Leys.

A Design Code A: Responsive design

4.2 Design Code A: Responsive design

The design of Long Leys reflects its location at the meeting point between the dynamic city of Lincoln and the tranquil countryside of Lincolnshire.

The local pattern of streets and spaces, building traditions, materials and the natural environment help to determine the character and identity of a development. Responding to context means recognising existing positive design solutions or using existing cues as inspiration.

Any new development should acknowledge, respect and enhance these features in order to create harmony and to ensure that future generations have the same level of admiration for their home.

The design codes in this section set out how to respond to the character features set out in section 3. These responses help formulate and review design proposals in line with other local policy.

Figure 91: Development on Long Leys Road of a scale, mass, density, height and level of set-back that responds to its historic neighbours and has a positive effect on the area's overall character.

A1 - Response to local context

- Designers must set out a clear and positive response to the area in which development is sited or adjacent to.
- The planning application should explain how the local context has been analysed and has informed the design.
- Designers do not necessarily need to mimic the existing design profile of the neighbourhood area in the form of pastiche (especially 'bolt-on' elements). However, this approach is not ruled out if done authentically and using high quality materials in order to carefully respond to its context. Innovative and current design is possible provided that the design complements neighbouring buildings in terms of scale, form, massing, set-back and materials.

ROOF MATERIALS

Red clay pantile and grey slate pitched roofs with chimney stacks are the most characteristic roof styles seen on both historic and more recent buildings.






BUILDING MATERIALS

Industrial red brick and light rendering are the most characteristic frontage treatments for the neighbourhood area seen on both historic and more recent buildings.






BOUNDARIES

Low red brick walls, classic black railings and hedgerows (and, at times, combinations of these) are the most characteristic boundary treatments.






A2 - Design principles

- Building scale and massing should be in keeping with the prevailing development pattern and not be overbearing on existing properties or deprive them of light, including over-looking or over-shadowing of both windows and amenity space.
- The building line should reflect the street and be set back no more than a maximum of 1.5m from adjacent buildings unless additional landscaping or tree-planting is being introduced to the street scene. Where buildings are set back from the pavement, boundary features should define the plot and link up to the adjacent buildings (for example, hedgerows or low brick wall).
- Building heights should vary from 1.5-3 storeys depending on adjacent plots. A variable eves line and ridgeline is allowed to create interest but variation between adjacent buildings should be a maximum of 0.5 storeys in general.
- Rear or side plot boundaries which face public spaces must be masonry walls of an appropriate material to match plots and add to the streetscene quality.
- Building scale and positioning on plot should help to define and enclose the space within the street corridor or square to an appropriate degree based on the existing street section (building to building) and level of enclosure (ratio of street width to building height).
- Materials should reflect positive local characteristics and harmonise with adjacent buildings with matching or complementary materials, subject to the degree of variety in the settlement, area or street.
- Building fenestration and pattern should be in keeping with the predominant positive building character on the street or harmonise with adjacent buildings of good character.
- Building entrances should address the street with a main access and main fenestration. Corner buildings should address both streets with fenestration but the main entrance could be on either, subject to access requirements.
- Building façade design should respect the horizontal rhythm of plots and building subdivisions on the street in order to integrate and maintain visual continuity or add to the visual interest where required.
- Front of plot areas and rear gardens should be of sufficient size and landscaped appropriately to fit in with prevailing planting pattern or to enhance the green character of the area where it is lacking.
- Porous surfaces and green parking spaces (for example, grasscrete) are preferable to impermeable parking spaces. Garages are likely to be used for storage rather than parking vehicles and should therefore be set behind the building line or to the rear of the plot.
- Access and storage for bins should be provided and bin stores should be designed to be integrated with plot boundaries. Snickets / alleyways should be considered for terraced buildings with four or more units in order for bicycle and bin storage to the rear to be satisfactorily brought to the front.

- Parking should be integrated on plot and, where possible, with parking spaces set behind the building line, generally to the side of the plot being advisable. For narrow dwellings it is preferable to retain a small front garden with a boundary wall, as opposed to an open hard surface parking space. Where parking is required to the front of the plot it should be accorded sufficient space and should utilise hedgerows to screen cars laterally from the street. On-plot parking should always be preferred to on-street parking.
- Development adjacent to busy roads (such as the A46 which runs through Long Leys) should be designed to mitigate noise and pollution. Considerations include: orientating buildings to form natural acoustic barriers; providing screening against the source of the noise such as earth mounds and planting of trees and hedgerows; laying out buildings to locate non-habitable rooms such as kitchens, bathrooms and stairwells on the noisier aspects; and sound insulation schemes including specialised doors and windows on certain elevations.

BOUNDARIES

Figure 92: The low well-maintained hedge is in keeping with the neighbourhood area and contributes to the green infrastructure network.

Figure 93: The high wooden fence does not reflect the local vernacular and reduces surveillance and safety on the street.

CORNERS

Figure 94: The corner building addresses both streets with fenestration which increases surveillance and permeability.

Figure 95: The corner building fails to respond to corner and provides very limited surveillance over the street.

STREET INTERACTION

Figure 96: The façade addresses the street providing surveillance and activity and positively contributing to enclosure.

Figure 97: The blank wall is unattractive and provides no surveillance making the area feel inactive and unsafe.

A3 - Design response

Designers must respond to the character of the neighbourhood area with one of the following three approaches:

1. **Harmonise** - clearly respond to existing characteristics within the neighbourhood area, street and site, including scale, form, massing, set-back and materials.
2. **Complement** - doing something slightly different that adds to the overall character and quality in a way that is nonetheless fitting, for example, additional high quality materials but harmonising in scale, form, massing, set-back and materials.
3. **Innovate** - doing something of high design quality that is different but adds positively to the built-form and character and is considered an exemplar approach for others to follow. For example, developing innovative building form and use low embodied energy and high quality materials that add to the overall design quality, sustainability and richness of the area.

1

This house mimics the features of Lincoln's Georgian and Victorian detached houses with a symmetrical frontage, vertical and horizontal alignment of windows, red brick façade, grey slate roof, chimney stack, black railings and strong street interaction.

2

The building to the right is in a more modern style but with a traditional pitched roof and similarity of height and building materials. The slight set-back respects the historic terrace and doesn't dominate or damage its fabric by affixing to end of the existing building.

3

This 21st Century building showcases the use of sustainable materials and modern building practices. It still contributes positively to the neighbourhood area with its two storey height, grey slate roof tiles, horizontal alignment of windows and a modern interpretation of pitched roofing.

A4 - Backland development

Access to external private space is important for wellbeing. Back gardens make an important contribution to an area's green infrastructure network. If development is required on a garden plot, it is important to consider the ecological impact. There may be protected species (such as newts, reptiles and bats) and trees that are either protected or otherwise have a positive contribution on the overall streetscene.

Quality and durable construction: Conversions, extensions and outbuildings should be made from high-quality and durable materials so as to maintain their integrity and aesthetics over time. They should use the latest sustainable construction techniques on the market at the time.

Matching the existing dwelling: Conversions, extensions and outbuildings should emulate or reference the architectural detailing and character of the primary dwelling. Details (e.g. finials, coping, string courses and window and door surrounds) of the existing dwelling should be carefully considered.

Screening outbuildings: Outbuildings should ideally be positioned behind screening so as to be out of the public view (e.g. trees, hedgerows, planting and existing buildings).

Positioning outbuildings: Outbuildings should be positioned alongside, or close to, the primary dwelling. This will help to minimise the visual impact of any outbuilding due to screening provided by the dwelling.

Outbuildings as secondary tier buildings: There should be a clear building hierarchy with outbuildings being secondary to the primary dwelling within a plot.

Overshadowing and outlook: Severe loss of a neighbour's natural light can fall foul of right to light legislation. The loss of an open outlook should also be considered as a potential loss of amenity.

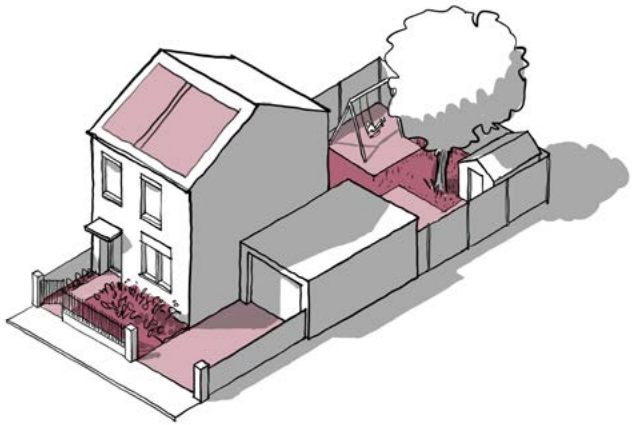


Figure 98: Back gardens are important for wellbeing and contribute to an area's green infrastructure network.

Figure 99: Abundant back gardens in Long Leys. Any development that reduces this should be carefully considered.

B Design Code B: Sustainability

4.3 Design Code B: Sustainability

The climate emergency has created the need to decrease our carbon footprint towards net-zero by providing innovative solutions to transportation and the energy use of buildings.

Sustainable design incorporates innovative practices at all scales of design to achieve less impactful development footprints, whilst future proofing homes, settlements and natural environments. Reducing the use of limited natural resources whilst increasing utilisation of local resources and sustainable natural resources can help to achieve this.

Sustainability is a key priority for Lincoln. The Lincoln Climate Commission emerged as a collaboration with the City of Lincoln Council, Siemens, Transition Lincoln and the University of Lincoln. The Commission has created an action plan for Lincoln to become a net zero carbon city for 2030. The Commission's sustainability toolkit can be found at the following website: https://express.adobe.com/page/Ap3p9fYrHWHFf/.

Figure 100: Solar panels on houses in Long Leys.

B1 - Resilience to the climate emergency

All new development should work to moderate extremes of temperature, wind, humidity, local flooding and pollution within the neighbourhood area:

- Avoid siting homes in high risk flood areas and mitigate increased risk of storms/flooding with sustainable drainage systems (SuDS). These reduce the amount and rate at which surface water reaches sewers and watercourses. Often, the most sustainable option is collecting water for reuse, for example in a water butt or a rainwater harvesting system. This reduces pressure on valuable water sources.
- Eco-systems cannot adapt as fast as the climate is changing, leading to loss of biodiversity. Protecting and enhancing woodlands, watercourses and green infrastructure can combat this. Aim to increase ecology through biodiversity net-gain on major development sites. Use street trees and planting to moderate and improve micro-climate for streets and spaces.

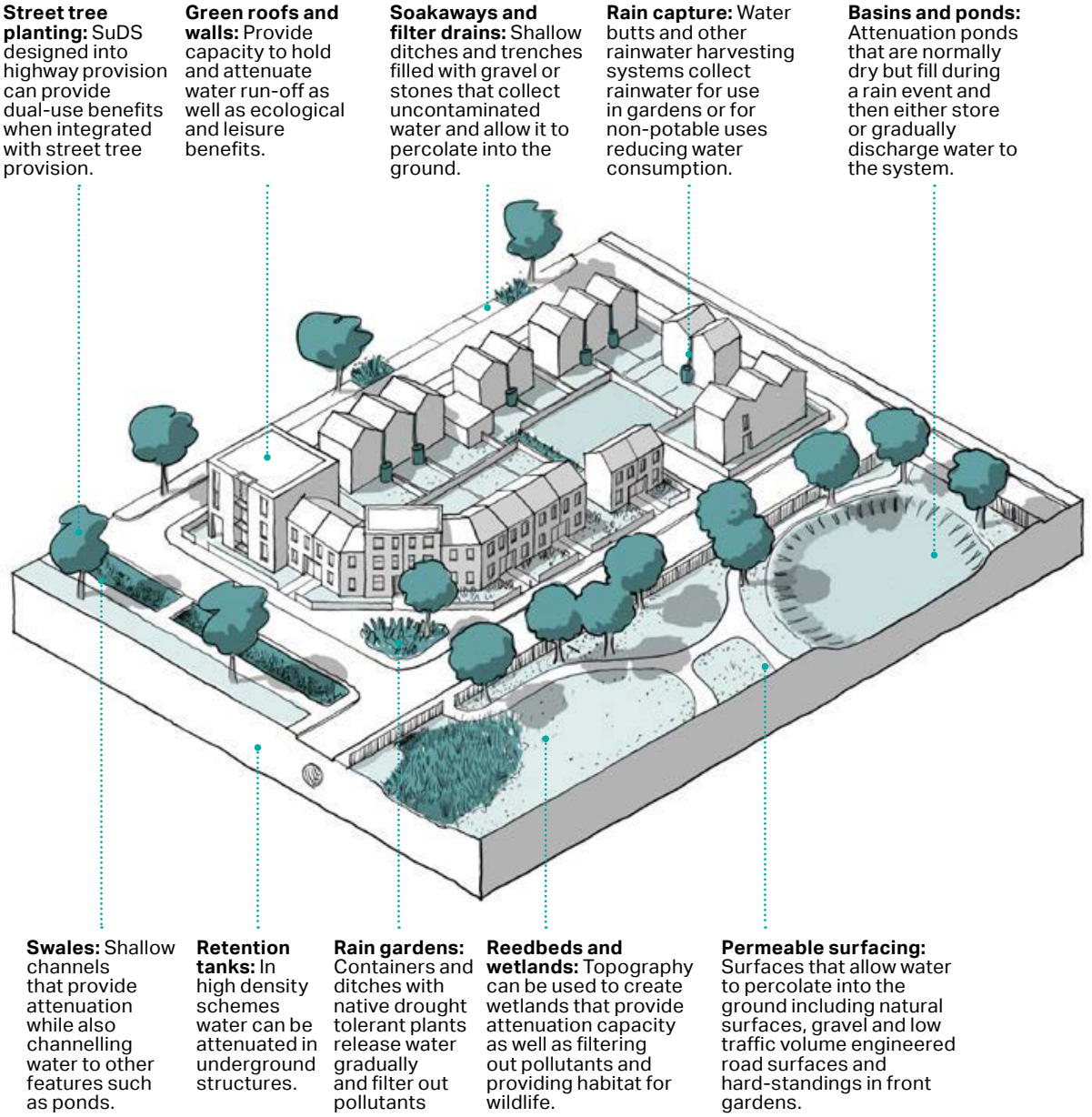


Figure 101: Sustainable drainage systems (SuDS) as set out in the National Model Design Code.

B2 - Assessing alternative energy sources

Where practicable, future development should be in line with the ideals for net zero by:

- Optimising solar orientation of streets and buildings. Aim to increase the number of buildings on site that are oriented within 30° of south (both main fenestration and roof plane) for solar gain, solar energy and natural daylighting.
- Assessing ground conditions to accommodate loops for ground source heat and space for air source heat pump units.
- Where the points above have been satisfied, provide air source heat pumps and integrate solar panels.
- Utilising local estates for sustainable coppicing, harvesting or recycling of biomass fuels.
- Understanding local wind speed and direction for micro-generation wind turbines.

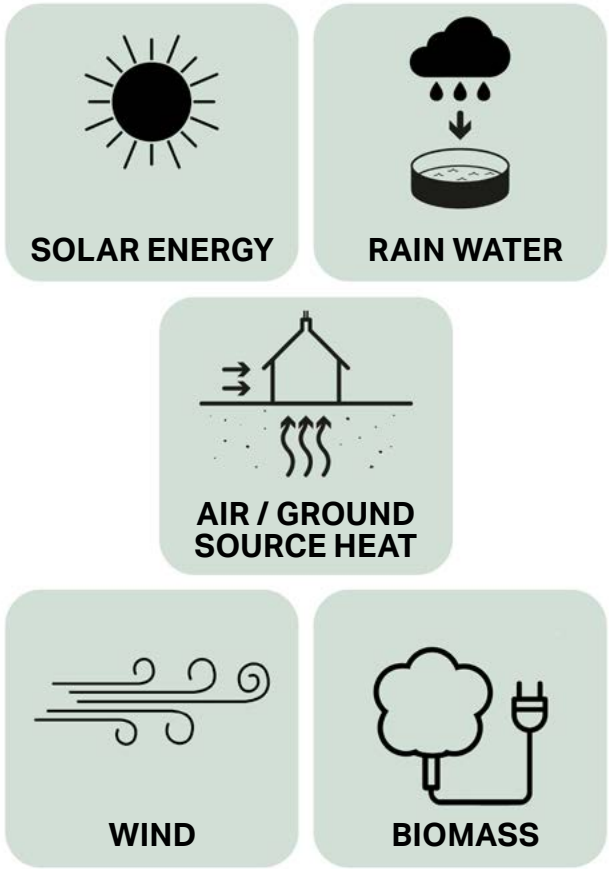


Figure 102: Some key alternative natural energy resources.

Figure 103: Contemporary solar panel design integrated within a traditional roofscape.

Figure 104: Air source heat pump housing covers the unit and harmonises with the building aesthetic.

B3 - Electric vehicle charging

The current transition to electric vehicle technology and ownership comes with related issues that must be addressed by new development. Two key areas are explored below - public parking areas and private parking for homes.

Design issues to address for public parking:

- Provision of adequate new charging points and spaces, and retrofitting existing parking areas.
- Serving remote or isolated car parks (e.g. in woodland areas).
- Retrofitting existing public parking and upkeeping design quality of streets and spaces (attractiveness and ease of servicing and maintenance).
- Integrating charging infrastructure sensitively within streets and spaces, for example, by aligning with green infrastructure and street furniture.
- Sensitive integration of charging infrastructure within heritage areas.

Design issues to address for parking at the home

- Convenient on-plot parking and charging points close to homes integrated within the development to minimise the visual impact.
- The potential to incorporate charging points under cover within car ports and garages.
- Integrate car parking sensitively within the streetscene. For example, parking set behind the building line or front of plot spaces lined with native hedgerow planting.
- Consider visitor parking and charging needs.
- Existing unallocated and on-street parking areas and feasibility to provide electric charging infrastructure not linked to the home.
- Potential for providing secure, serviced communal parking areas for higher density homes.
- Please refer the RISCAuthority and Fire Protection Associations' document RC59: Recommendations for Fire Safety when Charging Electric Vehicles: www.thefpa.co.uk/resource-download/360.

Figure 105: An electric vehicle charging point at St George's Hospital.

Figure 106: Home electric vehicle charging point located at the side of the dwelling to minimise the visual impact.

B4 - Energy efficiency measures towards net-zero carbon

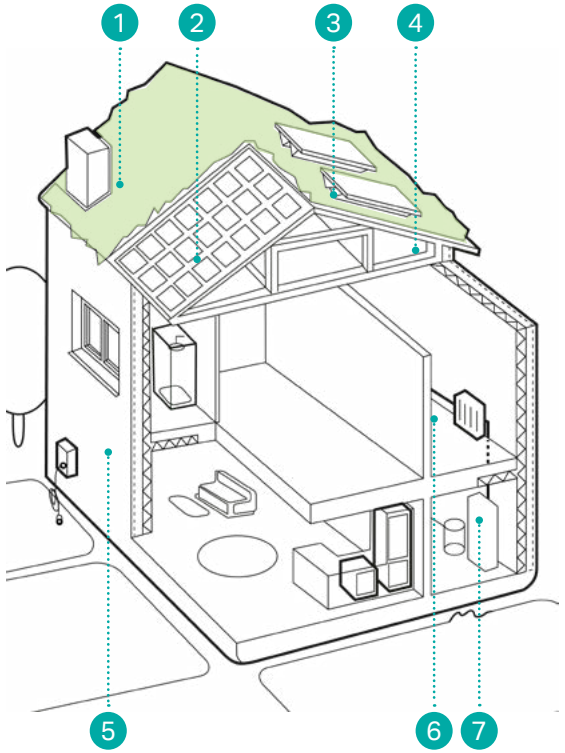
Energy efficiency: It is paramount that new development strives to achieve a high energy efficiency performance rating through the Government's Standard Assessment Procedure (SAP) calculation process. Development should adopt a fabric first approach in line with the Government's emerging Future Homes Standard and Part L of the UK Building Regulations in order to attain higher standards of insulation and energy conservation.

Renewable energy: On-site renewable energy generation (solar, ground source, air source and wind driven) should be maximised.

Building form: Consider building form and thermal efficiency: point-block / terraced / semi-detached / detached all have different energy efficiency profiles. This must be balanced with local design preference and character considerations to ease acceptance for development.

Passive cooling:

- The layout and orientation of new buildings contributes to reducing their energy needs by avoiding overshadowing and maximising passive solar gain, internal daylight levels and ventilation.
- The design of windows needs to consider orientation to balance heat loss and beneficial solar gain, daylight and sunlight. Southern-facing glazing can be beneficial in contributing to overall energy demand in winter. It can lead to overheating in summer and excessive heat loss on cold cloudy days in winter. Glazing needs to be sized appropriately for context and passive measures such as external shading devices or provision for future installation of shading devices needs to be considered to reduce reliance on mechanical ventilation.
- Street trees provide shading and cooling, along with habitat, air quality improvements and carbon sequestration.



1. Mechanical ventilation system.
2. Integral solar tiles.
3. Solar panels.
4. Green roof.
5. Electric vehicle charging point.
6. Efficient utilities and appliances.
7. Wall insulation.

Figure 107: Cut-through diagram of an energy efficient home and its features.

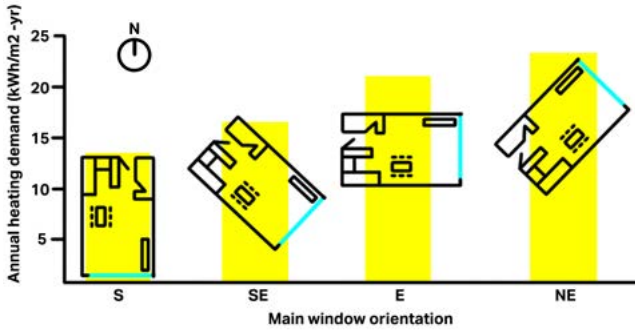


Figure 108: Building orientation influences the annual heating demand.

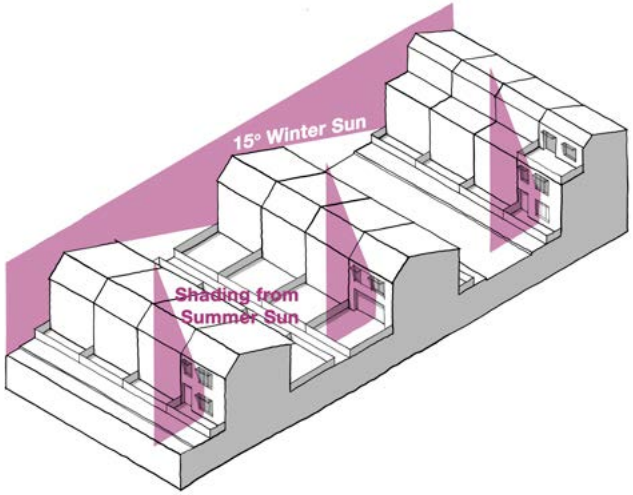


Figure 109: A diagram from the National Model Design Code showing that the layout and orientation of new buildings contributes to reducing their energy needs.

C Design Code C: Green infrastructure

4.4 Design Code C: Green infrastructure

Long Leys' intrinsic connection to the surrounding countryside, along with an established green infrastructure network within the urban area, set an example for all of Lincoln to follow.

There is still room for improvement, however. Each of the neighbourhood area's open spaces could be better connected by a robust network of grass verges, pocket parks, hedgerows and street trees.

There have been good examples of street tree planting and grass verge placement in some new developments, for example along Manrico Drive. However, there are other streets that have failed to contribute to the network and that rely too heavily on abundant front gardens.

The Environment Act 2021 sets out a mandatory requirement for development to deliver at least a 10% biodiversity net gain and approval of a biodiversity net gain plan.

The following codes set out how to consider the retention, provision, amount, type and locations for trees and other planting as a critical part of new developments.

Figure 110: Saplings lining a public footpath in Whittons Park.

C1 - Retain, replace, improve, maintain

The National Design Guide and National Planning Policy Framework (NPPF) put great emphasis on tree-lined streets and integrated green infrastructure design to provide 'green islands' and connected corridors which contribute to localised cooling and provide habitats and public amenity.

Retain

Tree surveys and impact assessments should be provided which highlight the trees on a site which are to be retained and those which are to be removed. It is preferable to retain a good quality tree than to replace it.

- Where significant trees are located on site, independent surveys to assess the development impact must be completed. This should inform the local community and could lead to objections where significant trees are impacted.

Replace

Ensuring trees removed from development land are proportionately replaced is important to maintaining current levels of canopy cover and green infrastructure. A common misconception is that replacing on a 1-for-1 basis is proportional. This is not necessarily the case. 1-for-1 replacement can reduce canopy cover, green infrastructure habitat and public amenity.

- Where trees are to be replaced, consider using a proportionate scale to determine numbers of replacement trees required based on the size of tree removed.

Improve

To just replace removed trees or do nothing if trees are not removed is commonly misunderstood to be acceptable. However, the NPPF requires 'improvement', 'enhancement' and 'net gain'. These are not words that aim to maintain a status quo on trees.

- For major development sites, an area of development land could be dedicated for tree planting in the form of a multi-functional community woodland. Relative population density and designated land use types put pressure on a greater density of development and often results in side-lining tree planting and biodiverse green infrastructure design.

Maintain

Annual care for trees in their first five years is vital. Large numbers of young trees die from neglect, especially from the failure to carry out basic weed control. Mature trees should also be inspected at least once a year to look for signs such as: reduction in twig growth, fewer or smaller leaves, fewer buds, dieback in the crown, trunk decay and spotted, defored, discoloured or dead leaves that could be caused by insects.

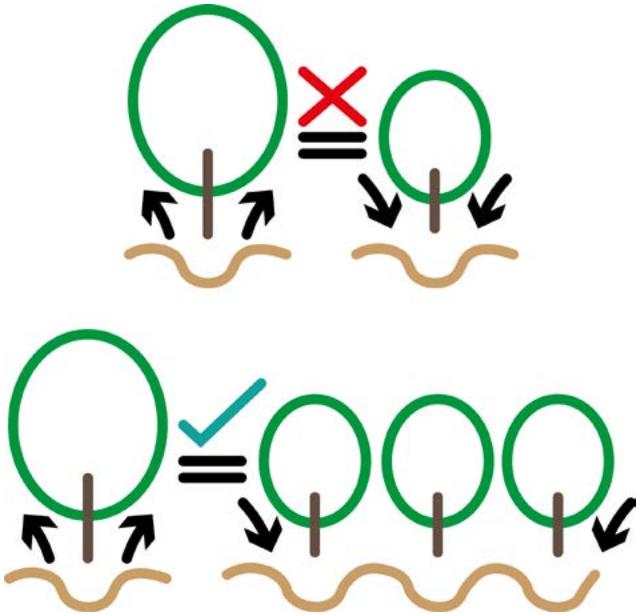


Figure 111: Replacing trees on a 1-for-1 basis is not necessarily proportional because of the reduction in the canopy cover, habitat and public amenity.

C2 - Right tree, right place

The overall aim should be to plant trees and other soft landscaping. This must form part of each development regardless of size. How appropriate a tree is for any given urban location must also be determined based on space requirements.

This may simply be stated as:

- Small to medium trees for small spaces such as front gardens and narrower streets.
- Larger trees for avenues and more open environments such as parks, grass verges and landscaped areas.
- Other native or suitable planting to soften the appearance of plots and buildings.

The climate emergency is the biggest challenge for species selection as we don't yet know the extent of this. We can assume greater variance with hot and dry summers and wet and windy winters. Weather extremes tend to push native trees to the limit of what they can cope with genetically. As such, we should also look at trees more suitable to northern and central Europe.

A significant challenge is finding species that provide similar habitats for native birds, bats and insects.

- For now, native UK trees should be preferred or non-native trees where a specific reason exists.
- Native UK trees are preferred but non-native types could be incorporated which are suitable for the biodiversity of our native species. The climate emergency will change the environment over the next 50-100 years and we may need further qualities of resilience that our native trees cannot provide.

Ensure street trees and green infrastructure provide for a range of functions and benefits and are sufficient to help improve air quality and reduce noise from the street network.

Coordinating tree planting with utilities providers and service ducts early in the lifetime of a scheme can ensure that trees do not interfere with underground services.

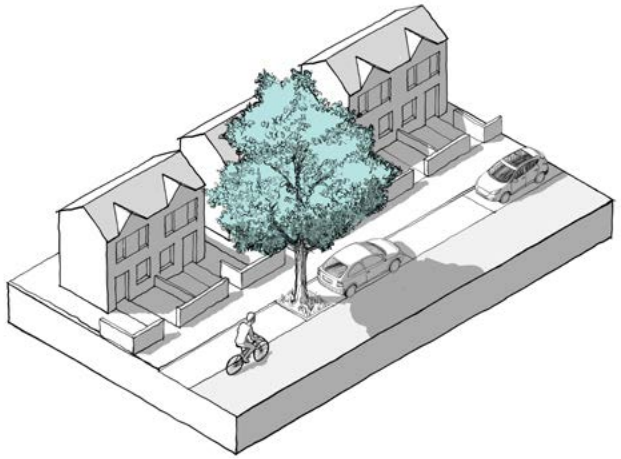


Figure 112: Street tree planting incorporated within the parking area to avoid disrupting the pavement or carriageway as set out in the National Model Design Code.

Figure 113: Positive and strong green infrastructure connections between Long Leys Road and Carram Way.

C3 - Wildlife protection

Swifts, swallows and house martins: These birds have historically nested on houses in Long Leys. However, species have declined in number across the UK in recent decades. Swifts are Red-Listed, making them of the highest conservation concern. Artificial nests can be added to houses in a number of ways including:

- "swift bricks" which can be made to match any brick or stone and can be used in blockwork or brickwork walls, ideally as the top course, or placed high in gables, flank walls and end of terraces; and
- dedicated box eaves.

Hedgehogs: Hedgehogs need to be able to move freely through a well-connected range of habitats to find food, mates and areas to nest. They can travel around 2km in a night in urban areas, and up to 3km a night in rural areas.

Hedgehog habitats include:

- dense scrub to build hibernation nests during the winter;
- short grass to forage in for invertebrate prey;
- longer grass to forage in and to make nests in during the summer;
- areas of leaf litter to collect and use for hibernation nests;
- log piles and decaying vegetation to forage in and hibernate in; and
- hedgerows and boundary vegetation which create important corridors for travel and nesting sites.

Habitat enhancement measures include:

- using fence panels with 13 x 13cm holes at ground level (hedgehog holes);
- leaving a sufficient gap beneath gates;
- leaving brick spaces at the base of brick walls;
- providing temporary hedgehog houses during site clearance and construction;
- noting that native species hedgerows for property boundaries are preferable to walls and fences;
- reducing areas of hardstanding by creating green, permeable living driveways; and
- incorporating levels / ramps for ponds.

Bats: All bat species are fully protected by law. Activities that can affect bats include:

- renovating or demolishing buildings;
- cutting down mature trees;
- repairing roofs or repointing brickwork; and
- removing 'commuting habitats' such as hedgerows, watercourses or woodland.

Figure 114: A hedgehog house (left) and fence panel to allow hedgehog movement (right).

Figure 115: A red "swift brick" (left) and a dedicated box eve for swifts (right).

Figure 116: Boxes for swallows and house martins designed to mimic natural mud nests.

Design Code D: Settlement edge

4.5 Design Code D: Settlement edge

Long Leys' urban area is surrounded by a green wedge on all sides making it particularly important to make the settlement edge as attractive as possible. Both the townscape and landscape features of the neighbourhood area provide a series of key views. Such views should be protected from within and outside of the urban area.

When developments interact poorly with open green space, it can have a negative impact on that space. Beautiful landscapes suddenly book-ended by wooden fencing or blank walls can be jarring. There are ways to provide seamless transitions between rural and urban spaces. Buildings and green spaces can work together to create beautiful vistas.

The following design guidelines respond to the contrast in character between the urban character areas and the landscape character areas. This contrast requires a sensitive and considered design response.

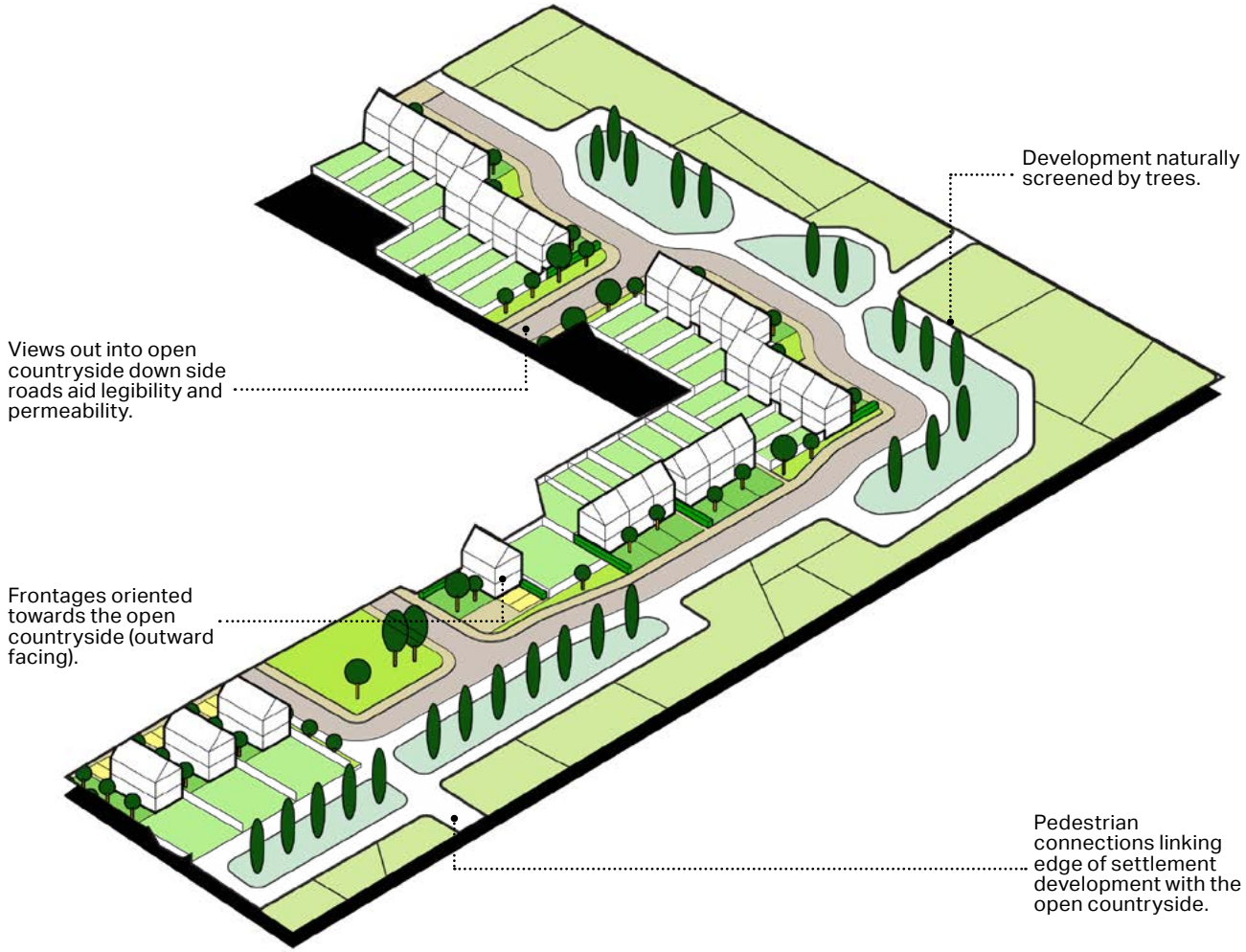


Figure 117: Landscape sensitive edge of settlement development diagram.

D1 - Landscape, views and the settlement edge

- **Sensitive peripheral development**: Integrate development sensitively with the surrounding landscape, particularly on the periphery of Long Leys' urban area. Lower building heights and smaller scale development are most appropriate for peripheral locations such as these.
- **Transitioning between city and landscape**: Proposals that include buildings of lower heights (i.e. 1-1.5 storeys) should be considered in areas with key view and landscape sensitivities. Proposals on the settlement edge should be configured to produce a harmonious transition between both the surrounding landscape and the urban area. This can be achieved via a mixture of lower height development and using natural screening (i.e. hedgerows, tree cover, green roofs etc) to mitigate a development's visual impact.
- **Protecting views at the settlement edge**: Proposals on the settlement edge should not obstruct key views looking both inwards and outwards of the settlement. Views of the neighbourhood area's landscape and built form are a locally defining feature that contribute to the legibility and wayfinding of the area.
- **Protecting and creating views**: Buildings should be oriented to maintain existing key views or to create new views or vistas to contribute to local wayfinding. Views of landmark buildings and landscape features surrounding Long Leys (such as Lincoln Cathedral and West Common) should be utilised to promote legibility across the neighbourhood area. Such views also contribute to the character and overall attractiveness of the area and should therefore be considered within proposals.
- **Settlement edge gateways**: Long Leys Road is a strategic gateway at the points where the landscape abuts the urban area. Gateways into Long Leys should maintain a sense of visual prominence by fostering a sense of arrival. This can be achieved through the use of landmark features, utilising key views and vistas, large setbacks and public realm.

Figure 118: Outward facing homes overlooking Long Leys Road Cemetery and screened by trees, shrubs and hedgerows.

E Design Code E: Open countryside

4.6 Design Code E: Open countryside

Lincolnshire is a predominantly rural county with a large part of the neighbourhood area falling within a green wedge predominantly consisting of arable fields and open space. Many of Long Leys' streets have views into the countryside.

This code directly applies to any development proposals in the open countryside. Any development within the neighbourhood area will have a visual impact on the open countryside's rural character.

The following codes seek to mitigate this, by ensuring contextual design-led development.

E1 - Design principles

- The conversion or re-use of existing buildings in the open countryside should be encouraged. External works to any conversion should be largely cosmetic and have a minimal visual impact on the landscape in which it relates.
- Proposals should be positioned behind natural screening (i.e. trees and other planting) so as not to obstruct views of the surrounding landscape. Additional screening should be incorporated into any given proposal where necessary.
- Agricultural or commercial proposals should refrain from using materials and colours that contrast with the surrounding landscape. Muted and contextual colour palettes are encouraged so as not to disturb the local landscape character.
- Sustainable-led proposals such as renewable energy infrastructure should be considered on the grounds of its positive legacy. Small-scale renewable energy sources should be encouraged for providing power to rural developments. However, such infrastructure should be screened or integrated within developments in order to mitigate visual impact on the open countryside.
- Innovative and sustainable screening methods include green roofs and plant walls. Such screening will help outbuildings to blend into natural surroundings such as a domestic garden or open space.
- Proposals showcasing exceptional and innovative architectural styling (i.e. contemporary) may be considered where they can provide harmony with the character of the surrounding open countryside, as well as showcasing high quality sustainable design.

- Any lighting or illumination of a development must consider its necessity, as well as its impact on surrounding properties, particularly where powerful lighting is being proposed. Any lighting infrastructure must balance its necessity with that of the power, scale and orientation being proposed. This is to avoid overly powerful lighting that can impose on the amenity of other plots, as well as mitigate undue light pollution in the open countryside.
- Living near a working farm can lead to safety concerns due to heavy farming equipment. New development should consider: preventing on-street parking to keep roads clear; implementing hazard signage; planting street trees and hedgerows for noise and pollution protection; traffic calming measures to limit jams.

Figure 119: Examples of what high quality development in the open countryside can look like. Referencing agricultural heritage as well as contemporary design via high quality materials, windows, and size and scale.

F Design Code F: Connectivity

4.7 Design Code F: Connectivity

Long Leys Road suffers from congestion at peak times. This is due to multiple factors including the locations of the industrial park, St George's Hospital, the allotments and Long Leys Road Cemetery. This is made worse by the number of cul-de-sacs that converge onto Long Leys Road with no alternative connections.

There are opportunities to improve active travel in the neighbourhood area which will also ease pressure on the roads. Many routes are already located in and around the neighbourhood area, such as the public rights of way and pavements. The green areas and public spaces also represent focal points that could be included in a new active travel network as activity nodes.

Managing traffic and reducing reliance on cars can protect the environment, help to keep pedestrians, cyclists and horse-riders safe, and allow for the creation of an attractive and welcoming place.

F1 – Streets

- **Hierarchy**: Streets should follow a simple well-defined hierarchy that creates a visual character distinction for more and less busy streets. Key elements of street hierarchy can be defined with a narrowing of street width, use of materials and planting strategies.
- **Slow-speeds**: Change in materials, raised tables at junctions and variations in width can moderate vehicle speeds as well as improve legibility and permeability within development.
- **Inclusive design**: Consciously discharge the duty of care to all street users particularly the most vulnerable, such as prioritising design from a wheelchair, pedestrian and cyclist perspective first, over and above less vulnerable vehicle users.
- **Gateway features**: Legibility can be improved through the use of landmark buildings, tree planting and way-marking features (e.g. public art) and signage.
- **Accessible and safe design:** Route design should take account of various abilities such as hearing and sight impaired pedestrians with guide dogs or young children who may not be able to judge traffic speed above 20mph accurately when out playing.
- **Permeability**: The arrangement of streets, routes and spaces should be permeable for pedestrians and cyclists with a focus on access to services and facilities, public transport and existing routes. Proposed development must promote connectivity and access to adjacent urban and landscape areas.
- **Public footpaths**: Public footpaths should be paved with high quality materials to encourage walking. This will improve safety and reduce traffic congestion, particularly for children who may be encouraged to walk to school. Some of Long Leys' public rights of way are dirt paths which become largely impassible during heavy rain and in the winter months generally.

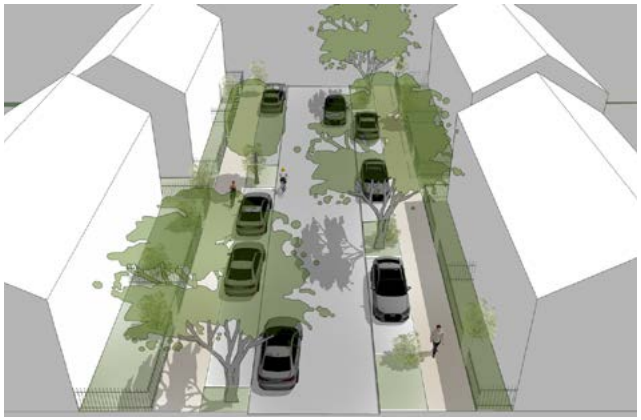


Figure 120: Street types by design.

Primary Streets

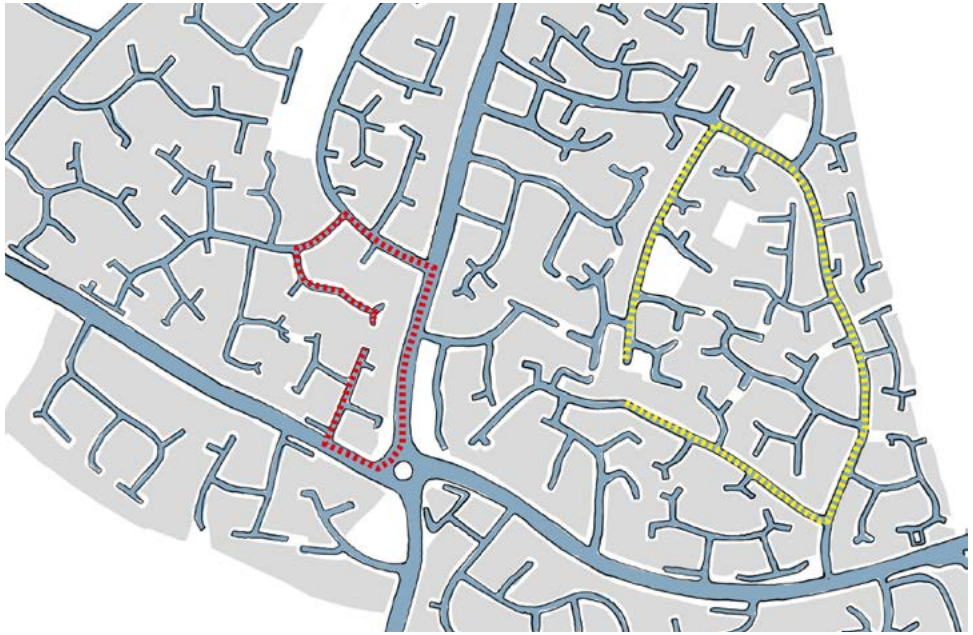
- Building height 2.5 storey
- Street trees and grass verges
- Cycle lanes
- Street-building enclosure ratio < 4:1
- Greater building setback (2-5m)

Secondary Streets

- Building height < 2.5 storey
- Street trees and verges with inset parking bays
- Street-building enclosure ratio < 3:1
- Medium building setback (1.5-4m)

Tertiary Streets

- Building height < 2 storey
- Informal street surfacing with protected areas for people / parking
- Street-building enclosure ratio < 2:1
- Lesser building setback (1-3m)



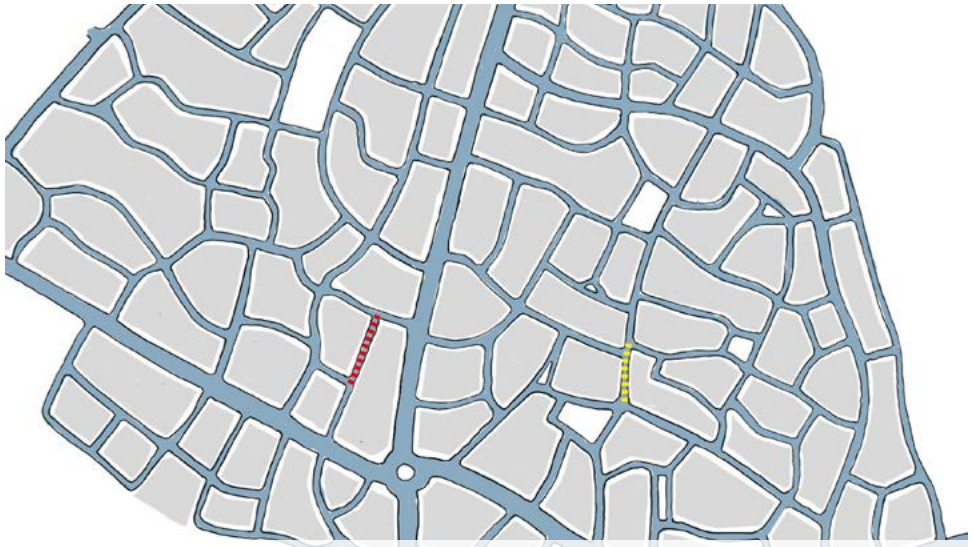


Figure 121: A connected network of streets reduces walking distances. It is direct, allowing people to make efficient journeys. Direct routes make walking and cycling more attractive and increase activity, making the streets feel safer.

F2 – Putting pedestrians first

Figure 122 shows interventions which can help to improve the pedestrian experience on busy roads.

1. Raised zebra crossings located on key desire lines enhance safe cross-street pedestrian movement and reduce the barrier effect of busy roads.
2. Central carriageway strip with low cost / maintenace materials narrows the street visually.
3. Wider footpaths encourage walking and allow space for street trees. Pre-cast entrance kerbs and tactiles aid people with visual impairments and cognitive differences.
4. Reduction of on-street parking avoids obstructions to movement and improves appearance.
5. Safe cycle storage.
6. Trees, rain gardens and community planting contribute to enclosure, drainage, shading, sound reduction, pollution mitigation and attractiveness.
7. Accessible seating within green spaces provides places to rest.

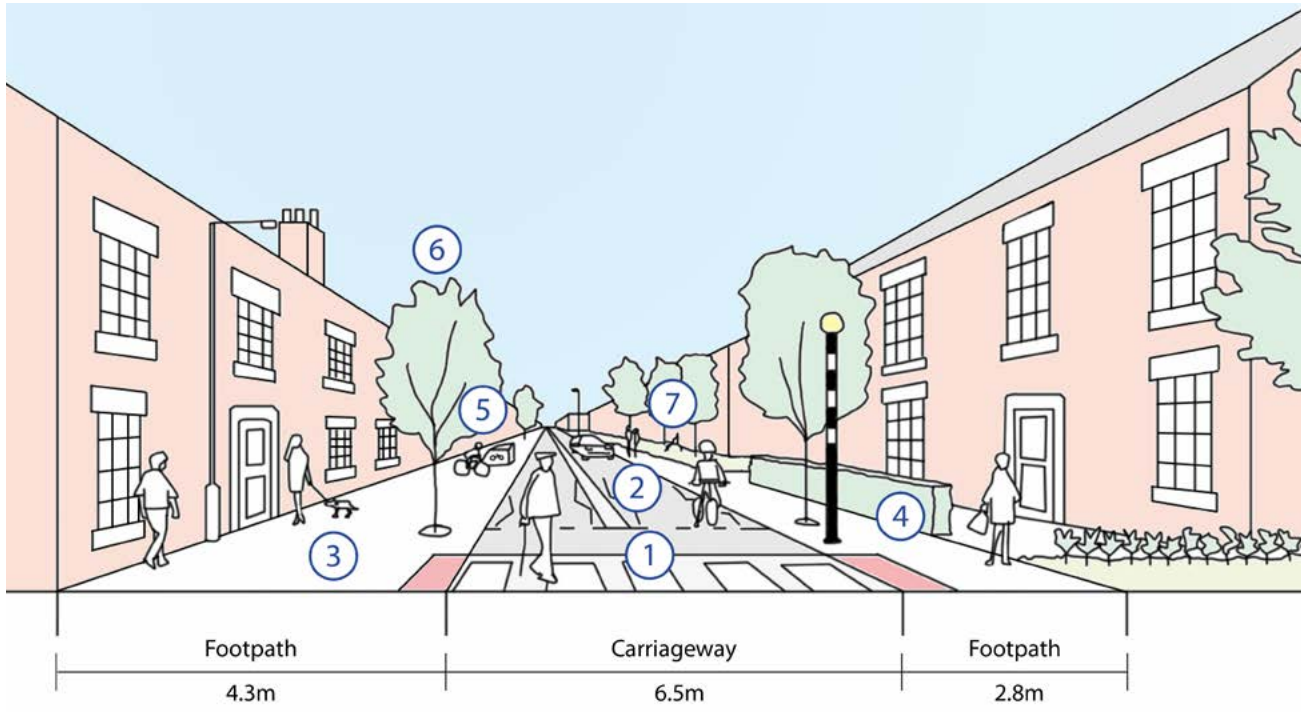


Figure 122: Potential design interventions for busy roads (not a technical template for design).

Figure 123: Long Leys Road is dominated by carriageway with insuffiient crossing points and relatively narrow pavements.

Figure 124: Failure to adequately consider parking leads to on-street parking which can act as a barrier to movement as well as being visually unappealing.

F3 – Active travel

The following codes provide guidance for the creation of new active travel networks in the neighbourhood area:

- Using high-quality surfaces and defining a specific material and colour palette to create a safe, attractive and legible network.
- Active travel routes on main streets should be off-carriageway and should be separated to provide a safe and continuous network for pedestrians, wheelchairs and cyclists.
- Crossings should be raised and highlighted with appropriate signs.
- Existing green areas, public spaces and local amenities should be integrated as focal points.
- The active travel network should aim to strategically connect different character areas within Lincoln.
- Shared surface spaces can remove priority of vehicles in order to slow traffic and increase safety.

Figure 125: A cycle lane in Manchester in a defined colour and material, segregated from the carriageway by planting and not disrupted by the location of the bus shelter.

Figure 127: A shared surface scheme at a busy junction in Poynton, Cheshire which creates an equality of space in order to slow traffic and increase safety.

Figure 126: Calming traffic on Long Leys Road and promoting active travel options can help to protect pedestrians, cyclists as well as the area's numerous horse-riders (as shown here on Long Leys Road).

F4 – Services and utilities

- **Service and delivery vehicles**: The road network should take account of access for refuse collection and deliveries to avoid blocking roads and private driveways. The size of refuse collection vehicles varies and care needs to be take to ensure that their turning requirements do not compromise the layout.
- **Letter boxes**: A significant number of absences by the Royal Mail's 95,000 postal delivery employees are related to back problems caused by low level letter boxes. EU standards require letter boxes to be fitted between 70cm and 170cm and there have been calls in the UK to follow this approach. Another alternative is the use of smart parcel boxes that can be sensitively and securely placed separate from the door (for example affixed to an external wall). This has the added benefit of improving insulation and reducing heat loss in homes. Developers should consider this option with the aim of meeting sustainability targets.
- **Emergency vehicles**: All developments must be accessible to emergency vehicles. Sites with limited vehicle access points must ensure that such vehicles can gain access if a road is blocked. This is a particular problem with unregulated on-street parking.
- **Refuse collection options**:
  - **In-curtilage Provision**: This can be provided to the side or rear of the property in detached housing. For terraced housing, collection needs to either be from the rear or a bin store needs to be provided at the front.
  - **Communal Provision**: An alternative for terraced housing as well as for apartments is communal provision. Reference should be given to guidance on carry distances and distances to collection points.
  - **Bring Points**: An alternative is to use underground waste storage bins, although this requires a specialist collection vehicle.

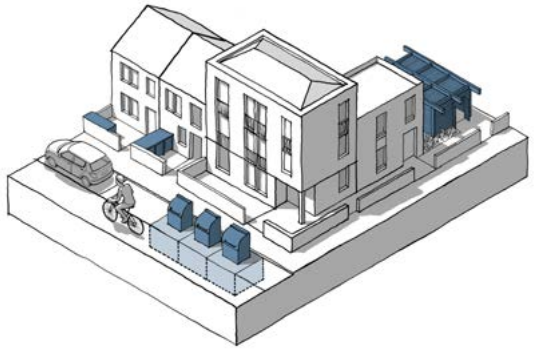


Figure 128: Refuse collection options as set out in the National Model Design Code.

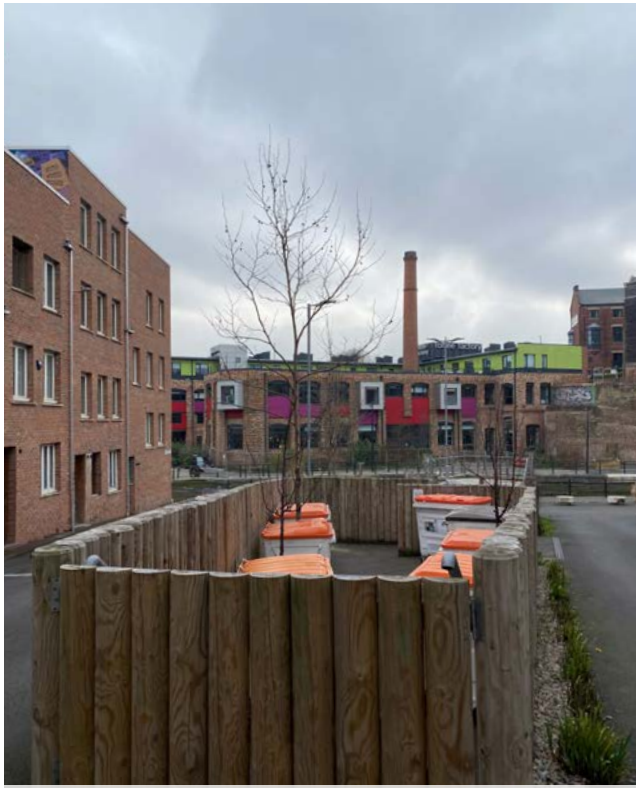


Figure 129: Concealed communal refuse storage in Newcastle upon Tyne .

- **Telegraph poles**: Telegraph poles and overhead lines have a negative effect on character by cluttering the streetscape and spoiling the view of heritage assets. It is preferable for utility companies to either install underground cables or to share existing infrastructure with other companies. However, planning permission is generally not required for companies to install telegraph poles and overhead lines (see https://commonslibrary.parliament.uk/broadband-companies-and-telegraph-poles/ for further details). Generally, broadband companies are required to give 28 days' notice to the Local Planning Authority (LPA) before they install communications infrastructure in a new area. This includes telegraph poles. LPAs can use this time to raise any concerns about the proposals. If residents are concerned, they should, in the first instance, contact the broadband company or the LPA. There have been examples of companies halting the deployment of poles in response to local opposition.

Checklist

05

5. Checklist

This section sets out a general list of design considerations by topic for use as a quick reference guide in design workshops and discussions.

1

General design considerations for new development

- Integrate with existing paths, streets, circulation networks and patterns of activity.
- Reinforce or enhance the established settlement character of streets, greens, and other spaces.
- Harmonise and enhance existing settlement in terms of physical form, architecture and land use.
- 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.
- 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

Local green spaces, views and character

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

3 (continued)

Local green spaces, views and 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 settlements?
- Does the proposal affect or change the setting of a listed building or listed landscape?
- Is the landscaping to be hard or soft?

5

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 (continued)

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 roof-line

- What are the characteristics of the roof-line?
- 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?
- Does the extension lead to an excessive loss of green space (for example, reducing the amount of childrens' play space in family homes)?

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 (continued)

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 bio-diverse roof in its design?

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