

Lakenheath Design Guide

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Quality information

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Revision History

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Introduction

01

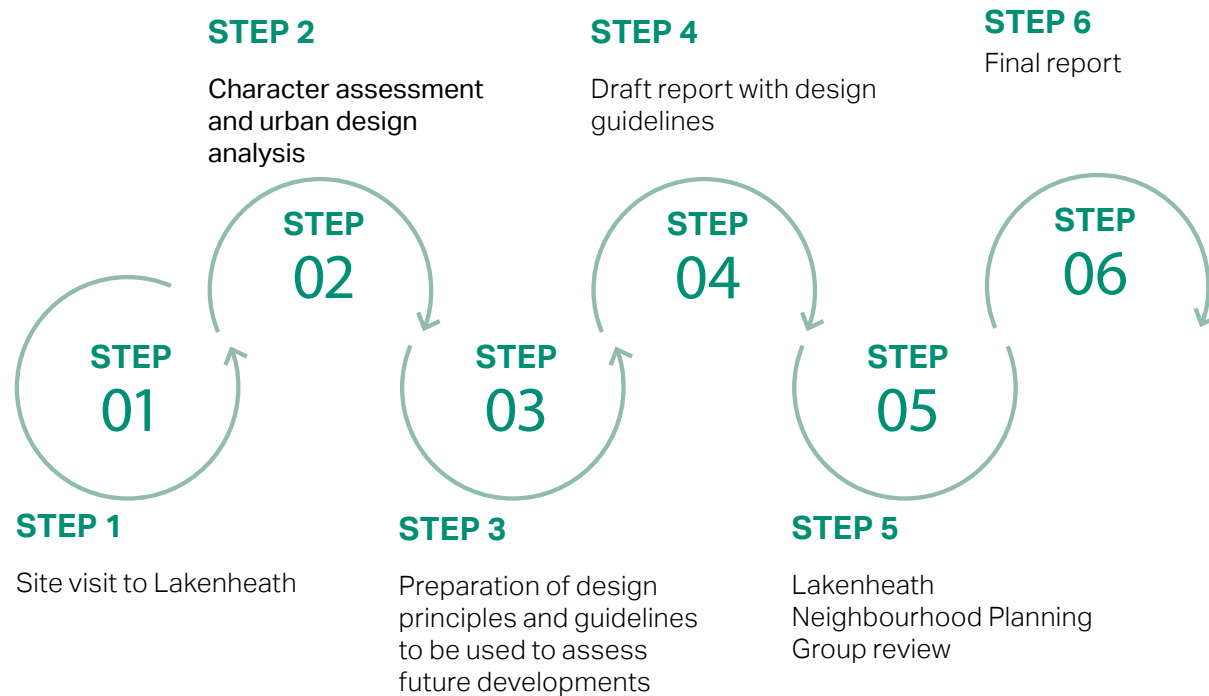
1. Introduction

AECOM has been commissioned to provide design support to the Lakenheath Neighbourhood Planning Group through the Department for Levelling Up Housing and Communities funded Neighbourhood Planning Programme, led by Locality.

This document is intended to support Neighbourhood Plan policies that encourage high quality design. It includes design codes for the characters areas covering the built-up part of the Lakenheath Neighbourhood Area. The design codes and guidance must be applied to future developments within Lakenheath Neighbourhood Area in order to respond to the special character of Lakenheath.

1.1 Process

The following steps were undertaken to produce this document:



1.2 How to use the guide

The Lakenheath Design Guide will be a valuable tool in securing context-driven, high quality development within the neighbourhood plan area. They will be used in different ways by different groups of people in the planning and development process, as summarised in this table.

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

Table 01: Delivery of the Design Guide.

1.3 Planning policy and guidance

Local planning policy relevant to Lakenheath Neighbourhood Area is found within West Suffolk Local Plan (consisting of the former Forest Heath area (FHDC) and former St Edmundsbury area (SEBC) Local Plan documents). This local plan was adopted in 2019 but is currently under review with adoption of the new Local Plan predicted to be July 2024.

The Site Allocations Local Plan (2019) identifies a series of sites for potential residential and mixed used development. These sites are within the settlement boundary of Lakenheath.

The Site Allocations Local Plan (2019) identifies north Lakenheath as a "focus of growth" with three allocation sites; SA8 (a), SA8 (b), SA8 (c) capable of delivering approximately 680 dwellings, a primary school and associated public open space and walking routes.

Site ref	Site name / location	Area in hectares (ha)	Allocation
SA7 (a)	Matthews Nursery	1.86 ha	A1 retail store (supermarket) and 13 dwellings
SA7 (b)	Land west of Eriswell Road	5.35 ha	Up to 140 dwellings
SA8(a)	Rabbit Hill Covert, Station Road	3.45 ha	Up to 81 dwellings
SA8(b)	Land north of Station Road	22.4 ha	Mixed use to include 375 dwellings and a primary school
SA8(c)	Land off Briscoe Way	2.78 ha	Up to 67 dwellings

Table 02: West Suffolk Local Plan, site allocations.

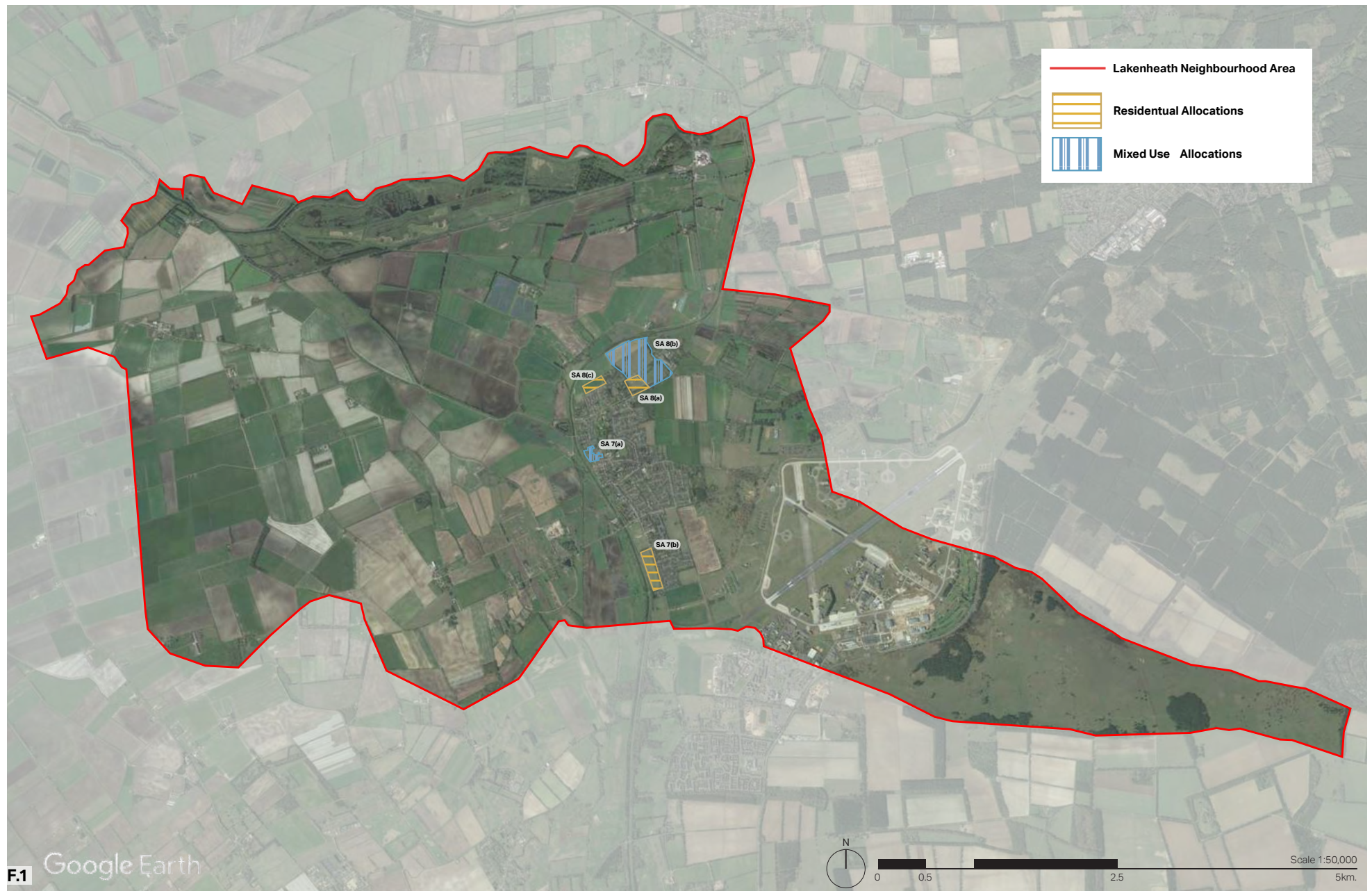


Figure 01: Site allocations within Lakenheath Neighbourhood Area.

1.3.1 Other relevant guidance

In addition to local planning policy and guidance such as *Suffolk Design Guide for Residential Areas, (revised in 2000)*, the following national planning policy and best practice guidance should be adhered to when developing or reviewing design proposals.

2021 National Planning Policy

Framework Ministry of Housing, Communities and Local Government (MHCLG)

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

2021 National Model Design Code

MHCLG

This report provides detailed guidance on the production of design codes, guides

and policies to promote successful design. It expands on 10 characteristics of good design set out in the National Design Guide. This guide should be used as reference for new development.

2020 Building for a Healthy Life

Homes England

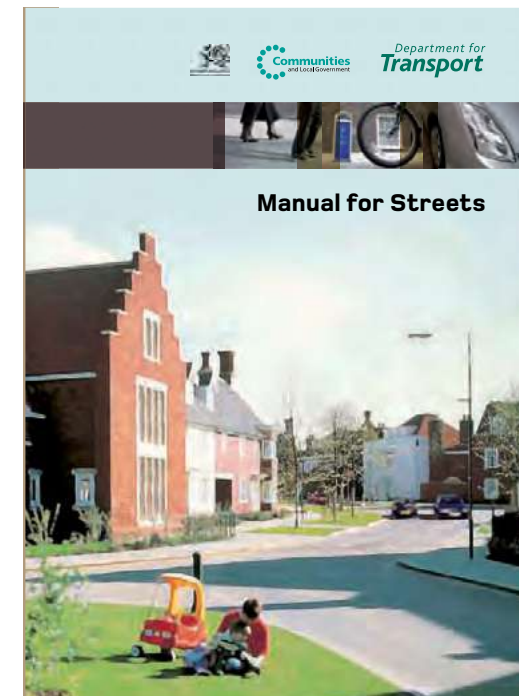
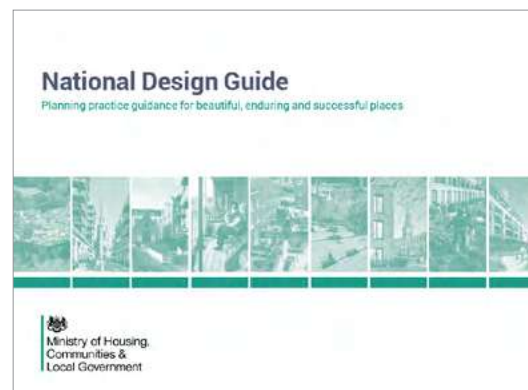
Building for a Healthy Life (BHL) is the new (2020) name for Building for Life, the government-endorsed industry standard for well-designed homes and neighbourhoods. The new name reflects the crucial role that the built environment has in promoting wellbeing. The BHL toolkit sets out principles to help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

2021 National Design Guide MHCLG

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

2007 Manual for Streets Department for Transport

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



**Neighbourhood Area
Context**

02

2. Neighbourhood Area Context

It is important that all design proposals are based on an understanding of the context. This should be set out in planning applications.

This section outlines the broad physical, historical, and contextual characteristics of Lakenheath. It looks at the historic development of Lakenheath as a settlement, noting key existing heritage assets, transport connections and external influences from the surrounding rural countryside, including sensitive environmental features, topography and flood risk.

This section concludes by reviewing existing published character studies to help define a series of local character areas that the design guidance and codes are tailored to in section four.

2.1 Area of study

Lakenheath is a village located within the north western part of Suffolk, approximately 15km west of Thetford and approximately 18km east of Ely. Lakenheath is the largest settlement within the neighbourhood area and parish (both covering the same extents). Other small hamlets include Undley and Sedge Fen, west and north-west of Lakenheath respectively.

The parish population totals 4,691 (2011 census) of which approximately only 500 residents live outside the main built-up areas, as noted above, reflecting the largely undeveloped and rural character of parish.

A network of local roads connects Lakenheath with the surrounding towns, villages and hamlets. The A1065 in the eastern part of the Neighbourhood Area provides links with the A11 to the south and A134 to the north. The A11 joins the A14 to the south and Norwich to the north-east. The A134 links King's Lynn to the north and Sudbury to the south. The settlement of Lakenheath itself is focused along the B1112

(Station Road / High Street) which defines its original linear form.

Approximately 3.5km north east from the settlement boundary, is Lakenheath railway station. Regular services are limited with Cambridge and Norwich services calling at this station only on Sundays. The nearest station with a more frequent route is Brandon, approximately 6km to north-east.

RAF Lakenheath is an operating United States Air Force (USAF) military airbase located to the south-east of the settlement, within the neighbourhood area. The noise caused by its aircraft continuously marks its presence.

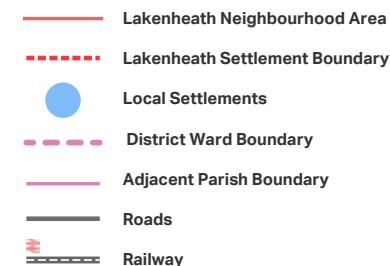


Figure 02: Lakenheath military airbase to the south east of Lakenheath village centre.



Figure 03: Lakenheath Neighbourhood Area.

2.2 Settlement pattern and urban form

Lakenheath village is bounded to the west and partially to the north by a Cut-Off-Channel (refer to section 2.6 Topography and flood risk), started in 1954 and completed in 1968 (Forest Heath District Council, 2007). The High Street runs parallel to this channel and historically development grew in a linear form along the High Street and Back Street. Roads to the fen in the west lead from the High Street.

The main street layout is reflective of medieval boundaries with two-storey buildings fronting directly onto the pavement. Demolition and redevelopment have altered the frontages a little, but traditional buildings still dominate this street, many dating back to the 18th century. In 1990 the Lakenheath Conservation Area formed, an area which encompasses the High Street, Back Street and Lakenheath Hall.

As can be seen in Figure 4, development has taken place north and east around

the conservation area particularly in the period 1951-1981 when Lakenheath grew approximately threefold. The centre has the highest density housing, whereas to the north and east houses are lower density and with areas of informal green space and equipped play.

Further expansion to the east is limited by Maids Cross Hill Nature Reserve, a SSSI and RAF Lakenheath beyond.



F.4

Figure 04: Historic expansion of Lakenheath.

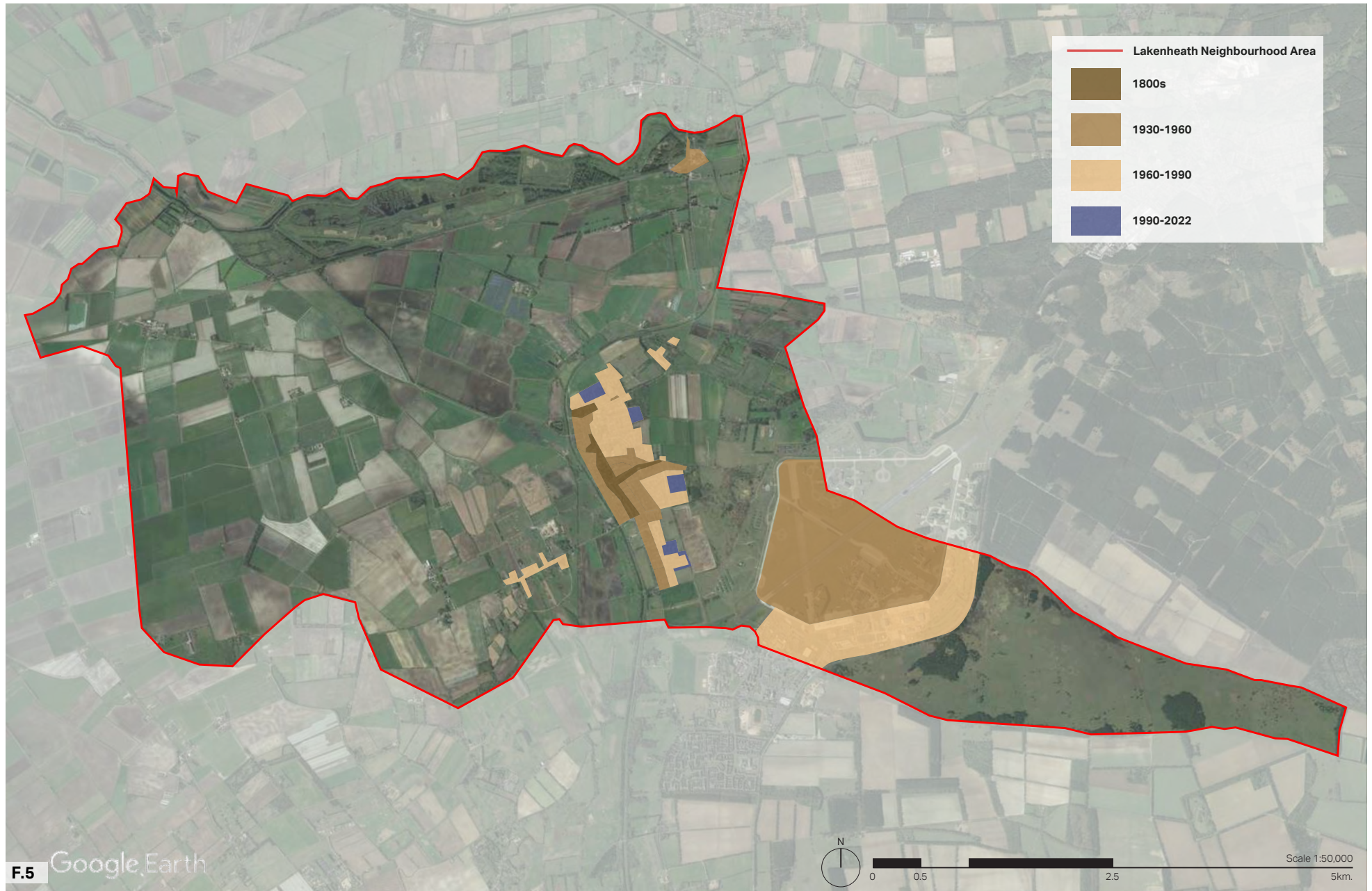


Figure 05: Lakenheath development periods.

2.3 Historical development

Archaeological excavations at RAF Lakenheath have uncovered significant evidence of late Roman and Saxon occupation, including the 'Lakenheath warrior and horse'. The place name Lakenheath is derived from the Old English 'Laringahetha' or 'Lakingahethe' meaning 'landing place of the people living by streams'.

The right to hold a market was granted to Lakenheath in 1201. This resulted in tensions with the Abbey of Edmundsbury and the market charter was annulled, sparking upheaval and was not reinstated until the 14th century.

The medieval village developed along the High Street between the two greens; 'South Green' and 'Mutford Green'.

6th Century

13th and 14th Century

There is significant archaeological evidence of prehistoric activity and occupation within Lakenheath fen, comprising of various findspots dated to the Palaeolithic, Mesolithic, Neolithic and Bronze Age.

11th and 12th Century

At the time of the Domesday survey in 1086, Lakenheath appears within the hundred of Lackford, as a large village of around 24 households.

The rebuilding of the Church of St Mary begins in 1109. Some 12th century work in Carstone rubble survives including a section of the chancel and a blocked lancet. The Norman church replaced an earlier Saxon structure.

The drainage of Lakenheath fen, which had begun in 1630 but was halted by the Civil War, was completed in 1665.

17th

By 1813 there had been significant quarrying of chalk, flints and limestone in Lakenheath, all of which are prominent local building materials.

The 1881 six-inch Ordnance Survey maps show significant development including a smithy, brewery, several public houses, a school, limekiln and two additional non-conformist chapels.

19th Century

18th Century

A fire in 1713 destroyed most of the medieval and early post-medieval buildings. Almost all extant buildings are dated after this time.

The first Methodist chapel in Suffolk was built on Mill Road around 1746, later replaced in 1882. John Wesley visited Lakenheath in 1757.

Farming continued to be the predominant profession into the post-medieval period. By the end of the 18th century the market had become an important source of income and employment with over 50 of the village's 745 inhabitants employed in retail.

20th Century

Lakenheath Warren was used as a Royal Flying Corps airfield during WWI, but was abandoned in 1918. Lakenheath was used again by the RAF Lakenheath in 1940 during WWII. During the Cold War, the RAF bomber command returned to Lakenheath and the runways were repaired.

During the latter half of the 20th century there has been significant residential development in Lakenheath. The village is still bounded to the north and west by the Cut-Off-Channel and agricultural land.

2.4 Historic designations

The Lakenheath Conservation Area is on a linear plan following the form of the historic High Street. Buildings typically front on to the pavement, retaining the medieval layout and boundaries. The form of the settlement has been shaped by its relationship with the fen and the distinct geological boundary (see Figure 19), from which there are attractive wide views of Lakenheath Conservation Area. There are also views of the church tower of the Church of St Mary when approaching the village from the west by Undley Road.

2.4.1 Historic character areas

Two character features have been identified within the Lakenheath Conservation Area, defined by the High Street and Lakenheath Hall.

1) The High Street

The High Street forms the principal space of the conservation area, extending from the north to the south of the village curving

slightly eastwards. The High Street emerged as a throughfare in the early medieval period, now enclosed on both sides by buildings, typically domestic in scale up to two storeys in height, which front onto the pavement. To the rear of some of these buildings are substantial gardens and yards associated with historic trades and breweries shown on the 1883 Ordnance Survey map. Farm buildings such as Church Gate Farm and Matthews Nursery, an early 19th century flint and pantile barn, evidence the historical prominence of agriculture and contribute to the semi-rural character of the conservation area.

2) Lakenheath Hall

Lakenheath Hall and its parkland setting comprise the northern section of the Lakenheath Conservation Area, separated from the High Street by a flint boundary wall, of local architectural significance. Lakenheath Hall and Park were first recorded in the 16th century. The hall was rebuilt during the 18th century on the site of the former walled gardens in the Gothic

style. The hall has since undergone a series of alterations and extensions, the interior has now been subdivided into apartments. However, Lakenheath Hall retains local interest and the Georgian sections remain distinguishable from modern alterations. The park lodge (also known as North Lodge) is located on Station Road, built in the early 20th century in the Arts and Crafts style.

Figure 06: Chalk Farmhouse (Grade II Listed).

Figure 07: North Lodge of Lakenheath Hall Park with flint boundary wall.

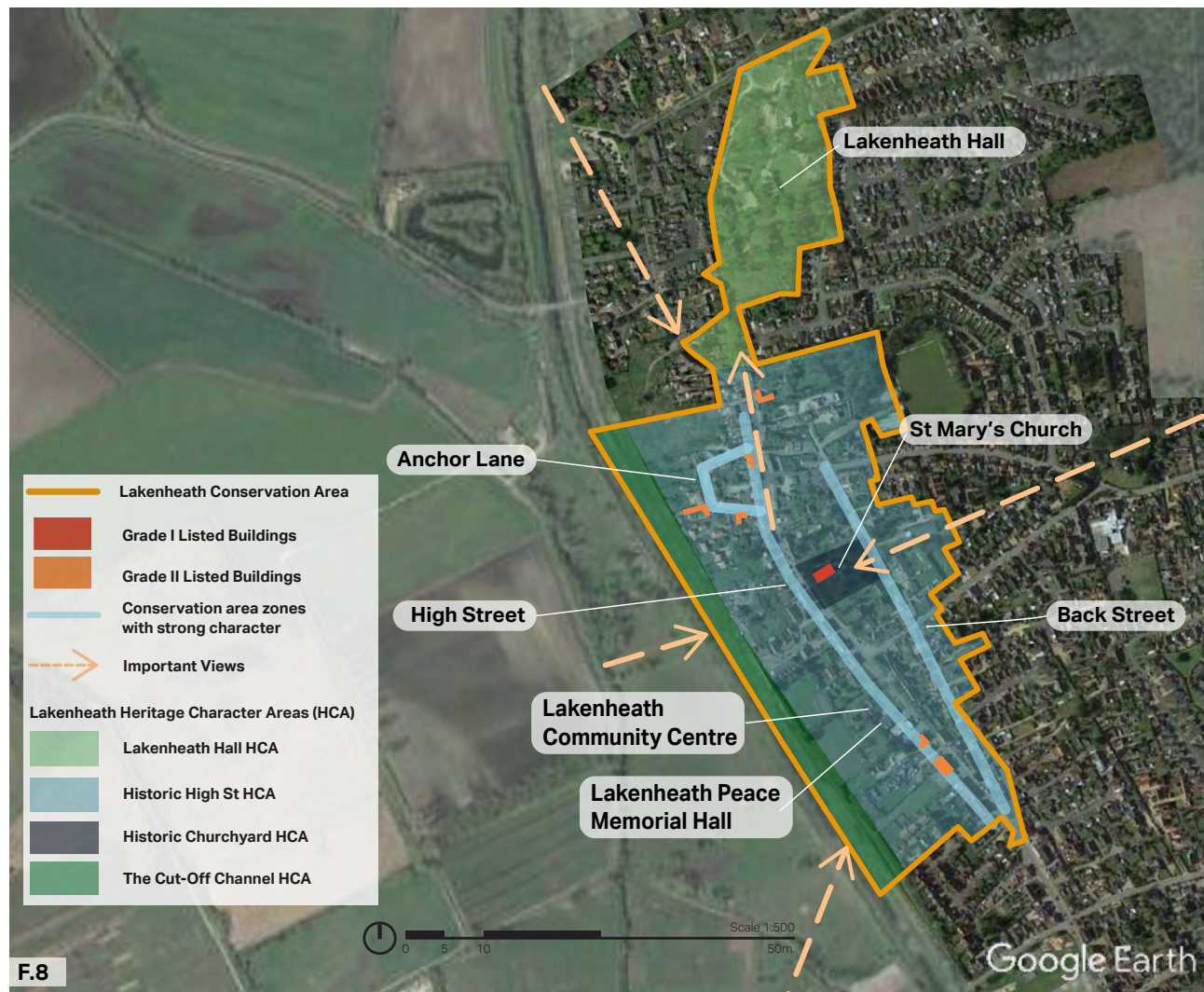


Figure 08: Lakenheath Conservation Area and historical features.

2.4.2 Listed Buildings

There are numerous Listed buildings within the Lakenheath Conservation Area. Most noteworthy is the Grade I Listed, Church of St Mary, located within its church yard on the east side of High Street.

The Church is medieval with late 19th and early 20th century restoration works. The church is in rubble with freestone dressings and later brick repairs and has a slate roof. Sections of the church in Carstone rubble date back to the 12th century. The square tower was first added in the mid-13th century and is visible throughout the village and from the surrounding countryside.

The other Listed buildings within Lakenheath village are designated Grade II and pictured on the next page.

Aside from the War Memorial, which comprises of a pedimented plinth and obelisk in Portland stone, listed buildings are typically domestic in scale and post-medieval in date.

Historic buildings are typically two storeys or one storey plus attics with pitched tile roofs, dormers and brick chimney stacks. Flint and brick rubble, and gault brick are common materials associated with the local vernacular. Some historic buildings have post-medieval frontages on earlier medieval cores, one example being Chalk Farmhouse (Figure 06).



Figure 09: Church of St Mary (Grade I Listed).



Figure 10: 42 High Street (Grade II Listed).



Figure 12: 11 & 13 Anchor Lane (Grade II Listed).



Figure 14: Brewery House (Grade II Listed).



Figure 11: Lakenheath War Memorial (Grade II Listed).



Figure 13: 102 High Street (Grade II Listed).



Figure 15: Lakenheath Hotel (Grade II Listed).

2.5 Environmental designations

There is a variety of environmental designations within the Lakenheath Neighbourhood Area.

As shown in Figure 17, there are numerous sites protected by Sites of Special Scientific Interest (SSSI) designations. These include:

- Stallode Wash Lakenheath
- Lakenheath Pools Fen
- Pashford Poor's Fen Lakenheath
- Maidscross Hill (The Warren)
- RAF Lakenheath
- Breckland Farmland

Maidscross Hill is a Local Nature Reserve (LNR) within the neighbourhood area. There are also large areas within the neighbourhood area designated as Special Areas of Conservation (SAC).

Lakenheath Fen Nature Reserve is a site owned and managed by the RSPB, however, has no environmental designations, despite being valuable for its biodiversity.

Outside of the neighbourhood area there are numerous SSSIs. The majority to the east and one to the south. These create important green corridors connecting with those within the neighbourhood area.



Figure 16: Maidscross Hill, LNR and SSSI.

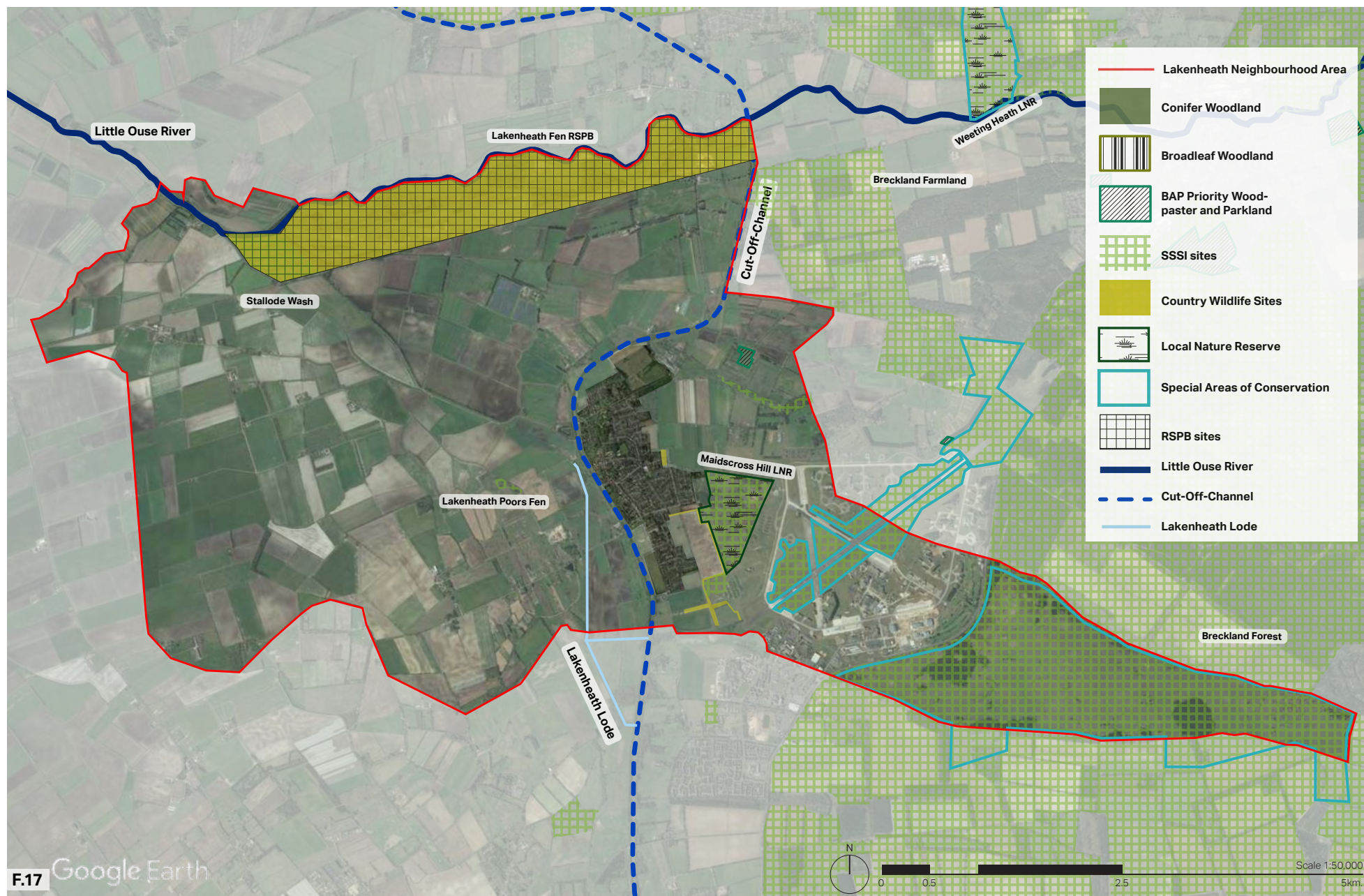


Figure 17: Environmental designations and landscape features within Lakenheath Neighbourhood Area.

2.6 Topography and flood risk

The fen land west of Lakenheath is low-lying, with the majority not exceeding heights above sea level (0m AOD). As part of the drainage initiative of the Great Fen, a series of dikes and ditches were built, as a result rich arable farmland was created (Fens For the Future, 2021). With the assistance of pumping stations, these channels continue to move water away to prevent flooding.

The low-lying nature of Lakenheath and the surrounding countryside creates an increased risk of flooding. In 1968 a Cut-Off-Channel was completed to alleviate this risk, allowing excess water from the Lark, Little Ouse, and Wissey to be diverted in times of peak rainfall.

The open, flat character of the land results in strong winds blowing into Lakenheath from the west, so called fen blows. These winds pick up dry soil from the fields and blow into Lakenheath to create dust storms. The winds can impact movement in and

around the village and exacerbate health conditions.

To the east of Lakenheath is a chalk plateau which creates greater topographic variation. Here the ground rises to a high point of 31m at the trig point on Maids Cross Hill (Natural England, 2013). The difference in topography between the east and west of Lakenheath means buildings on the east side of the village are higher due to the ground rising from the west.



Figure 18: Cut-Off-Channel.

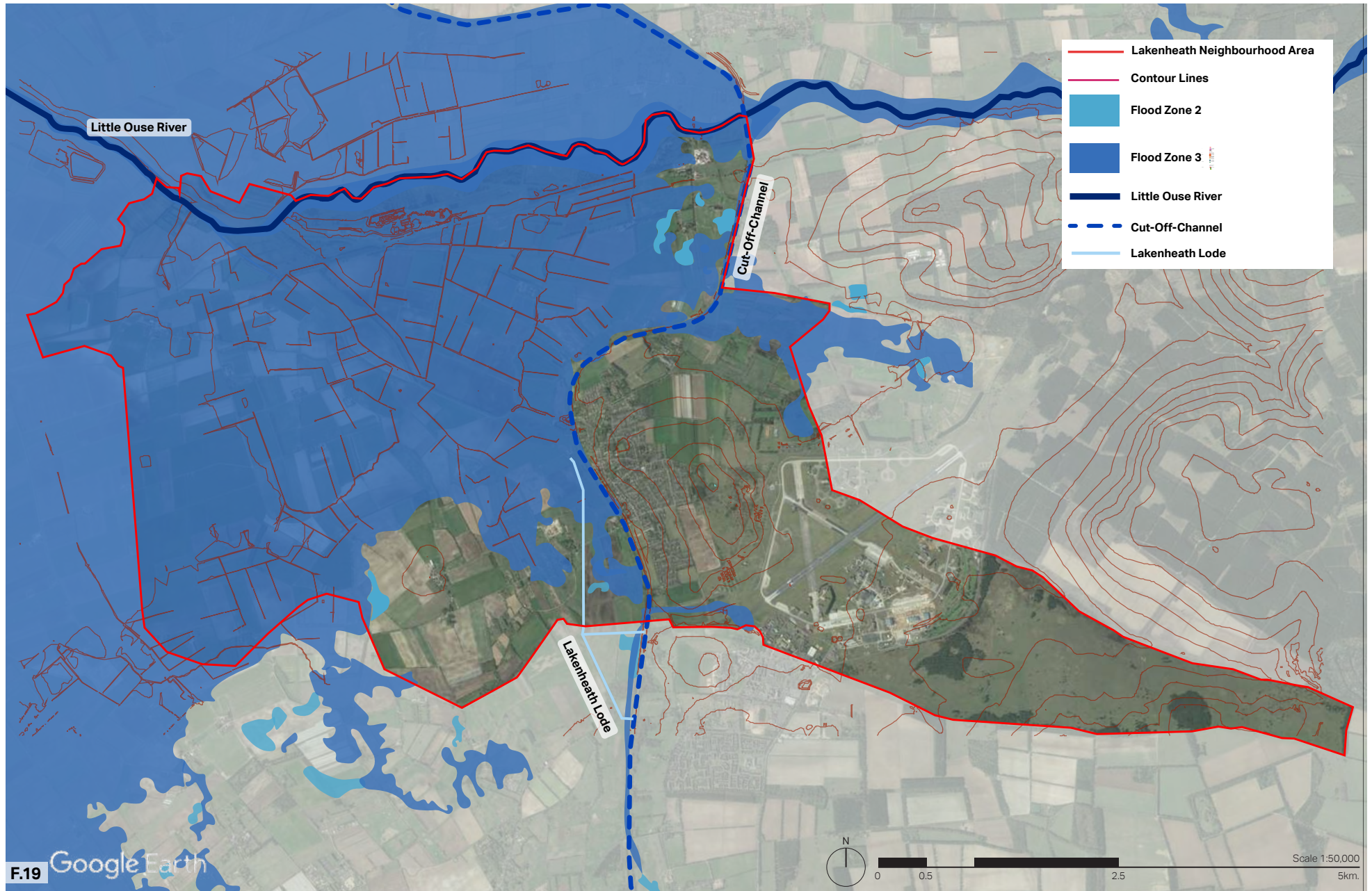


Figure 19: Topography and blue infrastructure within Lakenheath Neighbourhood Area.

2.7 Character areas

Lakenheath Neighbourhood Area falls within National Character Area (NCA) 46: The Fens and 85: Breckland, as defined by Natural England (Natural England, 2014). These NCA's are broad but provide some context to the character of Lakenheath Neighbourhood Area. The key characteristics of the NCA's are:

NCA 46 The Fens

- Expansive, flat, open, low-lying wetland landscape influenced by the Wash estuary, and offering extensive vistas to level horizons and huge skies throughout, provides a sense of rural remoteness and tranquillity.
- Overall, woodland cover is sparse, notably a few small woodland blocks, occasional avenues alongside roads, isolated field trees, shelterbelts and hedges around farmsteads.
- Open fields, bounded by a network of drains and the distinctive hierarchy of rivers (some embanked), have a strong

influence on the geometric/rectilinear landscape pattern.

- Villages tend to be dispersed ribbon settlements along the main arterial routes through the settled fens.

NCA 85 Breckland

- A largely open, gently undulating landscape with a low-lying, dry plateau that rises to the north. Subtle long slopes lead to alluvial flats containing shallow, meandering wooded river valleys.
- Vast commercial conifer plantations form a forest landscape, unique in lowland England. The regular geometric shape and form and the repeated occurrence of plantations and shelterbelts unify the land cover pattern, forming wooded horizons and framing views into adjacent landscapes.
- Predominantly agricultural land use focused on arable production, with planned courtyard farmsteads and large enclosure fields. The regular field layouts

combine with long, straight, undulating roads to create a geometric landscape character.

Suffolk County Council Character Areas

District Character Areas provide more detailed information regarding the character of the wider study area and help to understand key characteristics that maybe present in the Local Character Areas, found in the neighbourhood area.

Suffolk County Council has identified 4 character areas within the study area surrounding Lakenheath, these include:

- Planned Fenlands
- Settled Fenlands
- Settled Chalklands
- Estate Sandlands

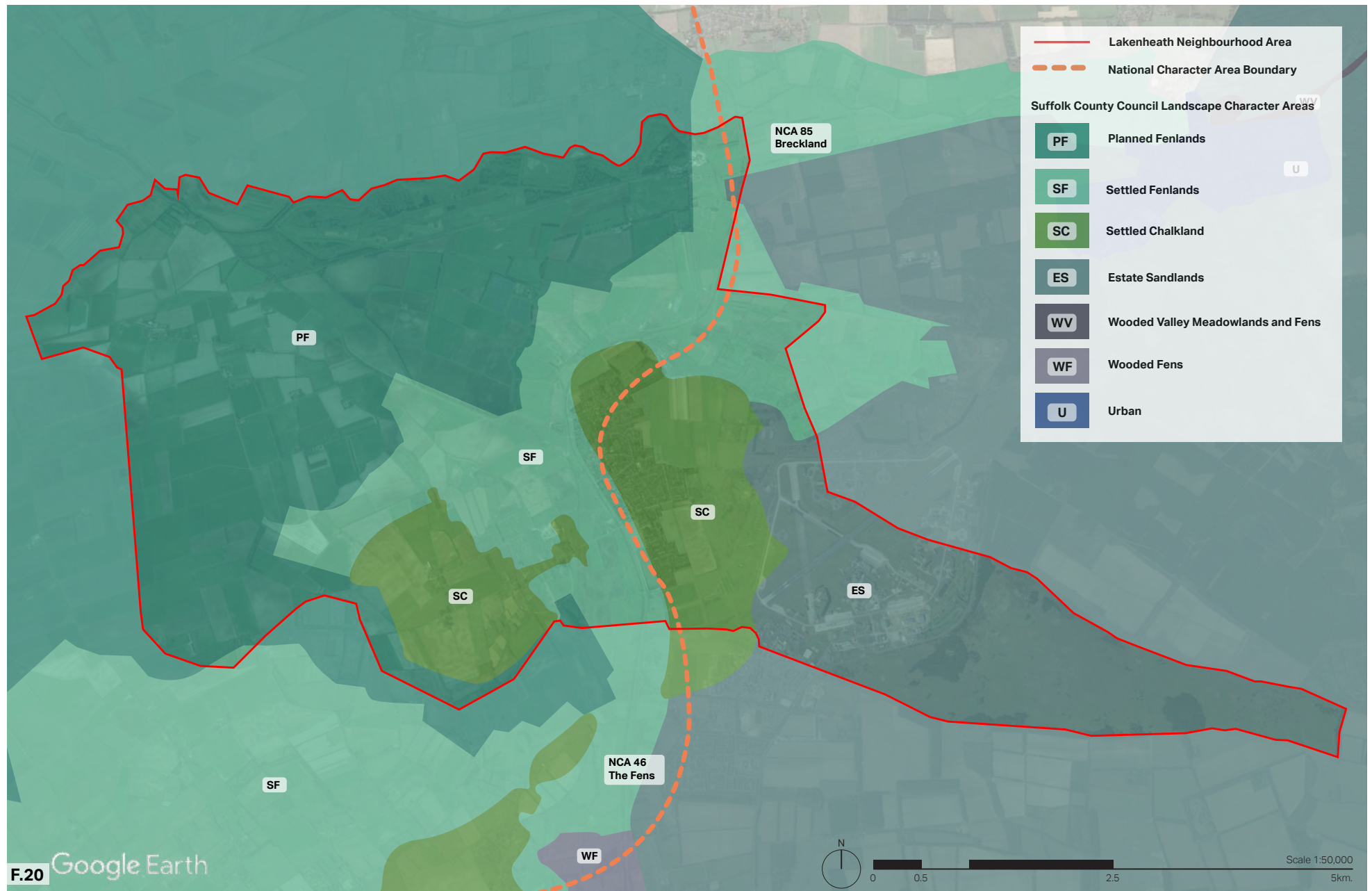


Figure 20: Published character areas within Lakenheath Neighbourhood Area.

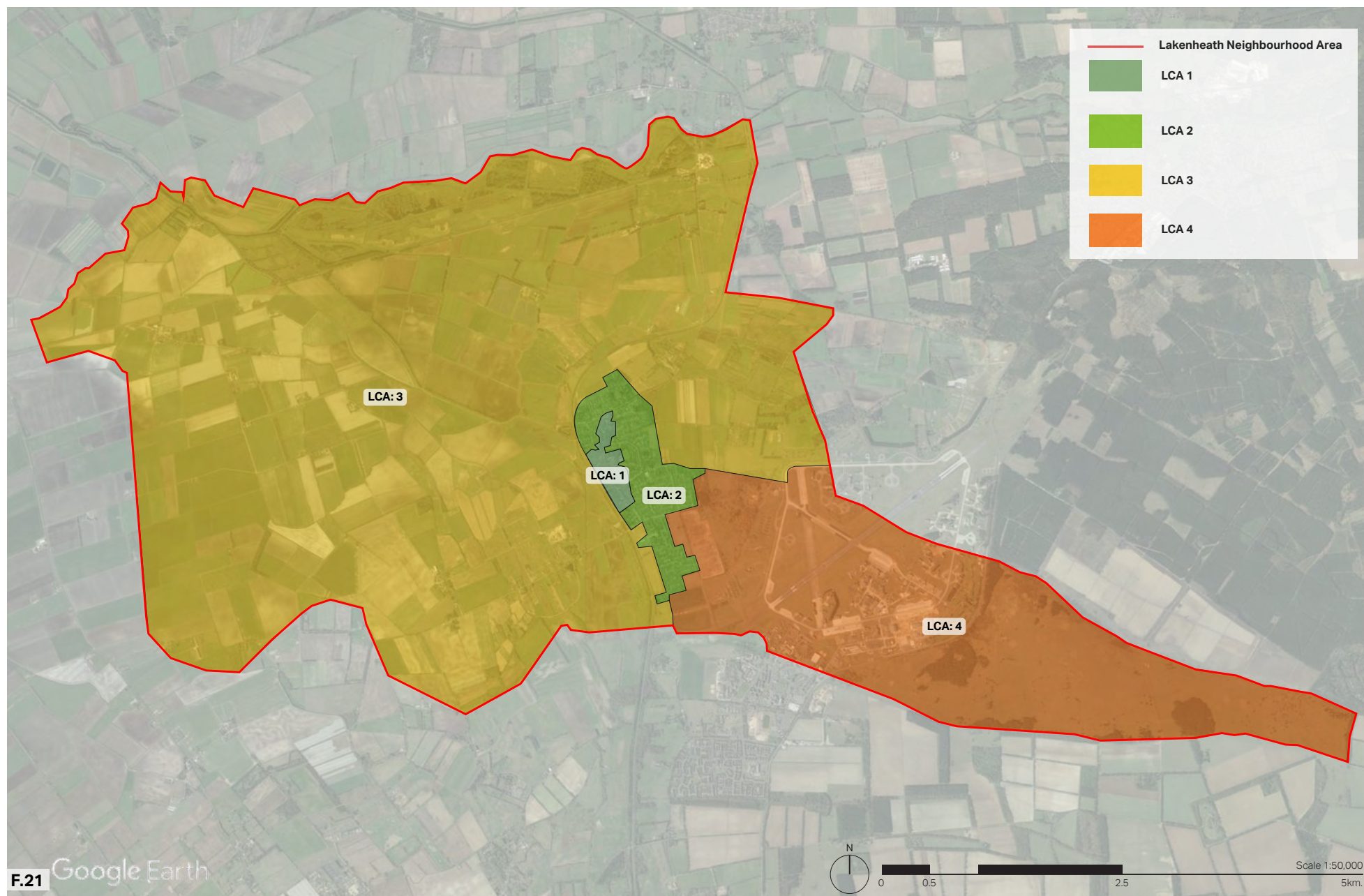
2.8 Local character areas

In addition to the published national and district level character areas, four Local Character Areas within Lakenheath Neighbourhood Area have been identified;

- **Character area 1: Lakenheath Conservation Area**
- **Character area 2: Lakenheath Modern Settlement**
- **Character area 3: Lakenheath Fenlands**
- **Character area 4: Lakenheath Brecklands**

These character areas are focused on the built form of Lakenheath but also include important landscape and environmental features, identified previously in this section, which should be considered as part of future development.

Section four of this design guide will provide an overview description of the character areas and highlight further guidance to be applied to future development.



Design Principles

03

3. Design Principles

This section introduces a series of design principles for Lakenheath Neighbourhood Area focused on seven topics – see table 03. These principles are based on relevant best practice guidance and contextual analysis of the local character areas.

Section four will then apply these principles to the Local Character Areas identified within the Lakenheath Neighbourhood Area, this will be in the form of a series of design codes and guidance.

Topic	Code
1) Land use	LU
2) Hierarchy of movement	HM
3) Landscape, nature and open space	LOS
4) Built form	BF
5) Identity	I
6) Public space	PS
7) Sustainability	S

Table 03: Seven design principle topic areas.



Land use

LU.01 Land use/mix

There are five main functions of land in Lakenheath:

1. Place
2. Movement
3. Access
4. Parking
5. Utilities

These land uses are interlinked, but often conflict and compromise the priorities of each other. Finding a balance between the complex interplay of these functions is key.

Place and movement are considered the most important land uses.



Figure 22: Existing green space, featuring the War Memorial (Grade II Listed) and mature trees combines parking, residential access and an informal amenity facility at the heart of the Conservation Area at the High Street / Mill Road junction.

Design Principles:

- New and existing open space and natural features such as hedgerows, trees and ponds should be carefully integrated within the scheme.
- Where affordable housing is included as part of a development it should be sympathetically integrated into the scheme.



Hierarchy of movement

HM.01 Connectivity

Streets should consider the needs of users in the following order:

1. Pedestrians
2. Cyclists
3. Public transport users
4. Other motorised traffic

The needs of vulnerable pedestrians, such as those with mobility or cognitive impairments, and users with wheelchairs or pushchairs should be prioritised in the designs. By supporting these users in the street scene, the resulting design is more inclusive.

An area with a comprehensive network of footpaths and cycleways can be described as having good permeability. Some parts of more recent housing development in Lakenheath have poorly connected cul-de-sacs linked by unappealing alleyways. This inhibits strong connectivity for pedestrians, cyclists and vehicles, and isolates neighbourhoods.



Figure 23: Aerial image of The Cedars and adjacent roads in Lakenheath, showing good movement and permeability of pedestrians and vehicles.

Design Principles:

- **New housing proposals should provide convenient links with the existing network of footpaths and, where necessary, make provision for off-site improvements to enable safe and attractive, walking and cycle connections to local amenities such as bus stops, schools, and shops.**
- **Permeable networks of pedestrian, cycle and vehicle connections should be created in new developments. These should link with the wider neighbourhood and public footpath networks to the countryside and beyond.**



Hierarchy of movement

HM.02 Access

The needs of all users should be accommodated within the design process. This includes elderly people, children with carers, and people with disabilities (such as those with visual impairment or impaired depth perception). Designs should aid social connection and facilitate movement. This should be considered early in the design process to avoid retrospectively applying additional access facilities.



F.24

Figure 24: Ramp and steps provide access to the library for people with disabilities although railings and bike racks contribute to a cluttered entrance.

Design Principles:

- A barrier free space should be created in new developments, restricting car movement if necessary.
- Footpaths should have a gradient between 1:60 and 1:20. There should be frequent opportunities for resting and steps should only be used as an additional more direct route for able bodied users.



Hierarchy of movement

HM.03 Types of street

Streets should be differentiated on their character and function. They can be identified based on their proportion to the development scale as primary, secondary, or tertiary.

In Lakenheath, future development is likely to be on the edge of the village. The character of the development should be sensitive to the adjacent character areas, Lakenheath Fenlands and Lakenheath Brecklands. A successful transition from built development to countryside must be achieved. The scale and location of development should result in the places not dominated by roads, but instead, where possible, be orientated around green space.



Figure 25: Aerial image showing Lakenheath's street hierarchy.

Design Principles:

- Dwellings should overlook all types of street, cycle paths and parking spaces to provide natural surveillance.
- Green space should be a priority of new developments. It should be based around a hierarchy of principle green avenues leading to more intimate spaces based around open space and lanes.



Hierarchy of movement

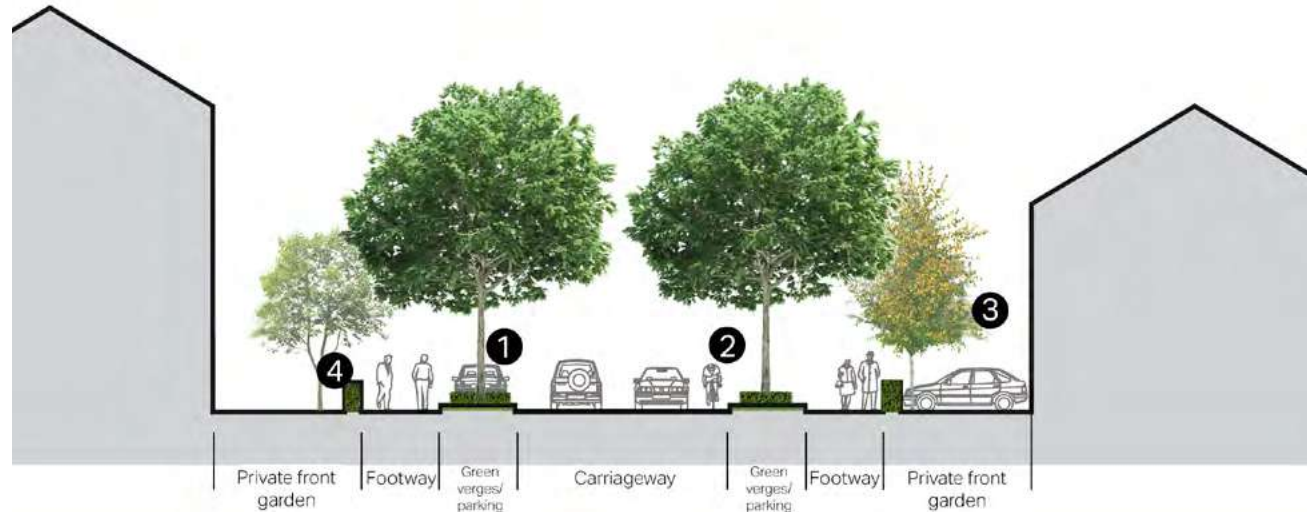
HM.03.01 Street

Streets can be the main access route into edge of village locations, connecting neighbourhoods and existing main road corridors to residential areas. They can also be routes for buses, utility, and emergency vehicles. Streets typically have tree-lined verges and are overlooked by houses on both sides.



F.27

Figure 27: Example of a street on Avenue Road, Lakenheath.



F.26

Figure 26: Illustrative section of a street.

- 1 On-street parking along one side of the road interspersed by green verges and street trees.
- 2 Integrate cycle lanes into design.
- 3 Well-sized front gardens with on-plot parking.
- 4 Physical boundaries and vegetation in front gardens.

Design Principles:

- Streets should be designed to include trees in green verges along the carriageway.
- Hedged boundaries, enclosing generous front gardens, should define streets.
- As the principal residential access route, streets should be wide enough to accommodate traffic within the scheme and connect to development beyond the site. Streets should be designed to incorporate cycleways as part of the carriageway.



Hierarchy of movement

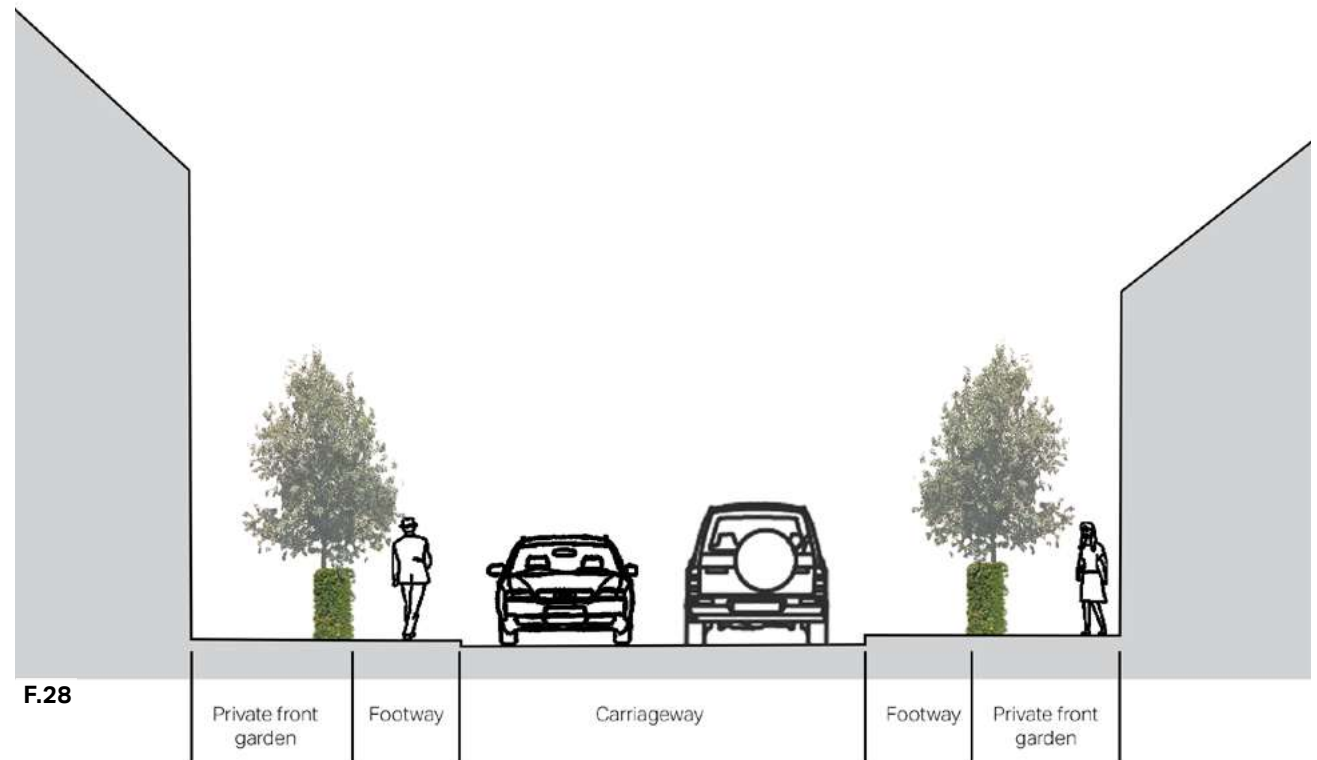
HM.03.02 Lane

Lanes are fronted by houses with gardens on both sides and serve areas with a low volume of traffic. On-street car parking should be avoided in lanes. If on-street car parking is needed, include green verges, street trees and / or 'rain garden' SuDS feature to avoid large lengths of on-street parking.



F.29

Figure 29: Example of a lane on Jubilee Road, Lakenheath.



F.28

Figure 28: Illustrative section of a lane.

Design Principles:

- Lanes should be designed with an informal layout with soft landscaping (such as trees, hedges, and verges) a dominant feature of the street scene.
- As secondary residential streets, lanes can vary in width but should accommodate for two way passing vehicles and be made safe for pedestrians, mobility scooters, cycles, and vehicles to share.
- Variations in materials and textures should be used instead of kerbs or road markings.



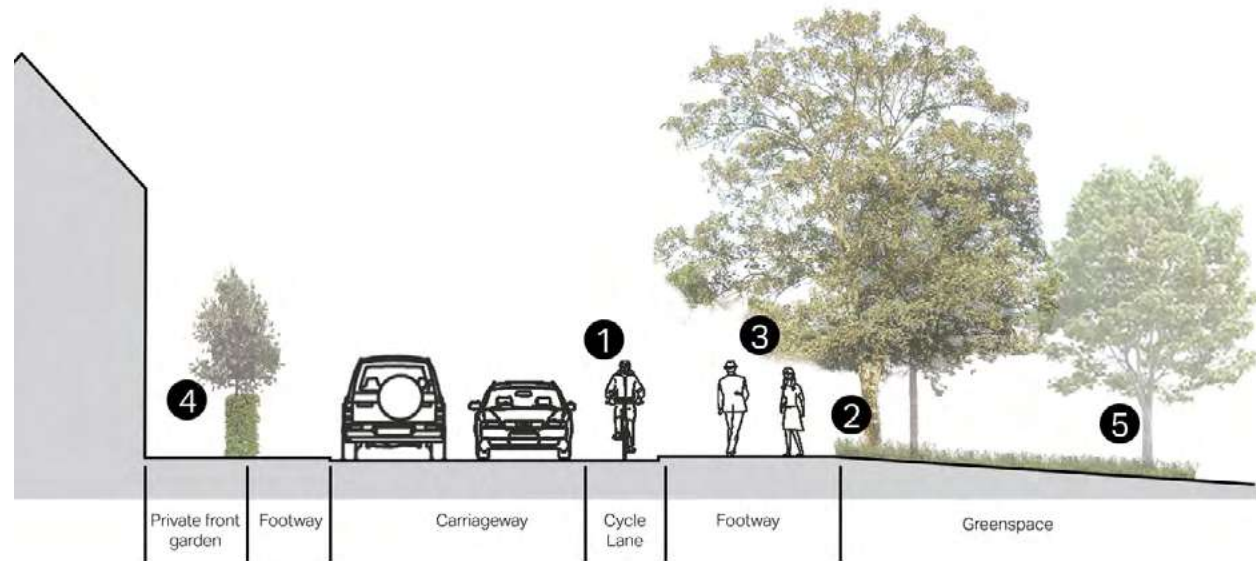
Hierarchy of movement

HM.03.03 Edge lane

Edge lanes are low-traffic and low-speed roads that are fronted by green space on one side and houses with gardens on the other. They should be located at the edge of development to assist with a sensitive transition from the urban environment to the surrounding countryside.



Figure 31: Example edge lane on Covey Way, Lakenheath.



F.30

Figure 30: Illustrative section of an edge lane.

- 1 Carriageway including vehicles and bicycles. The width of the shared lane could vary.
- 2 Green verges with trees along either side of the carriageway. Opportunity to incorporate Sustainable Urban Drainage features. Parking bays integrated into wider verges to maintain traffic flow along road.
- 3 Footpath
- 4 Residential frontage with boundary hedges and front gardens.
- 5 Green space

Design Principles:

- Edge lanes should be designed with an informal layout and soft landscaping should be a dominant feature of the street scene.
- As tertiary streets, edge lanes should be narrow but can vary in width and should be made safe for mobility scooters, pedestrians, cycles, and vehicles to share.
- Variations in materials and textures should be used instead of kerbs or road markings.



Hierarchy of movement

HM.04 Cycle paths

Cycling routes should form a well-connected network within Lakenheath and beyond. They should be safe and direct. If shared with other modes of transport e.g. pedestrians, routes should be clearly marked to show who has priority.

Design Principles:

- Dedicated cycle paths within the urban context, where required, should be well-lit and separated from other road traffic and pedestrians. Natural surveillance should be provided wherever possible.
- Cycle paths providing access to the countryside or in more rural locations, separate from vehicular traffic, can provide an opportunity for creative additions such as painted mosaics and land art.



Figure 32: Example of cycle path within rural context providing opportunities for art installations creating a sense of place.



Figure 33: Example of clearly marked out cycle path combined with road within urban context.



Hierarchy of movement

HM.05 Car parking

Parking areas are a necessity of modern development. But, within the street scene, it is important it does not become the dominate feature. Parking provision should be undertaken as an exercise of placemaking.

There is no single best approach to car parking and therefore a mix of typologies dependent on location and policy requirements should be used.

Given the necessarily high car ownership in the neighbourhood area, the following pages provide a series of design principles for the main types of parking which should be considered for new development in Lakenheath.

Design Principles:

- **Car parking design should be combined with landscaping to minimise the visual impact of parked vehicles.**
- **For detached or semi-detached homes with gardens, parking spaces and garages should be on-plot, ideally at the side of the property.**
- **For terraced homes with little or no front garden, small rear parking courts may be used where placemaking dictates a continuous street frontage. On-street parking in front of dwellings should be avoided.**
- **Parking areas and driveways should be designed to improve impervious surfaces, for example using permeable paving.**



Hierarchy of movement



Figure 34: On-street parking.

Figure 35: On-plot parking.

Figure 36: Courtyard parking on-plot with garage parking.

Figure 37: On-plot with garage parking.





Hierarchy of movement

HM.05.01 On-plot parking



Figure 38: Example of on-plot parking.

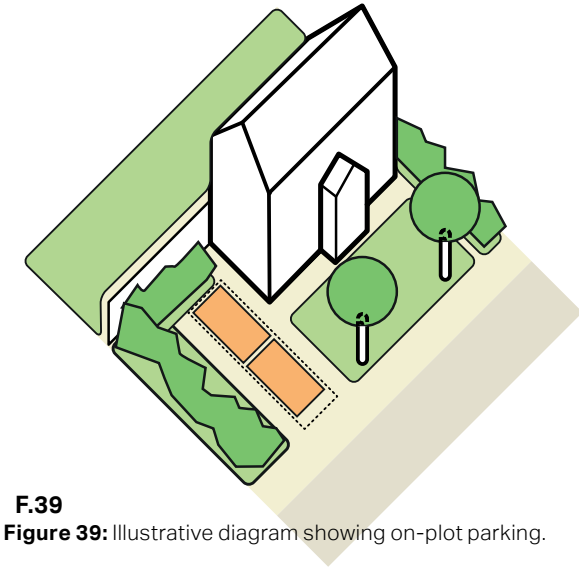


Figure 39: Illustrative diagram showing on-plot parking.

Design Principles:

- On-plot parking can be visually attractive when it is combined with high quality and well-designed soft landscaping. Front garden depth from the pavement back should be sufficient for a large family car.
- Boundary treatment is important to avoid a car-dominated character within the development. This can be achieved by using elements such as hedges, trees, planting beds, low walls, and high-quality paving materials between the private and public space.
- Driveways should be constructed from porous materials to minimise surface water run-off.
- Make provision for electric vehicle charging - 1 charging point per parking space.



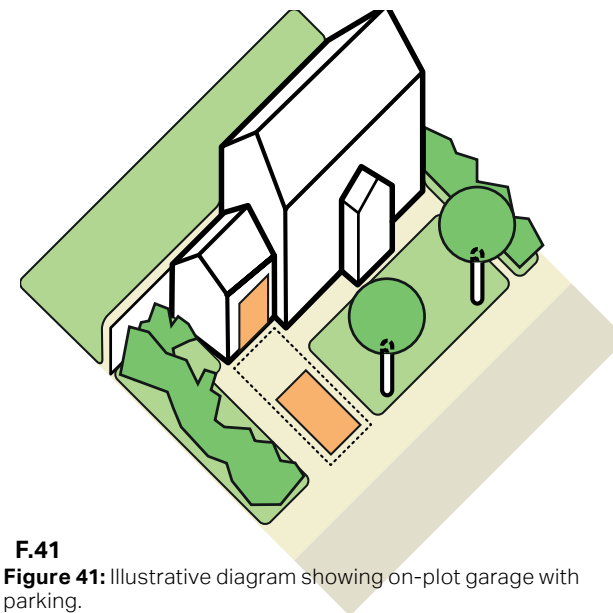
Hierarchy of movement

HM.05.02 On-plot garage



F.40

Figure 40: Example on-plot garage with parking.



F.41

Figure 41: Illustrative diagram showing on-plot garage with parking.

Design Principles:

- Garages should integrate with the main building. They should complement the architectural style of the main building rather than forming a mismatched unit.
- Often, garages can be used as a design element to create a link between buildings, ensuring continuity of the building line. However, garages should not be the prominent element within the scheme and they must be designed accordingly.
- Consideration must be given to the integration of bicycle parking and/or waste storage into garages to avoid unnecessary street clutter.



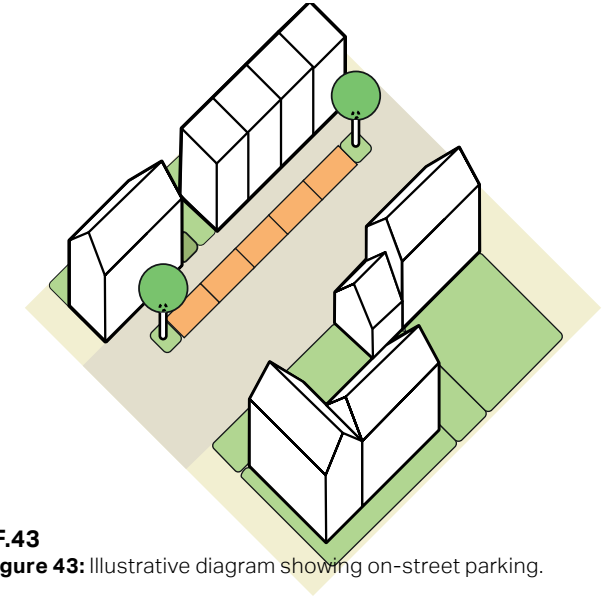
Hierarchy of movement

HM.05.03 On-street parking



F.42

Figure 42: Example unallocated on-street parking on a residential lane.



F.43

Figure 43: Illustrative diagram showing on-street parking.

Design Principles:

- On-street parking can serve as a useful informal traffic calming function but should be designed to avoid impeding the flow of pedestrians, cyclists, and other vehicles.
- Where provided, a sufficient number of parking bays, on low-traffic residential streets or lanes should meet local authority minimum provision standards.
- Opportunities must be created for new public car parking spaces to include electric vehicle charging points. Such provision must be located conveniently throughout the village and designed to minimise street clutter.



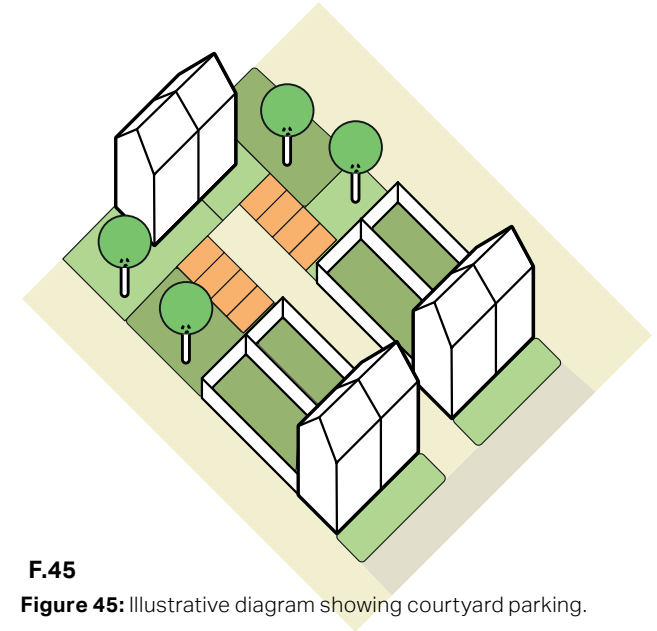
Hierarchy of movement

HM.05.04 Parking courtyard



F.44

Figure 44: Example of parking courtyard on St Mary's Mews, off the High Street.



F.45

Figure 45: Illustrative diagram showing courtyard parking.

Design Principles:

- Parking courts should benefit from natural surveillance.
- High-quality design and materials should be used for both hard and soft landscaping element, so parking courts complement the public realm.
- Bays should be arranged into clusters with small groups of spaces interspersed with trees and soft landscaping.
- Methods of electric car charging should be incorporated.



Hierarchy of movement

HM.06 Bin storage

The number and size of household bins has increased, to accommodate the modern recycling requirements. Bin storage should be an integral part of layouts.

If well designed and constructed, bins storage can be a positive feature contributing to the wider placemaking of the new development.



Figure 46: Good example of bin enclosures with a living roof contributing to the surrounding residential street-scape in central Cambridge.

Design Principles:

- Enclosures, sufficiently sized to house all necessary bins, should be created close to the home and accessible from the street. They should be aesthetically appealing for example; consider living roofs.



Landscape, nature, and open space

LOS 01. Green infrastructure

Landscape and natural features play a vital role in creating attractive environments and providing wildlife habitats. New developments at the edge of Lakenheath should incorporate and respond to natural features such as hedgerows, ditches, trees, and ponds, and should provide net gains for biodiversity.

Mature and veteran trees, species-rich hedgerows and ditches, and wide green verges are essential for biodiversity. Green corridors should continue through the development from the countryside and where possible provide sustainable connections for footpaths, cycleways, and habitat networks. This will enable local wildlife to travel to and from foraging areas and their habitats.

Strategic landscaping on the development edge adjacent to the countryside provides the opportunity to soften the transition from the built urban form, to the landscape beyond.

Open space provision should accord with Forest Heath District Council (FHDC) Landscape and Heritage Study 2017, Former Forest Heath area Local Plan – Core Strategy Development Plan Document 2001-2026 or standards in subsequent Local Plans.



Figure 47: Sandpits play area, Briscoe Way.



Figure 48: The Elders, informal open space.



Landscape, nature, and open space

Design Principles:

- The layout should demonstrate a comprehensive and connected network of habitats through the site.
- All existing good quality woodland, hedgerows, trees, and shrubs should be retained within the layout and, where necessary, enhanced through additional planting and / or improved management.
- Ancient trees and hedges, together with veteran trees and trees with preservation orders must be retained.
- Green corridors should continue through the development from the countryside, providing sustainable connections for footpaths, cycleways, and habitat networks.
- Development should take opportunities to help connect and improve wider ecological networks.
- Habitats should be provided with sufficient width of landscape buffer zones based on their specific ecological function.
- All retained and newly planted trees should be considered at the earliest design stage to ensure that they will grow to maturity without outgrowing their surroundings and foundations.
- New open space should be designed to incorporate existing landscape features to create informal open space with opportunities for natural play, recreation and inter-linked green routes.
- New trees should be incorporated along streets and lanes as well as within cul-de-sacs and parking areas.
- New hedge front boundaries should be provided to properties fronting the streets and lanes.
- Where development adjoins the countryside a generous and comprehensive landscape buffer should be created or retained to allow the transition from built form to the surrounding landscape. There should be no abrupt edges with little vegetation or landscape in such locations.
- New trees, hedges, grassland, and shrubs planted to supplement existing vegetation should use local species.
- Active frontages with good passive surveillance from properties should face onto green spaces.
- New development should provide a minimum of 10% Biodiversity Net Gain in accordance with national planning policy.



Landscape, nature, and open space

LOS 02. Water management

The term SuDS stands for Sustainable Drainage Systems. They cover a range of approaches to manage surface water in a sustainable way to reduce flood risk and improve water quality, whilst improving amenity benefits (Hyder consulting, 2011).

SuDS work by reducing the amount and rate at which surface water reaches a waterway or combined sewer system.

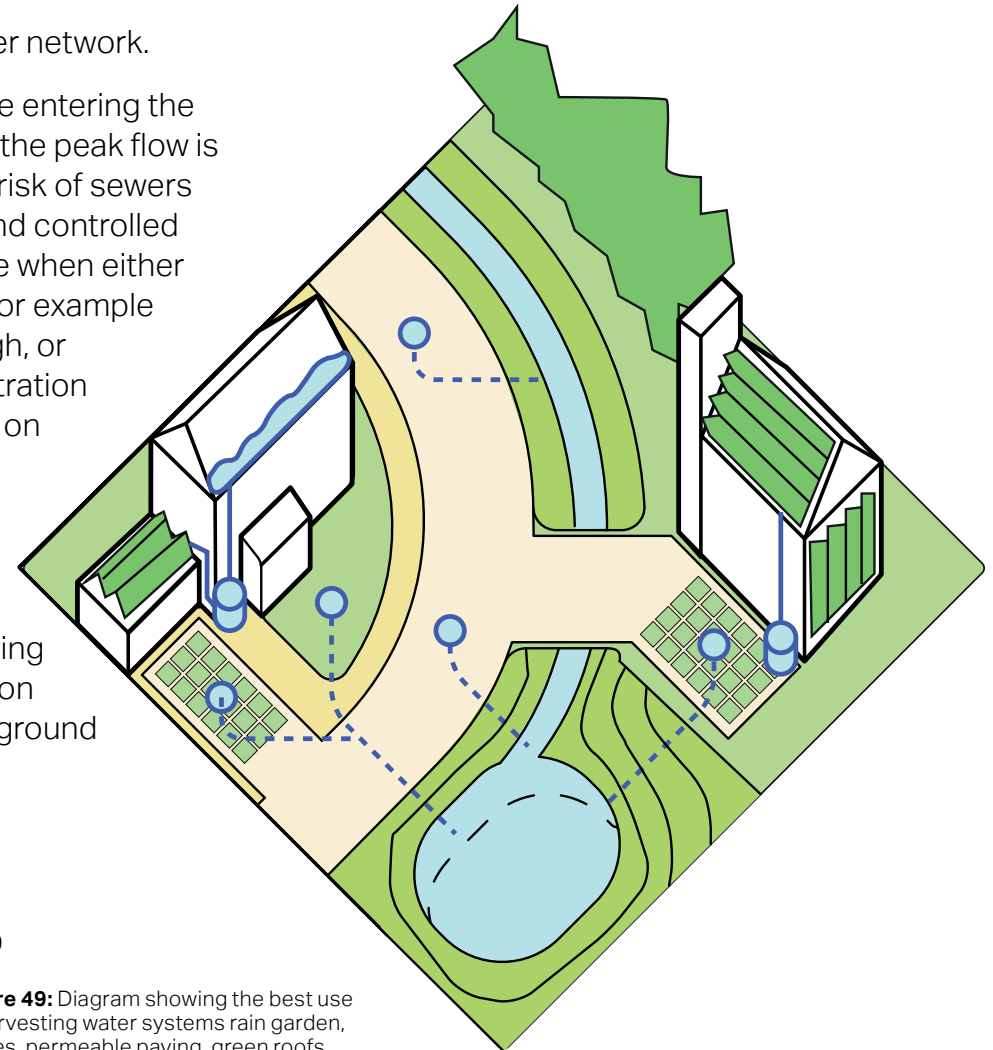
Usually, the most sustainable option is the collection of surface water to reuse, for example in a water butt or rainwater harvesting system, as this has the added benefit of reducing pressure on important water sources. Where reuse is not possible there are two alternative approaches using SuDS:

1. Infiltration, which allows water to percolate into the ground and eventually restore groundwater; and
2. Attenuation and controlled release, which holds back the water and slowly

releases it into the sewer network.

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

The most effective type or design of SuDS would depend on site-specific conditions such as underlying ground conditions, infiltration rate, slope, or presence of ground contaminations.



F.49

Figure 49: Diagram showing the best use of harvesting water systems rain garden, swales, permeable paving, green roofs..



Landscape, nature, and open space

Design Principles:

- All development should be designed to eliminate the risk of surface water flooding and potential overloading of the sewage network, and maximise environmental gain, such as: water quality, water resources, biodiversity, landscape, and recreational open space.
- All SuDS schemes should ensure that their design, construction, and maintenance incorporate appropriate measures for the protection of groundwater. Where infiltration-based SuDS are to be used, the construction should be as shallow as possible above the soil zone to minimise the risks to underlying groundwater. However, localised infiltration tests and ground investigations will be required to confirm any constraints.
- Discharge rates resulting from new development should not be increased without an appropriate assessment of the potential downstream flood risk. Developments should not proceed when there is insufficient capacity at wastewater treatment works or within the sewerage network.
- All development should include appropriate SuDS for the disposal of surface water to avoid any increase in flood risk or adverse impact on water quality, and to mimic the drainage from the pre-developed site. SuDS features should always be the preferred option and provided onsite wherever practicable.
- SuDS schemes should be designed sensitively to augment the landscape and newly created street scene and provide biodiversity and amenity benefits. They can also be a key feature, contributing to the placemaking and identity of the development.
- SuDS schemes should demonstrate that clear arrangements have been established for the operation and maintenance of the SuD component for the lifetime of the development.

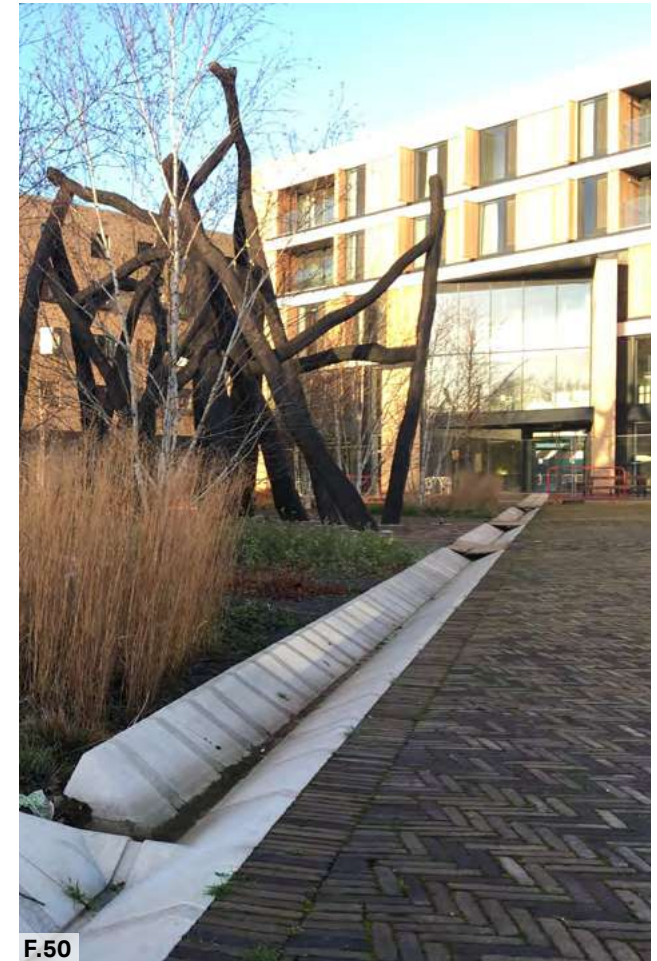


Figure 50: Example of an open rill at Trumpington, South Cambridge forming a drainage function and a open space feature.



Landscape, nature, and open space



F.51

Figure 51: Example of open drainage channel at Upton, Merseyside incorporated into the residential scheme as a placemaking feature.



F.52

Figure 52: Example of a rain garden at Portland Oregon, Green Street incorporated into the street-scape as a traffic calming measure.



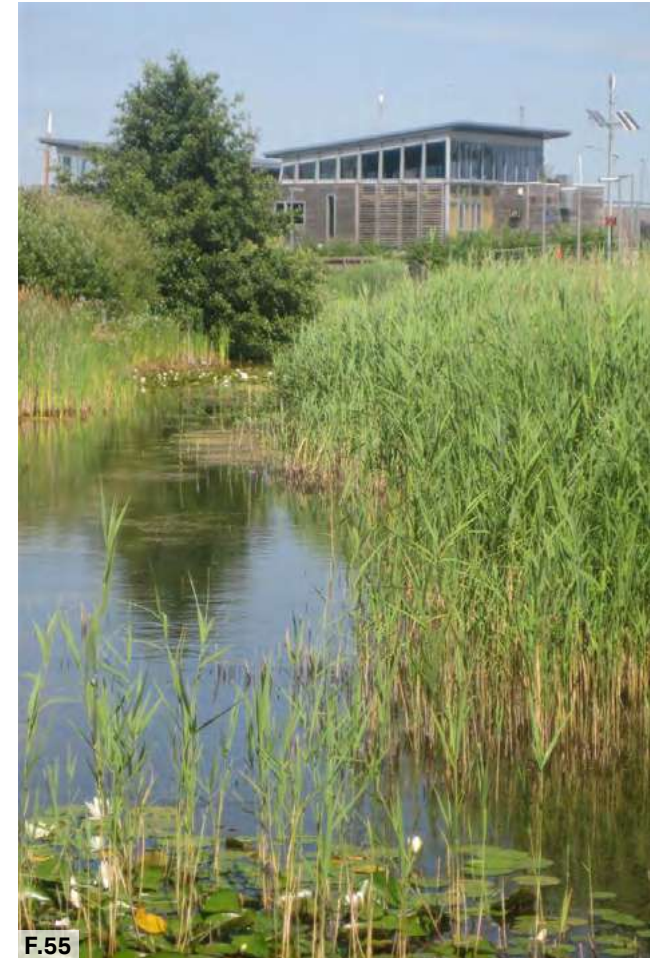
F.53

Figure 53: Example of a living roof at Southeast Reservoir & Pumping Station, Canada.



F.54

Figure 54: Permeable paving used for driveways.



F.55

Figure 55: Example of a waterway at Greenwich creating an important placemaking and ecological feature as well as providing good drainage capacity for the development.



Built form

BF 01. Building scale and massing

The scale, form and massing of buildings are important to the character of a place. Therefore, the existing context needs to be considered and new development needs to respond sensitively to preserve and enhance the best characteristics of a place. This will enable a harmonious relationship with neighbouring buildings, spaces and streets.

Design Principles:

- Buildings should be sympathetic in scale to context of the site and should not exceed three-storeys.
- Subtle variations in height should be created by altering eaves and ridge heights to add visual interest.
- The ground level to eaves height should not exceed 9m.



Figure 56: The High Street has the largest mix of building heights, generally two storey and the odd single storey building.



Figure 58: There are significant areas of post-war single storey bungalows in Lakenheath.



Figure 57: More recent development built in the 2000's is predominantly two storey.



Built form

BF02. Block types

The layout of an edge of settlement development, based on the road types selected, will create several distinct blocks of development. Character will vary depending on the structure and density of the block.

New development should respond to the existing pattern of development, taking cues from existing block sizes and structures, patterns of plot subdivision and the relationship between the built and open private space. Most blocks will be perimeter blocks with new houses facing the street and back gardens backing onto back gardens.



Figure 59: Aerial image of The High Street, Lakenheath, showing historic linear building blocks.

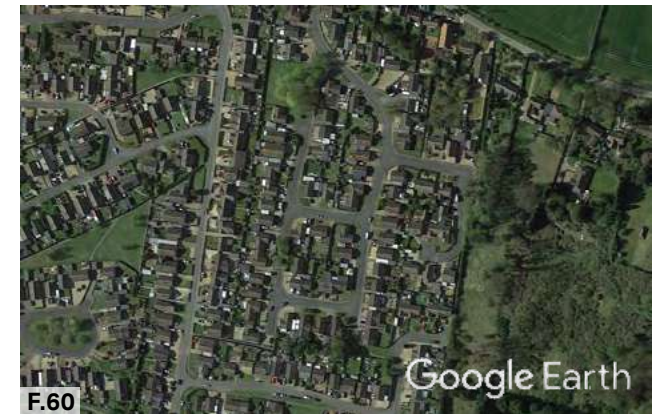


Figure 60: Aerial image of Covey Way, Lakenheath, showing cul-de-sac building blocks.



Figure 61: Aerial image of Wingfield Road, Lakenheath, showing back-to-back rear gardens.

Design Principles:

- **Block types in Lakenheath should principally be back-to-back rear gardens and development edge.**
- **Cul-de-sac blocks should be avoided if possible. If needed, pedestrian and cycle connectivity to other parts of the village should be provided.**

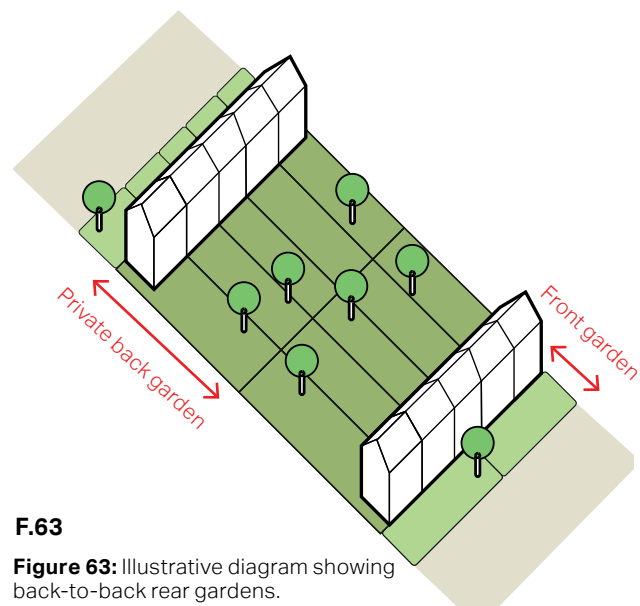


Built form

BF 02.01 Back-to-back rear garden

The back-to-back rear garden block type is a type of perimeter development defined by houses which face apart and have adjoining private gardens to the rear of the building.

A large proportion of properties in Lakenheath have back-to-back gardens, therefore this type of block is suitable for most housing types, (detached, semi-detached and terraced) likely proposed in new development within the village.



F.63

Figure 63: Illustrative diagram showing back-to-back rear gardens.



Figure 62: Aerial image of Highfields Lakenheath, showing example back-to-back rear gardens.

Design Principles:

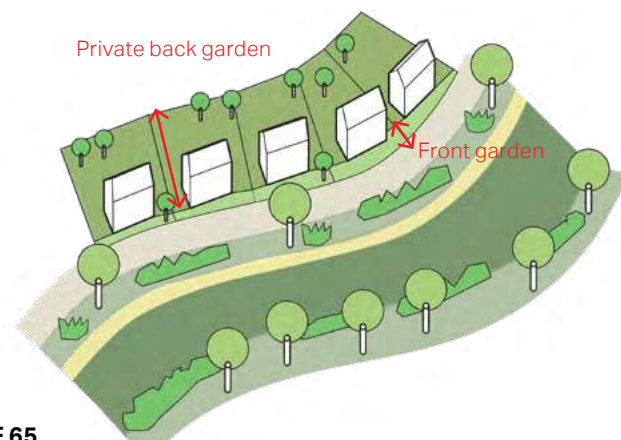
- Secure rear garden spaces should be provided by creating blocks where houses face the street and have adjoining private gardens to the rear of the buildings. Avoid back gardens fronting onto the street.
- A clear distinction should be made between public front gardens and private / semi-private back gardens.
- A property's front access should align with the street or public space to create activity, while private frontages, such as service areas and gardens, should be located at the back.



Built form

BF 02.02 Development edge

As a settlement's public face, the treatment of the edge of development is particularly important when facing open countryside, other open space, and primary roads. Buildings should face out towards the countryside to present a more attractive edge façade and ensure natural surveillance. Typically, historic development in Lakenheath has buildings facing away from the countryside, with trees and hedges creating a boundary between the residential edge and rural landscape.



F.65

Figure 65: Illustrative diagram showing development edge treatment.



F.64

Figure 64: Aerial image of Covey Way, Lakenheath, showing example development edge treatment.

Design Principles:

- New development should provide a positive edge which has a clear and well-defined external façade.
- Regardless of property type, buildings at the development edge should face outwards with a front garden and a street, footpath or cycleway between the front and open space.
- Back and side fences should not border the development edge to avoid a harsh and unattractive edge to new development and the absence of natural surveillance.
- Tree belts and hedges that define existing settlement edge should be integrated into and supplemented by the new neighbourhood as part of the scheme's green infrastructure.



Built form

BF 02. 03 Cul-de-sacs

More recent development in Lakenheath has led to the creation of numerous cul-de-sacs with a variety of semi-detached and detached properties. This style of housing development can negatively affect the connectivity of Lakenheath by severing footpaths. As a result, sustainable travel choices, such as walking and cycling, are limited.

Design Principles:

- Cul-de-sacs should be avoided if possible.
- If cul-de-sacs are the only option, allowance for good pedestrian and cycle connectivity to other parts of the villages should be made.



Figure 66: Aerial image of cul-de-sacs accessed from Station Road Lakenheath, illustrating lack of pedestrian permeability.



Built form

BF 03. Building lines

The way buildings are positioned in relation to the street can affect the attractiveness and feel of a development. Protrusions and recesses create subtle variations in the building line but generally it should form a unified whole.

Boundary treatments should reinforce the sense of continuity of the building line and help define the street. Historically the buildings along High Street had a strong building line, sitting on the back of the pavement. This creates continuity and good natural surveillance.

A set-back is the distance between the back of the pavement and the building line. The size of the set-back contributes to the overall character and sense of enclosure along a street. The set-backs of residential developments in rural character areas can be deeper due to large front gardens in comparison to more centrally located urban areas with a higher property density.



Figure 67: Buildings with minimal or no set-back on the High Street form a strong street definition.



Figure 68: Building set-back vary which provides an interesting street-scape.

Design Principles:

- A coherent street frontage should be achieved by coordinating the setback between buildings and the road.
- The street-scape and cohesiveness of place is negatively impacted by large differences in set-backs between adjacent properties. The set-back between the dwelling and front boundary should be consistent with other properties on the street.

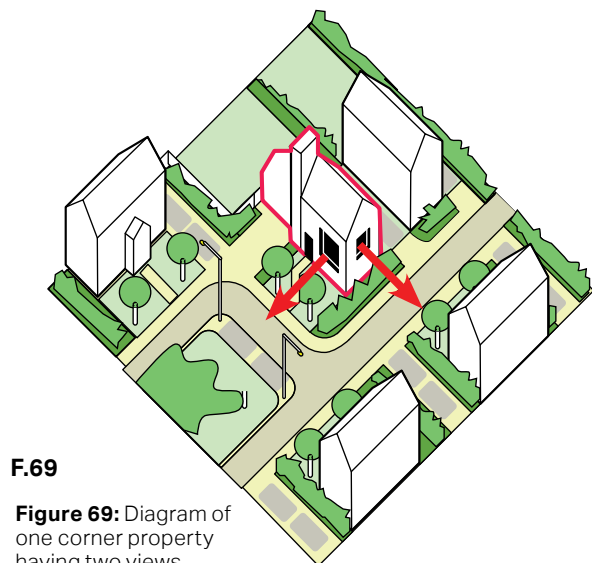


Built form

BF 04. Buildings turning a corner

An important townscape principle is for buildings to satisfactorily address the corner. Where corner sites are visually prominent, buildings should define the corner architecturally.

Historically an active corner frontage has not been a priority of Lakenheath developments. New development should consider this design principle.



F.69

Figure 69: Diagram of one corner property having two views.



F.70

Figure 70: Large expanse of blank façades fronting on streetscape of Windmill Close.



F.71

Figure 71: Recent development along The Grange, successfully addresses both aspects of the street with windows on the southern and western elevations.

Design Principles:

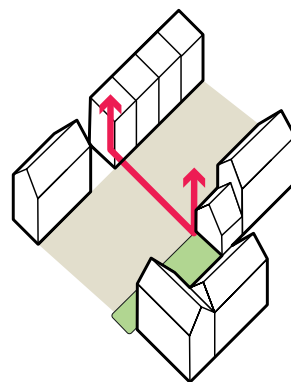
- All types of road should have strong continuity of frontage, not only to be visually attractive and enhance the streetscape, but also to provide high levels of natural surveillance.
- Buildings should be designed to turn corners and terminate views. Corner buildings should have both side façades animated with doors and / or windows. Exposed, blank gable end buildings with no windows fronting the public realm should be avoided.
- Corner buildings are prominent therefore decorative architectural elements and details



Built form

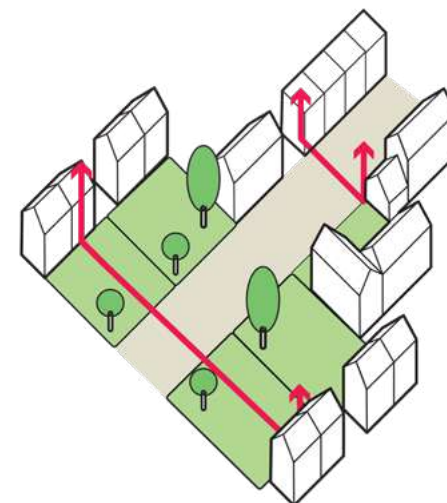
BF 05. Enclosure

Enclosure is the relationship between public spaces and the buildings or other features that surround them. A more cohesive and attractive urban form is achieved where this relationship is in the appropriate proportion to all the contributing elements.



F.72

Figure 72: The enclosure ratio in Lakenheath Conservation Area character area is typically 1:2.



F.73

Figure 73: The enclosure ratio in Lakenheath Modern Settlement character area ranges between 1:3 and 1:6.

Design Principles:

- **Façades** should have an appropriate ratio between the width of the street and the building height.
- **Narrow gaps** between buildings should be avoided. Buildings should be either detached / semi-detached or properly linked.
- **Generally, building lines** should respect existing street lines if they create a good character.



F.74

Figure 74: Many properties along The High Street, within Lakenheath Conservation Area character area typically open directly onto the street.



F.75

Figure 75: Lakenheath Modern Settlement character area has a range of street enclosure ratios - post-war bungalows generally have generous front gardens and drives compared to more recent development such as Windmill Close.

I

Identity

I 01. Landmarks and vistas

Landmarks are important visual guides aiding navigation through places. Therefore, it is important to retain views of existing landmarks, such as the Church of St Mary, as well as creating new landmarks. This will assist the legibility for users and prevent monotonous development, ultimately creating recognisable and distinct places.

Design Principles:

- Layouts should be designed to retain and reinforce views of key landmark features such as the Church of St Mary.
- Layouts should preserve existing outward looking views to the countryside.
- Layouts should include new landmark buildings or features such as specimen trees which are well located (such as corner sites or buildings which terminate vistas) to ensure that places are distinct, recognisable, and memorable.



Figure 76: View looking north from the High Street provides a prominent feature of Church of St Mary on the street-scape.



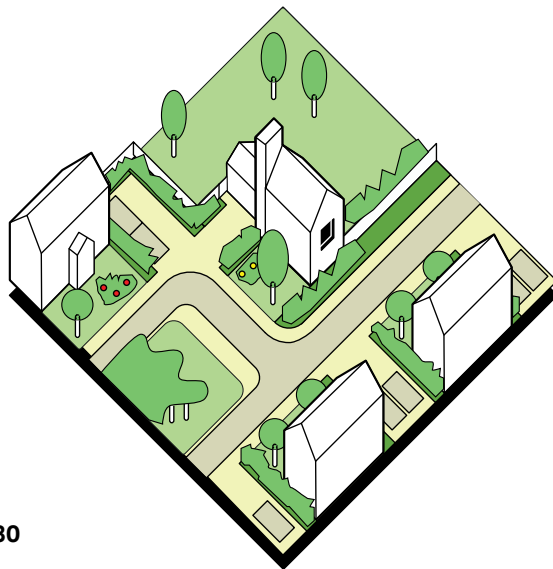
Figure 77: Church of St Mary is visible outside of Lakenheath settlement boundary. It can clearly be seen on the fenland skyline looking east from the Cut-Off-Channel. Future development must respect this landmark feature.



Identity

I 02. Boundary treatment

Boundary treatments provide the interface between public and private spaces. Appropriate treatment of these boundaries is important to the promotion of a safe and secure environment. It also helps to create an uncluttered and unified street-scape.



F.80

Figure 80: Diagram showing the boundary treatment such as low wall and hedges in front of houses.



F.78

Figure 78: Low brick walls matching the brickwork of the building is a common boundary treatment to bungalows in the Lakenheath Modern Settlement character area.



F.79

Figure 79: More recent development within the Lakenheath Modern Settlement character area uses a range of soft landscape treatments such as hedgerows and trees.

Design Principles:

- **Boundary treatments should reinforce the sense of continuity of the building line and help define the street. Appropriate boundary treatments should respond to the rural character of the area and not impede natural surveillance.**
- **Typically, boundaries are between 0.9-1.2m in height, and at the edge of settlements locations should predominantly comprise native hedges.**
- **Front gardens should be included where this is characteristic of the area (including streets and lanes). For development adjoining the edge of the settlement the front garden should be larger with well landscaped boundary treatment.**
- **At the edge of settlements boundaries should be permeable to support roaming wildlife. All boundary treatments should integrate sensitively with local vernacular.**



Identity

I 03. Roofline

An important element of designing attractive places is to create variety in the roofline. There are certain principles that can help achieve an appropriate variety of roof forms.

Design Principles:

- **Scale of the roof should always be in proportion with the dimensions of the building.**
- **Monotonous building elevations should be avoided, with subtle changes in the roofline and profile.**
- **Local traditional roof detailing elements such as dormers and chimneys should be included in the design.**
- **Where solar photovoltaic panels are incorporated in the roofline, they should be flush with the roof tiles.**



Figure 81: Terrace properties form a continual roofline along parts the High Street, within Lakenheath Conservation Area character area.



Figure 82: Roofline elsewhere on the High Street is more varied reflective of the different period styles of individual properties.



Figure 83: Detached and semi-detached bungalows within Lakenheath Modern Settlement character area have simple, shallow pitched roofs with gable ends facing neighbouring properties.



Figure 84: More recent development within the Lakenheath Modern Settlement character area has a wider range of roof types reflecting the form of the buildings.



Identity

I 04. Chimneys

Typical chimneys found in Lakenheath and the surrounding area are brick chimney stacks, varying in size. Chimneys add interest to rooflines and can contribute towards the local vernacular. However, in line with the net zero carbon emission targets, new developments should feature mock chimneys only.

Design Principles:

- Mock chimneys should be included in roof designs.
- Chimneys should match the primary elevation material and be placed symmetrically to the ridge line.
- Chimneys should rise above the roof and when on an end elevation should connect to the ground.
- Chimneys should be positioned on the roof ridges, centrally on a gable end.



Figure 85: Chimneys are a regular feature along the High Street all with slight differences adding to the sense of variety along the street-scape.



Figure 86: Some landmark properties along the High Street have more prominent ornate chimneys.



Figure 87: Bungalows within the Lakenheath Modern Settlement character area have simple, functional chimneys.



Figure 88: Many recent properties within the Lakenheath Modern Settlement character area don't have chimneys, limiting the interest of the roofline.

I

Identity

I 05. Windows

Important to the character of buildings are windows, which are also considered the 'eyes' of a structure. In general, windows in Lakenheath have a vertical emphasis and traditionally, ground floor windows were larger than upper floor windows. This can act as a visual 'counterbalance' to the horizontal proportions of wide-fronted properties and helps to maintain privacy from the street.

A limited range of traditional window patterns are present in Lakenheath, but they provide appropriate models where a period effect is sought or required. Timber sash windows were the traditional window pattern in the historic core; however, many houses now feature sash style double glazed windows made of uPVC. Timber windows allow a finer profile to be achieved and if they are maintained properly, they tend to be more durable than uPVC alternatives. There are also some examples of bay and multi-pane casement windows.



Figure 89: Bay sash windows in the Lakenheath Conservation Area character area.



Figure 90: Multi-pane casement windows in the Lakenheath Conservation Area character area.



Figure 91: uPVC casement windows in the Lakenheath Modern Settlement character area.



Figure 92: uPVC casement windows in the Lakenheath Modern Settlement character area replicating a traditional sash window form.

Design Principles:

- **Sash windows or multi-pane casement windows, preferably timber, should be the preferred style in the design.**
- **Consideration should be given to ground floor windows being larger than upper floor windows, to add more animation and natural surveillance to the street scene.**
- **Consideration should be given to windows with a vertical emphasis.**
- **Consideration should be given to high quality sash and bay windows.**

I

Identity

I 06. Porches and canopies

Porches can be the focal point of a building and should be designed carefully to complement the scheme. A well-designed porch or canopy can enhance and give interest to a new building as well as reinforcing local building traditions. Conversely, poorly thought-out porches can blight the most well-designed buildings, disrupting the building character and wider street-scene.

Porches that were the original design of a house are generally simple either projected porches or recessed.



Figure 93: Recessed timber panelled door with timber doorway surround in Lakenheath Conservation Area character area.



Figure 94: Recessed stain-glass-window panelled door with brick reveal in Lakenheath Conservation Area character area.



Figure 95: Clay pantile and timber framed storm porch in Lakenheath Modern Settlement character area.



Figure 96: Timber door with clay pantile roofed porch in Lakenheath Modern Settlement character area.

Design Principles:

- Porches should be simple and relate to the style of the building to which they are attached. Leaving an open canopy is often the most appropriate form.
- Modern enclosed porches should be included as an integral part of the overall design of the house.
- Porch roofs should be visually separated from the main roof of the dwelling to create a specific porch feature.

I

Identity

I 07. Materials and architectural details

It is important that materials used in new developments are of a high quality and reinforce the character of Lakenheath.

Local gault clays created pale yellow bricks and knapped flint, collected from the local fields, were traditionally used as a facing material on walls and buildings.

Architectural detailing provides interest, scale, and texture to building forms and elevations. Local examples of traditional detailing can be seen in Figure 97 and the following pages including, knapped flint facing, gault clay bricks and tiles and pale renders.

1. Pale yellow bricked chimneys
2. Pale render
3. Clay pantile roof
4. Knapped flint



Figure 97: Typical materials and traditional styles found on the High Street, Lakenheath Conservation Area character area.

Design Principles:

- **Materials proposed for use in new development should match or be guided by those used in existing buildings of the area (chalk clunch and blocks, local gault clay bricks and tiles, knapped flint, carrstone.)**
- **Architectural detailing should typically display elements that equate to those on existing traditional buildings such as quoins and lintels.**



Identity

I 07.01. Facing

Design Principles:

- Knapped flint should be used to face feature elevations of buildings. The choice of flint should complement the local Suffolk style.



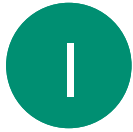
Figure 98: Traditional knapped flint found on a property in Lakenheath Conservation Area character area.



Figure 99: Repaired wall faced with knapped flint and a stone coping in Lakenheath Conservation Area character area.



Figure 100: Recently built property replicating traditional knapped flint walling techniques in Lakenheath Conservation Area character area.



Identity

I 07.02. Render



Figure 101: Pale 'Suffolk pink' render is common throughout the county.



Figure 102: Light yellow render found in various shades along the High Street and Lakenheath Conservation Area character area.

Design Principles:

- A variety of pale coloured renders (creams and whites) and Suffolk pink should be used.
- Some brighter colours maybe appropriate, reflecting those used on shops within the Lakenheath Conservation Area character area.



Figure 103: Recently rendered properties in a traditional but vivid yellow.



Figure 104: Opticians on the High Street painted in a bright green adds to the vibrancy of the Lakenheath Conservation Area character area.



Identity

I 07.03. Brick and tiles



Figure 105: Recently restored yellow brick property on the High Street and Lakenheath Conservation area character area.



Figure 106: Recent building combines red brick gable ends and window reveals with knapped flint façade.

Design Principles:

- Bricks and tiles should predominantly be hues of pale yellow or red. Details should consider incorporating chalk blocks at key focal aspects of the building.
- Variety should be introduced by mixing materials, for example, brick ground floor, rendered or faced with knapped flint second floor.



Figure 107: A range of material finishes reflecting those found locally such as pale render, yellow and red brick provides a sense of variety to the development in Lakenheath Modern Settlement character area.



Public Space

PS 01. Hard surfacing materials and laying patterns

An important component of public space in Lakenheath are its streets which are referenced in the Hierarchy of Movement section. The next few pages look at the details of lighting and hard surfacing materials of the public realm.

Within most developments, hard landscaping is a major element, and their design has a significant impact on the overall appearance, quality, and success of a scheme. Care should be taken when choosing appropriate materials and when detailing paved areas as part of the wider design. High-quality materials such as natural stone, gravel and brick can provide a durable and attractive hard surfaces, although there is an extensive range of modern manufactured materials that can also contribute positively to the quality of outdoor spaces if chosen with care.



Figure 108: Recent development of Windmill Close uses a mix of high-quality materials such as granite-sett rumble strip, pre-cast concrete block paving and coloured tarmac footpaths to help define the street-scape and character of the development.

- | | |
|---|---|
| 1. Dark red pre-cast concrete blocks to private driveways. | 3. Stack bond formation granite-sett rumble strips. |
| 2. Light buff colour pre-cast concrete blocks to shared surface lane. | 4. Coloured tarmac to main access road with matching footpaths. |



Public Space



Figure 109: Under-used public / semi-private space outside shops along the High Street.



Figure 110: Over-use of railings, bike stands, signage and bin stored creates a cluttered and untidy public space outside library.

Design Principles:

- The public realm should provide paving that is of a cohesive and high-quality design using a palette of sustainable material. Areas of focus should be the High Street and associated public realm.
- Materials should be robust, aesthetically attractive and with excellent weathering characteristics defining an attractive place for residents and visitors.
- The laying pattern and materials used should make a significant contribution to the overall appearance, quality, and success of a scheme.
- Large unbroken areas of a single surface material should be avoided, especially tarmac. Areas can be made distinctive by using materials of a similar colour but incorporating different textures.
- Larger developments using more than one developer should use the same palette of materials and designs.



Figure 111: Large areas of wide pavements, 2m+ wide along sections of the High street, provide opportunities for street furniture and tree planting.



Public Space

PS 02. Lighting

Artificial light provides valuable benefits and can make areas feel safer at night. Artificial lighting can also be overused, potentially creating 'light pollution' or 'obtrusive light'. Not all modern lighting is suitable for every location. This is particularly the case in villages such as Lakenheath where dark skies prevail. Light pollution can cause disruption to local residences, wildlife and undermine the enjoyment of the countryside. Glare is the result of a contrast between a bright light and intense darkness. To avoid this, lighting schemes could include 'dimming' to lower the level of lighting. Lighting schemes are difficult and costly to change so achieving a good lighting design and setting appropriate conditions early in the design process is important.

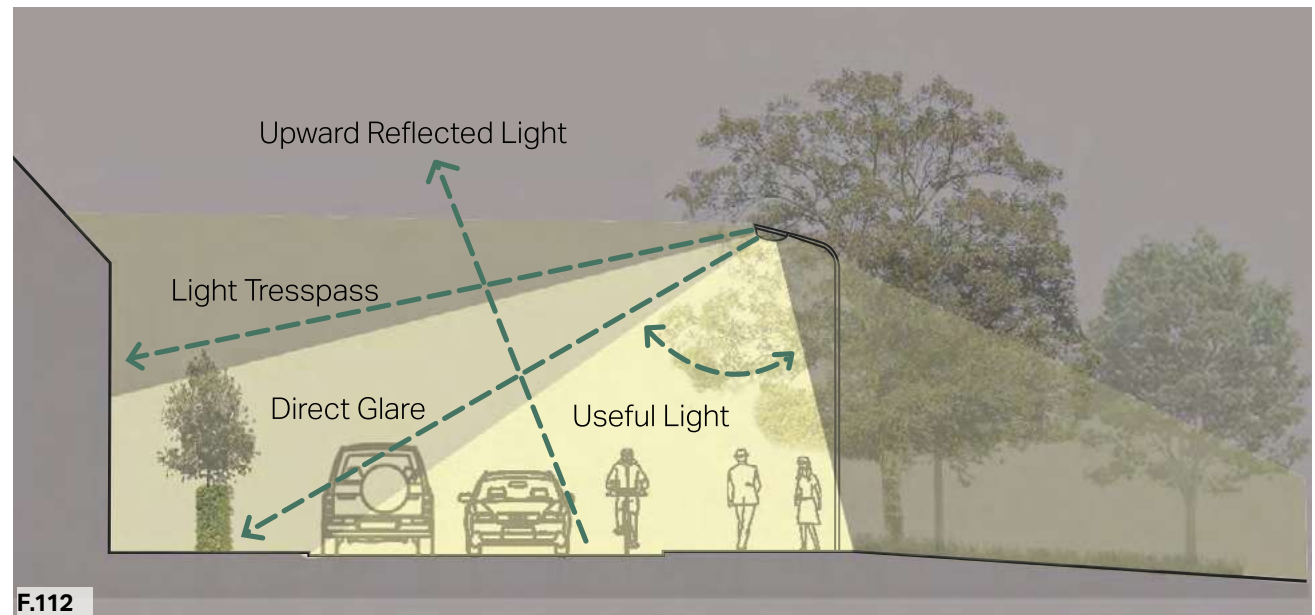


Figure 112: Illustrative street-lighting section.

Design Principles:

- **Lighting schemes should not cause unacceptable levels of light pollution particularly in areas close to the countryside where dark skies are enjoyed.**
- **Impact on sensitive wildlife such as bats throughout the year, or at certain times (e.g. on migration routes), should be avoided through considered lighting design and other reduction methods.**
- **Glare should be avoided, particularly for safety reasons.**
- **The needs of individuals or groups should be considered where appropriate (e.g. the safety of pedestrians and cyclists).**



Sustainability

S 01. Energy efficient housing and energy production

Energy efficient or eco-design combines all-round energy efficient construction, appliances, and lighting with commercially available renewable energy systems, such as solar water heating and solar electricity.

Starting from the design stage, there are strategies that can be incorporated towards passive solar heating, cooling and energy efficient landscaping which are determined by local climate and site conditions. The retrofit of existing buildings with eco design solutions should also be encouraged.

The aim of these interventions is to reduce overall home energy use as cost effectively as the circumstances permit. The final step towards a high-performance building would consist of other on site measures towards renewable energy systems.

It must be noted that eco design principles do not prescribe a particular architectural style and can be adapted to fit a wide variety of built characters including historic buildings.

Existing Homes

- 1 Insulation
- 2 Double or triple glazing with shading

- 3 Low-carbon heating

- 4 Drought proofing

- 5 Highly energy-efficient appliances

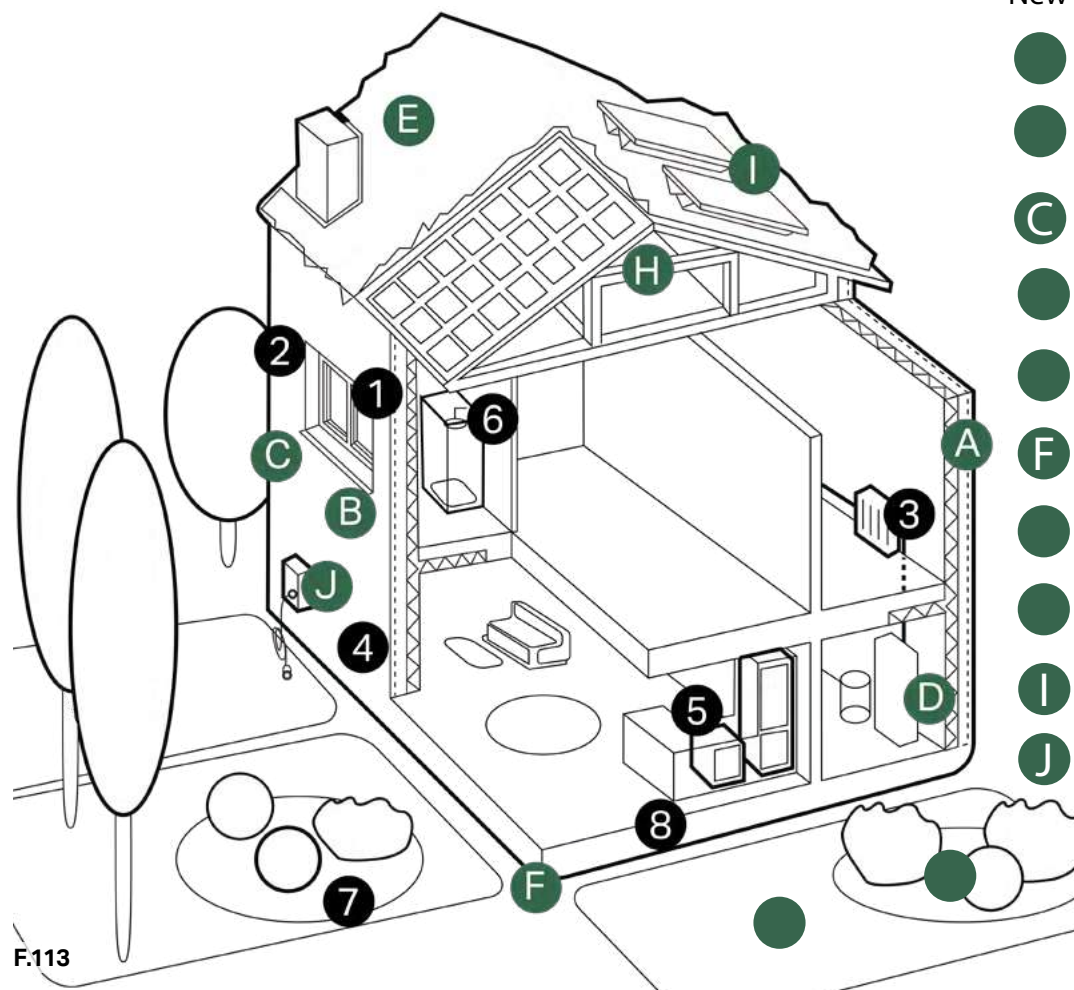
- Highly waste-efficient devices

- Green space

- 8 Flood resilience and resistance

New Build Homes

- High levels of airtightness
- More fresh air
- C Triple glazed windows and external shading
- Low-carbon heating e.g. ground source heat pump
- Green space
- F Water management and cooling
- Flood resilience and resistance
- Construction and site planning
- I Solar panel
- J Electric car charging point



F.113

Figure 113: Illustration of potential energy efficient energy measures applied to housing design.

**Design Guidance and
Codes for Local Character
Areas**

04

4. Design Guidance and Codes for Local Character Areas

This section provides design guidance that should be applied to any future development proposals in the Lakenheath Neighbourhood Area with a focus on residential development to the edges of the settlement.

Some of the content in this chapter is general. This is design guidance. Some is more specific, with defined numerical requirements. These elements are what we mean by code.

4.1 Introduction

As stated previously in this document, applicants are expected to show in their proposals how the design has been considered in relation to the site context. The appropriate design response will vary and it is not possible for the following design guidance and codes presented to specify what should happen in every instance. However, they can set out expectations, parameters and suggestions to a considered design response.

This section is structured around the Local Character Areas introduced in section 2. The following pages start with a brief description of the character area and some of its key features, before presenting the guidance and codes in a repeated table format (areas 1-2).

The Local Character Areas areas identified (see Figure 114) are:

- **Character area 1: Lakenheath Conservation Area**
- **Character area 2: Lakenheath Modern Settlement**
- **Character area 3: Lakenheath Fenlands**
- **Character area 4: Lakenheath Brecklands**

Local Character Areas 3 and 4 are both rural and include the open countryside on the edges of the other Local Character Areas. Any new development within the rural zone should seek to reduce its impact on the existing open nature of the neighbourhood area. Due to the very limited amount of development expected in these areas, specific codes are not included in this document.

The final section of this document provides further guidance to be considered if major future developments should come forward.

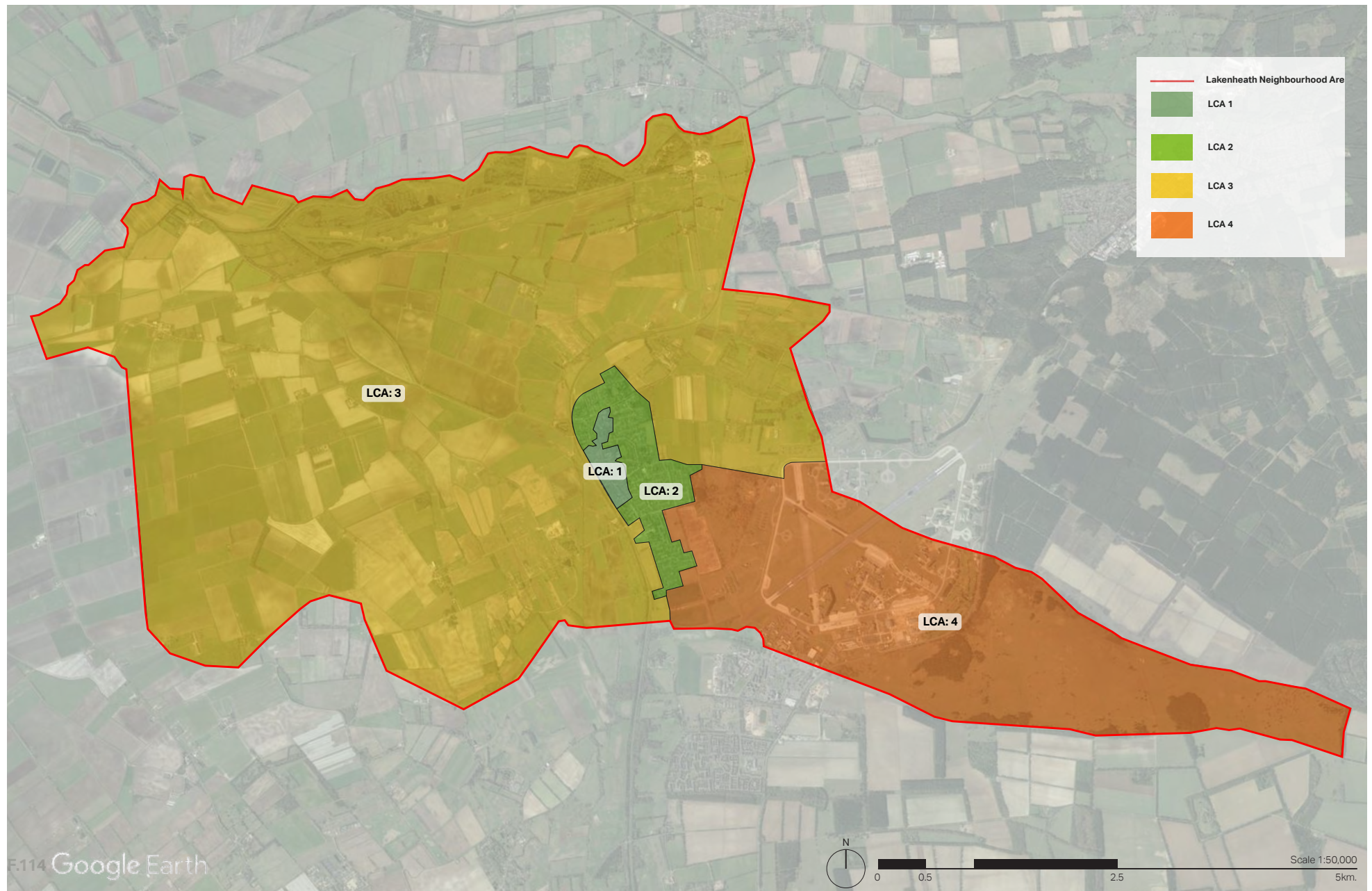


Figure 114: Local Character Areas identified within Lakenheath Neighbourhood Area.

4.2 Character area 1: Lakenheath Conservation Area:

Centrally located within Lakenheath Neighbourhood Area, Lakenheath Conservation Area is served by the High Street, following the historic north / south access route of the village. This has largely contributed to the original linear form of the settlement. Parallel to the High Street is Back Street terminating at the southern boundary of the area creating a linear 'wedge of development'. Mill Road and Wings Road provide access to the east of the area leading towards Maids Cross Hill Nature Reserve (SSSI).

This area has a mix of commercial, community and residential buildings creating a vibrant hub and area of activity for the wider village. There is a varied range of historic architectural styles displayed along the High Street, many of the buildings front directly onto the footpath creating a defined street-scape and strong connection with

surrounding area.

Significant green space is limited to private and semi-private areas around Lakenheath Hall and the Church of St Mary. Therefore the public realm comprising mainly of the High Street, is dominated by hard surfaces.



F.115

Figure 115: Character area 1 location plan.

Key characteristics

- **There are a number Grade II Listed buildings within the conservation area, which strengthen the historic settlement pattern.**
- **Historic street and medieval plot layouts are still apparent in some areas along the High Street which create a distinctive historic centre.**
- **The Grade I Listed Church of St Mary's tower is a distinctive local landmark within the village and beyond.**
- **A mix of commercial, community and residential uses in the conservation area provides a focal point of activity to the settlement.**
- **Lakenheath Hall is a building of local importance surrounded by green space. It also has some mature trees protected by tree preservation orders.**
- **The western edge of the conservation area is bounded by rear gardens and the Cut-Off-Channel forming an important green edge to the village with open views across the flat fenland rural landscape to the west.**



F.116

Figure 116: Character area 1 analysis plan.

Land use		
LU.01	Land use/mix	A range of existing uses e.g. commercial, community and residential are present within the character area. Future development should reflect this mix. Only smaller scale - infill development is likely to be appropriate within this character area.

Hierarchy of movement		
HM.01	Connectivity	The High Street forms the main transport corridor route of the character area and village. Future development should provide positive transport and sustainable travel connections e.g. walking and cycling routes, to the High Street.
HM.02	Access	There are examples of poorly designed access to shops, overuse of signage, guards and railings creating confused layouts (e.g. access to the library). Future development should seek to design inclusive and legible access arrangements to buildings and associated street-scape from the outset, reducing the need for retrospective secondary disability access arrangements.
HM.03	Types of street	The High Street should act as the main transport corridor route of the character area. Smaller infill development should use the .02 Lanes street typology. Where appropriate .03 Edge Lanes should form a sensitive edge to the development with a landscape buffer creating strong visual connections to the surrounding countryside.
HM.04	Cycle paths	There are no defined cycle paths within the character area. The High Street could accommodate a cycleway to promote sustainable modes of travel. New infill development should provide a range of cycle access either included within the street-scape or as part of a pedestrian/cycle network.
HM.05	Car parking	Courtyard parking is usually most appropriate for smaller infill development.
HM.06	Bin storage	Bins should be stored in rear gardens where space allows or well-constructed bin-sheds to avoid unnecessary street clutter.

Landscape, nature and open space		
LOS.01	Green infrastructure	Existing open space such as Church of St Mary's cemetery should be protected and enhanced. Some areas of under-used green space such as that surrounding the war memorial could be enhanced with areas of seating and planting. Additional tree planting, including on wider existing footpaths along the High Street, should be incorporated as part of the street design for future development.
LOS.02	Water management	Rain gardens should be incorporated as part of any SUDS scheme, and along the curtilage of the High Street, this could also form a traffic calming measure and define areas of street parking. Permeable paving would be appropriate in smaller infill development.

Built form		
BF.01	Building scale and massing	Two-storey buildings with a range of terraced houses and detached / semi-detached town houses are an appropriate typology.
BF.02	Block types	Future infill development should have small front gardens if any, and where space allows be back-to-back formation. Rear gardens adjoining the Lakenheath Fenlands character area should have landscape buffer planting to integrate the development into the surrounding countryside.
BF.03	Building lines	Infill development directly off the High street should have no set-back from the main street with a few set-back occasionally to create a random staggered effect to the street frontage. Building lines should be continuous and define a strong edge along the road.
BF.04	Buildings turning a corner	Buildings should have the front facing the street and promote active frontages onto the High Street with entrances accessible from the footpaths.

Built form continued		
BF.05	Enclosure	The character area has a strong sense of enclosure and a ratio of 1:2 to 1:3 should be generally maintained.

Identity		
I.01	Landmarks and vistas	The Grade I Listed Church of St Mary is an important landmark within the character area and views of it should be protected.
I.02	Boundary treatment	Boundary walls should be set right along the pavement with a discrete boundary treatment (low walls or a combination of low walls and railing) if a buffer is desired.
I.03	Roofline	The use of high-quality traditional brick should be encouraged and clay pantile should be used for the roofscape within this character area. An array of roof pitches and styles should be used to add to the varied roofline that currently exists.
I.04	Chimneys	'Mock' chimneys should be used providing a modern interpretation of the scale and style present within the character area.
I.05	Windows	Multi-pane casement and sash windows should be used to reflect the styles of the existing windows within the character area.
I.06	Porches and canopies	Small-scale modest tiled storm porches or recessed doorways with timber reveals is the appropriate treatment for front doors.

Identity continued		
I.07	Materials and architectural details	Pale-yellow bricks, knapped flint, pale coloured render and painted walls with some red brick detailing around the windows and gable ends is appropriate in this character area.
Public space		
PS.01	Hard surfacing materials and laying patterns	Hard materials used within the existing public realm are functional but low quality comprising mainly of tarmac and pre-cast kerbs. New infill development within the character area should use a range of higher-quality materials such as pre-cast concrete block paving and natural stone in key focal areas.
PS.02	Lighting	Any pedestrian cut-through walkways should be well lit. The western edge of the character area should avoid unnecessary light-spill to the surrounding countryside.
Sustainability		
S.01	Energy efficient housing and energy production	Incorporate sustainable energy efficient measures into new infill development where possible. Visually sensitive façade such those visible from the street should avoid measures such as solar panels.

4.3 Character area 2: Lakenheath Modern Settlement.

Located to the north, south and east of the Lakenheath Conservation Area character area, Lakenheath Modern Settlement is predominately residential and reflects the rapid post-war expansion of the village. Early development is medium-density bungalow plots with front gardens and on-plot parking with garages set-back from the street. These are generally positioned in a cul-de-sac formation served by tertiary 'lanes'. A series of informally landscaped green spaces provides good pedestrian connection and a sense of openness. Some footpaths are dark with overgrown vegetation and therefore unappealing to use.

More recent development is generally higher-density, two-storey housing, either fronting directly onto the street or with small front gardens. A range of architectural details, scale and finish materials help to

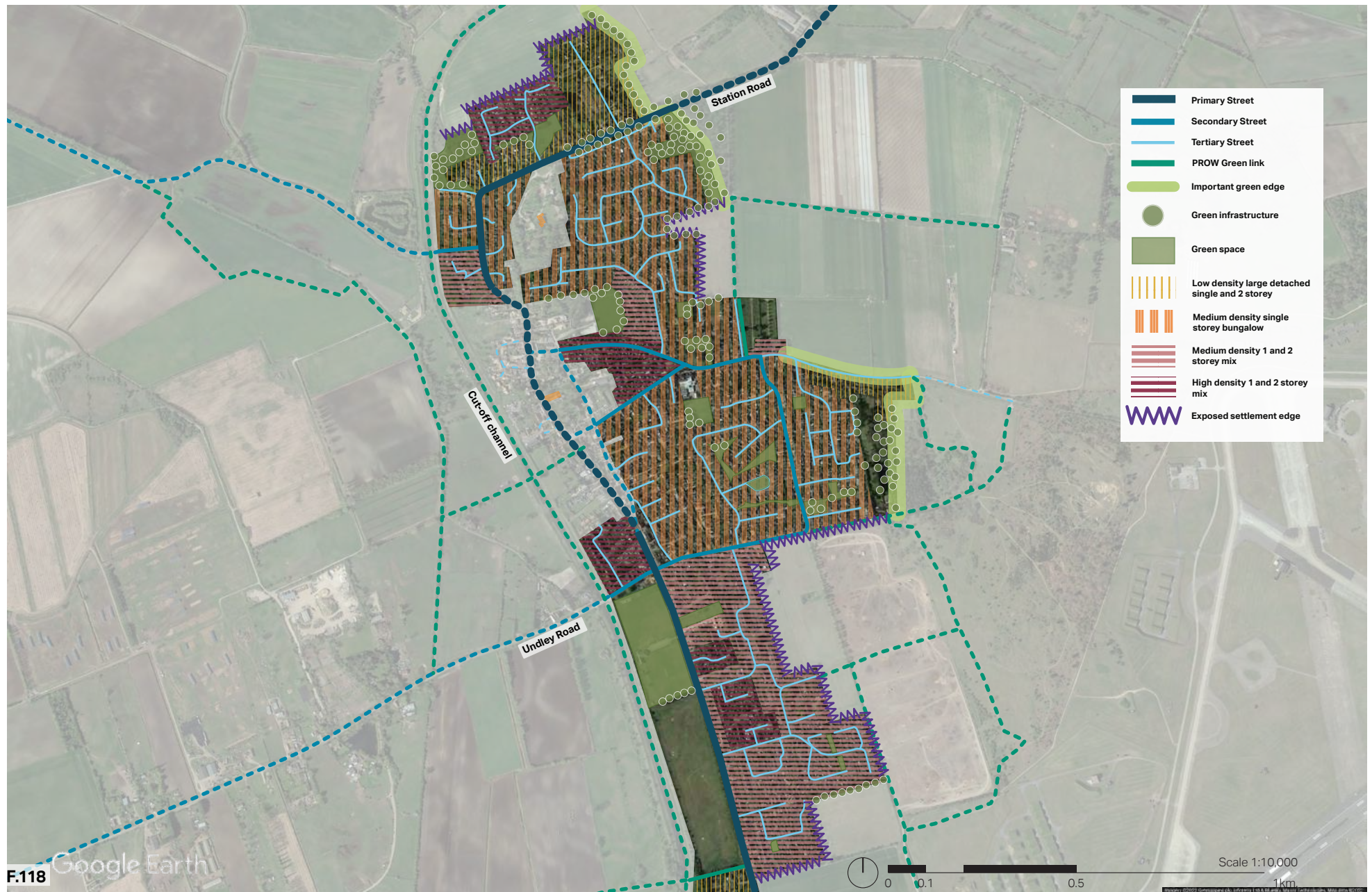
contribute to a more vibrant environment. In some locations such as The Grange, traditional materials and technics have been applied e.g. flint knapping, reflecting the local vernacular found in Lakenheath Conservation Area character area. Areas of new development have a lack green space and mature vegetation.



Figure 117: Character area 2 location plan.

Key characteristics

- **A large extension of Lakenheath took place between 1951 and 1981, this comprised mainly of medium-density bungalow housing. Building materials and architectural styling has little reflection to that within the Lakenheath Conservation Area character area and therefore provides little to the visual identity of the settlement.**
- **Newer development is generally higher-density two-storey residential buildings and displays some examples of local vernacular material detailing, creating a stronger connection to the settlement of Lakenheath.**
- **Community green spaces and facilities comprise of Lakenheath Playing Fields, cricket green and play area, allotments, Lakenheath Community Primary School and Lakenheath Football Club and Indoor Bowls club.**
- **Eastern edge adjoins Lakenheath Brecklands character area and northern and western edge the Lakenheath Fenlands character area. Large extents of these settlement edges are exposed to views across the open rural landscape and as such sensitive to new development.**
- **Under-used, incidental green spaces features sporadically within the residential areas generally connected by a series of footpaths.**



F.118

Figure 118: Character area 2 analysis plan.

Land use		
LU.01	Land use/mix	This character area is predominantly residential with some community green spaces and facilities. Larger-scale residential development could be accommodated to the edge of the character area. It should provide appropriate percentage of social housing and a range of housing sizes and types, from affordable 'starter homes' to larger family housing.

Hierarchy of movement		
HM.01	Connectivity	The High Street forms the main transport corridor route of the village. Future development should provide safe and easily navigable travel connections e.g. walking and cycling routes, to the High Street. Future development should demonstrate that the existing travel infrastructure will not be unduly affected by the additional travel requirements of the new residents.
HM.02	Access	Future development should seek to design inclusive legible access arrangements to buildings and associated street-scape from the outset, reducing the need for retrospective secondary disability access arrangements. Sustainable modes of travel should be prioritised over vehicular when planning future development.
HM.03	Types of street	The High Street should act as the main transport corridor route of the settlement. Larger scale residential development may include the following street typologies; .01 Streets for the main approach with .02 Lanes serving smaller more intimate parcels of housing, and .03 Edge Lanes forming a sensitive edge to the development with a landscaped and informal open space creating visual buffer and green edge to the surrounding countryside.
HM.04	Cycle paths	There are no defined cycle paths within the character area. New development should provide a range of cycle access either included within the street-scape or as part of a pedestrian/cycle network.
HM.05	Car parking	On-plot and on-plot with garages is the most appropriate parking type here to avoid excess street clutter.
HM.06	Bin storage	Bins should be stored in rear gardens where space allows or well-constructed bin-sheds to avoid unnecessary street clutter.

Landscape, nature and open space		
LOS.01	Green infrastructure	Existing open space and community features such as the Lakenheath Playing Fields should be utilised by future residential development through provision of safe and legible access to existing facilities. Larger-scale development should provide open space and areas of play in accordance with planning policy, these should be positioned with good passive surveillance from residents and assist with creating a sympathetic green edge to adjoining Lakenheath Fenlands and Lakenheath Brecklands character areas. Tree planting should be incorporated as part of the street design for future development.
LOS.02	Water management	Rain gardens should be incorporated along the .01 Streets , this could also form traffic calming measures. Permeable paving would be appropriate for private residential driveways. Swales and larger drainage features should be included within open space proposals for larger-scale development. These features can contribute to the general placemaking and identity of the development.
Built form		
BF.01	Building scale and massing	Two-storey buildings with some bunaglow properties to the edge of the character area is appropriate. A mix of terraced houses and detached / semi-detached houses should be used to create a range of building forms within future development. Apartment blocks of two or three storeys could be considered within this area avoiding sensitive edges adjoining the Lakenheath Fenlands and Lakenheath Brecklands character areas.
BF.02	Block types	Future development should be back-to-back formation. Where adjoining Lakenheath Fenlands and Lakenheath Brecklands character areas, properties should have a development edge formation fronting onto the Edge lane with landscape buffer planting to integrate the development into the surrounding countryside.
BF.03	Building lines	Overall properties should have a medium set-back from the street. Building lines should be continuous along the road.
BF.04	Buildings turning a corner	Properties should have standard proportion of fenestration overlooking streets.

Built form continued		
BF.05	Enclosure	The character area has a range of enclosure and a ratios, some more recent development has a stronger sense of enclosure of 1:3 ratio, whilst more open medium-density residential development has larger gardens and green space of up to 1:6 ratio. This range should be reflected in future residential development, larger ratio should be positioned adjacent to the green edges of the settlement.
Identity		
I.01	Landmarks and vistas	The Grade I Listed Church of St Mary is an important landmark within Lakenheath and views of it should be protected.
I.02	Boundary treatment	Well-kept hedges, a mix of low wall and hedges and specimen trees within front gardens.
I.03	Roofline	Hipped and pitched roof should be encouraged in the area with a consistent angle of pitch throughout the development.
I.04	Chimneys	'Mock' chimneys should be used providing a modern interpretation of the scale and style present within the Lakenheath Conservation Area character area.
I.05	Windows	A wider range of window styles would be appropriate in this character area. These do not necessarily have to reflect the traditional style found with Lakenheath Conservation Area character area.
I.06	Porches and canopies	Larger enclosed porches or contemporary front doors would be appropriate in this character area.

Identity continued		
I.07	Materials and architectural details	Materials used locally, such as pale-yellow bricks, knapped flint, pale coloured render and painted walls with some red brick detailing around the windows and gable ends are appropriate in this character area.
Public space		
PS.01	Hard surfacing materials and laying patterns	New residential development within the character area should use a range of high-quality materials such as pre-cast concrete block paving to denote a change of character with key focal areas using natural stone materials such as cobbled 'rumble strips' for traffic calming.
PS.02	Lighting	Any pedestrian cut-through walkways should be well lit. Edges of the character area adjoining open countryside should avoid unnecessary light-spill to the surrounding countryside.
Sustainability		
S.01	Energy efficient housing and energy production	Incorporate sustainable energy efficient measures into new infill development where possible. Visually sensitive facades such those visible from the street should avoid measures such as solar panels.

4.4 Character area 3: Lakenheath Fenlands.

Lakenheath Fenland area, located in the west of the Lakenheath Neighbourhood Area is a largely rural and protected landscape, dominated by a mosaic of arable fields and network of drainage ditches. In many ways this character area has not changed since the 1800's with the introduction of Lakenheath Lode and replacement Cut-Off-Channel which drained the fields enabling farming practices to utilise the highly fertile soils.

In addition to the farming use, this character area features small and dispersed settlements of Sedge Fen to the north-west of the neighbourhood area and Undley to the south connected to Lakenheath by busy roads, raised slightly above the adjacent farmland.

Due the flat landscape and lack on intervening vegetation, the settlement of Lakenheath is visible in parts of the character area, with the Church of St Mary's

tower being a clear landmark structure on the skyline. As such, any development on the eastern edge of Lakenheath village must respond sensitively to the adjacent open landscape and views of the area.

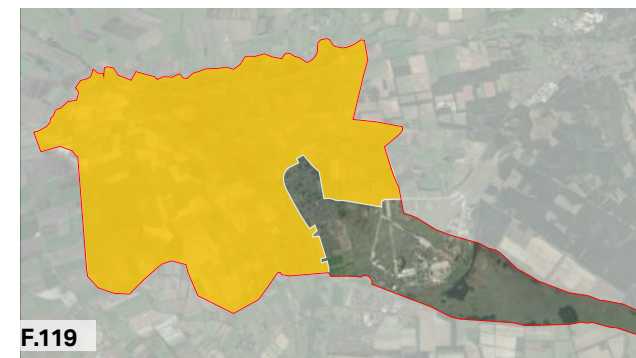
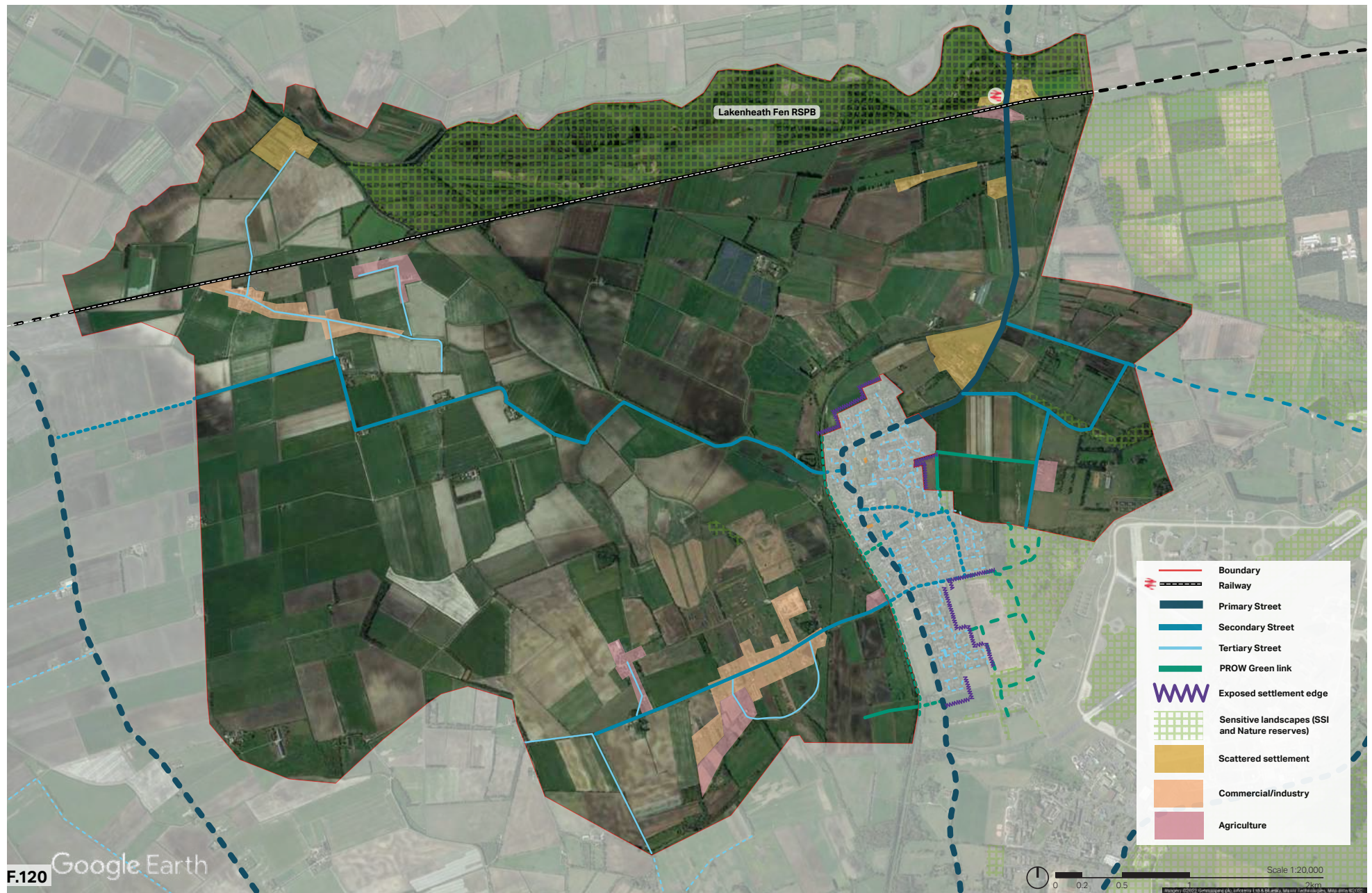


Figure 119: Character area 3 location plan.

Key characteristics

- **The low-lying, flat landscape creates big skies and open views.**
- **Raised levees and roads, and the Cut-off -Channel, the banks of which rise above fen level, break up the otherwise flat monotonous landscape.**
- **Historic drainage of the fields has caused the land to shrink, meaning water can no longer drain away. Therefore, pumping stations are in use to channel water up into drainage channels which prevent fields from flooding.**
- **Lakenheath Lode, built in the late 1800s, was the first engineering measure to drain the landscape, but this was replaced by the Cut-Off Channel.**
- **Historically the fen provided the food supply to the settlement through wildfowl hunting, fishing, and land to graze cattle. Energy came from burning peat turfs cut from the landscape.**



F.120 Figure 120: Character area 3 analysis plan.

4.5 Character area 4: Lakenheath Breckland.

Lakenheath Breckland area is located in the east of the Lakenheath Neighbourhood Area and is dominated by the RAF Lakenheath air base. Between RAF Lakenheath and the eastern edge of the village is Maidcross Hill, Nature Reserve and SSSI. This protected landscape, comprising of open chalkland grass, heath and scrub acts as a buffer for future expansion of the village to the east. Any development in this location should respect the existing habitat, landscape character, and visual amenity of the character area.

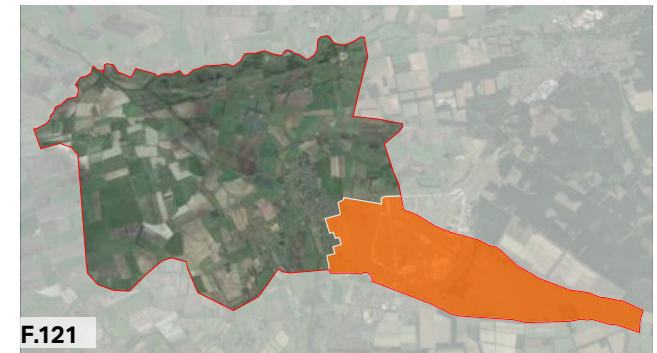


Figure 121: Character area 4: location plan.

Key characteristics

- The extinct Bytham river deposited chalk rubble and sand on a Chalk plateau. This created a unique ecosystem explaining the diverse flora and fauna of this character area.
- RAF Lakenheath is the largest USAF base in Europe with around 6000 service personnel. There is a constant roar of aircraft which can be heard in Lakenheath.
- Beyond the RAF base is Lakenheath Warren, a Special Area of Conservation (SAC). It is a large expanse of sandy heath, formerly known as a rabbit warren.
- Just outside the boundary of this character area, in the south east, is Centre Parcs Elveden Forest, a holiday resort.

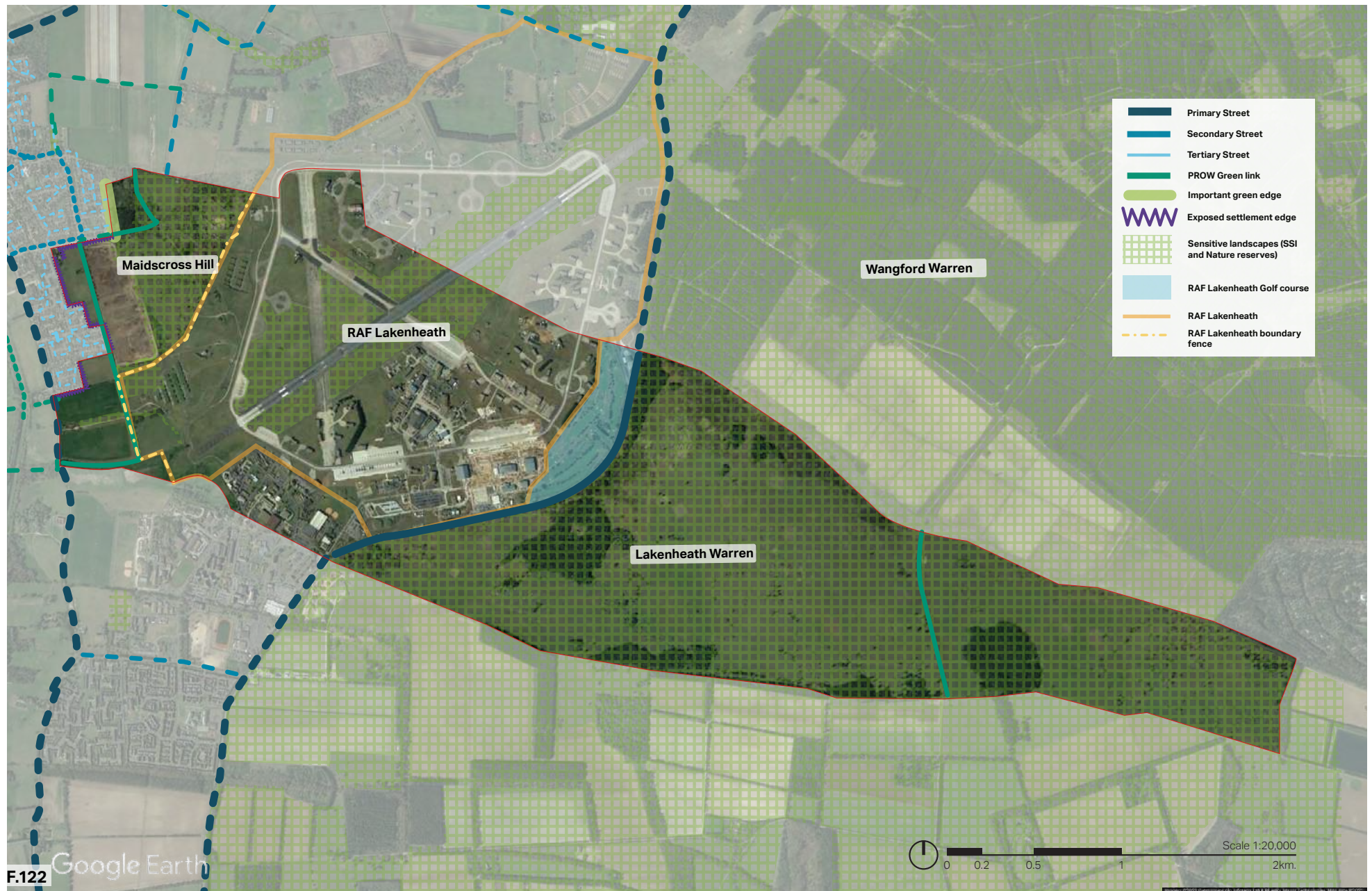


Figure 122: Character area 4 analysis plan.

The background image shows a residential street with several houses. The houses are two-story buildings with light-colored brick or stone walls and dark tiled roofs. Some houses have white window frames and doors. A paved road runs through the center of the image. On the right side, a dark-colored car is parked, facing away from the camera. The sky is blue with some white clouds.

General Questions

05

5. General Questions

This section provides a series of general questions to ask and issues to consider when presented with a development proposal.

5.1 Introduction

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

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

1

General design guidelines for new development

- Integrate with existing paths, streets, circulation networks and patterns of activity;
- Reinforce or enhance the 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 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;
- 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;
- Positively integrate energy efficient technologies;
- Ensure that places are designed with management, maintenance and the upkeep of utilities in mind; and
- Seek to implement passive environmental design principles by, firstly, considering how the site layout can optimise beneficial solar gain and reduce energy demands (e.g. insulation), before specification of energy efficient building services and finally incorporate renewable energy sources.

2

Street grid and layout:

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

3

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 tranquility of the area been fully considered?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- Can any new views be created?

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

6

Building line and boundary treatment:

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

7

Building heights and roofline:

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

8

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?
- Do the new proposed materials respect or enhance the existing area or adversely change its character?
- Are recycled materials, or those with high recycled content proposed?
- Has the embodied carbon of the materials been considered and are there options which can reduce the embodied carbon of the design? For example, wood structures and concrete alternatives.
- Can the proposed materials be locally and/or responsibly sourced? E.g. FSC timber, or certified under BES 6001, ISO 14001 Environmental Management Systems?

9

Car parking:

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

Architectural details and design:

- If the proposal is within a Conservation Area, how are the characteristics reflected in the design?
- Does the proposal harmonise with the adjacent properties?
- This means that it follows the height massing and general proportions of adjacent buildings and how it takes cues from materials and other physical characteristics.
- Does the proposal maintain or enhance the existing landscape features?
- Has the local architectural character and precedent been demonstrated in the proposals?
- If the proposal is a contemporary design, are the details and materials of a sufficiently high enough quality and does it relate specifically to the architectural characteristics and scale of the site?
- Is it possible to incorporate passive environmental design features such as larger roof overhangs, deeper window reveals and/or external louvres/shutters to provide shading in hotter months?
- Can the building designs utilise thermal mass to minimise heat transfer and provide free cooling?
- Can any external structures such as balconies be fixed to the outside of the building, as opposed to cantilevering through the building fabric to reduce thermal bridge?





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